

The intervention-less packer valve (IPV) is specifically designed to set hydraulic packers with and function as an ISO type 'A' valve, allowing tubing to fill automatically when RIH and provide fluid loss control when the tubing is static. When opened the valve will give positive indication of operation on surface due to the equalisation feature, *without any wireline or balls*.

When pressure is applied to test the tubing and/or set packers the IPV will hold pressure until a pre-determined value is reached. Thereafter when the pre-determined value is reached the applied tubing pressure will equalise across the ball before the ball is permitted to open. Pressure equalisation ensures that the well is opened in a controlled manner from surface, *critical for ESP applications*.

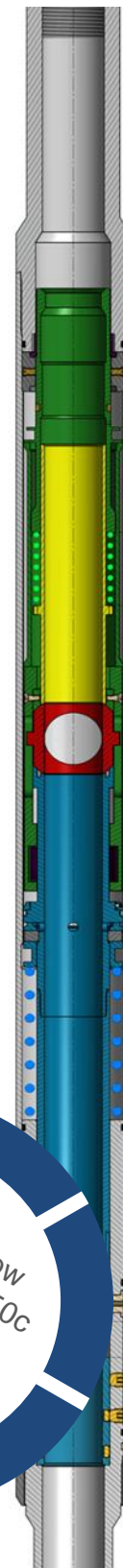
During the opening phase the sealing ball rotates and translates simultaneously which greatly reduces friction on the ball and seal area. Therefore the resultant actuation force required to automatically open the ball is greatly reduced, ensuring flow is not compromised with a partial restriction within the well bore, *maximising well integrity*.

applications

- fluid loss valve
- highly deviated wells
- all hydraulic packers
- extended reach drilling

business case benefits

- no time wasted to set the packer
- no wireline crew or wireline unit required
- reduced operational risk and manhandling
- no risk of damaging the safety valve with wireline



**SUBSURFACE
BARRIER VALVES**



**INTERVENTION-LESS
PACKER VALVE**

Table 1 technical specifications

type A: intervention-less packer valve			
description	value		
outside diameter (in)	3.5	4.5	6.0
inside diameter (in)	variable depending on profile		
connection (in)	2.375	2.875	3.5
differential pressure (psi)	5,000	10,000	
working pressure (psi)	5,000	10,000	
working temperature (°c)	120		