



# BRACE TOOL

OILFIELD, WIRELINE & DOWNHOLE TOOLS

## Product Catalog

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# 01. Tool String Equipment

## Overview

The Brace Tool Accelerator is designed to intensify impact during jarring operations and cushion the force on the rope socket. It is run in the tool string directly below the rope socket when jarring up. The spring is collapsed and releases when the hydraulic jars fire which accelerates the tool string upwards. This keeps the energy of the jarring force in the tool string and lessens the force on the line and rope socket.



## Applications

- Intensifying jarring action and cushioning the force on the rope socket.

## Key Features & Benefits

- Available in various connection types and sizes.
- Simple operation and robust design.
- Various configurations available to use with specific requirements.

Technical Data			
<b>Nominal Size</b>	1.50"	1.75"	1.875"
<b>Assembly Number</b>	01-01-A-150-A0	01-01-A-175-A0	01-01-A-187-A0
<b>Upper Thread Connection</b>	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Lower Thread Connection</b>	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.50"	1.75"	1.875"
<b>Fishneck Size</b>	1.375"	1.750"	1.750"

Parts List			
<b>Nominal Size</b>	1.50"	1.75"	1.875"
<b>Part Name</b>	<b>Part Number</b>		
Fishneck	01-01-A-175-01	01-01-A-150-01	01-01-A-187-01
Barrel	01-01-A-175-02	01-01-A-150-02	01-01-A-187-02
Cap	01-01-A-175-03	01-01-A-150-03	01-01-A-187-03
Mandrel	01-01-A-175-04	01-01-A-150-04	01-01-A-187-04
Spring	01-01-A-175-05	01-01-A-150-05	01-01-A-187-05
End Cap	01-01-A-175-06	01-01-A-150-06	01-01-A-187-06
Bottom Sub	01-01-A-175-07	01-01-A-150-07	01-01-A-187-07

## Overview

The Brace Tool Blind Box is a tool that connects to the tool string to serve the purpose of jarring on an obstruction downhole. It is a durable part with solid construction to reduce damage to the tool. It is important to choose the correct blind box O.D. to cover the area of obstruction, ensuring the blind box is not too large to pass any restrictions that maybe encountered. If using the Blind Box to retrieve lost wire, ensure the diameter is large enough to stop wire from passing beside the Blind Box in the well bore.



## Applications

- Heavy downward jarring to move obstructions down-hole.
- Used in conjunction with a wire grab or spear to retrieve lost wire downhole.

## Key Features & Benefits

- Available in various sizes to fit requirements.
- Various connection types available.
- Solid and robust construction for durability.

Technical Data			
Max O.D.	Fishneck Size	Thread Connection	Part Number
0.75"	0.75"	0.50"-13 NC	01-01-BB-075-01
1.00"	0.75"	0.50"-13 NC	01-01-BB-100-01
1.25"	1.00"	0.625"-11 NC	01-01-BB-125-01
1.375"	0.75"	0.625"-11 NC	01-01-BB-137-01
1.50"	0.75"	0.625"-11 NC	01-01-BB-150-01
1.625"	1.187"	0.938"-10 UN	01-01-BB-162-01
1.75"	1.187"	0.938"-10 UN	01-01-BB-175-01
2.00"	1.187"	0.938"-10 UN	01-01-BB-200-01
2.347"	1.375"	0.938"-10 UN	01-01-BB-234-01
2.50"	1.75"	0.938"-10 UN	01-01-BB-250-01
3.00"	1.75"	1.062"-10 UN	01-01-BB-300-01
3.50"	1.75"	1.062"-10 UN	01-01-BB-350-01
4.00"	2.31"	1.062"-10 UN	01-01-BB-400-01
5.00"	2.31"	1.062"-10 UN	01-01-BB-500-01
6.00"	2.31"	1.062"-10 UN	01-01-BB-600-01

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Centralizer is designed to keep a tool string in the center of the tubing, casing, or wellbore. When running wireline tools inside the tubing or casing, centralizers position these tools correctly. They prevent tool hang-ups, minimize friction, and avoid obstruction within the wellbore. Proper centralization also ensures efficient fluid displacement through the annulus.

## Applications

- Positioning wireline tools within tubing or casing.
- Preventing tool hang-ups, friction, and obstruction in the wellbore.

## Key Features & Benefits

- Equipped with bow springs that provide flexibility.
- Springs are designed to be compatible with a large range of internal diameters.



### Technical Data

<b>Nominal Size</b>	1.50"	1.75"
<b>Assembly Number</b>	01-01-C-175-A0	01-01-C-150-A0
<b>Upper Thread Connection</b>	0.938"-10 UN-2A (5/8" S.R.)	1.063"-10 UN-2A (3/4" S.R.)
<b>Lower Thread Connection</b>	0.938"-10 UN-2B (5/8" S.R.)	1.063"-10 UN-2B (3/4" S.R.)
<b>Max O.D.</b>	7"	7"
<b>Fishneck Size</b>	1.188"	1.375"

### Parts List

<b>Nominal Size</b>	1.50"	1.75"
<b>Part Name</b>	<b>Part Number</b>	
Fishneck	01-01-C-150-01	01-01-C-175-01
Mandrel	01-01-C-150-02	01-01-C-175-02
Spring	01-01-C-150-03	01-01-C-150-03
Spring Sub	01-01-C-150-04	01-01-C-175-04
Bow Spring	01-01-C-150-05	01-01-C-150-05
Bottom Sub	01-01-C-150-06	01-01-C-175-06

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Brace Tool Crossover is designed to bridge the gap between two different thread types in a tool string. It allows operators to connect a variety of components by providing a seamless transition from one thread or connection type to another.

Brace Tool Crossovers are compatible with the following connection types:

- Sucker Rod and other UN threads
- Pipe Threads
- E-Line thread connections
- Buttress Threads
- Acme and Stub Acme Threads



## Applications

- Connecting different threads within a tool string.

## Key Features & Benefits

- Available in various sizes to fit requirements.
- Various thread combinations available.
- Solid and robust construction for durability.

Please note: Inquire about Quick Connect Crossovers.

Technical Data			
Assembly Number	Pin	Box	O.D.
01-01-CO-100-01	0.625-11UNC	0.500-13 UNC	1.00"
01-01-CO-100-02	0.500-13 UNC	0.625-11 UNC	1.00"
01-01-CO-100-03	0.625-11 UNC	0.562-18 UNF	1.00"
01-01-CO-100-04	0.500-13 UNC	0.562-18 UNF	1.00"
01-01-CO-125-01	0.938-10 UN	0.750-16 UNF	1.25"
01-01-CO-125-02	0.750-16 UNF	0.938"-10 UN	1.25"
01-01-CO-150-01	0.938-10 UN	1.062-10 UN	1.50"
01-01-CO-150-02	1.062-10 UN	0.938"-10 UN	1.50"
01-01-CO-175-04	1.062-10 UN	1.187-10 UN	1.75"
01-01-CO-200-02	1.062-10 UN	1.375-10 UN	2.00"
01-01-CO-250-02	1.562-10 UN	1.187-10 UN	2.50"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Diamond Broach is designed to re-size the inside diameters of downhole completion equipment. It ensures optimal wellbore performance by removing restrictions caused by scale or debris buildup. Its hardened diamond-shaped cutting profiles efficiently clear away any obstructions, restoring the desired inside diameter (ID).

## Applications

- Re-sizing the inside diameters of downhole completion equipment.
- Removing tubing restrictions caused by scale or debris buildup on the tubing wall.

## Key Features & Benefits

- Hardened diamond-shaped cutting teeth that efficiently clear away obstructions.
- 360-degree cutting face provides full coverage during broaching operations.



Technical Data					
Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
2.00"	01-01-BD-190-A0	0.938 – 10 UN	N/A	1.906"	1.375"
2.50"	01-01-BD-234-A0	0.938 – 10 UN	N/A	2.347"	1.375"
3.00"	01-01-BD-286-A0	1.062 – 10 UN	N/A	2.867"	1.75"
4.50"	01-01-BD-396-A0	1.062 – 10 UN	N/A	3.965"	2.31"
5.50"	01-01-BD-488-A0	1.062 – 10 UN	N/A	4.88"	2.31"
7.00"	01-01-BD-615-A0	1.062 – 10 UN	N/A	6.15"	3.12"

Parts List						
Nominal Size	2.00"	2.50"	3.00"	4.50"	5.50"	7.00"
Part Name	Part Number					
Fishneck				01-01-BD-450-01	01-01-BD-450-01	01-01-BD-700-01
Mandrel	01-01-BD-200-01	01-01-BD-250-01	01-01-BD-300-01	01-01-BD-450-02	01-01-BD-450-02	01-01-BD-700-02
Cone	01-01-BD-200-02	01-01-BD-250-02	01-01-BD-300-02	01-01-BD-450-03	01-01-BD-550-03	01-01-BD-700-03
Sleeve	01-01-BD-200-03	01-01-BD-250-03	01-01-BD-300-03	01-01-BD-450-04	01-01-BD-550-04	01-01-BD-700-04
Nut/ End Cap	01-01-BD-200-04	01-01-BD-250-04	01-01-BD-300-04	01-01-BD-450-05	01-01-BD-550-05	01-01-BD-700-05

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Double Fishneck Knuckle Joint is designed to enhance flexibility within the wireline tool string, allowing it to adapt to various downhole conditions and operational requirements. When a tool string needs to navigate deviated wells, work in crooked tubing, or handle fishing operations in casing through tubing, a knuckle joint comes into play.



## Applications

- Allowing the tool string to adjust its angle, ensuring smooth operations even in non-vertical boreholes.
- Facilitating entries into ON-OFF connectors within the well.

## Key Features & Benefits

- The knuckle joint provides the necessary flexibility in situations where the tubing or casing is deviated.
- Flexibility for ON-OFF connectors makes disconnection and reconnection easy during wireline operations.

### Technical Data

Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
1.25"	01-01-DFK-125-A0	0.938-10 UN	0.938-10 UN	1.25"	1.187"
1.50"	01-01-DFK-150-A0	0.938-10 UN	0.938-10 UN	1.50"	1.375"
1.75"	01-01-DFK-175-A0	1.063-10 UN	1.063-10 UN	1.75"	1.75"
1.87"	01-01-DFK-187-A0	1.063-10 UN	1.063-10 UN	1.875"	1.75"
2.12"	01-01-DFK-212-A0	1.063-10 UN	1.063-10 UN	2.12"	1.75"
2.50"	01-01-DFK-250-A0	1.063-10 UN	1.063-10 UN	2.50"	2.312"

### Parts List

Nominal Size	1.25"	1.50"	1.75"	1.87"	2.12"
Part Name	Part Number				
Fishneck	01-01-DFK-125-01	01-01-DFK-150-01	01-01-DFK-175-01	01-01-DFK-187-01	01-01-DFK-212-01
Knuckle	01-01-DFK-125-02	01-01-DFK-150-02	01-01-DFK-175-01	01-01-KJ-187-02	01-01-DFK-212-01
Swivel Cup	01-01-KJ-125-03	01-01-KJ-150-03	01-01-KJ-175-03	01-01-KJ-187-02	01-01-DFK-212-03
Bottom Sub	01-01-DFK-125-04	01-01-DFK-150-04	01-01-DFK-175-04	01-01-DFK-187-04	01-01-DFK-212-04

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Brace Tool Gauge Ring is used to verify or gauge the drift size of a wellbore, and to clear minor build-ups of scale or paraffin in the tubing. With its functionality, it helps ensure that the drift size of the tubing meets specifications and it also helps in identifying areas where the tubing may be constricted or obstructed. Another use of this tool is to properly fit nipples and determining their depth within the wellbore.

## Applications

- Assessing the internal dimensions of tubing.
- Identifying areas where tubing may be constricted or obstructed.
- Cleaning light scale and paraffin.
- Determining depth of nipples within the wellbore.

## Key Features & Benefits

- Engineered with durable materials for longevity.
- Provides precise measurements of the inner diameter of tubing.
- Available in various diameter and connections.



Technical Data			
O.D.	Fishneck Size	Thread Connection	Part Number
1.125"	0.75"	0.500 – 13 UN	01-01-GR-122-01
1.75"	1.187"	0.938 – 10 UN	01-01-GR-175-01
2.75"	1.75"	0.938 – 10 UN	01-01-GR-275-01
4.00"	2.312"	0.938 – 10 UN	01-01-GR-400-01
5.00"	2.312"	0.938 – 10 UN	01-01-GR-500-01

Custom sizes and thread connections are available. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Hydraulic Tubing Punch is used to punch a hole into tubing without the use of detonators. The tool provides a source of achieving well communication between tubing and annulus. The tool is activated by downward jarring, which activates the tool thus creating hydraulic pressure strong enough to puncture the tubing walls.

This controlled communication between the tubing and annulus is crucial for various well operations, such as fluid injection, production optimization, or well intervention activities.

### Applications

- Perforating the tubing walls, creating openings for fluid flow or communication between the tubing and annulus.
- Providing a controlled means of punching holes in the tubing.

### Key Features & Benefits

- Does not require the use of detonators to operate.
- Compatible with different types and sizes of tubing commonly used in oil and gas wells.
- Robust and simple operation.



Technical Data					
Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
1.18"	01-01-HP-118-A0	0.625"-11 UN	0.625"-11 UN	1.18"	1.000"
1.50"	01-01-HP-150-A0	0.938"-10 UN	0.938"-10 UN	1.50"	1.187"
1.75"	01-01-HP-175-A0	0.938"-10 UN	0.938"-10 UN	1.75" 2.24" 2.74" (See Note Below)	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List			
Nominal Size	1.18"	1.50"	1.75"
Part Name	Part Number		
Fishneck	01-01-HP-118-01	01-01-HP-150-01	01-01-HP-175-01
Striker Pin	01-01-HP-118-02	01-01-HP-150-02	01-01-HP-175-02
Shear Pin Housing	01-01-HP-118-03	01-01-HP-150-03	01-01-HP-175-03
Shear Pin Cover	01-01-HP-118-04	01-01-HP-150-04	01-01-HP-175-04
Firing Pin Housing	01-01-HP-118-05	01-01-HP-150-05	01-01-HP-175-05
Firing Pin	01-01-HP-118-06	01-01-HP-175-06	01-01-HP-175-06
Shell Chamber	01-01-HP-118-07	01-01-HP-150-07	01-01-HP-175-07
Seal Disc	05-01-SLC-200-06	01-01-HP-175-08	01-01-HP-175-08
Shell Assembly	01-01-HP-118-09	01-01-HP-175-S0	01-01-HP-175-S0
Cylinder	01-01-HP-118-10	01-01-HP-150-10	01-01-HP-175-10
Rubber Disk	01-01-HP-118-11	01-01-HP-150-11	01-01-HP-175-11
Piston	01-01-HP-118-12	01-01-HP-150-12	01-01-HP-175-12
Punch Housing	01-01-HP-118-13	01-01-HP-150-13	01-01-HP-175-13
Punch Piston	01-01-HP-118-14	01-01-HP-150-14	01-01-HP-200-14
Punch (.37)	01-01-HP-118-15	01-01-HP-150-15	01-01-HP-175-15
Bleed Screw	01-01-HP-118-18	01-01-HP-175-18	01-01-HP-175-18
Safety Sleeve	n/a	01-01-HP-150-19	01-01-HP-175-19
Shear Screw	05-01-SLC-200-20	05-01-SLC-200-20	05-01-SLC-200-20
O-Ring	-	123	126
O-Ring	113	210	212
O-Ring	010	012	111
O-Ring	015	213	214
O-Ring	016	018	020
Pin Seal Screw	01-01-HP-118-17	01-01-HP-118-17	01-01-HP-118-17
0.25 Ball			
Set Screw	0.25 - UNC X .31	0.25 - UNC X .38	0.25 - UNC X .38

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Indexing Tool is used to orientate a desired tool into a specific rotational position. It ensures that the tool is aligned correctly for its intended function. To operate the tool, simply attach the Indexing Tool to the tool string, lower the tool string into the wellbore to the desired depth. Function the tool by picking it up and setting it back down repeatedly until the desired effect is achieved.

The Indexing swivel will rotate 30° each time the tool string is picked up and set down. This rotation is particularly useful when trying to retrieve debris that has fallen beside downhole equipment during fishing operations.

## Applications

- Orienting a tool into a specific rotational position.
- Retrieving debris that has fallen beside downhole equipment.
- Commonly run between mechanical jars and pulling tools, it can also be employed in other downhole scenarios.

## Key Features & Benefits

- Indexing swivel rotates by 30° when picked up and set down.



Technical Data					
Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
1.50"	01-01-IS-150-A0	0.938"-10 UN-2A	0.938"-10 UN-2B	1.50"	1.375"

Parts List	
Nominal Size	Part Number
Fishneck	01-01-IS-150-01
Body	01-01-IS-150-02
Mandrel	01-01-IS-150-03
Bottom Sub	01-01-IS-150-04
Ball Bearings	0.187

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Mechanical Spang Jar is used to provide the ability to exert increased impact on subsurface tools by either jarring up or down. Often called "Spang Jars", they are composed of two interlocking links which slide very much in the same way as a slide hammer. Like other wireline tools the Mechanical Jars come with a threaded pin and box connection of desired size. The spang jar can be used in conjunction with hydraulic jars for increased jarring impact force if desired.



### Applications

- Providing upward and downward impact in the tool-string to activate and manipulate tools.

### Key Features & Benefits

- Available in various materials and sizes.
- Optional stroke lengths cater to specific requirements.
- Various connections are available.

Technical Data

Nominal Size	Part Number	Fishneck Size	Thread Connection	Stroke
1.25"	01-01-SP-125-20	1.187"	0.938-10 UN	20"
1.25"	01-01-SP-125-30	1.187"	0.938-10 UN	30"
1.50"	01-01-SP-150-20	1.375"	0.938-10 UN	20"
1.50"	01-01-SP-150-30	1.375"	0.938-10 UN	30"
1.75"	01-01-SP-175-20	1.75"	1.062"-10 UN	20"
1.75"	01-01-SP-175-30	1.75"	1.062"-10 UN	30"
1.87"	01-01-SP-187-20	1.75"	1.062"-10 UN	20"
1.87"	01-01-SP-187-30	1.75"	1.062"-10 UN	30"
2.125"	01-01-SP-212-20	1.75"	1.062"-10 UN	20"
2.125"	01-01-SP-212-30	1.75"	1.062"-10 UN	30"
2.50"	01-01-SP-250-20	2.31"	1.062"-10 UN	20"
2.50"	01-01-SP-250-30	2.31"	1.062"-10 UN	30"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Mechanical Spring Jar is a robust and versatile tool designed to deliver consistent and controlled upward jarring impacts during wireline operations. Whether employed as a wireline service tool or as part of a fishing tool assembly, this jar ensures dependable performance in both standard and heavy-duty wireline operations. Its innovative mechanical spring mechanism provides the force and precision needed for successful interventions in various well environments. The Heavy-Duty Mechanical Spring Jar is available in commonly used tool string sizes, such as 1.5", 1.875", & 2.5". Inquire about other sizes.



### Applications

- Ensuring consistent jarring impacts for various wireline operations.
- Assisting in the retrieval of lost or stuck tools from the wellbore.

### Key Features & Benefits

- Calibration Subs available for accurate setting of release load.
- Ability to be adjusted on or off the tools string.
- Field-proven latch mechanism.
- Can be configured for standard or heavy-duty pull loads

Technical Data				
Nominal Size	1.500"	1.875"	2.125"	2.500"
Sucker Rod Tool Connection	0.937"-10 UN 1.375" FN	1.063"-10 UN 1.750" FN	1.063"-10 UN 1.750" FN	1.562"-10 UN 2.313" FN
QC Tool Connection Option	1.50" QLS 1.375" FN	1.875" QLS 1.750" FN	1.875" QLS 1.750" FN	2.50" QLS 2.313" FN
Stroke Length	12"	12"	12"	12"
Approximate Weight	9 kg	14 kg	16.5 kg	26 kg

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Mechanical Tubing Punch is designed to be able to punch holes in downhole tubing. Once the hole has been made in the tubing the punch will retract into the tool allowing the tool to be pulled from the bore. It is used to aid in the draining of fluid from the tubing when the tubing needs to be removed from the well. It can also be used as a method to allow communication between the tubing and casing for injection of chemicals or to circulate kill fluid. Another use is to allow additional productive zones to be introduced to the production string when required.

### Applications

- Draining fluid from the tubing when it needs to be removed from the well.
- Communicating between the tubing and casing.
- Selectively perforating the inner pipe without damaging the outer casing or annular string.

### Key Features & Benefits

- Operates without explosives, enhancing safety during handling and logistics.
- Multiple tool sizes for a variety of tubing diameters.
- Utilizes upward jarring to punch holes.
- Standard tools utilize a jar up to punch design which relies the tool serrations gripping the tubing.
- A down to punch variation is available upon request, which can be activated on top of a set anchor.



Technical Data						
Nominal Size	Assembly Number	Thread Connection	Fishneck	Max O.D.	Punch Travel	O.A.L
1.90"	01-01-MTP-190-A0	0.938"-10 UN (5/8" S.R.)	1.187"	1.48"	0.43"	22.9"
2.37"	01-01-MTP-237-A0	0.938"-10 UN (5/8" S.R.)	1.375"	1.84"	0.41"	31.4"
2.87"	01-01-MTP-287-A0	0.938"-10 UN (5/8" S.R.)	1.375"t	2.18"	0.70"	31.0"
3.50"	01-01-MTP-350-A0	1.062"-10 UN (3/4" S.R.)	1.750"	2.66"	0.72"	32.3"
4.50"	01-01-MTP-450-A0	1.062"-10 UN (3/4" S.R.)	1.750"	3.66"	0.72"	32.3"
5.50"	01-01-MTP-550-A0	1.062"-10 UN (3/4" S.R.)	1.750"	4.76"	0.72"	32.3"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Quick Connect Crossover is used to connect two wireline components without the use of wrenches. The tool proves essential in the wireline industry as it enhances performance. It reduces making and breaking of thread connections on the tool string increasing safety and efficiency. The crossover with the threaded pin should be attached to the tool string, and the crossover with the threaded box should be attached to the desired tool. To join the Quick Connect, insert the Quick Connect pin into the Quick Connect box, compress the spring and turn 90 degrees to lock into place.



## Applications

- Connecting different threads within a tool string.

## Key Features & Benefits

- Eliminates the need for wrenches to connect different threads together.
- Available in various sizes to fit requirements.
- Various thread combinations available.
- Solid and robust construction for durability.

Quick Connect Pin - Threaded Box			
<b>Nominal Size</b>	1.50"		1.75"
<b>Thread Size</b>	0.938 – 10 UN	1.062 – 10 UN	0.938 – 10 UN
<b>Assembly Number</b>	01-01-COQ-150-02	01-01-COQ-150-08	01-01-COQ-175-03
<b>Top Thread Connection</b>	1.50" QC PIN (QLS)		1.75" QC PIN (QLS)
<b>Max O.D.</b>	1.50"		1.75"
<b>Fishneck Size</b>	1.375"		1.75"
Threaded Pin - Quick Connect Box			
<b>Nominal Size</b>	1.50"		1.75"
<b>Thread Size</b>	0.938 – 10 UN	1.062 – 10 UN	0.938 – 10 UN
<b>Assembly Number</b>	01-01-COQ-150-A0	01-01-COQ-150-A1	01-01-COQ-175-A0
<b>Top Connection</b>	1.50" QC BOX (QLS)		1.75" QC BOX (QLS)
<b>Max O.D.</b>	1.50"		1.75"
<b>Fishneck Size</b>	1.375"		1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

A Quick Connect Roller Sub is designed to reduce line wear and drag while providing quick and easy attachment to the toolstring.

### Applications

- Can be ran in between each connection of the tool string as required.

### Key Features & Benefits

- Quick connect mechanism allows fast connection/disconnection from other components in the toolstring, saving time during rig-up or tool changes.
- Available in sizes 1.50", 1.75".



Technical Data		
Nominal Size	1.50"	1.75"
Assembly Number	01-01-RWS-150-A1	01-01-RWS-175-A1
Part Name		
Body	01-01-RWS-150-03	01-01-RWS-175-03
Roller	01-01-RWS-150-02	01-01-RWS-175-02
Locking Plate	01-01-QC-150-01	01-01-QC-175-01
Spring	01-01-QC-150-02	01-01-QC-175-02
Dowel Pin	1/4 x 5/8 Dowel Pin	1/4 x 5/8 Dowel Pin
Slotted Spring or Tension Pin	3/16 x 7/8 LG Slotted Pin	ANSI B18.82-3/16 x 1 1/14 LG
Bushing	01-01-RWS-150-07	01-01-RWS-150-07

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Roller Stem is a device that is used to carry out operations in deviated well bores. It helps in reducing friction against tubing walls when compared to conventional stem bars in these situations. The roller stem has sinker bars with milled slots to accommodate roller wheels and are available for a wide range of tubing sizes. A Roller Stem is made up in short sections usually two feet in length with upper and lower thread connections. The slots are cut at staggered angles along the length of the body. Rollers are mounted in the slots with the use of a roller shaft placed at 90°. The rollers used have an outside diameter larger than the body of the roller stem which allows the tool string to have a gliding effect.



## Applications

- Used in wells with great degrees of deviation, slant wells and wells containing internal coated tubing.

## Key Features & Benefits

- The stem accommodates multiple-sized, interchangeable rollers, allowing flexibility for various wellbore sizes or specific applications.
- The freely rotating rollers minimize friction during tool string movement.
- The roller stem assists in smoothly conveying the tool string in high-angle deviated wells.

Technical Data							
Nominal Size	Assembly Number	Fishneck	# of Wheels	Top Thread Connection	Lower Thread Connection	Max O.D.	O.A.L
1.25"	01-01-STR-125-A0	1.187"	4	15/16" UN	15/16" UN	1.187"	3"
1.50"	01-01-STR-150-A0	1.375"	4	15/16" UN	15/16" UN	1.875"	3"
1.75"	01-01-STR-175-A0	1.75"	4	1 1/16" UN	1 1/16" UN	2.30"	3"
2.125"	01-01-STR-212-A0	1.75"	4	1 1/16" UN	1 1/16" UN	2.80"	3"
2.75"	01-01-STR-275-A0	2.312"	8	1 9/16" UN	1 9/16" UN	3.50"	5"
3.50"	01-01-STR-350-A0	2.312"	7	1 9/16" UN	1 9/16" UN	4.25"	5"

Please Note: This table only shows limited selection of the configurations available. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Bowen Type Rope Socket has the primary function of providing secure connection between the wireline and the tool string. The bowen design ensures a robust grip on the wireline, minimizing the risk of slippage during operations. This secure connection is essential for maintaining control over downhole tools, thereby facilitating efficient and safe wireline operations.

## Applications

- Connecting slickline to the tool string, allowing the deployment of sub-surface tools and equipment.

## Key Features & Benefits

- Uses a selection of brass wedges to grip various line sizes.
- Optional wedge slip carrier is compatible with this tool that can grab a variety of line sizes.



Technical Data				
Nominal Size	Assembly Number	Lower Thread Connection	Max O.D.	Fishneck Size
1.25"	01-06-RS-125-A0	0.938" – 10 UN	1.25"	1.19"
1.50"	01-06-RS-150-A0	0.938" – 10 UN	1.50"	1.375"
1.75"	01-06-RS-175-A0	1.063" – 10 UN	1.75"	1.75"
1.875"	01-06-RS-187-A0	1.063" – 10 UN	1.87"	1.75"
2.125"	01-06-RS-212-A0	1.063" – 10 UN	2.12"	1.75"
2.75"	01-06-RS-275-A0	1.562" – 10 UN	2.75"	2.31"

Parts List						
Nominal Size	1.25"	1.50"	1.75"	1.87"	2.12"	2.75"
Part Name	Part Number					
Fishneck	01-06-RS-125-01	01-06-RS-150-01	01-06-RS-175-01	01-06-RS-187-01	01-06-RS-212-01	01-06-RS-275-01
Wedge Slip Carrier	01-06-RS-125-02	01-06-RS-150-02	01-06-RS-150-02	01-06-RS-150-02	01-06-RS-150-02	01-06-RS-150-02
Bottom Sub	01-06-RS-125-03	01-01-A-150-03	01-01-A-187-03	01-06-RS-187-03	01-06-RS-212-03	01-06-RS-275-03
Slip						
Set Screw	10-24UNC x 5/16	3/8-16 UNC x 5/16				

Please Note: Assembly Number is supplied as a reference. Actual assembly number differs based on wedge style and/or size.

## Overview

Slip Type Rope sockets are designed to securely attach larger slickline to the tool string during well intervention activities. The Slip Type Rope Socket utilizes a pair of slips along with a taper mechanism. Its primary function is to grip the slickline and hold it in place during slickline operations. These sockets are typically used with small braided lines up to 0.140" in diameter.

## Applications

- Attaching larger slickline to the wireline tool string.
- Preventing the slickline from slipping or moving unintentionally during operations.

## Key Features & Benefits

- Designed for use with slickline of 0.140 inches in diameter and larger.
- Utilizes a pair of slips in conjunction with a taper mechanism.



Technical Data				
Nominal Size	Assembly Number	Lower Thread Connection	Max O.D.	Fishneck Size
1.50"	01-01-RSS-150-A0	0.938"-14 UN	1.50"	1.37"
1.75"	01-01-RSS-175-A0	1.063"-10 UN	1.75"	1.75"
1.87"	01-01-RSS-187-A0	1.063"-10 UN	1.87"	1.75"

Parts List			
Nominal Size	1.50"	1.75"	1.875"
Part Name	Part Number		
Body	01-01-RSS-150-01	01-01-RSS-175-01	01-01-RSS-187-01
Slip Carrier	01-01-RSS-150-02	01-01-RSS-150-02	01-01-RSS-150-02
Slip	01-01-RSS-150-02	01-01-RSS-150-013	01-01-RSS-150-03
Retainer Sub	01-01-RSS-150-02	01-01-RSS-175-04	01-01-RSS-187-04
Set Screw	.375" UNC x .25"	.375" UNC x .25"	.375" UNC x .25"
Spring	12-01-NB-237-02	12-01-NB-237-02	12-01-NB-237-02

Please Note: This table only shows limited selection of the configurations available. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

Thimble type rope sockets serve as connectors for attaching or securing slickline or wireline to the toolstring. They allow for the deployment of sub-surface tools and equipment downhole. The line is attached to the rope socket by tying a knot around the thimble. The thimble helps maintain the shape of the eye formed at the end of the wireline, preventing it from being crushed or bent beyond the manufacturer's recommendations.

## Applications

- Maintaining the shape of the eye formed at the end of the wireline, preventing it from being crushed or bent beyond the manufacturer's recommendations.

## Key Features & Benefits

- Thimbles not only prevent fraying but also act as a barrier, defending against wear and tear.
- Wire rope thimbles help maintain the rope's natural shape and alignment, preventing kinks that can lead to breaks.



Technical Data				
Nominal Size	Assembly Number	Lower Thread Connection	Max O.D.	Fishneck Size
1.00"	01-01-RS-100-A0	0.625" – 11 UN	1.00"	1.00"
1.25"	01-01-RS-125-A1	0.938" – 10 UN	1.25"	1.18"
1.50"	01-01-RS-150-A1	0.938" – 10 UN	1.50"	1.375"
1.75"	01-01-RS-175-A1	1.062" – 10 UN	1.75"	1.75"
1.87"	01-01-RS-187-A1	1.062" – 10 UN	1.875"	1.75"
2.12"	01-01-RS-212-A1	1.062" – 10 UN	2.12"	1.75"

Parts List						
Nominal Size	1.00"	1.25"	1.50"	1.75"	1.87"	2.12"
Part Name	Part Number					
Body	01-01-RS-100-01	01-01-RS-125-01	01-01-RS-150-01	01-01-RS-175-01	01-01-RS-187-01	01-01-RS-212-01
Spring	n/a	01-01-RS-092-04	01-01-RS-092-04	01-01-RS-092-04	01-01-RS-092-04	01-01-RS-092-04
Thimble	01-01-RS-100-05	01-01-RS-125-05	01-01-RS-125-05	01-01-RS-125-05	01-01-RS-125-05	01-01-RS-125-05
Spool	01-01-RS-100-06	01-01-RS-125-06	01-01-RS-125-06	01-01-RS-125-06	01-01-RS-125-06	01-01-RS-125-06

Please Note: This table only shows limited selection of the configurations available. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Wedge Type Rope Socket has the primary function of providing secure connection between the wireline and the tool string. The unique wedge design ensures a robust grip on the wireline, minimizing the risk of slippage during operations. This secure connection is essential for maintaining control over downhole tools, thereby facilitating efficient and safe wireline operations.

## Applications

- Connecting slickline to the tool string, allowing the deployment of sub-surface tools and equipment.

## Key Features & Benefits

- One end of the wedge-type socket can clamp a rope with a wedging action.



### Technical Data

Nominal Size	Assembly Number	Lower Thread Connection	Max O.D.	Fishneck Size
1.25"	01-01-RS-125-A0	0.938" – 10 UN	1.25"	1.18"
1.50"	01-01-RS-150-A0	0.938" – 10 UN	1.50"	1.375"
1.75"	01-01-RS-175-A0	1.062" – 10 UN	1.75"	1.75"
1.875"	01-01-RS-187-A0	1.062" – 10 UN	1.875"	1.75"
2.125"	01-01-RS-212-A0	1.062" – 10 UN	2.125"	1.75"

### Parts List

Nominal Size	1.25"	1.50"	1.75"	1.875"	2.125"
Part Name	Part Number				
Body	01-01-RS-125-01	01-01-RS-150-01	01-01-RS-175-01	01-01-RS-187-01	01-01-RS-212-01
Sleeve	01-01-RS-125-02	01-01-RS-125-02	01-01-RS-125-02	01-01-RS-125-02	01-01-RS-125-02
Wedge (0.092/0.108)	01-01-RS-092-03	01-01-RS-092-03	01-01-RS-092-03	01-01-RS-125-03	01-01-RS-125-03

Please Note: This table only shows limited selection of the configurations available. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Swab Mandrel is designed for swabbing liquids from the wellbore, enabling the well to flow under its own power. Constructed from high-grade steel, the Swab Mandrel is built to withstand the harsh conditions of the wellbore. The Brace Tool Swab Mandrel is available in a range of sizes to fit various wellbore diameters, making it a versatile tool for a wide range of operations.

## Applications

- Swabbing liquids from the wellbore.
- Monitoring fluid level.

## Key Features & Benefits

- Upper mandrels are keyed to hold the joint sockets in line, and square shoulders reinforce the joint, preventing spreading under load.
- The rigidity of the joint absolutely prevents jackknifing and disassembly in the well.



Technical Data				
Nominal Size	Assembly Number	Top Thread Connection	Max O.D.	Fishneck Size
1.66"	01-01-SM-166-A0	0.625" - 11 UNC	1.062"	1.00"
2.00"	01-01-SM-200-A0	0.938" - 10 UN	1.906"	1.375"
2.50"	01-01-SM-250-A0	0.938" - 10 UN	2.347"	1.375"
3.00"	01-01-SM-300-A0	0.938" - 10 UN	2.867"	1.375"
4.00"	01-01-SM-400-A0	1.062" - 10 UN	3.72"	2.31"
5.00"	01-01-SM-500-A0	1.062" - 10 UN	4.50"	2.31"

Parts List						
Nominal Size	1.66"	2.00"	2.50"	3.00"	4.00"	5.00"
Part Name	Part Number					
Fishneck	01-01-SM-166-01	01-01-SM-200-01	01-01-SM-200-01	01-01-SM-200-01	01-01-SM-400-01	01-01-SM-400-01
Ball	n/a	BALL- 0.75"	BALL- 0.75"	BALL- 0.75"	BALL- 2.00"	BALL- 2.00"
Mandrel	01-01-SM-166-02	01-01-SM-200-02	01-01-SM-250-02	01-01-SM-300-02	01-01-SM-400-02	01-01-SM-400-02
Backup Ring	n/a	01-01-SM-200-03	01-01-SM-250-03	01-01-SM-300-03	01-01-SM-400-03	01-01-SM-500-03
No-Go	01-01-SM-166-04	01-01-SM-200-04	01-01-SM-250-04	01-01-SM-300-04	01-01-SM-400-04	01-01-SM-400-04

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

### Overview

The Swaging Tool is designed for resizing tight spots and light collapses to tubing drift diameter, cleaning knurled threads from tubing joints, and as a wire locator when fishing lost wireline in tubing. The Swaging Tool can also be used as a centralizer if it has a threaded box on the bottom end.

The Swaging Tool is typically attached to a tool string with sufficient stem weight and lowered to the obstruction and jarred downward until dropping through. The procedure of Jarring upward and back through the tight spot is repeated until the swage passes the obstruction with little or no difficulty.

### Applications

- Resizing tubing drift diameters.
- Cleaning knurled threads from tubing joints.
- Could be used as a wire locator.
- Can be used for centralizers when a threaded box is provided at the lower end.

### Key Features & Benefits

- Can be used as a solid centralizer if a threaded box is provided at the lower end of the tool.
- Can come in solid and fluted models as desired.
- Can be configured with custom diameter to suit customer requirements.



#### Technical Data

Max O.D.	Thread Connection	Part Number	Fishneck
0.95"	0.50"-13 UN	01-01-SW-095-01	0.75"
1.18"	0.625"-11 UN	01-01-SW-118-01	0.100"
1.51"	0.938"-10 UN	01-01-SW-151-01	1.187"
1.69"	0.938"-10 UN	01-01-SW-169-01	1.187"
1.91"	0.938"-10 UN	01-01-SW-190-01	1.375"
2.347"	0.938"-10 UN	01-01-SW-234-01	1.75"
2.906"	1.062"-10 UN	01-01-SW-290-01	1.75"
3.965"	1.062"-10 UN	01-01-SW-396-01	2.31"

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

## Overview

A swivel joint is designed to allow a portion of the tool string to rotate freely. This rotation capability is crucial for minimizing the torque that can build up in the wireline during downhole operations. By preventing line twist, the swivel joint helps maintain the integrity of the wireline, ensuring smoother and more efficient operations. They are also designed for easy maintenance and various connection options to suit different operational needs.

## Applications

- To enable a toolstring to rotate freely under load to prevent torque build-up in the wireline
- Allow self alignment of kickover tools into side pocket mandrels.

## Key Features & Benefits

- Hard wearing Bronze bushings to enhance tool rotation and prolong working life.
- Connection options to suit customer requirements.
- Simple, robust design ensuring ease of operation for the end user.



### Technical Data

Assembly Number	Upper Connection	Fishneck	Lower Connection	O.D.	Overall Length
01-01-SJ-125-A0	0.938-10 UN-2A PIN	1.187"	0.938-10 UN-2B BOX	1.25"	11.19"
01-01-SJQ-125-A0	0.938-10 UN-2A PIN	1.187"	1.25" QLS BOX	1.25"	13.7"
01-01-SJ-150-A0	0.938-10 UN-2A PIN	1.375"	0.938-10 UN-2B BOX	1.50"	11.19"
01-01-SJQ-150-A0	0.938-10 UN-2A PIN	1.375"	1.50" QLS BOX	1.50"	14.19"
01-01-SJ-175-A0	1.063-10 UN-2A PIN	1.750"	1.063-10 UN-2B BOX	1.75"	11.94"
01-01-SJQ-175-A0	1.063-10 UN-2A PIN	1.750"	1.75" QLS BOX	1.75"	14.45"
01-01-SJ-187-A0	1.063-10 UN-2A PIN	1.750"	1.063-10 UN-2B BOX	1.875"	12.44"
01-01-SJQ-187-A0	1.063-10 UN-2A PIN	1.750"	1.875" QLS BOX	1.875"	15.20"
01-01-SJ-212-A0	1.063-10 UN-2A PIN	1.750"	1.063-10 UN-2B BOX	2.125"	11.94"
01-01-SJQ-212-A0	1.063-10 UN-2A PIN	1.750"	1.875" QLS BOX	2.125"	15.3"
01-01-SJ-250-A0	1.563-10 UN-2A PIN	2.312"	1.563-10 UN-2B BOX	2.500"	15.0"

Speak with a Brace Tool sales representative to inquire about Quick Connection for this tool.

## Overview

The Tubing Broach is used for re-sizing the inside diameters of downhole completion equipment and helps enlarge or modify the bore of tubing strings. It is also designed to repair damaged or collapsed tubing and remove or broach tight spots in tubing strings.

The most commonly used broaching tools are made from one solid piece of material that feature a series of staggered cutting edges that start at a small diameter and incrementally increase until reaching its maximum diameter. This design allows the tool to cut or shear materials from the tubing wall.

## Applications

- Used for re-sizing the inside diameters of downhole completion equipment.
- Can be used to repair damaged or collapsed tubing.
- Cutting or shear materials from the tubing wall.

## Key Features & Benefits

- The cutting faces of the Tubing Broach are hardened and tempered, which enhances their durability and cutting ability.
- Specifically designed to handle more difficult scale and debris removal tasks in the well bore.



Technical Data				
Part Number	Fishneck O.D.	Pin Connection	Max O.D.	Small O.D.
01-01-BT-128-01	1.00"	0.625"-11 UN	1.286"	1.161"
01-01-BT-151-01	1.187"	0.938"-10 UN	1.515"	1.265"
01-01-BT-165-01	1.187"	0.938"-10 UN	1.657"	1.607"
01-01-BT-191-01	1.375"	0.938"-10 UN	1.910"	1.687"
01-01-BT-234-01	1.375"	0.938"-10 UN	2.347"	2.125"
01-01-BT-286-01	1.75"	1.062"-10 UN	2.867"	2.625"
01-01-BT-396-01	2.313"	1.062"-10 UN	3.965"	3.700"

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

## Overview

The Tubing Brush is a specialized tool used for cleaning the internal diameter (I.D.) of tubing or seating nipples. The Tubing Brush looks similar to a wax cutter, but it has larger holes to fit short sections of thin stranded cable. This design allows the brush to effectively clean the inside of the tubing.

The new version of the Brace Tool Tubing Brush utilizes a 3-part design. Cable sections are installed through the sleeve and the mandrel simultaneously through the aligned holes. Installing the fishneck presses the mandrel into the sleeve further, which locks the cable sections into position.



## Applications

- Cleaning the internal diameter of tubing or seating nipples.
- Loosening and removing paraffin wax and scale deposits from inside the wall of the completion bore.

## Key Features & Benefits

- Looks similar to a wax knife, but it has larger holes to fit short sections of thin stranded cable.
- Solid body with a series of drilled holes to accept the wire or braided cable.
- The new version of the tool utilizes a 3-part design.

Technical Data				
Nominal Size	Assembly Number	Thread Connection	Max Body O.D.	Fishneck Size
1.25"	01-01-TB-125-A0	0.938"-10 UN	1.25"	1.187"
1.50"	01-01-TB-150-A0	1.062"-10 UN	1.50"	1.375"
2.00"	01-01-TB-200-A5	0.938"-10 UN	2.00"	1.750"

Parts List		
Nominal Size	2.00"	3.00"
Part Name	Part Number	Part Number
Fishneck	01-01-TB-200-01	01-01-TB-300-01
Sleeve	01-01-TB-200-02	01-01-TB-300-02
Mandrel	01-01-TB-200-03	01-01-TB-300-03

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

## Overview

A Tubing End Locator is designed to help mechanically locate and determine the actual depth of the tubing end in relation to the measured wireline depth. The Tubing End Locator provides the operator with an accurate point of correlation between the known, fixed depth of the tubing end and the comparative measured depth of the wireline unit. This information is crucial for depth-critical intervention work.

## Applications

- Used to determine the actual depth of the tubing end in relation to the measured wireline depth.
- Depth-critical intervention work such as perforating, abrasive perforating, tubing cutting, and setting plugs and packers.
- Locating nipple profiles.

## Key Features & Benefits

- Available in a range of sizes to suit most completion designs.
- Simple, robust design that ensures ease of operation for the end user.



Technical Data					
Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
2.00" - 3.00"	01-01-TEL-200-A0	0.938"-10 UN	1.0" NPT	1.71"	1.375"
3.00" - 5.00"	01-01-TEL-300-A0	1.062" – 10 UN	1.062" – 10 UN	2.50"	2.31"

Parts List		
Nominal Size	2.00" – 3.00"	3.00" -5.00"
Part Name	Part Number	Part Number
Body	01-01-TEL-200-01	01-01-TEL-300-01
2" Dog	01-01-TEL-200-02	01-01-TEL-300-02
2.5" Dog	01-01-TEL-200-03	01-01-TEL-300-03
3" Dog	01-01-TEL-200-04	01-01-TEL-300-04
Spring	01-01-TEL-200-05	01-01-TEL-300-03

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

## Overview

A Tubular Jar is a type of mechanical jar used particularly during operations where there is a potential for debris ingress that may prevent critical jar manipulation. It performs the same function as the Spang Jar, but with a key difference: the Tubular Jar has holes in its body that allow fluid bypass. In situations where a Link Jar might lock up or buckle at full stroke in a tubing with debris, a Tubular Jar could allow the debris to pass through it and still manage to jar the tool string.

## Applications

- Used during fishing operations where there may be the potential for wire or debris ingress.
- Swabbing operations to bear the high loading or in large ID well bores where mechanical type spang jars are prone to scissoring.

## Key Features & Benefits

- Increased mass above the jar rod reduces the amount of stem required above, which ultimately reduces the tool string length.
- Available in a variety of sizes to suit requirements.



Technical Data					
Nominal Size	Part Number	Stroke	Upper Thread Connection	Lower Thread Connection	Max O.D.
0.75"	01-01-TJ-075-A0	14"	0.50" - 13 NC	0.50" - 13 NC	0.75"
1.00"	01-01-TJ-100-A0	18"	0.625" - 11 NC	0.625" - 11 NC	1"
1.25"	01-01-TJ-125-A0	8"/20"	0.938"-10 UN	0.938"-10 UN	1.607"
1.50"	01-01-TJ-150-A0	8"/20"/30"	0.938"-10 UN	0.938"-10 UN	1.687"
1.75"	01-01-TJ-175-A0	20"	1.062" - 10 UN	1.062" - 10 UN	2.125"
2.12"	01-01-TJ-212-A0	20"/30"	1.062" - 10 UN	1.062" - 10 UN	2.625"

Parts List						
Nominal Size	0.75"	1.00"	1.25"	1.50"	1.75"	2.12"
Part Name	Part Number					
Fishneck	01-01-TJ-075-21	01-01-TJ-100-21	01-01-TJ-125-21	01-01-TJ-150-21	01-01-TJ-175-21	01-01-TJ-212-21
Barrel	01-01-TJ-075-22	01-01-TJ-100-22	01-01-TJ-125-22	01-01-TJ-150-22	01-01-TJ-175-22	01-01-TJ-212-22
End Cap	01-01-TJ-075-23	01-01-TJ-100-23	01-01-TJ-125-23	01-01-TJ-150-23	01-01-TJ-175-23	01-01-TJ-212-23
Nut	01-01-TJ-075-24	01-01-TJ-100-24	01-01-TJ-125-24	01-01-TJ-150-24	01-01-TJ-175-24	01-01-TJ-212-24
Stroke Rod	01-01-TJ-075-25	01-01-TJ-100-25	01-01-TJ-125-25	01-01-TJ-150-25	01-01-TJ-175-25	01-01-TJ-212-25

Other sizes available include 1.38", 1.62", 1.87" & 2.50" with a variety of upper and lower connections.

## Overview

A Wax Knife is designed to cut and loosen wax build-ups formed on the inside diameter (I.D.) of the tubing walls. It is a spear-shaped tool with a series of cross holes drilled in a spiral pattern along the entire length of the body. The wax knife is installed on a tool string and lowered down the tubing string, exceeding the depth that wax characteristically forms in the well or area. After each pass, a provision should be made to flow or circulate loose wax from the well.

## Applications

- Cutting and loosening wax build-ups formed on the inside diameter (I.D.) of the tubing walls.
- Loosening hydrates that form on the I.D. of the tubing walls.

## Key Features & Benefits

- Designed with series of cross holes drilled in a spiral pattern along the entire length of the body.
- Wire is threaded through each hole and bent around the body being twisted together. This design allows for the operator to customize the wire lengths as required.



Technical Data			
Nominal Size	Part Number	Upper Thread Connection	Fishneck Size
0.75"	01-01-WK-075-01	0.500" - 13 NC	0.75"
1.50"	01-01-WK-150-01	0.938" - 10 NC	1.187"

Please Note: Contact a Brace Tool sales representative to inquire about customized solutions to fit your requirements.

## Overview

The primary purpose of a Wireline Stem is to provide the necessary weight or mass to deploy a wireline tool string in the well, against well pressure. It is also necessary for imparting sufficient upward and downward impact during jarring operations.

The stem helps to add weight to the tool string and provides the hammering action, which in turn allows the jars to transmit force produced by the movement of stem bars.

## Applications

- Adding weight to the tool string
- Providing the hammering action to the tool string to allow the jars to transmit force produced by the movement of the stem bars.

## Key Features & Benefits

- Available in range of diameters and lengths to suit customer requirements.



