

### PRODUCT OVERVIEW:

The Resource Retrievable Casing Anchor is engineered with operational efficiency, reliability and economics in mind. The Anchor houses a robust Slip Design with Six Bi-Directional Heat Treated Slips. The Slips are fully supported by an Upper and Lower Cone Assembly which distribute the setting & hanging force evenly across the ID of the Casing. This prevents damage and maximizes hanging load capability. During running operations the Slips are countersunk into the Slip Cage limiting swab force, promoting by-pass and mitigating the risk of hang-ups.

The Anchor mandrel maintains a full bore ID design allowing for future intervention or clean-outs to take place without concern of ID restrictions through the Hanger.

The Resource Retrievable Casing Anchor has no o-rings or seals in the design simplifying its use in high temperature and thermal applications. The Casing Anchor is short and compact making Rig Floor handling a simple operation as well as minimizing Tool Rigidity and friction inside the Wellbore.

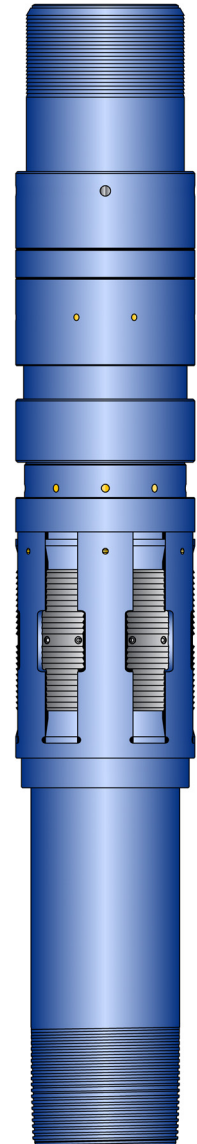
The Retrievable Casing Anchor is deployed on a Hydraulic Setting Tool (HST). The Anchor is connected to the HST via a left hand thread running nut. To set the Anchor, a Setting Ball is run-in-place, dropped, or circulated to a Ball Seat inside the HST. Differential pressure acts on the piston of the HST which will stroke down after the Shear Screw values are over-come. As the piston strokes down the Slips will begin to protrude and engage the casing. After the Slips are set compression and tension can be applied to ensure the Slips are fully engaged. Release from the anchor by performing 10 right hand rotations at the tool.

The Casing Anchor is released with a Retrieving Tool / Overshot which can be run on Tubing or Drill Pipe. The Retrieving Tool houses an internal overshot - grapple sub similar to those used in conventional fishing operations. The top of the Anchor is washed over as the Retrieving Tool engages to the outer ratchet on the anchor body. Once the retrieving tool has a positive latch, tensile mechanical force can be applied to release the Anchor and retrieve the BHA.

Standard configuration includes materials which conform to NACE MR-01-75 for H2S service applications. Also available in alternate materials.

### FEATURES:

- Fully retrievable
- Full bore ID
- No mandrel movement during setting
- Double acting slip system securely holds loads from above and below
- Released by right hand rotation
- No elastomers in anchor design, suitable for high temperature and thermal applications
- High hanging capacity , weight distributed evenly on six slips
- Large by-pass area
- Extremely simple for ease of service and redress
- Ideal for high angle wells
- Extremely short and compact for ease of handling and deployment
- Releasing mechanism is independent of anchored casing weight
- Adjustable shear release
- All standard and premium threads connections available



Liner Size		Casing Size				Anchor							
Liner x Casing		OD		Weight Range		Connection		Max. OD		Min. ID		Total Length	
in	mm	in	mm	lb/ft	kg/m	in	mm	in	mm	in	mm	ft	m
5.0 x 7.0	127.0 x 177.8	7.00	177.80	23.0 - 29.0	34.23 - 43.16	5.00	127.00	6.03	153.16	4.20	106.68	3.18	0.97

**Technical Data:**

No. 45-470-7150-90X Retrievable Casing Anchor											
Casing				Anchor							
Size	Weight Range	ID	OD	Trigger Shear screw		***Releasing Shear Screw		Hanging Capacity	***Min Set Pressure	Material	****Thread Connection
				Max Qty.	Pressure /Scr.	Max Qty.	Shear Value /Scr.				
in	lb/ft	in	in		psi		lbs	lbs	psi		
mm	kg/m	mm	mm		kPa		daN	daN	kPa		
7.000	23.00 - 29.00	4.20	6.03	10	200*	6	1,200**	150,000	2,000	4140 Steel	5.000" 15#
177.80	34.23 - 43.16	106.68	153.16		1,378*		534**	66,723	13,790	18-22 HRC (L80)	TPCQ Pin

\*Account for ± 10% on Shear Value

\*\*Account for ± 15% on Shear Value

\*\*\*Always run fully pinned

\*\*\*\*Top Connection is specific to Running Tool

**Operation Procedure**

**Setting Procedure:**

The Retrievable Casing Anchor is deployed on a Hydraulic Setting Tool (HST). Follow Resource operating procedures to set Casing Anchor.

**Releasing Procedure:**

The Casing Anchor is released with a Retrieving Tool / Overshot which can be run on Tubing or Drill Pipe. Follow Resource operating procedures to set Casing Anchor.