

LOADING STATION FOR LNG AND CRYOGENIC FLUIDS

Series 1803 CRYO



Liquid Transfer Srl

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The bottom loading station 1803 CRYO series is designed for the transfer of LNG and cryogenic fluids (ex: methane, hydrogen, nitrogen...), from cryogenic plants (skids) to cryogenic tank trucks. The station is made up of two arms with a wide range of action, to allow maximum coverage of the loading area. One arm is dedicated to the liquid phase and the other to the vapor phase. The high quality materials used for the insulation of the arms guarantees the safety of the operator during the transfer activity. All station components comply with cryogenic liquid design and transfer guidelines (OCIMF and UNI EN ISO).

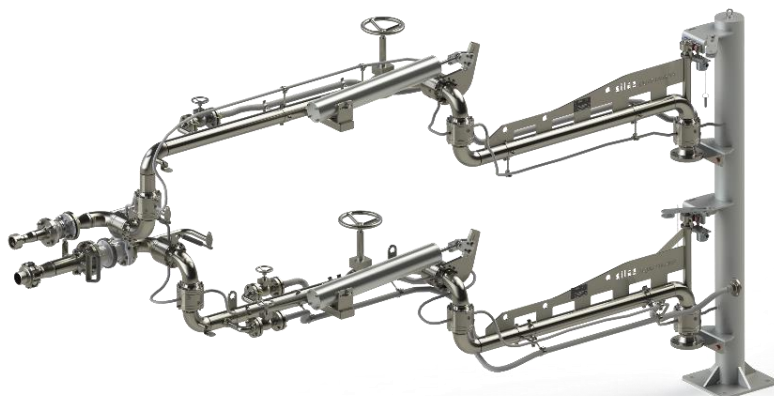
STANDARD CONFIGURATION

- **Bottom inlet flange ANSI 150**
- **Base swivel joint** (C879 - F-20 style): it handles the horizontal movement. It is made in AISI316 with a double row of ball bearings and white PTFE seals specifically designed.
- **Boom pipe IN AISI316**: it is used to extend the range of the loading arm.
- **Double swivel joint** (C879 - F-50 style): It is used for horizontal and vertical handling. It is made in AISI316 with two swivel joints with a double row of ball bearings and white PTFE seals specifically designed.
- **Balancing system with compressed spring piston**: It is used to balance the weight of the cantilever part of the loading arm.
- **Main pipe in AISI316**
- **ERC Emergency Release Valve PN40 flanged**: in AISI316 is used to avoid leakage of liquid or vapours in case of accidental departure of the truck during loading.
- **End double swivel joints** (C879 - F-50 style): this allows vertical and horizontal movement; it is equipped with a handle to facilitate the movement of the arm and two joints made in AISI316 with double row of ball bearings and white PTFE seals specifically designed.
- **Globe valve**: Body and plug in AISI316 with PTFE seals.
- **1" Drain and purge globe valve**: Made in AISI316 with PTFE seals it is used to depressurize the terminal part of the arm between the main globe valve and the tank connection.
- **Secondary balancing system of the end part with gas piston**.
- **Fitting end-connection made in brass**.
- **Stand-post**

Standard and Regulations

- Design guidelines :
 - OCIMF 3° Ed. 1999
 - OCIMF 4° Ed. 2019
 - UNI EN ISO 16904:2016
- Conformity Declaration of current Directive **PED** for Pressure Equipment
- Customs Declaration of certification for Russia, Kazakhstan, Belarus, **EAC certification**
- Standard **ASTM-ANSI-EN**

Technical features				
Nominal diameter		1 ½"	2"	3"
Fluid type		Cryogenic fluids		
Nominal flow rate	m³/h	18	50	80
	l/min	300	840	1380
Design temperature		-165°C / +65°C (*) (*): LNG		
Weight (kg)		100	120	140
Design pressure		18 bar		
Test pressure		21 bar		
Working pressure		6 bar		



Accessories

- Micro-switch globe valve
- Arm position Micro-switch (load or park)



Breakaway valve ERC.

- Top entry globe valve
- Left version
- Lateral inlet flange
- Inlet flange PN16
- Tank connection:

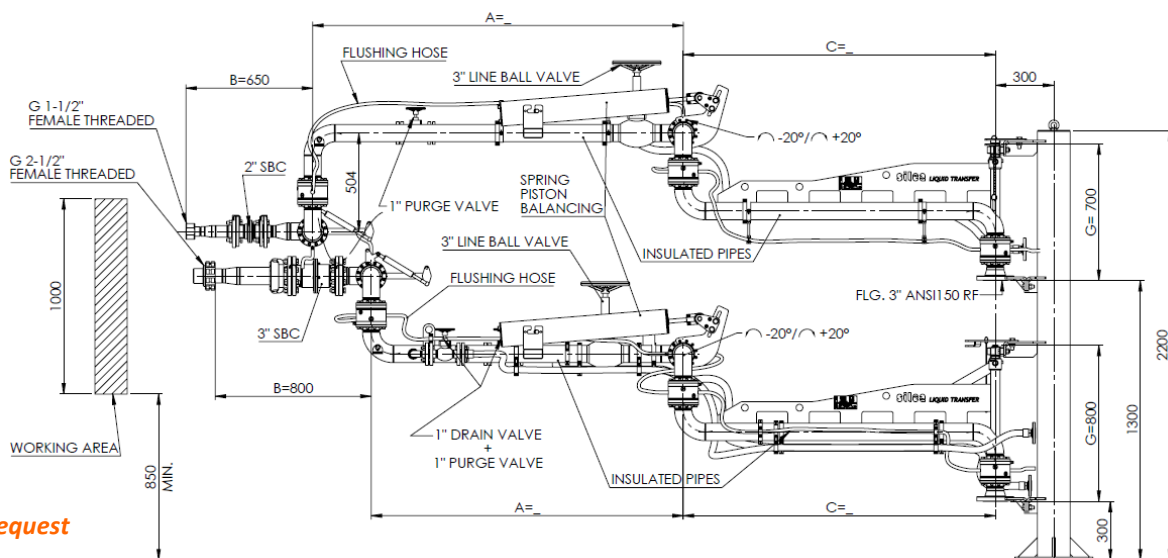
- Messer Union (compliance with directive EIGA)
- Stanag



Standard documentation

- Declaration of conformity to regulations
- Declaration of material conformities and functional test (CCC)
- Operation and maintenance manual (MUM)

Messer tank connection.



Documentation on request

➤ Welding book (WB):

- Welding map (WM)
- Welding qualification (PQR)
- Welding specifications (WPS)
- Welder qualification (WQ)
- Penetrant liquids test
- Radiographs of welding heads

➤ Materials specifications map (MIM):

- Certification 3.1 EN 10204 for steel

➤ Quality complete plan (QCP):

- Welding dossier (WB)
- Materials identification map (MIM)
- Manufacturing plan

Dimensions in mm

A = 1500-2000 (Std 1500-1800)

B = 650-1000 (Std 650)

C = 1000-1800 (Std 1500)

Dimensions can be customized.