Technical Data

Nominal Size	Length 2 Feet	Length 3 Feet	Length 5 Feet	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
0.75"	01-01-ST-075-02	01-01-ST-075-03	01-01-ST-075-05	0.5"-13 UNC	0.5"-13 UNC	.75"	.75"
1.00"	01-01-ST-100-02	01-01-ST-100-03	01-01-ST-100-05	0.625"-11 NC	0.625"-11 NC	1.00"	1.00"
1.25"	01-01-ST-125-02	01-01-ST-125-03	01-01-ST-125-05	0.938"-10 UN	0.938"-10 UN	1.25"	1.187"
1.50"	01-01-ST-150-02	01-01-ST-150-03	01-01-ST-150-05	0.938"-10 UN	0.938"-10 UN	1.50"	1.375"
1.75"	01-01-ST-175-02	01-01-ST-175-03	01-01-ST-175-05	1.062"-10 UN	1.062"-10 UN	1.75"	1.75"
1.87"	01-01-ST-187-02	01-01-ST-187-03	01-01-ST-187-05	1.062"-10 UN	1.062"-10 UN	1.875"	1.75"
2.125"	01-01-ST-212-02	01-01-ST-212-03	01-01-ST-212-05	1.062"-10 UN	1.062"-10 UN	2.125"	1.75"

Please Note: This table only shows limited selection of the configurations available. Inquire about quick connect stems and higher weight tungsten filled stems.

## 02. Running Tools

## Overview

The A Tubing Stop Running Tool is a straight forward solution designed for the efficient deployment of the A Tubing Stop. This tool has a simple design, comprising a single part. To operate the A Tubing Stop Running Tool, simply pin the desired size of A Tubing Stop onto the tool and attach it to the tool string. Run the A Tubing Stop to the desire depth in the wellbore and engage the slips in the tubing wall. Jar down to set the slips on the taper of the A Tubing Stop and shear the pin in the running tool.

## Applications

- The primary application of the A Tubing Stop Running Tool is for running and deploying A Tubing Stops in wellbores.

## Key Features & Benefits

- Quick and efficient installation process for the A Tubing Stop.
- Some sizes come equipped with two shaft diameters each with a shear pin hole.
- Available in different sizes.



Technical Data		
<b>Nominal Size</b>	2.00" – 2.50"	3.00"
<b>Part Number</b>	02-04-A-200-01	02-04-A-300-01
<b>Upper Thread Connection</b>	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.50"	2.31"
<b>Fishneck Size</b>	1.375"	1.75"
<b>Pinning Diameter</b>	1.015" 0.687"	1.480"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The B Tubing Stop Running Tool is a straightforward solution designed for the efficient deployment of the B Tubing Stop. This tool has a simple design, made of a single part. Its key feature is a single or a multi-diameter shaft with shear pin holes, enabling the tool to accommodate multiple sizes of B Tubing Stops.

To operate the B Tubing Stop Running Tool, simply pin the desired size of B Tubing Stop onto the tool and attach it to the tool string. Run the B Tubing Stop to the desire depth in the wellbore and engage the slips in the tubing wall. Jar down to set the slips on the taper of the B Tubing Stop and shear the pin in the running tool.



## Applications

- The primary application of the B Tubing Stop Running Tool is for running and deploying B Tubing Stops in wellbores.

## Key Features & Benefits

- Quick and efficient installation process for B Tubing Stops.
- Equipped with shear pin holes on the single or multi-diameter shaft. This feature allows the shearing of the pin during the installation process, ensuring a secure engagement of the B Tubing Stop.

Technical Data		
<b>Nominal Size</b>	1.50" - 1.75"	2.50" - 3.00"
<b>Part Number</b>	02-03-B-150-01	02-03-BA-200-01
<b>Upper Thread Connection</b>	0.938"-10 UN	0.938"-10 UN
<b>Max O.D.</b>	1.25"	1.50"
<b>Fishneck Size</b>	1.18"	1.375"
<b>Pinning Diameter</b>	0.610"	0.672" 1.015"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The C1 running tool is designed for the efficient usage and setting of a range of Baker style S, W, and Z lock assemblies. It uses an external fishing neck and incorporates no-go rings. These rings help prevent the running tool from passing through profiles that have pre-determined subsurface tools attached or pinned to the running tool. This ensures a secure and controlled operation, adding an extra layer of reliability to the deployment process.

## Applications

- Running and setting various types of Baker style lock assemblies.

## Key Features & Benefits

- Multiple pinning options based on specific scenarios, including pinning lock assemblies, selective lock assemblies (S type), plugs with removable equalizing mandrels, and W and Z lock assemblies.
- No-go lock assembly designed for W and Z lock assemblies, eliminating the need for shanks during normal setting procedures.
- Available in different sizes.



Technical Data					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Assembly Number	02-03-C-150-A0	02-03-C-200-A0	02-03-C-250-A0	02-03-C-300-A0	02-03-C-400-A0
Locator Ring Sizing Options	1.468" 1.520" 1.593" 1.656" 45.00 mm	1.807" 1.843" 1.906" 47.00 mm	2.281" 2.343"	2.781" 2.843"	3.802" 3.843"
Upper Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN
Lower Thread Connection	0.625"-11 UNC	0.75"-16 UN	1.00"-14 UN	1.00"-14 UN	1.00"-14 UN
Max O.D.	1.656"	1.906"	2.343"	2.843"	3.843"
Fishneck Size	1.18"	1.375"	1.375"	1.75"	3.125"

Parts List					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Part Name	Part Number				
Body	02-03-C-150-01	02-03-C-200-01	02-03-C-250-01	02-03-C-300-01	02-03-C-400-01
Locator Ring	02-03-C-150-02	02-03-C-200-02	02-03-C-250-02	02-03-C-300-02	02-03-C-400-02

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The F Tubing Stop Running Tool is a straightforward solution designed for the efficient deployment of the F Tubing Stop. This tool has a simple design with a single part. Its key feature is a multi-diameter shaft with shear pin holes, enabling the tool to accommodate multiple sizes of F Tubing Stops.

To operate the F Tubing Stop Running Tool, simply pin the desired size of F Tubing Stop onto the tool and attach it to the tool string. Run F Stop to desired depth and pull up through a tubing upset to release trip wires. Jar down to set the F stop and shearing the pin in the running tool.



## Applications

- The primary application of the F Tubing Stop Running Tool is for running and deploying F Tubing Stops in wellbores.

## Key Features & Benefits

- Quick and efficient installation process for F Tubing Stops.
- Equipped with shear pin holes on the multi-diameter shaft. This feature allows the shearing of the pin during the installation process, ensuring a secure engagement of the F Tubing Stop.
- Available in different sizes.

Technical Data		
<b>Nominal Size</b>	2.00" - 2.50"	3.00"
<b>Part Number</b>	02-02-F-200-01	02-02-F-300-01
<b>Upper Thread Connection</b>	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.70"	2.31"
<b>Fishneck Size</b>	1.375"	1.75"
<b>Pinning Diameter</b>	0.870" 1.120"	1.620"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The GA-2 Running tool is used to run gas lift valves into side pocket mandrels. It can be attached to various kick-over tools that have a 5/8" sucker rod connection in the kick arm. The GA-2 Running tool is pinned to the gas lift valve and utilizes a shear mechanism to release the valve after installing it into the side pocket mandrel.

The tool incorporates an adjustable plunger to stabilize the valve. The valve is first pinned to the tool followed by tightening the adjustable plunger against the valve being run. This allows the valve to be securely held while being run and installed in the side pocket mandrel.



## Applications

- Running gas lift valves into side pocket mandrels.
- Used in conjunction with Kickover Tools designed for 1" valves.

## Key Features & Benefits

- 5/8" S.R. pin top connection with a 1-3/16" external fishneck.
- Latches 1" valves that have a 7/8" diameter external fishneck.
- Offers a an adjustable plunger to adjust the play between the running tool and the valve

Technical Data	
<b>Nominal Size</b>	1.00"
<b>Assembly Number</b>	02-04-GA-100-A0
<b>Upper Thread Connection</b>	0.938"-10 UN-2A
<b>Fishneck Size</b>	1.187"
<b>Max O.D.</b>	1.187"
<b>Overall Length</b>	4.65"
<b>Latched Fishneck</b>	0.875"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JC-3 Running tool is used to run 1.50" O.D. gas lift valves into side pocket mandrels. It can be attached to kickover tools that utilize a 5/8" sucker rod connection in the kick arm designed for 1.50" valves.

The JC-3 Running tool is pinned to the gas lift valve and utilizes a shear mechanism to release the valve after installing it into the side pocket mandrel.



## Applications

- The JC-3 Running tool is typically used to run "R" or "RA" type latches in "MM" Series Mandrels.

## Key Features & Benefits

- The tool is simple and robust consisting of only one part with no moving parts.
- It is available in a standard length and extended length version.

Technical Data		
<b>Nominal Size</b>	1.50"	1.50" - (5" Extended)
<b>Assembly Number</b>	02-04-JC-150-01	02-04-JC-150-02
<b>Upper Thread Connection</b>	0.938"-10 UN-2A	0.938"-10 UN-2A
<b>Fishneck Size</b>	1.375"	1.375"
<b>Max O.D.</b>	1.740"	1.740"
<b>Overall Length</b>	8.25"	13.25"
<b>Latched Fishneck</b>	1.375"	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JK Running Tool is used to enable various kickover tools to install BK and BK-2 latches on the side pocket mandrel latch during deployment. The upper section of the body is equipped with a set of 1/8" shear pin holes arranged on the outer circumference, facilitating the option to pin the running tool to the side pocket control latch. Designed for seamless integration, the JK Running Tool is employed in tandem with the appropriate kick-over tool.

## Applications

- Running in conjunction with the appropriate kickover tool.

## Key Features & Benefits

- Machined with two different inside diameters.
- Upper portion of the body is equipped with a set of 1/8" shear pin holes on the outer circumference offering the option to pin the running tool to the side pocket control latch, providing additional security during deployment.



Technical Data	
<b>Nominal Size</b>	1.00"
<b>Assembly Number</b>	02-04-JK-100-01
<b>Upper Thread Connection</b>	0.938"-10 UN
<b>Max O.D.</b>	1.33"
<b>Pinning Diameter</b>	0.750"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The KOT-1 Kickover Tools is designed to run 1.00" OD valves into side pocket mandrels and to install and retrieve flow-control devices that have an integral orienting sleeve. It is run into a well using standard wireline techniques. The orienting sleeve aligns the kickover tool above the side pocket, ensuring accurate installation or retrieval of flow control devices. The KOT-1 Kickover Tool can also be used to install or retrieve dummy valves, corrosion-monitoring coupon carriers, and other devices.

## Applications

- Can be used for gas lift, chemical injection, water-flood, corrosion monitoring, and other applications.
- Installing 1" ODt devices in various tubing sizes.
- A spacer bar is required for pulling operations.

## Key Features & Benefits

- Quick re-cock design increases valve installation and allows for several valve installation/removal attempts without having to pull out of the well.
- A valve catcher is available with the tool.
- Adaptable to accommodate larger tubing sizes.



### Technical Data

<b>Nominal Size</b>	KOT-1 2 3/8" - 2 7/8"	KOT-1 3.5" - 4.5"
<b>Assembly Number</b>	02-01-KOT-200-A0	02-01-KOT-350-A1
<b>Connections</b>	0.938-10 UN	1.062-10 UN
<b>Maximum O.D. (In)</b>	1.850" (without pad) 2.250" (with pad)	2.735" (without pad) 3.710" (with pad)
<b>Valve O.D.</b>	1.0" 25.4 mm	1.0" 25.4 mm
<b>Fishneck Size</b>	1.375"	1.750"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The OK-5 Kickover Tool is crafted for installing and retrieving 1" O.D. wireline devices within Side Pocket Mandrels. It leverages a selective orienting feature, facilitated by an orienting sleeve to ensure precise device placement. This Kickover Tool requires either a running or a pulling tool. Its efficacy is particularly notable in both straight-hole and highly deviated well scenarios.



## Applications

- Installation and retrieval of 1" O.D. wireline devices within Side Pocket Mandrels.
- Accurate device placement in highly deviated wells.

## Key Features & Benefits

- Equipped with a selective orienting feature, facilitated by an orienting sleeve.
- The sucker rod connection at the upper end, provides a secure attachment point for operational use.
- The arm assembly features a 15/16"-10 box thread connection at the bottom.
- Specialized latch assists in securely positioning the tool for accurate device installation or retrieval.

Technical Data					
Assembly Number	Tool O.D.	Centralizer	Length	Connection	Fishneck
02-04-OK5-200-A0	1.75"	N/A	74"	0.938-10 UN-2A	1.375"
02-04-OK5-250-A0	2.06"	Springs (2.22")	74"	0.938-10 UN-2A	1.375"
02-04-OK5-300-A0	2.50"	Springs (2.72")	71"	0.938-10 UN-2A	1.375"
Valve O.D.	1.00" O.D.		Options	Quick Connect Connections	
Running Tools	1-5/16" JK		Pulling Tools		1-1/4" JDC

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The OK-6 Kickover Tool is crafted for installing and retrieving 1" O.D. wireline devices within Side Pocket Mandrels. It leverages a selective orienting feature, facilitated by an orienting sleeve to ensure precise device placement.

This Kickover Tool requires either a running or a pulling tool. Its efficacy is particularly notable in both straight-hole and highly deviated well scenarios.

## Applications

- Installation and retrieval of 1" O.D. wireline devices within Side Pocket Mandrels.
- Accurate device placement in highly deviated wells.

## Key Features & Benefits

- Equipped with a selective orienting feature, facilitated by an orienting sleeve.
- The sucker rod connection at the upper end, provides a secure attachment point for operational use.
- The arm assembly features a 15/16"-10 box thread connection at the bottom.
- Specialized latch assists in securely positioning the tool for accurate device installation or retrieval.



Technical Data					
Assembly Number	Tool O.D.	Centralizer	Length	Connection	Fishneck
02-04-OK5-200-A0	1.75"	N/A	74"	0.938-10 UN-2A	1.375"
02-04-OK5-250-A0	2.06"	Springs (2.22")	74"	0.938-10 UN-2A	1.375"
02-04-OK5-300-A0	2.50"	Springs (2.72")	71"	0.938-10 UN-2A	1.375"
Valve O.D.	1.00" O.D.		Options	Quick Connect Connections	

Running Tools

1-5/16" JK

Pulling Tools

1-1/4" JDC

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The OM-1 Kickover Tool serves as a wireline service tool designed for the installation and retrieval of 1-1/2" O.D. flow control devices within side pocket mandrels.

## Applications

- Installation and retrieval of 1.50" O.D. flow control devices within Side Pocket Mandrels.
- Designed to work with a spacer bars when retrieving wireline devices in side pocket mandrels.

## Key Features & Benefits

- Compatible with standard wireline methods.
- Orientating sleeve is used to orient and kick the arm for installation or removal of wire line devices.
- Simple robust design that uses replaceable shear pins.



Technical Data				
Assembly Number	Tool O.D.	Length	Connection	Fishneck
02-04-OM1-250-A0	2.219"	95"	0.938-10 UN-2A	1.375"
02-04-OM1-350-A0	2.735"	96.5"	0.938-10 UN-2A	1.375"
02-04-OM1-450-A0	3.719"	96.5"	0.938-10 UN-2A	1.375"
02-04-OM1-550-A0	4.250"	96"	1.562-10 UN-2A	2.312"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The R Check Set is used to verify the proper setting of R Locks into profiles of corresponding sizes. It provides a means of confirmation by employing a pin mechanism that shears off if the fishneck of the R Lock is fully collapsed. By precisely locating the lock with the R Check Set and applying a gentle downward jar, the tool assesses whether the R Lock is correctly set. The pin on the checkset tool is designed to shear if the lock is properly collapsed. Upon retrieval, an unmarked or unsheared pin would indicate that the R Lock is incorrectly set.



## Applications

- Verifying whether R Locks have been correctly set into profiles of corresponding sizes.
- Identifying instances where locks are incorrectly set.

## Key Features & Benefits

- Features a pin mechanism designed to shear off if the fishneck of the R Lock is completely collapsed.
- Specifically designed for use with R Locks, providing targeted verification for this specific tool.
- Available in different material and sizes.

Technical Data			
<b>Nominal Size</b>	1.78" – 1.87"	2.18" – 2.31"	2.75" - 2.81"
<b>Assembly Number</b>	02-02-RCS-178-A0	02-02-RCS-218-A0	02-02-RCS-275-A0
<b>Top Thread Connection</b>	0.938" – 10 UN	0.938" – 10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.75"	2.16"	2.68"
<b>Fishneck Size</b>	1.375"	1.375"	1.75"

Parts List			
<b>Nominal Size</b>	1.78" – 1.87"	2.18" – 2.31"	2.75" - 2.81"
<b>Part Name</b>	<b>Part Number</b>		
Fishneck	02-02-XCS-200-01	02-02-XCS-250-01	02-02-RCS-275-01
Core	02-02-RCS-178-02	02-02-RCS-218-02	02-02-RCS-275-02
Body	02-02-XCS-200-03	02-02-XCS-250-03	02-02-RCS-275-03

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The R Running Tool is designed to facilitate the efficient running and setting of R and RN locks in R and RN nipples. This versatile tool provides two distinct running modes, Selective and Non-Selective, catering to specific well completion requirements.

In the Selective mode, the running tool can run and set the R Lock in the desired nipple while being able to pass through R Nipples of the same size or larger. In the Non-Selective mode, the R or RN Lock can be run and set in the first nipple of that same size and type R or RN.

## Applications

- Running and setting R and RN locks in corresponding nipples.

## Key Features & Benefits

- Selective and Non-Selective running modes, providing flexibility in deployment based on the wellbore conditions and lock specifications.
- Available in different sizes.



Technical Data						
Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size	Latched Fishneck
1.71"	02-02-R-171-A0	0.938"-10 UN-2A	0.375"-16 UNC-2B	1.640"	1.187"	1.062"
1.78"	02-02-R-178-A0	0.938"-10 UN-2A	0.500"-13 UNC-2B	1.750"	1.375"	1.375"
1.87"	02-02-R-187-A0	0.938"-10 UN-2A	0.500"-13 UNC-2B	1.780"	1.375"	1.375"
2.13"	02-02-R-212-A0	0.938"-10 UN-2A	0.500"-13 UNC-2B	2.062"	1.375"	1.375"
2.18"	02-02-R-218-A0	0.938"-10 UN-2A	0.625"-11 UNC-2B	2.180"	1.750"	1.812"
2.31"	02-02-R-231-A0	0.938"-10 UN-2A	0.625"-11 UNC-2B	2.180"	1.750"	1.812"
2.56"	02-02-R-256-A0	0.938"-10 UN-2A	0.625"-11 UNC-2B	2.500"	1.750"	1.812"
2.75"	02-02-R-275-A0	1.063"-10 UN-2A	0.750"-10 UNC-2B	2.715"	2.312"	2.312"
2.81"	02-02-R-281-A0	1.063"-10 UN-2A	0.750"-10 UNC-2B	2.715"	2.312"	2.312"
3.43"	02-02-R-343-A0	1.063"-10 UN-2A	1.375"-12 UN-2B	3.400"	2.312"	2.312"
3.68"	02-02-R-368-A0	1.063"-10 UN-2A	1.375"-12 UN-2B	3.650"	2.312"	3.125"
3.81"	02-02-R-381-A0	1.063"-10 UN-2A	1.375"-12 UN-2B	3.750"	2.312"	3.125"
4.12"	02-02-R-412-A0	1.063"-10 UN-2A	2.125"-12 UN-2B	4.020"	2.312"	3.125"
4.31"	02-02-R-431-A0	1.063"-10 UN-2A	2.125"-12 UN-2B	4.245"	2.312"	3.125"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List					
Nominal Size	1.71"	1.781"	2.125"	2.18"	2.31"
Part Name	Part Number				
Fishneck	02-02-X-150-01	02-02-X-200-01	02-02-X-200-01	02-02-X-250-01	02-02-X-250-01
Inner Sleeve	02-02-X-150-02	02-02-X-200-02	02-02-X-200-02	02-02-X-250-02	02-02-X-250-02
Mandrel	02-02-X-171-03	02-02-R-178-03	02-02-R-178-03	02-02-R-218-03	02-02-R-218-03
Pin	02-02-X-150-04	02-02-X-200-04	02-02-X-200-04	02-02-X-250-04	02-02-X-250-04
Spring Housing	02-02-X-150-05	02-02-X-200-05	02-02-X-200-05	02-02-X-250-05	02-02-X-250-05
Spring	02-02-X-162-06	02-02-X-200-06	02-02-X-200-06	02-02-X-250-06	02-02-X-250-06
Locator Dog Housing	02-02-R-171-07	02-02-X-200-07	02-02-R-212-07	02-02-X-250-07	02-02-X-250-07
Dog Spring	02-02-X-150-08	02-02-X-200-08	02-02-X-200-08	02-02-X-250-08	02-02-X-250-08
Split Ring	02-02-X-150-09	02-02-X-200-09	02-02-X-200-09	02-02-X-250-09	02-02-X-250-09
Locator Dog	02-02-R-171-10	02-02-R-178-10	02-02-R-212-10	02-02-R-218-10	02-02-X-231-10
Lug Segment	02-02-X-150-11	02-02-X-200-11	02-02-X-200-11	02-02-X-250-11	02-02-X-250-11
Retainer Dog	02-02-X-150-12	02-02-X-200-12	02-02-X-200-12	02-02-X-250-12	02-02-X-250-12
Nominal Size	2.56"	2.75"	2.81"	3.68"	4.12"
Part Name	Part Number				
Fishneck	02-02-X-250-01	02-02-X-300-01	02-02-X-300-01	02-02-X-400-01	02-02-X-400-01
Inner Sleeve	02-02-X-250-02	02-02-X-300-02	02-02-X-300-02	02-02-X-400-02	02-02-X-400-02
Mandrel	02-02-X-250-03	02-02-R-275-03	02-02-R-275-03	02-02-R-368-03	02-02-R-412-03
Pin	02-02-X-250-04	02-02-X-300-04	02-02-X-300-04	02-02-X-400-04	02-02-X-400-04
Spring Housing	02-02-X-250-05	02-02-X-300-05	02-02-X-300-05	02-02-R-368-05	02-02-X-400-05
Spring	02-02-X-250-06	02-02-X-300-06	02-02-X-300-06	02-02-X-400-06	02-02-X-400-06
Locator Dog Housing	02-02-R-256-07	02-02-X-300-07	02-02-X-300-07	02-02-R-368-07	02-02-R-412-07
Dog Spring	02-02-X-250-08	02-02-X-300-08	02-02-X-300-08	02-02-X-400-08	02-02-X-400-08
Split Ring	02-02-X-250-09	02-02-X-300-09	02-02-X-300-09	02-02-X-400-09	02-02-X-400-09
Locator Dog	02-02-R-256-10	02-02-X-275-10	02-02-X-281-10	02-02-R-368-10	02-02-R-412-10
Lug Segment	02-02-X-250-11	02-02-X-300-11	02-02-X-300-11	02-02-X-400-11	02-02-R-412-10
Retainer Dog	02-02-X-250-12	02-02-X-300-12	02-02-X-300-12	02-02-X-400-12	02-02-X-400-12

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The RK-1 Running tool is used to run 1.50" O.D. gas lift valves into side pocket mandrels. It can be attached to kickover tools that utilize a 5/8" sucker rod connection in the kick arm. The RK-1 Running tool is pinned to the gas lift valve and utilizes a shear mechanism to release the valve after installing it into the side pocket mandrel.

## Applications

- Typically used to run "RK", "RK-1" or "RKP" type latches in "MMG" series Side Pocket Mandrels.

## Key Features & Benefits

- Simple and robust consisting of only one part with no moving parts.
- Internal shoulder which allows the RK-1 running tool to shoulder out against the side pocket mandrel latch being run.



Technical Data	
<b>Nominal Size</b>	1.50"
<b>Assembly Number</b>	02-04-RK-150-01
<b>Upper Thread Connection</b>	0.938"-10 UN-2A
<b>Fishneck Size</b>	1.187"
<b>Max O.D.</b>	1.440"
<b>Overall Length</b>	7.38"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Safety Firing Head offers a method of mechanical activation for setting bridge plugs, perforators or other devices without the use of E-Line. The tool relies on downward jarring to sever a shear pin allowing a firing pin to activate a charge in the tool connected beneath the Safety Firing Head.

To avoid unplanned activations of charges at surface this tool comes equipped with a safety sleeve which can be threaded against the top sub which effectively disables the shear mechanism. When the tool is ready to be lowered into the well bore the safety sleeve is threaded away from the fishneck which allows the shear pin to be sheared upon downward jarring.

### Applications

- Safely setting tubing bridge plugs or other devices without the use of electric line.
- Serves the same purpose as a Pressure Activated Firing Head, but uses a drop bar instead of relying on well bore pressure.

### Key Features & Benefits

- Includes a threaded sleeve that is used to disable the tool when at surface, which removes the risk of surface activations if the tool is dropped unintentionally.



Technical Data	
Assembly Number	02-01-FH-175-A0
Top Thread Connection	0.938"-10 UN-2A
Fishneck Size	1.375"
Max O.D.	1.75"
Overall Length	38.88"
Lower Connection	1.218"-12 UN-2A

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List		
Nominal Size	1.75"	
Part Name	Part Number	
Fishneck	02-01-FH-175-01	
Safety Sleeve	02-01-FH-175-02	
Upper Rod	02-01-FH-175-03	
Shear Sub	02-01-FH-175-04	
Cylinder	02-01-FH-175-05	
Lower Rod	02-01-FH-175-06	
Firing Pin Housing	02-01-FH-175-07	
Shear Pin Cover	02-01-FH-175-08	
Firing Pin	02-01-FHC-175-09	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Brace Tool Safety Timer is used to electronically activate downhole slickline tools. It utilizes patented technology which ensures that activation of the tools will only be completed at the correct time in the well bore. In addition to its many safety features it is simple to use and offers greater reliability when compared to other activation methods.

### Brace Tool's Patent-Pending Technology

The **Brace Tool Patent-Pending Technology** eliminates the potential failure points associated with traditional mechanically activated downhole slickline tools. The electronically activated timer simplifies the cutting process, ensuring optimal performance and reducing operational risks.

### Applications

- Safely activating downhole slickline tools.
- Connecting to the Sandline Cutter and Bridge Plug.



### Key Features & Benefits

#### Over Temperature Shutdown

The safety timer includes an overtemperature shutdown up to 125°C (316.4°F) to eliminate untimely activations of the tool due to heat related electronic issues. The timer sequence will be canceled in case of any electronic fault which prevents any equipment from activating at surface due to any electronic malfunction in the well bore.

#### Optional Temperature Safety Feature

To ensure that the safety timer does not activate at the surface temperature, the timer includes an optional temperature reading tool that compares the initial surface temperature with the downhole temperature before firing. This feature must be preset by Brace Tool as per customer requirements and expected surface and downhole temperatures.

#### Preset Timer Delay

The timers are supplied with a preset timer delay displayed on the outside of the tool. Common delay times are 30, 45, 60, 90, or 120 minutes which erases the risk of setting the incorrect time in the field.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The X Check Set is used to verify the proper setting of X Locks into profiles of corresponding sizes. It provides a reliable means of confirmation by employing a pin mechanism that shears off if the fishneck of the X Lock is fully collapsed.

By precisely locating the lock with the X Check Set and applying a gentle downward jar, the tool assesses whether the X Lock is correctly set. The pin on the checkset tool is designed to shear if the lock is properly collapsed.

Upon retrieval, an unmarked or unsheared pin would indicate that the X Lock is incorrectly set.



## Applications

- Verifying whether X Locks have been correctly set into profiles of corresponding sizes.
- Identifying instances where locks are incorrectly set.

## Key Features & Benefits

- Features a pin mechanism designed to shear off if the fishneck of the X Lock is completely collapsed.
- Specifically designed for use with the X Lock.
- Available in different material and sizes.

Technical Data					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Assembly Number	02-02-XCS-150-A0	02-02-XCS-200-A0	02-02-XCS-250-A0	02-02-XCS-300-A0	02-02-XCS-400-A0
Top Thread Connection	0.938" – 10 UN	0.938" – 10 UN	0.938" – 10 UN	1.062" – 10 UN	1.062" – 10 UN
Max O.D.	1.42"	1.75"	2.16"	2.687"	3.48"
Fishneck Size	1.18"	1.375"	1.375"	1.75"	2.31"

Parts List					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Part Name	Part Number				
Fishneck	02-02-XCS-150-01	02-02-XCS-150-02	02-02-XCS-250-01	02-02-XCS-250-01	02-02-XCS-250-01
Core	02-02-XCS-150-02	02-02-XCS-200-02	02-02-XCS-250-02	02-02-XCS-300-02	02-02-XCS-400-02
Body	02-02-XCS-150-02	02-02-XCS-200-03	02-02-XCS-250-03	02-02-XCS-300-03	02-02-XCS-400-03

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The X Running Tool is designed for the deployment and setting of subsurface flow control devices with X® and XN® lock mandrels. These devices are intended to land in corresponding selective or no-go landing nipples within the wellbore. The X Running Tool offers the flexibility to operate in either selective or non-selective modes. In selective mode, operators can run devices through landing nipples of the same size and type. The operator can then perform manipulations at the desired location nipple before setting the device. Alternatively, in non-selective mode, the lock mandrel automatically locates the first corresponding nipple.



## Applications

- Deployment and setting flow control devices equipped with X® and XN® lock mandrels.
- Suitable for landing flow control devices in selective or no-go landing nipples.

## Key Features & Benefits

- Includes an integrated fishing neck designed to match industry-standard connections.
- Available in different sizes.

Technical Data

Nominal Size	Assembly Number	Upper Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size
1.500"	02-02-X-150-A0	0.938"-10 UN	0.50"-13 UNC	1.406"	1.187"
1.625"	02-02-X-162-A0	0.938"-10 UN	0.50"-13 UNC	1.593"	1.187"
2.000"	02-02-X-200-A0	0.938"-10 UN	0.50"-13 UNC	1.750"	1.375"
2.500"	02-02-X-250-A0	0.938"-10 UN	0.625"-11 UNC	2.175"	1.750"
2.750"	02-02-X-275-A0	1.062"-10 UN	0.75"-10 UNC	2.715"	2.313"
2.813"	02-02-X-281-A0	1.062"-10 UN	0.75"-10 UNC	2.715"	2.313"
3.813"	02-02-X-400-A0	1.062"-10 UN	2.125"-12 UNC	3.750"	2.313"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.50"	1.625"	2.00"	2.50"
Part Name	Part Number			
Fishneck	02-02-X-150-01	02-02-X-150-01	02-02-X-200-01	02-02-X-250-01
Inner Sleeve	02-02-X-150-02	02-02-X-150-02	02-02-X-200-02	02-02-X-250-02
Mandrel	02-02-X-150-03	02-02-X-150-03	02-02-X-200-03	02-02-X-250-03
Pin	02-02-X-150-04	02-02-X-150-04	02-02-X-200-04	02-02-X-250-04
Spring Housing	02-02-X-150-05	02-02-X-150-05	02-02-X-200-05	02-02-X-250-05
Spring	02-02-X-150-06	02-02-X-150-06	02-02-X-200-06	02-02-X-250-06
Locator Dog Housing	02-02-X-150-07	02-02-X-162-07	02-02-X-200-07	02-02-X-250-07
Dog Spring	02-02-X-150-08	02-02-X-150-08	02-02-X-200-08	02-02-X-250-08
Split Ring	02-02-X-150-09	02-02-X-150-09	02-02-X-200-09	02-02-X-250-09
Locator Dog	02-02-X-150-10	02-02-X-162-10	02-02-X-200-10	02-02-X-250-10
Lug Segment	02-02-X-150-11	02-02-X-150-11	02-02-X-200-11	02-02-X-250-11
Retainer Dog	02-02-X-150-12	02-02-X-150-12	02-02-X-200-12	02-02-X-250-12
Nominal Size	2.75"	2.813"	3.813"	
Part Name	Part Number			
Fishneck	02-02-X-300-01	02-02-X-300-01	02-02-X-400-01	
Inner Sleeve	02-02-X-300-02	02-02-X-300-02	02-02-X-400-02	
Mandrel	02-02-X-300-03	02-02-X-300-03	02-02-X-400-03	
Pin	02-02-X-300-04	02-02-X-300-04	02-02-X-400-04	
Spring Housing	02-02-X-300-05	02-02-X-300-05	02-02-X-400-05	
Spring	02-02-X-300-06	02-02-X-300-06	02-02-X-400-06	
Locator Dog Housing	02-02-X-300-07	02-02-X-300-07	02-02-X-400-07	
Dog Spring	02-02-X-300-08	02-02-X-300-08	02-02-X-400-08	
Split Ring	02-02-X-300-09	02-02-X-300-09	02-02-X-400-09	
Locator Dog	02-02-X-275-10	02-02-X-281-10	02-02-X-400-10	
Lug Segment	02-02-X-300-11	02-02-X-300-11	02-02-X-400-11	
Retainer Dog	02-02-X-300-12	02-02-X-300-12	02-02-X-400-12	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 03. Pulling Tools

## Overview

A Collet Pulling tool is a wireline service tool used for retrieving subsurface devices with external fishnecks. These tools can be jar down or jar up to shear which can be altered back and forth based on how these are assembled.

## Applications

- Retrieving subsurface devices with external fishnecks.

## Key Features & Benefits

- The 360-degree grip ensures efficient and secure retrieval of subsurface devices, even if they are damaged.
- The ability to switch between jar up and jar down configurations allows for versatile use in different operational conditions.
- Available in various sizes to accommodate different fishneck dimensions.



Technical Data				
<b>Nominal Size</b>	1.18"	1.37"	1.75"	2.31"
<b>Assembly Number</b>	05-01-CRD-118-A0	05-01-CRD-137-A0	05-01-CRD-175-A0	05-01-CRD-231-A0
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062" – 10 UN	1.062"-10 UN
<b>Lower Thread Connection</b>	0.50" – 13 UNC	0.50" – 13 UNC	0.50" – 13 UNC	0.625" – 11 UNC
<b>Max O.D.</b>	1.86"	1.91"	2.347"	3.25"
<b>Fishneck Size</b>	1.18"	1.37"	1.75"	2.31"

Please see next page for parts list.

Parts List				
Nominal Size	1.18"	1.37"	1.75"	2.31"
Assembly Number	05-01-CRD-118-A0	05-01-CRD-137-A0	05-01-CRD-175-A0	05-01-CRD-231-A0
Part Name	Part Number			
Fishneck	05-01-CRD-118-01	05-01-CRD-137-01	05-01-CRD-175-01	05-01-CRD-231-01
Body	05-01-CRD-118-02	05-01-CRD-137-02	05-01-CRD-175-02	05-01-CRD-231-02
Core Cap	05-01-CRD-118-03	05-01-CRD-137-03	05-01-CRD-175-03	05-01-CRD-231-03
Core	05-01-CRD-118-04	05-01-CRD-137-04	05-01-CRD-175-04	05-01-CRD-231-04
Core Spring	03-04-J-250-04	03-04-J-200-04	03-04-J-300-04	03-02-GS-300-05
Shear Pin Cover	05-01-CRD-118-06	05-01-CRD-137-06	05-01-CRD-175-06	05-01-CRD-231-06
Skirt	05-01-CRD-118-07	05-01-CRD-137-07	05-01-CRD-175-07	05-01-CRD-231-07
Dog Spring	03-04-J-125-06	03-04-J-150-06	03-02-R-250-07	03-02-R-250-06
Collet	05-01-CRD-118-10	05-01-CRD-137-10	05-01-CRD-175-10	05-01-CRD-231-10
Set Screw	.312" UNC x .312"	.375"UNC x .312"	.375"-18 UNC x.312"	.375"-18 UNC x.375"
Set Screw	.312" UNC x .500"	.375"UNC x .500"	.375"-18 UNC x .500"	.375"-18 UNC x .500"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Brace Tool GU Adapter is a specialized component used in wireline services, particularly designed for operations requiring downward jarring. It is typically used in conjunction with a GS Pulling Tool, where the GU Adapter sub is attached to the top of the GS Pulling Tool. This setup allows for efficient retrieval of down-hole components by facilitating downward jarring. The GU Adapter features a shear pin mechanism, which must be removed from the shear down GS Pulling Tool and installed in the GU Adapter sub, enabling shearing through upward jarring.



## Applications

- Deploying tools and equipment downhole, ensuring they are securely set in place.
- Facilitating the retrieval of downhole components by converting the shear direction from shear down to shear up, allowing for efficient recovery.

## Key Features & Benefits

- Available in various sizes to accommodate different fishneck dimensions.

Technical Data					
Nominal Size	1.50"	2.00"	2.50"	3.00-4.00"	5.00"
Assembly Number	03-02-GR-150-A0	03-02-GR-200-A0	03-02-GR-250-A0	03-02-GR-300-A0	03-02-GR-500-A0
Top Thread Connection	0.938"-10 UNC	0.938"-10 UNC	0.938"-10 UNC	1.062 – 10 UNC	1.063 – 10 UNC 2A
Lower Thread Connection	0.50" – 13 UNC	0.50" – 13 UNC	0.50" – 13 UNC	0.625" – 11 UNC	1.063 – 10 UNC 2A
Max O.D.	1.468"	1.812"	2.125"	2.71"	3.60"
Fishneck Size	1.18"	1.375"	1.75"	2.31"	3.125"

\* The GU Adapter is also available in another alternate design that is commonly used in North America.  
Inquire about options and availability. \*

Please see next page for parts list.

Parts List					
Nominal Size	1.50"	2.00"	2.50"	3.00-4.00"	5.00"
Assembly Number	03-02-GR-150-A0	03-02-GR-200-A0	03-02-GR-250-A0	03-02-GR-300-A0	03-02-GR-500-A0
Part Name	Part Number				
Fishneck	03-02-GR-150-01	03-02-GR-200-01	03-02-GR-250-01	03-02-GR-300-01	03-02-GR-500-01
Shear Sub	03-02-GR-150-02	03-02-GR-200-02	03-02-GR-250-03	03-02-GR-300-02	03-02-GR-500-02
Core	03-02-GR-150-03	03-02-GR-200-03	03-02-GR-250-03	03-02-GR-300-04	03-02-GR-500-04
Split Collar	03-02-GR-150-04		03-02-GR-250-04	03-02-GR-300-04	03-02-GR-500-04

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A GS Pulling Tool is designed to engage and retrieve subsurface devices with internal fishing necks. It features a shear pin mechanism that allows the tool to be jarred down to release from the device, ensuring efficient and secure retrieval. The GS Pulling Tool is available in various sizes to accommodate different operational needs and is built with a robust design to withstand the demanding conditions of downhole environments. Its versatility is enhanced by the ability to configure it with additional adapters, such as the GU Adapter, to switch between jar up and jar down operations.



## Applications

- Latching onto and retrieving subsurface devices with internal fishing necks, such as locks and disconnects.
- Deploying and setting various downhole tools and equipment.

## Key Features & Benefits

- Utilizes a shear pin that can be jarred down to release the tool from the device, ensuring secure retrieval.
- Available in a wide range of sizes to accommodate different operational needs.

Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Size	Reach
1.25"	03-02-GS-125-A0	0.625"-11 UNC	0.375"-16 UNC	1.16"	1.00"	
1.50"	03-02-GS-150-A0	0.938"-10 UN	0.50"-13 UNC	1.48"	1.187"	1.62"
2.00"	03-02-GS-200-A0	0.938"-10 UN	0.50"-13 UNC	1.75"	1.375"	1.62"
2.50"	03-02-GS-250-A0	0.938"-10 UN	0.50"-11 UNC	2.16"	1.75"	1.62"
3.00"	03-02-GS-300-A0	1.062"-10 UN	0.625"-11NC	2.72"	2.31"	1.62"
4.00"	03-02-GS-400-A0	1.062"-10 UN	2.125"-12UNC	3.62"	2.31"	1.56"
5.00"	03-02-GS-500-A0	1.062"-10 UN	2.50"-10 UN	4.50"	3.125"	
6.00"	03-02-GS-600-A0	1.062"-10 UN	2.75"-10 UN	5.36"	3.125"	

See next page for parts list.

Parts List				
Nominal Size	1.25"	1.50"	2.00"	2.50"
Assembly Number	03-02-GS-125-A0	03-02-GS-150-A0	03-02-GS-200-A0	03-02-GS-250-A0
Part Name	Part Number			
Fishneck	03-02-GS-125-01	03-02-GS-150-01	03-02-GS-200-01	03-02-GS-250-01
Core	03-02-GS-125-02	03-02-GS-150-02	03-02-GS-200-02	03-02-GS-250-02
Shear Sub	03-02-GS-125-03	03-02-GS-150-03	03-02-GS-200-03	03-02-GS-250-03
Cylinder	03-02-GS-125-04	03-02-GS-150-04	03-02-GS-200-04	03-02-GS-250-04
Core Spring	03-02-GS-125-05	03-02-GS-150-05	03-02-GS-200-05	03-02-GS-250-05
Spring Retainer	03-02-GS-125-06	03-02-GS-150-06	03-02-GS-200-06	03-02-GS-250-06
Dog Spring	03-02-GS-125-07	03-02-GS-150-07	03-02-GS-200-07	03-02-GS-250-07
Dog Retainer	03-02-GS-125-08	03-02-GS-150-08	03-02-GS-200-08	03-02-GS-250-08
Dogs	03-02-GS-125-09	03-02-GS-150-09	03-02-GS-200-09	03-02-GS-250-09

Parts List				
Nominal Size	3.00"	4.00"	5.00"	6.00"
Assembly Number	03-02-GS-300-A0	03-02-GS-400-A0	03-02-GS-500-A0	03-02-GS-600-A0
Part Name	Part Number			
Fishneck	03-02-GS-300-01	03-02-GS-400-01	03-02-GS-500-01	03-02-GS-600-01
Core	03-02-GS-300-02	03-02-GS-400-02	03-02-GS-500-02	03-02-GS-600-02
Shear Sub	03-02-GS-300-03	03-02-GS-400-03	03-02-GS-500-03	03-02-GS-600-03
Cylinder	03-02-GS-300-04	03-02-GS-400-04	03-02-GS-500-04	03-02-GS-600-04
Core Spring	03-02-GS-300-05	03-02-GS-400-05	03-02-GS-400-05	03-02-GS-600-05
Spring Retainer	03-02-GS-300-06	03-02-GS-400-06	03-02-GS-500-06	03-02-GS-600-06
Dog Spring	03-02-GS-300-07	03-02-GS-400-07	03-02-GS-500-07	03-02-GS-600-07
Dog Retainer	03-02-GS-300-08	03-02-GS-400-08	03-02-GS-500-08	03-02-GS-600-08
Dogs	03-02-GS-300-09	03-02-GS-400-09	03-02-GS-500-09	03-02-GS-600-09

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JDC Pulling tool is used to run or retrieve equipment or subsurface tools with the help of external JDC fish style neck. Due to its simple and robust design, the tool can run to the depth conveniently and nozzles are fitted to avoid any restriction problems.

## Applications

- Running or retrieving subsurface tools with an external JDC fish style neck.
- Effective for setting tubing stops or other tools where jarring down is required to set.

## Key Features & Benefits

- The core of the tool can be easily changed in the field to allow for a deeper or shallower reach depending on the application.
- Nozzles are fitted to avoid flow restriction problems.



Technical Data							
Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
1.25"	03-04-JDC-125-A0	0.938"-10 UN	0.25"-20 UNC	1.29"	0.875"	1.187"	1.906"
1.375"	03-04-JDC-137-A0	0.938"-10 UN	0.25"-20 UNC	1.375"	1.00"	1.187"	1.812"
1.50"	03-04-JDC-150-A0	0.938"-10 UN	0.50"-13 UNC	1.625"/ 1.428"	1.187"	1.187"	1.030"
2.00"	03-04-JDC-200-A0	0.938"-10 UN	0.50"-13 UNC	1.86"	1.375"	1.375"	1.437"
2.50"	03-04-JDC-250-A0	0.938"-10 UN	0.50"-13 UNC	2.24"	1.75"	1.375"	1.265"
3.00"	03-04-JDC-300-A0	1.062" -10 UN	0.625"-11 UN	2.79"	2.313"	1.75"	1.643"
4.00"	03-04-JDC-400-A0	1.062" -10 UN	1.15"-12 UN	3.75"	3.12"	2.31"	2.313"

Please see next page for parts list.

Parts List				
Nominal Size	1.25"	1.375"	1.50"	2.00"
Assembly Number	03-04-JDC-125-A0	03-04-JDC-137-A0	03-04-JDC-150-A0	03-04-JDC-200-A0
Part Name	Part Number			
Fishneck	03-04-JD-125-01	03-04-JD-125-01	03-04-JD-150-01	03-04-JD-200-01
Core Cap	03-04-JD-125-02	03-04-JD-125-02	03-04-JD-150-02	03-04-JD-200-02
C Core	03-04-JD-125-03	03-04-JD-125-03	03-04-J-150-03	03-04-J-200-03
Core Spring	03-04-J-125-04	03-04-J-125-04	03-04-J-150-04	03-04-J-200-04
Skirt	03-04-J-125-05	03-04-J-137-05	03-04-J-150-05	03-04-J-200-05
Dog Spring	03-04-J-125-06	03-04-J-137-06	03-04-J-150-06	03-04-J-200-06
Dog	03-04-J-125-07	03-04-J-137-07	03-04-J-150-07	03-04-J-200-07
Pawl	03-04-J-125-08	03-04-J-137-08	03-04-J-137-08	03-04-J-200-08
S Core	03-04-JD-125-09	03-04-JD-125-09	03-04-J-150-09	03-04-J-200-09
Shear Pin Sub	03-04-J-125-10	03-04-J-125-10		
Shear Pin Cover	03-04-J-125-11	03-04-J-125-11		
Nominal Size	2.50"	3.00"	4.00"	
Assembly Number	03-04-JDC-250-A0	03-04-JDC-300-A0	03-04-JDC-400-A0	
Part Name	Part Number			
Fishneck	03-04-JD-250-01	03-04-JD-300-01	03-04-JD-400-01	
Core Cap	03-04-JD-250-02	03-04-JD-300-02	03-04-JD-400-02	
C Core	03-04-J-250-03	03-04-J-300-03	03-04-J-400-03	
Core Spring	03-04-J-250-04	03-04-J-300-04	03-04-J-400-04	
Skirt	03-04-J-250-05	03-04-J-300-05	03-04-J-400-05	
Dog Spring	03-04-J-250-06	03-04-J-300-06	03-04-J-400-06	
Dog	03-04-J-250-07	03-04-J-300-07	03-04-J-400-07	
Pawl	03-04-J-200-08	03-04-J-200-08	03-04-J-200-08	
S Core	03-04-J-250-09	03-04-J-300-09	03-04-J-400-09	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JDS Pulling Tool is designed for running and retrieving equipment or subsurface tools with an external JDS fish-style neck. The tool features a field-adjustable core, enabling users to modify its reach based on specific needs. It operates by jarring down to shear off a subsurface tool or fish, which is particularly useful when a jar-up tool is not desired. This adaptability makes the JDS Pulling Tool ideal for setting tubing stops and retrieving subsurface tools, ensuring efficient and safe wellbore operations.

## Applications

- Setting tubing stops or other tools where jarring down is required.
- Used when there is a need to jar down to shear off a subsurface tool or fish, especially when a jar-up tool is not desired.

## Key Features & Benefits

- The core can be easily changed in the field to allow for a deeper or shallower reach, depending on the application.
- The tool can be adapted for various applications by changing the fish neck and removing the core cap.



Technical Data							
Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
1.25"	03-04-JDS-125-A0	0.938"-10 UN	0.25"-20 UNC	1.29"	0.875"	1.187"	2.656"
1.375"	03-04-JDS-137-A0	0.938"-10 UN	0.25"-20 UNC	1.375"	1.00"	1.187"	2.562"
1.50"	03-04-JDS-150-A0	0.938"-10 UN	0.50"-13 UNC	1.625"/ 1.428"	1.187"	1.187"	1.78"
2.00"	03-04-JDS-200-A0	0.938"-10 UN	0.50"-13 UNC	1.86"	1.375"	1.375"	2.28"
2.50"	03-04-JDS-250-A0	0.938"-10 UN	0.50"-13 UNC	2.24"	1.75"	1.375"	2.391"
3.00"	03-04-JDS-300-A0	1.062" -10 UN	0.625"-11 UN	2.79"	2.313"	1.75"	2.297"
4.00"	03-04-JDS-400-A0	1.062" -10 UN	1.15"-12 UN	3.75"	3.12"	2.31"	3.375"

See next page for parts list.

