

# PRESSURE WAVE VALVE (PWV)

**The Pressure Wave Valve (PWV) is an intervention-free, open-on-demand, equalising device that can be fitted to lock mandrels and bridge plugs to provide a large through-bore once activated.**

With excellent pump-through capability, the system functions purely on a mechanical hydraulic principle. The internal mechanism operates only when it senses a 'wave' of applied pressure, i.e. starting from a low pressure range, increasing to an upper pressure, and then returning back to a low pressure. This sequence counts as one 'wave'. By repeating this sequence several times to the pre-set value, the valve will open and provide a large through-bore.

*"Intervention-free, open-on-demand"*



Annulus Version

## PRODUCT FEATURES

- Intervention-free method of opening a circulation path
- Activation pressure cycles can be minutes or years apart
- Equalising without wireline, reduces intervention runs - saves rig time and reduces risk
- No electrics, batteries or other time-limited components
- No well specific setups required
- Hydrostatically balanced
- Can be fitted to any flow control device
- Modular debris management system

The operation of the valve is non-time dependent. The first two 'waves' can be carried out within minutes of each other and the remainder several months, or even years later.



Production Version

## TECHNICAL FEATURES

- Provides a large through-bore when opened
- Functions purely on a mechanical hydraulic principle
- Activated by sending a 'wave' of applied pressure (low-high-low pressure)
- Integral debris management
- Different pressure cycle activation ranges available
- Flexible deployment options; Oilenco hybrid plug, lock mandrels or bridge plugs
- Can be pre-installed onshore for completion operations
- Can be retrieved with the tubing during workovers
- No dedicated personnel required on location to operate
- Available for production and annulus bores

# PRESSURE WAVE VALVE (PWV)



- APPLICATIONS**
- Plug and abandonment (P&A) worksopes
  - New completions
  - Workovers

Visit the Oilenco website to read how the pressure wave valve was used to support **well abandonment operations** for an oil and gas operator.



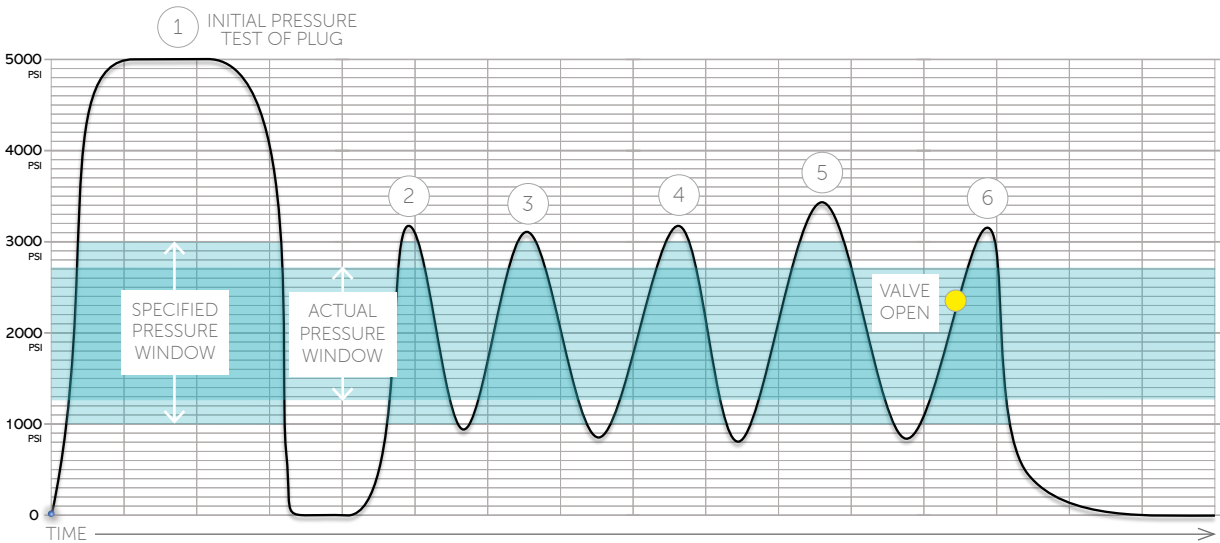
**TECHNICAL DATA**

1-1/2" Version

VERSION	ACTUAL OD	MIN ID	FLOW AREA	PRESSURE CYCLES	PWV LENGTH	MAX WORKING PRESSURE	PRESSURE CYCLE RANGE*	JUNK CATCHER	CONNECTION
Annulus	1.500" 38.1 mm	0.512" 13.0 mm	0.206in²	Up to 12	4.0'	5,000 psi	Adjustable	Integral	1-9/32" - 10TPI SA Box
	1.539" 39.1 mm				6.2'	9,000 psi			
Production	2.875" 73.0 mm	1.382" 35.1 mm	1.500in²		3.4'	5,000 psi			2-1/2" - 12TPI UN
	3.000" 76.2 mm				3.6'	7,000 psi			
	3.250" 82.6mm					10,000psi			
	3.700" 94.0mm	1.882" 47.8mm	2.782in²		4.0'	5,000psi			

\* Pressure cycle range can be altered to suit well limitations

**EXAMPLE OF PRESSURE WAVES TO ACTIVATE VALVE (6 CYCLE)**



**FURTHER INFORMATION**

To speak to one of our engineers about the PWV or to discuss your application, call **+44 (0)1224 548700** or email **info@oilenco.com**.