LPG & INDUSTRIAL GASES LOADING STATION

Series 1803

Technical specifications

DOC: 1803_01_EN **REV:** 01-09/2017

silea Liquid Transfer Srl

MADE IN ITALY

The bottom loading station series 1803 is made by two series 1802 arm mounted on a stand-post, one arm is for the liquid phase and one for the vapour phase. The 1802 serie Bottom loading arms are designed to transfer LPG, Industrial Gases or pressurized liquids like Ammonia in closed circit system. The design allows a wide working area with a compact solution.

Standard configuration of the station

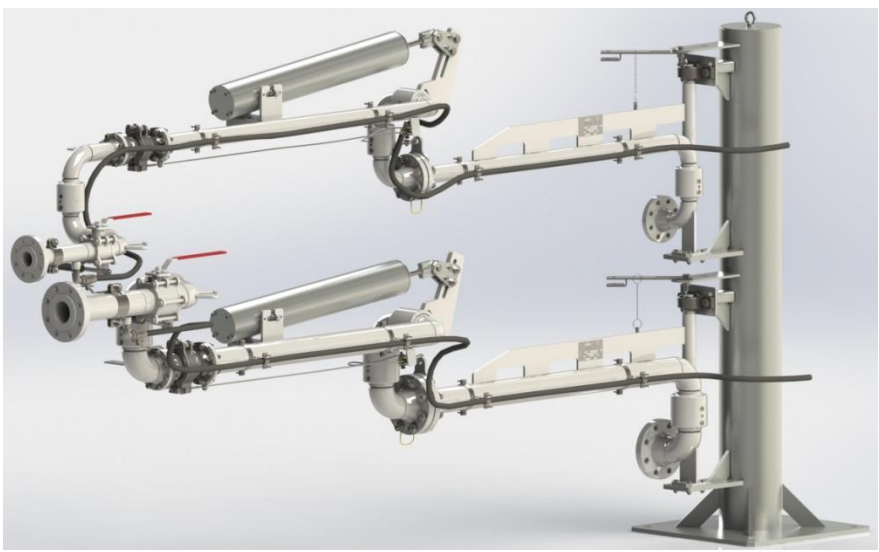
Each arm fixed on the stand-post is equipped as follows:

- **Right-hand layout, bottom inlet with connecting flange ANSI 300**
- **Base joint style F-20:** it handles the horizontal movement.
- **Boom pipe**: it is used to estend the range of the loading arm.
- **F-50 style Double swivel joint** : It is used for horizontal and vertical rotations. It's made with two carbon steel swivel joints with double row of ball bearings and NBR seals.
- **Balancing system with compressed spring piston**
- **Secondary Pipe:** high strength carbon steel.
- **ERC Emergency Release Valve (DN50-DN80)**: PN40 in AISI316 is used to avoid leakage of liquid or vapours in case of accidental departure of the truck during loading.
- **F-50 style end double swivel jonts:** this allows vertical and horizontal movement.
- **Ball valve in high strength steel**: carbon steel body, AISI304 Ball, seals in PTFE in ''Fire-safe'' execution.
- **½'' Drainage ball valve**: it is used depressurize the end of the arm between the ball valve and the tank coupler: carbon steel body, AISI304 Ball, seals in PTFE in ''Fire-safe'' execution.
- **Secondary balancing system of the end part with gas piston.**
- **Terminal connection with lap joint flange or ACME threaded coupler or Stanag coupler.**

Technical features				
Nominal diameter		1 ½"	2"	3"
Fluid type		LPG-Hydrocarbons		
Nominal flow rate	m^3/h	18	50	80
	l/min	300	840	1380
Design temperature		-25°C / +65°C		
Weight (kg)		100	120	140
Design pressure		25 bar		
Test pressure		40 bar		
Working pressure		10 bar		

