TheGAW industries

TRUCK & RAIL LOADING/UNLOADING ARMS

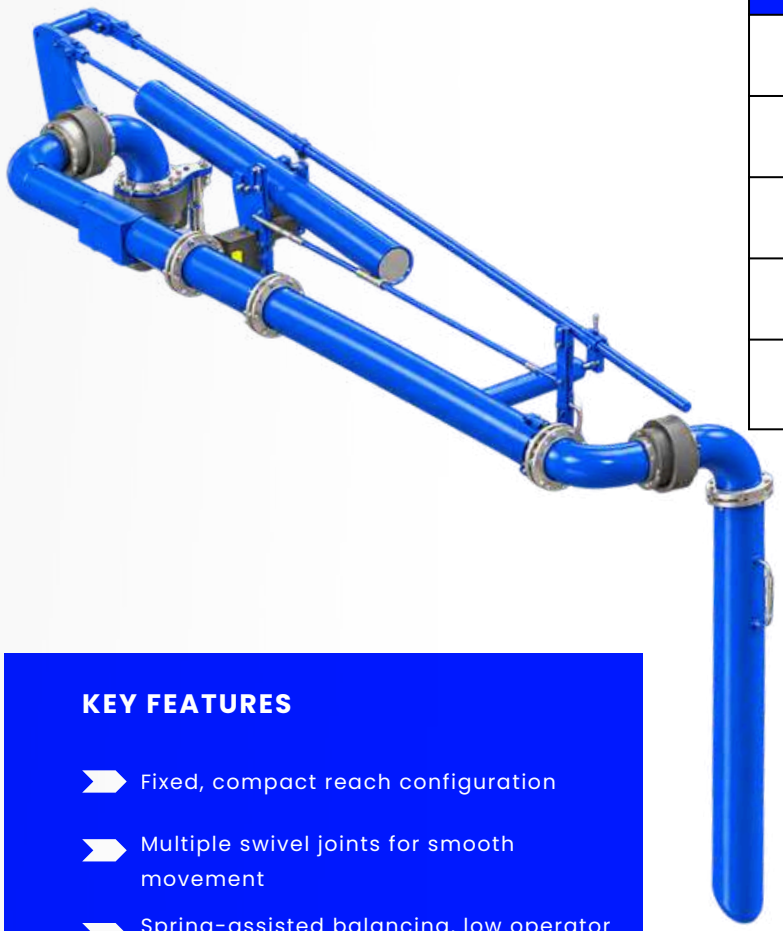


TOP LOADING ARM

FIXED REACH TYPE

Fixed-reach top loading arm designed for safe and efficient transfer of liquid products into road tankers.

Its articulated design with swivel joints and spring-assisted balancing provides smooth, easy operation and reliable positioning during loading.



Primary Arm x Drop Tube	Material Construction	Model No.
72" x 48"	Carbon Steel / PTFE	TGI-TF100-CS01
84" x 48"	Aluminium / PTFE	TGI-TF100-AL02
108" x 60"	SS304 / PTFE	TGI-TF100-S303
84" x 60"	SS316 / FKM	TGI-TF100-S604
108" x 69"	SS316L / Low-Temp FKM	TGI-TF100-SL05

KEY FEATURES

- Fixed, compact reach configuration
- Multiple swivel joints for smooth movement
- Spring-assisted balancing, low operator effort
- End loading valve with linkage
- Vacuum breaker available on request
- Vapour recovery and grounding ready

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel / Aluminium
Optional	SS304/SS316 / SS316L

LOADING VALVE	
Standard	End Loading Valve with Linkage Vacuum Breaker available as required

OPTIONS / ACCESSORIES

- Parking Lock
- Drip Bucket
- Filling Lock
- Level Detection
- Position Detection
- Vapour Recovery Cone
- Grounding System

