Proserv Multi-String Cutting (MSC) Tool

The Proserv Multi-String Cutting (MSC) Tool provides complete well severance from tool deployment to cutting operation and tool recovery within 12 hours. The tool is a customisable internal multi-string conductor cutter that is utilised in conjunction with Proserv's water abrasive cutting technology to provide a superior cutting solution. This powerful combination is more efficient than conventional mechanical cutting methods and more environmentally friendly than explosives.

The tool is currently configured to deploy into topside or subsea wells with inner casing sizes of 178 mm (7 in) minimum to 508 mm (20 in) maximum and will cut through any number of internal grouted casing strings out to a maximum diameter of 914.4 mm (36 in) OD.

Features & Benefits

- Single trip deployment into well bore minimises risks associated with multiple runs in hole
- No need for special permitting and minimal crew required for operation
- Modular, stackable system is quick and easy to set up and doesn't require integration onto drill-pipe
- Small equipment foot print saves on deck space
- Deployable into subsea wells and wells that run casing to the surface
- Ability to test and prove the cut without recovering and de-rigging the tool and deployment system
- Provides real time cutting analysis to minimise risk of no pull
- Equipment spread is based on more than ten years of reliable water abrasive cutting experience
- Uses field proven in-house designed lock and seal for tool centralisation and clamping to the inside of the casing

Technical specification	
Typical	
Footprint (total spread)	88.3 sq m (950 sq ft)
Tool weight	545 kg (1200 lbs)
Tool dimensions	4.8 m x 178 mm OD (15.5 ft x 0.63 ft OD)
Inner casing deployment diameter range	7" 46lb/ft to 20" 106.5lb/ft
Tool umbilical length	300 m (975 ft)
Maximum operating pressure	1034 bar (15,000 psi)
Severence progress monitoring	Real-time computer controlled cut monitoring system
Water supply requirement	227 L/min @ 5.5 bar (60 gal US/min @ 80 psi)
Electrical supply requirement	110 VAC 20 A
Fuel supply requirement	50 L/hr (11 gal US/hr)
Rig air supply requirement	8 bar (120 psi) 175 CFM
Crane requirement	15T swl (platform or vessel supplied)
Cutting medium	Environmentally safe abrasives
Type of service	Well decommissioning (severence)

Tool operating equipment		
	Dimensions	**Weight**
Cutting control cabin	4.6 x 2.4 x 3 m (15 x 8 x 10 ft)	10,866 kg (24,000 lb)
Spares container	3 x 2.4 x 3 m (10 x 8 x 10 ft)	5,896 kg (13,000 lb)
Well cutting container	6 x 2.4 x 3 m (20 x 8 x 10 ft)	8,164 kg (18,000 lb)
Hose container	1.8 x 1.8 x 2.6 m (6 x 6 x 8.5 ft)	3,175 kg (7,000 lb)
High pressure pump	5.6 x 2.4 x 3 m (19 x 8 x 10 ft)	10,886 kg (24,000 lb)
Cutting hose spooler	2.7 x 2.1 x 2.4 m (9 x 7 x 8 ft)	3,175 kg (7,000 lb)
Drift cleaning hose spooler	2.3 x 1.7 x 2.3 m (7.5 x 5.5 x 7.5 ft)	3,175 kg (7,000 lb)
Abrasive container	3 x 2.4 x 3 m (10 x 8 x 10 ft)	7,257 kg (16,000 lb)
Hydraulic power unit	1.2 x 0.6 x 1.4 m (4 x 2 x 4.5 ft)	907 kg (2,000 lb)
Deployment tugger fairlead	3 x 1.8 x 3.2 m (10 x 6 x 10.5 ft)	1,814 kg (4,000 lb)
Deak fairlead	1.8 x 0.6 x 0.6 m (6 x 2 x 2 ft)	226 kg (500 lb)
Air compressor	4.9 x 2.3 x 2.1 m (16 x 7.5 x 7 ft)	5,896 kg (13,000 lb)
Nitrogen rack	1.2 x 0.9 x 2.1 m (4 x 3 x 7 ft)	453 kg (1,000 lb)
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Drift cleaning tool	5.5 m x 216 mm OD (18 ft x 8.5 in OD)	272 kg (600 lb)