



Swebor Armor™ 600 is an UHH protection steel which poses ability for cold forming. When cold forming Swebor Armor™ 600 personal safety precautions must be taken. We recommend bending of Swebor Armor™ 600 for the thickness.

| THICKNESS (mm) | PUNCH RADIUS R (mm) | MAX ANGLE (°) |
|----------------|---------------------|---------------|
| 4 - 7          | 40                  | 30            |
| 8 - 10         | 50                  | 30            |

## BENDING PROCEDURE

1. Preparation of parts
2. Plate edges should be ground smooth, and for thick plates and high hardness grades, the plate edges should be rounded prior to cold forming - bending.
3. Ensure that there are no obvious defects (striated grinding lines for example)
4. Preliminary trials on prototypes
5. Bending with slow fall the first pieces
6. Pinching to be used very carefully
7. Dye penetrant test in the area in extension at east for the first pieces
8. Minimal recommended temperature: 15°C (60°F)

It is important that the capacity of the machine is suitable, bending press manufacturers provide information on bending loads in relation to V-block opening, plate thickness and steel strength.

Laser cutting should be used on Swebor Armor™ 600 plates. If and when forming using, flame cut hardened edge (heat affected zone of 1-2mm) should be removed with grinding wheel.

The use of smaller former radius is not recommended for bending.

The correct punch radius, along with the die width, is the most important parameter when bending. The die edges must be clean and undamaged.

Spring back increases with increased die width, while punch force is reduced. Make sure that the opening angle of the die allows for over-bending without bottoming out, to compensate for spring back. An increased die opening width can in many cases lower the strain level in the bend. Also, make sure that there is enough room for the chosen punch together with the workpiece, in the die, during bending, without deforming the die.