

# RAIL TANK UNLOADING ARM

## Series 1701

### Technical Specifications



Liquid Transfer Srl

DOC: 1701\_01\_EN REV: 01-09/2017



The series 1701 bottom unloading arms are designed to unload rail tanks carrying hydrocarbons and other industrial liquids in Russia and ex USSR Republics. The series 1701 carries a specially designed unloading coupler that matches the bottom unloading valve of the railcar. The unloading arm is equipped with swivels that permits a flexible and wide working area to allow easy connection to the rail tank unloading valve.

#### Components (standard configuration)

- Right-hand layout, lateral inlet flow with ANSI 150 flange
- F-20 inlet swivel in carbon steel with HNBR seals for horizontal rotation
- Boom pipe in carbon steel which allows to extend the working area
- F-50 style double base swivel in carbon steel which allows the horizontal and vertical movement of the coupler
- Compressed spring piston balancing system
- Secondary Pipe made of aluminium alloy TTMA flanged
- F-40 style aluminium swivel with vertical rotation to allows connection of the coupler
- Special design coupler to match the Russian style Rail tank wagon's bottom loading valve



#### Technical specifications

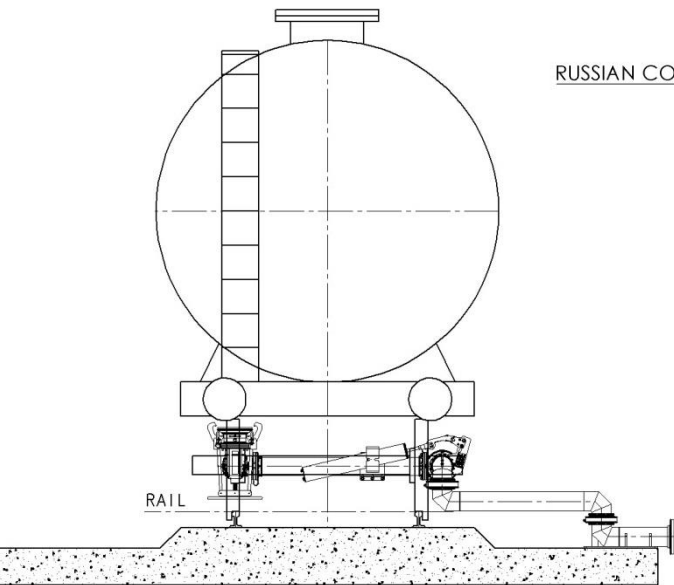
Diameter	3"	4"	6"
Type of liquids	Hydrocarbons		
Working area in meters	4 / 6		
Design temperature	-40°C / +65°C		
Weight (Kg)	130	160	300
Design pressure	6 bar		
Test pressure	9 bar		

#### Standards and Regulations

- 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**.

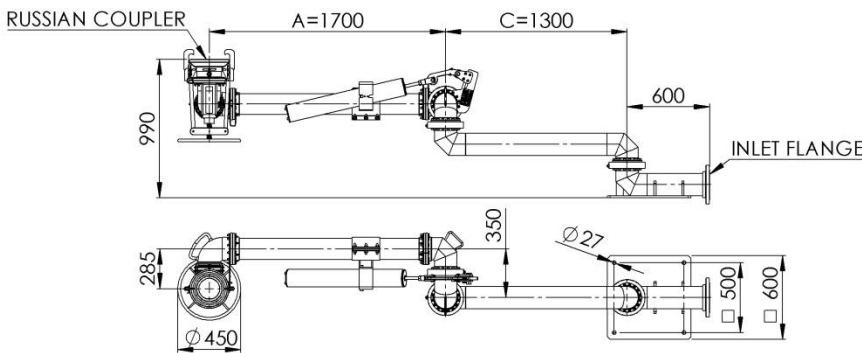
### Accessories

- Sightglass
- Unloading valve proximity switch
- Mechanical park
- Parking position switch
- Stand-post



### Options on request

- **Materials of construction:** low temperature carbon steel, 304 or 316 Stainless-steel
- **Seals in HNBR, FFKM, PTFE, FVMQ**
- **Left side inlet**
- **Bottom inlet**
- **PN16 inlet flange**
- **Steam jackets or Electrical tracing**
- **Split Tip swivels:** three piece simplified maintenance
- **Specisl configuration for extremely low temperatures** (-60/+200 °C)

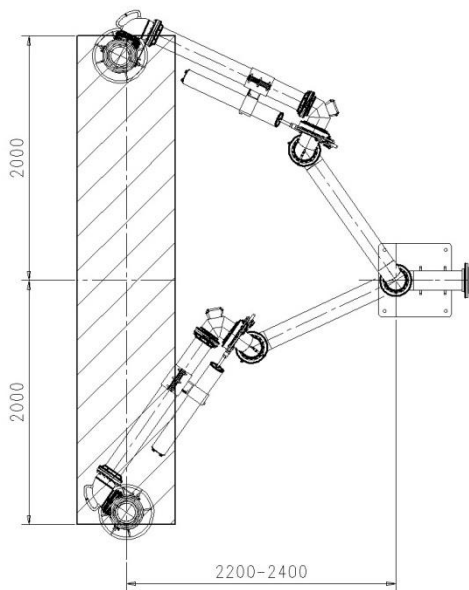


**Working area 4 mt**  
Dimensionis in mm

**A = 1700**  
**C = 1300**

**Working area 6 mt**  
Dimensionis in mm

**A = 2900**  
**C = 1500**



**4 mt Working area**

### 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