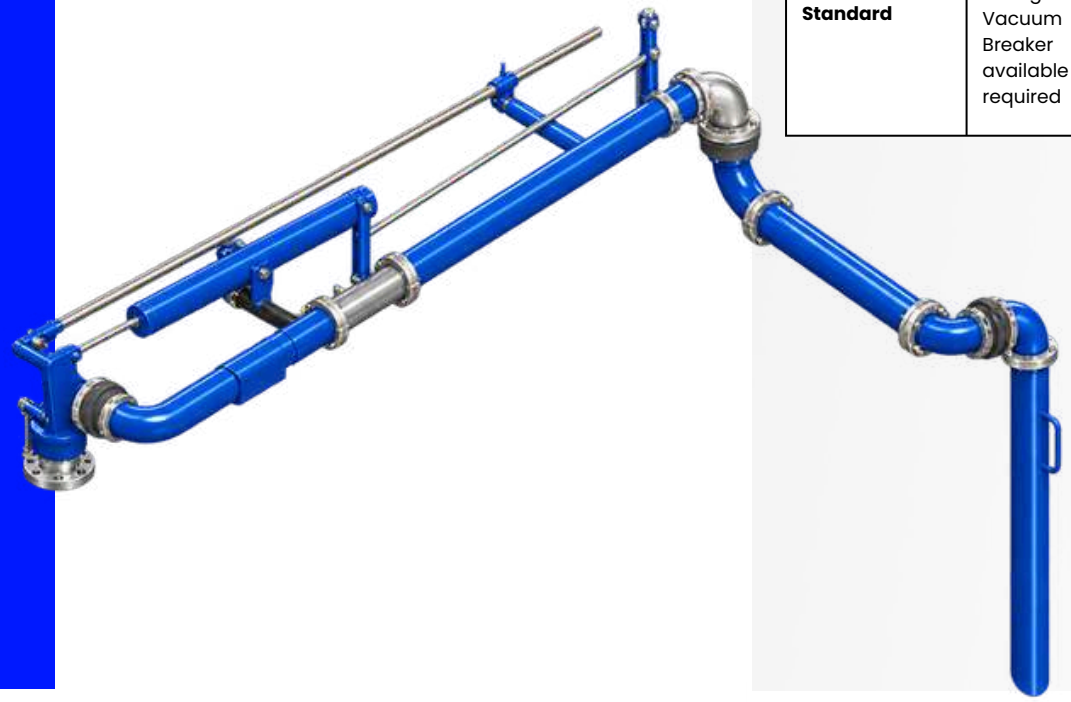
VARIABLE REACH TYPE

The variable-reach top loading arm is designed for safe, efficient, and flexible loading of liquid products into road tankers. Multiple swivel joints and a compression-spring balancing system support smooth, controlled movement in both horizontal and vertical directions.

The variable-reach configuration provides an extended operating envelope, allowing the arm to suit different tanker filling positions and loading arrangements. It can be supplied with an end-loading valve and compatible accessories for reliable top loading applications.

KEY FEATURES

- Variable horizontal and vertical reach
- Smooth articulated movement through swivel joints
- Spring-balanced operation for reduced manual effort
- Suitable for different tanker loading configurations
- Robust construction for terminal and petroleum applications
- Compatible with vapour recovery and grounding systems



Primary Arm x Drop Tube	Material Construction	Model No.
71" x 47"	Carbon Steel / PTFE	TGI-TV200-CS01
90" x 55"	Aluminium / PTFE	TGI-TV200-AL02
110" x 63"	SS304 / PTFE	TGI-TV200-S303
125" x 71"	SS316 / FKM	TGI-TV200-S604
138" x 79"	SS316L / Low-Temp FKM	TGI-TV200-SL05

LOADING VALVE	
Standard	End Loading Valve with Linkage Vacuum Breaker available as required

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel / Aluminium
Optional	SS304/SS316 / SS316L

OPTIONS / ACCESSORIES

- Parking Lock
- Drip Bucket
- Filling Lock
- Level Detection
- Position Detection
- Vapour Recovery Cone
- Grounding System

LONG REACH TYPE SUPPORTED

The long-reach supported top loading arm is designed for safe and efficient transfer of liquid products into road tankers where an extended working envelope is required.

