

25mm Internal Tooth Tube

Flexible Metal Conduit for Cable Protection

Model: 25mm IDT Series | OD 25mm × ID ~23mm

User Manual



Kemotronics Industrial Lighting

1. PRODUCT OVERVIEW

The 25mm Internal Tooth Tube is a flexible metal conduit designed for cable protection and connection in industrial LED work lights, CNC machine lighting, and automation equipment. It features internal threads at both ends with ~15mm thread depth and a black painted metal construction. The product is available in various lengths with optional M10*1 connectors and fittings including single connector, double connector, miter joint, conversion plug, and end cap.

2. TECHNICAL SPECIFICATIONS

Parameter	Value
Model	25mm Internal Tooth Tube (Flexible Conduit)
Type	Metal Flexible Hose with Internal Thread
Outer Diameter	25mm
Inner Diameter	~23mm
Thread Depth (both ends)	~15mm
Thread Type	Internal tooth / internal thread
Material	Metal (Iron + Spring Steel)
Surface Finish	Black painted (anti-corrosion)
Connector Thread	M10*1 fine thread
Working Temperature	-20°C to +80°C
Storage Temperature	-30°C to +90°C
Color	Black
Flexibility	Bendable and shape-holding

3. PACKAGE CONTENTS

- 1 x 25mm Internal Tooth Tube (selected length)
- Connectors and fittings: Sold separately or as add-on options

(Optional: Single Connector M10*1, Double Connector, Miter Joint, Conversion Plug, End Cap, Hex Nut)

4. INSTALLATION INSTRUCTIONS

Step 1 — Select the appropriate length tube and matching connectors for your application.

Step 2 — If using the single connector, thread the M10*1 connector into one end of the tube (the internal thread is ~15mm deep).

Step 3 — Connect the other end of the tube to your LED work light or equipment using the appropriate fitting.

Step 4 — Route the cable through the tube before final tightening.

Step 5 — For extended runs, use the double connector to join two tubes together.

5. WIRING DIAGRAM (Cable Routing)

This product is a mechanical conduit for cable protection. No electrical wiring is built into the tube itself.

- Route power cable through the hollow interior of the tube
- Ensure cable diameter is smaller than the ~23mm inner diameter
- For M10*1 connector fittings, ensure the cable passes through the connector before threading
- Secure both ends after cable routing is complete

6. MAINTENANCE AND CARE

- Wipe clean with a dry cloth as needed
- Inspect threads periodically for debris or damage
- Avoid over-bending the tube beyond its natural flexibility range
- Store in a dry environment when not in use
- The black paint finish is corrosion-resistant but avoid prolonged exposure to aggressive chemicals

7. SAFETY WARNINGS

- Ensure all electrical power is disconnected before routing cables through the conduit
- Verify the cable diameter is compatible with the ~23mm inner diameter
- Do not exceed the recommended bending radius — sharp bends may damage internal cables
- Use appropriate personal protective equipment when cutting or modifying the tube length
- This product is a mechanical cable protection conduit — it does not provide electrical insulation by itself
- For outdoor or wet environment use, ensure additional waterproofing measures are applied at connection points

8. TROUBLESHOOTING

Problem	Cause	Solution
Tube will not stay in position	Tube too long or over-bent	Reduce unsupported length or use support brackets
Connector will not thread in	Thread mismatch or debris	Clean internal threads, verify M10*1 thread size
Cable hard to feed through	Cable too large or sharp edge	Use cable under 20mm dia, deburr tube ends
Connector loose after install	Not fully seated in tube	Thread fully in (~15mm), tighten with wrench

9. WARRANTY POLICY

This product carries a **1-year warranty** against manufacturing defects in materials and workmanship.

Covered: Defects in the metal tube body, internal thread integrity, paint finish peeling under normal use.

Not covered: Damage from improper installation, over-bending, cutting, chemical exposure, or normal wear and tear.

10. AFTER-SALES SERVICE

For any questions, replacements, or technical support:

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