Parts List				
Nominal Size	1.25"	1.375"	1.50"	2.00"
Assembly Number	03-04-JDS-125-A0	03-04-JDS-137-A0	03-04-JDS-150-A0	03-04-JDS-200-A0
Part Name	Part Number			
Fishneck	03-04-JD-125-01	03-04-JD-125-01	03-04-JD-150-01	03-04-JD-200-01
Core Cap	03-04-JD-125-02	03-04-JD-125-02	03-04-JD-150-02	03-04-JD-200-02
Core Spring	03-04-J-125-04	03-04-J-125-04	03-04-J-150-04	03-04-J-200-04
Skirt	03-04-J-125-05	03-04-J-137-05	03-04-J-150-05	03-04-J-200-05
Dog Spring	03-04-J-125-06	03-04-J-137-06	03-04-J-150-06	03-04-J-200-06
Dog	03-04-J-125-07	03-04-J-137-07	03-04-J-150-07	03-04-J-200-07
Pawl	03-04-J-125-08	03-04-J-137-08	03-04-J-137-08	03-04-J-200-08
S Core	03-04-JD-125-09	03-04-JD-125-09	03-04-J-150-09	03-04-J-200-09
Shear Pin Sub	03-04-J-125-10	03-04-J-125-10		
Shear Pin Cover	03-04-J-125-11	03-04-J-125-11		
Nominal Size	2.50"	3.00"	4.00"	
Assembly Number	03-04-JDS-250-A0	03-04-JDS-300-A0	03-04-JDS-400-A0	
Part Name	Part Number			
Fishneck	03-04-JD-250-01	03-04-JD-300-01	03-04-JD-400-01	
Core Cap	03-04-JD-250-02	03-04-JD-300-02	03-04-JD-400-02	
Core Spring	03-04-J-250-04	03-04-J-300-04	03-04-J-400-04	
Skirt	03-04-J-250-05	03-04-J-300-05	03-04-J-400-05	
Dog Spring	03-04-J-250-06	03-04-J-300-06	03-04-J-400-06	
Dog	03-04-J-250-07	03-04-J-300-07	03-04-J-400-07	
Pawl	03-04-J-200-08	03-04-J-200-08	03-04-J-200-08	
S Core	03-04-J-250-09	03-04-J-300-09	03-04-J-400-09	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JUC Pulling tool is designed with a long core and a short reach. The "JU" series is divided into three parts named as JUC-U, JUC-2, and JUC-TD. The JUC-2 increases the limit of OD to maximum whereas JUC-U and JUC-TD reduce the value of OD.



## Applications

- Engaging and retrieving subsurface devices with external fishing necks within the wellbore.
- Used when there is a need to jar up to shear off a subsurface tool or fish, especially when a jar down tool is not desired.

## Key Features & Benefits

- Can be easily modified in the field to adjust for deeper or shallower reaches depending on the specific application.
- Can be converted into a JDC Pulling Tool by changing the fishneck and adding a core cap, allowing for a wide range of applications.

### Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
1.25"	03-04-JUC-125-A0	0.938"-10 UN	0.25"-20 UNC	1.29"	0.875"	1.187"	2.688"
1.375"	03-04-JUC-137-A0	0.938"-10 UN	0.25"-20 UNC	1.375"	1.00"	1.187"	2.625"
1.50"	03-04-JUC-150-A0	0.938"-10 UN	0.50"-13 UNC	1.625"/ 1.428"	1.187"	1.187"	1.843"
2.00"	03-04-JUC-200-A0	0.938"-10 UN	0.50"-13 UNC	1.86"	1.375"	1.375"	2.125"
2.50"	03-04-JUC-250-A0	0.938"-10 UN	0.50"-13 UNC	2.24"	1.75"	1.375"	2.187"
3.00"	03-04-JUC-300-A0	1.062" -10 UN	0.625"-11 UNC	2.79"	2.313"	1.75"	2.125"
4.00"	03-04-JUC-400-A0	1.062" -10 UN	1.25"-12 UNC	3.75"	3.125"	2.31"	2.312"

See next page for parts list.

Parts List				
Nominal Size	1.25"	1.375"	1.50"	2.00"
Assembly Number	03-04-JUC-125-A0	03-04-JUC-137-A0	03-04-JUC-150-A0	03-04-JUC-200-A0
Part Name	Part Number			
Fishneck	03-04-JU-125-01	03-04-JU-125-01	03-04-JU-150-01	03-04-JU-200-01
C Core			03-04-J-150-03	03-04-J-200-03
Core Spring	03-04-J-125-04	03-04-J-125-04	03-04-J-150-04	03-04-J-200-04
Skirt	03-04-J-125-05	03-04-J-137-05	03-04-J-150-05	03-04-J-200-05
Dog Spring	03-04-J-125-06	03-04-J-137-06	03-04-J-150-06	03-04-J-200-06
Dog	03-04-J-125-07	03-04-J-137-07	03-04-J-150-07	03-04-J-200-07
Pawl	03-04-J-125-08	03-04-J-137-08	03-04-J-137-08	03-04-J-200-08
Shear Pin Sub	03-04-J-125-10	03-04-J-125-10		
Shear Pin Cover	03-04-J-125-11	03-04-J-125-11		
Nominal Size	2.50"	3.00"	4.00"	
Assembly Number	03-04-JUC-250-A0	03-04-JUC-300-A0	03-04-JUC-400-A0	
Part Name	Part Number			
Fishneck	03-04-JU-250-01	03-04-JU-300-01	03-04-JU-400-01	
C Core	03-04-J-250-03	03-04-J-300-03	03-04-J-400-03	
Core Spring	03-04-J-250-04	03-04-J-300-04	03-04-J-400-04	
Skirt	03-04-J-250-05	03-04-J-300-05	03-04-J-400-05	
Dog Spring	03-04-J-250-06	03-04-J-300-06	03-04-J-400-06	
Dog	03-04-J-250-07	03-04-J-300-07	03-04-J-400-07	
Pawl	03-04-J-200-08	03-04-J-200-08	03-04-J-200-08	
Shear Pin Sub				
Shear Pin Cover			03-04-J-400-11	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The JUS Pulling tool is used to employ external fishnecks on subsurface devices inside the wellbore. These pulling tools have cores of medium lengths. Most of these cores are threaded in order to receive probes, prongs or shanks.



## Applications

- Engaging and retrieving subsurface devices with external fishing necks within the wellbore.
- Used for upward jarring to shear the pin and release the tool, making it suitable for operations where upward jarring is required.

## Key Features & Benefits

- Can be easily modified in the field to adjust for deeper or shallower reaches depending on the specific application.
- Has an intermediate core length, providing a medium reach, which is useful for retrieving devices with variable length fish necks.

Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
1.25"	03-04-JUS-125-A0	0.938"-10 UN	0.25"-20 UNC	1.29"	0.875"	1.187"	1.00"
1.375"	03-04-JUS-137-A0	0.938"-10 UN	0.25"-20 UNC	1.375"	1.00"	1.187"	1.00"
1.50"	03-04-JUS-150-A0	0.938"-10 UN	0.50"-13 UNC	1.625"/ 1.428"	1.187"	1.187"	1.093"
2.00"	03-04-JUS-200-A0	0.938"-10 UN	0.50"-13 UNC	1.86"	1.375"	1.375"	1.437"
2.50"	03-02-JUS-250-A0	0.938"-10 UN	0.50"-13 UNC	2.24"	1.75"	1.375"	1.312"
3.00"	03-02-JUS-300-A0	1.062" -10 UN	0.625"-11 UNC	2.79"	2.313"	1.75"	1.437"
4.00"	03-02-JUS-400-A0	1.062" -10 UN	0.625"-12 UN	3.75"	3.125"	2.31"	3.375"

See next page for parts list.

Parts List				
Nominal Size	1.25"	1.375"	1.50"	2.00"
Assembly Number	03-04-JUS-125-A0	03-04-JUS-137-A0	03-04-JUS-150-A0	03-04-JUS-200-A0
Part Name	Part Number			
Fishneck	03-04-JU-125-01	03-04-JU-125-01	03-04-JU-150-01	03-04-JU-200-01
Core Spring	03-04-J-125-04	03-04-J-125-04	03-04-J-150-04	03-04-JD-200-04
Skirt	03-04-J-125-05	03-04-J-137-05	03-04-J-150-05	03-04-J-200-05
Dog Spring	03-04-J-125-06	03-04-J-137-06	03-04-J-150-06	03-04-J-200-06
Dog	03-04-J-125-07	03-04-J-137-07	03-04-J-150-07	03-04-J-200-07
Pawl	03-04-J-125-08	03-04-J-137-08	03-04-J-137-08	03-04-J-200-08
S Core	03-04-JD-125-09	03-04-J-125-09	03-04-J-150-09	03-04-J-200-09
Shear Pin Sub	03-04-J-125-10	03-04-J-125-10		
Shear Pin Retainer	03-04-J-125-11	03-04-J-125-11		

Nominal Size	2.50"	3.00"	4.00"
Assembly Number	03-02-JUS-250-A0	03-02-JUS-300-A0	03-02-JUS-400-A0
Part Name	Part Number		
Fishneck	03-04-JU-250-01	03-04-JU-300-01	03-04-JU-400-01
Core Spring	03-04-J-250-04	03-04-J-300-03	03-04-J-400-03
Skirt	03-04-J-250-05	03-04-J-300-04	03-04-J-400-04
Dog Spring	03-04-J-250-06	03-04-J-300-05	03-04-J-400-05
Dog	03-04-J-250-07	03-04-J-300-06	03-04-J-400-06
Pawl	03-04-J-250-08	03-04-J-300-07	03-04-J-400-07
S Core	03-04-J-200-08	03-04-J-200-08	03-04-J-200-08
Shear Pin Sub	03-04-J-250-09		
Shear Pin Cover			03-04-J-400-11

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The ML-1 Pulling tool is designed to latch onto and retrieve an external fishneck for various functions in a well bore. It can be used to install or retrieve dummy valves, corrosion monitoring coupon carriers, and other devices in side pocket mandrels. Simple and robust in design, the ML-1 Pulling Tool offers reliable performance and is similar in function to a JDC pulling tool. S.R. thread connections allow this tool to be used in various down hole applications.



## Applications

- Commonly used in conjunction with a kickover tool to run and retrieve gas lift valves.
- Installing or retrieving dummy valves in the wellbore.
- Retrieving corrosion monitoring coupon carriers to assess the integrity of the well.
- Installing or retrieving various devices in side pocket mandrels.

## Key Features & Benefits

- Designed to release a latched fish neck using a jar down to shear action.
- S.R. thread connections allow the tool to be used in a wide range of downhole operations.

Technical Data		
<b>Nominal Size</b>	1.250" ML-1	1.625" ML-1
<b>Assembly Number</b>	03-01-ML-125-A0	03-01-ML-162-A0
<b>Thread Connection</b>	0.938-10 UN-2A	0.938-10 UN-2A
<b>Fishneck Size</b>	1.187"	1.187"
<b>Maximum O.D.</b>	1.375"	1.625"
<b>Overall Length</b>	14.35"	14.42"
<b>Fishneck Size Latched</b>	0.875"	1.187"
<b>Fishneck Length Latched</b>	1.8"	1.9"

See next page for parts list.

Parts List		
Nominal Size	1.25"	1.375"
Assembly Number	03-01-ML-125-A0	
Part Name	Part Number	
Top Sub	03-01-ML-125-01	03-01-ML-125-01
Core Cap	03-01-ML-125-02	03-01-ML-125-02
Core Spring	03-04-J-125-04	03-04-J-125-04
Core	03-01-ML-125-04	03-01-ML-162-04
Coupling	03-01-ML-125-05	03-01-ML-162-05
Axial Dog Spring	03-01-ML-125-06	03-01-ML-125-06
Radial Dog Spring	03-01-ML-125-07	03-01-ML-125-07
Dog	03-01-ML-125-08	03-01-ML-162-08
Washer	03-01-ML-125-09	03-01-ML-162-09
Housing	03-01-ML-125-10	03-01-ML-162-10
Shear Pin	3/16" X 1-1/8"	3/16" X 1-1/8"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The RB Pulling Tool is used to retrieve subsurface equipment that has fishing necks. This tool is particularly useful when there is a need to jar up or shear off a subsurface tool or fish, especially in situations where a jar down tool is not desired. The RB Pulling Tool features a long core, which can be adjusted to allow for deeper or shallower reach depending on the application.

## Applications

- Recovering tools or equipment that have become stuck or lost downhole, ensuring smooth and efficient retrieval.
- Designed to jar up, making it suitable for situations where a downward jarring action is not desired.

## Key Features & Benefits

- Its core can be adjusted in the field to allow for deeper or shallower reach, making it versatile for various downhole applications.



Technical Data							
Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
0.75"	03-01-RB-075-A0	0.625"-11 UN		0.968	0.75"	0.75"	0.892"
1.25"	03-02-RB-125-A0	0.625"-11 UN	0.25"-20 NC	1.22"	1.00"	1.00"	1.218"
1.50"	03-02-RB-150-A0	0.938"-10 UN	0.50"-13 UNC	1.42"	1.187"	1.187"	1.265"
2.00"	03-02-RB-200-A0	0.938"-10 UN	0.50"-13 UNC	1.77"	1.375"	1.375"	1.219"
2.50"	03-02-RB-250-A0	0.938"-10 UN	0.50"-13 UNC	2.18"	1.75"	1.375"	1.203"
3.00"	03-02-RB-300-A0	1.062"-10 UN	0.625"-10 UNC	2.74"	2.31"	2.31"	1.30"
4.00"	03-02-RB-400-A0	1.062"-10 UN	1.25"-12 UN	3.66"	3.12"	2.31"	1.49"

See next page for parts list.

Parts List				
Nominal Size	0.75"	1.25"	1.50"	2.00"
Assembly Number	03-01-RB-075-A0	03-02-RB-125-A0	03-02-RB-150-A0	03-02-RB-200-A0
Part Name	Part Number			
Fishneck	03-01-BR-075-01	03-02-R-125-01	03-02-R-150-01	03-02-R-200-01
Spring Sleeve				03-02-R-200-02
B Core	03-01-BB-075-05	03-02-R-125-03	03-02-R-150-03	03-02-R-200-03
Core Spring	03-01-B0-750-4	03-02-R-125-04	03-02-R-150-04	03-02-R-200-04
Shear Pin Cover	03-01-BR-075-03	03-02-R-125-05	03-02-R-150-05	03-02-R-200-05
Skirt	03-01-B-075-06	03-02-R-125-06	03-02-R-150-06	03-02-R-200-06
Dog Spring	03-02-R-075-07	03-02-R-125-07	03-02-R-150-07	03-02-R-200-07
Dog Washer	03-02-R-075-08	03-02-R-125-08	03-02-R-150-08	03-02-R-200-08
Dog	03-02-R-075-09	03-02-R-125-09	03-02-R-150-09	03-02-R-200-09
Nominal Size	2.50"	3.00"	4.00"	
Assembly Number	03-02-RB-250-A0	03-02-RB-300-A0	03-02-RB-400-A0	
Part Name	Part Number			
Fishneck	03-02-R-250-01	03-02-R-300-01	03-02-R-400-01	
Spring Sleeve	03-02-R-250-02			
B Core	03-02-R-250-03	03-02-R-300-03	03-02-R-400-03	
Core Spring	03-02-R-250-04	03-02-R-300-04	03-02-R-400-04	
Shear Pin Cover	03-02-R-250-05	03-02-R-300-05	03-02-R-400-05	
Skirt	03-02-R-250-06	03-02-R-300-06	03-02-R-400-06	
Dog Spring	03-02-R-250-07	03-02-R-300-07	03-02-R-400-07	
Dog Washer	03-02-R-250-08	03-02-R-300-08	03-02-R-400-08	
Dog	03-02-R-250-09	03-02-R-300-09	03-02-R-400-09	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The RJ Pulling tool is used to employ external fishnecks on subsurface devices inside the wellbore. This pulling tool has a short core with long reach. When the tool is engaged on external fishnecks, upward jarring action shears the pin releasing the spring loaded dogs which allows the tool to be retrieved.



## Applications

- Recovering tools or equipment that have become stuck or lost downhole, ensuring smooth and efficient retrieval.
- Designed to jar up, making it suitable for situations where a downward jarring action is not desired.

## Key Features & Benefits

- Its core can be adjusted in the field to allow for deeper or shallower reach, making it versatile for various downhole applications.

Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
1.25"	03-02-RJ-125-A0	0.625"-11 UN	1/4" UNC	1.22"	1.00"	1.00"	1.843"
1.50"	03-02-RJ-150-A0	0.938"(15/16)-10 NC	3/8" UNC	1.42"	1.187"	1.18"	2.55"
2.00"	03-02-RJ-200-A0	0.938"(15/16)-10 NC	1/2" UNC	1.77"	1.375"	1.37"	2.55"
2.50"	03-02-RJ-250-A0	0.938"-10 UN	0.50"-13 NC	2.18"	1.95"	1.375"	2.55"
3.00"	03-02-RJ-300-A0	1.062"-10 UN	0.625"-11 NC	2.74"	2.31"	2.31"	2.61"
4.00"	03-02-RJ-400-A0	1.062"-10 UN	1.25"-12 UN	3.66"	3.12"	2.31"	2.00"

See next page for parts list.

Parts List			
Nominal Size	1.25"	1.50"	2.00"
Assembly Number	03-02-RJ-125-A0	03-02-RJ-150-A0	03-02-RJ-200-A0
Part Name	Part Number		
Fishneck	03-02-R-125-01	03-02-R-150-01	03-02-R-200-01
Spring Sleeve			03-02-R-200-02
Core Spring	03-02-R-125-04	03-02-R-150-04	03-02-R-200-04
Shear Pin Cover	03-02-R-125-05	03-02-R-150-05	03-02-R-200-05
Skirt	03-02-R-125-06	03-02-R-150-06	03-02-R-200-06
Dog Spring	03-02-R-125-07	03-02-R-150-07	03-02-R-200-07
Dog Washer	03-02-R-125-08	03-02-R-150-08	03-02-R-200-08
Dog	03-02-R-125-09	03-02-R-150-09	03-02-R-200-09
J Core	03-02-R-125-11	03-02-R-150-11	03-02-R-200-11
Nominal Size	2.50"	3.00"	4.00"
Assembly Number	03-02-RJ-250-A0	03-02-RJ-300-A0	03-02-RJ-400-A0
Part Name	Part Number		
Fishneck	03-02-R-250-01	03-02-R-300-01	03-02-R-400-01
Spring Sleeve	03-02-R-250-02		
Core Spring	03-02-R-250-04	03-02-R-300-04	03-02-R-400-04
Shear Pin Cover	03-02-R-250-05	03-02-R-300-05	03-02-R-400-05
Skirt	03-02-R-250-06	03-02-R-300-06	03-02-R-400-06
Dog Spring	03-02-R-250-07	03-02-R-300-07	03-02-R-400-07
Dog Washer	03-02-R-250-08	03-02-R-300-08	03-02-R-400-08
Dog	03-02-R-250-09	03-02-R-300-09	03-02-R-400-09
J Core	03-02-R-250-11	03-02-R-300-11	03-02-R-400-11

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The RS Pulling tool is used to employ external fishnecks on subsurface devices inside the wellbore. These pulling tools have intermediate cores with medium reach. The tool is used to retrieve subsurface tools where debris might block the latching of a fishneck.

## Applications

- Recovering tools or equipment that have become stuck or lost downhole, ensuring smooth and efficient retrieval.
- Designed to jar down, making it suitable for situations where a downward jarring action is required.

## Key Features & Benefits

- Its intermediate core length and medium reach allow it to handle debris, broken tools, or slickline fragments effectively.
- The core may be easily changed out in the field to allow for deeper or shallower reach depending on application.



Technical Data							
Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Fishneck Size	Reach
0.75"	03-01-RS-075-A0	0.625"-11 UN	0.25" UNC	0.968"	0.75"	0.75"	1.392"
1.25"	03-02-RS-125-A0	0.625"-11 UN	.25" UNC	1.22"	1.00"	1.00"	2.125"
1.50"	03-02-RS-150-A0	0.938" UN	0.375" UNC	1.42"	1.187"	1.187"	1.80"
2.00"	03-02-RS-200-A0	0.938" UN	0.50"-13 UNC	1.77"	1.375"	1.375"	1.984"
2.50"	03-02-RS-250-A0	0.938" UN	0.50"- 13 UNC	2.18"	1.75"	1.375"	1.984"
3.00"	03-02-RS-300-A0	1.062" UN	0.625" NC	2.74"	2.31"	2.31"	2.19"
4.00"	03-02-RS-400-A0	1.062" UN	1.25" – 12 UN	3.66"	3.12"	2.31"	2.156"

See next page for parts list.

Parts List				
Nominal Size	0.75"	1.25"	1.50"	2.00"
Assembly Number	03-01-RS-075-A0	03-02-RS-125-A0	03-02-RS-150-A0	03-02-RS-200-A0
Part Name	Part Number			
Fishneck	03-01-R-075-01	03-02-R-125-01	03-02-R-150-01	03-02-R-200-01
Spring Sleeve				03-02-R-200-02
Core Spring	03-01-R-075-04	03-02-R-125-04	03-02-R-150-04	03-02-R-200-04
Shear Pin Cover	03-01-BR-075-03	03-02-R-125-05	03-02-R-150-05	03-02-R-200-05
Skirt	03-01-B-075-06	03-02-R-125-06	03-02-R-150-06	03-02-R-200-06
Dog Spring	03-02-R-075-07	03-02-R-125-07	03-02-R-150-07	03-02-R-200-07
Dog Washer	03-02-R-075-08	03-02-R-125-08	03-02-R-150-08	03-02-R-200-08
Dog	03-02-R-075-09	03-02-R-125-09	03-02-R-150-09	03-02-R-200-09
S Core	03-02-BS-075-10	03-02-R-125-10	03-02-R-150-10	03-02-R-200-10
Nominal Size	2.50"	3.00"	4.00"	
Assembly Number	03-02-RS-250-A0	03-02-RS-300-A0	03-02-RS-400-A0	
Part Name	Part Number			
Fishneck	03-02-R-250-01	03-02-R-300-01	03-02-R-400-01	
Spring Sleeve	03-02-R-250-02			
Core Spring	03-02-R-250-04	03-02-R-300-04	03-02-R-400-04	
Shear Pin Cover	03-02-R-250-05	03-02-R-300-05	03-02-R-400-05	
Skirt	03-02-R-250-06	03-02-R-300-06	03-02-R-400-06	
Dog Spring	03-02-R-250-07	03-02-R-300-07	03-02-R-400-07	
Dog Washer	03-02-R-250-08	03-02-R-300-08	03-02-R-400-08	
Dog	03-02-R-250-09	03-02-R-300-09	03-02-R-400-09	
S Core	03-02-R-250-10	03-02-R-300-10	03-02-R-400-10	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The SB Pulling tool is used to employ external fishnecks on subsurface devices inside the wellbore. These pulling tools have long cores with short reach. The tool retrieves subsurface tools where debris might block the latching of fishneck.



## Applications

- Engaging and retrieving subsurface tools with external fishnecks, especially in situations where debris might block the latching of the fishneck.
- Setting of tubing stops, where a jar-down action is required to shear off the tool.

## Key Features & Benefits

- Equipped with a long core with a short reach, making it adaptable for different depths and applications.
- The core can be easily changed in the field to allow for deeper or shallower reach, depending on the specific needs of the operation.

Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Reach
0.75"	03-01-SB-075-A0	0.625"-11 UN		.968"	0.75"	0.892"
1.25"	03-02-SB-125-A0	0.625"-11 UN	0.25" UNC	1.22"	1.00"	1.280"
1.50"	03-02-SB-150-A0	0.938"-10 UN	0.50"-13 NC	1.42"	1.187"	1.30"
2.00"	03-02-SB-200-A0	0.938"-10 UN	0.50"-13 NC	1.77"	1.375"	1.22"
2.50"	03-02-SB-250-A0	0.938"-10 UN	0.50"-13 NC	2.18"	1.75"	1.281"
3.00"	03-02-SB-300-A0	1.062"-10 UN	0.625"-11 NC	2.74"	2.31"	1.50"
4.00"	03-02-SB-400-A0	1.062"-10 UN	1.25"-12 UN	3.66"	3.12"	1.50"

See next page for parts list.

Parts List				
Nominal Size	0.75"	1.25"	1.50"	2.00"
Assembly Number	03-01-SB-075-A0	03-02-SB-125-A0	03-02-SB-150-A0	03-02-SB-200-A0
Part Name	Part Number			
Fishneck	03-01-BS-075-01	03-02-S-125-01	03-02-S-150-01	03-02-S-200-01
Skirt	03-01-B-075-06	03-02-S-125-02	03-02-S-150-02	03-02-S-200-02
Shear Pin Cover		03-02-S-125-03	03-02-S-150-03	03-02-S-200-03
Core Nut	03-01-BS-075-04	03-02-S-125-04	03-02-S-150-04	03-02-S-200-04
B Core	03-01-BB-075-10	03-02-S-125-05	03-02-S-150-05	03-02-S-200-05
Core Spring	03-01-B-075-04	03-02-S-125-06	03-02-GS-150-05	03-02-GS-200-05
Dog Washer	03-02-R-075-08	03-02-R-125-08	03-02-R-150-08	03-02-R-200-07
Dog Spring	03-02-R-075-07	03-02-R-125-07	03-02-R-150-07	03-02-R-200-08
Dogs	03-02-R-075-09	03-02-R-125-09	03-02-R-150-09	03-02-R-200-09

Nominal Size	2.50"	3.00"	4.00"
Assembly Number	03-02-SB-250-A0	03-02-SB-300-A0	03-02-SB-400-A0
Part Name	Part Number		
Fishneck	03-02-S-250-01	03-02-S-300-01	03-02-S-300-01
Skirt	03-02-S-250-02	03-02-S-300-02	03-02-S-400-02
Shear Pin Cover	03-02-S-250-03	03-02-S-300-03	03-02-S-300-03
Core Nut	03-02-S-250-04	03-02-S-300-04	03-02-S-300-04
B Core	03-02-S-250-05	03-02-S-300-05	03-02-S-400-05
Core Spring	03-02-GS-250-05	03-02-GS-300-05	03-02-GS-300-05
Dog Washer	03-02-R-250-07	03-02-R-300-07	03-02-R-400-07
Dog Spring	03-02-R-250-08	03-02-R-300-08	03-02-R-400-08
Dogs	03-02-R-250-09	03-02-R-300-09	03-02-R-400-09

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The SS Pulling tool is used to employ external fishnecks on subsurface devices inside the wellbore. These pulling tools have intermediate cores with medium reach. The tool is used to retrieve subsurface tools where debris might block the latching of the fishneck.

## Applications

- The SS Pulling Tool is a jar down to shear the tool, which may be used to either set or retrieve subsurface tools.
- used when there is a need to jar down to shear, but also when there is a need to have extended reach such as latching a fishneck with broken wire.

## Key Features & Benefits

- The core may be easily changed out in the field to allow for deeper or shallower reach depending on the application.



Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Lower Thread Connection	Max O.D.	Fishneck Latched	Reach
1.50"	03-02-SS-150-A0	0.938"-10 UN	0.50"-13 NC	1.42"	1.187"	1.78"
2.00"	03-02-SS-200-A0	0.938"-10 UN	0.50"-13 NC	1.77"	1.375"	2.031"
2.50"	03-02-SS-250-A0	0.938"-10 UN	0.50"-13 NC	2.18"	1.75"	2.00"
3.00"	03-02-SS-300-A0	1.062"-10 UN	0.625"-11 NC	2.74"	2.31"	2.210"
4.00"	03-02-SS-400-A0	1.062"-10 UN	1.25"-12 UN	3.66"	3.12"	2.210"

See next page for parts list.

Parts List					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Assembly Number	03-02-SS-150-A0	03-02-SS-200-A0	03-02-SS-250-A0	03-02-SS-300-A0	03-02-SS-400-A0
Part Name	Part Number				
Fishneck	03-02-S-150-01	03-02-S-200-01	03-02-S-250-01	03-02-S-300-01	03-02-S-300-01
Skirt	03-02-S-150-02	03-02-S-200-02	03-02-S-250-02	03-02-S-300-02	03-02-S-400-02
Shear Pin Cover	03-02-S-150-03	03-02-S-200-03	03-02-S-250-03	03-02-S-300-03	03-02-S-300-03
Core Nut	03-02-S-150-04	03-02-S-200-04	03-02-S-250-04	03-02-S-300-04	03-02-S-300-04
Core Spring	03-02-GS-150-05	03-02-GS-200-05	03-02-GS-250-05	03-02-GS-300-05	03-02-GS-300-05
Dog Washer	03-02-R-150-08	03-02-R-200-08	03-02-R-250-08	03-02-R-300-08	03-02-R-400-08
Dog Spring	03-02-R-150-07	03-02-R-200-07	03-02-R-250-07	03-02-R-300-07	03-02-R-400-07
Dogs	03-02-R-150-09	03-02-R-200-09	03-02-R-250-09	03-02-R-300-09	03-02-R-400-09
SS Core	03-02-S-150-07	03-02-S-200-07	03-02-S-250-07	03-02-SS-300-07	03-02-SS-400-07

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The SSJ Adapter provides a method of downward jarring to shear the tool without contacting the core of the sub surface control being manipulated. The SSJ is used mainly for running type X selective test tools. The SSJ is attached to tool string and ran to desired depth setting the test tool in the nipple profile. This allows the option of remaining latched to fish neck at top of test tool equalizing stem or shearing to leave the test tool set in the nipple profile.

## Applications

- Mainly used for running type X selective test tools. It helps in setting the test tool in the nipple profile at the desired depth.
- Providing a method of downward jarring to shear the tool without contacting the core of the subsurface control being manipulated.



## Key Features & Benefits

- Allows the option of remaining latched to the fish neck at the top of the test tool's equalizing stem or shearing to leave the test tool set in the nipple profile.
- By shearing with the bottom skirt of the pulling tool landing on the main body of the test tool, it eliminates the risk of damaging the equalizing stem seats.

Technical Data		
<b>Nominal Size</b>	2.00"	2.50"
<b>Assembly Number</b>	02-02-SSJ-200-A0	02-02-SSJ-250-A0
<b>Upper Thread Connection</b>	0.938"-10 UN	0.938"-10 UN
<b>Lower Thread Connection</b>	1.375"-12 UN	1.75"-12 UN
<b>Maximum O.D.</b>	1.75"	2.125"
<b>Fishneck Size</b>	1.375"	1.375"

See next page for parts list.

Parts List		
Nominal Size	2.00"	2.50"
Assembly Number	02-02-SSJ-200-A0	02-02-SSJ-250-A0
Part Name	Part Number	
Fishneck	02-02-SSJ-200-01	02-02-SSJ-250-01
Core	02-02-SSJ-200-02	02-02-SSJ-250-02
Body	02-02-SSJ-200-03	02-02-SSJ-250-03
Shear Pin Cover	02-02-SSJ-200-04	02-02-SSJ-250-04
Lug Retainer	02-02-SSJ-200-05	02-02-SSJ-250-05
Lug	02-02-SSJ-200-06	02-02-SSJ-250-06
Spring	02-02-SSJ-200-07	02-02-SSJ-250-07

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

This Universal Pulling Tool is used for the retrieval or release of downhole components. Its adaptability to different operations without the need for separate tools or additional parts is its primary feature. This tool is designed for smooth transition between shear-up to release (compatible with Camco type 'JU' or Os type 'R' tool) and shear-down to release (compatible with Camco type 'JU' or Os 'S' tool). It achieves this versatility through its innovative design, eliminating the need for operators to switch between multiple tools for different tasks.

## Applications

- Used to retrieve tools by latching to an external fishneck.
- Combines both a shear-down and shear-up pulling tool into one tool.

## Key Features & Benefits

- Equipped with an adjustable core, allowing it to retrieve components with external fish necks of varying lengths or reach.
- Can be re-pinned without disassembling the tool.
- 1.50", 2.00", 2.5", 3.00", 4.0" tools available for either standard or H<sup>2</sup>S service.



Technical Data					
Nominal Size	1.500"	2.000"	2.500"	3.000"	4.000"
Assembly Number	05-01-UPT-150-A0	05-01-UPT-200-A0	05-01-UPT-250-A0	05-01-UPT-300-A0	05-01-UPT-400-A0
Actual O.D.	1.430"	1.860"	2.250"	2.800"	3.750"
Tool Fish Neck Size	1.187"	1.375"	1.375"	1.750"	2.312"
Tool Connection	0.94" - 10 UN	0.94" - 10 UN	0.94" - 10 UN	1.063" - 10 UN	1.562"-10 UN
Fishneck Size Engaged	1.187"	1.375"	1.750"	2.313"	3.125"
Reach	Short				
	1.30"	1.25"	1.30"	1.38"	1.74"
	Medium				
	N/A	2.05"	2.10"	2.20"	2.44"
	Long				
	1.95"	2.60"	2.60"	2.70"	3.14"
Approximate Weight	2 KG	5 KG	6 KG	9 KG	11 kg
Working Strength (110 KSI Material)	18,000 lbs	25,000 lbs	36,000 lbs	50,000 lbs	62,000 lbs

See next page for parts list.

Parts List					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Assembly Number	05-01-UPT-150-A0	05-01-UPT-200-A0	05-01-UPT-250-A0	05-01-UPT-300-A0	05-01-UPT-400-A0
Part Name	Part Number				
Fishneck	03-01-UPT-150-01	03-01-UPT-200-01	03-01-UPT-250-01	03-01-UPT-300-01	03-01-UPT-400-01
Retainer Segments	03-01-UPT-150-02	03-01-UPT-200-02	N/A	N/A	N/A
Upper Cylinder	03-01-UPT-150-03	03-01-UPT-200-03	03-01-UPT-250-03	03-01-UPT-300-03	03-01-UPT-400-03
Spring Retainer Lock Nut	N/A	03-01-UPT-200-05	03-01-UPT-250-05	03-01-UPT-300-05	03-01-UPT-300-05
Spring Retainer Nut	03-01-UPT-150-05	03-01-UPT-200-06	03-01-UPT-250-06	03-01-UPT-300-06	03-01-UPT-300-06
2 or 3 Position Core	03-01-UPT-150-07	03-01-UPT-200-07	03-01-UPT-250-07	03-01-UPT-300-07	03-01-UPT-400-07
Shear Pin Retainer	03-01-UPT-150-08	03-01-UPT-200-08	03-01-UPT-250-08	03-01-UPT-300-08	03-01-UPT-400-08
Dog	03-01-UPT-150-09	03-01-UPT-200-09	03-01-UPT-250-09	03-01-UPT-300-09	03-01-UPT-400-09
Dog Spring Washer	03-01-UPT-150-11	03-01-UPT-200-11	03-01-UPT-250-11	03-01-UPT-300-11	03-01-UPT-400-11
Pawls	03-01-UPT-150-12	03-01-UPT-200-12	03-01-UPT-250-12	03-01-UPT-300-12	03-01-UPT-400-12
Lower Cylinder (Skirt)	03-01-UPT-150-13	03-01-UPT-200-13	03-01-UPT-250-13	03-01-UPT-300-13	03-01-UPT-400-13
Core Spring	03-01-UPT-150-14	03-01-UPT-200-14	03-01-UPT-250-14	03-01-UPT-300-14	03-01-UPT-300-14
Dog Spring	03-01-UPT-150-15	03-01-UPT-200-15	03-02-GS-200-07	03-01-UPT-300-15	03-01-UPT-300-15
Set Screw	1/4" UNF x 3/16" LG	5/16" UNC x 1/4" LG	5/16" UNC x 1/4" LG	3/8" UNC x 1/4" LG	3/8" UNC x 3/8" LG
Shear Pin	3/16" x 1" LG	5/16" x 1-1/2" LG	5/16" x 1-3/4" LG	3/8" x 2.35" LG	3/8" x 2.78" LG

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 04. Shifting Tools

## Overview

A B Shifting Tool in wireline operations is a specialized device used to manipulate sliding sleeves within a wellbore. These tools are designed to selectively locate and shift the sleeves either up or down, depending on the operational requirements. The tool features keys that engage with the inner sleeve of the sliding side door (SSD). By running the tool in the desired direction, it can either open or close the sleeve, allowing for controlled flow of fluids within the well.

## Applications

- Manipulating sliding sleeves within a wellbore.
- The tool can also be used in releasing or dropping spent tubing-conveyed perforating guns.

## Key Features & Benefits

- The tool's design allows for selective shifting, meaning it can be used to open or close specific sleeves without affecting others.



Technical Data					
<b>Nominal Size</b>	1.25"	1.50"	1.625"	1.71"	1.78"
<b>Assembly Number</b>	04-02-B-125-A0	04-02-B-150-A0	04-02-B-162-A0	04-02-B-171-A0	04-02-B-178-A0
<b>Upper Thread Connection</b>	0.625"-11 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
<b>Lower Thread Connection</b>	0.625"-11 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
<b>Max O.D.</b>	1.45"	1.71"	1.89"	2.09"	2.12"
<b>Fishneck Size</b>	1.00"	1.18"	1.18"	1.18"	1.375"
<b>Min O.D.</b>	1.21"	1.40"	1.59"	1.68"	1.75"
<b>Nominal Size</b>	1.87"	2.12"	2.31"	2.56"	2.75"
<b>Assembly Number</b>	04-02-B-187-A0	04-02-B-212-A0	04-02-B-231-A0	04-02-B-256-A0	04-02-B-275-A0
<b>Upper Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN
<b>Lower Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	2.15"	2.52"	2.65"	2.97"	3.03"
<b>Fishneck Size</b>	1.375"	1.375"	1.75"	1.75"	2.31"
<b>Min O.D.</b>	1.84"	2.12"	2.15"	2.53"	2.72"

Technical information continues onto next page.

<b>Nominal Size</b>	2.81"	3.68"	3.81" *	4.56" *
<b>Assembly Number</b>	04-02-B-281-A0	04-02-B-368-A0	04-02-B-381-A0	04-02-B-456-A0
<b>Upper Thread Connection</b>	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Lower Thread Connection</b>	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	3.16"	4.12"	4.09"	5.04"
<b>Fishneck Size</b>	2.31"	3.12"	3.12"	3.12"
<b>Min O.D.</b>	2.72"	3.65"	3.73"	4.53"

\* Non-Stock Item (3.81" and 4.56")\* speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

**Parts List**

<b>Nominal Size</b>	1.25"	1.50"	1.625"	1.71"	1.78"
<b>Part Name</b>	<b>Part Number</b>				
Fishneck	04-02-B-125-01	04-02-B-150-01	04-02-B-162-01	04-02-B-171-01	04-02-B-200-01
Body	04-02-B-125-02	04-02-B-150-02	04-02-B-150-02	04-02-B-150-02	04-02-B-200-02
Collet	04-02-B-125-03	04-02-B-150-03	04-02-B-150-03	04-02-B-150-03	04-02-B-200-03
Upper Key Retainer	04-02-B-125-04	04-02-B-150-04	04-02-B-162-04	04-02-B-171-06	04-02-B-200-04
Key	04-02-B-125-05	04-02-B-150-05	04-02-B-162-05	04-02-B-171-04	04-02-B-178-05
Spring	04-02-B-125-06	04-02-B-125-06	04-02-B-125-06	04-02-B-125-06	04-02-B-200-06
Bottom Key Retainer	04-02-B-125-07	04-02-B-150-07	04-02-B-162-07	04-02-B-171-07	04-02-B-200-07

<b>Nominal Size</b>	1.87"	2.12"	2.31"	2.56"	2.75"
<b>Part Name</b>	<b>Part Number</b>				
Fishneck	04-02-B-200-01	04-02-B-212-01	04-02-B-250-01	04-02-B-256-01	04-02-B-300-01
Body	04-02-B-200-02	04-02-B-200-02	04-02-B-250-02	04-02-B-250-02	04-02-B-300-02
Collet	04-02-B-200-03	04-02-B-200-03	04-02-B-250-03	04-02-B-250-03	04-02-B-300-03
Upper Key Retainer	04-02-B-200-04	04-02-B-212-04	04-02-B-250-04	04-02-B-250-04	04-02-B-300-04
Key	04-02-B-187-05	04-02-B-212-05	04-02-B-231-05	04-02-B-256-05	04-02-B-275-05
Spring	04-02-B-200-06	04-02-B-200-06	04-02-B-200-06	04-02-B-200-06	04-02-B-200-06
Bottom Key Retainer	04-02-B-200-07	04-02-B-212-07	04-02-B-250-07	04-02-B-250-07	04-02-B-300-07

<b>Nominal Size</b>	2.81"	3.68"	3.81" *	4.56" *
<b>Part Name</b>	<b>Part Number</b>			
Fishneck	04-02-B-300-01	04-02-B-400-01	04-02-B-400-01	04-02-B-456-01
Body	04-02-B-300-02	04-02-B-400-02	04-02-B-400-02	04-02-B-456-02
Collet	04-02-B-300-03	04-02-B-400-03	04-02-B-400-03	04-02-B-456-03
Upper Key Retainer	04-02-B-300-04	04-02-B-400-04	04-02-B-400-04	04-02-B-456-04
Key	04-02-B-281-05	04-02-B-368-05	04-02-B-381-05	04-02-B-456-05
Spring	04-02-B-200-06	04-02-B-200-06	04-02-B-200-06	04-02-B-456-06
Bottom Key Retainer	04-02-B-300-07	04-02-B-400-07	04-02-B-400-07	04-02-B-456-07

\* Non-Stock Item (3.81" and 4.56")\* speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The BO Shifting Tool is designed to manipulate sliding side doors (SSDs) within a wellbore. Its primary function is to selectively locate and shift these SSDs, allowing operators to control the flow of fluids by either opening or closing the doors as needed. This tool is particularly useful in wells with multiple SSDs, as it enables precise adjustments without disturbing other doors. The BO Shifting Tool features keys that engage with the inner sleeve of the SSD, facilitating smooth and controlled movements. This precision is crucial for optimizing well performance, ensuring efficient fluid management, and maintaining the overall integrity of the wellbore.

## Applications

- Ran selectively, the BO Shifting tool functions similar to an X-line running tool.

## Key Features & Benefits

- Allows operators to precisely control the flow of fluids by selectively opening or closing specific sliding side doors (SSDs) within the wellbore.



Technical Data				
<b>Nominal Size</b>	2.00"	2.50"	2.75"	2.81"
<b>Assembly Number</b>	0402BO187A0	0402BO231A0	0402BO275A0	0402BO281A0
<b>Upper Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Lower Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN
<b>Max O.D. (Dogs Expanded)</b>	1.93"	1.71"	1.89"	2.09"
<b>Min O.D. (Dogs Retracted)</b>	1.75"	2.063"	2.68"	2.74"
<b>Max O.D. (Keys Expanded)</b>	2.18"	2.64"	3.15"	3.22"
<b>Min O.D. (Keys Retracted)</b>	1.82"	2.28"	2.71"	2.74"
<b>Fishneck Size</b>	1.37"	1.75"	2.31"	2.31"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The D2 Shifting Tool is designed to open and close Baker style 'L' Sliding Sleeves by applying upward or downward jarring action. When the tool is jarred upward, it opens the sliding sleeve. Conversely, inverting the tool and jarring downward will close the sleeve. The tool includes collets of varying outer diameters (OD) to match the inner diameter (ID) of the sleeves. These collets help locate the specific sleeve to be shifted. The tool is equipped with steel shear pins at the base of the shifting dogs, providing a safety release feature in case of excessive force.



## Applications

- Opening and closing Baker style "L" sliding sleeves.
- The tool can selectively shift specific sleeves within a well completion that contains multiple sleeves.

## Key Features & Benefits

- The D2 Shifting Tool includes a safety release mechanism with steel shear pins. This feature allows the tool to disengage safely if excessive force is applied, protecting both the tool and the wellbore

Technical Data					
<b>Nominal Size</b>	1.78"	1.81"	1.87"	2.25"	2.31"
<b>Assembly Number</b>	04-03-D-178-A0	04-03-D-181-A0	04-03-D-187-A0	04-03-D-225-A0	04-03-D-231-A0
<b>Upper Thread Connection</b>	0.938"-10 UN				
<b>Lower Thread Connection</b>	0.938"-10 UN				
<b>Max O.D.</b>	1.807"	1.843"	1.906"	2.281"	2.343"
<b>Fishneck Size</b>	1.375"	1.375"	1.375"	1.75"	1.75"
<b>Adjustment Length</b>	15.68"	15.68"	15.68"	16.625"	16.625"
<b>Nominal Size</b>	2.75"	2.81"	3.68"	3.81"	
<b>Assembly Number</b>	04-03-D-275-A0	04-03-D-281-A0	04-03-D-368-A0	04-03-D-381-A0	
<b>Upper Thread Connection</b>	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	
<b>Lower Thread Connection</b>	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN	
<b>Max O.D.</b>	2.781"	2.843"	3.743"	3.867"	
<b>Fishneck Size</b>	2.31"	2.31"	2.31"	2.31"	
<b>Adjustment Length</b>	17.125"	17.125"	3.73"	4.53"	

Non-Stock Item. Please speak with a Brace Tool sales representative for price and delivery.

Parts List					
Nominal Size	1.78"	1.81"	1.87"	2.25"	2.31"
Part Name	Part Number				
Fishneck	04-03-D-200-01	04-03-D-200-01	04-03-D-200-01	04-03-D-250-01	04-03-D-250-01
Mandrel	04-03-D-200-02	04-03-D-200-02	04-03-D-200-02	04-03-D-225-02	04-03-D-225-02
Collet	04-03-D-178-03	04-03-D-181-03	04-03-D-187-03	04-03-D-225-03	04-03-D-231-03
Connecting Adjuster	04-03-D-200-04	04-03-D-200-04	04-03-D-200-04	04-03-D-250-04	04-03-D-250-04
Control Sleeve	04-03-D-200-05	04-03-D-200-05	04-03-D-200-05	04-03-D-250-05	04-03-D-250-05
Nut	04-03-D-200-06	04-03-D-200-06	04-03-D-200-06	04-03-D-250-06	04-03-D-250-06
Spring	04-03-D-200-07	04-03-D-200-07	04-03-D-200-07	04-03-D-250-07	04-03-D-250-07
Retractor	04-03-D-200-08	04-03-D-200-08	04-03-D-200-08	04-03-D-250-08	04-03-D-250-08
Retaining Sleeve	04-03-D-200-09	04-03-D-200-09	04-03-D-200-09	04-03-D-250-09	04-03-D-250-09
Dog	04-03-D-200-10	04-03-D-200-10	04-03-D-200-10	04-03-D-200-10	04-03-D-200-10
Dog Retainer	04-03-D-200-13	04-03-D-200-13	04-03-D-200-13	04-03-D-250-11	04-03-D-250-11
Dog Spring	04-03-D-200-11	04-03-D-200-11	04-03-D-200-11	04-03-D-200-12	04-03-D-200-12
Key	04-03-D-200-12	04-03-D-200-12	04-03-D-200-12	04-03-D-250-13	04-03-D-250-13
Thread Protector	04-03-D-200-14	04-03-D-200-14	04-03-D-200-14	04-03-D-200-14	04-03-D-200-14

Nominal Size	2.75"	2.81"	3.68"	3.81"
Part Name	Part Number			
Fishneck	04-03-D-300-01	04-03-D-300-01	04-03-D-400-01	04-03-D-400-01
Mandrel	04-03-D-300-02	04-03-D-300-02	04-03-D-400-02	04-03-D-400-02
Collet	04-03-D-275-03	04-03-D-281-03	04-03-D-368-03	04-03-D-381-03
Connecting Adjuster	04-03-D-300-04	04-03-D-300-04	04-03-D-400-04	04-03-D-400-04
Control Sleeve	04-03-D-300-05	04-03-D-300-05	04-03-D-400-05	04-03-D-400-05
Nut	04-03-D-300-06	04-03-D-300-06	04-03-D-400-06	04-03-D-400-06
Spring	04-03-D-300-07	04-03-D-300-07	04-03-D-400-07	04-03-D-400-07
Retractor	04-03-D-300-08	04-03-D-300-08	04-03-D-400-08	04-03-D-400-08
Retaining Sleeve	04-03-D-300-09	04-03-D-300-09	04-03-D-400-09	04-03-D-400-09
Dog	04-03-D-200-10	04-03-D-200-10	04-03-D-200-10	04-03-D-200-10
Dog Retainer	04-03-D-300-11	04-03-D-300-11	04-03-D-400-11	04-03-D-400-11
Dog Spring	04-03-D-200-12	04-03-D-200-12	04-03-D-200-12	04-03-D-200-12
Key	04-03-D-250-13	04-03-D-250-13	04-03-D-200-13	04-03-D-200-13
Thread Protector	04-03-D-300-14	04-03-D-300-14	04-03-D-400-14	04-03-D-400-14

\* Non-Stock Item (3.81" and 4.56")\* speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 05. Fishing Tools

## Overview

The A Spear is a fishing tool used to retrieve objects or debris stuck in the well bore, such as broken wire, lost tools, or other obstructions. It is designed with barbs or serrated edges that latch onto the fish (the stuck object) when run into the well. Once engaged, the spear provides a secure grip, allowing the operator to pull the object to the surface.

## Applications

- Retrieving snapped wireline that has fallen into the well, preventing further downhole complications.
- Securely latch onto accidentally dropped downhole tools for retrieval.
- Removing small foreign objects that could obstruct wellbore operations.

## Key Features & Benefits

- Ensures a secure grip on the fish for efficient retrieval.
- Available in various diameters to accommodate different wellbore sizes and retrieval needs.