The supported boom arrangement provides additional stability for longer reaches and heavier outboard components, while the spring-assisted balancing system reduces operating effort and enables smooth movement throughout the working range.

KEY FEATURES

- Long horizontal reach
- Supported boom arrangement
- Suitable for heavier outboard components
- Smooth operation through multiple swivel joints
- Spring-assisted balancing
- Wide operating envelope
- Suitable for different tanker loading positions
- Compact parking/storage position



Primary Arm x Secondary Arm x Drop Tube	Material Construction	Model No.
71" x 71" x 39"	Carbon Steel / PTFE	TGI-TL400-CS01
85" x 90" x 49"	Aluminium / PTFE	TGI-TL400-AL02
95" x 110" x 59"	SS304 / PTFE	TGI-TL400-S303
105" x 125" x 69"	SS316 / FKM	TGI-TL400-S604
118" x 138" x 79"	SS316L / Low-Temp FKM	TGI-TL400-SL05

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel / Aluminium
Optional	SS304/SS316 / SS316L

OPTIONS / ACCESSORIES

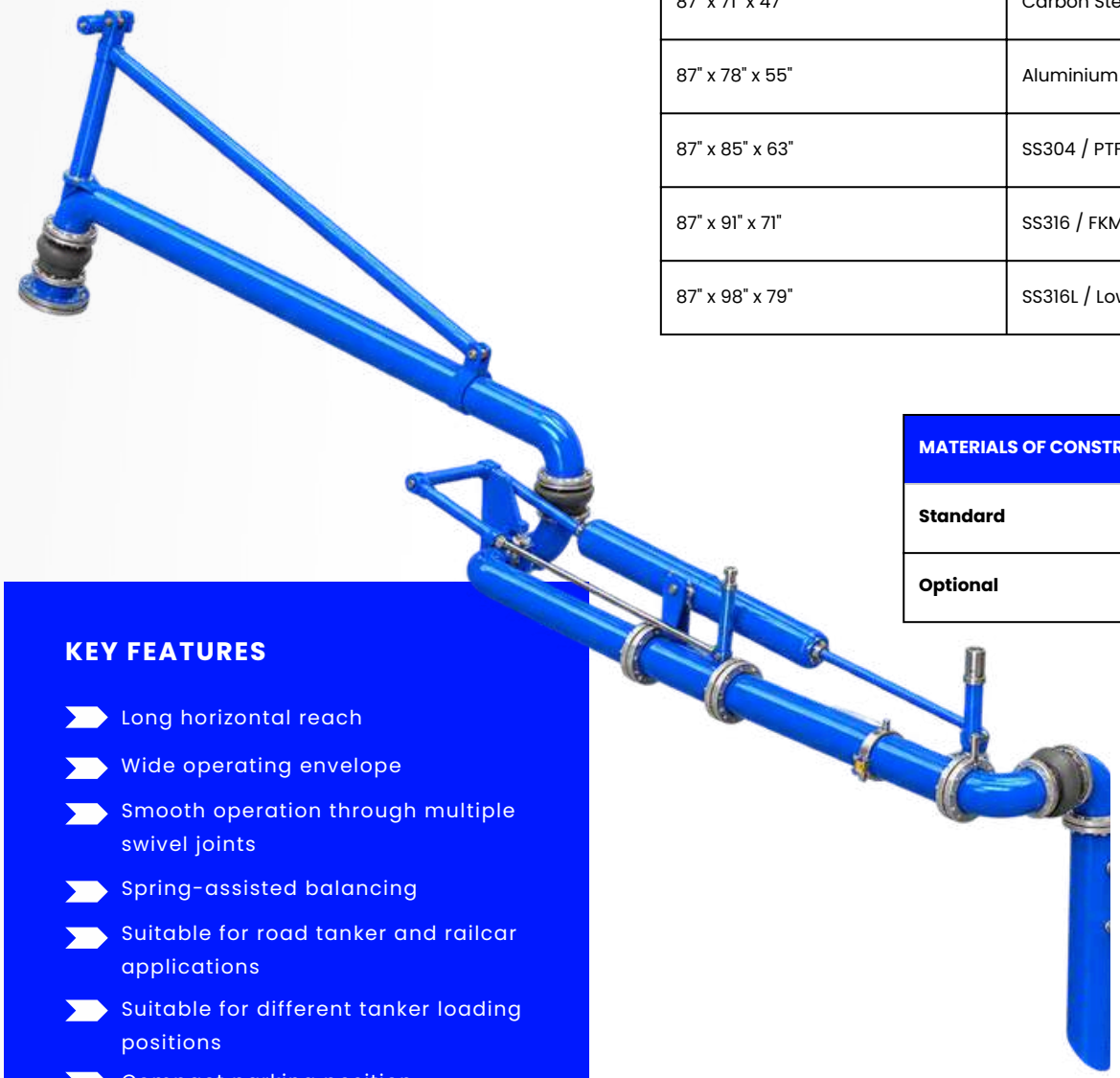
- Parking Lock
- Drip Bucket
- Filling Lock
- Level Detection
- Position Detection
- Vapour Recovery Cone
- Grounding System

