

Welding of WIKA sleeves and welding balls in sanitary applications

WIKA data sheet IN 00.28

In sanitary applications, not all installation situations can be accomplished using standard components such as clamp connectors. One resource for this are welding sleeves and balls, which have long been used for installation in pipelines and vessels. With these weld-in components, the operator has the maximum degree of freedom to position the sensor at the right point and in the right orientation.

WIKA has put together a selection of sleeves and weld-in aids in order to enable the optimal installation for our sensors. Observe the following instructions for welding these correctly:

Welding of sleeves into tanks and pipelines

Please use WIKA sleeves.

1. Bore out a hole with the outer diameter of the sleeve or welding ball.
Maximum tolerance: +0.2 mm
2. Centre and align the sleeve, then tack weld it with four points (fig. 1).
Observe the sequence of the tack welds!
With G 1" threads, tack weld with eight points.
3. Screw in the weld-in mandrel (see weld-in aids).
4. Weld the sections between the points (fig. 2).
- four sections with sleeves with M12 and G 1/2" threads
- eight sections with sleeves with G 1" threads

Welding of welding balls into tanks and pipelines

Please use WIKA welding ball.

1. Bore a hole with a 20 mm diameter.
Maximum tolerance: +0.2 mm
2. Centre and align the sleeve, then tack weld it with four points (fig. 1).
Observe the sequence of the tack welds!
3. Weld the sections between the four points (fig. 2).
4. For a weld that is as free from distortion as possible, carry out the weld sequence so that the quadrants are welded alternately (fig. 3).

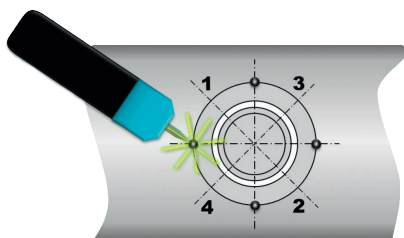


Fig. 1: Tacking

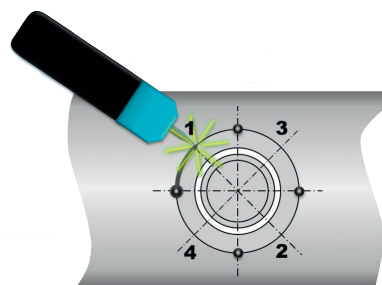


Fig. 2: Welding

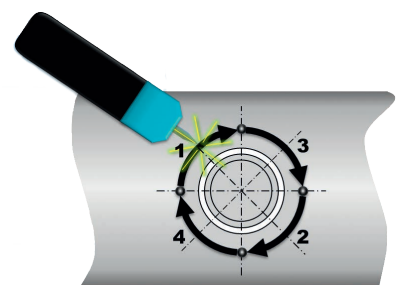


Fig. 3: Weld sequence

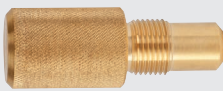

Note

In order to ensure optimal welding quality, the weld seams must be prepared carefully. Both jointing parts must be thoroughly deburred, but must not be chamfered. Any incandescence or distortion of the weld-in body during the welding process must be prevented. Thus, the pauses between the individual sections should be designed so that the weld-in body can cool.

Welding sleeves for tapered hygienic threaded connection

Thread	Material	Order no.
M12 x 1.5	Stainless steel 1.4435	11426721
G 1/2	Stainless steel 1.4435	11422599
G 1	Stainless steel 1.4435	11426773

Weld-in mandrel for tapered hygienic threaded connection

Thread	Material	Order no.
G 1/2	CuZn alloy (brass)	11477742
		
M12	CuZn alloy (brass)	11476894
		

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