### Technical Data

Nominal Size	0.625"	0.75"	0.875"	1.125"
Assembly Number	05-01-AS-062-A0	05-01-AS-075-A0	05-01-AS-087-A0	05-01-AS-112-A0
Top Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
Max O.D.	1.50"	1.25"	1.25"	1.25"
Fishneck Size	1.375"	1.18"	1.18"	1.18"

Nominal Size	1.50"	1.75"	2.375"	2.43"
Assembly Number	05-01-AS-150-A0	05-01-AS-175-A0	05-01-AS-237-A0	05-01-AS-243-A0
Top Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
Max O.D.	1.50"	1.75"	2.41"	2.45"
Fishneck Size	1.37"	1.37"	1.75"	1.75"

Nominal Size	2.625"	3.00"	3.125"	3.312"
Assembly Number	05-01-AS-262-A0	05-01-AS-300-A0	05-01-AS-312-A0	05-01-AS-331-A0
Top Thread Connection	0.938"-10 UN	1.062"-10 UN	1.062"-10 UN	1.062"-10 UN
Max O.D.	2.66"	3.00"	3.125"	3.32"
Fishneck Size	1.75"	1.75"	1.75"	1.75"

See next page for parts list.

**Parts List**

<b>Nominal Size</b>	0.625"	0.75"	0.875"	1.125"
<b>Part Name</b>	<b>Part Number</b>			
Fishneck	05-01-AS-062-01	05-01-AS-075-01	05-01-AS-075-01	05-01-AS-112-01
Mandrel	05-01-AS-062-02	05-01-AS-075-02	05-01-AS-087-02	05-01-AS-112-02
Slip Latch	05-01-AS-062-03	05-01-AS-075-03	05-01-AS-087-03	05-01-AS-112-03

<b>Nominal Size</b>	1.50"	1.75"	2.375"	2.43"
<b>Part Name</b>	<b>Part Number</b>			
Fishneck	05-01-AS-150-01	05-01-AS-175-01	05-01-AS-237-01	05-01-AS-243-01
Mandrel	05-01-AS-150-02	05-01-AS-175-02	05-01-AS-237-02	05-01-AS-243-02
Slip Latch	05-01-AS-150-03	05-01-AS-175-03	05-01-AS-237-03	05-01-AS-243-03

<b>Nominal Size</b>	2.625"	3.00"	3.125"	3.312"
<b>Part Name</b>	<b>Part Number</b>			
Fishneck	05-01-AS-262-01	05-01-AS-312-01	05-01-AS-331-01	05-01-AS-300-01
Mandrel	05-01-AS-262-02	05-01-AS-312-02	05-01-AS-331-02	05-01-AS-300-02
Slip Latch	05-01-AS-262-03	05-01-AS-312-03	05-01-AS-331-03	05-01-AS-300-03

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Alligator Grab Tool is a specialized tool used in fishing operations within a wellbore. It is designed with two spring-loaded jaws that can close on debris or broken objects. The tool utilizes downward jarring to cause the serrated jaws to snap together, securely gripping onto the target material. Additionally, the jaw pressure can be adjusted before the tool is deployed into the wellbore, allowing for precise customization based on the specific fishing operation requirements.

### Applications

- Retrieval unwanted debris like loose equipment, fragments, or foreign objects, from the wellbore.
- Recovering items accidentally dropped or lost in the wellbore.

### Key Features & Benefits

- The tool allows for the adjustment of jaw pressure prior to deployment.
- Two spring-loaded jaws that close upon contact with debris or broken objects.
- Designed with serrated edges to enhance their gripping ability and provide a secure hold.



#### Technical Data

Assembly Number	Tool O.D.	Tool Overall Length	Connection	Fishneck
05-01-AG-150-A0	1.51"	17.7"	0.938-10 UN-2A	1.187"
05-01-AG-200-A0	1.85"	22.5"	0.938-10 UN-2A	1.375"
05-01-AG-250-A0	2.31"	26.8"	1.062-10 UN-2A	1.750"
05-01-AG-300-A0	2.85"	26.8"	1.062-10 UN-2A	2.312"
05-01-AG-400-A0	3.30"	27.4"	1.062-10 UN-2A	2.312"
05-01-AG-450-A0	3.56"	27.9"	1.062-10 UN-2A	2.312"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List			
Assembly Number	05-01-AG-150-A0	05-01-AG-200-A0	05-01-AG-250-A0
Part Name	Part Number		
Fishneck	05-01-AG-150-01	05-01-AG-200-01	05-01-AG-250-01
Draw Bar	05-01-AG-150-02	05-01-AG-200-02	05-01-AG-250-02
Body	05-01-AG-150-03	05-01-AG-200-03	05-01-AG-250-03
Draw Bar Pin	05-01-AG-150-04	05-01-AG-200-04	05-01-AG-250-04
Trip Pin	05-01-AG-150-05	05-01-AG-200-05	05-01-AG-250-05
Fulcrum Bolt	05-01-AG-150-06	05-01-AG-200-06	05-01-AG-250-06
Compression Nut	05-01-AG-150-07	05-01-AG-200-07	05-01-AG-250-07
Jaw	05-01-AG-150-08	05-01-AG-200-08	05-01-AG-250-08
Main Spring	05-01-AG-150-09	05-01-AG-200-09	05-01-AG-250-09
Trip Spring	04-03-D-250-11	05-01-AG-200-10	05-01-AG-200-10
Shear Pin	0.125" X 1.125" LG	0.187" X 1.50" LG	0.250" X 2.00" LG

Assembly Number	05-01-AG-300-A0	05-01-AG-400-A0	05-01-AG-450-A0
Part Name	Part Number		
Fishneck	05-01-AG-300-01	05-01-AG-300-01	05-01-AG-300-01
Draw Bar	05-01-AG-300-02	05-01-AG-400-02	05-01-AG-450-02
Body	05-01-AG-300-03	05-01-AG-400-03	05-01-AG-450-03
Draw Bar Pin	05-01-AG-250-04	05-01-AG-250-04	05-01-AG-250-04
Trip Pin	05-01-AG-250-05	05-01-AG-250-05	05-01-AG-250-05
Fulcrum Bolt	05-01-AG-300-06	05-01-AG-300-06	05-01-AG-300-06
Compression Nut	05-01-AG-250-07	05-01-AG-250-07	05-01-AG-250-07
Jaw	05-01-AG-300-08	05-01-AG-400-08	05-01-AG-450-08
Main Spring	05-01-AG-250-09	05-01-AG-250-09	05-01-AG-250-09
Trip Spring	05-01-AG-200-10	05-01-AG-200-10	05-01-AG-200-10
Shear Pin	0.250" X 2.25" LG	0.250" X 2.25" LG	0.250" X 2.25" LG

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Cam Cutter is designed to sever slickline or wireline during downhole operations. It is used when the wire becomes stuck or needs to be intentionally cut, allowing for the retrieval of the upper portion of the wireline or tool string while leaving the lower section behind.



## Applications

- Cutting wireline during fishing jobs to isolate and recover stuck tools.

## Key Features & Benefits

- The cam action delivers a reliable cutting force, ensuring the wire is cleanly severed.
- Suitable for various wire sizes and well conditions.
- Available in multiple diameters to fit different operations.

### Technical Data

Nominal Size	1.62"
Assembly Number	05-01-CC-162-A0
Top Thread Connection	1.062" – 10 UN
Max O.D.	1.62"
Fishneck Size	1.375"
Max Line Size Cut	0.25"

### Parts List

Nominal Size	0.625"
Part Name	Part Number
Drop Bar (18")	05-01-CC-162-01
Drop Bar (30")	05-01-CC-162-02
Drop Bar (60")	05-01-CC-162-03
Body	05-01-CC-161-02
Cutter Block	05-01-CC-200-03
Cutter Wheel	05-01-CC-161-04
Plunger	05-01-CC-161-05

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Casing Overshot Housing is designed to house a conventional pulling Tool. This gives the user the versatility of having a larger OD when trying to latch a small fish neck.



## Applications

- Gripping and retrieving large, stuck casing or tubing sections.
- Ideal for removing downhole obstructions with a larger profile.

## Key Features & Benefits

- Designed to fit over casing, tubing, or large diameter objects.
- The housing connects to the overshot assembly, which includes grapple or basket-type catchers.
- Available with various connection types for compatibility with different tool strings.

### Technical Data

Nominal Size	2.00"	2.50"	3.49"	3.75"
Assembly Number	05-01-CO-223-A0	05-01-CO-250-A0	05-01-CO-349-A0	05-01-CO-375-A0
Top Thread Connection	0.938"-10 UN	1.063"-10 UN	1.063"-10 UN	1.063"-10 UN
Lower Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN	1.063"-10 UN
Fishneck Size	1.37"	1.75"	2.31"	2.31"

### Parts List

Nominal Size	2.00"	2.50"	3.49"	3.75"
Part Name	Part Number			
Top Sub	05-01-CO-223-01	05-01-CO-250-01	05-01-CO-349-01	05-01-CO-375-01
Housing	05-01-CO-223-02	05-01-CO-250-02	05-01-CO-349-02	05-01-CO-375-02
Bell	05-01-CO-230-03	05-01-CO-250-03	05-01-CO-349-03	05-01-CO-375-03
Cap Screw	N/A	N/A	.312"-18 UNC x .375	.312"-18 UNC x .375"

\* Custom bell sizes are available upon request.  
Alternatively suitable gauge rings may be substituted for bells. \*

## Overview

The Fingered Overshot is designed to engage and retrieve small or irregular-shaped downhole objects (fish). It is named for its finger-like prongs or collet-style design, which expand slightly when run over the fish and then contract to firmly grip the exterior of the object.



## Applications

- Recovering broken strands or pieces of wireline.
- Ideal for grabbing small, odd-shaped objects that traditional overshots may not engage.
- Removing loose debris from the wellbore, improving operational efficiency.

## Key Features & Benefits

- The spring-loaded fingers expand outward as the tool is lowered over the fish neck
- Available in various sizes to fit different wellbore conditions.

Technical Data				
<b>Nominal Size</b>	0.68"	0.75"	1.00"	1.18"
<b>Assembly Number</b>	05-01-FO-068-A0	05-01-FO-075-A0	05-01-FO-100-A0	05-01-FO-118-A0
<b>Top Thread Connection</b>	0.875"	1.00"	1.25"	1.61"
<b>Lower Thread Connection</b>	0.68"	0.75"	1.00"	1.18"
<b>Fishneck Size</b>	0.75"	0.75"	1.00"	1.18"
<b>Nominal Size</b>	1.375"	1.75"	2.31"	
<b>Assembly Number</b>	05-01-FO-137-A0	05-01-FO-175-A0	05-01-FO-231-A0	
<b>Top Thread Connection</b>	1.77"	2.125"	2.688"	
<b>Lower Thread Connection</b>	1.375"	1.75"	2.31"	
<b>Fishneck Size</b>	1.375"	1.75"	1.75"	

See next page for parts list.

### Parts List

Nominal Size	0.68"	0.75"	1.00"	1.18"
Part Name	Part Number			
Fishneck	05-01-FO-068-01	05-01-FO-075-01	05-01-FO-100-01	05-01-FO-118-01
Mandrel	05-01-FO-068-02	05-01-FO-075-02	05-01-FO-100-02	05-01-FO-118-02

Nominal Size	1.375"	1.75"	2.31"
Part Name	Part Number		
Fishneck	05-01-FO-137-01	05-01-FO-175-01	05-01-FO-231-01
Mandrel	05-01-FO-137-02	05-01-FO-175-02	05-01-FO-231-02

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Fishing Socket is designed to retrieve small, broken, or dropped objects from the wellbore.

## Applications

- Recovering snapped or frayed wireline pieces stuck in the wellbore.
- Retrieving pins, screws, or other small objects accidentally dropped in the well.

## Key Features & Benefits

- Comes in various diameters to accommodate different fish sizes and wellbore conditions.



Technical Data				
<b>Nominal Size</b>	1.375"	1.75"	2.31"	3.125"
<b>Assembly Number</b>	05-01-FH-137-01	05-01-FH-175-01	05-01-FH-137-01	05-01-FH-175-01
<b>Top Thread Connection</b>	0.938" – 10 UN	1.062" – 10 UN	1.062" – 10 UN	1.062" – 10 UN
<b>Lower Thread Connection</b>	1.50"	1.75"	2.375"	3.50"
<b>Fishneck Size</b>	1.375"	1.75"	2.31"	3.125"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Fishing Clamp - Flat is used to secure a broken or damaged slickline or wireline at the surface during fishing operations or to repair a stranded braided line. The clamp consists of two plates with inserts that match the size of the line being clamped. These plates are tightened or clamped around the line using screws, effectively securing the line for the operation at hand.

## Applications

- Securing broken or damaged slickline or wireline at the surface for repair.
- Clamping wireline/slickline at surface level.

## Key Features & Benefits

- Can be separated into two parts by extracting the allen cap screws from the top and bottom plates.
- Comes with proper sized inserts that can be inserted before installing around the line.
- The design ensures that the slickline/wireline is aligned in the center of the inserts.



Technical Data		
Nominal Size	Assembly Number	Insert
Line Size		
0.092"	05-01-LCF-000-A0	05-01-LCF-000-04
0.108"	05-01-LCF-000-A2	05-01-LCF-000-05
0.125"	05-01-LCF-000-A3	05-01-LCF-000-06
0.140"	05-01-LCF-000-A4	05-01-LCF-000-07
0.150"	05-01-LCF-000-A5	05-01-LCF-000-08
0.160"	05-01-LCF-000-A6	05-01-LCF-000-09
0.187"	05-01-LCF-000-A7	05-01-LCF-000-10
0.218"	05-01-LCF-000-A8	05-01-LCF-000-11
0.250"	05-01-LCF-000-AB	05-01-LCF-000-12
0.312"	05-01-LCF-000-A9	05-01-LCF-000-13
0.375"	05-01-LCF-000-AA	05-01-LCF-000-14
Top Plate	05-01-LCF-000-01	n/a
Bottom Plate	05-01-LCF-000-02	n/a
Allen Head Cap Screw	0.50" – 13 UNC x 2"	n/a
Flat Head Screw	10-24 x 0.375"	n/a

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Fishing Clamp is designed to prevent line movement, reduce vibration, and ensure proper alignment of the wireline with the wellhead or lubricator.

## Applications

- Used when there is a desire to lubricate broken line from the wellbore.

## Key Features & Benefits

- Uses threaded bolts or fasteners to ensure a secure, stable grip on the line.



Technical Data		
Nominal Size	Assembly Number	Insert
Line Size		
0.092"	05-01-LCR-231-A0	05-01-LCF-000-04
0.108"	05-01-LCR-231-A2	05-01-LCF-000-05
0.125"	05-01-LCR-231-A3	05-01-LCF-000-06
0.140"	05-01-LCR-231-AA	05-01-LCF-000-07
0.150"	05-01-LCR-231-A3	05-01-LCF-000-08
0.160"	05-01-LCR-231-A4	05-01-LCF-000-09
0.187"	05-01-LCR-231-A5	05-01-LCF-000-10
0.218"	05-01-LCR-231-A6	05-01-LCF-000-11
0.250"	05-01-LCR-231-A7	05-01-LCF-000-12
0.312"	05-01-LCR-231-A8	05-01-LCF-000-13
0.375"	05-01-LCR-231-A9	05-01-LCF-000-14
Top Plate	05-01-LCR-231-01	n/a
Bottom Plate	05-01-LCR-231-02	n/a
Allen Head Cap Screw	0.50" – 13 UNC x 1"	n/a
Flat Head Screw	0.50" – 13 UNC x 1"	n/a
Upper Thread Connection	0.938 – 10 UN	n/a

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The GG Overshot is designed to latch fish necks that have been damaged and are not retrievable by conventional pulling tools.

## Applications

- Used when there is a need to latch a fish neck that has been damaged due to corrosion, intense jarring, or deformation of the fishneck.

## Key Features & Benefits

- Utilizes a collet to achieve a uniform grip on a damaged fishneck rather than just in a localized spots as conventional pulling tools do.



Technical Data			
<b>Nominal Size</b>	1.50"	2.00"	2.50"
<b>Assembly Number</b>	05-01-GG-150-A0	05-01-GG-200-A0	05-01-GG-250-A0
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
<b>Lower Thread Connection</b>	1.18"	1.37"	1.37"
<b>Fishneck Size</b>	1.18"	1.37"	1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Go Devil is used to create a base to cut the line from the rope socket when the top of the tool string is inaccessible. Go-Devils are designed the same manner as the sheep's foot cutter bar. The difference between the two is the bottom face of the go-devil is cut at a 90° angle to the length of the body. Go-devils generally come in 3 foot lengths, but more length options are available.



## Applications

- Jarring free tools that are stuck due to debris, tight spots, or obstructions.
- Clearing blockages by delivering impactful blows to loosen debris.

## Key Features & Benefits

- Made from high-density steel or other durable materials to deliver a forceful impact.
- Available in various weights and diameters to suit different well conditions and operational needs.

Technical Data				
<b>Nominal Size</b>	1.00"	1.25"	1.50"	1.75"
<b>Assembly Number</b>	05-01-GG-150-A0	05-01-GG-200-A0	05-01-GD-150-A3	05-01-GD-175-A3
<b>Top Thread Connection</b>	1.00"	1.25"	1.50"	1.75"
<b>Lower Thread Connection</b>	1.00"	1.18"	1.375"	1.375"
<b>Fishneck Size</b>	0.150"	0.150"	0.150"	0.150"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

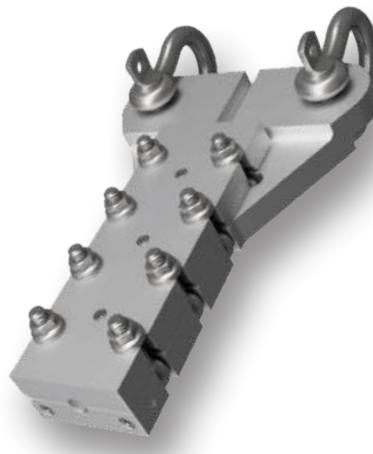
A Heavy Duty Fishing Clamp is used to secure a broken or damaged slickline or wireline at the surface during fishing operations or to repair a stranded braided line. The clamp consists of two plates with inserts that match the size of the line being clamped. These plates are tightened or clamped around the line using screws, effectively securing the line for the operation at hand.

### Applications

- Securing broken or damaged slickline or wireline at the surface for repair.
- Clamping wireline/slickline at surface level.

### Key Features & Benefits

- Can be separated into two parts by extracting the allen cap screws from the top and bottom plates.
- Comes with proper sized inserts that can be inserted before installing around the line.
- The design ensures that the slickline/wireline is aligned in the center of the inserts.



Technical Data	
Assembly Number	05-01-LCF-200-A0
Max Body Load	19,000 LBS
Line Size	Part Number
0.092	05-01-LCF-200-07
0.108 & 0.125	05-01-LCF-200-08
0.140	05-01-LCF-200-09
0.150 & 0.160	05-01-LCF-200-10
0.187	05-01-LCF-200-11
0.218	05-01-LCF-200-12
0.250	05-01-LCF-200-13
0.281	05-01-LCF-200-14
0.312	05-01-LCF-200-15
0.375	05-01-LCF-200-16
0.437	05-01-LCF-200-17
0.500	05-01-LCF-200-18

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Impression Blocks provides a means of taking impressions of down hole blockages, obstructions, and tubular damage.

## Applications

- Identifying unknown obstructions helping operators assess its shape and size.
- Inspecting irregularities or damage in the wellbore, such as deformations or tool string impacts.

## Key Features & Benefits

- The block's face is made from lead, soft metal, or malleable material that captures the shape of the obstruction.
- Designed to fit the wellbore size and make full contact with the object.
- Available in various shapes and sizes.



Parts List				
Nominal Size	Max O.D.	Fishneck size	Thread Connection	Part Number
0.75"	0.875"	0.75"	0.50"-13 NC	05-01-IMP-087-A0
1.00"	1.125"	1.00"	0.625"-11 NC	05-01-IMP-100-A0
1.25"	1.375"	1.187"	0.938"-10 UN	05-01-IMP-125-A0
1.50"	1.625"	1.375"	0.938"-10 UN	05-01-IMP-150-A0
1.75"	1.875"	1.375"	0.938"-10 UN	05-01-IMP-175-A0
2.125"	2.125"	1.375"	0.938"-10 UN	05-01-IMP-200-A0
2.24"	2.375"	1.375"	0.938"-10 UN	05-01-IMP-225-A0
2.50"	2.625"	1.375"	0.938"-10 UN	05-01-IMP-250-A0
2.74"	2.875"	1.75"	1.062"-10 UN	05-01-IMP-275-A0
3.125"	3.125"	1.75"	1.062"-10 UN	05-01-IMP-300-A0
3.50"	3.625"	1.75"	1.062"-10 UN	05-01-IMP-350-A0
4.00"	4.375"	2.31"	1.062"-10 UN	05-01-IMP-400-A0
4.75"	4.875"	2.31"	1.062"-10 UN	05-01-IMP-475-A0
5.25"	5.375"	2.31"	1.062"-10 UN	05-01-IMP-500-A0
5.5"	5.875"	2.31"	1.062"-10 UN	05-01-IMP-550-A0
6.00"	6.00"	2.31"	1.062"-10 UN	05-01-IMP-600-A0

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

Magnets are used to fish ferrous metallic debris from wellbore. The rare earth magnets are extremely powerful and can be manufactured to suit all tubing sizes. The side walls can be finished with magnetic or non-magnetic sleeves.

## Applications

- Recovering metal shavings, pins, broken wireline, or small objects in the well bore.

## Key Features & Benefits

- Available in multiple sizes to accommodate different operations.



Technical Data			
<b>Nominal Size</b>	1.00"	1.25"	1.50"
<b>Assembly Number</b>	05-01-MRE-100-A0	05-01-MRE-125-A0	05-01-MRE-150-A0
<b>Fishneck Part Number</b>	05-01-MRE-100-01	05-01-MRE-125-01	05-01-MRE-150-01
<b>Top Thread Connection</b>	0.625"-11 UNC	0.938"-10 UN	0.938"-10 UN
<b>Max O.D.</b>	1.00"	1.25"	1.50"
<b>Fishneck size</b>	0.75"	1.00"	1.18"
<b>Nominal Size</b>	1.75"	2.50"	3.00"
<b>Assembly Number</b>	05-01-MRE-190-A0	05-01-MRE-234-A0	05-01-MRE-286-A0
<b>Fishneck Part Number</b>	05-01-MRE-190-01	05-01-MRE-234-01	05-01-MRE-286-01
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.90"	2.34"	2.86"
<b>Fishneck size</b>	1.375"	1.37"	1.37"
<b>Nominal Size</b>	3.50"	4.50"	5.80"
<b>Assembly Number</b>	05-01-MRE-190-A0	05-01-MRE-234-A0	05-01-MRE-286-A0
<b>Fishneck Part Number</b>	05-01-MRE-190-01	05-01-MRE-234-01	05-01-MRE-286-01
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.90"	2.34"	2.86"
<b>Fishneck size</b>	1.375"	1.37"	1.37"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Releasable A Spear is a fishing tool used to retrieve objects or debris stuck in the wellbore, such as broken wire, lost tools, or other obstructions. The Heavy-Duty Releasable A Spear includes a 'jar down to release' functionality that allows operators to attach the tool directly to the tool string.



## Applications

- Retrieving snapped wireline that has fallen into the well, preventing further downhole complications.
- Securely latch onto accidentally dropped downhole tools for retrieval.
- Removing small foreign objects that could obstruct wellbore operations.

## Key Features & Benefits

- Designed with "Jar down to release" functionality.
- Available in various diameters to accommodate different wellbore sizes and retrieval needs.

Technical Data		
<b>Assembly Number</b>	05-01-RAS-200-A0	05-01-RAS-250-A0
<b>Tool O.D.</b>	1.81 "	2.245 "
<b>Overall Length</b>	15.09 "	18.25 "
<b>Top Connection</b>	0.938-10 UN-2A	0.938-10 UN-2A
<b>Fishneck Size</b>	1.375 "	1.750 "
<b>Shear Pin</b>	3/16" X 1-1/2" LG	1/4" X 2" LG
<b>Slip Range (Min)</b>	1-1/8 "	1-7/8 "
<b>Slip Range (Max)</b>	1-7/8 "	2-1/2 "

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Releasable Overshot is designed to engage, retrieve, and release stuck or lost downhole tools or debris. It features a slip or grapple mechanism that securely latches onto the fish, while the release function allows for detachment if the fish cannot be retrieved.



## Applications

- Retrieving lost or stuck wireline tools, tubing, or downhole equipment.

## Key Features & Benefits

- Available in various sizes to fit different wellbore and fish diameters.
- Configurable with custom slip sizes for specific fishing needs.

### Technical Data

Assembly Number	05-01-ROS-200-A0	05-01-ROS-250-A0	05-01-ROS-300-A0
Tool O.D.	1.85"	2.25"	2.625"
Overall Length	19.84"	19.9"	20.19"
Top Connection	0.938-10 UN-2A	0.938-10 UN-2A	1.062-10 UN-2A
Fishneck Size	1.375"	1.375"	1.750"
Shear Pin	1/4" X 1-1/4" LG	1/4" X 1-1/4" LG	5/16" X 2-1/2" LG
Slip Range (Min)	7/16"	7/16"	3/8"
Slip Range (Max)	1-7/16"	1-3/4"	2-1/16"

Assembly Number	05-01-ROS-350-A0	05-01-ROS-400-A0
Tool O.D.	3.25"	3.81"
Overall Length	24.2"	23.6"
Top Connection	1.062-10 UN-2A	1.062-10 UN-2A
Fishneck Size	2.312"	2.312"
Shear Pin	3/8" X 3" LG	3/8" X 3" LG
Slip Range (Min)	1/2"	1/2"
Slip Range (Max)	2-5/16"	3-1/8"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Rotary Line Cutter is a specialized cutting tool created for situations involving stuck wireline or slick-line. This tool is precisely deployed into the wellbore, where it strategically lands on the tool or obstruction within the tubing.

## Applications

- Cutting and retrieving stuck wireline in the tubing or wellbore.
- Removing obstructions lodged within the tubing.

## Key Features & Benefits

- Different wedge sizes are installed to secure various diameters of stuck line to the tool.
- The tool can be installed over top of a line suspended over the well.
- Small Shear pin ensure the tool will not cut until struck by the Drop Bar.
- Hardened tool steel fixed and rotary knives for tool longevity.



Technical Data				
Assembly Number	Tool O.D.	Tool Overall Length	Max Line Size	Fishneck
05-01-RLC-150-A0	1.450"	12.1"	0.108"	1.375"
05-01-RLC-187-A0	1.860"	13.5"	0.250"	1.750"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Sandline Cutter is designed to cut the sand line from the top of the tool strings. It is used to cut swab lines, slick lines, guidelines, anchor lines, and drilling lines up to a depth of 20,000 feet. It is very versatile and can be easily field redressed. It can be deployed in a wide range of tubing sizes.

## Applications

- Severing stuck sandline when it becomes stuck, preventing further issues.
- Recovering the upper portion of the line while leaving the lower section for future retrieval.

## Key Features & Benefits

- Equipped with sharp, hardened steel blades designed to cleanly and efficiently sever the line.
- Ensures a smooth cut to prevent frayed ends or snags.



Technical Data	
<b>Nominal Size</b>	2.00"
<b>Assembly Number</b>	05-01-SLC-200- A0
<b>Top Thread Connection</b>	N/A
<b>Lower Thread Connection</b>	0.938"-10 UN
<b>Max O.D.</b>	2.25"
<b>Fishneck size</b>	1.0"

See next page for parts list.

## Parts List

Nominal Size	Part Number
Nut/Striker	05-01-PAF-200-01/06
Shear Piston	05-01-PAF-200-02
Fishneck	05-01-PAF-200-03
Upper Line Guide	05-01-SLC-200-03
Shear Sub	05-01-PAF-200-04
Shell Chamber	05-01-PAF-200-05
Seal Disc	05-01-SLC-200-06
Shell Assembly	01-01-HP-175-S0
Piston Sub	05-01-SLC-200-07
Piston	05-01-SLC-200-08
Body	05-01-SLC-200-09
Crimper	05-01-SLC-250-10
Blade Carrier	05-01-SLC-200-11
Blade	05-01-SLC-200-12
Lower Line Guide	05-01-SLC-200-13
Lower Guide Cap	05-01-SLC-200-14
Cutter Sleeve Body	05-01-SLC-250-09
Rubber Disk	01-01-HP-175-11
Bleed Screw	01-01-HP-175-18
Ball	.250 Chrome
Shear Screw	05-01-SLC-200-20
O-Ring	016
O-Ring	018
O-Ring	020
O-Ring	021
O-Ring	111

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Sidewall Cutter is a specialized tool used in well operations to cut slickline or wireline between the tool and the tubing wall. It is particularly valuable in situations where a solid footing, which is typically required by other cutters, is not available.

## Applications

- Cutting slickline or wireline between the tool and the tubing wall.
- Running down beside a stuck line and uses quick downward motion and subsequent jarring to cut.

## Key Features & Benefits

- Available in configurations that allow it to cut lines with a diameter of up to 0.140 inches, providing versatility for different wellbore conditions.
- Does not require solid footing making it applicable in scenarios where a secure footing may not be readily available.



Technical Data				
<b>Assembly Number</b>	02-01-SWC-200-A0	02-01-SWC-250-A0	02-01-SWC-350-A0	02-01-SWC-450-A0
<b>Tool O.D.</b>	1.750"	2.200"	2.720"	3.430"
<b>Tubing Size</b>	2-3/8"	2-7/8"	3-1/2"	4-1/2" 13.5#
<b>External Fishneck</b>	1.375"	1.750"	2.312"	2.312"
<b>Extended O.D.</b>	2.00"	2.44"	2.99"	4.00"
<b>Overall Length</b>	22.0"	20.95"	21.2"	23.0"
<b>Running Tool</b>	02-01-SWC-200-01	02-01-SWC-200-01	02-01-SWC-350-01	02-01-SWC-450-01

Please see next page for parts list.

Parts List				
Assembly Number	05-01-SWC-200-A0	05-01-SWC-250-A0	05-01-SWC-350-A0	05-01-AG-450-A0
Part Name				
Mandrel	05-01-SWC-200-01	05-01-SWC-250-01	05-01-SWC-350-01	05-01-SWC-450-01
Upper Cutter	05-01-SWC-200-02	05-01-SWC-250-02	05-01-SWC-350-02	05-01-SWC-450-02
Lower Cutter	05-01-SWC-200-03	05-01-SWC-250-03	05-01-SWC-350-03	05-01-SWC-450-03
Slip Carrier	05-01-SWC-200-04	05-01-SWC-250-04	05-01-SWC-350-04	05-01-SWC-450-04
Split Ring	05-01-SWC-200-05	05-01-SWC-250-05	05-01-SWC-350-05	05-01-SWC-450-05
Guide Body	05-01-SWC-200-06	05-01-SWC-250-06	05-01-SWC-350-06	05-01-SWC-450-06
Spacer	05-01-SWC-200-07	N/A	N/A	N/A
Retainer Ring	9017N44 (SPRING)	05-01-SWC-250-07	05-01-SWC-350-07	05-01-SWC-450-07

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Slotted Wire Finder is designed to locate and retrieve parted or broken wireline in the wellbore. It features a slotted, tapered profile that allows it to catch and secure the wire, making it easier to fish and recover.

## Applications

- Locating and retrieving broken wireline.
- Clear wellbore obstructions caused by broken line fragments.

## Key Features & Benefits

- The angled slot design guides the broken wire into the tool, ensuring a secure grip.
- Available in various sizes to match different wireline diameters.



Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	05-06-WG-200-A1	05-06-WG-200-A1	05-06-WG-300-A1
<b>Part Name</b>			
Fishneck	05-06-WG-200-08	05-06-WG-200-08	05-06-WG-200-08
Skirt	05-06-WG-186-08	05-06-WG-229-08	05-06-WG-270-08
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
<b>Fishneck Size</b>	1.375"	1.375"	1.375"
<b>Max O.D.</b>	1.906"	2.347"	2.867"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Solid Wire Finder is used to locate and retrieve parted or broken wireline in the wellbore. It features a solid, tapered profile with a precision-cut slot, which allows it to catch and hold onto the parted wireline securely.

## Applications

- Locating and retrieving broken wireline.
- Clear wellbore obstructions caused by broken line fragments.



## Key Features & Benefits

- The tapered profile guides the parted wire into the slot for a secure grip.
- Available in various diameters to match different wireline sizes.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	05-06-WF-200-01	05-06-WG-200-01	05-06-WG-300-01
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062" - 10 UN
<b>Fishneck Size</b>	1.375"	1.375"	1.75"
<b>Max O.D.</b>	1.906"	2.347"	2.867"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Wire Retriever is designed to locate and retrieve broken or parted wireline from the wellbore. It features a tapered profile with a catching slot or groove, which allows it to effectively snag and secure loose wireline during fishing operations.

## Applications

- Catching and securing parted or broken wireline in the wellbore.
- Deployed after wireline parting incidents to recover lost sections.

## Key Features & Benefits

- The angled slot or groove guides the loose wireline into the tool, ensuring a secure grip.
- Available in various sizes to match different wireline diameters.



### Technical Data

<b>Nominal Size</b>	2.00"
<b>Assembly Number</b>	05-06-WG-200-A0
<b>Top Thread Connection</b>	0.938"10 UN
<b>Max O.D.</b>	"Skirt O.D."
<b>Fishneck Size</b>	1.37"

### Parts List

<b>Nominal Size</b>	<b>Part Number</b>
<b>Part Name</b>	
Fishneck	05-06-WG-200-01
Mandrel	05-06-WG-200-02
Top Sub	05-06-WG-200-03
Body	05-06-WG-200-04
Washer	05-06-WG-200-05
Dart	05-06-WG-200-06
Taper Sleeve	05-06-WG-200-07
Skirt – 1.86"	05-06-WG-186-08
Skirt – 2.25"	05-06-WG-228-08
Skirt – 2.70"	05-06-WG-270-08

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Brace Tool Wireline Grab & Spear is a fishing tool designed to recover broken or lost wireline from the wellbore.

It combines two recovery functions in one tool:

- The grab portion snags and holds onto loose or coiled wireline, ensuring a firm grip.
- The spear penetrates or latches into the wireline, providing an additional anchoring point for secure retrieval.



## Applications

- Catching and securing parted or broken wireline in the wellbore.
- Deployed after wireline parting incidents to recover lost sections.

## Key Features & Benefits

- The angled slot or groove guides the loose wireline into the tool, ensuring a secure grip.
- Available in various sizes to match different wireline diameters.

Technical Data - 2 Prong Wireline Grabs				
Nominal Size	2.00"	2.50"	3.00"	4.00"
Assembly Number	05-01-WG-200-A2	05-01-WG-250-A2	05-01-WG-300-A2	05-01-WG-375-A2
Part Name				
Fishneck	05-01-WG-200-01	05-01-WG-250-01	05-01-WG-300-01	05-01-WG-375-01
Locator Ring	02-03-C-200-02	02-03-C-250-02	02-03-C-300-02	05-01-WG-375-05
Body	05-01-WG-200-02	05-01-WG-250-02	05-01-WG-300-02	05-01-WG-375-02
Top Thread Connection	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN	2.375" EUE BOX
MIN	1.75"	2.24"	2.75"	
Fishneck Size	1.37"	1.37"	1.75"	

Please see next page for more technical data.

Technical Data - 3 Prong Wireline Grabs				
<b>Nominal Size</b>	2.00"	2.50"	3.00"	4.00"
<b>Assembly Number</b>	05-01-WG-200-A3	05-01-WG-250-A3	05-01-WG-300-A3	05-01-WG-375-A3
<b>Part Name</b>				
Fishneck	05-01-WG-200-01	05-01-WG-250-01	05-01-WG-300-01	05-01-WG-375-01
Locator Ring	02-03-C-200-02	02-03-C-250-02	02-03-C-300-02	05-01-WG-375-05
Body	05-01-WG-200-03	05-01-WG-250-03	05-01-WG-300-03	05-01-WG-375-03
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN	2.375" EUE BOX
<b>MIN</b>	1.75"	2.24"	2.75"	3.75"
<b>Fishneck Size</b>	1.37"	1.37"	1.75"	2.31"

Technical Data - Wireline Spears			
<b>Nominal Size</b>	2.00"	2.50"	3.75"
<b>Assembly Number</b>	05-01-WSG-200-AO	05-01-WS-250-AO	05-01-WS-400-AO
<b>Part Name</b>			
Fishneck	05-01-WG-200-01	05-01-WG-250-01	05-01-WG-400-01
Locator Ring	02-03-C-200-02	02-03-C-231-02	05-01-WG-375-05
Body	05-01-WS-200-S2	05-01-WS-250-S2	05-01-WS-400-S2
<b>Top Thread Connection</b>	.938"-10 UN	0.938"-10 UN	2.375 EUE
<b>O.D.</b>	1.75"	2.25"	3.83"
<b>Fishneck Size</b>	1.375"	1.375"	N/A

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 06. Bailers

## Overview

A Drive Down Bailer is a wireline or slickline tool used for removing debris or fluid samples from the wellbore. Unlike traditional bailers, which rely on gravity or suction, the Drive Down Baler uses a mechanical or hydraulic force to drive the tool downward, allowing it to penetrate, dislodge, and capture debris or fluid more effectively. This makes it particularly useful in stubborn or compacted debris removal operations.



## Applications

- Clearing sand, scale, metal shavings, and compacted debris.
- Ideal for plugged or obstructed wellbores.

## Key Features & Benefits

- Uses mechanical stroking or hydraulic force to drive the tool downward.
- Available in various diameters and chamber sizes.

Technical Data

Assembly Number	Upper Connection	Fishneck	O.D.	Stroke Length	Load Barrel Length
06-01-SB-087-A0	0.500-13 UNC-2A PIN	0.750"	0.875"	48"	48" OAL
06-01-SB-100-A0	0.625-11 UNC-2A PIN	0.750"	1.00"	48"	48" OAL
06-01-SB-125-A0	0.938-10 UN-2A PIN	1.187"	1.25"	48"	54" OAL
06-01-SB-137-A0	0.938-10 UN-2A PIN	1.187"	1.375"	48"	48" OAL
06-01-SB-150-A0	0.938-10 UN-2A PIN	1.187"	1.50"	48"	54" OAL
06-01-SB-162-A0	0.938-10 UN-2A PIN	1.187"	1.625"	48"	54" OAL
06-01-SB-175-A0	0.938-10 UN-2A PIN	1.187"	1.750"	48"	54" OAL
06-01-SB-200-A0	0.938-10 UN-2A PIN	1.375"	2.00"	48"	46" OAL
06-01-SB-212-A0	0.938-10 UN-2A PIN	1.375"	2.125"	48"	54" OAL
06-01-SB-250-A0	1.063-10 UN-2A PIN	1.750"	2.50"	72"	48" OAL
06-01-SB-300-A0	1.063-10 UN-2A PIN	1.750"	3.00"	72"	48" OAL
06-01-SB-325-A0	1.063-10 UN-2A PIN	2.312"	3.25"	72"	48" OAL
06-01-SB-350-A0	1.063-10 UN-2A PIN	2.312"	3.25"	96"	72" OAL

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Dump Bailer is used to deposit acid into the wellbore. It can also be used to spot cement on or into downhole equipment.



## Applications

- Placing cement, sand, or acid around plugs or packers to secure them in place.
- Distributing chemical treatments or acid to targeted zones for cleaning or stimulation.

## Key Features & Benefits

- Available in various sizes to accommodate different wellbore dimensions and material volumes.

Technical Data		
<b>Nominal Size</b>	1.75"	2.25"
<b>Assembly Number</b>	06-01-DB-175-A0	06-01-DB-225-A0
<b>Top Thread Connection</b>	0.938" - 10 UN	0.938" - 10 UN
<b>Max O.D.</b>	1.75"	2.25"
<b>Fishneck size</b>	1.375"	1.189"

Parts List		
Nominal Size	1.75"	2.25"
Part Name	Part Number	Part Number
Fishneck	06-01-DB-175-01	06-01-DB-175-01
Barrel	06-01-DB-175-02	06-01-DB-225-02
Shear Disc Sub	06-01-DB-175-04	06-01-DB-175-04
Shear Disc	06-01-DB-175-05	06-01-DB-175-05
Sleeve	06-01-DB-175-06	06-01-DB-175-06
Dart	06-01-DB-175-08	06-01-DB-175-08
Spring	06-01-DB-175-12	06-01-DB-175-12
Bottom Sub	06-01-DB-175-09	06-01-DB-175-09

\*Non stock item. Please call for price and delivery.  
Dump Bailers can be made in other diameters and various barrel lengths.\*

## Overview

Fine Thread Bailer is designed to collect debris and sand within wellbores. With its fine threads, removable valve, and robust upstroke pump design this tool is reliable and effective.

## Applications

- Collection of debris within wellbores, to maintain a clean environment for slickline operations.
- Retrieval of sand, preventing potential blockages and optimizing the overall productivity of the well.

## Key Features & Benefits

- Fine threads increase load capacity, and reduce tool weight.
- Upstroke pump design is used to easily suck debris into the load barrel section of the tool.
- Simple and robust valve design also easy to replace when worn out.



### Technical Data

Assembly Number	Tool O.D.	Connection	Fishneck	I.D.	Barrel Load Capacity
06-01-MB-125-A0	1.25"	0.938-10 UN-2A	1.187"	1.00"	9.4 in <sup>2</sup> / lft.
06-01-MB-150-A0	1.50"	0.938-10 UN-2A	1.187"	1.25"	14.7 in <sup>2</sup> / lft.
06-01-MB-162-A0	1.63"	0.938-10 UN-2A	1.375"	1.38"	17.8 in <sup>2</sup> / lft.
06-01-MB-175-A0	1.75"	0.938-10 UN-2A	1.375"	1.50"	21.2 in <sup>2</sup> / lft.
06-01-MB-200-A0	2.00"	0.938-10 UN-2A	1.375"	1.75"	28.9 in <sup>2</sup> / lft.
06-01-MB-225-A0	2.25"	0.938-10 UN-2A	1.375"	2.00"	37.7 in <sup>2</sup> / lft.

### Standard Options - See catalog for more information

Stroke Lengths	4', 6', 8', and "Drive Down - No Stroke"
Load Barrel Lengths	2', 4', 6', 8', and 10'
Load Barrel Valves	Ball / Flapper Bottoms (Optional Redundant Middle Valve)
Bottom Options	Straight, Mule, Oversized, Snorkel, and Chisel End

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Hydrostatic Bailer is a service tool used at the time when the substance which is to be bailed cannot be removed using pump bailer.



## Applications

- Removing sand, scale, or fill debris from the wellbore during fishing or cleanout operations.
- Recovering small, loose objects or debris left behind after a failed fishing attempt.

## Key Features & Benefits

- Available in various sizes to accommodate different wellbore dimensions and material volumes.

Technical Data			
<b>Nominal Size</b>	1.25"	1.375"	1.625"
<b>Assembly Number</b>	06-01-HB-125-A0	06-01-HB-137-A0	06-01-HB-162-A0
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
<b>Max O.D.</b>	1.25"	1.375"	1.62"
<b>Fishneck size</b>	1.187"	1.187"	1.187"
<b>Nominal Size</b>	1.75"	1.75" (High Pressure)	2.50"
<b>Assembly Number</b>	06-01-HB-175-A0	06-01-HHB-175-A0	06-01-HB-250-A0
<b>Top Thread Connection</b>	0.938"-10 UN	0.938"-10 UN	1.062"-10 UN
<b>Max O.D.</b>	1.75"	1.75"	2.50"
<b>Fishneck size</b>	1.375"	1.375"	1.75"

Please see next page for parts list.

Parts List			
Nominal Size	1.25"	1.375"	1.625"
Part Name	Part Number		
Fishneck	06-01-HB-125-01	06-01-HB-137-01	06-01-HB-162-01
Upper Barrel Sub	06-01-HB-125-02	06-01-HB-137-02	06-01-HB-162-02
Equalizing Dart	06-01-HB-125-03	06-01-HB-125-03	06-01-HB-162-03
Barrel	06-01-HB-125-04	06-01-HB-137-04	06-01-HB-162-04
Lower Barrel Sub	06-01-HB-125-05	06-01-HB-137-05	06-01-HB-162-05
Piston Plug	06-01-HB-125-06	06-01-HB-137-06	06-01-HB-162-06
Plunger	06-01-HB-125-07	06-01-HB-137-07	06-01-HB-162-07
Plunger Housing	06-01-HB-125-08	06-01-HB-137-08	06-01-HB-162-08
Ball Trap	06-01-HB-125-09	06-01-HB-137-09	06-01-HB-162-09
Shoe	06-01-HB-125-10	06-01-HB-137-10	06-01-HB-162-10
	06-01-HB-125-11	06-01-HB-137-11	06-01-HB-162-11
	06-01-HB-125-12	06-01-HB-137-12	06-01-HB-162-12

Nominal Size	1.75"	1.75" (High Pressure)	2.50"
Part Name	Part Number		
Fishneck	06-01-HB-175-01	06-01-HB-175-01	06-01-HB-250-01
Upper Barrel Sub	06-01-HB-175-02	06-01-HHB-175-02	06-01-HB-250-02
Equalizing Dart	06-01-HB-175-03	06-01-HHB-175-03	06-01-HB-250-03
Barrel	06-01-HB-175-04	06-01-HHB-175-04	06-01-HB-250-04
Lower Barrel Sub	06-01-HB-175-05	06-01-HHB-175-05	06-01-HB-250-05
Piston Plug	06-01-HB-175-06	06-01-HHB-175-06	06-01-HB-250-06
Plunger	06-01-HB-175-07	06-01-HHB-175-07	06-01-HB-250-07
Plunger Housing	06-01-HB-175-08	06-01-HB-175-08	06-01-HB-250-08
Ball Trap	06-01-HB-175-09	06-01-HB-175-09	06-01-HB-250-08
Shoe	06-01-HB-175-10	06-01-HB-175-10	06-01-HB-250-10

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Junk Catcher is designed to retrieve loose debris, junk, or small objects from the wellbore.



## Applications

- Removing loose objects, metal fragments, or fill debris from the wellbore.
- Retrieving broken tool parts or wire remnants.

## Key Features & Benefits

- Equipped with internal fishneck.
- Available in various sizes to match different wellbore diameters.

### Technical Data

Nominal Size	1.50"	2.00"	2.50"
Assembly Number	06-01-JCX-150-A0	06-01-JCX-200-A0	06-01-JCX-250-A0
Part Name			
Fishneck	06-01-JCX-150-01	06-01-JCX-200-01	06-01-JCX-250-01
Barrel	06-01-JCX-150-04	06-01-JCX-200-04	06-01-JCX-250-04
Max O.D.	1.465"	1.843"	2.25"
Fishneck Size	1.075"	1.375"	1.81"

Nominal Size	3.00"	4.00"	4.50"
Assembly Number	06-01-JCX-300-A0	06-01-JCX-370-A0	06-01-JCX-450-A0
Part Name			
Fishneck	06-01-JCX-300-01	06-01-JCX-375-01	06-01-JCX-450-01
Barrel	06-01-JCX-300-04	06-01-JCX-400-02	06-01-JCX-450-02
Max O.D.	2.73"	3.75"	4.50"
Fishneck Size	2.31"	3.125"	3.125"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Sample Bailer is used to collect material samples from the bottom of the wellbore. It can also be used to sample other obstructions or scale in the wellbore.

The Sample Bailer may be ran in unison with the Tubing End Locator by substituting the solid fishneck for the Tubing End Locator.



## Applications

- Collecting fluid samples for analysis of production quality, water cut, or contamination levels.
- Retrieving sand, fines, or scale for analysis of wellbore conditions or formation material.

## Key Features & Benefits

- Attaches to the wireline tool string for seamless deployment and retrieval.
- Available in various sizes for different wellbore sizes and sample volumes.

Technical Data	
<b>Nominal Size</b>	2.0"
<b>Assembly Number</b>	06-01-TLS-200-A0
<b>Part Name</b>	
Fishneck	06-01-CO-171-01
Barrel	06-01-TLS-200-01
Ball	0.75" Chrome Steel
Shoe	06-01-TLS-200-02
<b>Upper Thread Connection</b>	0.938"-10 UN 2A
<b>Max O.D.</b>	1.71"
<b>Fishneck Size</b>	1.187"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Stroke Bailer is a used to remove debris, sand, or unwanted material from the wellbore. It operates by using a piston-like stroking action to create suction, lifting the debris into the tool's chamber. Stroke bailers are commonly used in wellbore cleanout operations, particularly when fluid circulation is not feasible or effective.



## Applications

- Clearing sand, scale, metal shavings, and other debris from the wellbore.
- Removing debris after perforating, milling, or intervention operations.

## Key Features & Benefits

- Utilizes a stroking piston action to generate suction.
- Available in multiple diameters and sizes.