LONG REACH TYPE UNSUPPORTED

The long-reach unsupported top loading arm is designed for safe, efficient, and flexible transfer of liquid products into road tankers where extended reach and manoeuvrability are required.

Multiple swivel joints and a spring-assisted balancing system provide smooth, controlled operation across a wide working range. The unsupported boom configuration helps accommodate different tanker loading positions where the manhole cannot be accurately positioned.

When not in use, the arm can be returned to a compact parking position, helping keep the loading bay clear and orderly.



Primary Arm x Secondary Arm x Drop Tube	Material Construction	Model No.
87" x 71" x 47"	Carbon Steel / PTFE	TGI-TL300-CS01
87" x 78" x 55"	Aluminium / PTFE	TGI-TL300-AL02
87" x 85" x 63"	SS304 / PTFE	TGI-TL300-S303
87" x 91" x 71"	SS316 / FKM	TGI-TL300-S604
87" x 98" x 79"	SS316L / Low-Temp FKM	TGI-TL400-SL05

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel
Optional	SS304/SS316 / SS316L

KEY FEATURES

- Long horizontal reach
- Wide operating envelope
- Smooth operation through multiple swivel joints
- Spring-assisted balancing
- Suitable for road tanker and railcar applications
- Suitable for different tanker loading positions
- Compact parking position

OPTIONS / ACCESSORIES

- Parking Lock
- Drip Bucket
- Filling Lock
- Level Detection
- Position Detection
- Vapour Recovery Cone
- Grounding System

A-FRAME TYPE

A-frame bottom loading arm designed for safe and efficient transfer of liquid products through the bottom connection of road tankers. The robust A-frame construction, swivel joints, and spring-assisted balancing system provide smooth and controlled movement for easy connection and operation.



Arm Length x Vertical Height x Connection	Material Construction	Model No.
59" x 71" x 12"	Carbon Steel / PTFE	TGI-BV100-CS01
69" x 83" x 15"	Carbon Steel / PTFE	TGI-BV100-AL02
79" x 94" x 18"	SS304 / PTFE	TGI-BV100-S303
89" x 106" x 21"	SS316 / FKM	TGI-BV100-S604
98" x 118" x 24"	SS316L / Low-Temp FKM	TGI-BV100-SL05

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel
Optional	SS304/ SS316 / SS316L

KEY FEATURES

- A-frame supported construction
- Suitable for bottom loading of road tankers
- Smooth operation through swivel joints
- Spring-assisted balancing for reduced operator effort
- Compatible with API bottom loading couplers
- Suitable for vapour recovery applications
- Grounding and safety accessories available

OPTIONS / ACCESSORIES

- API Bottom Loading Coupler
- Dry Disconnect Coupling
- Parking Lock
- Vapour Recovery Line
- Vapour Recovery Coupler
- Grounding System
- Breakaway Coupling

FIXED REACH

Fixed-reach bottom loading arm designed for safe and efficient transfer of liquid products into road tankers.

