



## Bottom Loading Arm

Bottom Loading Arm is an articulated, self-supported pipeline, used to transfer fluids from stocking depots to road or railway tankers on the ground level which allows operating without special loading platforms and thus without additional construction costs.

All bottom loading arms of KOZ LOADING SOLUTIONS are thoroughly designed and tested to improve safety while operating, productivity gain and reduce operation costs.

We proudly offer broad choice of reliable and most ergonomic designs on the market.

High quality swivel joints and precise balancing of equipment provides easy work with just one operator.

For any type of transportation tasks – auto tanks, barrels or railway cars – KOZ LOADING SOLUTIONS is ready to provide our innovative bottom loading arms for any kind of liquids, from light oil to fluid chemicals and high viscosity products.

Designs, sizes, features and options can vary from standard set to tailor modification to meet all the requirements of customer.

### Series 1 – SINGLE DEVICE

This design used for bottom loading and unloading of road tanks and railway cars.

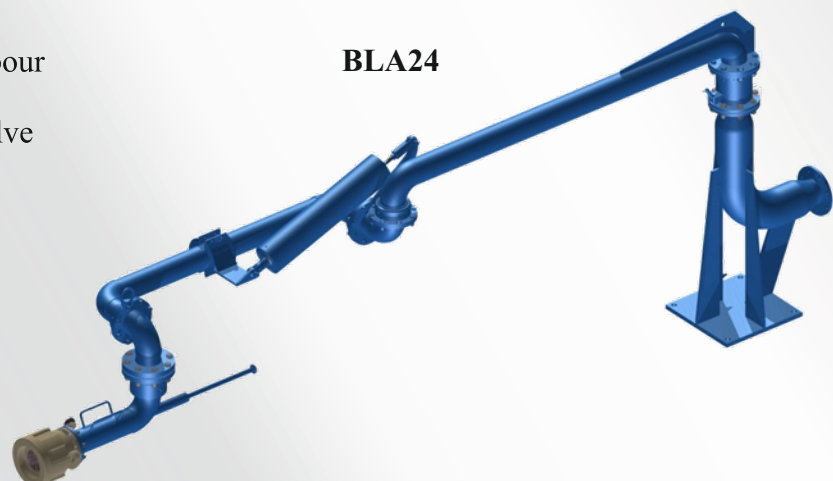
Equipment providing with 4" API muff (API 1004), self-supported pipeline and support rack. Widely apply in combination with metering unit.

### Options on request

- Size (pipeline): 2"(DN50), 3"(DN80),4"(DN100)
- Material (pipeline) : Carbon steel or Low Temperature Carbon steel/ Stainless steel
- Seal: NBR/PTFE/Special materials
- Temperature range: -60° C to +200° C
- Electrical heating
- Balancing system: counterweight or spring balancing cylinder

### Accessories

- Check valve
- Vapour recovery line, with vapour recovery coupler API RP1004
- ERC Dry-break emergency valve
- Flow indicator
- Mechanical park
- Stand-post





### Series 2 – SINGLE DEVICE WITH HOSE

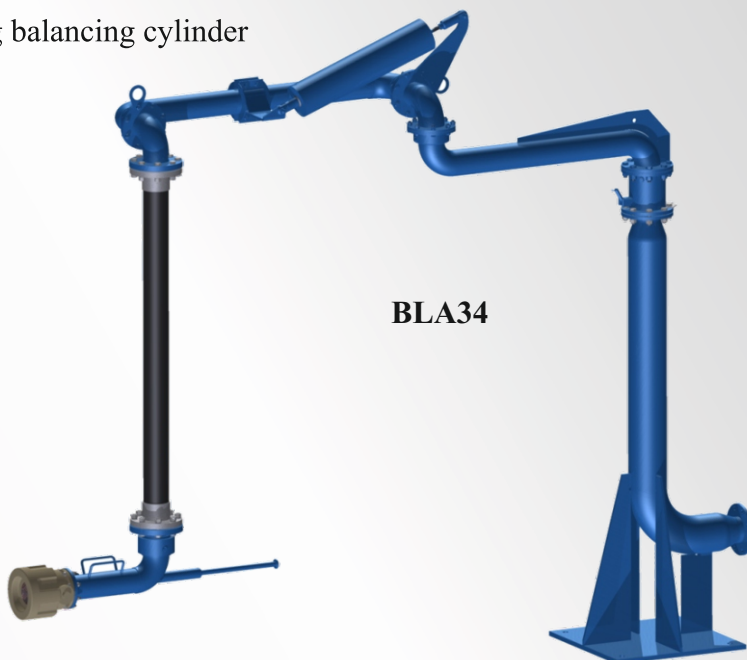
This bottom loading arm is designed on the base of our series 1 and additionally equipped with flexible hose for more comfortable connection to cistern and facilitate of manoeuvring.