Technical Data

Assembly Number	Upper Connection	Fishneck	O.D.	Stroke Length	Load Barrel Length
06-01-SB-087-A0	0.500-13 UNC-2A PIN	0.750"	0.875"	48"	48" OAL
06-01-SB-100-A0	0.625-11 UNC-2A PIN	0.750"	1.00"	48"	48" OAL
06-01-SB-125-A0	0.938-10 UN-2A PIN	1.187"	1.25"	48"	54" OAL
06-01-SB-137-A0	0.938-10 UN-2A PIN	1.187"	1.375"	48"	48" OAL
06-01-SB-150-A0	0.938-10 UN-2A PIN	1.187"	1.50"	48"	54" OAL
06-01-SB-162-A0	0.938-10 UN-2A PIN	1.187"	1.625"	48"	54" OAL
06-01-SB-175-A0	0.938-10 UN-2A PIN	1.187"	1.750"	48"	54" OAL
06-01-SB-200-A0	0.938-10 UN-2A PIN	1.375"	2.00"	48"	46" OAL
06-01-SB-212-A0	0.938-10 UN-2A PIN	1.375"	2.125"	48"	54" OAL
06-01-SB-250-A0	1.063-10 UN-2A PIN	1.750"	2.50"	72"	48" OAL
06-01-SB-300-A0	1.063-10 UN-2A PIN	1.750"	3.00"	72"	48" OAL
06-01-SB-325-A0	1.063-10 UN-2A PIN	2.312"	3.25"	72"	48" OAL
06-01-SB-350-A0	1.063-10 UN-2A PIN	2.312"	3.25"	96"	72" OAL

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Tubing Sampler is used to collect solid samples from tubing or the wellbore. It is specifically designed for retrieving representative solid samples from a specific depth, allowing for accurate well diagnostics, production monitoring, and analysis.



## Applications

- Collecting solid samples for analysis.
- Removing debris from the wellbore.

## Key Features & Benefits

- Available in various sizes to match different wellbore diameters.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	06-01-TS-200-A0	06-01-TS-250-A0	06-01-TS-300-A0
<b>Part Name</b>			
Fishneck	02-01-FH-175-01	02-01-FH-175-01	02-01-FH-175-01
Mandrel	06-01-TS-200-02	06-01-TS-200-02	06-01-TS-200-02
Gauge Ring	06-01-TS-200-03	06-01-TS-250-03	06-01-TS-300-03
Junk Basket	06-01-TS-200-04	06-01-TS-250-04	06-01-TS-300-04
<b>Top Thread Connection</b>	0.938" – 10 UN	0.938" – 10 UN	0.938" – 10 UN
<b>Lower Thread Connection</b>	1.00" LINE PIPE	1.00" LINE PIPE	1.00" LINE PIPE
<b>Max O.D.</b>	1.906"	2.347"	2.867"
<b>Fishneck Size</b>	1.375"	1.375"	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 07. Probes & Shanks

## Overview

An A Probe is used to manipulate the lock dogs on a BKO style selective style lock mandrel to allow dogs to collapse. This allows an assembly to be removed from a profile, or tubing collar. The A Probe allows upward facing lock dogs of a selective (type S) to be retracted.



## Applications

- Manipulating and collapsing lock dogs on Baker Style selective lock mandrels.

## Key Features & Benefits

- Retracts upward-facing lock dogs on Type S mandrels.

Technical Data				
Nominal Size	2.00"	2.50"	2.56"	3.00"
Assembly Number	07-03-A-200-A0	07-03-A-250-A0	07-03-A-200-A0	07-03-A-300-A0
Part Name				
Spindle	07-03-AC-200-01	07-03-AC-200-01	07-03-AC-200-01	07-03-AC-300-01
Retaining Head	07-03-AC-200-02	07-03-AC-250-02	07-03-AC-256-02	07-03-AC-300-02
Blade	07-03-A-200-03	07-03-A-250-03	07-03-A-256-03	07-03-A-300-03
Top Thread Connection	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC	0.625"-11 UNC
Lower Thread Connection	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC	0.625"-11 UNC
Max O.D.	0.827"	1.132"	1.174"	1.382"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

An A Shank is used in conjunction with C1/C2 Running Tools to collapse downward facing lock dogs in the running of selective S locks.



## Applications

- Used during running operations to collapse downward-facing lock dogs.

## Key Features & Benefits

- Available in various sizes for different requirements.

Technical Data					
Nominal Size	1.50"	2.00"	2.50"	3.00"	4.00"
Part Number	0703AS15001	0703AS20001	0703AS250001	0703AS30001	0703ASL40001
Top Thread Connection		0.75"-16 UNF	1.00"-14 UN	1.00"-14 UN	1.00"-14 UN
Lower Thread Connection	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC	0.625"-11 UNC	0.625"-11 UNC
Max O.D.	0.695"	0.827"	1.156"	1.405"	2.031"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The AC Probe is used to manipulate the lock dogs on a BKO style selective style lock mandrel to allow dogs to collapse and assembly to be removed from a profile, or tubing collar.



## Applications

- Collapsing lock dogs on Baker style selective lock mandrels.

## Key Features & Benefits

- The AC Probe allows upward facing lock dogs of a selective (type S) to be retracted if necessary.

Technical Data			
<b>Nominal Size</b>	1.50"-2.062"	2.00"	2.50"
<b>Assembly Number</b>	07-03-AC-150-A0	07-03-AC-200-A0	07-03-AC-250-A0
<b>Part Name</b>			
Spindle	07-03-AC-150-01	07-03-AC-200-01	07-03-AC-200-01
Retaining Head	07-03-AC-150-02	07-03-AC-200-02	07-03-AC-250-02
Blade	07-03-AC-150-03	07-03-AC-200-03	07-03-AC-250-03
Segments	07-03-AC-150-04	n/a	n/a
<b>Top Thread Connection</b>	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC
<b>Lower Thread Connection</b>	0.718"	0.827"	1.132"

<b>Nominal Size</b>	2.56"	3.00"	4.50"
<b>Assembly Number</b>	07-03-AC-256-A0	07-03-AC-300-A0	07-03-AC-400-A0
<b>Part Name</b>			
Spindle	07-03-AC-200-01	07-03-AC-300-01	07-03-AC-400-01
Retaining Head	07-03-AC-256-02	07-03-AC-300-02	07-03-AC-400-03
Blade	07-03-AC-256-03	07-03-AC-300-03	07-03-AC-400-04
<b>Top Thread Connection</b>	0.50"-13 UNC	0.625"-11 UNC	1.25"-12 UN
<b>Lower Thread Connection</b>	1.174"	1.382"	2.31"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The B Probe is used to manipulate the lock dogs on a BKO style top no-go / bottom no-go style lock mandrel to allow dogs to collapse. This allows the assembly to be removed from a profile, or tubing collar.

## Applications

- Collapsing the lock dogs on Baker style top no-go/ bottom no-go mandrels.

## Key Features & Benefits

- Ensures secure and controlled release of the assembly.



Technical Data			
<b>Nominal Size</b>	2.062"	2.00"	2.50"
<b>Part Number</b>	07-03-B-206-01	07-03-B-200-01	07-03-B-250-01
<b>Top Thread Connection</b>	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC
<b>Lower Thread Connection</b>	0.438"-14 UNC	0.50"-13 UNC	0.50"-13 UNC
<b>Probe O.D.</b>	0.70"	0.837"	1.143"

Technical Data			
<b>Nominal Size</b>	2.56"	2.56"	4.00"
<b>Part Number</b>	0703B25601	0703B30001	0703B40001
<b>Top Thread Connection</b>	0.50"-13 UNC	0.625"-11 UNC	1.25"-12 UN
<b>Lower Thread Connection</b>	0.50"-13 UNC	0.625"-11 UNC	0.625"-11 UNC
<b>Probe O.D.</b>	1.174"	1.382"	2.031"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Extended B Probe is used to manipulate the lock dogs on a BKO style top no-go / bottom no-go style lock mandrel to allow dogs to collapse. This allows an assembly to be removed from a profile, or tubing collar. The Extended B Probe allows all lock dogs of a selective (type S) to be retracted if necessary.



## Applications

- Collapsing the lock dogs on Baker style top no-go/ bottom no-go mandrels.
- Retracting all lock dogs on selective (Type S) mandrels when necessary.

## Key Features & Benefits

- Ensures secure and controlled release of the assembly.

Technical Data			
<b>Nominal Size</b>	1.50"	2.00"	2.50"
<b>Part Number</b>	0703BEX15001	0703BEX20001	0703BEX25001
<b>Top Thread Connection</b>	0.50"-13 UNC	0.50"-13 UNC	0.50"-13 UNC
<b>Probe O.D.</b>	0.70"	0.837"	1.143"
<b>Nominal Size</b>	2.56"	3.00"	4.00"
<b>Assembly Number</b>	0703BEX25601	0703BEX30001	0703BEX40001
<b>Top Thread Connection</b>	0.50"-13 UNC	0.625"-11 UNC	1.25"-12 UN
<b>Lower Thread Connection</b>	1.174"	1.382"	2.031"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The X Running/Pulling Prong is designed to be used in conjunction with a X Line Running Tool to manipulate X equalizing assemblies.

## Applications

- Collapsing the lock dogs on Baker style top no-go/bottom no-go mandrels.
- Retracting all lock dogs on selective (Type S) mandrels when necessary.



Equalizing Prong

## Key Features & Benefits

- Ensures secure and controlled release of the assembly.



Running Prong

### Technical Data - Pulling/Opening Equalizing Prong

<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Part Number</b>	0702X20002	0702X25002	0702X30002
<b>Top Thread Connection</b>	0.50" – 13 UNC	0.625" – 11 UNC	0.625" – 11 UNC
<b>Probe O.D.</b>	0.969"	1.30"	1.71"
<b>Overall Length</b>	12.25"	12.813"	13.00"

### Technical Data - Running/Closing Prong

<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Part Number</b>	0702X20002	0702X25002	0702X30002
<b>Top Thread Connection</b>	0.50" – 13 UNC	0.625" – 11 UNC	0.75" – 10 UNC
<b>Probe O.D.</b>	0.96"	1.335"	1.71"
<b>Overall Length</b>	4.938"	5.125"	5.50"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 08. Lock Mandrels

## Overview

The R Lock Mandrel is a selective lock which can be installed in the chosen R landing nipple in a series of R nipples. It has retractable keys with straight shoulders and an integrated packing mandrel that allow the tool to lock into a profile nipple and create a seal. This allows the lock to create or hold pressure from above or below based on the equalizing assembly being used.

## Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

## Key Features & Benefits

- Available in a variety of sizes to work with new and existing R and RN profile nipples.
- Retractable locking keys with angled shoulders that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.



Technical Data - R Lock Mandrel

Nominal Size	Assembly Number	Bottom Thread Connection	Fishneck Size	Maximum O.D.
1.710"	08-02-R-171-A0	1.125"-16 UN-2A	1.062"	1.680"
1.781"	08-02-R-178-A0	1.375"-14 UN-2A	1.375"	1.750"
1.875"	08-02-R-187-A0	1.375"-14 UN-2A	1.375"	1.844"
2.00"	08-02-R-200-A0	1.375"-14 UN-2A	1.375"	1.965"
2.125"	08-02-R-212-A0	1.375"-14 UN-2A	1.375"	2.080"
2.188"	08-02-R-218-A0	1.750"-12 UN-2A	1.812"	2.150"
2.313"	08-02-R-231-A0	1.750"-12 UN-2A	1.812"	2.280"
2.56"	08-02-R-256-A0	2.00" – 12 SLB	1.812"	2.531"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Technical Data - R Lock Mandrel

Nominal Size	Assembly Number	Bottom Thread Connection	Fishneck Size	Maximum O.D.
2.75"	08-02-R-275-A0	2.250" - 12 SLB	2.312"	2.710"
2.81"	08-02-R-281-A0	2.250" - 12 SLB	2.312"	2.765"
3.43"	08-02-R-343-A0	2.750" - 12 SLB	2.625"	3.406"
3.68"	08-02-R-368-A0	3.062" - 12 SLB	3.125"	3.654"
3.81"	08-02-R-381-A0	3.062" - 12 SLB	3.125"	3.750"
4.00"	08-02-R-400-A0	3.250" - 12 SLB	3.125"	3.940"
4.12"	08-02-R-412-A0	3.250" - 12 SLB	3.125"	4.060"
4.31"	08-02-R-431-A0	3.250" - 12 SLB	3.350"	4.280"
5.62"	08-02-R-562-A0	4.500" - 8 SLB	4.000"	5.550"
5.96"	08-02-R-596-A0	5.063" - 8 SLB	5.375"	5.906

## Parts List

Nominal Size	1.710"	1.781"	1.875"	2.00"
Part Name	Part Number			
Fishneck	08-02-R-171-01	08-02-R-178-01	08-02-R-187-01	08-02-R-200-01
Expander Sleeve	08-02-R-171-02	08-02-R-178-02	08-02-R-187-02	08-02-R-200-02
Key Retainer	08-02-R-171-03	08-02-R-178-03	08-02-R-187-03	08-02-R-200-03
Key Spring	08-02-X-150-05	08-02-X-150-05	08-02-X-200-05	08-02-X-200-05
Key "R"	08-02-X-150-05	08-02-R-178-04	08-02-R-187-04	08-02-R-200-04
Packing Mandrel	08-02-R-171-06	08-02-R-178-06	08-02-R-187-06	08-02-R-200-06
Female Backup Ring	08-02-BUR-171-01	08-02-BUR-178-01	08-02-BUR-187-01	08-02-BUR-200-01
V-Packing	08-02-VP-171-01	08-02-VP-178-01	08-02-VP-187-01	08-02-VP-200-01
Male Backup Ring	08-02-BUR-171-02	08-02-BUR-178-02	08-02-BUR-187-02	08-02-BUR-200-02

## Parts List

Nominal Size	2.125"	2.188"	2.313"	2.56"
Part Name	Part Number			
Fishneck	08-02-R-212-01	08-02-R-218-01	08-02-R-218-01	08-02-R-256-01
Expander Sleeve	08-02-R-212-02	08-02-R-218-02	08-02-R-218-02	08-02-R-256-02
Key Retainer	08-02-R-212-03	08-02-R-218-03	08-02-R-231-03	08-02-R-256-03
Key Spring	08-02-X-200-05	08-02-X-200-05	08-02-X-200-05	08-02-X-200-05
Key "R"	08-02-R-212-04	08-02-R-218-04	08-02-R-231-04	08-02-R-256-04
Packing Mandrel	08-02-R-212-06	08-02-R-218-06	08-02-R-231-06	08-02-R-256-06
Female Backup Ring	08-02-BUR-212-01	08-02-BUR-218-01	08-02-BUR-231-01	08-02-BUR-256-01
V-Packing	08-02-VP-212-01	08-02-VP-218-01	08-02-VP-231-01	08-02-VP-256-01
Male Backup Ring	08-02-BUR-212-02	08-02-BUR-218-02	08-02-BUR-231-02	08-02-BUR-256-02

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	2.75"	2.81"	3.43"	3.68"
Part Name	Part Number			
Fishneck	08-02-R-275-01	08-02-R-281-01	08-02-R-343-01	08-02-R-368-01
Expander Sleeve	08-02-R-275-02	08-02-R-275-02	08-02-R-343-02	08-02-R-368-02
Key Retainer	08-02-R-275-03	08-02-R-281-03	08-02-R-343-03	08-02-R-368-03
Key Spring	08-02-R-275-04	08-02-R-281-04	08-02-R-343-04	08-02-R-368-04
Key "R"	08-02-X-300-05	08-02-X-300-05	08-02-X-400-05	08-02-X-400-05
Packing Mandrel	08-02-R-275-06	08-02-R-275-06	08-02-R-343-06	08-02-R-368-06
Female Backup Ring	08-02-BUR-275-01	08-02-BUR-281-01	08-02-BUR-343-01	08-02-BUR-368-01
V-Packing	08-02-VP-275-01	08-02-VP-281-01	08-02-VP-343-01	08-02-VP-368-01
Male Backup Ring	08-02-BUR-275-02	08-02-BUR-281-02	08-02-BUR-343-02	08-02-BUR-368-02

Parts List				
Nominal Size	3.81"	4.00"	4.12"	4.31"
Part Name	Part Number			
Fishneck	08-02-R-381-01	08-02-R-400-01	08-02-R-412-01	08-02-R-431-01
Expander Sleeve	08-02-R-381-02	08-02-R-412-02	08-02-R-412-02	08-02-R-431-02
Key Retainer	08-02-R-381-03	08-02-R-400-03	08-02-R-412-03	08-02-R-431-03
Key Spring	08-02-R-381-04	08-02-R-400-04	08-02-R-412-04	08-02-R-431-04
Key "R"	08-02-X-400-05	08-02-X-400-05	08-02-X-400-05	08-02-R-596-05
Packing Mandrel	08-02-R-381-06	08-02-R-400-06	08-02-R-412-06	08-02-R-431-06
Block Plate		08-02-R-562-07	08-02-R-562-07	08-02-R-562-07
Female Backup Ring	08-02-BUR-381-01	08-02-BUR-400-01	08-02-BUR-412-01	08-02-BUR-431-01
V-Packing	08-02-VP-381-01	08-02-VP-400-01	08-02-VP-412-01	08-02-VP-431-01
Male Backup Ring	08-02-BUR-381-02	08-02-BUR-400-02	08-02-BUR-412-02	08-02-BUR-431-02

Parts List		
Nominal Size	5.62"	5.96"
Part Name	Part Number	
Fishneck	08-02-R-562-01	08-02-R-596-01
Expander Sleeve	08-02-R-562-02	08-02-R-596-02
Key Retainer	08-02-R-562-03	08-02-R-596-03
Key Spring	08-02-R-562-04	08-02-R-596-04
Key "R"	08-02-R-596-05	08-02-R-596-05
Packing Mandrel	08-02-R-562-06	08-02-R-596-06
Block Plate	08-02-R-562-07	08-02-R-562-07
Female Backup Ring	08-02-BUR-562-01	08-02-BUR-596-01
V-Packing	08-02-VP-562-01	08-02-VP-596-01
Male Backup Ring	08-02-BUR-562-02	08-02-BUR-596-02

## Overview

The RN Lock Mandrel is the non-selective version of the R Lock Mandrel. The keys have angled shoulders, and the lock is designed to stop against the No-Go diameter at the bottom of an RN Nipple. The RN lock is used in single installations in the bottom RN nipple in a series of R profile nipples. RN Locks have a higher pressure rating than R locks of the same size.

## Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

## Key Features & Benefits

- Available in a variety of sizes to work with new and existing R profile nipples.
- Retractable locking keys with angled shoulders that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.



Technical Data - R Lock Mandrel				
Nominal Size	Assembly Number	Bottom Thread Connection	Fishneck Size	Maximum O.D.
1.710"	08-02-RN-171-A0	1.125"-16 UN-2A	1.062"	1.680"
1.781"	08-02-RN-178-A0	1.375"-14 UN-2A	1.375"	1.750"
1.875"	08-02-RN-187-A0	1.375"-14 UN-2A	1.375"	1.844"
2.00"	08-02-RN-200-A0	1.375"-14 UN-2A	1.375"	1.965"
2.125"	08-02-RN-212-A0	1.375"-14 UN-2A	1.375"	2.080"
2.188"	08-02-RN-218-A0	1.750"-12 UN-2A	1.375"	2.150"
2.313"	08-02-RN-231-A0	1.750"-12 UN-2A	1.812"	2.280"
2.56"	08-02-RN-256-A0	2.00" – 12 SLB	1.812"	2.531"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.710"	1.781"	1.875"	2.00"
Part Name	Part Number			
Fishneck	08-02-R-171-01	08-02-R-178-01	08-02-R-187-01	08-02-R-200-01
Expander Sleeve	08-02-R-171-02	08-02-R-178-02	08-02-R-187-02	08-02-R-200-02
Key Retainer	08-02-R-171-03	08-02-R-178-03	08-02-R-187-03	08-02-R-200-03
Key Spring	08-02-X-150-05	08-02-X-150-05	08-02-X-200-05	08-02-X-200-05
Key "RN"	08-02-RN-171-05	08-02-RN-178-05	08-02-RN-187-05	08-02-RN-187-05
Packing Mandrel	08-02-R-171-06	08-02-R-178-06	08-02-R-187-06	08-02-R-200-06
Female Backup Ring	08-02-BUR-171-01	08-02-BUR-178-01	08-02-BUR-187-01	08-02-BUR-200-01
V-Packing	08-02-VP-171-01	08-02-VP-178-01	08-02-VP-187-01	08-02-VP-200-01
Male Backup Ring	08-02-BUR-171-02	08-02-BUR-178-02	08-02-BUR-187-02	08-02-BUR-200-02

Parts List				
Nominal Size	2.125"	2.188"	2.313"	2.56"
Part Name	Part Number			
Fishneck	08-02-R-212-01	08-02-R-218-01	08-02-R-218-01	08-02-R-256-01
Expander Sleeve	08-02-R-212-02	08-02-R-218-02	08-02-R-218-02	08-02-R-256-02
Key Retainer	08-02-R-212-03	08-02-R-218-03	08-02-R-231-03	08-02-R-256-03
Key Spring	08-02-X-200-05	08-02-X-200-05	08-02-X-200-05	08-02-X-200-05
Key "RN"	08-02-RN-212-05	08-02-RN-212-05	08-02-RN-231-05	08-02-RN-231-05
Packing Mandrel	08-02-R-212-06	08-02-R-218-06	08-02-R-231-06	08-02-R-256-06
Female Backup Ring	08-02-BUR-212-01	08-02-BUR-218-01	08-02-BUR-231-01	08-02-BUR-256-01
V-Packing	08-02-VP-212-01	08-02-VP-218-01	08-02-VP-231-01	08-02-VP-256-01
Male Backup Ring	08-02-BUR-212-02	08-02-BUR-218-02	08-02-BUR-231-02	08-02-BUR-256-02

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The S Lock Mandrel used with a locating assembly to lock into polished seal bore of an F Landing Nipple and can bear pressure from below and above. It can also be used in combination with the pump via plugs, positive plugs, standing and safety valves.

It is fitted and pinned in the mandrel with two locks facing up to prevent upward movement and two locks facing down to prevent downward movement once the lock assembly is locked into place in the F Nipple.

The S Lock Mandrel can be used as selective by choosing specific graduated nipple seal bore sizes and the running tool locator ring sizes. The S Lock assembly is ran with the C-1 Running Tool complete with locator ring and the A shank.

## Applications

- Blanking off pressure of production tubing.
- Deploying various types of valves in the tubing string.
- Hanging bottom hole instruments in the wellbore.

## Key Features & Benefits

- The four locks provide robust and dual-directional downhole security.
- Selectivity can be achieved through a combination of graduated nipple seal bore sizes and running tool locator ring sizes.
- Available in various material configurations.



**Technical Data - S Lock Mandrel**

Nominal Size	2.00"	2.50"	2.56"	3.00"	4.00"
Assembly Number	08-03-S-200-A0	08-03-S-250-A0	08-03-S-256-A0	08-03-S-300-A0	08-03-S-368-A0
Fishneck Size	1.375"	1.75"	1.75"	2.313"	3.125"
Running Shank	07-03-AS-200-01	07-03-AS-250-01	07-03-AS-256-01	07-03-AS-300-01	07-03-AS-400-01
Pulling Probe	07-03-AC-200-A0	07-03-AC-250-A0	07-03-AC-256-A0	07-03-AC-300-A0	07-03-AC-400-A0

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

<b>Parts List</b>					
<b>Nominal Size</b>	2.00"	2.50"	2.56"	3.00"	4.00"
<b>Part Name</b>	<b>Part Number</b>				
Body	08-03-S-200-01	08-03-S-250-01	08-03-S-256-01	08-03-S-300-01	08-03-S-300-03
Lock Dog	08-03-S-200-02	08-03-S-250-02	08-03-S-300-02	08-03-S-300-01	08-03-S-300-03
Spring	08-03-S-200-03	08-03-S-250-03	08-03-S-250-03	08-03-S-300-03	04-03-D-200-11
Pin	08-03-S-200-04	08-03-S-250-04	08-03-S-250-04	08-03-S-300-03	04-03-D-200-11

**Please Note:**

- 1.900 & 2.062 available upon request .
- TS lock dogs available upon request.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The W Lock Mandrel is a no-go lock which is used in a series of F Landing Nipples. It is made up of one no-go shoulder and two spring-loaded locking dogs which help to prevent downward and upward movement. It offers positive locating series for subsurface controls in the selective F Landing Nipple profiles.

It has a larger O.D. dimension near the top of the lock mandrel which no-go's on top of the nipple profile sealing bore preventing downward movement when locked in the nipple profile. The two locks are fitted and pinned in the body of the lock mandrel facing up to prevent upward movement of the lock assembly when locked into the nipple profile.



## Applications

- Blanking off pressure of production tubing.
- Deploying various types of valves in the tubing string.
- Hanging bottom hole instruments in the wellbore.

## Key Features & Benefits

- The two locks and No-Go shoulder provide robust and dual-directional downhole security.
- Selectivity can be achieved through a combination of graduated nipple seal bore sizes.
- Available in various material configurations.

Technical Data - W Lock Mandrel				
Nominal Size	2.00"	2.50"	2.75" - 2.81"	4.00"
Assembly Number	08-03-W-187-A0	08-03-W-187-A0	08-03-W-300-01	08-03-W-300-01
Fishneck Size	1.375"	1.75"	2.313"	3.125"
Maximum O.D.	1.906"	2.343"	2.867"	3.843"
Pulling Probe	07-03-B-200-01	07-03-B-250-01	07-03-B-300-01	07-03-B-400-01

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

<b>Parts List</b>				
<b>Nominal Size</b>	2.00"	2.50"	2.75" - 2.81"	4.00"
<b>Part Name</b>	<b>Part Number</b>			
Body	08-03-W-187-01	08-03-W-231-01	08-03-W-300-01	08-03-W-381-01
Lock Dog	08-03-S-200-02	08-03-S-250-02	08-03-S-300-02	08-03-S-400-02
Spring	08-03-S-200-03	08-03-S-250-03	08-03-S-300-03	04-03-D-250-11
Pin	08-03-S-200-04	08-03-S-250-04	08-03-S-250-04	08-03-S-400-04

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The X Lock is a selective lock which can be installed in the chosen X landing nipple in a series of X nipples. It has retractable keys and an integrated packing mandrel that allow the tool to lock into a profile nipple and create a seal. This allows the lock to create or hold pressure from above or below based on the equalizing assembly being used.

## Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

## Key Features & Benefits

- Available in a variety of sizes to work with new and existing X and XN profile nipples.
- Retractable locking keys that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.



Technical Data - X Lock Mandrel

Nominal Size	Assembly Number	Bottom Thread Assembly	Fishneck I.D.	Maximum O.D.
1.50"	08-02-X-150-A0	1.125"-16 UN-2A	1.062"	1.465"
1.625"	08-02-X-162-A0	1.125"-16 UN-2A	1.062"	1.580"
1.875"	08-02-X-187-A0	1.375-14 UN-2A	1.375"	1.835"
2.313"	08-02-X-231-A0	1.750-12 UN-2A	1.812"	2.275"
2.75"	08-02-X-275-A0	2.250-12 SLB	2.31"	2.72"
2.813"	08-02-X-281-A0	2.250-12 SLB	2.31"	2.78"
3.813"	08-02-X-381-A0	3.062-12 SLB	3.125"	3.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.50"	1.625"	1.875"	2.313"
Part Name	Part Number			
Fishneck	08-02-X-150-01	08-02-X-162-01	08-02-X-200-01	08-02-X-250-01
Expander Sleeve	08-02-X-150-02	08-02-X-150-02	08-02-X-200-02	08-02-X-250-02
Key Retainer	08-02-X-150-03	08-02-X-162-03	08-02-X-200-03	08-02-X-250-03
X Key	08-02-X-150-04	08-02-X-162-04	08-02-X-200-04	08-02-X-250-04
Key Spring	08-02-X-150-05	08-02-X-150-05	08-02-X-200-05	08-02-X-200-05
Packing Mandrel	08-02-X-150-06	08-02-X-162-06	08-02-X-200-06	08-02-X-250-06
Male Backup Ring	08-02-BUR-150-02	08-02-BUR-162-02	08-02-BUR-187-02	08-02-BUR-231-02
Female Backup Ring	08-02-BUR-150-01	08-02-BUR-162-01	08-02-BUR-187-01	08-02-BUR-231-01
Nominal Size	2.75"	2.813"	3.813"	
Part Name	Part Number			
Fishneck	08-02-X-300-01	08-02-X-300-01	08-02-X-400-01	
Expander Sleeve	08-02-X-300-02	08-02-X-300-02	08-02-X-400-02	
Key Retainer	08-02-X-275-03	08-02-X-281-03	08-02-X-400-03	
X Key	08-02-X-275-04	08-02-X-281-04	08-02-X-400-04	
Key Spring	08-02-X-300-05	08-02-X-300-05	08-02-X-400-05	
Packing Mandrel	08-02-X-300-06	08-02-X-300-06	08-02-X-400-06	
Male Backup Ring	08-02-BUR-275-02	08-02-BUR-281-02	08-02-BUR-381-02	
Female Backup Ring	08-02-BUR-275-01	08-02-BUR-281-01	08-02-BUR-381-01	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The X Interference Lock is a selective lock which can be installed in the chosen X landing nipple in a series of X nipples. It has retractable keys and an integrated packing mandrel that allow the tool to lock into a profile nipple and create a seal. It includes a locking tab on the mandrel that holds the tool in the set position to reduce the risk of the lock unsetting.



### Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

### Key Features & Benefits

- Available in a variety of sizes to work with new and existing X profile nipples.
- Retractable locking keys that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.
- Utilizes the mandrel locking tab to prevent blowouts.



Technical Data - X Interference Lock Mandrel				
Nominal Size	Assembly Number	Bottom Thread Assembly	Fishneck I.D.	Maximum O.D.
1.875"	08-02-XI-187-A0	1.375-14 UN-2A	1.375"	1.835"
2.313"	08-02-XI-231-A0	1.750-12 UN-2A	1.812"	2.275"
2.75"	08-02-XI-275-A0	2.250-12 SLB	2.31"	2.72"
2.813"	08-02-XI-281-A0	2.250-12 SLB	2.31"	2.78"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.875"	2.313"	2.75"	2.813"
Part Name	Part Number			
Fishneck	08-02-X-200-01	08-02-X-250-01	08-02-X-300-01	08-02-X-300-01
Expander Sleeve	08-02-X-200-02	08-02-X-250-02	08-02-X-300-02	08-02-X-300-02
Key Retainer	08-02-X-200-03	08-02-X-250-03	08-02-X-275-03	08-02-X-281-03
X Key	08-02-X-200-04	08-02-X-250-04	08-02-X-275-04	08-02-X-281-04
Key Spring	08-02-X-200-05	08-02-X-200-05	08-02-X-300-05	08-02-X-300-05
Packing Mandrel	08-02-XI-200-06	08-02-XI-250-06	08-02-XI-300-06	08-02-XI-300-06
Male Backup Ring	08-02-BUR-187-02	08-02-BUR-231-02	08-02-BUR-275-02	08-02-BUR-281-02
Female Backup Ring	08-02-BUR-187-01	08-02-BUR-231-01	08-02-BUR-275-01	08-02-BUR-281-01

Please Note:

- XI Locks require the expander sleeve to have locking groove.
- X Locks larger than 2.813" are not typically made into interference locks. Instead, they can be equipped with a block plate and shear pin to avoid the large setting forces an interference tab creates on these sizes.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The XN Interference Lock is the non-selective version of the X interference lock. The keys have an angled shoulder, and the lock is designed to stop against the No-Go diameter at the bottom of an XN Nipple. The XN lock is used in single installations or installed in the bottom XN nipple in a series of X profile nipples. XN Locks have a higher pressure from above rating than X locks of the same size.



## Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

## Key Features & Benefits

- Available in a variety of sizes to work with new and existing XN profile nipples.
- Retractable locking keys that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.
- Utilizes the mandrel locking tab to prevent blowouts.



Technical Data - X Interference Lock Mandrel				
Nominal Size	Assembly Number	Bottom Thread Assembly	Fishneck I.D.	Maximum O.D.
1.875"	08-02-XNI-187-A0	1.375-14 UN-2A	1.375"	1.835"
2.313"	08-02-XNI-231-A0	1.750-12 UN-2A	1.812"	2.275"
2.75"	08-02-XNI-275-A0	2.250-12 SLB	2.31"	2.72"
2.813"	08-02-XNI-281-A0	2.250-12 SLB	2.31"	2.78"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.875"	2.313"	2.75"	2.813"
Part Name	Part Number			
Fishneck	08-02-X-200-01	08-02-X-250-01	08-02-X-300-01	08-02-X-300-01
Expander Sleeve	08-02-X-200-02	08-02-X-250-02	08-02-X-300-02	08-02-X-300-02
Key Retainer	08-02-X-200-03	08-02-X-250-03	08-02-X-275-03	08-02-X-281-03
XN Key	08-02-XN-200-04	08-02-XN-250-04	08-02-XN-275-04	08-02-XN-281-04
Key Spring	08-02-X-200-05	08-02-X-200-05	08-02-X-300-05	08-02-X-300-05
Packing Mandrel	08-02-XI-200-06	08-02-XI-250-06	08-02-XI-300-06	08-02-XI-300-06
Male Backup Ring	08-02-BUR-187-02	08-02-BUR-231-02	08-02-BUR-275-02	08-02-BUR-281-02
Female Backup Ring	08-02-BUR-187-01	08-02-BUR-231-01	08-02-BUR-275-01	08-02-BUR-281-01

Please Note:

- XNI Locks require the expander sleeve to have locking groove.
- XN Locks larger than 2.813" are not typically made into interference locks. Instead, they can be equipped with a block plate and shear pin to avoid the large setting forces an interference tab creates on these sizes.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The XN Lock is the non-selective version of the X lock. The keys have an angled shoulder, and the lock is designed to stop against the No-Go diameter at the bottom of an XN Nipple. The XN lock is used in single installations or installed in the bottom XN nipple in a series of X profile nipples. XN Locks have a higher pressure rating than X locks of the same size.

## Applications

- Isolating pressure from either above or below the lock during pressure testing.
- Plugging tubing strings for tubular snubbing operations.
- Restricting and regulating downhole flow.
- Subsurface safety valve systems.

## Key Features & Benefits

- Available in a variety of sizes to work with new and existing X profile nipples.
- Retractable locking keys that provide reliable locking, and ease of retrieval.
- Compatible with standard weight tubing, ensuring ease of integration into diverse completion setups.



Technical Data - XN Lock Mandrel

Nominal Size	Assembly Number	Bottom Thread Assembly	Fishneck I.D.	Maximum O.D.
1.50"	08-02-XN-150-A0	1.125"-16 UN-2A	1.062"	1.465"
1.625"	08-02-XN-162-A0	1.125"-16 UN-2A	1.062"	1.580"
1.875"	08-02-XN-187-A0	1.375-14 UN-2A	1.375"	1.835"
2.313"	08-02-XN-231-A0	1.750-12 UN-2A	1.812"	2.275"
2.75"	08-02-XN-275-A0	2.250-12 SLB	2.31"	2.72"
2.813"	08-02-XN-281-A0	2.250-12 SLB	2.31"	2.78"
3.813"	08-02-XN-381-A0	3.062-12 SLB	3.125"	3.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.50"	1.625"	1.875"	2.313"
Part Name	Part Number			
Fishneck	08-02-X-150-01	08-02-X-162-01	08-02-X-200-01	08-02-X-250-01
Expander Sleeve	08-02-X-150-02	08-02-X-150-02	08-02-X-200-02	08-02-X-250-02
Key Retainer	08-02-X-150-03	08-02-X-162-03	08-02-X-200-03	08-02-X-250-03
XN Key	08-02-XN-150-04	08-02-XN-162-04	08-02-XN-200-04	08-02-XN-250-04
Key Spring	08-02-X-150-05	08-02-X-150-05	08-02-X-200-05	08-02-X-200-05
Packing Mandrel	08-02-X-150-06	08-02-X-162-06	08-02-X-200-06	08-02-X-250-06
Male Backup Ring	08-02-BUR-150-02	08-02-BUR-162-02	08-02-BUR-187-02	08-02-BUR-231-02
Female Backup Ring	08-02-BUR-150-01	08-02-BUR-162-01	08-02-BUR-187-01	08-02-BUR-231-01
• Intensifying jarring action and cushioning the force				
Nominal Size	2.75"	2.813"	3.813"	
Part Name	Part Number			
Fishneck	08-02-X-300-01	08-02-X-300-01	08-02-X-400-01	
Expander Sleeve	08-02-X-300-02	08-02-X-300-02	08-02-X-400-02	
Key Retainer	08-02-X-275-03	08-02-X-281-03	08-02-X-400-03	
XN Key	08-02-XN-275-04	08-02-XN-281-04	08-02-XN-400-04	
Key Spring	08-02-X-300-05	08-02-X-300-05	08-02-X-400-05	
Packing Mandrel	08-02-X-300-06	08-02-X-300-06	08-02-X-400-06	
Male Backup Ring	08-02-BUR-275-02	08-02-BUR-281-02	08-02-BUR-381-02	
Female Backup Ring	08-02-BUR-275-01	08-02-BUR-281-01	08-02-BUR-381-01	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Z Lock Mandrel is designed to secure subsurface controls within BR Profile Nipples. Crafted with an external fishing neck, this mandrel features a robust assembly comprising a Lock Mandrel, two Locks, and Lock Springs. Its seamless integration with subsurface control accessories ensures reliable functionality within the specified seating nipple.

Two upward facing locks stop upward movement of assembly. Downward travel is stopped by the packing mandrel landing on the No-Go of the BR Profile Nipple.



## Applications

- Locking subsurface controls within BR Profile Nipples.

## Key Features & Benefits

- Two locks placed to prevent unwanted upward movement.
- Designed to work seamlessly with a "C-1" running tool for deployment and "JUC" or "JDC" pulling tool for removal.
- Available in various material configurations.

Technical Data - Z Lock Mandrel

Nominal Size	2.00"	2.50"	2.56"	2.75" - 2.81"	4.00"
Assembly Number	08-03-Z-200-A0	08-03-Z-250-A0	08-03-Z-256-A0	08-03-Z-300-A0	08-03-Z-368-01
Fishneck Size	1.375"	1.75"	2.313"	2.313"	3.125"
Maximum O.D.	1.75"	2.18"	2.5"	2.685"	3.562"
Pulling Probe	07-03-B-200-01	07-03-B-250-01	07-03-B-256-01	07-03-B-300-01	07-03-B-400-01

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

<b>Parts List</b>					
<b>Nominal Size</b>	2.00"	2.50"	2.56"	2.75" – 2.81"	4.00"
<b>Part Name</b>	<b>Part Number</b>				
Body	08-03-Z-200-01	08-03-Z-250-01	08-03-Z-256-01	08-03-Z-300-01	08-03-Z-368-01
Lock Dog	08-03-S-200-02	08-03-S-250-02	08-03-S-300-02	08-03-S-300-02	08-03-S-400-02
Spring	08-03-S-200-03	08-03-S-250-03	08-03-S-300-03	08-03-S-300-03	04-03-D-200-11
Pin	08-03-S-200-04	08-03-S-250-04	08-03-S-250-04	08-03-S-250-04	08-03-S-400-04

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 09. Equalizing Assemblies

## Overview

The Dual Flapper is a check valve that utilizes two individual flapper check valves installed into one housing. Using two valves instead of one offers reliability and redundancy.

The valves open when pressure from above is greater than below, and seals pressure from below if it exceeds the pressure from above. This setup only allows flow to travel one direction through the Dual Flapper.



## Applications

- Typically used in conjunction with the X or R locks to hold pressure from below while still maintaining the ability to pump from above.
- Adding a layer of redundancy to the system by including a second flapper valve.

## Key Features & Benefits

- Equipped with two flapper valves, allowing for reliable control of fluid movement.
- Designed for compatibility with various downhole tools and completion systems.

Technical Data			
<b>Nominal Size</b>	1.625"	1.75"	2.12"
<b>Assembly Number</b>	09-01-DF-162-A0	09-01-DF-175-A0	09-01-DF-212-A0
<b>Top Thread Connection</b>	1.125-16 UN 2B	1.375-14 UN 2B	1.750-12 UN 2B
<b>Bottom Thread Connection</b>	½-14NPT	½-14 NPT	¾-14 NPT
<b>Max O.D.</b>	1.52"	1.75"	2.125"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List			
Nominal Size	1.625"	1.75"	2.12"
Part Name	Part Number		
Housing	09-01-DF-162-01	09-01-DF-175-01	09-01-DF-212-01
Bottom Sub	09-01-DF-162-08	09-01-DF-175-08	09-01-DF-212-08
Sealing Cap	18-01-DF-162-01	18-01-DF-168-01	18-01-DF-212-01
Seat	18-01-DF-162-02	18-01-DF-168-02	18-01-DF-212-02
Body	18-01-DF-162-03	18-01-DF-168-03	18-01-DF-212-03
Flapper	18-01-DF-162-04	18-01-DF-168-04	18-01-DF-212-04
Hinge Pin	18-01-DF-168-05	18-01-DF-168-05	18-01-DF-168-05
Spring	18-01-DF-168-06	18-01-DF-168-06	18-01-DF-168-06
O-Ring	2-119	2-122	2-125
O-Ring	2-121	2-124	2-130

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The F Float Valve is a one-way check valve used in drill string components, such as casing or tubing. The primary function of a float valve is to prevent backflow and control the flow of fluids during drilling operations.

Used in conjunction with any number of lock mandrels, the F Float Valve may be landed in a variety of profiles to provide well control while still leaving the ability to pump or inject from above.

## Applications

- Maintaining well control during drilling operations, preventing unwanted backflow of fluids.
- Allows for pumping or injection from above, enhancing operational flexibility.

## Key Features & Benefits

- One-way check valve ensures that fluids flow in only one direction, preventing backflow.
- Compatible with various lock mandrels.
- Available in multiple sizes.



Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The GS Equalizing Assembly is designed to maintain pressure balance from both above and below when assembled with the S Lock Assembly. The configuration is chosen based on the specific landing profile intended for the plug. Once assembled with the S Lock Assembly, the plug is pinned onto the C-1/C-2 Running Tool and set with wireline in the corresponding profile.

This assembly is a crucial component in well operations, ensuring effective pressure control and contributing to the overall safety and functionality of the oil and gas system.



## Applications

- Maintaining pressure balance in the wellbore, preventing uncontrolled flows from either direction.
- Ensuring that pressure differentials are effectively managed, reducing the risk of blowouts and other undesirable events.

## Key Features & Benefits

- Ability to equalize pressures above and below the assembly.
- Designed to work seamlessly with S Lock Assembly.
- Available in multiple sizes.

Technical Data

Nominal Size	Assembly Number	Max O.D.	Fishneck Size
1.78"	09-03-GS-178-A0	1.77"	1.375"
1.81"	09-03-GS-181-A0	1.807"	1.375"
1.87"	09-03-GS-187-A0	1.865"	1.375"
2.25"	09-03-GS-225-A0	2.24"	1.75"
2.31	09-03-GS-231-A0	2.302"	1.75"
2.56"	09-03-GS-256-A0	2.55"	1.75"
2.75"	09-03-GS-275-A0	2.74"	2.31"
2.81"	09-03-GS-281-A0	2.807"	2.31"
3.68"	09-03-GS-368-A0	3.675"	3.125"
3.75"	09-03-GS-375-A0	3.74"	3.125"
3.81"	09-03-GS-381-A0	3.807"	3.125"

Parts List				
Nominal Size	1.78"	1.81"	1.87"	2.25"
Part Name	Part Number			
Fishneck	09-03-GS-200-01	09-03-GS-200-01	09-03-GS-200-01	09-03-GS-250-01
Mandrel	09-03-G-200-02	09-03-G-200-02	09-03-G-200-02	09-03-G-250-02
Washer	09-03-G-200-03	09-03-G-200-03	09-03-G-200-03	09-03-G-250-03
Stop Ring	09-03-G-200-04	09-03-G-200-04	09-03-G-200-04	09-03-G-250-04
Segment (x2)	09-03-G-200-05	09-03-G-200-05	09-03-G-200-05	09-03-G-250-05
Retainer	09-03-G-200-06	09-03-G-200-06	09-03-G-200-06	N/A
G Bottom*	09-03-G-178-07	09-03-G-181-07	09-03-G-181-07	09-03-G-225-07
Plug	09-03-G-200-08	09-03-G-200-08	09-03-G-200-08	09-03-G-250-08
Female Backup (x2)	09-03-BUR-178-01	09-03-BUR-181-01	09-03-BUR-187-01	09-03-BUR-225-01
V-Packing**	09-03-VP-178-01	09-03-VP-181-01	09-03-VP-187-01	09-03-VP-225-01
Male Backup	09-03-BUR-178-02	09-03-BUR-181-02	09-03-BUR-187-02	09-03-BUR-225-02
Nominal Size	2.31"	2.56"	2.75"	2.81"
Part Name	Part Number			
Fishneck	09-03-GS-250-01	09-03-GS-256-01	09-03-GS-300-01	09-03-GS-300-01
Mandrel	09-03-G-250-02	09-03-G-250-02	09-03-G-250-02	09-03-G-250-02
Washer	09-03-G-250-03	09-03-G-256-03	09-03-G-300-03	09-03-G-300-03
Stop Ring	09-03-G-250-04	09-03-G-256-04	09-03-G-250-04	09-03-G-250-04
Segment (x2)	09-03-G-250-05	09-03-G-256-05	09-03-G-250-05	09-03-G-250-05
Retainer				
G Bottom*	09-03-G-231-07	09-03-G-256-07	09-03-G-275-07	09-03-G-281-07
Plug	09-03-G-250-08	09-03-G-250-08	09-03-G-250-08	09-03-G-250-08
Female Backup (x2)	09-03-BUR-231-01	09-03-BUR-256-01	09-03-BUR-275-01	09-03-BUR-281-01
V-Packing**	09-03-VP-231-01	09-03-VP-256-01	09-03-VP-275-01	09-03-VP-281-01
Male Backup	09-03-BUR-231-02	09-03-BUR-256-02	09-03-BUR-275-02	09-03-BUR-281-02
Nominal Size	3.68"	3.75"	3.81"	
Part Name	Part Number			
Fishneck	09-03-GS-400-01	09-03-GS-400-01	09-03-GS-400-01	
Mandrel	09-03-G-250-02	09-03-G-250-02	09-03-G-250-02	
Washer	09-03-G-400-03	09-03-G-400-03	09-03-G-400-03	
Stop Ring	09-03-G-250-04	09-03-G-250-04	09-03-G-250-04	
Segment (x2)	09-03-G-250-05	09-03-G-250-05	09-03-G-250-05	
Retainer				
G Bottom*	09-03-G-368-07	09-03-G-375-07	09-03-G-381-07	
Plug	09-03-G-250-08	09-03-G-250-08	09-03-G-250-08	
Female Backup (x2)	09-03-BUR-368-01	09-03-BUR-375-01	09-03-BUR-381-01	
V-Packing**	09-03-VP-368-01	09-03-VP-375-01	09-03-VP-381-01	
Male Backup	09-03-BUR-368-02	09-03-BUR-375-02	09-03-BUR-381-02	

## Overview

The GW Equalizing Assembly is designed to maintain pressure balance from both above and below when assembled with the W and Z Lock Mandrel. The configuration is chosen based on the specific landing profile intended for the plug. Once assembled with the W or Z Lock Assembly, the plug is pinned onto the C-1/C-2 Running Tool and set with wireline in the corresponding profile. This assembly is a crucial component in well operations, ensuring effective pressure control and contributing to the overall safety and functionality of the oil and gas system.

## Applications

- Maintaining pressure balance in the wellbore, preventing uncontrolled flows from either direction.
- Ensuring that pressure differentials are effectively managed, reducing the risk of blowouts and other undesirable events.

## Key Features & Benefits

- Ability to equalize pressures above and below the assembly.
- Designed to work seamlessly with W and Z Lock Mandrel.
- Available in multiple sizes.