The articulated arm with swivel joints and spring-assisted balancing provides smooth operation, while the flexible hose and API coupler allow easy connection to the tanker bottom loading point.

Primary Arm x Vertical Drop x Connection x Hose	Material Construction	Model No.
59" x 47" x 12" x 39"	Carbon Steel / SS Braided Hose	TGI-BF200-CS01
69" x 55" x 15" x 47"	Carbon Steel / SS Braided Hose	TGI-BF200-AL02
79" x 63" x 18" x 55"	SS304 / Composite Hose	TGI-BF200-S303
89" x 71" x 21" x 63"	SS316 / Composite Hose	TGI-BF200-S604
98" x 79" x 24" x 71"	SS316L / Composite Hose	TGI-BF200-SL05

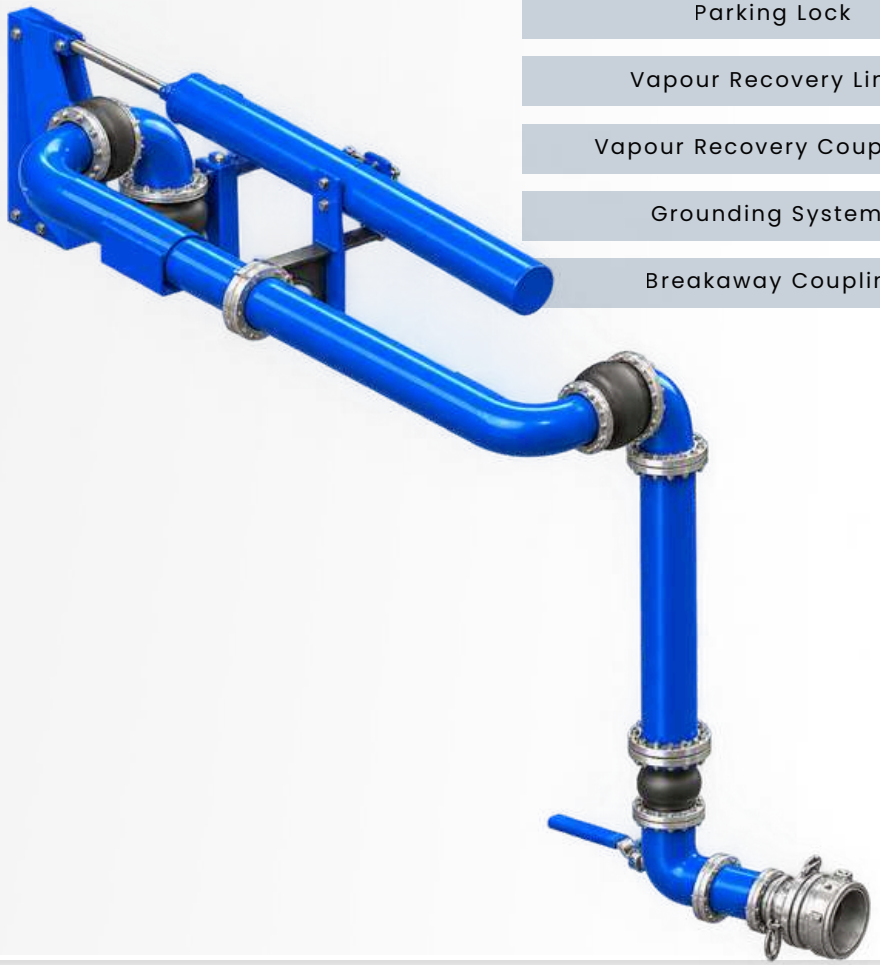
MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel
Optional	SS304/ SS316 / SS316L

