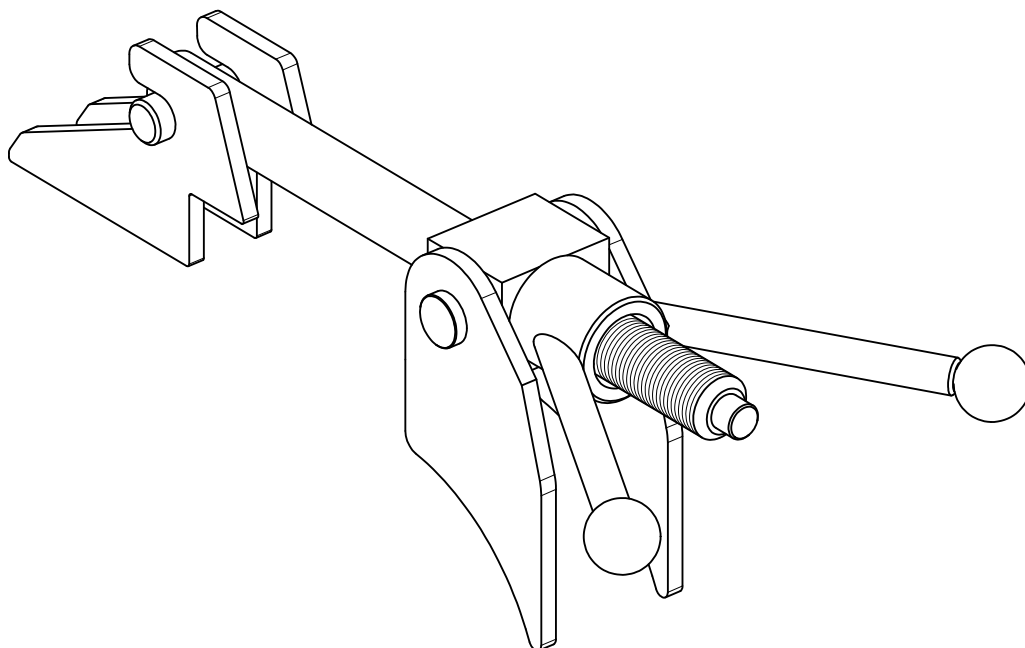


ORIGINAL INSTRUCTIONS



TECHNICAL DATA SHEET

CODE 18300 001 00
CODE 18300 010 00



1. General warnings

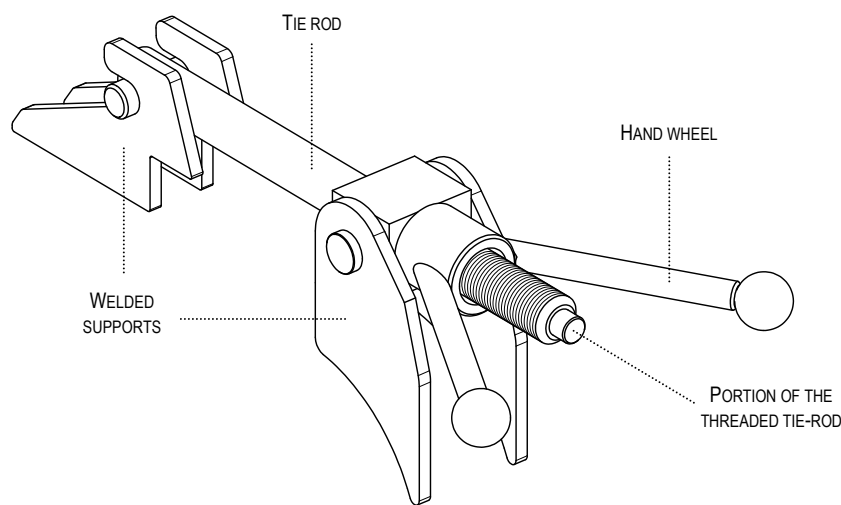
This technical data sheet contains technical information concerning manual hand wheel clamps and the main installation and maintenance instructions.

Complying with the instructions contained in this technical data sheet is crucial for the recognition of warranty against defective parts. Upon receiving the goods, ensure that they are intact and have not been accidentally damaged during transport.

In the event parts of the accessory must be replaced, **use only genuine spare parts.**

2. Technical data

The manual hand wheel clamps are safety devices designed to allow closing open bottom tanks. Hand wheel clamps are equipped with welded supports (available in mild steel or stainless steel versions) on the tank and tank bottom respectively, and with partly threaded tie rod and clamping hand wheel. The following figure shows a schematic diagram of a hand wheel clamp.



