

Welltec[®] Magma Packer (WMP[®])



Welltec[®]

For geothermal application

01 Applications

High Temperature Well Construction packer for:

Open Hole & Cased Hole 2nd stage cement support

Standalone Open Hole Isolation

Open Hole & Cased Hole Cement Assurance

Platform for 2nd Stage Cement during relining shut in wells

Cross Flow Isolation

Liner / Casing Hanger

High Temperature Zonal isolation packer for:

Enhanced geothermal systems

Cold water isolation

High pressure oh isolation for stimulation

Suitable for all formation types and borehole geometries

02 Features

Robust, all welded, metallic construction

Optional isolation of expansion port

Expansion assurance in multi-wab applications

High temperature capability

High expansion capability

High anchoring capability

Constant, high pressure ΔP over full expansion range

No premature expansion

NACE compliant

Control line feedthrough optional – to communicate with hyd. Activated devices

03 Benefits

Rotatable during deployment enabling liner to TD in challenging environments

Deployable through milled / damaged casing

Slim OD allows for high rate circulation during deployment

Rapid set nature of Magma packer reduces time to production

High rate circulation capability

Full bore – as per casing / tubing



Geothermal energy offers the highest capacity factor in the renewable market and requires a consistently high temperature fluid flow to ensure a reliable output.

Welltec® offers multiple solutions using an all metal expandable packer to assist operators in various stages of drilling and completion.

Welltec® Magma Packer can be incorporated into existing casing program, helping achieve challenging high temperature cement jobs during new well construction, enable the sustainable rejuvenation of existing shut in wells via re-lining and provide open hole isolation for Enhanced Geothermal Systems (EGS) and stimulations.

Current designs of the Welltec® Magma Packer are qualified for 260 > 300°C, which can be used for injection and production wells with the possibility of modifications to address specific requirements.

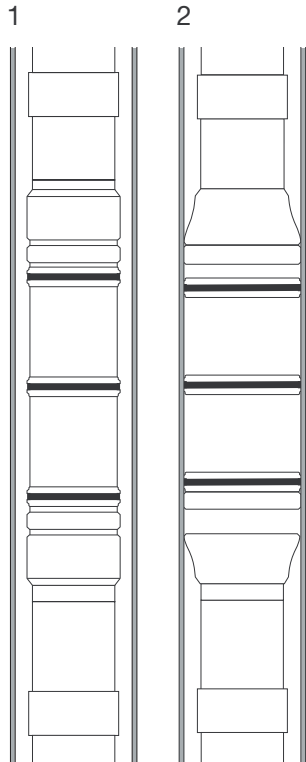
WCS product specifications

Welltec® Magma Packer	General Information
Product Name	Welltec® Magma Packer
Product Structure	Single piece, machined sleeve – fully welded to base pipe
Seal Length	Up to 2m
Base Casing	Compatibility with all standard casing material / weight / threads
Standard Material	Alloy 28 / Super Duplex SST
Standard Elastomers & Seals***	All Metal / FFKM
Non-Elastomer Seals	CERAMIC / PTFE

	Geothermal - All Metal	Geothermal – PTFE (spring energized)		
*Welltec® WAB®	812Magma HT	614 Magma	812 Magma	1214 Magma
Expansion Range (mm)	8.50 > 9.50" (215.9 > 241.3mm)	6.25" > 7.20" (158.8 > 182.9mm)	8.50 > 9.50" (215.9 > 241.3mm)	12.25 > 13.50" (311.1 > 342.9mm)
Minimum Running OD (mm)	8.180" (207.8mm)	5.900" (150.0mm)	8.180" (207.8mm)	11.380" (289.1mm)
Maximum Working Pressure psi (bar)	6,000psi (414 bar)	5,000psi (345 bar)	10,000psi (690 bar)	6,000psi (414 bar)
Constant element ΔP across expansion range psi (bar)	6,000psi (414 bar)	5,000psi (345 bar)	10,000psi (690 bar)	6,000psi (414 bar)
Standard element lengths ft (m)	Up to 6.4ft (2m) *** packer length can be customize			
Temperature range °C (°F) ****	300 °C (572°F)	260°C (500°F)	260°C (500°F)	260°C (500°F)
Base-pipe range (up to)	7"	4 ½"	7"	9 ⅞"
ID in (mm)	Full Bore (as per base-pipe)			

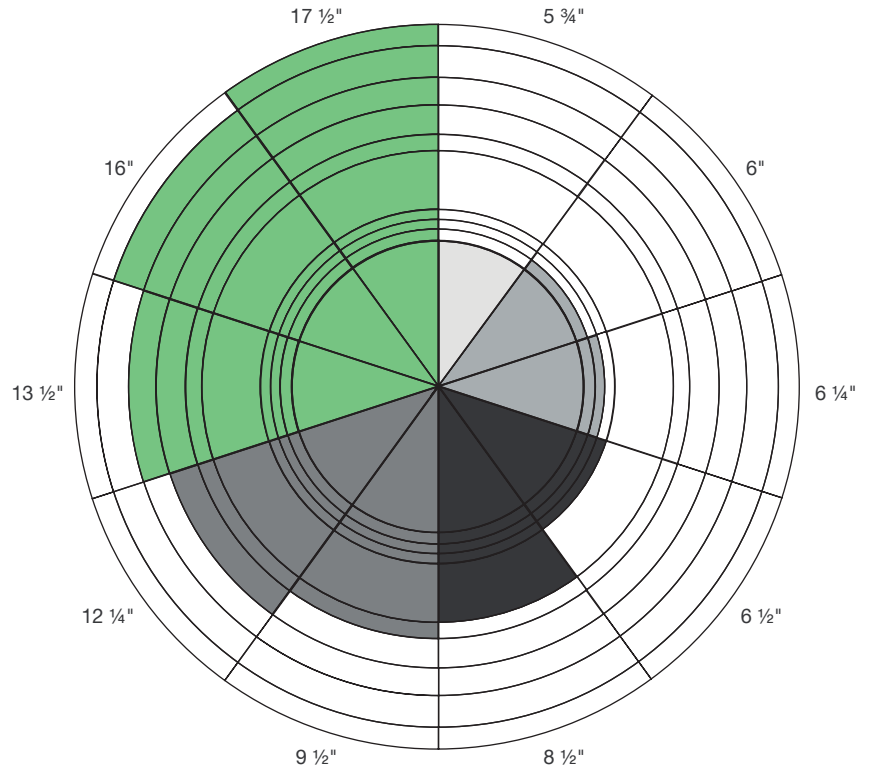
01. How it works

- 1: Mounted on base pipe
- 2: Hydraulic expansion controlled from surface



02. Our product range

Per open hole size.



03. The benefits

The WMP's metal construction provides a fast, high expansion, rugged seal against the open hole or casing irrespective of the fluid in the well. Furthermore, as shown in the chart below, there is no degradation of the maximum delta P capability versus expansion diameter.

- Conventional annular-barrier Delta P
- 812WMP Delta P

Delta P