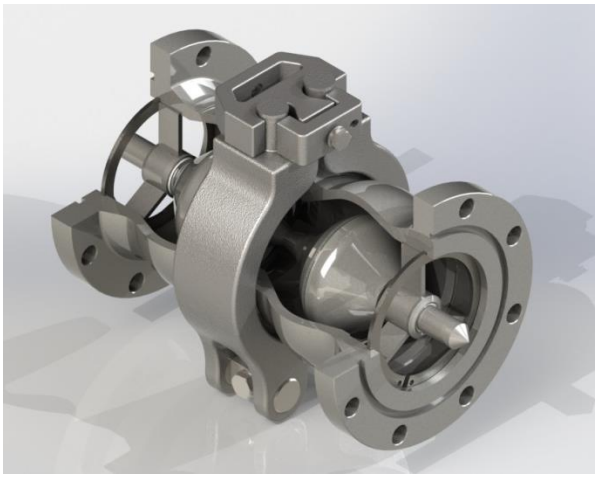
Standard and Regulations

- Conformity Declaration of current Directive **PED** for Pressure Equipment
- Conformity Declaration of current Directive **ATEX** for Equipment used in Potentially explosive atmospheres
- Conformity Declaration of current Directive **MACHINERY**
- Customs Declaration of certification for Russia, Kazakhstan, Belarus, **EAC certification**.
- Standard **API-ASTM-ANSI-TTMA.**



Accessories

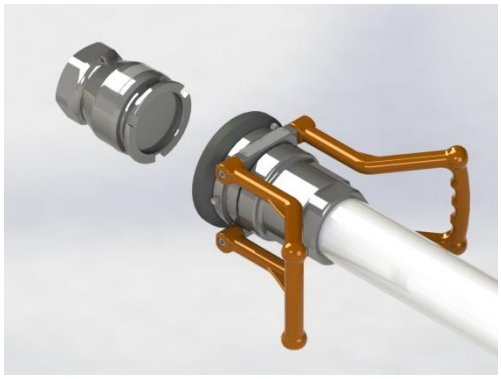
- **Ball valve position Micro-switch**
- **Arm position Micro-switch** (load or park)
- **½" drainage pipe**
- **Shock absorber for ERC**, to stress gradually the cable and avoid accidental breaking
- **Stand-post**



ERC Emergency Release Valve

Options upon request

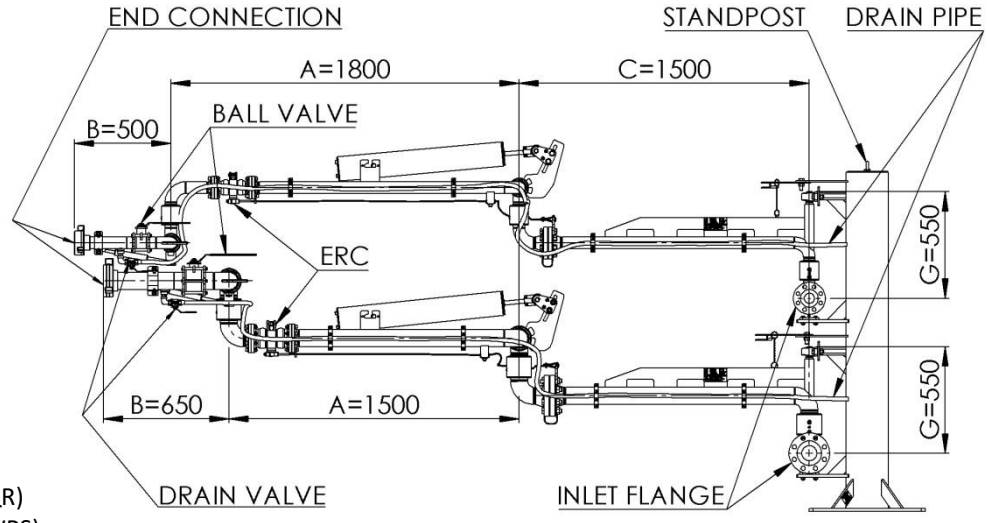
- **Arm material:** carbon steel for low temperature, stainless steel AISI304 or AISI316 with supply ball valve
- **Seals in HNBR, FKM, FFKM, EPDM, PTFE**
- **Left version**
- **Connecting flange PN40** or other standards
- **Test at 60 bar** for nominal pressure of 40 bar (PN40)
- **Split Type joint**: in 3 pieces for easy maintenance
- **Special configurations** for extreme temperatures (-60/+200 °C)
- **Terminal connections:**
  - **Quick dry-coupler Stanag 3756**
  - **ACME theaded coupler**
  - **NPT thread male or female**



Stanag 3756 dry-coupler

Standard documentation

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



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
  - Certification 2.2 EN 10204 for aluminium
- **Quality complete plan (QCP):**
  - Welding dossier (WB)
  - Materials identification map (MIM)
  - Manufacturing plan

Dimensions in mm

A = 1500-2500 (std 1800)
B = 650-1000 (std 650)
C = 1000-2000 (std 1500)

Dimensions can be customized.

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