

# LPG & INDUSTRIAL GASES LOADING ARM STATION

## Series 1803

### Technical specifications



The Silea Liquid Transfer 1803 serie is a loading station made of two serie 1802 arm fixed on a stand-post, one 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 circuit system. The design assures a wide working area with a compact solution.

#### Standard configuration of the station

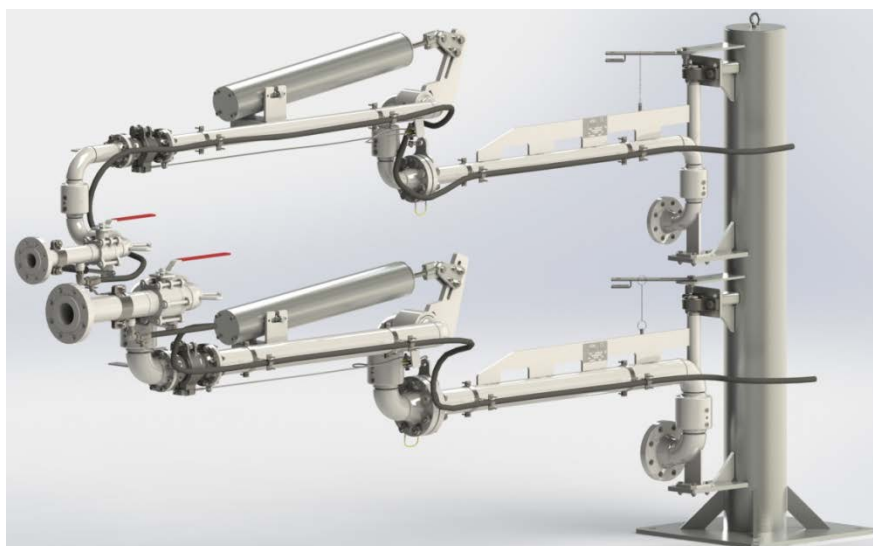
Each arm fixed on the stand-post is equipped as follows:

- **Right version, bottom flow with connecting flange ANSI 300**
- **Base joint style F-20:** it handles the horizontal movement.
- **Boom pipe:** it is used to extend the range of the loading arm
- **F-50 style Double swivel joint :** It is used for horizontal and vertical rotations. It is made with two carbon steel swivel joints with double row of ball bearings and NBR seals
- **Balancing system: torsion spring or 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 joints:** this allows vertical and horizontal movement during connection to the
- **Ball valve in high strength steel:** carbon steel body, AISI304 Ball, seals in PTFE in "Fire-save" 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-save" execution.
- **Secondary balancing system of the end part:** with gas piston
- **Terminal connection with swivel flange or ACME threaded coupler or Stanag coupler**

Technical features				
Nominal diameter	1 ½"	2"	3"	
Fluid type	LPG-Hydrocarbons			
Nominal flow rate	m <sup>3</sup> /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			

#### Laws and regulations

- **94/9/CE Directive, named ATEX.**
- **97/23/CE Directive, named PED.**
- Customs declaration for Russia, Kazakhstan, Belarus, **EAC certification.**
- Standard **API-ASTM-ANSI-TTMA.**



- 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

Options upon request

- **Arm material:** in high strength carbon steel steel or stainless steel AISI304 for low temperatures 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 threaded coupler
  - NPT thread male or female



ERC Emergency Release Valve



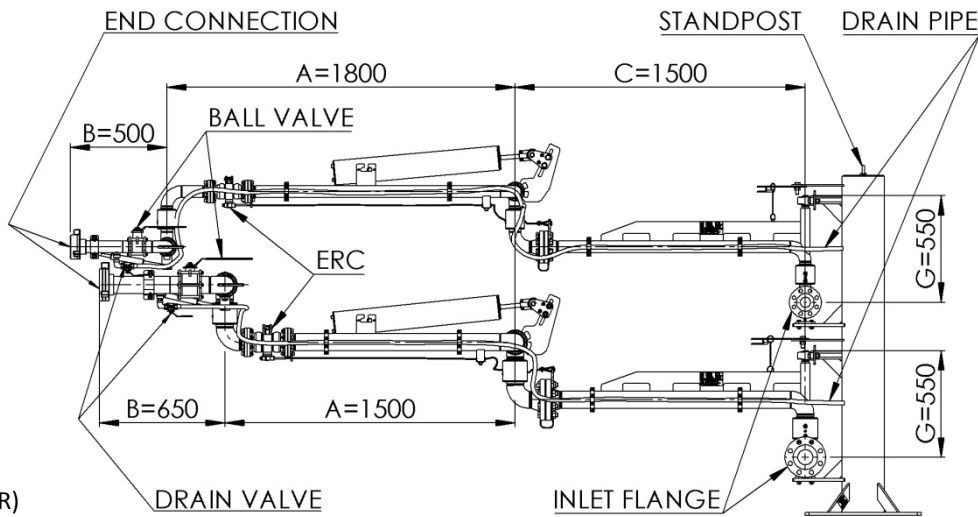
Stanag 3756 dry-coupler

Standard documentation

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

Documentation on request

- **Welding file (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 1500-1800)  
 B = 650-1000 (Std 650)  
 C = 1000-2000 (Std 1500)  
 Dimensions can be customized