

Turning **eggs** into valuable business



Ver. 07

# Guidelines for suppliers of mechanical parts

- concerns all relevant types of production materials

[www.sanovogroup.com](http://www.sanovogroup.com)

SANOVO TECHNOLOGY GROUP  
5220 Odense SØ - Denmark  
TEL +45 66 16 28 32  
[info@sanovogroup.com](mailto:info@sanovogroup.com)

**SANOVO**   
TECHNOLOGY GROUP

## Rules & expectations

All documentation relating to the manufacturing of mechanical parts is the property of the SANOVO TECHNOLOGY GROUP and may not be copied, shown or handed over to third party without our prior written consent.

Follow this guideline, especially where no dimensions nor tolerances are on the drawing. All documentation made in the SANOVO TECHNOLOGY GROUP follows the standards:

Dimension in mm without tolerances:	ISO 2768 - 1
Tolerance principle:	ISO 8015
Surface roughness:	ISO 1302
Geometrical tolerance:	ISO 1101
Welding:	ISO 2553:1992
Surface texture:	ISO 1302

## Bending

If nothing else is mentioned on the drawing, below rules are applicable for bending tools for stainless steel sheet metal from 1 to 3mm thickness:

- The width of the rail on the lower matrices is 8 \* the thickness of the plate
- The nose radius of the top bend tool is 1 mm

2

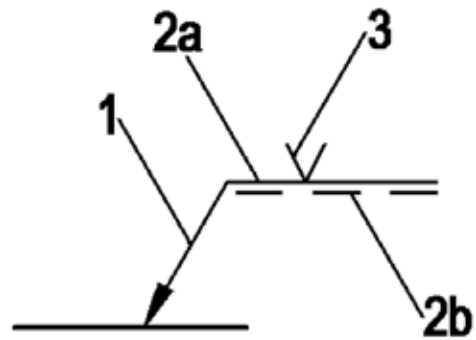
## Welding and grinding

- Generally, welding with welding rod (wire) must take place. Just converged is not allowed!
- As a principal rule everything has to be fully welded both outside and inside
- Sanitary pipes are not allowed to have burrs and protection gas must be used. Where ever necessary, grinding has to be done

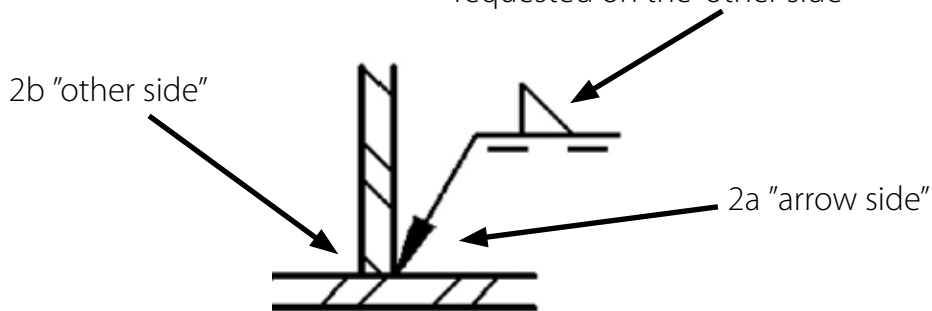
## Welding symbols based on the standard

Method of representation:

- 1 arrow line
- 2a reference line (continuous line)
- 2b identification line (dashed line)
- 3 welding symbol

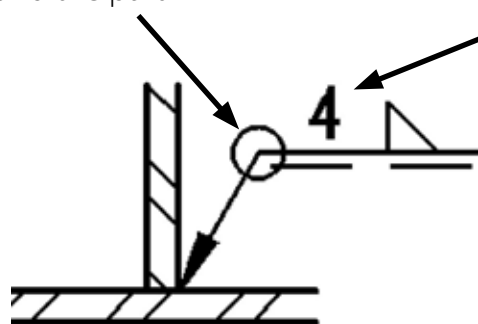


Symbol on continuous line, if welding is requested on "arrow side" and symbol on dashed line, if welding is requested on the "other side"

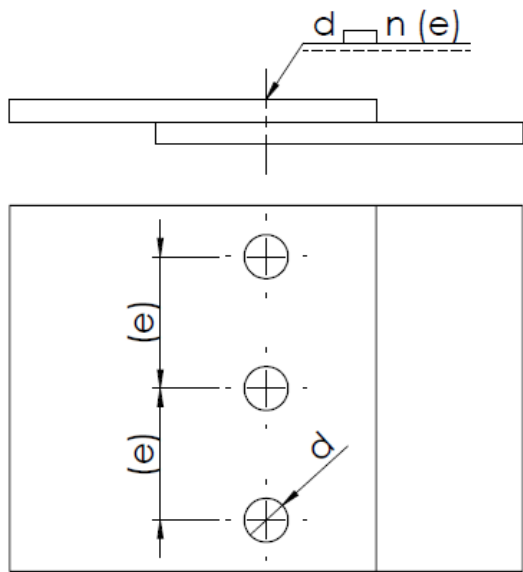


The circle indicates that the weld is made around the part

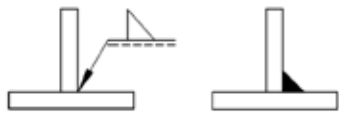
"Throat thickness"  
Dimension of weld



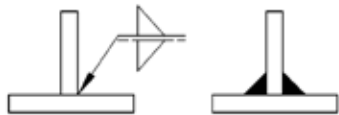
## Different welding examples



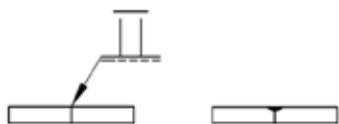
- Plug welding in circular holes



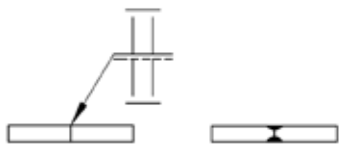
- Fillet weld only on the "arrow side" with welding rod



