

HCL
CLAMPING SOLUTIONS

Smart Band[®]
Smart Tie[™]



Smart Band®

Smart Band® is a unique patented "Band and Buckle" product. Made from a polymer-based composite, it offers a viable alternative to existing metallic banding products utilised in the offshore market.

- High strength
- Excellent chemical resistance
- Low elastic modulus (exceptional performance in deepwater applications)
- Long life in offshore environments
- Tried and tested offshore
- Extensive track record
- Extensive technical data available
- Safe to use - no sharp edges
- Quick and easy to install
- Fully corrosion resistant
- Excellent retention and creep performance



Smart Band® Standard

1 piece buckle design
suitable for medium
duty applications

Smart Tie™

High strength tie in
750mm (30") lengths



Technical Data

The conservative nature of the offshore industry has made it essential for the Smart Band® to be fully supported by the correct technical documentation. Over the past 10 years HCL have created a Technical data booklet which covers a wide range of areas.

These include:

- Stress/Strain
- Creep
- Piggyback loadings – radial, axial and lateral
- Retention
- Chemical resistance
- Hydrostatic compression
- Material longevity in offshore environments
- Abrasion & weathering
- Design tips

Smart Band® Hybrid	Band Width	
	32mm 1¼ inch	19mm ¾ inch
Max Strength (kg / lb)*	2560 / 5640	1220 / 2680
Min final retention system force (N)*	6500	3400
Max Temp (°C / °F)*	115 / 240	125 / 257
Min Diameter (mm / inch)	400 / 16	200 / 8
Band Thickness (mm / inch)	4.6 / 0.18	3.6 / 0.14
Supply Condition	Pre-cut or Reels	Pre-cut or Reels
Hand Tool	SM-FT-1000	SM-FT-1000
Pneumatic Tool	SM-FT-3000	SM-FT-3000

Smart Band® Standard	Band Width		
	19mm ¾ inch	10mm ¾ inch	7mm ¼ inch
Max Strength (kg / lb)*	500 / 1100	200 / 485	95 / 230
Max Temp (°C / °F)*	125 / 260	125 / 260	125 / 260
Max Diameter (mm / inch)	-	800 / 32	600 / 24
Min Diameter (mm / inch)	75 / 3	100 / 4	75 / 3
Band Thickness (mm / inch)	3.6 / 0.14	3.6 / 0.14	2.5 / 0.1
Supply Condition	Reel	Reel	Reel
Hand Tool	SM-FT-2000 or SM-FT-1000	TA 528A	TA 528A
Pneumatic Tool	SM-FT-3000	-	-

Smart Tie™	Band Width
	20mm ¾ inch
Max Strength (kg / lb)*	680 / 1500
Min final retention system force (N)*	1800
Max Temp (°C / °F)*	125 / 257
Min Diameter (mm / inch)	75 / 2.95
Max Diameter (mm / inch)	205 / 8.0
Hand Tool	SM-FT-2000
Pneumatic Tool	SM-FT-3000

ALL WEIGHTS AND DIMENSIONS ARE ±2.5%
*FIGURES DEPEND ON CHOSEN MATERIAL



Installation - Pneumatic

HCL offer a full range of installation tooling designed and manufactured specifically for Smart Band[®] products. HCL's flagship tool the SM-FT-3000 offers the following features:

- Fast and easy installation (<5 seconds per strap)
- Consistent and high retention forces
- Lightweight (<7kg)
- Full range of accessories



Videos

Smart Band[®] installation videos can be viewed online at www.hclfasteners.com



Installation - Manual

SM-FT-1000

With torque wrench



SM-FT-2000

Manual tool suitable for 19mm 3/4" only



Track Record



Cable Management



Cable/Pipe Protection



Piggyback Clamps



Pile Protection



Downhole



VIV Strakes



Umbilicas



Cable Protection



Buoyancy



Cable Attachment



Sensor Attachment



Photo courtesy of Ocean Renewable Power Company

Renewable Energy

No product would be successful without an extensive track record and since the late 90's the Smart Band® has been used in the offshore environment.

In markets such as attaching jackets on Jetty Piles it is the established and preferred solution. In many

areas it has been used with great success and Smart Band® is often utilised to replace established solutions.

Over this time Smart Band® has been purchased and successfully installed offshore in 100's of projects.



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