**Technical Data**

Nominal Size	Assembly Number	Max O.D.	Fishneck Size
1.78"	09-03-GW-178-A0	1.770"	1.375"
1.81"	09-03-GW-181-A0	1.807"	1.375"
1.87"	09-03-GW-187-A0	1.865"	1.375"
2.25"	09-03-GW-225-A0	2.240"	1.750"
2.31	09-03-GW-231-A0	2.302"	1.750"
2.56"	09-03-GW-256-A0	2.550"	1.750"
2.75"	09-03-GW-275-A0	2.740"	2.312"
2.81"	09-03-GW-281-A0	2.807"	2.312"
3.68"	09-03-GW-368-A0	3.675"	3.125"
3.75"	09-03-GW-375-A0	3.740"	3.125"
3.81"	09-03-GW-381-A0	3.807"	3.125"

Parts List					
Nominal Size	1.78"	1.81"	1.87"	2.25"	2.31"
Part Name	Part Number				
Fishneck	09-03-GW-200-01	09-03-GW-200-01	09-03-GW-200-01	09-03-GW-250-01	09-03-GW-250-01
Mandrel	09-03-G-200-02	09-03-G-200-02	09-03-G-200-02	09-03-G-250-02	09-03-G-250-02
Washer	09-03-G-200-03	09-03-G-200-03	09-03-G-200-03	09-03-G-250-03	09-03-G-250-03
Stop Ring	09-03-G-200-04	09-03-G-200-04	09-03-G-200-04	09-03-G-250-04	09-03-G-250-04
Segment (x2)	09-03-G-200-05	09-03-G-200-05	09-03-G-200-05	09-03-G-250-05	09-03-G-250-05
Retainer	09-03-G-200-06	09-03-G-200-06	09-03-G-200-06	N/A	
G Bottom*	09-03-G-178-07	09-03-G-181-07	09-03-G-181-07	09-03-G-225-07	09-03-G-231-07
Plug	09-03-G-200-08	09-03-G-200-08	09-03-G-200-08	09-03-G-250-08	09-03-G-250-08
Female Backup (x2)	09-03-BUR-178-01	09-03-BUR-181-01	09-03-BUR-187-01	09-03-BUR-225-01	09-03-BUR-231-01
V-Packing**	09-03-VP-178-01	09-03-VP-181-01	09-03-VP-187-01	09-03-VP-225-01	09-03-VP-231-01
Male Backup	09-03-BUR-178-02	09-03-BUR-181-02	09-03-BUR-187-02	09-03-BUR-225-02	09-03-BUR-231-02
Nominal Size	2.56"	3.68"	3.75"	3.81"	
Part Name	Part Number				
Fishneck	09-03-GW-256-01	09-03-GW-400-01	09-03-GW-400-01	09-03-GW-400-01	
Mandrel	09-03-G-250-02	09-03-G-250-02	09-03-G-250-02	09-03-G-250-02	
Washer	09-03-G-256-03	09-03-G-400-03	09-03-G-400-03	09-03-G-400-03	
Stop Ring	09-03-G-256-04	09-03-G-250-04	09-03-G-250-04	09-03-G-250-04	
Segment (x2)	09-03-G-256-05	09-03-G-250-05	09-03-G-250-05	09-03-G-250-05	
Retainer					
G Bottom*	09-03-G-256-07	09-03-G-368-07	09-03-G-375-07	09-03-G-381-07	
Plug	09-03-G-250-08	09-03-G-250-08	09-03-G-250-08	09-03-G-250-08	
Female Backup (x2)	09-03-BUR-256-01	09-03-BUR-368-01	09-03-BUR-375-01	09-03-BUR-381-01	
V-Packing**	09-03-VP-256-01	09-03-VP-368-01	09-03-VP-375-01	09-03-VP-381-01	
Male Backup	09-03-BUR-256-02	09-03-BUR-368-02	09-03-BUR-375-02	09-03-BUR-381-02	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Injection Valve serves as a crucial component in oil and gas well operations. It is specifically designed for applications where maintaining pressure from below is essential while enabling the capability to pump or inject fluids through the tool.

Used in conjunction with lock mandrels, the Injection Valve may be landed in a variety of different profiles to provide well control while still leaving the ability to pump or inject from above.



## Applications

- Retaining pressure from below, preventing undesired backflow in the wellbore.
- Facilitating controlled pumping or injection of fluids.

## Key Features & Benefits

- Robust construction ensures it can withstand the challenging conditions of downhole environments.
- Function seamlessly in various wellbore configurations, Available in multiple sizes.

### Technical Data - Baker Style

Nominal Size	Assembly Number	Upper Thread Connection	Max O.D.
1.56"	09-03-B-156-A0	1.18"-14 UN	1.55"
1.62"	09-03-B-162-A0	1.18"-14 UN	1.61"
2.00"	09-03-B-200-A0	1.406"-14 UN	1.86"
2.50"	09-03-B-250-A0	1.812"-14 UN	2.30"

### Technical Data - Otis Style

Nominal Size	Assembly Number	Upper Thread Connection	Max O.D.
1.62"	09-03-B-156-A0	1.125"-16 UN	1.61"
2.00"	09-03-B-162-A0	1.375"-14 UN	1.86"
2.50"	09-03-B-200-A0	1.75"-12 UN	2.30"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List - Baker Style				
Nominal Size	1.56"	1.62"	2.00"	2.50"
Part Name	Part Number			
Packing Mandrel	09-03-B-156-01	09-03-B-162-01	09-03-B-200-01	09-03-B-250-01
Dart	09-03-B-156-02	09-03-B-156-02	09-03-B-200-02	09-03-B-250-02
Cage	09-03-B-156-03	09-03-B-156-03	09-03-B-200-03	09-03-B-250-03
Spring	09-03-B-156-04	09-03-B-156-04	09-03-B-200-04	09-03-B-250-04

Parts List - Otis Style			
Nominal Size	1.62"	2.00"	2.50"
Part Name	Part Number		
Packing Mandrel	08-02-COX-162-01	08-02-COX-187-07	08-02-COX-231-03
Dart	09-03-B-156-02	09-03-B-200-02	09-03-B-250-02
Cage	09-03-B-156-03	09-03-B-200-03	09-03-B-250-03
Spring	09-03-B-156-04	09-03-B-200-04	09-03-B-250-04

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The PR Equalizing Assembly is a key component in oil and gas well operations, specifically designed to enhance well control and zonal isolation. This assembly serves as a wellbore plug when integrated with R and RN Lock assemblies, strategically positioning itself within the completion tubing. Its primary purpose is to facilitate pressure equalization within the wellbore, ensuring balanced pressure conditions in different sections of the well.



## Applications

- Isolating different zones within the wellbore, preventing unwanted fluid or pressure communication between them.
- Equalization of pressure across various sections of the well, ensuring balanced reservoir management.

## Key Features & Benefits

- Compatible with R/RN lock assemblies,
- Prevents unwanted fluid migration and maintaining optimal reservoir conditions.
- Available in multiple sizes.

### Technical Data

Nominal Size	Assembly Number	Upper Thread Connection	Max O.D.	Fishneck Size
1.71"	09-02-PR-171-A0	1.125"-16 UN 2B	1.700"	1.188"
1.78"	09-02-PR-178-A0	1.375"-14 UN 2B	1.770"	1.188"
1.87"	09-02-PR-187-A0	1.375"-14 UN 2B	1.865"	1.188"
2.12"	09-02-PR-212-A0	1.375"-14 UN 2B	2.120"	1.188"
2.18"	09-02-PR-218-A0	1.75"-12 UN 2B	2.180"	1.375"
2.31"	09-02-PR-231-A0	1.75"-12 UN 2B	2.307"	1.375"
2.56"	09-02-PR-256-A0	2.00"-12 SLB 2B	2.555"	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.71"	1.78"	1.87"	2.12"
Part Name	Part Number			
Prong Mandrel	09-02-PR-171-01	09-02-PR-178-01	09-02-PR-187-01	09-02-PR-212-01
End Cap	09-02-PX-150-04	09-02-PR-178-02	09-02-PR-178-02	09-02-PR-178-02
Housing	09-02-PR-171-03	09-02-PR-178-03	09-02-PR-187-03	09-02-PR-212-03
Housing Cap	09-02-PR-171-04	09-02-PR-178-04	09-02-PR-178-04	09-02-PR-178-04
Backup Ring – Female	09-02-BUR-071-01	09-02-BUR-081-01	09-02-BUR-081-01	09-02-BUR-081-01
Backup Ring – Male	09-02-BUR-071-02	09-02-BUR-081-02	09-02-BUR-081-02	09-02-BUR-081-02
Backup Ring – Double Female	09-02-BUR-071-03	09-02-BUR-081-03	09-02-BUR-081-03	09-02-BUR-081-03
V – Packing*	09-02-VP-071-01	09-02-VP-081-01	09-02-VP-081-01	09-02-VP-081-01

Parts List			
Nominal Size	2.18"	2.31"	2.56"
Part Name	Part Number		
Prong Mandrel	0902PR21801	0902PR23101	0902PR25601
End Cap	0902PX20002	0902PX20002	0902PX25002
Housing	0902PR21803	0902PR23103	0902PR25603
Housing Cap	0902PR21804	0902PR21804	0902PR25604
Backup Ring – Female	0902BUR09301	0902BUR09301	0902BUR12501
Backup Ring – Male	0902BUR09302	0902BUR09302	0902BUR12502
Backup Ring – Double Female	0902BUR09303	0902BUR09303	0902BUR12503
V – Packing*	0902VP09301	0902VP09301	0902VP12501

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The PX Equalizing Assembly is a key component in oil and gas well operations, specifically designed to enhance well control and zonal isolation. This assembly serves as a wellbore plug when integrated with X and XN Lock assemblies, strategically positioning itself within the completion tubing. Its primary purpose is to facilitate pressure equalization within the wellbore, ensuring balanced pressure conditions in different sections of the well.



## Applications

- Isolating different zones within the wellbore, preventing unwanted fluid or pressure communication between them.
- Equalization of pressure across various sections of the well, ensuring balanced reservoir management.

## Key Features & Benefits

- Compatible with X/XN lock assemblies,
- Prevents unwanted fluid migration and maintaining optimal reservoir conditions.
- Available in multiple sizes.

### Technical Data

Nominal Size	Assembly Number	Upper Thread Connection	Max O.D.	Fishneck Size
1.50"	09-02-PX-150-A0	1.125"-16 UN	1.490"	1.00"
1.625"	09-02-PX-162-A0	1.125"-16 UN	1.615"	1.00"
1.78"(R)	09-02-PR-178-(R)-A0	1.375"-14 UN	1.770"	1.187"
1.87"	09-02-PX-200-A0	1.375"-14 UN	1.865"	1.375"
2.31"	09-02-PX-250-A0	1.75"-12 UN	2.307"	1.375"
2.75"	09-02-PX-275-A0	2.25"-12 SLB	2.745"	1.375"
2.81"	09-02-PX-281-A0	2.25"-12 SLB	2.809"	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.50"	1.625"	1.78"(R)	1.87"
Part Name	Part Number			
Prong Mandrel	09-02-PX-150-01	09-02-PX-150-01	09-02-PR-178-(R)-01	09-02-PX-200-01
End Cap	09-02-PX-150-02	09-02-PX-150-02	09-02-PR-178-(R)-02	09-02-PX-200-02
Housing	09-02-PX-150-03	09-02-PX-162-03	09-02-PR-178-(R)-03	09-02-PX-200-03
Housing Cap	09-02-PX-150-04	09-02-PX-150-04	09-02-PR-178-(R)-04	
Backup Ring – Female	09-02-BUR-062-01	09-02-BUR-062-01	09-02-BUR-081-01	0902BUR09301
Backup Ring – Male	09-02-BUR-062-02	09-02-BUR-062-02	09-02-BUR-081-02	0902BUR09302
Backup Ring – Double Female	09-02-BUR-062-03	09-02-BUR-062-03	09-02-BUR-081-03	0902BUR09303
V – Packing*	09-02-VP-062-01	09-02-VP-062-01	09-02-VP-081-01	0902VP09301

Parts List			
Nominal Size	2.31"	2.75"	2.81"
Part Name	Part Number		
Prong Mandrel	09-02-PX-250-01	09-02-PX-300-01	09-02-PX-300-01
End Cap	09-02-PX-250-02	09-02-PX-300-02	09-02-PX-300-02
Housing	09-02-PX-250-03	09-02-PX-275-03	09-02-PX-281-03
Housing Cap	09-02-PR-218-04	09-02-PR-218-04	09-02-PR-256-04
Backup Ring – Female	09-02-BUR-125-01	09-02-BUR-150-01	09-02-BUR-150-01
Backup Ring – Male	09-02-BUR-125-02	09-02-BUR-150-02	09-02-BUR-150-02
Backup Ring – Double Female	09-02-BUR-125-03	09-02-BUR-150-03	09-02-BUR-150-03
V – Packing*	09-02-VP-125-01	09-02-VP-150-01	09-02-VP-150-01

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The R Equalizing Assembly is designed to attach to R/RN Locks to create a method of containing and equalizing pressure in a wellbore. It provides a single run to set and single run to pull plugging system for R/RN locks landed in a nipple. The R Equalizing Assembly goes beyond its primary function as a plugging system. Its adaptability extends to applications such as electronic shut-in tools and check valves.



### Applications

- Plugging systems where it facilitates a single run to set and another run to pull.
- Able to be opened and closed many times to hold pressure and stop flow to suspend production or perform maintenance on a well bore or BOP.

### Key Features & Benefits

- Reduced complexity in the plugging process.
- Adaptable to other functions.
- Available in multiple sizes.

#### Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Max O.D.
1.71"	09-02-R-171-A0	1.125-16 UN 2B	1.705"
1.78"	09-02-R-178-A0	1.375-14 UN 2B	1.770"
2.12"	09-02-R-212-A0	1.375-14 UN 2B	2.120"
2.18"	09-02-R-218-A0	1.705-12 UN 2B	2.173"
2.56"	09-02-R-256-A0	2.00-12 SLB 2G	2.555"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List					
Nominal Size	1.71"	1.78"	2.12"	2.18"	2.56"
Part Name	Part Number				
Housing	09-02-R-171-01	09-02-R-178-01	09-02-R-212-01	09-02-R-218-01	09-02-R-256-01
Collet	09-02-R-171-02	09-02-R-178-02	09-02-R-178-02	09-02-R-218-02	09-02-R-256-02
Cap	09-02-PX-150-04	09-02-PR-178-04	09-02-PR-178-04	09-02-PR-218-04	09-02-PR-256-04
O-Ring	2-019	2-120	2-120	2-125	2-031
Backup Ring	8-019				2-129

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Ring Latch Equalizing Assembly is a specialized tool designed with a prong retention mechanism that is not offered with standard PX or PR Equalizing Assemblies. The Ring Latch Equalizing Assembly is used in conjunction with a Lock mandrels landed into nipple profiles to hold pressure in a wellbore.

The assembly is crafted to securely hold equalizing prongs in place, minimizing the risk of disengagement or unexpected movements during operations.



## Applications

- To plug off a well bore in conjunction with lock mandrels landed in nipple profiles.
- Used to hold the packing mandrel in place ensuring pressure is contained.

## Key Features & Benefits

- Can be used into the equalizing assembly the similar to a PX/PR equalizing prong.
- Positive prong retention system using a latching ring design and shear pin.

### Technical Data

Nominal Size	Assembly Number	Upper Thread Connection	Max O.D.	Fishneck Size
1.78" R	09-02-RLP-178-A0	1.375" – 14 UN	1.770"	1.188"
1.87" R	09-02-RLP-187-A0	1.375" – 14 UN	1.865"	1.188"
2.00" X	09-02-RLP-200-A0	1.375"-14 UN	1.865"	1.375"
2.12" R	09-02-RLP-212-A0	1.375"-14 UN	2.120"	1.375"
2.18" R	09-02-RLP-218-A0	1.75" – 12 UN	2.180"	1.375"
2.31" R	09-02-RLP-231-A0	1.75" – 12 UN	2.307"	1.375"
2.31" X	09-02-RLP-250-A0	1.75" – 12 UN	2.307"	1.375"
2.56" R	09-02-RLP-256-A0	2.00" – 12 SLB	2.555"	1.375"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List				
Nominal Size	1.78" R	1.87" R	2.00" X	2.12" R
Part Name	Part Number			
Prong Mandrel	09-02-PR-178-01	09-02-PR-178-01	09-02-PX-200-01	09-02-PR-178-01
End Cap	09-02-RLP-178-03	09-02-RLP-178-03	09-02-RLP-200-03	09-02-RLP-178-03
Housing	09-02-RLP-178-01	09-02-RLP-187-01	09-02-RLP-200-01	09-02-RLP-212-01
Housing Cap	09-02-RLP-178-02	09-02-RLP-178-02	09-02-RLP-200-02	09-02-RLP-178-02
Backup Ring – Female	09-02-BUR-081-01	09-02-BUR-081-01	09-02-BUR-093-01	09-02-BUR-081-01
Backup Ring – Double Male	09-02-BUR-081-02	09-02-BUR-081-02	09-02-BUR-093-02	09-02-BUR-081-02
Backup Ring – Double Female	09-02-BUR-081-03	09-02-BUR-081-03	09-02-BUR-093-03	09-02-BUR-081-03
Ring	09-02-RLP-178-05	09-02-RLP-178-05	09-02-RLP-200-05	09-02-RLP-178-05
Latch	09-02-RLP-178-04	09-02-RLP-178-04	09-02-RLP-200-04	09-02-RLP-178-04
V-Packing*	09-02-VP-081-01	09-02-VP-081-01	09-02-VP-093-01	09-02-VP-081-01
O-Ring	121	121	121	121
Nominal Size	2.18" R	2.31" R	2.31" X	2.56" R
Part Name	Part Number			
Prong Mandrel	09-02-PR-218-01	09-02-PR-218-01	09-02-PX-250-01	09-02-PX-250-01
End Cap	09-02-RLP-200-03	09-02-RLP-200-03	09-02-RLP-250-03	09-02-RLP-250-03
Housing	09-02-RLP-218-01	09-02-RLP-231-01	09-02-RLP-250-01	09-02-RLP-256-01
Housing Cap	09-02-RLP-200-02	09-02-RLP-200-02	09-02-RLP-250-02	09-02-RLP-256-02
Backup Ring – Female	09-02-BUR-093-01	09-02-BUR-093-01	09-02-BUR-125-01	09-02-BUR-125-01
Backup Ring – Double Male	09-02-BUR-093-02	09-02-BUR-093-02	09-02-BUR-125-02	09-02-BUR-125-02
Backup Ring – Double Female	09-02-BUR-093-03	09-02-BUR-093-03	09-02-BUR-125-03	09-02-BUR-125-03
Ring	09-02-RLP-200-05	09-02-RLP-200-05	09-02-RLP-200-05	09-02-RLP-200-05
Latch	09-02-RLP-200-04	09-02-RLP-200-04	09-02-RLP-200-04	09-02-RLP-200-04
V-Packing*	09-02-VP-093-01	09-02-VP-093-01	09-02-VP-125-01	09-02-VP-125-01
O-Ring	127	121	220	220 / 031

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The X Equalizing Assembly is designed to attach to X/XN Locks to create a method of containing and equalizing pressure in a wellbore. It provides a single run to set and single run to pull plugging system for X/XN locks landed in a nipple. The X Equalizing Assembly goes beyond its primary function as a plugging system. Its adaptability extends to applications such as electronic shut-in tools and check valves.

### Applications

- Plugging systems where it facilitates a single run to set and another run to pull.
- Able to be opened and closed many times to hold pressure and stop flow to suspend production or perform maintenance on a well bore or BOP.



### Key Features & Benefits

- Reduced complexity in the plugging process.
- Adaptable to other functions.
- Available in multiple sizes.

#### Technical Data

Nominal Size	Assembly Number	Top Thread Connection	Max O.D.
1.50"	09-02-X-150-A0	1.125"-16 UN	1.490"
1.625"	09-02-X-162-A0	1.125"-16 UN	1.615"
1.87"	09-02-X-187-A0	1.375"-14 UN	1.865"
2.31"	09-02-X-231-A0	1.75"-12 UN	2.300"
2.75"	09-02-X-275-A0	2.25"-12 SLB	2.745"
2.81"	09-02-X-281-A0	2.25"-12 SLB	2.809"
3.81"	09-02-X-381-A0	3.25"-12 SLB	3.807"

See next page for parts list.

Parts List				
Nominal Size	1.50"	1.625	1.87"	2.31"
Part Name	Part Number			
Valve Housing	09-02-X-150-01	09-02-X-162-01	09-02-X-200-01	09-02-X-250-01
Equalizing Valve	09-02-X-150-02	09-02-X-150-02	09-02-X-200-02	09-02-X-250-02
Valve Cap	09-02-PX-150-04	09-02-PX-150-04	09-02-X-200-03	09-02-X-250-03

Parts List				
Nominal Size	2.75"	2.81"	3.81"	
Part Name	Part Number			
Valve Housing	09-02-X-275-01	09-02-X-281-01	09-02-X-275-01	
Equalizing Valve	09-02-X-275-02	09-02-X-275-02	09-02-X-275-02	
Valve Cap	09-02-X-275-03	09-02-X-275-03	09-02-X-275-03	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 10. Pack Off Equipment

## Overview

The A Pack Off is designed to pack off the wellbore via an expandable rubber element. It is used in tandem as a straddle pack-off for isolating and containing deteriorated or damaged tubing. It also can be used as a stand-alone pack off when conventional plugging equipment is not available.

## Applications

- Most commonly used for packing off tubing where a conventional plug is not available, or profile nipples are absent.

## Key Features & Benefits

- Can be attached to a second element assembly via a flow tube that threads in the bottom of the upper element assembly and the top of the lower tubing stops above and below are used to lock the pack off in place.



Technical Data - Camco A Pack Off				
Nominal Size	1.900"	2.062"	2.375"	2.875"
Assembly Number	10-04-AP-150-A0	10-04-AP-175-A0	10-04-AP-200-A0	10-04-AP-250-A0
Part Name				
Mandrel	10-04-AP-150-01	10-04-AP-175-01	10-04-AP-200-01	10-04-AP-250-01
Element (3 pcs)	10-04-AP-150-02	10-04-AP-175-02	Inquire	Inquire
Body	10-04-AP-150-03	10-04-AP-175-03	10-04-AP-200-03	10-04-AP-250-03
Split Collar	10-04-AP-150-04	10-04-AP-150-04	n/a	n/a
Cap	10-04-AP-150-05	10-04-AP-150-05	10-04-AP-200-05	10-04-AP-250-05
O-Ring	119	119	123	128
O-Ring	018	018	218	325
Lower Thread Connection				
Max O.D.	1.468"	1.54"	1.84"	2.281"
Fishneck Size	1.00"	1.18"	1.37"	1.75"

Please state the desired equalizing assembly when ordering. See next page for parts list.

Technical Data - Camco A Pack Off		
<b>Nominal Size</b>	3.00"	4.00"
<b>Assembly Number</b>	10-01-PU-300-A0	10-01-PL-400-A0
<b>Part Name</b>		
Fishneck	10-01-PU-300-01	n/a
Mandrel	10-01-PL-300-01	10-01-PL-400-01
Element	10-01-PL-300-02	10-01-PL-400-02
Top Sub	10-01-PL-300-03	10-01-PL-400-03
Spacer	10-01-PL-300-04	10-01-PL-400-04
Ratchet	10-01-PL-300-05	10-01-PL-400-05
Spring Clip	10-01-PL-300-06	10-01-PL-400-06
Lock Nut	10-01-PL-300-07	10-01-PL-400-07
Body	10-01-PL-300-08	10-01-PL-400-08
O-Ring	223	229
O-Ring	226	232
<b>Lower Thread Connection</b>	2.375" 10RD NUE	2.24" – 12 SLB
<b>Max O.D.</b>	2.719"	3.75"
<b>Fishneck Size</b>	2.31" (Internal)	3.125" (Internal)

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The A Slip Stop is used in setting in the tubing strings without upsets. They are typically used at an integral joint where couplings does not exist.

## Applications

- Set in the wellbore to provide a platform for numerous wireline operations.
- Can be used with the plunger lift or as a safeguard to prevent debris from falling down the wellbore.

## Key Features & Benefits

- Ran with a shear down pulling tool (SB/JDC). Pulled with a JDC or JUC Pulling Tool.
- Available in various sizes.



Technical Data			
<b>Nominal Size</b>	1.25"	1.50"	2.00"
<b>Assembly Number</b>	10-04-ATS-125-A0	10-04-ATS-150-A0	10-04-ATS-200-A0
<b>Part Name</b>			
Body	10-04-ATS-125-01	10-04-ATS-150-01	10-04-ATS-200-01
Slips	10-04-ATS-125-02	10-04-ATS-150-02	10-04-ATS-200-02
Retainer Band	10-04-ATS-125-03	10-04-ATS-150-03	10-04-ATS-200-03
Slip Carrier	10-04-ATS-125-04	10-04-ATS-150-04	10-04-ATS-200-04
<b>Max O.D.</b>	1.45"	1.81"	2.04"
<b>Min O.D.</b>	1.235"	1.43"	1.85"
<b>Fishneck Size</b>	1.00"	1.18"	1.37"

Technical Data			
<b>Nominal Size</b>	1.25"	1.50"	2.00"
<b>Assembly Number</b>	10-04-ATS-125-A0	10-04-ATS-150-A0	10-04-ATS-200-A0
<b>Part Name</b>			
Body	10-04-ATS-125-01	10-04-ATS-150-01	10-04-ATS-200-01
Slips	10-04-ATS-125-02	10-04-ATS-150-02	10-04-ATS-200-02
Retainer Band	10-04-ATS-125-03	10-04-ATS-150-03	10-04-ATS-200-03
Slip Carrier	10-04-ATS-125-04	10-04-ATS-150-04	10-04-ATS-200-04
<b>Max O.D.</b>	1.45"	1.81"	2.04"
<b>Min O.D.</b>	1.235"	1.43"	1.85"
<b>Fishneck Size</b>	1.00"	1.18"	1.37"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The AD-2 Tubing Stop shares a comparable function with an A Slip Stop. It finds application in tubing strings lacking upsets, particularly at integral joints where a coupling is absent.

## Applications

- Can be set in the wellbore to provide a platform for numerous wireline operations.
- Used with the plunger lift or as a safeguard to prevent debris from falling down the wellbore.



## Key Features & Benefits

- Equipped with a spring-loaded mechanism, providing a secure and reliable means of setting the slips in tubing strings without upsets.
- Designed for use at integral joints where a coupling is not present.
- Comes standard with an internal fishneck.

Technical Data				
Assembly Number	02-01-AD-200-A0	02-01-AD-250-A0	02-01-AD-300-A0	02-01-AD-450-A0
Tool O.D.	1.840"	2.200"	2.720"	3.720"
Internal Fishneck	1.375"	1.812"	2.312	3.120"
Extended O.D.	2.06"	2.50"	3.08"	4.08"
Overall Length	23.6"	23.70"	25.0"	26.1"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The AR Tubing Stop can be set in the tubing strings that do not have upsets, integral joints where couplings do not exist. It offers a more secure and greater positive barrier than a conventional slip type stop.

## Applications

- Useful for plunger lift operations or as a safeguard to prevent debris from falling into the wellbore.
- Can be set in a wellbore to provide a platform for numerous wireline operations.

## Key Features & Benefits

- Designed to fit a range of tubing diameters, making it versatile for different well configurations.



Technical Data			
Nominal Size	2.00"	2.50"	3.00"
Assembly Number	10-04-AR-200-A0	10-04-AR-250-A0	10-04-AR-300-A0
Part Name			
Body	10-04-AR-200-01	10-04-AR-250-01	10-04-AR-300-01
Slips	10-04-ATS-200-02	10-04-ATS-250-02	10-04-ATS-300-02
Retainer Band	10-04-ATS-200-03	10-04-ATS-250-03	10-04-ATS-300-03
Slip Carrier	10-04-AR-200-04	10-04-AR-250-04	10-04-AR-300-04
Ratchet	10-04-AR-200-08	10-04-AR-250-08	10-04-AR-300-08
Retainer	10-04-AR-200-09	10-04-AR-250-09	10-04-AR-300-09
O-Ring	123 (x2)	129 (x2)	133 (x2)
Set Screw	.250 UNC x .250	.250 UNC x .250	.250 UNC x .250
Max O.D.	2.040"	2.40"	3.00"
Min O.D.	1.85"	2.23"	2.72"
Fishneck Size	1.37"	1.75"	2.31"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The ARP Pack Off is designed to isolate well pressure, and can be used in deteriorated or damaged tubing where a stand alone or conventional plug can't be used.



## Applications

- Creates a pressure-tight seal when conventional bridge plugs or packers can't be run due to compromised tubing ID.

## Key Features & Benefits

- The tool can be configured with custom thread connections for different applications.

### Technical Data

Assembly Number	Maximum O.D.	Minimum I.D.	Top Connection	Bottom Connection
10-04-ARP-200-A0	1.84"	0.95"	1.468"-14 UN Pin	1.468"-14 UN Box
10-04-ARP-250-A0	2.28"	1.13"	1.812"-12 Stub Acme	1.500"-14 UN Box
10-04-ARP-250-A0	2.28"	1.13"	1.802"-14 UN Pin	1.802"-14 UN Box

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A B Slip Stop can be set in the tubing strings without upsets, typically at a integral joint where couplings do not exist.



## Applications

- Used to set below profile nipples and restrictions where a conventional A type stop would be limited due to O.D.
- May also be used to secure plugging equipment in place.

## Key Features & Benefits

- Ran with a shear down pulling tool (SB/JDC). Pulled with a JDC or JUC Pulling Tool.
- Available in various sizes.

Technical Data					
Nominal Size	1.50" – 1.75"	2.00"	2.50"	3.00"	4.50"
Assembly Number	10-03-B-150-A0	10-03-B-200-A0	10-03-B-250-A0	10-03-B-300-A0	10-03-B-450-A0
Part Name					
Body	10-03-B-150-01	10-03-B-200-01	10-03-B-250-01	10-03-B-300-01	10-03-B-450-01
Slips	10-03-B-150-02	10-03-B-200-02	10-03-B-250-02	10-03-B-300-02	10-03-B-450-02
Retainer Band	10-03-B-150-03	10-03-B-200-03	10-03-B-250-03	10-03-B-300-03	10-03-B-450-03
Slip Carrier	10-03-B-150-04	10-03-B-200-04	10-03-B-250-04	10-03-B-300-04	10-03-B-450-04
Max O.D.	1.75"	2.10"	2.04"	3.10"	4.10"
Min O.D.	1.47"	1.69"	1.85"	2.30"	3.63"
Fishneck Size	1.18"	1.37"	1.37"	1.75"	3.125"

\* More slip sizes available for the 4.50" upon request for utilization in other casing sizes. \*

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The BR Tubing Stop can be set in the tubing strings without upsets, typically in integral joint tubing where couplings do not exist.



## Applications

- It is used for plunger lift operations or as a safeguard to prevent debris from falling down the wellbore.
- Used where there is a need to place stops below the profile nipples where the smaller diameters will not accommodate A Type Slip Stops.

## Key Features & Benefits

- Designed to accommodate various tubing sizes, it offers flexibility for different well configurations.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	10-03-BR-200-A0	10-03-BR-250-A0	10-03-BR-300-A0
<b>Part Name</b>			
Body	10-03-BR-200-01	10-03-BR-250-01	10-03-BR-300-01
Slips	10-03-B-200-02	10-03-B-250-02	10-03-B-300-02
Retainer Band	10-03-B-200-03	10-03-B-250-03	10-03-B-300-03
Slip Carrier	10-03-BR-200-04	10-03-B-250-04	10-03-B-300-04
Ratchet	10-03-BR-200-08	10-03-BR-250-08	10-03-B-300-08
Retainer	10-03-BR-200-09	10-03-BR-250-09	10-03-B-300-09
O-Ring	#123 (x2)	#126 (x2)	#127 (x2)
Set Screw	0.25" x 0.25" NC	0.25" x 0.25" NC	0.25" x 0.25" NC
<b>Max O.D.</b>	2.10"	2.50"	3.10"
<b>Min O.D.</b>	1.69"	2.11"	2.30"
<b>Fishneck Size</b>	1.375"	1.75"	1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The G Anchor can be set in the tubing strings without upsets, typically used in integral joint tubing where couplings do not exist. Used primarily for straddle pack offs, or tubing pack offs.

## Applications

- Positioning and holding downhole tools within the tubing string.
- Useful for setting equipment like packoffs, plugs, or other flow control devices at precise locations in the wellbore.



## Key Features & Benefits

- Ran with a shear down pulling tool, G Running Tool, or a GS. Pulled with a GS or GR pulling tool.
- Designed to accommodate various tubing sizes, it offers flexibility for different well configurations.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	10-02-GA-200-A0	10-02-GA-250-A0	10-02-GA-300-A0
<b>Part Name</b>			
Body	10-02-GA-200-01	10-02-GA-250-01	10-02-GA-300-01
Slips	10-02-GA-200-02	10-02-GA-250-02	10-02-GA-300-02
Retainer Band	0.135" x 4.375"	0.135" x 5.75"	0.135" x 7.375"
<b>Lower Thread Connection</b>	1.625" - 12 UN	2.062"-12 UN	2.50" - 12 UN
<b>Max O.D.</b>	2.00"	2.44"	3.00"
<b>Min O.D.</b>	1.835"	2.28"	2.71"
<b>Fishneck Size</b>	1.375"	1.81"	2.31"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The G Element is designed to pack off the wellbore using an expandable rubber element. The G Element is used in tandem as a straddle pack-off for isolating and containing damaged tubing or as a standalone pack off when conventional plugging equipment is not available.

## Applications

- Ideal for sealing off damaged or deteriorated tubing sections.
- Can be used in tandem with a second element assembly via a flow tube, allowing for isolation of specific wellbore intervals.

## Key Features & Benefits

- Available in Nitrile (NBR) and Hydrogenated Nitrile (HNBR) to suit various operational requirements.
- Designed to accommodate various tubing sizes, it offers flexibility for different well configurations.



Technical Data		
<b>Nominal Size</b>	2.00"	2.50"
<b>Assembly Number</b>	10-02-GE-200-A0	10-02-GE-250-A0
<b>Part Name</b>		
Locking Sleeve	10-02-GE-200-01	10-02-GE-250-01
Mandrel	10-02-GE-200-02	10-02-GE-250-02
Lug Segment	10-02-GE-200-03	10-02-GE-250-03
Locking Segments	10-02-GE-200-04	10-02-GE-250-04
Expander Collet	10-02-GE-200-05	10-02-GE-250-05
Element Expander	10-02-GE-200-06	10-02-GE-250-06
Spacer	10-02-GE-200-07	10-02-GE-250-07
Bottom Sub	10-02-GE-200-08	10-02-GE-250-08
O-Ring	219 (x2)	224 (x2)
<b>Lower Thread Connection</b>	1.625"-12 UN	2.062"-12 UN
<b>Max O.D.</b>	1.0"-10rd	1.50"-10rd
<b>Min O.D.</b>	1.062"	1.50"
<b>Fishneck Size</b>	1.84"	2.28"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A KG packoff is made of a G Equalizing Assembly, G Anchor, and a Kobes Equalizing Assembly. It is used in integral joint tubing where couplings do not exist.

## Applications

- Ideal for use in conjunction with other downhole packoff tools or plug.

## Key Features & Benefits

- Available in different sizes for various requirements.



Technical Data			
<b>Assembly Number</b>	10-02-KG-200-A0	10-02-KG-250-A0	10-02-KG-250-A0
<b>Collapsed O.D.</b>	1.84"	2.28"	2.71"
<b>Expanded O.D.</b>	2.00"	2.44"	3.0"
<b>Minimum I.D.</b>	0.968"	1.125"	1.375"
<b>G Anchor Assembly</b>	10-02-GA-200-A0	10-02-GA-250-A0	10-02-GA-300-A0
<b>G Element Assembly</b>	10-02-GE-200-A0	10-02-GE-250-A0	10-02-GE-300-A0
<b>G Pack Off</b>	09-02-GK-200-01	09-02-GK-250-01	09-02-GK-250-01
<b>Kobes Plug</b>	1/4" NPT	1/4" NPT	1/4" NPT

See referenced assemblies for parts lists

## Overview

The TP packoff utilizes an expanding rubber element that can be set in the tubing. It utilizes a shear pin that keeps the element from expanding when running down hole. A spring loaded ratchet will hold the expanded element in place until a upward jarring shears the secondary shear pins.

## Applications

- Temporarily containing pressure during downhole operations.

## Key Features & Benefits

- Comes in various configurations that allow it to be used in standalone or tandem applications.



Technical Data				
Assembly Number	Max O.D.	Min I.D.	Top Connection	Bottom Connection
10-01-TP-237-A0	1.84"	1.00"	1.66" NUE Box	Pump Through
10-01-TP-237-A1	1.84"	1.00"	1.470-14 UN Pin	1.470-14 UN Box
10-01-TP-237-A2	1.84"	1.00"	Receptacle 1.375" Internal Fishneck	1.375" O.D. Stinger
10-01-TP-237-A3	1.84"	1.00"	Receptacle 1.375" Internal Fishneck	Kobes Bottom
10-01-TP-237-A4	1.84"	1.00"	Receptacle 1.375" Internal Fishneck	1.66 NUE Pin
10-01-TP-237-A5	1.84"	1.00"	Receptacle 1.375" Internal Fishneck	Pump Through
10-01-TP-287-A0	2.28"	1.25"	1.90" NUE Box	Pump Through
10-01-TP-287-A1	2.28"	1.25"	1.802-14 UN Pin	1.802-14 UN Box
10-01-TP-287-A2	2.28"	1.25"	Receptacle 1.813" Internal Fishneck	1.813" O.D. Stinger
10-01-TP-287-A3	2.28"	1.25"	Receptacle 1.813" Internal Fishneck	Kobes Bottom
10-01-TP-287-A4	2.28"	1.25"	Receptacle 1.813" Internal Fishneck	1.90 NUE Pin
10-01-TP-287-A5	2.28"	1.25"	Receptacle 1.813" Internal Fishneck	Pump Through
10-01-TP-350-A0	2.72"	1.59"	1.90" EUE Box	Pump Through
10-01-TP-350-A1	2.72"	1.59"	2.109-11.5 UN Pin	2.109-11.5 UN Box
10-01-TP-350-A2	2.72"	1.59"	Receptacle 2.313" Internal Fishneck	2.313" O.D. Stinger
10-01-TP-350-A3	2.72"	1.59"	Receptacle 2.313" Internal Fishneck	Kobes Bottom
10-01-TP-350-A4	2.72"	1.59"	Receptacle 2.313" Internal Fishneck	1.90 EUE Pin
10-01-TP-350-A5	2.72"	1.59"	Receptacle 2.313" Internal Fishneck	Pump Through
10-01-TP-450-A0	3.81"	2.36"	2.875" EUE Box	Pump Through
10-01-TP-450-A1	3.81"	2.36"	2.25-12 SA Pin	2.25-12 SA Box
10-01-TP-450-A2	3.81"	2.36"	Receptacle 3.125" Internal Fishneck	3.125" O.D. Stinger
10-01-TP-450-A3	3.81"	2.36"	Receptacle 3.125" Internal Fishneck	Kobes Bottom
10-01-TP-450-A4	3.81"	2.36"	Receptacle 3.125" Internal Fishneck	2.875" EUE Pin
10-01-TP-450-A5	3.81"	2.36"	Receptacle 3.125" Internal Fishneck	Pump Through

## 11. Testing Equipment

## Overview

The A Circulating Plug is used as a check valve within the tubing string. It may also be used to pressure test tubing while checking for leaks.



## Applications

- Set in the wellbore below the tubing perforations as a check valve.
- Another use for the circulating plug is to act as a hole finder.

## Key Features & Benefits

- Can be used various ways.
- Designed to be compatible with standard wireline equipment.

Technical Data				
Nominal Size	1.50"	2.00"	2.50"	3.00"
Assembly Number	11-01-A-150-A0	11-01-A-200-A0	11-01-A-250-A0	11-01-A-300-A0
Part Name				
Fishneck	11-01-A-150-01	11-01-A-200-01	11-01-A-250-01	11-01-A-300-01
Mandrel	11-01-A-150-02	11-01-A-200-02	11-01-A-250-02	11-01-A-300-02
Collet	11-01-A-150-03	11-01-A-200-03	11-01-A-250-03	11-01-A-300-03
Cup Retainer	11-01-A-150-04	11-01-A-200-04	11-01-A-250-04	11-01-A-300-04
O-Ring	#212	#216	#220	#225
Running Shank	0.938" – 10 UN	0.938" – 10 UN	0.938" – 10 UN	N/A
Pulling Probe	1.469"	1.86"	2.275"	2.84"
Running Shank	1.18"	1.37"	1.37"	2.31"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The AW Test Plug is a wireline-deployed device designed to pressure test tubing by sealing off sections within the wellbore. It is particularly useful for verifying the integrity of tubing strings before or after installation.



## Applications

- Used to pressure test tubing, ensuring its integrity before or after the tubing is run.
- Can be installed in the desired nipple by wireline or by dropping the test plug and pumping it into place.

## Key Features & Benefits

- The AW Test Plug holds pressure from above only.

Technical Data		
<b>Nominal Size</b>	2.00"	2.50"
<b>Assembly Number</b>	11-01-TT-200-A0	11-01-TT-250-A0
<b>Part Name</b>		
Mandrel	11-01-TT-200-01	11-01-TT-200-01
Equalizing Fishneck	11-01-TT-200-02	11-01-TT-200-02
Body	11-01-TT-200-03	11-01-TT-250-03
Bottom Sub	11-01-TT-200-04	11-01-TT-250-04
<b>Max O.D.</b>	1.91"	2.347"
<b>Fishneck Size</b>	1.37"	1.37"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The FB2 Standing Valves are complete units that are used to land on a top no-go shoulder of F Nipple. This no-go shoulder restricts the downward movement, but these valves are not locked into F Nipple in order to restrict the upward movement. They are used to hold a column of fluid in the tubing if the well stops producing, making swabbing operations easier.

## Applications

- Generally placed in the tubing string when there is a need to retain fluid from being reabsorbed back into the wellbore formation.

## Key Features & Benefits

- Available in various sizes to accommodate different tubing diameters, ensuring compatibility with a range of well configurations.



Technical Data				
Nominal Size	1.78"	1.81"	1.87"	2.25"
Assembly Number	11-03-FB-178-A0	11-03-FB-181-A0	11-03-FB-187-A0	11-03-FB-225-A0
Part Name				
Fishneck	11-03-RB-200-01	11-03-RB-200-01	11-03-RB-200-01	11-03-RB-250-01
Equalizing Sleeve	11-03-RB-200-02	11-03-RB-200-02	11-03-RB-200-02	11-03-RB-250-02
Ball Seat	11-03-RB-200-03	11-03-RB-200-03	11-03-RB-200-03	11-03-RB-250-03
Bypass Mandrel	11-03-RB-200-04	11-03-RB-200-04	11-03-RB-200-04	11-03-RB-250-04
Packing Mandrel	11-03-FB-178-05	11-03-FB-181-05	11-03-FB-187-05	11-03-FB-225-05
Packing Nut	11-03-RB-178-06	11-03-RB-181-06	11-03-RB-187-06	11-03-RB-225-06
Ball	1.187"	1.187"	1.187"	1.50"
O-Ring	#127	#127	#127	#133
O-Ring	#124 (2)	#124 (2)	#124 (2)	#128 (2)
O-Ring	#218	#218	#218	#222
Shear Screw	.25"-20 UNC x .256"	.25"-20 UNC x .256"	.25"-20 UNC x .256"	.25"-20 UNC x .375"
Double Male Backup	09-03-BUR-178-02	09-03-BUR-181-02	09-03-BUR-187-02	09-03-BUR-225-02
V – Packing	09-03-VP-178-01	09-03-VP-181-01	09-03-VP-187-01	09-03-VP-225-01
Female Backup Ring	09-03-BUR-178-01	09-03-BUR-181-01	09-03-BUR-187-01	09-03-BUR-225-01
Max O.D.	1.807"	1.84"	1.905"	2.30"
Fishneck Size	1.37"	1.37"	1.37"	1.75"

Please see next page for continuation of the sizing table.

Nominal Size	2.31"	2.56"	2.75"	2.81"
Assembly Number	11-03-FB-231-A0	11-03-FB-256-A0	11-03-FB-275-A0	11-03-FB-281-A0
Part Name				
Fishneck	11-03-RB-250-01	11-03-RB-250-01	11-03-RB-300-01	11-03-RB-300-01
Equalizing Sleeve	11-03-RB-250-02	11-03-RB-250-02	11-03-RB-300-02	11-03-RB-300-02
Ball Seat	11-03-RB-250-03	11-03-RB-250-03	11-03-RB-300-03	11-03-RB-300-03
Bypass Mandrel	11-03-RB-250-04	11-03-RB-250-04	11-03-RB-300-04	11-03-RB-300-04
Packing Mandrel	11-03-FB-231-05	11-03-FB-256-05	11-03-FB-275-05	11-03-FB-281-05
Packing Nut	11-03-RB-231-06	11-03-RB-256-06	11-03-RB-275-06	11-03-RB-281-06
Ball	1.50"	1.50"	1.625"	1.625"
O-Ring	#133	#133	#141	#141
O-Ring	#128 (2)	#128 (2)	#135(2)	#135 (2)
O-Ring	#222	#222	#225	#225
Shear Screw	.25"-20 UNC x .375"			
Double Male Backup	09-03-BUR-231-02	09-03-BUR-256-02	09-03-BUR-275-02	09-03-BUR-281-02
V – Packing	09-03-VP-231-01	09-03-VP-256-01	09-03-VP-275-01	09-03-VP-281-01
Female Backup Ring	09-03-BUR-231-01	09-03-BUR-256-01	09-03-BUR-275-01	09-03-BUR-281-01
Max O.D.	2.36"	2.61"	2.750"	2.865"
Fishneck Size	1.75"	1.75"	2.31"	2.31"

Nominal Size	3.31"	3.68"	3.75"	3.81"
Assembly Number	11-03-FB-331-A0	11-03-FB-368-A0	11-03-FB-375-A0	11-03-FB-381-A0
Part Name				
Fishneck	11-03-RB-300-01	11-03-RB-400-01	11-03-RB-400-01	11-03-RB-400-01
Equalizing Sleeve	11-03-RB-300-02	11-03-RB-400-02	11-03-RB-400-02	11-03-RB-400-02
Ball Seat	11-03-RB-300-03	11-03-RB-300-03	11-03-RB-300-03	11-03-RB-300-03
Bypass Mandrel	11-03-RB-300-04	11-03-RB-300-04	11-03-RB-300-04	11-03-RB-300-04
Packing Mandrel	11-03-FB-331-05	11-03-FB-300-05	11-03-FB-375-05	11-03-FB-381-05
Packing Nut	11-03-RB-331-06	11-03-FB-368-06	11-03-FB-375-06	11-03-FB-381-06
Ball	1.625"	1.625"	1.625"	1.625"
O-Ring	#141	#141	#141	#141
O-Ring	#135 (2)	#135 (2)	#135(2)	#135 (2)
O-Ring	#225	#225	#225	#225
Shear Screw	.25"-20 UNC x .375"			
Double Male Backup	09-03-BUR-331-02	09-03-BUR-368-02	09-03-BUR-375-02	09-03-BUR-381-02
V – Packing	09-03-VP-331-01	09-03-VP-368-01	09-03-VP-375-01	09-03-VP-381-01
Female Backup Ring	09-03-BUR-331-01	09-03-BUR-368-01	09-03-BUR-375-01	09-03-BUR-381-01
Max O.D.	3.406"	3.74"	3.80"	3.86"
Fishneck Size	2.31"	3.12"	3.12"	3.12"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Brace Tool N Test Plug is a wireline-deployed device designed to pressure test tubing and check for leaks. It is particularly useful for verifying the integrity of tubing strings before or after installation.

## Applications

- Used to pressure test tubing, ensuring its integrity before or after the tubing is run.
- Installed in a PSN nipple or the seal bore of a profile nipple using either wireline methods or by dropping and pumping it into place.

## Key Features & Benefits

- The tool holds pressure from above, providing a reliable seal during testing operations.
- Available in various sizes to accommodate different tubing diameters, ensuring compatibility with a range of well configurations.



Technical Data			
Nominal Size	2.00"	2.50"	2.75"
Assembly Number	11-01-N-200-A0	11-01-N-250-A0	11-01-N-275-A0
Part Name			
Fishneck	11-01-N-200-01	11-01-N-200-01	11-01-N-300-01
Dart	11-01-N-200-02	11-01-N-200-02	11-01-N-200-02
Top Sub	11-01-N-200-03	11-01-N-250-03	11-01-N-300-03
Packing Sub	11-01-N-186-04	11-01-N-224-04 11-01-N-224-04	11-01-N-300-04
No-Go Protector Ring	11-01-N-200-05	11-01-N-300-04	11-01-N-300-05
Backup Rings	09-03-BUR-187-01	09-03-BUR-231-01	08-02-BUR-275-01
V-Packing	09-03-VP-187-01	09-03-VP-231-01	09-03-VP-275-01
O-Ring	2-027	2-030	2-035
Max O.D.	1.91"	2.347"	2.867"
Fishneck Size	1.37"	1.37"	1.75"

Please note that the proper Packing sub and No-Go ring should be selected for the nipple size it is to be landed in. Inquire about 1.78", 1.80", 1.86", 1.90", 2.24", 2.34" sizes of the N Test Plug.

## Overview

The PSN Test Plug is a wireline-deployed device designed to pressure test tubing by sealing off sections within the wellbore. It is particularly useful for verifying the integrity of tubing strings before or after installation or maintenance operations.



## Applications

- Used in conjunction with a 2" A Circulating Mandrel to pressure test the tubing, ensuring its integrity before or after the tubing is run.