- Fillet welded on both sides with welding rod



- Square butt welding, welded with welding rod and grinded

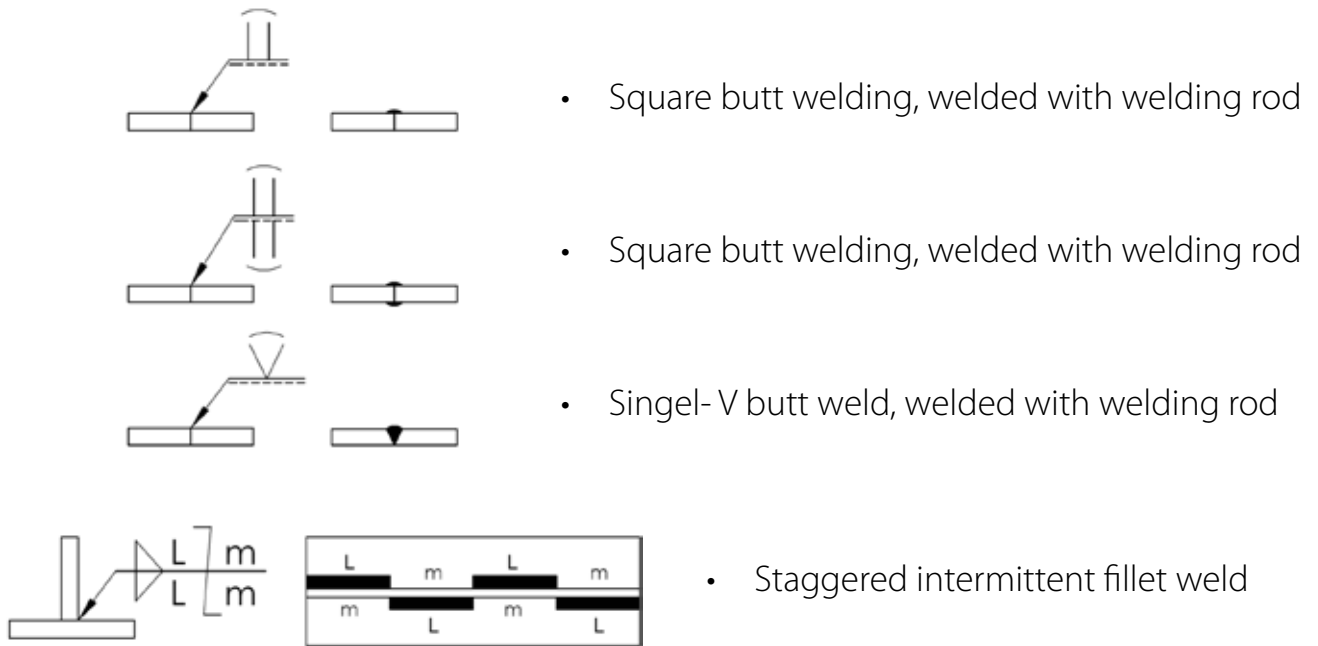


- Square butt welding, welded with welding rod and grinded on both sides



- Square butt welding, welded without welding rod (converged)

## Different welding examples



## Grinding & surface roughness

- Burrs and sharp edges must be removed
- Sanitary pipes are not allowed to have burrs
- Plastic parts are not allowed to be rougher than Ra 3,2 on machined surfaces
- Welded surfaces in contact with food must be grinded to a roughness  $Ra \leq 0,8\mu\text{m}$
- Visible welds without food contact must be brushed/grinded to a clean and shiny surface without discoloration
- Welds on product chutes must be grinded inside
- Welds on covered shields must be grinded outside

## Roughness symbols

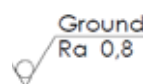
MRR – material to be removed (welding must be removed by grinding)

NMR – no material to be removed (welding not to be grinded)

MRR Ground; Ra0,8



NMR Ground; Ra0,8



## Thread recovery

- Nut / muff for legs must be adjusted and the screw thread must be cut up after welding
- All outside pipe threads must be checked for functionality (use nut)

## Surface treatment

- Surface treatment must always be done according to the purchase order. I.e. the purchase order overrules the drawing text for surface treatment
- Glass blasted frames must be treated with Innoxol because of risk of contamination from a different metal and air pollution
- When glass blasting legs (square pipe constructions) and nozzles tubes, do plug holes to keep glass out and protect threads

## Packing and shipment

- Avoid contact in between glass blasted parts when packing for shipment. If necessary separate them with a layer of corrugated paper
- Protect shafts from getting scratches at handling and transportation