

1. Description



Multi Lock Stainless Steel Cable Ties provide an exceptionally secure and reliable fastening solution for the most demanding applications. Featuring an advanced multi-locking mechanism within the head, these ties engage the strap at multiple points, delivering superior loop tensile strength, enhanced vibration resistance, and a secure, permanent lock. Constructed from high-grade stainless steel (available in SS304 or Ss316), they offer outstanding resistance to corrosion, extreme temperatures, chemicals, and UV exposure, making them ideal for harsh industrial, marine, and infrastructure environments.

2. Key Features

- **Enhanced Security with Multi-Locking Mechanism:** Provides multiple locking points along the tie band for superior tensile strength and resistance to slippage and vibration.
- **High Tensile Strength:** Designed to withstand heavy loads and provide a secure, long-lasting bundling.
- **Corrosion and Weather Resistant:** Made from high-quality stainless steel (SS304 or SS316) to resist rust, corrosion, and the effects of harsh weather.
- **Durable Construction:** Offers excellent longevity and reliability in extreme conditions.
- **Available in Coated and Uncoated Versions:** Uncoated for high-temperature applications; coated (typically PVC) for electrical insulation, protection against dissimilar metal corrosion, and added chemical resistance.
- **Easy to Apply:** The multi-locking design often allows for hand installation, although tensioning tools are recommended for optimal results.
- **Low Profile Head:** Provides a neat and secure finish to the bundling application.

3. Associated Products

- **Installation Tools:** Heavy-duty manual or pneumatic tensioning and cut-off tools specifically designed for stainless steel ties are essential for proper installation and achieving rated strength (e.g., LYCT01, LYCT02). Ensure tool compatibility with the tie width and thickness.
- **Safety Equipment:** Heavy-duty, cut-resistant gloves and safety glasses are mandatory during installation.

4. Technical Data

- **Material (Tie):** Stainless Steel Grade 304 or 316 (SS316 for enhanced corrosion resistance, especially in marine environments).
- **Material (Coating):** PVC.
- **Tensile Strength:** Varies significantly based on width and thickness (e.g., 400 lbs, 800 lbs, 1112 N, 1335 N). Refer to specific product specifications.
- **Operating Temperature (Tie):** -80°C to +538°C (-112°F to 1000°F) for uncoated ties.
- **Operating Temperature (Coating):** Typically -40°C to +150°C (-40°F to 302°F), but can vary based on coating material.
- **Flammability:** Fireproof (Stainless Steel). Coating flammability characteristics should be checked with the manufacturer.
- **UV Resistance:** Generally good, especially for coated versions with UV inhibitors.
- **Available Widths:** Commonly 7mm, 12mm.
- **Available Lengths:** Wide range of lengths available to accommodate various bundle diameters.
- **Locking Mechanism:** Multi-Locking (Ladder style with multiple locking barbs/pawls).

5. Applications

- Multi Lock Stainless Steel Cable Ties are suitable for a broad spectrum of challenging applications. Ideal for critical fastening applications where maximum strength, reliability, and resistance to environmental factors are essential:
- **Shipbuilding & Marine:** Securing cables, pipes, and equipment in highly corrosive and vibration-prone areas.
- **Oil & Gas (Onshore/Offshore):** Bundling and securing in refineries, platforms, pipelines; resistant to chemicals and harsh weather.
- **Heavy Industry & Mining:** Fastening hydraulic lines, heavy electrical cables, and components on machinery.
- **Transportation:** Railways (securing cables/hoses on rolling stock), heavy vehicles, aerospace applications requiring high strength.
- **Infrastructure:** Bridges, tunnels, power generation plants, solar panel installations.
- **Telecommunications:** Securing heavy communication cables, aerial bundling.
- **Defense Applications:** Where robust and reliable fastening is mission-critical.
- **Any application requiring superior strength and vibration resistance beyond standard cable ties.**

6. Material Specifications

- **SS304 (A2 / 1.4301):** Standard grade offering good resistance to atmospheric corrosion and many chemicals. Suitable for general industrial and outdoor use.
- **SS316 (A4 / 1.4401):** Premium grade containing molybdenum for enhanced resistance to chlorides, acids, and marine environments. Recommended for coastal, offshore, and chemical processing applications.
- **PVC Coating:** Provides electrical insulation between dissimilar metals (preventing galvanic corrosion), offers smoother edges, improves chemical resistance in specific scenarios, and allows for colour coding.
- **Halogen-Free Options:** Available for specific applications requiring low smoke and zero halogen properties.

7. Installation Guidance

- **Select the Appropriate Tie:** Choose a Multi Lock stainless steel cable tie with the correct size and material for your specific application and environmental conditions.
- **Prepare the Bundle:** Organize the cables or objects to be bundled neatly.
- **Wrap the Tie:** Loop the cable tie around the bundle. If using a coated tie, ensure the coated side is against the items for protection.
- **Insert the Tail:** Feed the free end (tail) of the tie through the multi-locking head. The design allows the barbs on the band to engage with the locking mechanism in the head as you pull.
- **Tension the Tie:**
 - **Hand Tensioning:** Pull the tail firmly by hand to tighten the tie around the bundle. The multi-lock design provides incremental locking as you pull.
 - **Tool Tensioning (Recommended):** For optimal tightness and a professional finish, use a stainless steel cable tie tensioning tool. Insert the tail into the tool according to the manufacturer's instructions and operate the tool to apply tension until the desired tightness is reached. The tool will typically cut the excess tail automatically.
- **Verify Secureness:** Ensure the tie is pulled tight and the bundle is secure. The multi-locking mechanism should prevent the tie from loosening.
- **Cut Excess Tail (if not using a tool):** If installing by hand, use a suitable cutting tool (like heavy-duty snips) to remove the excess tail as close to the head as possible, taking care to avoid sharp edges. Using a tensioning tool with a cutting function is safer and provides a cleaner cut.
- **Safety:** Wear cut-resistant gloves during installation, especially when handling uncoated ties or manually cutting the excess tail, as stainless steel edges can be sharp.

8. Specifications



Width		Thickness		Length		Max Bundle Diameter	
inch	mm	inch	mm	inch	mm	inch	mm
0.28	7.0	0.010	0.25	6	152	1.5	38
0.28	7.0	0.010	0.25	9	229	2.5	63
0.28	7.0	0.010	0.25	12	305	3.4	86
0.28	7.0	0.010	0.25	18	457	5.4	137
0.28	7.0	0.010	0.25	24	610	7.3	185
0.47	12.0	0.010	0.25	6	152	1.5	38
0.47	12.0	0.010	0.25	9	229	2.5	63
0.47	12.0	0.010	0.25	12	305	3.4	86
0.47	12.0	0.010	0.25	18	457	5.4	137
0.47	12.0	0.010	0.25	24	610	7.3	185

Note: Any lengths from 150 to 1,000mm are available for custom.

The thickness above is for raw material, thickness with coating is about 0.46mm(0.018")

Disclaimer: The technical information and data presented in this datasheet are based on current knowledge and typical product properties, intended for informational purposes only. Suitability for specific applications should be determined by the user through testing under actual operating conditions. Bandtite makes no warranties, express or implied, and assumes no liability in connection with any use of this information. Specifications may change without prior notice.