## Key Features & Benefits

- The tool holds pressure from above, providing a reliable seal during testing operations.
- Available in various sizes to accommodate different tubing diameters, ensuring compatibility with a range of well configurations.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	11-01-PSN-200-A0	11-01-PSN-250-A0	11-01-PSN-300-A0
<b>Part Name</b>			
Packing Sub	11-01-PSN-200-01	11-01-PSN-250-01	11-01-PSN-300-01
No-Go Nut	11-01-PSN-200-02	11-01-PSN-250-02	11-01-PSN-300-02
Retainer Nut	11-01-PSN-200-03	11-01-PSN-250-03	11-01-PSN-300-03
Female Backup Ring	09-03-BUR-178-01	09-03-BUR-228-01	09-03-BUR-275-01
Male Backup Ring	09-03-BUR-178-02	09-03-BUR-228-02	09-03-BUR-275-02
V-Packing	09-03-VP-178-01	09-03-VP-228-01	As Required
O-Ring	216	216	216
O-Ring	126	222	222
<b>Max O.D.</b>	1.91"	2.347"	2.83"
<b>Upper Thread Connection</b>	1.187" – 14 UN	1.187" – 14 UN	1.187" – 14 UN

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The RB2 Standing Valves are complete units that sit on the Bottom No- Go Shoulders of the R Nipple. This no-go shoulder restricts the downward movement, but these valves are not locked into the R Nipple and do not restrict upward movement. They are used to hold a column of fluid in the tubing if the well stops producing which can make swabbing operations easier.

## Applications

- Generally placed in the tubing string when there is a need to retain fluid from being reabsorbed back into the wellbore formation.
- Can be utilized for pressure testing tubing, setting hydraulically actuated packers, and in gas lift operations.



## Key Features & Benefits

- Engineered to land on the bottom no-go shoulder of an R-type nipple.
- Available in various sizes and configurations.

Technical Data				
Nominal Size	1.78"	1.81"	1.87"	2.25"
Assembly Number	11-03-RB-178-A0	11-03-RB-181-A0	11-03-RB-187-A0	11-03-RB-225-A0
Part Name				
Fishneck	11-01-RB-200-01	11-01-RB-200-01	11-01-RB-200-01	11-03-RB-250-01
Equalizing Sleeve	11-01-RB-200-02	11-01-RB-200-02	11-01-RB-200-02	11-03-RB-250-02
Ball Seat	11-01-RB-200-03	11-01-RB-200-03	11-01-RB-200-03	11-03-RB-250-03
Bypass Mandrel	11-01-RB-200-04	11-01-RB-200-04	11-01-RB-200-04	11-03-RB-250-04
Packing Mandrel	11-01-RB-200-05	11-01-RB-200-05	11-01-RB-200-05	11-03-RB-250-05
Packing Nut	11-01-RB-178-06	11-01-RB-181-06	11-01-RB-187-06	11-03-RB-225-06
Ball	1.187"	1.187"	1.187"	1.50"
O-Ring	#127	#127	#127	#133
O-Ring	#124 (2)	#124 (2)	#124 (2)	#128 (2)
O-Ring	#218	#218	#218	#222
Shear Screw	.25"-20 UNC x .25"	.25"-20 UNC x .25"	.25"-20 UNC x .25"	.25"-20 UNC x x .375"
Double Male Backup	09-03-BUR-178-02	09-03-BUR-181-02	09-03-BUR-187-02	09-03-BUR-225-02
V – Packing	09-03-VP-178-01	09-03-VP-181-01	09-03-VP-187-01	09-03-VP-225-01
Female Backup Ring	09-03-BUR-178-01	09-03-BUR-181-01	09-03-BUR-187-01	09-03-BUR-225-01
Max O.D.	1.781"	1.812"	1.875"	2.25"
Fishneck Size	1.37"	1.37"	1.37"	1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Nominal Size	2.31"	2.56"	2.75"	2.81"
Assembly Number	11-03-RB-231-A0	11-03-RB-256-A0	11-03-FB-231-A0	11-03-RB-281-A0
Part Name				
Fishneck	11-03-RB-250-01	11-03-RB-250-01	11-03-RB-300-01	11-03-RB-300-01
Equalizing Sleeve	11-03-RB-250-02	11-03-RB-250-02	11-03-RB-300-02	11-03-RB-300-02
Ball Seat	11-03-RB-250-03	11-03-RB-250-03	11-03-RB-300-03	11-03-RB-300-03
Bypass Mandrel	11-03-RB-250-04	11-03-RB-250-04	11-03-RB-300-04	11-03-RB-300-04
Packing Mandrel	11-03-RB-250-05	11-03-RB-256-05	11-03-RB-275-05	11-03-RB-281-05
Packing Nut	11-03-RB-231-06	11-03-RB-256-06	11-03-RB-275-06	11-03-RB-281-06
Ball	1.50"	1.50"	1.625"	1.625"
O-Ring	#133	#133	#141	#141
O-Ring	#128 (2)	#128 (2)	#135 (2)	#135 (2)
O-Ring	#222	#222	#225	#225
Shear Screw	.25"-20 UNC x .375"			
Double Male Backup	09-03-BUR-231-02	09-03-BUR-256-02	09-03-BUR-275-02	09-03-BUR-281-02
V – Packing	09-03-VP-231-01	09-03-VP-256-01	09-03-VP-275-01	09-03-VP-281-01
Female Backup Ring	09-03-BUR-231-01	09-03-BUR-256-01	09-03-BUR-275-01	09-03-BUR-281-01
Max O.D.	2.313"	2.561"	2.74"	2.802"
Fishneck Size	1.75"	1.75"	2.31"	2.31"

Nominal Size	3.68"	3.75"	3.81"
Assembly Number	11-03-RB-368-A0	11-03-RB-375-A0	11-03-RB-381-A0
Part Name			
Fishneck	11-03-RB-400-01	11-03-RB-400-01	11-03-RB-400-01
Equalizing Sleeve	11-03-RB-400-02	11-03-RB-400-02	11-03-RB-400-02
Ball Seat	11-03-RB-300-03	11-03-RB-300-03	11-03-RB-300-03
Bypass Mandrel	11-03-RB-300-04	11-03-RB-300-04	11-03-RB-300-04
Packing Mandrel	11-03-RB-368-05	11-03-RB-375-05	11-03-RB-381-05
Packing Nut	11-03-RB-368-06	11-03-RB-375-06	11-03-RB-381-06
Ball	1.625"	1.625"	1.625"
O-Ring	#141	#141	#141
O-Ring	#135 (2)	#135 (2)	#135 (2)
O-Ring	#225	#225	#225
Shear Screw	.25"-20 UNC x .375"	.25"-20 UNC x .375"	.25"-20 UNC x .375"
Double Male Backup	09-03-BUR-368-02	09-03-BUR-375-02	09-03-BUR-381-02
V – Packing	09-03-VP-368-01	09-03-VP-375-01	09-03-VP-381-01
Female Backup Ring	09-03-BUR-368-01	09-03-BUR-375-01	09-03-BUR-381-01
Max O.D.	3.681"	3.75"	3.812"
Fishneck Size	3.12"	3.12"	3.12"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A WJ Valve is designed to hold a certain amount of fluid from draining back in the wellbore. It consists of a fishneck, packing sub, collet, and plunger. It is divided into two categories; cast steel globe valve and bronze WJ valve.



## Applications

- Generally placed in a well when there is a need for fluid to be retained in the wellbore and not to be re-absorbed back into the formation of a well.

## Key Features & Benefits

- Available in various material configurations.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	11-01-WJ-200-A0	11-01-WJ-250-A0	11-01-WJ-300-A0
<b>Part Name</b>			
Fishneck	11-01-WJ-200-01	11-01-WJ-200-01	11-01-WJ-300-01
Shear Disc	11-01-WJ-200-02	11-01-WJ-200-02	11-01-WJ-300-02
Plunger	11-01-WJ-200-03	11-01-WJ-250-03	11-01-WJ-300-03
Cage	11-01-WJ-200-04	11-01-WJ-250-04	11-01-WJ-300-04
Packing Sub	11-01-WJ-200-05	11-01-WJ-250-05	11-01-WJ-300-05
Collet	11-01-WJ-200-06	11-01-WJ-250-06	11-01-WJ-300-06
V – Packing	09-03-VP-181-01 (1.81 BKO)	09-03-VP-225-01 (2.25 Camco)	08-02-VP-275-01 (2.75 BKO)
<b>Max O.D.</b>	1.86"	2.295"	2.81"
<b>Fishneck Size</b>	1.37"	1.37"	1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The XO Test Tool is a wireline-deployed device designed for pressure testing tubing strings and identifying leaks within the wellbore. Its design allows for selective or non-selective setting in various profile nipples, making it a versatile tool for pinpointing integrity issues in tubing.



## Applications

- Verifying the integrity of the tubing string by applying pressure and confirming that it holds.

## Key Features & Benefits

- The XO Test Tool can be configured in either selective or non-selective modes, allowing it to pass through multiple X-type nipples and set in the desired XN or X profile nipple.
- Designed to be run with an SSJ pulling tool to prevent damage to the seal ring during jarring operations.

Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	2.75"
<b>Assembly Number</b>	11-02-XO-200-A0	11-02-XO-250-A0	11-02-XO-275-A0
<b>Lower Thread Connection</b>	0.75" Line Pipe	1.0" Line Pipe	1.0" Line Pipe
<b>Max O.D.</b>	1.865"	2.307"	2.74"
<b>Fishneck Size</b>	1.375"	1.37"	1.75"

Please see next page for the parts list.

Parts List			
Nominal Size	2.00"	2.50"	2.75"
Part Name	Part Number		
Fishneck	11-02-XO-200-01	11-02-XO-200-01	11-02-XO-300-01
Dart	11-02-XO-200-02	11-02-XO-200-02	11-02-XO-200-02
Cage	11-02-XO-200-04	11-02-XO-200-03	11-02-XO-200-03
Seal Ring Retainer	11-02-XO-200-05	11-02-XO-200-04	11-02-XO-200-04
Seal Insert	11-02-XO-200-05	11-02-XO-200-05	11-02-XO-200-05
Body	11-02-XO-200-06	11-02-XO-250-06	11-02-XO-300-06
Upper Key Retainer	11-02-XO-200-07	11-02-XO-250-07	11-02-XO-300-07
Key	11-02-XO-200-08	11-02-XO-250-08	11-02-XO-275-08
Lower Key Retainer	04-02-B-200-07	11-02-XO-250-09	11-02-XO-300-09
Nut	11-02-XO-200-10	11-02-XO-250-10	11-02-XO-300-10
Packing Mandrel	11-02-XO-200-11	11-02-XO-250-11	11-02-XO-275-11
Spring Housing	11-02-XO-200-12	11-02-XO-250-12	11-02-XO-275-12
Core Spring	11-02-XO-200-13	11-02-XO-250-13	11-02-XO-300-13
Dog Housing	11-02-XO-200-14	11-02-XO-250-14	11-02-XO-300-14
Dog Spring	02-02-X-200-08	02-02-X-250-08	11-02-XO-200-15
Split Ring	02-02-X-200-09	02-02-X-250-09	11-02-XO-300-16
Locator Dog	02-02-X-200-10	02-02-X-250-10	02-02-X-300-17
Locator Mandrel	11-02-XO-200-18	11-02-XO-200-18	11-02-XO-300-18
Retainer Pin	0.125" x 1.187"	0.125" x 1.187"	0.125" x 1.437"
Seal Ring	14A-00102	14A-00102	14A-00102
Key Spring	04-02-B-125-06	04-02-B-200-06	04-02-B-200-06
Male Backup	08-02-X-187-02	08-02-X-231-02	08-02-BUR-275-02
Female Backup	08-02-X-200-01	08-02-X-250-01	08-02-BUR-275-01
V – packing	08-02-VP-187-01	08-02-VP-231-01	08-02-VP-275-01
O-Ring	113	113	113
O-Ring	213	217	222

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 12. BHP Equipment

## Overview

The Bombwell provides a protective cover for subsurface instruments against harmful fluids and vibrations within the wellbore.

## Applications

- Typically run in applications where the wellbore environment is harsh or there is a chance of damage to subsurface instruments due to vibrations and movement of the tubing.

## Key Features & Benefits

- Designed to accommodate various types of downhole instruments, making it versatile for different applications.



Technical Data					
Nominal Size	1.00"	1.25"	1.66"	2.37"	3.00"
Assembly Number	12-01-BW-100-A0	12-01-BW-125-A0	12-01-BW-166-A0	12-01-BW-237-A0	12-01-BW-300-A0
Part Name					
Fishneck	12-01-BW-100-01	12-01-BW-125-01	12-01-BW-166-01	12-01-BW-237-01	12-01-BWT-300-01
Tube	12-01-RC-237-05	12-01-BW-125-02	12-01-BW-166-02	12-01-BW-237-02	12-01-BWT-300-02
Bottom Sub	12-01-BW-100-03	12-01-BW-125-03	12-01-BW-166-03	12-01-BW-237-03	12-01-BWT-300-03
Spring	01-01-OC-150-02	03-04-J-125-04	12-01-BW-166-05	n/a	n/a
O-Ring	#114 (4)	#118 (1)	#218 (1)	n/a	n/a
Top Thread Connection	0.50"-13 UNC	0.938"-10 UN	0.938"-10 UN	2.37" EUE Pin	2.37" EUE Pin
Lower Thread Connection	0.50"-13 UNC	0.75"-16 UNF	0.938"-10 UN	n/a	n/a
Max O.D.	1.00"	1.25"	1.66"	2.59"	3.00"
Fishneck Size	0.75"	1.18"	1.37"	n/a	n/a

\*A bullnose is optional for the Bottom sub upon request.

\*0.75"-16UNF connections available upon request.

\*Can be made from Incoloy/Hastelloy upon request.

## Overview

The F Collar Stop is designed to find and set in the tubing coupling recesses. They are used to restrict tools from falling into the casing and through the tubing. They are used to offer a means to hold the wireline equipment within tubing strings.

## Applications

- Restricting tools from falling into the casing and through the tubing.

## Key Features & Benefits

- Ran with a collar stop running tool or jar down to shear tool. Pulled with a JUC or JDC Pulling Tool.
- Suitable for a broad range of wireline operations.



Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	3.00"
<b>Assembly Number</b>	12-01-F-200-A0	12-01-F-250-A0	12-01-F-300-A0
<b>Part Name</b>			
Mandrel	12-01-F-200-01	12-01-F-250-01	12-01-F-300-01
Leg	12-01-F-200-02	12-01-F-250-02	12-01-F-300-02
End Cap	12-01-F-200-03	12-01-F-250-03	12-01-F-300-03
Trip Wire	12-01-F-200-04	12-01-F-250-04	12-01-F-300-04
<b>Lower Thread Connection</b>	2.375"	2.82"	3.46"
<b>Max O.D.</b>	1.375"	1.75"	2.313"
<b>Nominal Size</b>	4.50"	5.50"	7.00"
<b>Assembly Number</b>	1201F400A0	1201F550A0	1201F700A0
<b>Part Name</b>			
Mandrel	1201F40001	1201F55001	1201F70013
Leg	1201F40002	1201F55002	1201F70002
End Cap	1201F40003	1201F55003	n/a
Trip Wire	1201F40004	1201F55004	1201F70004
<b>Lower Thread Connection</b>	4.22"	5.17"	6.56"
<b>Max O.D.</b>	2.313"	2.313"	2.313"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Instrument Hanger is used to hang sub surface instrument below Baker style lock mandrels.

## Applications

- Suspending sub surface instruments.

## Key Features & Benefits

- Compatible with Baker profile nipples and lock mandrels.



Technical Data			
<b>Nominal Size</b>	2.00"	2.50"	2.56"
<b>Assembly Number</b>	12-03-IH-200-01	12-03-IH-250-01	12-03-IH-256-01
<b>Top Thread Connection</b>	1.406" – 14 UN	1.812" – 14 UN	2.062" -14 UN
<b>Lower Thread Connection</b>	1.00" NPT	1.00" NPT	1.00" NPT
<b>Max O.D.</b>	1.865	2.30"	2.55"
<b>Nominal Size</b>	3.00"	3.68"	3.75"
<b>Assembly Number</b>	12-03-IH-300-01	12-03-IH-368-01	12-03-IH-375-01
<b>Top Thread Connection</b>	2.218" -14 UN	3.031" – 12 UN	3.031" – 12 UN
<b>Lower Thread Connection</b>	1.00" NPT	1.00" NPT	1.00" NPT
<b>Max O.D.</b>	2.803"	3.675	3.74"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Instrument Hanger is used to hang sub surface instrument below Otis style lock mandrels.

## Applications

- Suspending sub surface instruments.

## Key Features & Benefits

- Compatible with Otis profile nipples and lock mandrels.



Technical Data					
Nominal Size	1.125" Q	1.25" N	1.50" X	1.625" X	1.78" R
Assembly Number	12-02-IH-112-01	12-02-IH-125-01	12-02-IH-150-01	12-02-IH-162-01	12-02-IH-178-01
Top Thread Connection	0.625" - 18 UN	0.76" - 16 UN	1.125" - 16 UN	1.125" - 16 UN	1.375" - 14 UN
Lower Thread Connection	0.50" - 13 UN	0.50" - 13 UN	0.75" - 16 UN	0.75" - 16 UN	0.938" - 10 UN
Max O.D.	0.94"	0.94"	1.49"	1.615"	1.77"
Nominal Size	1.87" R	2.00" X	2.18" R	2.31" R	2.31" X
Assembly Number	12-02-IH-187-01	12-02-IH-200-01	12-02-IH-218-01	12-02-IH-231-01	12-02-IH-250-01
Top Thread Connection	1.375" - 14 UN	1.375" - 14 UN	1.75" - 12 UN	1.75" - 12 UN	1.75" - 12 UN
Lower Thread Connection	0.938" - 10 UN				
Max O.D.	1.865"	1.870"	2.18"	2.307"	2.307"
Nominal Size	2.56" R	2.75" R	3.00" X	3.68" R	3.81" X
Assembly Number	12-02-IH-256-01	12-02-IH-275-01	12-02-IH-300-01	12-02-IH-368-01	12-02-IH-381-01
Top Thread Connection	2.0" - 12 SLB	2.25" - 12 SLB	2.25" - 12 SLB	3.063" - 12 SLB	3.063" - 12 SLB
Lower Thread Connection	0.938" - 10 UN				
Max O.D.	2.555"	2.74"	2.803"	3.678"	3.80"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The No-Blow tool is a service tool that eliminates blowing gas and prevents pressure recorders from flowing up into the well bore. The tool comes into use during testing programs and in pipeline maintenance activities.

## Applications

- Preventing pressure recorders from unintentionally “floating” back up the tubing due to gas lift or pressure differential.
- Preventing blowback of gas into the tool string or surface equipment during retrieval.



## Key Features & Benefits

- Commonly ran in conjunction with a J Unlatching Head.

Technical Data			
Nominal Size	1.00"	1.25"	1.50"
Assembly Number	12-01-NB-100-A0	12-01-NB-125-A0	12-01-NB-150-A0
Part Name			
Top Sub	12-01-NB-100-01	12-01-NB-100-01	12-01-NB-100-01
Spring (x2)	12-01-NB-100-02	12-01-NB-100-02	12-01-NB-100-02
End Cap	12-01-NB-100-03	12-01-NB-100-03	12-01-NB-100-03
Shaft	12-01-NB-100-04	12-01-NB-125-04	12-01-NB-150-04
Spring Retainer (x2)	12-01-NB-100-05	12-01-NB-100-05	12-01-NB-100-05
Key Housing	12-01-NB-100-06	12-01-NB-100-06	12-01-NB-100-06
Key	12-01-NB-100-07	12-01-NB-100-07	12-01-NB-100-07
Cam	12-01-NB-100-08	12-01-NB-125-08	12-01-NB-150-08
Top Thread Connection	0.500" – 13 UNC	0.500" – 13 UNC	0.500" – 13 UNC
Lower Thread Connection	0.500" – 13 UNC	0.500" – 13 UNC	0.500" – 13 UNC
Tubing I.D.	1.06"	1.40"	1.62"

Please see next page for more technical data.

Nominal Size	2 .062"	2.00"	2.50"	3.00"
Assembly Number	12-01-NB-206-A0	12-01-NB-237-A0	12-01-NB-287-A0	12-01-NB-350-A0
Part Name				
Top Sub	12-01-NB-237-01	12-01-NB-237-01	12-01-NB-237-01	12-01-NB-237-01
Spring (x2)	12-01-NB-237-02	12-01-NB-237-02	12-01-NB-237-02	12-01-NB-237-02
End Cap	12-01-NB-237-03	12-01-NB-237-03	12-01-NB-237-03	12-01-NB-237-03
Shaft	12-01-NB-237-04	12-01-NB-237-04	12-01-NB-237-04	12-01-NB-350-04
Spring Retainer (x2)	12-01-NB-237-05	12-01-NB-237-05	12-01-NB-237-05	12-01-NB-237-05
Key Housing	12-01-NB-237-06	12-01-NB-237-06	12-01-NB-237-06	12-01-NB-237-06
Key	12-01-NB-206-07	12-01-NB-237-07	12-01-NB-287-07	12-01-NB-350-07
Cam	12-01-NB-237-08	12-01-NB-237-08	12-01-NB-287-08	12-01-NB-350-08
Top Thread Connection	0.75" – 16 UNF			
Lower Thread Connection	0.75" – 16 UNF			
Max O.D. of Keys	1.80"	2.050"	2.50"	3.050"

Nominal Size	4.50"	5.00"	5.50"	7.00"
Assembly Number	12-01-NB-450-A0	12-01-NB-450-A0	12-01-NB-550-A0	12-01-NB-700-A0
Part Name				
Top Sub	12-01-NB-450-01	12-01-NB-450-01	12-01-NB-450-01	12-01-NB-700-01
Spring (x2)	12-01-NB-450-02	12-01-NB-450-02	12-01-NB-450-02	12-01-NB-700-02
End Cap	12-01-NB-450-03	12-01-NB-450-03	12-01-NB-450-03	12-01-NB-700-03
Shaft	12-01-NB-450-04	12-01-NB-450-04	12-01-NB-450-04	12-01-NB-700-04
Spring Retainer (x2)	12-01-NB-450-05	12-01-NB-450-05	12-01-NB-450-05	12-01-NB-700-05
Key Housing	12-01-NB-450-06	12-01-NB-450-06	12-01-NB-450-06	12-01-NB-700-06
Key	12-01-NB-450-07	12-01-NB-500-07	12-01-NB-550-07	12-01-NB-700-07
Cam	12-01-NB-450-08	12-01-NB-450-08	12-01-NB-450-08	12-01-NB-700-08
Top Thread Connection	0.938" – 10 UN			
Lower Thread Connection	0.938" – 10 UN			
Max O.D. of Keys	4.25"	4.70"	5.00"	6.43"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The No-Go Dart is intended to be landed either in or on a profile nipple or tubing swedge to act as a platform to land sub surface instruments on.

## Applications

- Can be used as a platform for sub-surface tools.
- Prevent tools from reaching past a specific point in the wellbore.

## Key Features & Benefits

- Comes in several different designs, ranging from a gauge ring style dart with an integral fishneck, to a fluted style dart with threaded connections.



Technical Data - Gauge Ring No-Go Darts					
Nominal Size	1.50"	1.75"	2.00"	2.50"	3.00"
Assembly Number	12-01-DGR-150-01	12-01-DGR-175-01	12-01-DGR-200-01	12-01-DGR-250-01	12-01-DGR-300-01
Max O.D.	1.657"	1.750"	1.91"	2.347	2.906"
Fishneck Size	1.18"	1.18"	1.37"	1.37"	1.75"

Technical Data - Fluted No-Go Darts - Threaded			
Nominal Size	2.00"	2.50"	3.00"
Assembly Number	12-01-DF-200-02	12-01-DF-250-02	12-01-DF-300-02
Top Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
Lower Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
Max O.D.	1.91"	2.347"	2.940"
Fishneck Size	1.37"	1.37"	1.37"

Technical Data - Fluted No-Go Darts - Non Threaded			
Nominal Size	2.00"	2.50"	3.00"
Assembly Number	1201DF20001	1201DF25001	1201DF30001
Lower Thread Connection	0.938"-10 UN	0.938"-10 UN	0.938"-10 UN
Max O.D.	1.91"	2.347"	2.940"
Fishneck Size	1.37"	1.37"	1.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Shock Absorber is used to limit the shock transmitted to the recorders during setting and pulling operations that require jarring impacts.

## Applications

- Minimizing the shock transmitted to the recorders during setting and pulling operations that require jarring impacts.

## Key Features & Benefits

- The housing contains the springs and the plunger.
- Available with 0.75" UNF thread connections.



Technical Data			
Nominal Size	1.25"	1.50"	1.62"
Assembly Number	12-01-SA-125-A0	12-01-SA-150-A0	12-01-SA-168-A0
Part Name			
Fishneck	12-01-SA-125-01	12-01-SA-150-01	12-01-SA-168-01
Barrel	12-01-SA-125-02	12-01-SA-150-02	12-01-SA-168-02
Top Spring	12-01-SA-125-03	12-01-SA-150-03	12-01-SA-150-03
Shaft	12-01-SA-125-04	12-01-SA-150-04	12-01-SA-150-04
Bottom Spring	12-01-SA-125-05	12-01-SA-150-05	12-01-SA-150-05
Shaft Bushing	12-01-SA-125-06	12-01-SA-150-06	12-01-SA-168-06
Bottom Sub	12-01-SA-125-07	12-01-SA-150-07	12-01-SA-168-07
Top Thread Connection	0.938"-10 UNC	0.938"-10 UNC	0.938"-10 UNC
Lower Thread Connection	0.938"-10 UNC	0.938"-10 UNC	0.938"-10 UNC
Fishneck Size	1.18"	1.18"	1.18"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## **13. Pressure Control Equipment**

### Overview

The Manual Wireline Valve is designed for safety and maintaining control over well pressure. Installed between the lower lubricator section and the tree connection, it provides a secure seal, preventing any unwanted release of pressure or fluids. The valve is manually operated, allowing for precise control during operations.

When wireline tools are being run in and out of the wellbore, the valve holds and controls pressure from below, ensuring a safe and efficient operation. In essence, the Manual Wireline Valve plays a crucial role in maintaining the integrity of the well, protecting equipment, and ensuring the safety of personnel.

### Applications

- Isolating wellbore pressure from the lubricator for the installation of cutting tools, etc. for the ability to remove line from stuck tool strings downhole.
- Contain well pressure for lubricator removal, should wellhead valves malfunction or freeze off.

### Key Features & Benefits

- The valve is manually operated, allowing for precise control during operations.
- Constructed with high-quality materials, making it robust and durable
- The valve provides excellent pressure control.



#### Technical Data

Assembly Number	Nominal Size	Connections	Pressure Rating
13-01-WLV-300-A0	3.00"	4.750-4 Acme (B01)	5,000 PSI
13-01-WLV-300-AA	3.00"	4.750-4 Acme (B12)	10,000 PSI
13-01-WLV-300-AY	3.00"	5.000-4 Acme (001)	5,000 PSI
13-01-WLV-400-A0	4.06"	6.500-4 Acme (004)	5,000 PSI

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List		
Nominal Size	3"	
Part Name	Part Number	
Cable Guide	13-01-CG-300-01	
Top Sub	13-01-WLV-300-01	
Body	13-01-WLV-300-02	
Nut	13-01-WLV-300-03	
Locating Pin	13-01-WLV-300-04	
Piston Housing	13-01-WLV-300-05	
Lockout Pin	13-01-WLV-300-08	
T Handle	13-01-WLV-300-09	
Backup Ring	13-01-WLV-300-12	
Backup Ring	13-01-WLV-300-13	
Anti-Rotation Pin	13-01-WLV-300-15	
Ram Block (Right Hand)	13-01-WLV-300-18	
Ram Block (Left Hand)	13-01-WLV-300-19	
Key Retainer	13-01-WLV-300-23	
Adapter Plug	13-01-WLV-300-24	
By-Pass Plug	13-01-CG-300-27	
Bleed-Off Plug	13-01-CG-300-28	
Nut	13-01-CG-300-29	
Bottom Sub	13-01-CG-300-30	
Bushing	13-01-CG-300-31	
Inner Ram Seal	I-RAM SEAL	
Outer Ram Seal	O-RAM SEAL	
O-Ring	2009	
O-Ring	2111	
O-Ring	2114	
O-Ring	2121	
O-Ring	2125	
O-Ring	2215	
O-Ring	2236	
O-Ring	2238	
O-Ring	2340	
Backup Ring	8009	
Backup Ring	8114	
Backup Ring	8215	
Backup Ring	8236	
Backup Ring	8238	
Backup Ring	8340	
Valve Packing	1.5 GLV	

<b>Parts List</b>		
<b>Nominal Size</b>	3"	
<b>Part Name</b>	<b>Part Number</b>	
NYLOC Hex Nut	5/8 - 11 UN	
Internal Retaining Ring	NA2 - 1 1/2	
Retaining Ring - Ext	RST - 400	
Hex Socket Button Head Cap Screw	.250 - 20 x .50 LG	
Countersunk Head Cap Screw	.250 - 20 UNC x .63 LG	
Hex Head Plug	1/2 - 14 NPT	
Socket Head Plug	1/8 - 27 NPT x .25 LG	
Hex Socket Screw	.250 - 20 UNC x .38 LG	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Hydraulic Wireline Valve is a large valve installed between the lower lubricator section and tree connection (Wellhead). The Wireline Valve typically will hold pressure from below. It offers facilities for the emergency and contingency procedures. When closed, it enables the well pressure to be separated and released from the lubricator while keeping the wellbore valves open.



### Applications

- Used during well intervention operations, such as logging, perforating, and other maintenance tasks.

### Key Features & Benefits

- Rams can be cycled in and out of the ram housing by using hydraulic actuators.
- An equalizing assembly is located on the side of the main body with a bleed off port on the opposite side and located 90 degrees from ram housings.
- By opening an allen wrench operated valve seat the equalizing assembly allows pressure to be returned to the lubricator from the wellbore with rams closed.

#### Technical Data

Assembly Number	Nominal Size	Connections	Pressure Rating
13-01-WLV-300-AT	3.00"	4.750-4 Acme (B12)	10,000 PSI
13-01-WLV-300-AW	3.00"	5.750-4 Acme (O02)	5,000 PSI
13-01-WLV-300-B5	3.00"	4.750-4(x2) Acme (E09)	10,000 PSI
13-01-WLV-300-B6	3.00"	5.000-4 Acme (O16)	5,000 PSI
13-01-WLV-400-A1	4.06"	6.500-4 Acme (O04)	5,000 PSI

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List		
Nominal Size	3"	
Part Name	Part Number	
Cable Guide	13-01-CG-300-01	
Top Sub	13-01-WLV-300-01	
Body	13-01-WLV-300-02	
Nut	13-01-WLV-300-03	
Locating Pin	13-01-WLV-300-04	
Backup Ring	13-01-WLV-300-12	
Backup Ring	13-01-WLV-300-13	
Anti-Rotation Pin	13-01-WLV-300-15	
Ram Block (Right Hand)	13-01-WLV-300-18	
Ram Block (Left Hand)	13-01-WLV-300-19	
Key Retainer	13-01-WLV-300-23	
Adapter Plug	13-01-WLV-300-24	
By-Pass Plug	13-01-WLV-300-27	
Bleed-Off Plug	13-01-WLV-300-28	
Nut	13-06-HUN-300-01	
Bottom Sub	13-01-WLV-300-30	
Bushing	13-01-WLV-300-31	
Cylinder	13-01-WVH-300-01	
Piston Shaft	13-01-WVH-300-06	
Piston	13-01-WVH-300-07	
End Cap	13-01-WVH-300-08	
Indicator Rod	13-01-WVH-300-09	
Lock-Out Bolt	13-01-WVH-300-10	
Stop Ring	13-01-WVH-300-11	
O-Ring	2009	
O-Ring	2111	
O-Ring	2114	
O-Ring	2121	
O-Ring	2125	
O-Ring	2215	
O-Ring	2234	
O-Ring	2236	
O-Ring	2238	
O-Ring	2340	
Backup Ring	8009	
Backup Ring	8114	
Backup Ring	8215	
Backup Ring	8234	

Parts List		
Nominal Size	3"	
Part Name	Part Number	
Backup Ring	8236	
Backup Ring	8238	
Valve Packing	1.5 GLV	
T-Seal	TP034	
Inner Ram Seal	I-RAM SEAL	
Outer Ram Seal	O-RAM SEAL	
Retaining Ring - Int.	HO-156	
Internal Retaining Ring	NA2-11/2	
Retaining Ring - Ext.	RST-400	
Hex Head Plug	1/2-14 NPT	
Socket Head Plug	1/4-18 NPT	
Countersunk Head Cap Screw	.250-20 UNC x .63 LG	
Hex Socket Button Head Cap Screw	.250-20x.50LG	
Socket Head Plug	1/8-27 NPT x .25 LG	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Dual Wireline Valve is a large valve installed between the lower lubricator section and tree connection (Wellhead). The Dual Wireline Valve typically will hold pressure from below. It offers facilities for the emergency and contingency procedures. When closed, it enables the well pressure to be separated and released from the lubricator while keeping the wellbore valves open.



## Applications

- Used during well intervention operations, such as logging, perforating, and other maintenance tasks.

## Key Features & Benefits

- Rams can be cycled in and out of the ram housing by using hydraulic actuators.
- An equalizing assembly is located on the side of the main body with a bleed off port on the opposite side and located 90 degrees from ram housings.
- By opening an allen wrench operated valve seat the equalizing assembly allows pressure to be returned to the lubricator from the wellbore with rams closed.

Technical Data - Manual			
Assembly Number	Nominal Size	Connections	Pressure Rating
13-01-DWL-300-A5	3.00"	4.750-4 Acme (B01)	5,000 PSI
13-01-DWL-400	4.06"	As Required	As Required

Technical Data - Hydraulic			
Assembly Number	Nominal Size	Connections	Pressure Rating
13-01-DWL-300-A1	3.00"	4.750-4 Acme (B01)	5,000 PSI
13-01-DWL-300-A3	3.00"	5.000-4 Acme (O01/O16)	10,000 PSI
13-01-DWL-400-A2	4.06"	5.000-4 Acme (O06)	5,000 PSI

Inquire for custom configurations. Options include various cable guide sizes, ram types, and end connections.

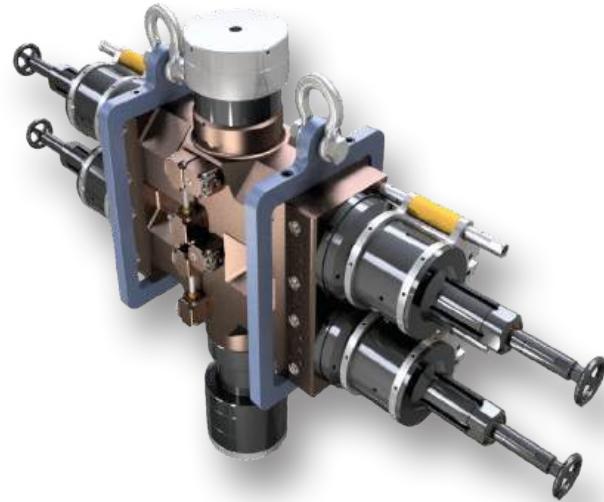
Parts List	
Nominal Size	3"
Part Name	Part Number
Cable Guide	13-01-CG-300-01
Top Sub	13-01-WLV-300-01
Body	13-01-WLV-300-02
Nut	13-01-WLV-300-03
Locating Pin	13-01-WLV-300-04
Backup Ring	13-01-WLV-300-12
Backup Ring	13-01-WLV-300-13
Anti-Rotation Pin	13-01-WLV-300-15
Ram Block (Right Hand)	13-01-WLV-300-18
Ram Block (Left Hand)	13-01-WLV-300-19
Key Retainer	13-01-WLV-300-23
Adapter Plug	13-01-WLV-300-24
By-Pass Plug	13-01-WLV-300-27
Bleed-Off Plug	13-01-WLV-300-28
Nut	13-06-HUN-300-01
Bottom Sub	13-01-WLV-300-30
Bushing	13-01-WLV-300-31
Cylinder	13-01-WVH-300-01
Piston Shaft	13-01-WVH-300-06
Piston	13-01-WVH-300-07
End Cap	13-01-WVH-300-08
Indicator Rod	13-01-WVH-300-09
Lock-Out Bolt	13-01-WVH-300-10
Stop Ring	13-01-WVH-300-11
Lift Cap	13-01-LS-300-02
O-Ring	2009
O-Ring	2111
O-Ring	2114
O-Ring	2121
O-Ring	2125
O-Ring	2215
O-Ring	2234
O-Ring	2236
O-Ring	2238
O-Ring	2340
Backup Ring	8009
Backup Ring	8114
Backup Ring	8215

## Overview

The 5 1/8" Wireline Valve is engineered for safe and reliable pressure control during slickline and electric line operations in larger bore completions. Available in 5,000 and 10,000 PSI working pressures, this valve is offered in single, dual, or triple configurations to match a wide range of wellsite requirements. Designed primarily with hydraulic actuators—while manual options are also available.

## Applications

- Used during well interventions to control pressure while inserting or retrieving tools on slickline or electric line—such as for setting plugs, shifting sleeves, or logging operations.
- Accommodating larger tool strings, tool catchers, and lubricators, often used in offshore completions with larger surface equipment.



## Key Features & Benefits

- Offered in single, dual, or triple valve configurations to suit your pressure control requirements.
- Available in 5,000 PSI and 10,000 PSI working pressure options.
- Hydraulic actuators standard; manual actuators available upon request.

**Technical Data - Single Wireline Valve**

Assembly Number	Nominal I.D.	Configuration	Connections	Pressure Rating
13-01-WLV-513-A0	5.125"	Single Hydraulic	B17 (8.875" 4x2 W/ 6.50" SEAL)	10,000 PSI
13-01-WLV-513-A1	5.125"	Single Hydraulic	B09 (8.250" 4X2 W/ 6.750" SEAL)	5000 PSI
13-01-WLV-513-A2	5.125"	Single Hydraulic	O10 (9.000"-4 W/ 6.750" SEAL)	10,000 PSI
13-01-WLV-513-A3	5.125"	Single Hydraulic	O07 (8.25"-4 W/ 6.188" SEAL)	5000 PSI

**Technical Data - Dual Wireline Valve**

Assembly Number	Nominal I.D.	Configuration	Connections	Pressure Rating
13-01-DWL-513-A0	5.125"	Dual Hydraulic	B17 (8.875" 4x2 W/ 6.50" SEAL)	10,000 PSI
13-01-DWL-513-A1	5.125"	Dual Hydraulic	B09 (8.250" 4X2 W/ 6.750" SEAL)	5000 PSI
13-01-DWL-513-A2	5.125"	Dual Hydraulic	O10 (9.000"-4 W/ 6.750" SEAL)	10,000 PSI
13-01-DWL-513-A3	5.125"	Dual Hydraulic	O07 (8.25"-4 W/ 6.188" SEAL)	5000 PSI

## Overview

A Pump-In Sub, also called High Pressure Flow Tee gives the ability to either pump into or bleed off wellbore pressure under high pressure. The Pump-In Sub incorporates a 2" high pressure quarter turn ball valve to allow rapid well control as well as a larger bore to pump in or bleed off the wellbore. The Pump-In Sub also utilizes (but is not limited to) a 6K Guiberson style union for ease of use and capability of pressure.

## Applications

- Controlling and managing wellbore pressure during drilling, production, and well intervention operations.
- Flow Control in situations requiring rapid and efficient control of fluid flow into or out of the wellbore.
- Quickly bleeding off excess pressure in high-pressure systems to prevent equipment damage or blowouts.

## Key Features & Benefits

- Incorporates a 2-inch high-pressure quarter-turn ball valve, allowing for rapid and effective well control.
- The larger bore design facilitates efficient pumping in or bleeding off of the wellbore, enhancing operational efficiency and safety.



### Technical Data

Assembly Number	13-06-FS-300-A0
Upper Thread Connection	4.75" – 4 ACME
Lower Thread Connection	4.75" – 4 ACME
Max O.D.	6.68"

### Parts List

Part Name	Part Number
Flow Sub Body	13-06-FS-300-01
Hand Nut	13-06-HUN-300-01
Bottom Union	13-06-HUM-300-01
X-Over to Nutron Valve	13-01-CO-300-02
X-Over to Guiberson	13-01-CO-300-03

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### What is a 4 TPI Hand Union?

The 4 TPI Bowen Style 5K Hand Unions are used to allow easy assembly and disassembly of lubricator or surface equipment. It is a coupling device designed to connect sections of piping or equipment quickly and securely without the need for tools. "4 TPI" indicates that the threads on the union have a pitch of 4 threads per inch, which is relatively coarse, allowing for a strong and tight connection that can withstand high pressures. 5K rating indicates the union is rated for use up to 5,000 psi, suitable for high-pressure systems.

### Applications

- Connecting and disconnecting sections of piping or equipment quickly without the need for wrenches or other tools.

### Key Features & Benefits

- Rapid setup and teardown of piping and equipment.
- Designed to withstand high pressures, ensuring reliable performance in demanding environments.
- Incorporates seals or gaskets to ensure a tight and leak-proof connection.



Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Lubricator is designed to allow tools and instruments to be run into and out of a well under pressure without releasing wellbore fluids or gases. The lubricator is made up of sections of tubing material threaded on both ends to accept hand unions. Once they are made up with hand unions they are known as lubricator joints and come in 8 or 10 foot lengths. Standard lubricator sizes on slickline service units are 2.875 and 3.50 inches OD (outside diameter). Lubricator sizes are also available up to 7" OD. Sour service or NACE spec. lubricator joints are machined from Sour service stock material.

The upper and lower hand unions are machined as part of the lubricator joint or may be made with sealed premium thread connections. An optional bleed sub may be incorporated into the lubricator assembly. This involves a ported .50" NPT sub between the lubricator tube and the bottom hand union.



## Applications

- Facilitating tools for well maintenance, such as setting plugs, retrieving stuck equipment, or performing other downhole operations.

## Key Features & Benefits

- Maintains well control and prevents the release of hazardous wellbore fluids or gases, protecting both personnel and the environment.

### Technical Data

Nominal Size	3.5"
Assembly Number	13-01-L-300-A0
Upper Thread Connection	4.75" – 4 ACME
Lower Thread Connection	4.75" – 4 ACME

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

<b>Parts List</b>		
<b>Nominal Size</b>	3.5"	
<b>Part Name</b>	<b>Part Number</b>	
Hand Union Female	13-06-HUF-300-01	
Lubricator Tube	13-01-LT-300-10	
Ported Sub	13-01-LB-300-01	
Hand Union Male	13-06-HUM-300-01	
Nut	13-06-HUN-300-01	
O-Ring	237	
O-Ring	340	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

A Brace Tool Riser with dual 0.5" NPT (National Pipe Thread) connections consists of three main components: the riser body, a hand nut, and a bottom union. This tool features two 0.5-inch NPT (National Pipe Thread) ports, which allow for the injection or bleeding off of wellbore gases or liquids.

Its primary purpose is to manage wellbore pressure by either pumping fluids into the well or releasing pressure from it. This makes it a crucial component in maintaining safe and efficient well operations.

## Applications

- Pumping fluids into the wellbore or bleeding off excess pressure out of the wellbore.
- Allows for the controlled injection of gases or liquids into the wellbore.

## Key Features & Benefits

- Two ports for versatile use in both injection and bleed-off operations.
- Consists of three main components (riser body, hand nut, bottom union) for straightforward assembly and disassembly.



Technical Data	
Nominal Size	3.00"
Assembly Number	13-06-R-300-A0
Upper Thread Connection	4.75" – 4 Stub Acme
Lower Thread Connection	4.75" – 4 Stub Acme
Max O.D.	5.31"

Parts List		
Nominal Size	3.5"	Part Number
Part Name		
Riser Body	13-06-R-300-07	
Hand Nut	13-06-HUN-300-01	
Bottom Union	13-06-HUM-300-01	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Shear Ram is used in an emergency situation when you are required to cut and seal the wireline. The Shear Ram will offer a temporary barrier until such times as the well can be securely contained. The Shear Ram can be used for well servicing in various application such as slickline, braided line or e-line.

## Applications

- Quickly cutting and sealing the wireline in case of an emergency, preventing uncontrolled release of well-bore fluids.

## Key Features & Benefits

- Simplifies emergency response procedures, allowing for rapid intervention.
- Ensures consistent performance under demanding conditions, reducing the risk of equipment failure.



Parts List		
Assembly Number	Part Name	Part Number
	Shear Ram Block (RH)	1301WLV30041
	Shear Ram Block (LH)	1301WLV30042
	Shear Blade (RH)	1301WLV30043
	Shear Blade (LH)	1301WLV30044
	Inner Ram Seal	Seal.BOP.Inner.Nit.3
	Outer Ram Seal	Seal.BOP.Outer.Nit.3
	Socket Head Cap Screw	.250"-28 UNF X 3/16" L.G.
	Flat Head Cap Screw	.250"-28 UNF X 7/16" L.G.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### What is a Stuffing Box?

The Brace Tool Stuffing Box serves as a conduit for the slickline to pass into the lubricator and down the wellbore, while simultaneously containing any well pressure. The assembly of the stuffing box includes several parts such as the sheave wheel, arms, staff, main body, packing and packing glands, and a hand union. The Brace Tool Stuffing Box is available in 5k and 10k rating.



### Applications

- Controlling the running of slickline into the lubricator and down the wellbore.
- Containing any well pressure that may exist within the wellbore.

### Key Features & Benefits

- Available in 5k and 10k rating.
- The design allows for easy assembly and disassembly, making it convenient for use in the field.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

A Grease Injection Control Head, also known as a control head is the primary well control barrier, providing a seal around a moving wireline, which allows for intervention access to wells under pressure. Positioned at the uppermost point of the pressure control equipment string, the control head comprises two major sub-assemblies—the combination stuffing box and line wiper, and the flow tube assembly. The Control Head is crucial for maintaining a clean working environment for operations and personnel around the wellhead and is used in various pressure control equipment.

### Applications

- Creating a seal around a moving wireline, providing positive protection and allowing intervention access to wells under pressure.

### Key Features & Benefits

- Can handle maximum working pressures up to 15,000 psi.
- Maintains a grease seal around static or dynamic wireline to prevent potentially harmful wellbore fluids and gases from escaping.



#### Technical Data

Assembly Number	13-106-G-005-A0
Upper Thread Connection	4.75" - 4 Stub Acme
Lower Thread Connection	4.75" - 4 Stub Acme

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Parts List	
Part Name	Part Number
Female Bleed Collar	13-06-CH-005-01
Flow Tube	13-06-CH-005-06
Flow Tube Sleeve	13-06-CH-010-02
Injection Collar	13-06-CH-005-04
Botton Sub	13-06-VCV-300-01
Ported Spacer Sub	13-06-VCV-300-02
Hand Union Nut	13-06-HUN-300-01
Ball Seat Retainer	13-06-VCV-300-03
Steel Ball	0.75"

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Hydraulic Wireline Tool Catcher provides a method of capturing the toolstring in the event that the slickline / wireline is separated from the ropesocket / cablehead during wireline operations where the tools may come into forceful contact with the bottom of stuffing box or packoff / control head assembly. (ie: crowning out). The hydraulic wireline tool catcher also comes with an integral velocity check valve, meaning in the case that the wireline is parted and travels through the stuffing box / control head, the wellbore is contained through the use of a one way check valve.

### Applications

- Capturing up to and including 1.75" fishnecks.
- Preventing wellbore gases or fluids from escaping to the atmosphere in the event that the slickline / wireline is pulled free of the stuffing box / control head during wireline operations.

### Key Features & Benefits

- Hydraulically controlled so as to be manipulated remotely via a hand pump during wireline operations.
- Designed to be installed directly beneath a stuffing box / control head in lubricator string.



Technical Data	
Nominal Size	3.50"
Assembly Number	
Upper Thread Connection	4.75" - 4 Acme
Lower Thread Connection	4.75" - 4 Acme

**\*Non-stock item.** Please contact a Brace Tool sales representative for price and delivery.

Parts List		
Nominal Size	3.50"	
Part Name	Part Number	
Top Sub	13-06-TC-000-01	
Piston Spring	13-06-TC-000-02	
Upper Spring Retainer	13-06-TC-000-03	
Collet Spring	13-06-TC-000-04	
Collet Acutator	13-06-TC-000-05	
Hydraulic Piston	13-06-TC-000-06	
Spring Stop Washer	13-06-TC-000-07	
Lower Spring Retainer	13-06-TC-000-08	
Collet	13-06-TC-000-09	
Bottom Sub	13-06-TC-000-10	
Protector Arm	13-06-TC-000-11	
Retainer (VCV)	13-06-TC-000-12	
Hand Union Female	13-06-HUF-300-01	
Hand Union Male	13-06-HUM-300-01	
Hand Union Nut	13-06-HUN-300-01	
Ball Bearing	0.75"	
O-Ring	224	
Allen Cap Screws	1/2" UNC x 3/4"	
VCV Assembly	13-06-VCV-300-A0	
O-Ring	337	
O-Ring	340 (x2)	
O-Ring	338 (x2)	
O-Ring	237 (x2)	

**\*Non-stock item.** Please contact a Brace Tool sales representative for price and delivery.

## Overview

The Brace Tool Quick Test Sub (QTS) is engineered to enhance efficiency and minimize non-productive time (NPT) during the pressure testing of wireline pressure control equipment strings, particularly when multiple wireline runs are necessary.

Positioned either above or below the wireline valve, the QTS is placed at the joint typically opened for tool insertion and retrieval. Following the initial pressure test that confirms the integrity of the entire string, the QTS enables swift and straightforward subsequent pressure tests. By connecting a small hydraulic hand pump to the QTS, the integrity of the disconnected joint is verified externally, cutting down the time required for each subsequent pressure test by about 30 minutes.



