Smart® Tie

20mm (¾ inch) **32mm (1¼ inch)**

Smart® Tie incorporates the High Strength Tooth Feature of the Smart® Band Hybrid and Compact and creates the strongest Polymer Cable Tie in the World.
Smart® Tie is a patented heavy duty polymer tie wrap, able to withstand system loads in excess of 1200kgf.* It has the advantage of being manufactured from a range of high temperature polymers, giving it superior chemical and temperature resistance up to 175°C*. Lightweight and very easy to use the Smart® Tie has become the ideal downhole cable tie solution and compatibility with the Smart® Protector provides a complete solution for many downhole applications. The Smart® Tie is also used widely in offshore applications such as Cable Protection and can be manufactured from long-life PA12.

*Depending on material choice.

Key Features

- High temperature resistance up to 175°C (347°F)
- High strength up to 1223kgf (2695lbf)
- Safe and very easy to fit
- High speed installation
- 100% recyclable
- Non-corrosive
- Long life materials
- Suitable for divers

Performance & Material

System			Max System Strength (Measured on 100mm diameter)		Min Diameter		Max Temp Resistance*		Flammability*	Gas Resistance	
Dimensions		Material									
mm	in		kgf	lbf	mm	in	°C	°F		CBM Coal Seam Gas	H_2S Sour Gas
20	¾	PA66	508	1119	60	2.36	125	257	V-2	?	?
		PK	603	1329	60	2.36	125	257	HB	Good	Good
		PA12	413	911	60	2.36	100	212	HB	Fair	Fair
		PPS	512	1129	60	2.36	175	347	V-0	Very Good	Very Good
32	1¼	PK	1278	2818	60	2.36	125	257	HB	Good	Good
		PA12	949	2092	60	2.36	100	212	HB	Fair	Fair

*Life expectancy is dependant on the working temperature. Refer to the Smart Products Technical Booklet for Downhole Use

Dimensions, Part Numbers & Packaging

System			Band Dimensions									
Dimensions		HCL Part No	Maximum Length		Band Width		Band Thickness		Head Width		Head Height	
mm	in		mm	in	mm	in	m	ft	mm	in	mm	in
20	¾	ST-20-450*	470.0	18.50	20.0	0.79	3.6	0.14	35.0	1.38	12.0	0.47
		ST-20-600	620.0	24.41								
		ST-20-750	770.0	30.31								
32	1¼	ST-32-550**	573.0	22.56	32.0	1.26	4.6	0.18	50.0	1.97	20.0	0.79
		ST-32-850	873.0	34.37								

*Only available in PA66 material. **Not available in PPS material.

Tool Options & Retention

System			Min System Retention			Speed of Installation	Tool Type	Tension Control
Dimensions		Tool	N	kgf	lbf			
mm	in							
20	¾	SM-FT-1000-20ST	1500	153	337	20 secs	Manual	Torque Wrench
		SM-FT-2000-19	1500	153	337	10 secs	Manual	Hand
		SM-FT-3000-20ST	2500	255	562	5 secs	Pneumatic	Air Regulator
32	1¼	SM-FT-1000-32ST	4000	408	899	20 secs	Manual	Torque Wrench
		SM-FT-2000-32	3700	377	832	10 secs	Manual	Hand
		SM-FT-3000-32ST	4000	408	899	5 secs	Pneumatic	Air Regulator

*Values may be lower depending on materials chosen please refer to Technical Booklets for more information.
Note – Values may be lower depending on Buckle position, Material chose and Application Diameter. Please refer to the Technical Booklet for more information.