

# Welltec<sup>®</sup> Expandable Anchor (WEA)

for Inner-String Packer

The Welltec<sup>®</sup> Expandable Anchor (WEA) for Inner-String Packer is qualified for life-of-well, delivers maximum running clearance, and provides a permanent seal in casedhole applications. The system is compatible with feedthrough lines and eliminates need for a de-burr run when deployed within a perforated tubing. The surface-controlled hydraulic expansion ensures bidirectional anchoring. The solution is qualified in accordance with the highest-level API and ISO standards.

Welltec<sup>®</sup>

# Anchoring in cased hole



## 01 Applications

Inner-string packer  
 Mid-string packer  
 Production packer  
 Casedhole straddle

## 02 Features

High expansion and bidirectional load capability  
 Rugged, all-welded, metallic construction  
 Design solutions to accommodate various fluid types and hydraulic requirements  
 Load capability independent of Delta P  
 Compatible with feedthrough lines  
 NACE compliant

## 03 Benefits

Full bore solution with minimal running OD  
 Enables reciprocation, circulation, and/or rotation during deployment  
 Modular and compact design with high modular bidirectional load-carrying capability  
 Hydraulic expansion delivers compliance to damaged or deformed casings  
 Minimizes stress within deformed casing via even distribution of load  
 Reduced inventory – higher expansion capability covers multiple tubing grades  
 Slim running profile  
 No need for deburr runs

The design of the WEA for Inner-String Packer minimizes subcomponents, ensuring reliability and efficiency while simplifying well construction. The WEA enables reciprocation, circulation, and/or rotation during deployment.

The Welltec Expandable Anchor (WEA) for Inner-String Packer is run in combination with a Metal Expandable Packer (MEP), i.e., a proven hydraulic expansion sleeve. The rapid application of surface-controlled pressure simultaneously expands the WEA and the MEP system, offering an efficient alternative to conventional inner-string solutions. The expansion sleeve hydraulically expands the bidirectional anchors, which uniformly engage with the ID of the outer casing. Increased loading/anchoring capacity is achieved via the modular addition of WEA sleeves.

The slim running OD maximizes clearance to have minimal impact on ECD during fluid circulation of cementing operations.

# WCS product specifications

General Information				
Product name	Welltec® Expandable Anchor (WEA) for Inner-String Packer			
Product structure	Single piece, machined sleeve – fully welded to base pipe			
Base pipe	Compatible with all standard casing material / weight / threads			
Standard material	Alloy 28 / Super Duplex SST / AISI 316			
Slip material	AISI4140 or AISI Grade 420			
No. of control lines	Up to six, ¼" control lines			
	534WEA*	6WEA*	812WEA*	1214WEA*
Set within a tubular range, inch (mm)	6 5/8" to 7" (168.3 to 177.8 mm) (Most weights)	6 5/8" to 7 5/8" (168.3 to 193.68 mm)	9 5/8" to 9 7/8" (244.5 to 250.83 mm) (Most weights)	13 3/8" to 13 5/8" (339.73 to 346.08 mm) (Most weights)
Base-pipe range up to, inch (mm)	4 ½" (114.33 mm)	4 ½" (114.33 mm)	7" (177.8 mm)	9 5/8" (244.48 mm)
Expansion range, inch (mm)	5.75" to 6.25" (146.05 to 158.75 mm)	5.875" to 6.094" (149.2 to 154.78 mm)	8.375" to 8.835" (212.725 to 224.41 mm)	11.5" to 12.38" (292.1 to 314.45 mm)
Maximum running OD, inch (mm)	5.6" (142.24 mm)	5.75" (146.05 mm)	8.25" (209.55 mm)	11.38" (289.05 mm)
ID, inch (mm)	Full bore (as per base-pipe)			
Qualification	API 19LH – V1			
Expansion pressure while setting	4,500 psi (310 bar)	5,000 psi (344.7 bar)	5,000 psi (344.7 bar)	5,000 psi (344.7 bar)
Anchoring capacity	Up to 80% of the tensile strength of the base-pipe			
Differential pressure	Up to 10,000 psi (689 bar)			
Temperature range °C (°F)	30°C to 130°C (86°F to 266°F)			
Compatible with	Metal Expandable Packers			

\* Custom specification and control line feedthrough options available on request