## Applications

- Used to pressure test wireline pressure control equipment strings.
- Effective in pressure testing lubricator rig-ups, especially when multiple runs are required.

## Key Features & Benefits

- Saves time per pressure test by allowing quick verification of the joint integrity without re-testing the entire string.

Technical Data				
<b>Assembly Number</b>	13-06-QTS-300-A0	13-06-QTS-300-A0	13-02-QTS-400-A0	13-02-QTS-400-A0
<b>Upper Connection</b>	4.750-4 Acme Female (Bowen B01)	4.750-4 Acme Female (Bowen B12)	6.500-4 Acme Female (Otis 017)	6.500-4 Acme Female (Otis 004)
<b>Lower Connection</b>	4.750-4 Acme Male (Bowen B01)	4.750-4 Acme Male (Bowen B12)	6.500-4 Acme Male (Otis 017)	6.500-4 Acme Male (Otis 004)
<b>Test Connection</b>	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
<b>Pressure Rating</b>	5,000 PSI	10,000 PSI	5,000 PSI	10,000 PSI
<b>Body Yield Strength</b>	80 KSI (Nace)	110 KSI (Nace / Standard)	80 KSI (Nace)	110 KSI (Nace / Standard)

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

Wellhead Wedges connect wireline surface equipment to the wellhead. The lower end of the swage connection is either threaded or flanged to fit the wellhead and the upper end of the swage is compatible to the bottom hand union of the wireline valve.



## Applications

- Adapting pressure control equipment such as BOPs or lubricators to the wellhead during wireline or coil tubing operations.

## Key Features & Benefits

- The ends may be threaded, flanged, or hubbed depending on the equipment it's connecting to.
- Designed with a tapered or stepped profile to transition from a larger diameter to a smaller diameter (or vice versa).

Technical Data - Line Pipe		
<b>Nominal Size</b>	2.00"	3.00"
<b>Assembly Number</b>	13-06-S-200-02	13-06-S-300-02
<b>Top Thread Connection</b>	4.75" - 4 ACME	4.75" - 4 ACME
<b>Lower Thread Connection</b>	2.00" Line Pipe	3.00" Line Pipe
<b>Max. O.D.</b>	4.75"	4.75"

Technical Data - EUE				
<b>Nominal Size</b>	2.375"	2.875"	3.50"	4.50"
<b>Assembly Number</b>	13-06-S-200-01	13-06-S-250-01	13-06-S-300-01	13-06-S-300-03
<b>Top Thread Connection</b>	4.75" - 4 ACME	4.75" - 4 ACME	4.75" - 4 ACME	4.75" - 4 ACME
<b>Lower Thread Connection</b>	2.375" EUE - 8 RD	2.875" EUE - 8 RD	3.50" EUE - 8 RD	4.50" EUE - 8 RD
<b>Max. O.D.</b>	4.75"	4.75"	4.75"	4.75"

Technical Data - Casing		
<b>Nominal Size</b>	4.50"	5.50"
<b>Assembly Number</b>	13-06-S-300-04	13-06-S-300-05
<b>Top Thread Connection</b>	4.75" - 4 ACME	4.75" - 4 ACME
<b>Lower Thread Connection</b>	4.50" LTC - 8 RD	5.50" LTC - 8 RD
<b>Max. O.D.</b>	4.75"	5.50"

### Overview

The "T" Hay Pulley is a device specially designed to hold the increased loads which the new generation of slick-lines may impart. They are used to switch the path of wire from horizontal to a vertical position along the way to stuffing box from wireline unit.



### Applications

- Controlling and manipulating the direction of the wireline from a horizontal position to a vertical position en route to the stuffing box from the wireline unit.
- Used in conjunction with other tools like wireline valves, wellhead adapters, pump-in tees, side entry fishing branch subs, tool traps, hydraulic tool catchers, lubricators, grease injection systems, and more.

### Key Features & Benefits

- Made up of an aluminium alloy frame and a composite sheave wheel.

#### Parts List - T

Nominal Size	Assembly Number
Part Name	Part Number
16"	13-01-THP-016-A0-50
Top Block	13-01-THP-016-01
Front Plate	13-01-THP-016-02
Back Plate	13-01-THP-016-03
Handwheel	13-01-THP-016-04
Spindle	13-01-THP-016-05
Back Guide Left	13-01-THP-016-06
Safety Pin	13-01-THP-016-07
Front Guide Right	13-01-THP-016-08
Front Guide Left	13-01-THP-016-09

## **14. Flow Control Equipment**

## What is a Baker Style CR Landing Nipple?

The Brace Tool BR Landing Nipple is a Baker Style non-selective nipple purposely positioned at the bottom of the tubing string. The Brace Tool BR Landing Nipple cannot be run alongside other BR nipples of the same size due to the no-go or restriction at the bottom, preventing plugging equipment from passing through.

### Applications

- House flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.

### Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Wide range of completion configurations, adapting to different conditions and requirements.



#### Technical Data

Tubing O.D.		Seal Bore		No-Go I.D.		Minimum I.D.	
in	mm	in	mm	in	mm	in	mm
1.660"	42.15	1.187"	30.15	1.135"	28.83	1.875"	47.63
1.900"	48.26	1.437"	36.50	1.385"	35.18	2.109"	53.57
1.900"	48.26	1.500"	38.10	1.447"	36.75	2.109"	53.57
2.063"	53.37	1.562"	39.67	1.510"	38.35	2.250"	57.15
2.063"	53.37	1.625"	41.28	1.572"	39.93	2.250"	57.15
2.375"	60.33	1.781"	45.24	1.728"	43.89	2.560"	65.02
2.375"	60.33	1.812"	46.02	1.760"	44.70	2.560"	65.02
2.375"	60.33	1.875"	47.63	1.822"	46.28	2.560"	65.02
2.875"	73.02	2.250"	57.15	2.197"	55.80	3.109"	78.97
2.875"	73.02	2.312"	58.72	2.259"	57.38	3.109"	78.97
3.500"	88.90	2.750"	69.85	2.697"	68.50	3.687"	93.65
3.500"	88.90	2.812"	71.42	2.759"	70.08	3.687"	93.65
4.500"	114.30	3.750"	95.25	3.700"	93.98	5.200"	132.08
4.500"	114.30	3.812"	96.82	3.759"	95.48	5.200"	132.08

### What is a Drill Pipe Sub?

The Brace Tool Drill Pipe Sub is a specialized downhole tool designed to facilitate the connection between the drilling BHA and the drill pipe string. It ensures smooth and efficient transmission of drilling energy and torque from the rig to the drill bit. The drill pipe sub is threaded on both ends to connect with the BHA components above and the drill pipe below.

Used primarily as a backup, or contingency, (but not limited to) if snubbing operations are required due to a failure in existing floats, a blanking plug, or circulating plug may be used easily and quickly.

### Applications

- Connection point between the drilling BHA and the drill pipe string for efficient transmission of torque and drilling from the surface to the drill bit.

### Key Features & Benefits

- Precise thread connections for compatibility with both the BHA components and the drill pipe.
- Its compatibility with various downhole tools allows for precise placement of instruments such as MWD tools and logging tools, leading to accurate data collection and informed decision-making.



**Please Note:** This is a non-stock item. Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an Elastomeric Sliding Sleeve?

Excelling in moderate-pressure wellbores, elastomeric sliding sleeves deliver reliable performance in conditions not exceeding 200°C (400°F) and within the range of 35 MPa (5000 PSI). This durability, combined with their seamless integration makes them an essential asset for modern well operators seeking efficiency, flexibility, and optimized reservoir management.

### Applications

- Multi-zone completions in wells with multiple production zones, preventing unwanted crossflow and ensuring efficient reservoir management.
- Used in conjunction with packers to achieve zonal isolation, ensuring that fluids from one zone don't interfere with another.

### Key Features & Benefits

- Up or Down to Open configurations.
- Variety of profile and thread configurations available.
- Precise flow control optimizes reservoir management, maximizes production rates, and minimizes unwanted crossflow between zones.
- Operators can avoid costly interventions and workovers by controlling production from specific zones without disturbing the entire well



Technical Data													
Tubing								Upper & Lower Seal Bore I.D.					
Size		Weight		I.D.		Max O.D.		Weight		Upper & Lower Seal Bore I.D.			
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm		
1.875"	47.625	4.60	6.66	1.991"	50.57	3.062"	77.00	36	16.36	1.875"	47.625		
2.313"	58.67	6.40	9.26	2.441"	62.00	3.668"	93.17	45	20.40	2.313"	58.67		
2.75"	69.85	10.20	14.77	2.992"	76.00	4.500"	114.30	65	29.50	2.75"	69.85		
2.813"	71.37	9.29	13.32	2.992"	76.00	4.500"	114.30	65	29.50	2.813"	71.37		

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is a Non-Elastomeric Sliding Sleeve?

For high-pressure and temperature wellbore conditions surpassing 200°C (400°F) and 35 MPa (5000 PSI), the Brace Tool Non-Elastomeric Sliding Sleeves excel. Utilizing metal-to-metal seals instead of elastomers, these sliding sleeves ensure superior performance in challenging downhole environments.

## Applications

- Multi-zone completions in wells with multiple production zones, preventing unwanted crossflow and ensuring efficient reservoir management.
- Used in conjunction with packers to achieve zonal isolation, ensuring that fluids from one zone don't interfere with another.

## Key Features & Benefits

- Up or Down to Open configurations.
- Variety of profile and thread configurations available.
- Precise flow control optimizes reservoir management, maximizes production rates, and minimizes unwanted crossflow between zones.
- Operators can avoid costly interventions and workovers by controlling production from specific zones without disturbing the entire well



Technical Data													
Tubing								Upper & Lower Seal Bore I.D.					
Size		Weight		I.D.		Max O.D.		Weight		Upper & Lower Seal Bore I.D.			
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm		
1.875"	47.625	4.60	6.66	1.991"	50.57	3.062"	77.00	36	16.36	1.875"	47.625		
2.313"	58.67	6.40	9.26	2.441"	62.00	3.668"	93.17	45	20.40	2.313"	58.67		
2.75"	69.85	10.20	14.77	2.992"	76.00	4.500"	114.30	65	29.50	2.75"	69.85		
2.813"	71.37	9.29	13.32	2.992"	76.00	4.500"	114.30	65	29.50	2.813"	71.37		

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an F Landing Nipple?

The Brace Tool F Landing Nipple is a selective type nipple, providing the freedom to position it anywhere in the tubing string. With its selective type profile, it seamlessly operates in conjunction with other F landing nipples of the same size, enabling efficient plugging equipment passage from one to another.

## Applications

- House flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.

## Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Wide range of completion configurations, adapting to different conditions and requirements.



Technical Data			
Seal Bore		Minimum O.D.	
in	mm	in	mm
1.500"	38.10	2.109"	53.57
1.562"	39.67	2.250"	57.15
1.625"	39.67	2.250"	57.15
1.781"	45.24	2.250"	65.02
1.781"	46.02	2.560"	65.02
1.875"	47.63	2.560"	65.02
2.250"	57.15	2.560"	78.97
2.312"	58.72	3.109"	78.97
2.750"	69.85	3.687"	93.65
2.812"	71.42	3.687"	93.65
3.750"	95.25	5.200"	132.08
3.812"	96.82	5.200"	132.08

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### What is a Fluted Collar?

The Brace Tool Fluted Collar is characterized by a series of flutes or grooves along its surface, serves a fundamental purpose of centralizing the casing string effectively within the wellbore. By doing so, it ensures an even, consistent distribution of cement during cementing operations, a critical factor in achieving zonal isolation and maintaining wellbore integrity.

### Applications

- Centralizing the casing string within the wellbore, ensuring even and consistent distribution of cement around the casing during cementing operations.

### Key Features & Benefits

- Reduced risk of voids and secure cement bond to the wellbore.
- Reduced fluid migration, promoting better cement placement and wellbore integrity.
- Increased casing protection through the centralizer preventing casing damage.



Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### What is a Pump Out Plug?

The Pump Out Plug is designed to isolate specific sections of the wellbore. It is deployed to temporarily block off a zone or compartment, allowing for precise control of fluid flow. This is essential for tasks like cementing operations, where it ensures that the cement slurry is placed precisely where needed to secure the casing in the wellbore. Once the desired operation is complete, the Pump Out Plug can be easily removed from the well, allowing for the resumption of regular operations.

### Applications

- Temporarily isolate specific zones in the wellbore during cementing operations.
- Allow for the tubing to be pressurized for tasks like setting a packer.



### Key Features & Benefits

- Designed to provide a temporary seal within the wellbore.
- Available in various materials and thread configurations for different wellbore conditions.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is a Re-Entry Guide?

The Brace Tool Re-Entry Guide is designed to facilitate safe and accurate re-entry operations in oil and gas wells. With a focus on guiding tool strings with precision and minimizing operational risks, the Re-Entry Guide ensures efficient and controlled navigation through the existing wellbore. The Re-Entry Guide provides a controlled and guided pathway for the tool string, eliminating the uncertainty of re-entry and preventing collisions when re-entering tubing or production string.



## Applications

- Guiding tool strings to specific zones for repairs, maintenance, or replacement of downhole tools.

## Key Features & Benefits

- Streamlined re-entry process optimizes operation efficiency and decreases downtime.
- Minimized potential for hang-ups, tool damage, and obstructions, leads to safer operations.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an R Landing Nipple?

The Brace Tool R landing nipples are used for flow control installation and retrieval utilizing industry standard running and pulling tools. These nipples are installed on the completion tubing to establish the designated landing points for flow control equipment. They feature standardized internal profiles and are typically used with heavyweight tubing.

## Applications

- House flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.

## Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Efficient interventions and workover activities, reducing complexities and enhancing overall success.
- Wide range of completion configurations, adapting to different conditions and requirements.



Technical Data											
Tubing								R Profile			
Size		Weight		I.D.		Drift Diameter		Packing Bore		Lock Mandrel I.D.	
in	mm	lb/ft	kg/m	in	mm	in	mm	in	mm	in	mm
1.900	48.26	3.64	5.42	1.500	38.10	1.406	35.71	1.375	34.93	0.62	15.75
2 3/8	60.33	5.3	7.89	1.939	49.25	1.845	46.86	1.781	45.24	0.88	22.34
		5.95	8.85	1.867	47.42	1.773	45.03	1.710	43.43	0.75	19.05
		6.2	9.23	1.853	47.07	1.759	44.68				
		7.7	11.46	1.703	43.26	1.609	40.87	1.500	38.10	0.62	15.75
2 7/8	73.03	7.9	11.76	2.323	59.00	2.229	56.62	2.188	55.58	1.12	28.45
		8.7	12.95	2.259	57.38	2.165	54.99	2.125	53.98	0.88	22.35
		8.9	13.24	2.243	56.97	2.149	54.58				

Technical Data											
Tubing								R Profile			
Size		Weight		I.D.		Drift Diameter		Packing Bore		Lock Mandrel I.D.	
in	mm	lb/ft	kg/m	in	mm	in	mm	in	mm	in	mm
2 7/8	73.03	9.5	14.14	2.195	55.75	2.101	53.37	2.000	50.80	0.88	22.35
		10.4	15.48	2.151	54.64	2.057	52.25		1.875	47.03	0.88
		11	16.37	2.065	52.45	1.971	50.06			22.35	
		73.03	17.34	1.995	50.67	1.901	48.29				
3 1/2	88.90	12.95	19.27	2.750	69.85	2.625	66.68	2.562	65.07	1.38	35.05
		15.8	23.51	2.548	64.72	2.423	61.54	2.313	58.75	1.12	28.45
		16.7	24.85	2.480	62.99	2.355	59.82		28.45		
		17.05	25.37	2.440	61.98	2.315	58.80	2.188	55.58	1.12	
4	101.60	11.6	17.26	3.428	87.08	3.303	83.90	3.250	82.55	1.94	49.28
		13.4	19.94	3.340	84.84	3.215	81.66	3.125	79.38	1.94	49.28
4 1/2	114.30	12.6	18.75	3.958	100.53	3.833	97.36	3.813	96.85	2.12	53.85
		13.5	20.09	3.920	99.57	99.57	96.39	3.688	93.68	2.38	60.45
		15.5	23.07	3.826	97.18	3.701	94.01	3.688	93.68		53.85
		16.9	25.50	3.754	95.35	3.629	92.18	3.437	87.30	1.94	49.28
		17	25.30	3.740	95.00	3.615	91.82	3.63	92.20	1.94	49.28
		19.2						3.437	87.30	1.94	49.28
5	127.00	15	22.32	4.408	111.96	4.283	108.79	4.125	104.78	2.75	69.85
		18	26.79	4.276	108.61	4.151	105.44	4.000	101.60	2.38	60.45
5 1/2	139.70	17	25.30	4.892	124.26	4.767	121.08	4.562	115.87	2.85	72.39
		20	29.76	4.778	121.36	4.653	118.19		2.62	66.55	
		23	34.23	4.670	118.62	4.545	115.44	4.313	109.55		
6	152.40	15	22.32	5.524	140.31	5.399	137.13	5.250	133.35	3.50	88.90
		18	26.79	5.424	137.77	5.299	134.59				
7	177.80	24	35.72	5.921	150.39	5.795	147.22	5.625	142.88	3.50	88.90
		28	41.67	5.791	147.09	5.666	143.92				
		17	25.30	6.538	166.07	6.431	163.35	5.963	151.46	3.75	95.25
		20	29.76	6.456	163.98	6.331	160.81				
		23	34.23	6.366	161.70	6.241	158.52				
		26	38.69	6.276	159.41	6.151	156.24				
		29	43.16	6.184	157.07	6.059	153.90				
		32	47.62	6.094	154.79	5.969	151.61				
		35	52.09	6.004	152.50	5.879	149.33	5.875	149.23		

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an RN Landing Nipple?

The Brace Tool RN landing nipples are built for single nipple installations or as the lowermost nipple in a series of Brace Tool X or BR landing nipples. These versatile landing nipples boast a consistent packing bore inner diameter (ID) tailored to specific tubing sizes and weights, ensuring compatibility with standard weight tubing.

## Applications

- House flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.

## Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Efficient interventions and workover activities, reducing complexities and enhancing overall success.
- Wide range of completion configurations, adapting to different conditions and requirements.



Technical Data															
Tubing								RN Profile							
Size		Weight		I.D.		Drift Diameter		Packing Bore		No-Go I.D.		Lock Mandrel I.D.			
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm	in	mm		
1.900	48.26	3.64	5.42	1.500	38.10	1.406	35.71	1.375	34.93	1.250	31.75	0.62	15.75		
2 3/8	60.33	5.3	7.89	1.939	49.25	1.845	46.86	1.781	45.24	1.640	41.66	0.88	22.34		
		5.95	8.85	1.867	47.42	1.773	45.03	1.710	43.43	1.560	39.62	0.75	19.05		
		6.2	9.23	1.853	47.07	1.759	44.68								
		7.7	11.46	1.703	43.26	1.609	40.87	1.500	38.10	1.345	34.16	0.62	15.75		
2 7/8		7.9	11.76	2.323	59.00	2.229	56.62	2.188	55.58	2.010	51.05	1.12	28.45		
		8.7	12.95	2.259	57.38	2.165	54.99	2.125	53.98	1.937	2.000	0.88	22.35		
		8.9	13.24	2.243	56.97	2.149	54.58								

Technical Data													
Tubing								RN Profile					
Size		Weight		I.D.		Drift Diameter		Packing Bore		No-Go I.D.		Lock Mandrel I.D.	
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm	in	mm
2 7/8	73.03	9.5	14.14	2.195	55.75	2.101	53.37	2.000	50.80	1.881	47.78	0.88	22.35
		10.4	15.48	2.151	54.64	2.057	52.25						
		11	16.37	2.065	52.45	1.971	50.06						
		73.03	17.34	1.995	50.67	1.901	48.29						
3 1/2	88.90	12.95	19.27	2.750	69.85	2.625	66.68	2.562	65.07	2.329	59.16	1.38	35.05
		15.8	23.51	2.548	64.72	2.423	61.54	2.313	58.75	2.131	54.13	1.12	28.45
		16.7	24.85	2.480	62.99	2.355	59.82						
		17.05	25.37	2.440	61.98	2.315	58.80	2.188	55.58	2.010	51.05	1.12	28.45
4	101.60	11.6	17.26	3.428	87.08	3.303	83.90	3.250	82.55	3.088	78.44	1.94	49.28
		13.4	19.94	3.340	84.84	3.215	81.66	3.125	79.38	2.907	73.84	1.94	49.28
4 1/2	114.30	12.6	18.75	3.958	100.53	3.833	97.36	3.813	96.85	3.725	94.62	2.12	53.85
		13.5	20.09	3.920	99.57	99.57	96.39	3.688	93.68	3.456	87.78	2.38	60.45
		15.5	23.07	3.826	97.18	3.701	94.01	3.688	93.68	3.456	87.78	2.38	60.45
		16.9	25.50	3.754	95.35	3.629	92.18	3.437	87.30	3.260	82.80	1.94	49.28
		17	25.30	3.740	95.00	3.615	91.82	3.63	92.20	n/a		1.94	49.28
		19.2						3.437	87.30	3.260	82.80	1.94	49.28
5	127.00	15	22.32	4.408	111.96	4.283	108.79	4.125	104.78	3.912	99.39	2.75	69.85
		18	26.79	4.276	108.61	4.151	105.44	4.000	101.60	3.748	95.20	2.38	60.45
5 1/2	139.70	17	25.30	4.892	124.26	4.767	121.08	4.562	115.87	4.445	113.16	2.85	72.39
		20	29.76	4.778	121.36	4.653	118.19						
		23	34.23	4.670	118.62	4.545	115.44	4.313	109.55	3.987	101.27	2.62	66.55
6	152.40	15	22.32	5.524	140.31	5.399	137.13	5.250	133.35	5.018	127.51	3.50	88.90
		18	26.79	5.424	137.77	5.299	134.59						
7	177.80	24	35.72	5.921	150.39	5.795	147.22	5.963	151.46	5.770	146.55	3.75	95.25
		28	41.67	5.791	147.09	5.666	143.92						
		17	25.30	6.538	166.07	6.431	163.35						
		20	29.76	6.456	163.98	6.331	160.81						
		23	34.23	6.366	161.70	6.241	158.52						
		26	38.69	6.276	159.41	6.151	156.24						
		29	43.16	6.184	157.07	6.059	153.90						
		32	47.62	6.094	154.79	5.969	151.61						
		35	52.09	6.004	152.50	5.879	149.33	5.875	149.23	5.750	146.05		

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### What is an RPT No-Go Landing Nipple?

Designed to optimize tubing string setups with minimal restriction, the Brace Tool RPT No-Go Landing Nipple system offers a reliable means of installing a series of positive location landing nipples. With the Brace Tool RPT No-Go Landing Nipple system, operators can streamline their tubing string configuration, allowing for efficient installation and removal of lock mandrels with ease. This enhances operational flexibility, reduces downtime, and enables swift well interventions.



### Applications

- Selective zonal isolation, allowing operators to manage fluid flow and prevent unwanted crossflow between production zones.
- Running a series of positive location landing nipples within a tubing string.
- Assisting in the installation and operation of artificial lift systems such as gas lift or electrical submersible pumps enhancing well productivity

### Key Features & Benefits

- The no-go design prevents tools from being installed beyond designated points to minimize negative risks within the wellbore.
- Designed to provide a positive location for tools and devices to ensure accurate placement and controlled operation.
- Controlled zonal isolation can lead to reduced intervention frequency and associated costs.
- Multiple RPT No-Go Landing Nipples can be run in the tubing string, allowing for the installation of various tools at different depths for enhanced well management.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

Technical Data			
Tubing Size		Nipple Profile	
Size		Sealbore Minimum I.D.	
in	mm	in	mm
2 3/8	60.33	1.500	38.10
		1.625	41.28
		1.781	45.24
		1.875	47.63
		2.000	50.80
		2.125	53.98
2 7/8	73.03	2.000	50.80
		2.125	53.98
		2.188	55.58
		2.313	58.75
		2.482	63.04
3 1/2	88.90	2.562	65.07
		2.650	67.31
		2.750	69.85
		2.813	71.45
		2.875	73.03
4 - 4 1/2	101.6 - 14.3	3.000	76.20
		3.125	79.38
		3.313	84.15
4 1/2 - 5	114.3 - 127	3.437	87.30
		3.562	90.47
		3.688	93.68
		3.750	95.25
		3.813	96.85
		4.000	101.60
5 1/2	139.70	4.188	106.38
		4.250	107.95
		4.313	109.55
		4.437	112.70
		4.500	114.30
		4.562	115.87
		4.688	119.08
		4.750	120.65
		4.813	122.25

Technical Data			
Tubing Size		Nipple Profile	
7	Size	Sealbore Minimum I.D.	
	in	in	mm
		5.250	133.35
		5.500	139.70
		5.625	142.88
		5.750	146.05
7	177.80	5.813	147.65
		5.875	149.23
		5.963	151.46
		6.125	155.58
		6.250	158.75

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an X Landing Nipple?

The Brace Tool X Landing Nipple gives selective positioning through running tools, serving as designated landing points for subsurface flow control equipment within completion tubing. These landing nipples feature standardized internal profiles, ensuring compatibility with a range of equipment. Specifically designed for standard weight tubing, the Brace Tool X Landing Nipple ensures seamless integration and optimal performance in well operations.

## Applications

- Houses flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.



## Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Efficient interventions and workover activities, reducing complexities and enhancing overall success.
- Wide range of completion configurations, adapting to different conditions and requirements.

Technical Data														
Tubing								For Standard Tubing						
Size		Weight		I.D.		Drift Diameter		Packing Bore		Packing Bore		No-Go I.D.		
in	mm	lb/ft	kg/m	in	mm	in	mm	in	mm	lb/ft	kg/m	in	mm	
1.660	42.16	2.3 2.4	3.42 3.57	1.380	35.05	1.286	32.66	1.250	31.75	1.250	31.75	1.135	28.83	
1.900	48.26	2.4	3.57	1.660 1.610	42.16 40.89	1.516	38.51	1.500	38.10	1.500	38.10	1.448	36.78	
		2.76	4.11											
		2.9	4.32											

Technical Data														
Tubing								For Standard Tubing						
Size		Weight		I.D.		Drift Diameter		Packing Bore		Packing Bore		No-Go I.D.		
in	mm	lb/ft	kg/m	in	mm	in	mm	in	mm	lb/ft	kg/m	in	mm	
2.063	52.40	3.25	4.84	1.751	44.48	1.657	42.09	1.625	41.28	1.625	41.28	1.536	39.01	
2 3/8	60.33	4.6	6.85	1.995	50.67	1.901	48.29	1.875	47.63	1.875	47.63	1.791	45.49	
		4.7	6.99											
2 7/8	73.03	6.4	9.52	2.441	62.00	2.347	59.61	2.313	58.75	2.313	58.75	2.205	56.01	
		6.5	9.67											
3 1/2	88.90	9.3	13.84	2.992	76.00	2.867	72.82	2.813	71.45	2.813	71.45	2.666	67.72	
		10.2	15.18											
4	101.60	11	16.37	3.476	88.29	3.351	85.10	3.313	84.15	3.313	84.15	3.135	79.63	
4 1/2	114.30	12.75	18.97	3.958	100.53	3.833	97.36	3.813	96.85	3.813	96.85	3.725	94.62	
5	127.00	13	19.35	4.494	114.14	4.369	110.97	4.313	109.55	4.313	109.55	3.987	101.27	
5 1/2	139.70	17	25.30	4.892	124.26	4.767	121.08	4.562	115.87	4.562	115.87	4.455	113.16	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## What is an XN Landing Nipple?

The Brace Tool XN Landing Nipple is crafted for single nipple installations or as the lowermost nipple in Brace Tool X or BOR landing nipple series. With identical packing bore inner diameter (ID) for specific tubing size and weight, it ensures a smooth integration. Designed for standard weight tubing, the Brace Tool XN Landing Nipple deliver dependable performance.

## Applications

- House flow control devices to enable operators to manage fluid flow from different production zones.
- Positive locators for straddle systems, ensuring accurate placement of equipment between packers or plugs for efficient well interventions.
- Accommodating downhole monitoring tools to allow real-time data collection for reservoir analysis and performance optimization.

## Key Features & Benefits

- Fully compatible with all industry standard OEM running and pulling tools.
- Efficient interventions and workover activities, reducing complexities and enhancing overall success.
- Wide range of completion configurations, adapting to different conditions and requirements.



Technical Data													
Tubing								XN Profile					
Size		Weight		I.D.		Drift Diameter		Packing Bore		No-Go I.D.		Lock Mandrel I.D.	
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm	in	mm
1.660	42.16	2.3	3.42	1.380	35.05	1.286	32.66	1.250	31.75	1.135	28.83	0.62	15.75
		2.4	3.57										
1.900	48.26	2.4	3.57	1.660	42.16	1.516	38.51	1.500	38.10	1.448	36.78	0.75	19.05
		2.76	4.11	1.610	40.89								
		2.9	4.32										

Technical Data														
Tubing								XN Profile						
Size		Weight		I.D.		Drift Diameter		Packing Bore		No-Go I.D.		Lock Mandrel I.D.		
in	mm	lb/ft	kg/m	in	mm	in	mm	lb/ft	kg/m	in	mm	in	mm	
2.063	52.40	3.25	4.84	1.751	44.48	1.657	42.09	1.625	41.28	1.536	39.01	0.75	19.05	
2 3/8	60.33	4.6	6.85	1.995	50.67	1.901	48.29	1.875	47.63	1.791	45.49	1.00	25.40	
		4.7	6.99											
2 7/8	73.03	6.4	9.52	2.441	62.00	2.347	59.61	2.313	58.75	2.205	56.01	1.38	35.05	
		6.5	9.67											
3 1/2	88.90	9.3	13.84	2.992	76.00	2.867	72.82	2.813	71.45	2.666	67.72	1.75	44.45	
		10.2	15.18											
4	101.60	11	16.37	3.476	88.29	3.351	85.10	3.313	84.15	3.135	79.63	2.12	53.85	
4 1/2	114.30	12.75	18.97	3.958	100.53	3.833	97.36	3.813	96.85	3.725	94.62	2.62	66.55	
5	127.00	13	19.35	4.494	114.14	4.369	110.97	4.313	109.55	3.987	101.27	2.62	66.55	
5 1/2	139.70	17	25.30	4.892	124.26	4.767	121.08	4.562	115.87	4.455	113.16	3.12	79.25	

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## 15. Sheaves & Accessories

## Overview

Hay Pulleys are designed to hold the increased loads which the new generation of slicklines may impart. They are used to switch the path of wire from horizontal to a vertical position along the way to stuffing box from wireline unit.

## Applications

- Controlling and manipulating the direction of the wireline from a horizontal position to a vertical position en route to the stuffing box from the wireline unit.
- Used in conjunction with other tools like wireline valves, wellhead adapters, pump-in tees, side entry fishing branch subs, tool traps, hydraulic tool catchers, lubricators, grease injection systems, and more.

## Key Features & Benefits

- Available in various design and construction for standard and heavy duty applications.



**Parts List - T Hay Pulley**

Nominal Size	Assembly Number
16"	13-01-THP-016-A0-50
Part Name	Part Number
Top Block	13-01-THP-016-01
Front Plate	13-01-THP-016-02
Back Plate	13-01-THP-016-03
Handwheel	13-01-THP-016-04
Spindle	13-01-THP-016-05
Back Guide Left	13-01-THP-016-06
Safety Pin	13-01-THP-016-07
Front Guide Right	13-01-THP-016-08
Front Guide Left	13-01-THP-016-09

See next page for parts list.

## Hay Pulleys

### Parts List - Heavy Hay Pulley

Nominal Size	Assembly Number
16"	13-01-HHP-016-A0-50
Part Name	Part Number
Top Block	13-01-HHP-016-01
Front Plate	13-01-HHP-016-02
Back Plate	13-01-HHP-016-03
Handwheel	13-01-HHP-016-04
Spindle	13-01-HHP-016-05
Back Guide Left	13-01-HHP-016-06
Safety Pin	13-01-HHP-016-07
Front Guide Right	13-01-HHP-016-08
Front Guide Left	13-01-HHP-016-09

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

### Overview

The Brace Tool Hay Pulley Stand is designed to keep a hay pulley from falling over if the line becomes slack. This is accomplished by attaching the stand to the center spindle of the Hay Pulley and providing a wide stable base to mount the Hay Pulley.

### Applications

- The stand connects to the hay pulley via a modified spindle and a external snap ring.
- If line becomes slack the hay pulley will not fall over helping to prevent damage to the Hay Pulley and the line.

### Key Features & Benefits

- Simple robust design.
- Adds stability to Hay Pulley.
- Can take the place of a Drop Strap if desired.



## Overview

The Staff Assembly is designed to alter the direction of the wireline into the Stuffing Box, it uses the same wheel as the Hay Pulley.

## Applications

- Controlling and manipulating the direction of the wireline from a horizontal position to a vertical position en route to the stuffing box from the wireline unit.
- Used in conjunction with other tools like wireline valves, wellhead adapters, pump-in tees, side entry fishing branch subs, tool traps, hydraulic tool catchers, lubricators, grease injection systems, and more.



## Key Features & Benefits

- 7/32 cable hay pulley also available.

### Technical Data

Assembly Number	Wheel Diameter	Compatible Stuffing Box	Max Single Line Pull	Safe Working Load
13-01-S-016-A0	16"	Brace Style	3,000 lbs	6,000 lbs
13-01-S-016-A1	16"	Bowen Style	4,000 lbs	8,000 lbs
13-01-S-020-A0	20"	Brace Style	3,000 lbs	6,000 lbs
13-01-S-020-A1	20"	Bowen Style	4,000 lbs	8,000 lbs

See next page for parts list.

Parts List	
Nominal Size	Assembly Number
Part Name	Part Number
16"	13-01-S-016-A0
Handle Guide Roller	13-01-S-016-01
Plate Guide Roller	13-01-S-016-02
Handwheel	13-01-S-016-03
Stud	13-01-S-016-04
Washer	13-01-S-016-05
Guide Roller	13-01-S-016-06
Space Guide Roller	13-01-S-016-07
Side Plate - LH	13-01-S-016-08
Side Plate - RH	13-01-S-016-09
Axle	13-01-S-016-14
Base	13-01-S-016-15
Lower Handle	13-01-S-016-16
Wheel Assembly	13-01-S-016-S0
Label	13-01-HP-016-17
Socket Head Cap Screw	.313-18 UNC x 0.31 LG
Flat Head Allen Cap Screw	.313-18 UNC x 0.75 LG
Flat Head Allen Cap Screw	.375-16 UNC x 1.00 LG
Flat Head Allen Cap Screw	.500-13 UNC x 1.00 LG
Flat Washer	¾ - Narrow – Type A
Castle Nut	CNF12-165
Type U Drive Screw	SPAENAUR # 376-812
Grease Nipple	SPAENAUR # GF-711

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

Brace Tool offers core extractors for:

- SB Pulling Tool
- Otis and Camco Pinning Tool
- JDC Pulling Tool Core Extractor
- Universal Pulling Tool

## Applications

- Extracting the core of various pulling tools in the Brace Tool catalog.



## Key Features & Benefits

- Simple and robust design makes it easy for operators to use.



### Overview

Brace Tool offers the following accessories:

- SB/RB Pulling Tool Releasing Tool
- GS Pulling Tool Spring Compressor/Pinning Tool
- Quick Connect Releasing Tool/Assembly Tool

### Applications

- Used for releasing or pinning pulling tools and quick connects.

### Key Features & Benefits

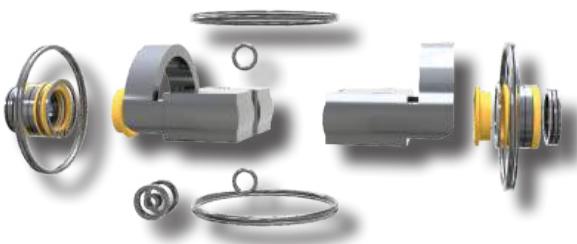
- Simple and robust design makes it easy for operators to use.



## 16. Specialty Tools

## Overview

A Redress Kit, also known as a maintenance kit or service kit, is a package of replacement parts and components used for the maintenance, repair, or refurbishment of a various downhole equipment. The specific contents of a redress kit can vary depending on the type and model of the downhole equipment like a wireline valve, lock mandrels, sliding sleeves, etc.



## Applications

- Used for replacing downhole equipment components like ram blocks, inner and outer seals, and packing.

## Key Features & Benefits

- Available in different materials for various downhole applications.



### Overview

A Packing is a type of stacked sealing system made up of multiple chevron-shaped sealing elements. Brace Tool offers an extensive range of Baker and Otis Vee Packing for various downhole equipment.

### Applications

- Used in various equipment like lock mandrels, sliding sleeves, stuffing boxes, etc.

### Key Features & Benefits

- Available in a range of materials, including Kevlar-reinforced Nitrile, Fluorocarbon, Aflast, Ryton, and Molyglass PTFE plastics, these seals ensure durability, wear resistance, and compatibility with the most challenging environments.



## 18. Thru Tubing Equipment

## Overview

The Circulating Disconnect is a compact Tool String that provides the means of disconnecting from a stuck Tool String by simply dropping a ball. It incorporates two features. These features include a ball-activated Disconnect Facility and a dual-operation Circulating Sub. The tool also features a torque through facility as well as a standard GS Fishing Neck profile.

The Circulating Sub introduces a flow path from the tool ID to the annulus. However, if for any reason circulation through the tool string is lost, an overpressure-activated piston is featured.



## Key Features & Benefits

- Can be supplied with a specific connection or a variety of styles of coil connector.

Technical Data			
<b>Nominal Size</b>	1-11/16"	2-1/8"	2-7/8"
<b>Assembly Number</b>	18-01-CD-168-A1	18-01-CD-212-A1	18-01-CD-287-A1
<b>Make Up Length</b>	14-21/32"	16-33/64"	17-13/32"
<b>Pressure Rating</b>	5000 PSI	5000 PSI	5000 PSI
<b>Standard Connection</b>	1"-6 AMMT	1"-6 AMMT	2-3/8"-4 PAC
<b>Service</b>	STD	STD	STD

See next page for parts list.

Parts List - Circulating Disconnect			
Assembly Number	13-01-HHP-016-02	18-01-CD-212-A1	18-01-CD-287
Part Name			
Upper Release Sub	18-01-HD-168-11	18-01-HD-212-10	18-01-HD-287-11
Release Piston	18-01-HD-168-12	18-01-HD-212-11	18-01-HD-287-12
Mandrel	18-01-HD-168-13	18-01-HD-212-12	18-01-HD-287-13
Fishneck Body	18-01-HD-168-16	18-01-HD-212-15	18-01-HD-287-16
Collet	18-01-HD-168-15	18-01-HD-212-14	18-01-HD-287-15
Support Piston	18-01-HD-168-14	18-01-HD-212-13	18-01-HD-287-14
Lower Release Sub	18-01-HD-168-17	18-01-HD-212-16	18-01-HD-287-17
Circulation Piston	18-01-CS-168-02	18-01-CS-212-02	18-01-CS-287-02
Circulating Sub	18-01-MH-168-01	18-01-MH-212-01	18-01-MH-287-01
O-Ring	015	031	116
O-Ring	019	116	123
O-Ring	028	120	141
O-Ring	116	128	143
O-Ring	122	131	222
O-Ring	124	132	227
O-Ring	125	214	X
O-Ring	X		X
Set Screw	10-32 UNF x .25	10-32 UNF x .38	.25-20 UNC x .38
Set Screw	10-24 UNC x .50	10-24 UNC x .50	.25-20 UNC x .50
Set Screw	X	X	10-32 UNF x .38

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Dual Circulating Sub provides a means of emergency circulation through a ball-operated circulating feature. The ball-operated valve shifts open when a ball is dropped to the tool and pressure is applied to exceed the predetermined shear value of the valve.

Once shifted, circulation is diverted to the annular area. However, the Dual Circulation Sub also offers an over-pressure differential activated piston. The piston activation pressure can be predetermined at surface through shear pins.



## Key Features & Benefits

- The connections on the subs are manufactured to suit BHA requirements.

Technical Data			
<b>Assembly Number</b>	18-01-CD-168-A1	18-01-CD-212-A1	18-01-CD-287-A1
<b>OD</b>	1-11/16"	2-1/8"	2-7/8"
<b>Make Up Length</b>	5-1/2"	5-1/2"	6-3/4"
<b>Pressure Rating</b>	5000 PSI	5000 PSI	5000 PSI
<b>Standard Connection</b>	1" AMMT	1-1/2" AMMT	2-3/8" PAC
<b>Service</b>	STD	STD	STD

See next page for parts list.

Parts List - Dual Circulating Sub			
Assembly Number	18-01-CS-168-A0	18-01-CS-212-A0	18-01-CS-287-A0
Part Name			
Body	18-01-CS-168-01	18-01-CS-212-01	18-01-CS-287-01
Circulation Piston	18-01-CS-168-02	18-01-CS-212-02	18-01-CS-287-02
Set Screws (6)	10/32" UNC x .25"	10/32" UNC x .25"	10/24" UNC x .50"
O-Ring (2)	015	116	116
O-Ring (2)	019	120	123
O-Ring (2)	122	128	227

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Dual Flapper Check Valve provides a means of adding a uni-directional barrier to a bottom hole assembly. The flappers provide a pressure tight barrier in one direction but enables flow in the opposite direction.

The Dual Flapper Check Valve consists of a three-piece housing assembly which contains two removable flapper cartridges. The flapper cartridges are spring loaded in the closed position and are designed to open fully to give a large, uninterrupted bore through the tool. Each check valve housing sub contains two flapper cartridges for 100% back up.



## Key Features & Benefits

- Easily redressed with o-rings and orientation of the flappers can typically be reversed depending on operational requirements.
- The connections on the subs are manufactured to suit BHA requirements.

Technical Data			
<b>Assembly Number</b>	18-01-DF-168-A0	18-01-DF-212-A0	18-01-DF-287-A1
<b>OD</b>	1-11/16"	2-1/8"	2-7/8"
<b>Make Up Length</b>	12-1/4"	14-1/8"	12-3/16"
<b>Pressure Rating</b>	5000 PSI	5000 PSI	5000 PSI
<b>Standard Connection</b>	1" AMMT	1-1/2" AMMT	2-3/8" PAC
<b>Service</b>	STD	STD	STD

See next page for parts list.

Parts List - Dual Flapper Check Valve			
Assembly Number	18-01-DF-168-A0	18-01-DF-212-A0	18-01-DF-287-A1
Part Name			
Top Sub	18-01-DF-168-07	18-01-DF-212-05	18-01-DF-287-08
Bottom Sub	18-01-DF-168-09	18-01-DF-212-07	18-01-DF-287-10
Main Body	18-01-DF-168-08	18-01-DF-212-06	18-01-DF-287-09
Flapper	18-01-DF-168-04	18-01-DF-212-04	18-01-DF-287-04
Pin	18-01-DF-168-05	18-01-DF-168-05	18-01-DF-287-05
Spring	18-01-DF-168-06	18-01-DF-168-06	18-01-DF-287-06
Cartridge Housing	18-01-DF-168-03	18-01-DF-212-03	18-01-DF-287-03
Flapper Seat	18-01-DF-168-01	18-01-DF-212-01	18-01-DF-287-01
Flapper Seat Seal	18-01-DF-168-02	18-01-DF-212-02	18-01-DF-287-02
Cartridge Assembly	18-01-DF-168-S0	18-01-DF-212-S0	18-01-DF-287-S0
Complete Seal Kit			
Complete Redress Kit			
O-Ring	022	025	141
O-Ring	122	128	222
O-Ring	124	129	227
O-Ring	X	218	X

**Please Note:** Complete seal kit consists of O-Rings and Flapper Seat Seals.

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Hydraulic Disconnect is a torque through Disconnect that is released via a Drop Ball and hydraulic pressure. This tool enables the operator to drop a ball and pressure up in order to disengage from a fish of BHA. The tool can handle straight pull, impact, jarring, and torque loads without affecting the release mechanism.



## Key Features & Benefits

- The connections on the subs are manufactured to suit BHA requirements.

Technical Data			
<b>Assembly Number</b>	18-01-HD-168-A1	18-01-HD-212-A1	18-01-HD-287-A1
<b>OD</b>	1-11/16"	2-1/8"	2-7/8"
<b>Make Up Length</b>	13-7/32"	15-21/32"	16-13/32"
<b>Pressure Rating</b>	5000 PSI	5000 PSI	5000 PSI
<b>Standard Connection</b>	1" AMMT	1-1/2" AMMT	2-3/8" PAC
<b>Service</b>	STD	STD	STD

See next page for parts list.

Parts List - Dual Flapper Check Valve			
Assembly Number	18-01-HD-168-A1	18-01-HD-212-A1	18-01-HD-287-A1
Part Name			
Upper Release Sub	18-01-HD-168-11	18-01-HD-212-10	18-01-HD-287-11
Release Piston	18-01-HD-168-12	18-01-HD-212-11	18-01-HD-287-12
Mandrel	18-01-HD-168-13	18-01-HD-212-12	18-01-HD-287-13
Support Piston	18-01-HD-168-14	18-01-HD-212-13	18-01-HD-287-14
Collet	18-01-HD-168-15	18-01-HD-212-14	18-01-HD-287-15
Fishneck Body	18-01-HD-168-16	18-01-HD-212-15	18-01-HD-287-16
Lower Release Sub	18-01-HD-168-17	18-01-HD-212-16	18-01-HD-287-17
Bottom Sub	18-01-HD-168-10	18-01-HD-212-09	18-01-HD-287-09
O-Ring	028	031	141
O-Ring	116	128	143
O-Ring	122	131	221
O-Ring	124	133	227
O-Ring	126	214	X
Set Screw	10-32 UNF x .25	10-32 UNF x .38	10-32 UNF x .50

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.

## Overview

The Motorhead Assembly is a compact tool string which incorporates a variety of features. These features include a dual flapper check valve assembly, a ball-activated disconnect facility, and a dual-operation circulating sub. The tool also features a torque through facility as well as a standard internal GS fishing neck profile.

The dual flapper check valves provide a uni-directional barrier between the wellbore and the tubing above. The disconnect facility provides a means of disconnecting from a stuck tool string by simply dropping a ball.

The circulating sub introduces a flow path from the tool ID to the annulus. However, if for any reason circulation through the tool string is lost, an overpressure activated piston is incorporated.



## Key Features & Benefits

- The tool can be supplied with a specified connection or a variety of styles of coil connector.

Technical Data			
<b>Assembly Number</b>	18-01-MH-168-A1	18-01-MH-212-A1	18-01-MH-287-A1
<b>OD</b>	1-11/16"	2-1/8"	2-7/8"
<b>Make Up Length</b>	24-5/16"	27-5/32"	26-5/32"
<b>Pressure Rating</b>	5000 PSI	5000 PSI	5000 PSI
<b>Standard Connection</b>	1" AMMT	1-1/2" AMMT	2-3/8" PAC
<b>Service</b>	STD	STD	STD

See next page for parts list.

Parts List - Dual Flapper Check Valve			
Assembly Number	18-01-MH-168-A1	18-01-MH-212-A1	18-01-MH-287-A1
Part Name			
Top Sub	18-01-DF-168-07	18-01-DF-212-05	18-01-DF-287-11
Flapper Body	18-01-MH-168-03	18-01-MH-212-03	18-01-DF-287-09
Flapper Cartridge (2)	18-01-DF-168-S0	18-01-DF-212-S0	18-01-DF-287-S0
Upper Release Sub	18-01-MH-168-04	18-01-MH-212-04	18-01-MH-287-04
Release Piston	18-01-HD-168-12	18-01-HD-212-11	18-01-HD-287-12
Mandrel	18-01-HD-168-13	18-01-HD-212-12	18-01-HD-287-13
Support Piston	18-01-HD-168-14	18-01-HD-212-13	18-01-HD-287-14
Collet	18-01-HD-168-15	18-01-HD-212-14	18-01-HD-287-15
Fishneck Body	18-01-HD-168-16	18-01-HD-212-15	18-01-HD-287-16
Lower Release Sub	18-01-HD-168-17	18-01-HD-168-16	18-01-HD-287-17
Circulation Piston	18-01-CS-168-02	18-01-CS-212-02	18-01-CS-287-02
Circulation Sub	18-01-MH-168-01	18-01-MH-212-01	18-01-MH-287-05
O-Ring	015	025	116
Set Screw	019	031	123
Support Piston	022	116	141
Collet	028	120	143
Fishneck Body	116	128	221
Lower Release Sub	122	129	229
Circulation Piston	124	131	X
Circulation Sub	126	133	X
O-Ring	X	214	X
Set Screw	X	218	X
O-Ring	X	X	10-32 UNF x .50
Set Screw	10/24" UNC x .50	10/24" UNC x .50	.25"-20 UNC x .38
O-Ring	10/32" UNF x .25	10/32" UNF x .38	.25"-20 UNC x .50

Speak with a Brace Tool sales representative to explore the different configurations available on this tool and discover how we can match your requirements.



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