Hand wheel clamps are available in two versions:

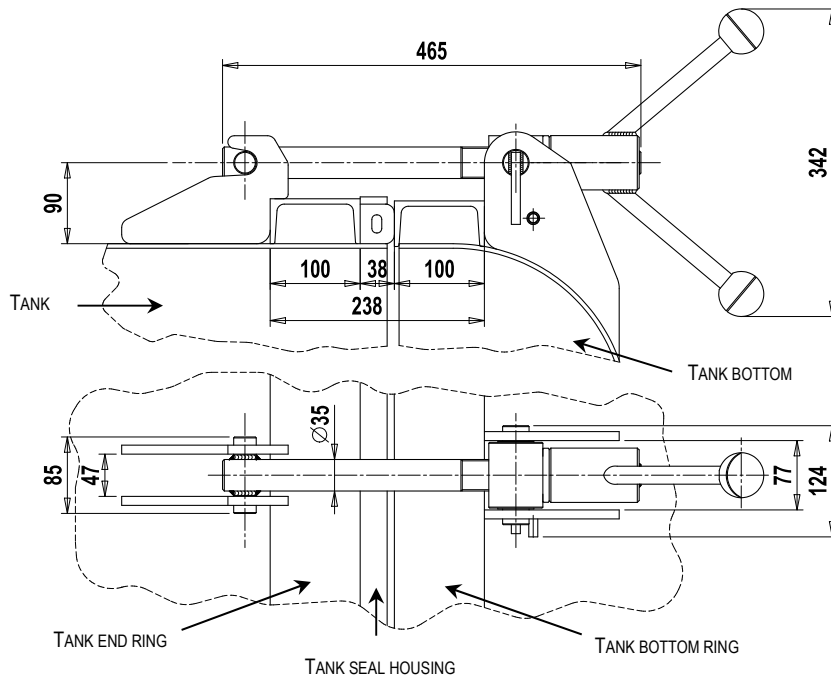
- **Mild Steel hand wheel clamp**, code 18300 001 00, with weldable parts made of **S355J2 mild steel** th.10;
- **Stainless Steel hand wheel clamp**, code 18300 010 00, with weldable parts made of **Aisi 304 1D 1.4301 (ASTM A 240-94)** th.10.

To ensure greater protection, the details of the manual hand wheel clamp (tie rod and hand wheel) undergo cold electro-galvanising treatment. The following table shows the main operating parameters concerning the maximum mechanical strength of the hand wheel clamp and weight.

Operating parameters

Parameter	Maximum value
MAXIMUM MECHANICAL STRENGTH	66315 N
WEIGHT	11.3 Kg

The following figures show the overall dimensions of the hand wheel clamp.

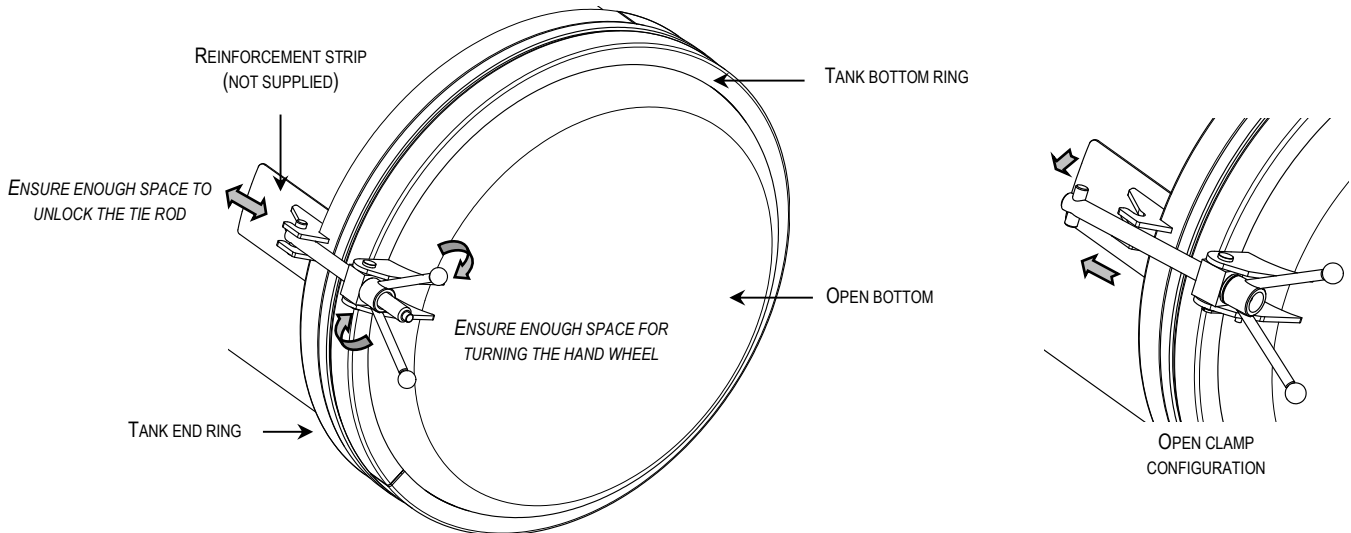


3. Installation

The manual hand wheel clamps must be welded to the tanks. The weld must be made in correspondence of the tank end ring and the wall and open bottom ring. As for the welding method, refer to the materials indicated in Chapter 2. We recommend installing reinforcement strips in correspondence of the supports to be welded to the tank.

