

## Lubricants in the Manufacturing of personal car exhaust tube

### Introduction

The production of personal car exhaust tubes — such as those by company— involves precision tube bending, welding, trimming, forming, and finishing of steel or aluminized steel pipes. Each step generates friction, heat, and wear. Using the right lubricants ensures consistent quality, longer tool life, smooth surfaces, and strong welds.

### 1. Why Lubricants Matter in Exhaust Tube Manufacturing

Tool & Die Protection: Reduces wear on tube-bending dies, cutting tools, and stamping equipment.

Smooth Bending & Forming: Helps maintain pipe diameter through bends, minimizing distortion and defects.

Surface Finish Integrity: Prevents scoring, galling, or work-hardening that compromise finish or coating.

Weld Readiness: Low-residue lubricants prevent contamination in TIG/MIG welding of exhaust tubes.

Corrosion Prevention: Temporary rust inhibitors protect pipes before final coating or assembly.

### 2. Types of Lubricants Used

Process Stage

Lubricant Type

Key Benefits

Tube Bending & Forming

High-adhesion synthetic bending fluids

Maintains pipe geometry, prevents slippage, supports tight radii bends

Blanking & Pipe Cutting

Semi-synthetic stamping oils or water-based emulsions

Reduced wear, improved metal flow during cutting and trimming

Trimming & Piercing

Light cutting oils or water-miscible coolants

Clean cuts, less burrs, longer tool life

Welding & Assembly

Low-residue weld-friendly lubricants/anti-spatter fluids

Strong welds, no contamination

Storage & Pre-Coating

Thin-film rust preventive oils or solvent-cutback coatings

Temporary corrosion protection before final finish

### 3. Benefits for the Manufacturer

Extended Tool Life → Fewer replacements, reduced downtime.

Consistent Geometry → Precision bends and correct diameter retention.

High Quality Finish → Surfaces ready for coating with minimal defects.

Strong Welds → Clean lubrication helps avoid weak joints or porosity.

Corrosion-Free Handling → Better protection during storage/shipping pre-coating.

#### 4. Latest Industry Trends

Dry-Film & Pre-Coated Lubricants: Applied to coil stock or tubes to minimize fluid carry-over and cleaning.

Eco-Friendly Formulations: Biodegradable, low-VOC fluids support sustainability goals.

Automated Application Systems: Precision sprayers/rollers reduce waste and ensure consistent coverage.

Hybrid Lubricants: Combine forming performance with temporary rust protection in one step.

# personal car exhaust tube

Description:

Product:	980-000	Company:	V_FUKY TYLL s.r.o.
Industry:	Automotive Tier Two +	Material:	Stainless Steel
Thickness:	1.2	Concentration:	
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