



## **Technical conditions of work execution (TCWE): pickling of carbon steels – in pickling plant** **FK system - surface treatment, Ltd.**

*Valid from 26. 05. 2021*

*These TCWE do not replace the General terms and Conditions of FK system – surface treatment, Ltd.*

### **1. Acceptance of the part for surface treatment**

1.1. Order sent in advance to mail [fksystem@fksystem.cz](mailto:fksystem@fksystem.cz) and in a copy to [morirna@fksystem.cz](mailto:morirna@fksystem.cz).

The order must state:

- identification of the customer
- the number of our offer, if already processed
- identification of the part (s) or order
- required surface treatment
- quality of material (if there are more types, all of them)
- any special requirements for packaging, handling, etc.

1.2. The parts must be delivered with a delivery note referring to the relevant order.

1.3. If the parts are machined or there is a risk of confusion with stainless steel material, it is necessary to state the material designation significantly in the order so that it cannot be confused and at the same time inform the pickling technician or the pickling master.

- 1.4. Pickling parts must be delivered:
- dry
  - without grease
  - without descriptions by paint, marker, etc
  - without mechanical impurities incl. stickers, baked foils, etc.

Improper delivery of the part (based on the conditions above) may result in poorer visual quality of the pickled surface.

1.5. Upon prior agreement with the technician, parts can be delivered, eg. greasy for degreasing; scaled after annealing for descaling; with a protective foil, if there is a reason for this, etc.

1.6. Upon receiving the parts, a random check is performed. Possible damage can only be detected after work has begun on the parts. On request, it is possible to order 100% acceptance of parts.

### **2. Quality standards:**

- 2.1. Pickling and passivation are technical operations ensuring the corrosion resistance of the material. They cannot achieve a uniform or repeatable surface appearance.
- 2.2. The surface will be clean without rough corrosion after pickling and passivation. The passivation solution may cause a brownish surface appearance.
- 2.3. Pickling cannot remove slag, burnt grease, paint, dirt sanded or pressed into the surface, strong scale, markings, etc.
- 2.4. The passive layer protects the surface of the carbon steel against corrosion for several days to weeks depending on the method of storage. Passivated parts must be stored properly and used as soon as possible and put into operation or otherwise protected.
- 2.5. Defects cannot be claimed on hard-to-reach or completely inaccessible surfaces.

### **3. Problematic spots in terms of pickling.**

- 3.1. There cannot be small enclosed spaces (pipes, tubes, etc.) on immersion pickled parts that are not watertight and into which pickling agents could flow without the possibility of rinsing.
- 3.2. If there are gaps on the parts (seam welds, sheet metal overlaying, screw joints, etc.), the porosity (eg for castings), or other surface inhomogeneity, residues of pickling agent or rinse



water may remain in these. These can then flow out or rise and form a map on surface. Possible defects caused by constructional details mentioned in points 3.1 and 3.2 or others, non-compliance with the delivery conditions in 1.4 or others are not considered defects of pickling and we do not accept them as a complaint.

#### **4. Packaging**

- 4.1. After pickling, carbon steel parts are not packed as standard, they are only placed on the pallets on which they were delivered. In case of a request for packaging, plugging of ends, etc., it is necessary to agree with the technician and state it in the order. Packaging, plugging, etc. is charged.