Before proceeding with the final weld, ensure that upon unscrewing the hand wheel, the tie rod comes out easily from the pair of supports (welded to the tank), thereby allowing to open the bottom.

The following figure shows a schematic view of a possible installation.

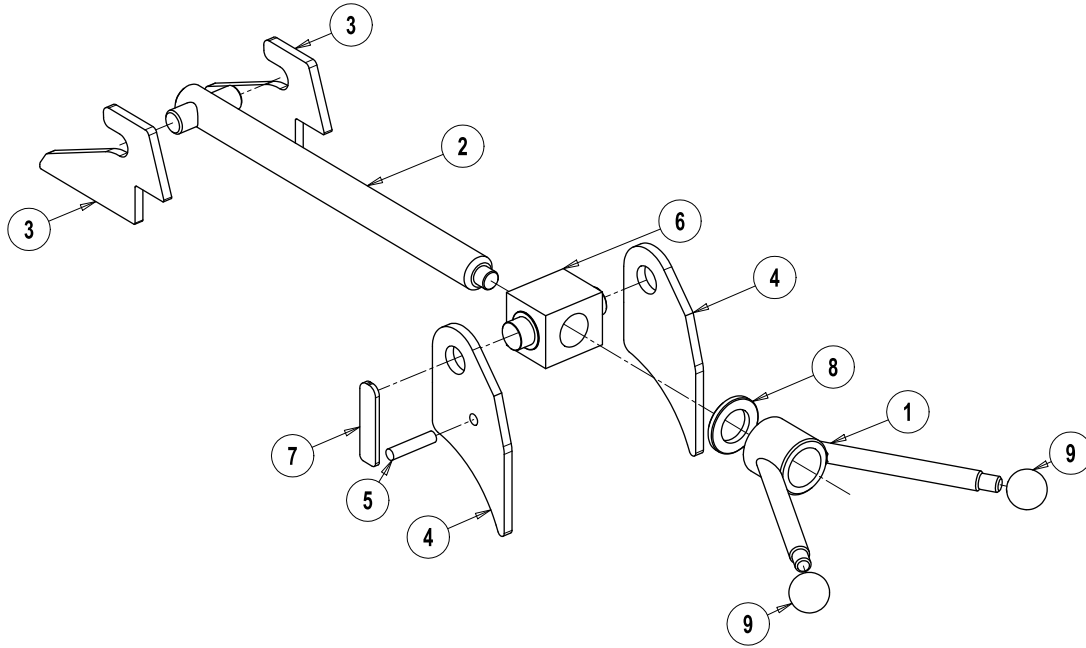


To allow for easy manual activation of the clamps, during installation, it is important to leave enough space to turn the hand wheel and unlock/remove the tie rod

4. Greasing

To operate correctly, the manual hand wheel clamp must undergo routine maintenance/lubrication of the threaded part of the tie rod and of the hand wheel. Grease when needed.

We recommend using **NLGI EP 2 lithium grease**.

MANUAL HAND WHEEL CLAMPS

Mild steel manual hand wheel clamp – code 18300 001 00

Pos.	Code	Description	Qty	Pos.	Code	Description	Qty
1	1505000200	GALV. HAND WHEEL CLAMP	1	6	1636000000	GALV. CLAMP OSCILL. STOPPER	1
2	1571000400	GALV. HAND WHEEL CLAMP TIE ROD	1	7	1681003500	TANK BOTTOM CLAMP PLATE	1
3	1613001800	FE510D TANK BOTTOM CLAMP SUPPORT	2	8	1685600000	NYLON TANK BOTTOM HAND WHEEL WAS.	1
4	1613001900	FE510D TANK BOTTOM CLAMP SUPPORT	2	9	4025510030	BALL KNOB D.50 M16	2
5	1622002100	TANK BOTTOM CLAMP PIN	1				

Stainless steel manual hand wheel clamp – code 18300 010 00

Pos.	Code	Description	Qty	Pos.	Code	Description	Qty
1	1505000200	GALV. HAND WHEEL CLAMP	1	6	1636000000	GALV. CLAMP OSCILL. STOPPER	1
2	1571000400	GALV. HAND WHEEL CLAMP TIE ROD	1	7	1681003500	TANK BOTTOM CLAMP PLATE	1
3	1613033500	HAND WHEEL CLAMP STAINLESS S. SUPP.	2	8	1685600000	NYLON TANK BOTTOM HAND WHEEL WAS.	1
4	1613033600	HAND WHEEL CLAMP STAINLESS S. SUPP.	2	9	4025510030	BALL KNOB D.50 M16	2
5	1622002100	TANK BOTTOM CLAMP PIN	1				