#### Options on request

- Size (Pipeline): 2”(DN50), 3”(DN80) and 4”(DN100)
- Material (pipeline): Carbon steel/Low Temperature Carbon steel/ Stainless steel
- Seal: NBR/PTFE/Special materials
- Temperature range: -60° C to +200° C
- Electrical heating
- Balancing system: counterweight or spring balancing cylinder

#### Accessories

- Check valve
- Vapour recovery line, with vapour recovery coupler API RP1004
- ERC Dry-break emergency valve
- Flow indicator
- Mechanical park
- Stand-post



**BLA34**

### Series 3 – LOADING STATION

Our loading station can contain up to five pipelines and hoses for product and separate line for removal of vapours.

#### Options on request

- Size (pipeline): 2”(DN50), 3”(DN80) and 4”(DN100)
- Material (pipeline): Carbon steel/Low Temperature Carbon steel/ Stainless steel
- Seal: NBR/PTFE/Special materials
- Different pipes length
- Temperature range: -60° C to +200° C
- Electrical heating
- Balancing system: counterweight or spring balancing cylinder

#### Accessories

- Check valve
- Vapour recovery line, with vapour recovery coupler API RP1004
- ERC Dry-break emergency valve
- Flow indicator
- Mechanical park
- Stand-post



**BLA34-SS**



### Series 4 – TWO-PIPES DEVICE (FOR PRODUCTS UNDER PRESSURE, LOW DENSITY & TOXIC PRODUCTS)

This type of equipment is applicative for loading and unloading operations of road tanks and railway cisterns with products under pressure. Connection to cistern by special muffers or with flange connector.

This technique is necessary for liquids with low density (propane and butane for example) and for fluids with toxic and explosive vapours.

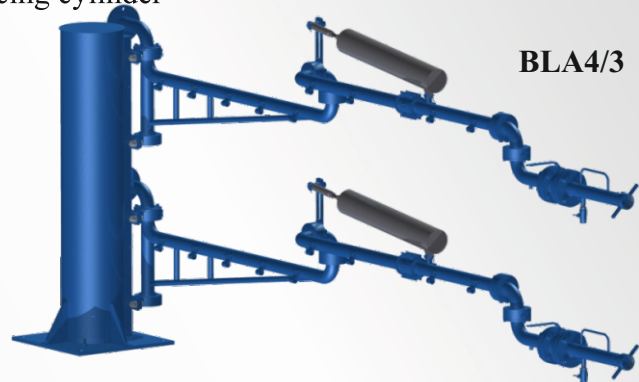
Process of loading/unloading goes with replacement of substance and exclude discharge of toxic and explosive vapours into atmosphere. Construction guarantee safety of operator and environment.

#### Options on request

- Size (pipeline): 2”(DN50), 3”(DN80) and 4”(DN100)
- Material (pipeline): Carbon steel/Low Temperature Carbon steel/ Stainless steel
- Seal: NBR/PTFE/Special materials
- Different pipes length
- Temperature range: -60° C to +200° C
- Electrical heating
- Balancing system: counterweight or spring balancing cylinder

#### Accessories

- Check valve
- Vapour recovery line, with vapor recovery coupler API RP1004
- ERC Dry-break emergency valve
- Flow indicator
- Mechanical park
- Stand-post
- Tanker connection depending on customer needs

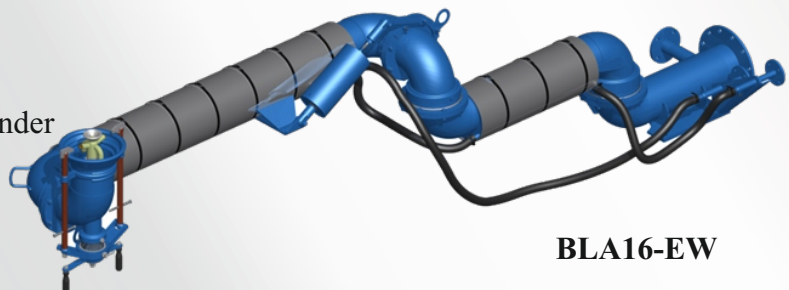
**BLA4/3**

### Series 5 - FOR RUSSIAN RAILCARS

Specially designed bottom loading arm applicative under requirements of Russian Railways. Loading/unloading of light oil, liquid chemicals and high viscosity products into/from rail tanks. Special muffer for connecting with cisterns under Russian standard. Variety of configurations on demand of customer.

#### Options on request

- Size (pipeline): 4”(DN100), 6”(DN150), 7”(DN175) and 8”(DN200)
- Material (pipeline): Carbon Steel/Low Temperature Carbon steel/ Stainless steel/ Aluminum.
- Seal: NBR/PTFE/Special materials
- Temperature range: -60°C to +200°C
- Electrical or steam heating
- Flushing device for viscous products
- Balancing system – spring balancing cylinder

**BLA16-EW**