

# Retrievable Bridge Plugs

## DESCRIPTION

The retrievable bridge plug meets the need for a low-cost, easy to run downhole plug in 2-3/8" to 4-1/2" completions with a 5.000-psi maximum working pressure. It is designed to be run and set in the well on slickline without any special setting tools and run and pulled using standard GS pulling tools.

It is adaptable and can be used as a gauge hanger, standing valve or injection valve.

The Bridge Plug lower slips are activated by stopping the wireline quickly to shock the shear the activation pin, setting down weight then engaging the lower slips with the tubing wall. Jarring down sets the element and then further jarring down sets the upper slips. Picking up the tool string removes the sheared GS Pulling Tool from the bridge plug upper fish neck and the running prong closes the equalizing ports as it's moved up out of the bridge plug. A lock ring traps the setting force into the element so that it will not release during subsequent pressure reversals.

The bridge plug has also been adapted to be used as a packer as part of a straddle sleeve and for gas lift systems.

## FEATURES AND BENEFITS

- Low cost.
- Set on slickline with standard setting tools such as GS Pulling Tool, Link Jar and Stem Bar.
- Simple setting procedure for dependable operation.
- Can be converted to deploy injection valves or standing valves or can be used as a hanger.
- Variants of this plug can be run and set on coiled tubing or using powered setting tools.
- 5,000 psi working pressure.



Retrievable  
Bridge Plug

## DEPLOYMENT AND OPERATION

- The Bridge Plug can be run on a standard slickline tool string using a standard GS Pulling Tool.
- The lower slip is set first by shock shearing a light retaining pin.
- Jarring down against the lower slips energizes the element and then the upper slips to retain the set element.
- A check set tool can be used to confirm that the plug is set correctly.
- Pulling is carried out again by jarring up on an inner GS profile, using a standard GS pulling on a standard slickline tool string.

## SPECIFICATIONS

<b>DESCRIPTION</b>	2 3/8" Retrievable Bridge Plug
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### DIMENSIONAL DATA

Special feature	Prong Type Equalizing
Maximum body OD/gauge OD	1.850"
Grapple Slips Expansion	2.08"
Running Neck ID	1.38" (2" GS)
Pulling Neck ID	1.06" (1 1/2" GS)
Minimum ID (no cap)	0.50"
Body Length	69.2"
Prong OD	1.85" (centraliser)
Prong Length	71.0"
Prong Fish Neck	1.375" external

### PERFORMANCE DATA

Casing Size	2 3/8" 4.6 lb/ft
Pressure Rating	5,000 psi above/below
Temperature Rating	0-250°F / 121°C up to 5,000 psi
Tensile Rating	35,400 lbs
Compression Rating	35,400 lbs
Pressure Equalizing	Prong Type
Conveyance Method	Slickline

### OPERATIONAL DATA

Setting Method	Standard Slickline Tool String
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### QUALITY (EQUIVALENT TO ISO4310/ API 11D RATINGS)

Design Control Grade	Q3
Design Validation Grade	V6

### MATERIAL SPECIFICATIONS

Service	H2S
Body Material	AISI 4140 18-22 Rc, 80KSI Yield
Element	NBR
O-Rings	Viton
Prong Packing Seals	Moly/Glass Filled PTFE

## SPECIFICATIONS

DESCRIPTION	2 7/8" Retrievable Bridge Plug
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### DIMENSIONAL DATA

Special feature	Prong Type Equalizing
Maximum body OD/gauge OD	2.250"
Grapple Slips Expansion	2.50"
Running Neck ID	1.81" (2 1/2" GS)
Pulling Neck ID	1.38" (2" GS)
Minimum ID (no cap)	0.94"
Body Length	68.5"
Prong OD	2.25" (centraliser)
Prong Length	71.5"
Prong Fish Neck	1.375" external

### PERFORMANCE DATA

Casing Size	2 7/8" 6.4 lb/ft
Pressure Rating	5,000 psi above/below
Temperature Rating	0-250°F / 121°C up to 5,000 psi
Tensile Rating	48,500 lbs
Compression Rating	48,500 lbs
Pressure Equalizing	Prong Type
Conveyance Method	Slickline

### OPERATIONAL DATA

Setting Method	Standard Slickline Tool String
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### QUALITY (EQUIVALENT TO ISO4310/ API 11D RATINGS)

Design Control Grade	Q3
Design Validation Grade	V6

### MATERIAL SPECIFICATIONS

Service	H2S
Body Material	AISI 4140 18-22 Rc, 80KSI Yield
Element	NBR
O-Rings	Viton
Prong Packing Seals	Moly/Glass Filled PTFE

## SPECIFICATIONS

DESCRIPTION	4 ½" Retrievable Bridge Plug
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### DIMENSIONAL DATA

Special feature	Prong Type Equalizing
Maximum body OD/gauge OD	3.720"
Grapple Slips Expansion	4.03"
Running Neck ID	3.13" (4" GS)
Pulling Neck ID	2.31" (3" GS)
Minimum ID (no cap)	1.76"
Body Length	71.8"
Prong OD	3.69" (centraliser)
Prong Length	71.5"
Prong Fish Neck	2.313" external

### PERFORMANCE DATA

Casing Size	4 ½" 12.6 lb/ft
Pressure Rating	5,000 psi above/below
Temperature Rating	0-250°F / 121°C up to 5,000 psi
Tensile Rating	112,500 lbs
Compression Rating	112,500 lbs
Pressure Equalizing	Prong Type
Conveyance Method	Slickline

### OPERATIONAL DATA

Setting Method	Standard Slickline Tool String
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### QUALITY (EQUIVALENT TO ISO4310/ API 11D RATINGS)

Design Control Grade	Q3
Design Validation Grade	V6

### MATERIAL SPECIFICATIONS

Service	H2S
Body Material	AISI 4140 18-22 Rc, 80KSI Yield
Element	NBR
O-Rings	Viton
Prong Packing Seals	Moly/Glass Filled PTFE