

XIIW 3-TLG mit Kasten

XIIW 3-Piece Sheet Metal Bending Pliers Set (0°, 45°, 90°)

Instruction Manual

1. PRODUCT OVERVIEW

The XIIW 3-Piece Sheet Metal Bending Pliers Set is designed for precise and efficient bending of sheet metal. This set includes three pliers with different bending angles: 0° (straight), 45° (angled), and 90° (angled). Crafted from high-quality 42CrMo4 (DIN 1.7225) steel, these pliers are forged for superior strength and durability, capable of withstanding significant loads. The phosphating and blackening surface treatment provides high hardness (HRC.45) and abrasion resistance, ensuring a long service life and corrosion protection. The ergonomic, dip-insulated handles offer a comfortable and secure grip. This tool set is suitable for bending steel, copper, aluminum, zinc, and lead sheets up to 1 mm thick. A portable storage box is included for convenient transport and organization.

Image 1.1: The XIIW 3-Piece Sheet Metal Bending Pliers Set, highlighting the different angles and dimensions. Note: The set includes 0°, 45°, and 90° pliers.

Image 1.2: Feature comparison illustrating the advantages of XIIW pliers, such as parallel jaws and superior material quality.

2. SETUP

The XIIW 3-Piece Sheet Metal Bending Pliers Set requires minimal setup. These are hand tools and do not require assembly.

1. **Unpacking:** Carefully remove the pliers from their portable storage box.
2. **Inspection:** Before first use, inspect each plier for any signs of damage or manufacturing defects. Ensure

the jaws open and close smoothly.

3. **Storage:** Keep the storage box for convenient and safe storage of the pliers when not in use.

3. OPERATING INSTRUCTIONS

These pliers are designed for bending sheet metal up to 1 mm thick. Always wear appropriate personal protective equipment, such as gloves and eye protection, when working with sheet metal.

3.1 General Bending Procedure

1. **Prepare the Material:** Ensure the sheet metal is clean and free of burrs.
2. **Mark the Bend Line:** Use a pencil and ruler to clearly mark the desired bending line on the sheet metal.
3. **Position the Pliers:** Select the appropriate plier (0°, 45°, or 90°) for the desired bend angle. Position the jaws of the pliers precisely along the marked line, ensuring they are parallel to the bend.
4. **Secure Grip:** Firmly grip the sheet metal with the pliers. Ensure the material is held securely to prevent slipping during the bend.
5. **Perform the Bend:** Apply steady, even pressure to the handles to begin bending the sheet metal. For longer bends, work in small, sequential sections along the marked line.
6. **Complete the Bend:** Continue bending until the desired angle is achieved. The ergonomic handles provide a comfortable grip for controlled bending.



Image 3.1: Step-by-step guide for bending sheet metal with the pliers.

3.2 Material Compatibility

These pliers are suitable for bending various sheet metals, including:

- Steel sheets
- Copper sheets
- Aluminum sheets
- Zinc sheets
- Lead sheets

The maximum recommended thickness for all materials is **1 mm**.



Image 3.2: Detail showing the robust design, ergonomic grip, and material suitability.

4. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your XIW bending pliers.

- **Cleaning:** After each use, wipe down the pliers with a clean, dry cloth to remove any metal dust, debris, or moisture.
- **Lubrication:** Periodically apply a small amount of general-purpose machine oil or lubricant to the pivot points of the pliers to ensure smooth operation.
- **Storage:** Always store the pliers in their original portable storage box in a dry environment. This protects them from dust, moisture, and potential damage from other tools.

- **Inspection:** Regularly inspect the jaws for any signs of wear, nicks, or damage that could affect bending performance. Check the handles for any cracks or deterioration of the insulation.
- **Corrosion Protection:** The phosphating film on the surface provides excellent corrosion resistance. However, avoid prolonged exposure to highly corrosive substances or excessive moisture to maintain this protective layer.



Image 4.1: Explanation of the phosphating and blackening surface treatment for enhanced durability and corrosion resistance.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your bending pliers.

- **Issue: Pliers not bending cleanly or leaving marks.**
Solution: Ensure the sheet metal thickness does not exceed 1 mm. Verify that the pliers' jaws are clean and free of debris. Position the pliers accurately along the marked line and apply even pressure.
- **Issue: Pliers feel stiff or difficult to operate.**
Solution: Apply a small amount of general-purpose lubricant to the pivot points of the pliers. Ensure no dirt or debris is obstructing the mechanism.
- **Issue: Damage to the sheet metal during bending.**
Solution: This can occur if excessive force is applied or if the material is too thick. Ensure you are working within the specified material thickness. Check the pliers' jaws for any damage that might be causing uneven pressure.

6. SPECIFICATIONS

Feature	Detail
Brand	XIIW
Model Name	3-TLG mit Kasten (Reference: Absetzzange, X0020JT1L1)
Material	42CrMo4 Chrome-Molybdenum Steel (DIN 1.7225)
Surface Treatment	Phosphating and Blackening
Hardness	HRC.45 (Pliers jaws)
Pliers Types Included	1 x Straight (0°) Bending Plier 1 x 45° Angled Bending Plier 1 x 90° Angled Bending Plier
Overall Length (0°, 45° Pliers)	Approx. 28 cm (11 inches)
Overall Length (90° Pliers)	Approx. 26 cm (10.2 inches)
Jaw Width	Approx. 5.5 cm (2.17 inches)
Max. Sheet Metal Thickness	1 mm
Handle Material	Metal with Dip-Insulated Ergonomic Grip

Item Weight (Set)	2.97 Kilograms (6.55 lbs)
Certification	DIN



Image 6.1: Dimensional overview of the pliers. Note: The set includes 0°, 45°, and 90° pliers.



Image 6.2: Information on the 42CrMo4 (DIN 1.7225) steel used in the pliers' construction.

7. WARRANTY INFORMATION

Specific warranty details for the XIIW 3-Piece Sheet Metal Bending Pliers Set are not provided in the product information. Please refer to the retailer's return policy or contact the manufacturer directly for warranty inquiries.

8. CUSTOMER SUPPORT

For any questions, technical assistance, or support regarding your XIIW 3-Piece Sheet Metal Bending Pliers Set, please contact your point of purchase or refer to the manufacturer's official website for contact information.