

## X-Drill F - Fixed Composite Drillpipe Protector

The X-Drill F is a low friction, highly abrasion resistant, all composite drillpipe protector. The two parts are bonded in place, axially and radially, by injecting a modified structural epoxy system into a profiled cavity between part and drillpipe body, thereby eliminating the need for collars or screw mechanisms.

Once installed, the tools rotate with the pipe and will act as an impeller as well as providing casing and drillpipe protection. The system is field proven and shows excellent results even under very aggressive drilling conditions.



**X-Drill F:** Proprietary carbon fiber composite with low friction, low wear Kevlar ceramic surface layer.

**Pipebond:** Structural highly modified two-component epoxy system bonding agent, supplied in easy to use cartridges with static mixer nozzle.

### System Properties

Technical Value	Metric Units	U.S. Units
Shear Resistance – Push test One X-Drill F	> 65180 Kgs	> 144782 Lbs
Compression Resistance	> 214 Mpa	> 31886 Psi
Adhesion Strength	> 40 Mpa	> 5900 Psi
Anchor Profile For Sand Blast	40 Microns	1.6 Mils
Temperature Resistance	180°C (Higher Resistance with Post Cure)	356°F (Higher Resistance with Post Cure)
Abrasion Resistance Tabor CS 17	< 1 Mg Loss	
Impact Resistance – 10m Drop Ball	> 112 J	
Abrasion Resistance 100Kg 1Hr	X-Drill F weight loss 1.12 g (Steel weight loss under same parameter 2.4 g)	
Friction Coefficient WBM	<0.08 Steel / <0.15 Sandstone	
100° C Water Resistance	Weight Gain after 1 Hour < 0.02%	
Hardness (Shore D)	90	

### Installation & Handling



**Site based Installation -** Carried out by Maxwell qualified personnel.

**Storage -** Bonding Agent should be kept sealed in their original cartridges when not in use, and stored in a cool, dry place (0°C - 40°C).

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