



# BRACE TOOL

OILFIELD, WIRELINE & DOWNHOLE TOOLS

## Product Catalog

Thru Tubing Equipment

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## 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	1-1/2"-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-CS-168-A1	18-01-CS-212-A0	18-01-CS-287-A0
<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.

<b>Parts List - Dual Circulating Sub</b>			
<b>Assembly Number</b>	18-01-CS-168-A0	18-01-CS-212-A0	18-01-CS-287-A0
<b>Part Name</b>			
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

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## 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.

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## 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

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