

HPS AT180-150-CLR-25

HPS Performance AT180-150-CLR-25 Aluminum Elbow Pipe Tubing User Manual

Model: AT180-150-CLR-25 | Brand: HPS

1. OVERVIEW

Product Description

HPS (AT180-150-CLR-25), 1.5" OD, 180 Degree U Bend, 16 Gauge 6061 T6 Aluminum Elbow Pipe Tubing, 0.065" Wall Thickness, 2.5" Center Line Radius is commonly used in industrial, automotive, marine and aerospace industry; Great for custom fabrication project such as DIY air intake, cooling systems, turbo intercooler piping setup because 6061 aluminum is the most popular and versatile alloy, and is the least expensive of the heat treatable aluminum alloys. HPS aluminum round tubing is sold in the T6 condition, ideal for sawing, machining, sanding, and polishing. The aluminum pipe can be polished, but due to the softness of the aluminum, care must be taken not to remove too much material, especially in the area near any welds. Remark: HPS does NOT recommend 6061 Aluminum to be used for exhaust systems.

2. PRODUCT FEATURES

- **Material:** High-quality 6061 T6 Aluminum alloy, known for its versatility and cost-effectiveness.
- **Bend Type:** 180 Degree U Bend for efficient routing in various applications.
- **Dimensions:** 1.5 inches Outside Diameter (OD) with a 0.065 inch Wall Thickness.
- **Gauge:** 16 Gauge construction ensures durability and structural integrity.
- **Center Line Radius (CLR):** 2.5 inches, providing a smooth bend for optimal flow.
- **Condition:** Sold in T6 condition, suitable for various fabrication processes including sawing, machining, sanding, and polishing.
- **Finish:** Polished surface for enhanced appearance.
- **Installation Type:** Designed for Bolt-On installation.

3. SPECIFICATIONS

Attribute	Value
Brand	HPS

Attribute	Value
Model Number	AT180-150-CLR-25
Material	6061 T6 Aluminum
Outside Diameter (OD)	1.5 inches
Wall Thickness	0.065 inches
Gauge	16 Gauge
Bend Angle	180 Degree U Bend
Center Line Radius (CLR)	2.5 inches
Finish Type	Polished
Product Dimensions	6"L x 5.25"W
Item Weight	8.8 ounces
Installation Type	Bolt-On
Manufacturer	HPS Silicone Hoses
Country of Origin	USA
Date First Available	February 19, 2014

4. WHAT'S IN THE BOX

- 180 Degree Aluminum Tube (1 unit)

5. INSTALLATION AND SETUP

This HPS aluminum elbow pipe tubing is designed for custom fabrication projects and is typically integrated into existing or new systems using a bolt-on method or by welding. Proper installation is crucial for optimal performance and safety.

- **Preparation:** Ensure all connecting surfaces are clean, dry, and free of debris. Measure and cut the tubing as needed for your specific application.
- **Fitting:** Test fit the tubing to ensure proper alignment and clearance before final installation.
- **Connection:** Secure the tubing using appropriate clamps, couplers, or welding techniques. If welding, ensure proper ventilation and safety precautions are followed.
- **Inspection:** After installation, visually inspect all connections for tightness and proper sealing.
- **Note:** HPS does NOT recommend 6061 Aluminum to be used for exhaust systems due to material properties under high heat and corrosive exhaust gases.



Image: The HPS 180 Degree U Bend Aluminum Pipe, shown alongside diagrams illustrating key dimensions such as Outside Diameter (OD), Wall Thickness, Leg Length, and Center Line Radius (CLR).

6. MAINTENANCE

Proper maintenance ensures the longevity and performance of your aluminum tubing.

- **Cleaning:** Regularly clean the exterior of the tubing to prevent accumulation of dirt and corrosive substances. Use mild soap and water, then rinse thoroughly and dry.
- **Polishing:** The aluminum pipe can be polished to maintain its aesthetic appeal. However, due to the softness of aluminum, care must be taken not to remove too much material, especially near welds. Use appropriate aluminum polishing compounds.
- **Inspection:** Periodically inspect the tubing for any signs of damage, corrosion, cracks, or leaks. Pay close attention to connection points and bends.
- **Storage:** If storing the tubing, keep it in a dry, clean environment away from harsh chemicals or extreme temperatures.

7. TROUBLESHOOTING

This section provides guidance for common issues that may arise with aluminum tubing in custom applications.

Problem	Possible Cause	Solution
Leakage at connection points	Improperly tightened clamps, damaged seals/gaskets, incorrect fitting.	Ensure clamps are tightened to specifications. Replace worn or damaged seals/gaskets. Verify correct fitting type and size for the application.
Tubing deformation/cracking	Excessive pressure, improper bending/fabrication, external impact, material fatigue.	Verify system pressure is within safe limits for the tubing. Ensure proper fabrication techniques were used. Replace damaged tubing.
Corrosion/Discoloration	Exposure to harsh chemicals, prolonged moisture, improper cleaning.	Clean regularly with mild solutions. Avoid contact with corrosive chemicals. Ensure proper drying after cleaning. Consider protective coatings if exposed to harsh environments.

8. SAFETY INFORMATION

WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- Always wear appropriate personal protective equipment (PPE) such as gloves and eye protection when handling, cutting, or fabricating aluminum tubing.
- Ensure adequate ventilation if welding or using adhesives.
- Do not exceed the pressure or temperature ratings of the tubing in your application.
- Keep out of reach of children.

9. WARRANTY AND SUPPORT

For specific warranty information or technical support regarding your HPS Performance AT180-150-CLR-25 Aluminum Elbow Pipe Tubing, please contact HPS customer service directly. Refer to the manufacturer's official website or product packaging for the most current contact details and warranty terms.

Manufacturer: HPS Silicone Hoses

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question