



BRACE TOOL

OILFIELD, WIRELINE & DOWNHOLE TOOLS

Equalizing Assemblies

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09. Equalizing Assemblies

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

Ring Latch Equalizing Assembly

09 - Equalizing Assemblies

| 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.



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