

ELSA®-BS (Bore Selector)

The Open Water Bore Selector is designed to interface with dual-bore production trees and allows deployment of a dual bore system on a mono-bore riser. In this application the bore selector is normally run between the emergency disconnect package and the riser stress joint retainer valve. The system is also sufficiently flexible that it can be interfaced easily with workover control systems. The monobore/dual bore riser system is used for wellhead completion/intervention operations. It offers the advantages of simplification and economy both of equipment and operational sequences.

Access to the annulus bore is achieved by venting the production control line and applying control pressure to the annulus control line, this functions the actuating pistons upwards. The pistons act directly on a cam, which moves axially on four guide rods. The cam is in turn connected to the bore selector gate in a pivotal arrangement, which translates the axial movement of the cam into a rotational movement of the gate. The gate rotates about a pivot at its base and moves towards the production bore.

This allows access to the annulus bore while blocking the production bore and providing a guide for the wire line tool string.

Access to the production bore is achieved by venting the annulus control line and applying control pressure to the production control line. This functions the operating pistons downwards. The gate rotates about the pivot at its base and moves towards the annulus bore. This closes off the tool string access to the annulus and opens up the production bore to full access.

The selector mechanism is biased towards production. With both the annulus and production lines vented, applied bore pressure will function the selector gate to the production position.



Applications:

Completion installation, workover and intervention operations on vertical subsea xmas trees from mobile offshore drilling units in water depths up to 10,000 ft (3048m)

In-riser bore selector and open water bore selector systems available

Well access bore selector system that allows well intervention into either the production or annulus bore whilst maintaining a monobore production riser to surface

Benefits:

Prevents the need for a separate annulus line to surface for setting an annulus plug, allowing a monobore tubular string

"Fail As Is" upon loss of control line pressure

Converts dual bore landing string to monobore system

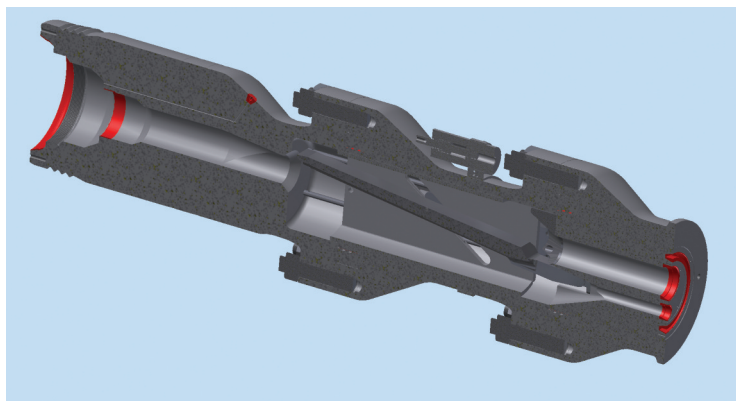
Ability to accept wireline tools in production and annulus bores

Operated by 2 control lines

Anxillary position indicator for visual verification on openwater system

Ability for secondary control via Rov Hotstab on openwater system

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Technical Specifications:

Standards	API 6A - specification for wellhead and christmas tree equipment
	API 14A - specification for subsurface safety valve equipment
Service	NACE MR0175 / ISO 15156 - materials for use in H ₂ S - containing environments in oil and gas production
Maximum Working Pressure	10,000 psi (690 bar)
Test Pressure	15,000 psi (1,034 bar)
Design Temperature	-18°C to 121°C (0°F to +250°F)
Maximum Tensile Loading @ MWP	600,000 lbf (2,668,932 N)
Maximum Tensile Loading @ 0 psi (Max)	1,000,000 lbf (4,448,220 N)
Working Pressure Control Port (Max)	3,000 psi (207 Bar)
Stack Up Height Length (Dependant xmas tree interface)	Up to 80.38" (2168.65 mm)
Outside Diameter (Max)	34.000" (864 mm)
Internal Diameter Production Bore (Nom)	5.125" (130.18 mm)
Internal Diameter Annulus Bore (Nom)	2.060" (52.3 mm)
Production Bore Offset	1.875" (47.60 mm)
Bore Spacing	5.375" (137 mm)
Hydraulic Control Fluid Cleanliness	Up to AS 4059 Class 6B through to F
Weight (Approx.)	12500 lbf (5682 kg)