KEY FEATURES

- Fixed-reach configuration
- Flexible hose for easy tanker connection
- Spring-assisted balancing for reduced operator effort
- Smooth movement through swivel joints
- API bottom loading coupler
- Compact and robust construction
- Suitable for vapour recovery applications
- Grounding and safety accessories available

OPTIONS / ACCESSORIES

- API Bottom Loading Coupler
- Dry Disconnect Coupling
- Parking Lock
- Vapour Recovery Line
- Vapour Recovery Coupler
- Grounding System
- Breakaway Coupling



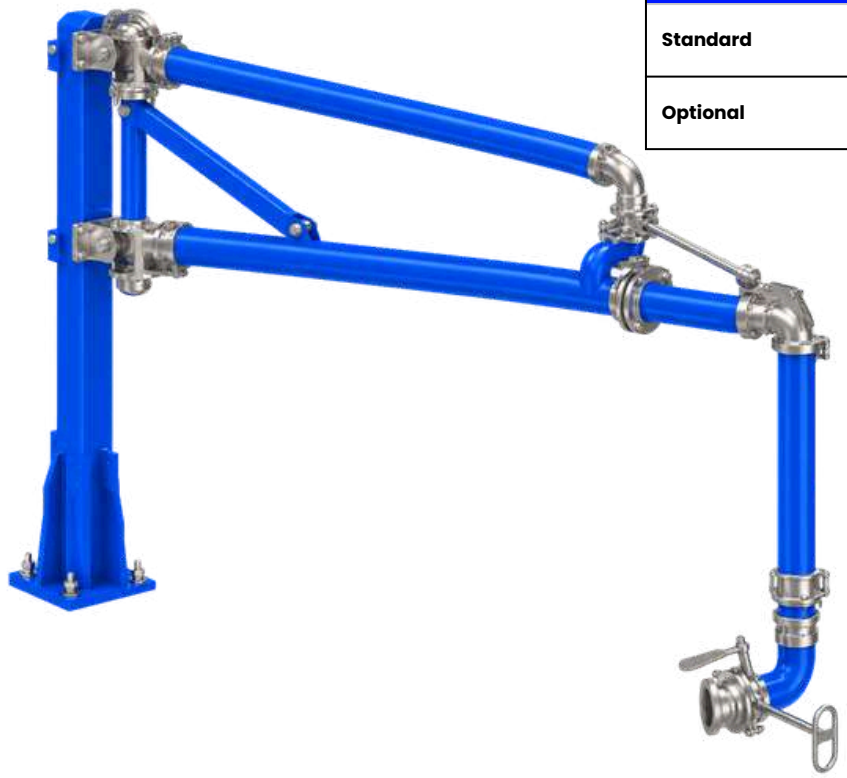
LONG REACH SUPPORTED

Long-reach supported bottom loading arm designed for safe and efficient transfer of liquid products into road tankers.

The multi-section articulated arm with swivel joints and spring-assisted balancing provides extended reach, smooth operation, and easy positioning for different tanker bottom-loading connections.

KEY FEATURES

- Long-reach supported configuration
- Multi-section articulated arm design
- Spring-assisted balancing for reduced operating effort
- Smooth movement through swivel joints
- Suitable for different tanker loading positions
- API bottom loading coupler
- Robust construction for terminal applications
- Vapour recovery and grounding options



Primary Arm x Secondary Arm x Connection	Material Construction	Model No.
71" x 71" x 12"	Carbon Steel / PTFE	TGI-BL300-CS01
83" x 77" x 15"	Carbon Steel / PTFE	TGI-BL300-AL02
94" x 83" x 18"	SS304 / PTFE	TGI-BL300-S303
106" x 89" x 21"	SS316 / FKM	TGI-BL300-S604
118" x 98" x 24"	SS316L / Low-Temp FKM	TGI-BL400-SL05

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel
Optional	SS304 / SS316 / SS316L

OPTIONS / ACCESSORIES

- Parking Adaptor
- Vapour Recovery Line
- Grounding System
- Isolation Valve
- Vapour Recovery Coupler
- Breakaway Coupling

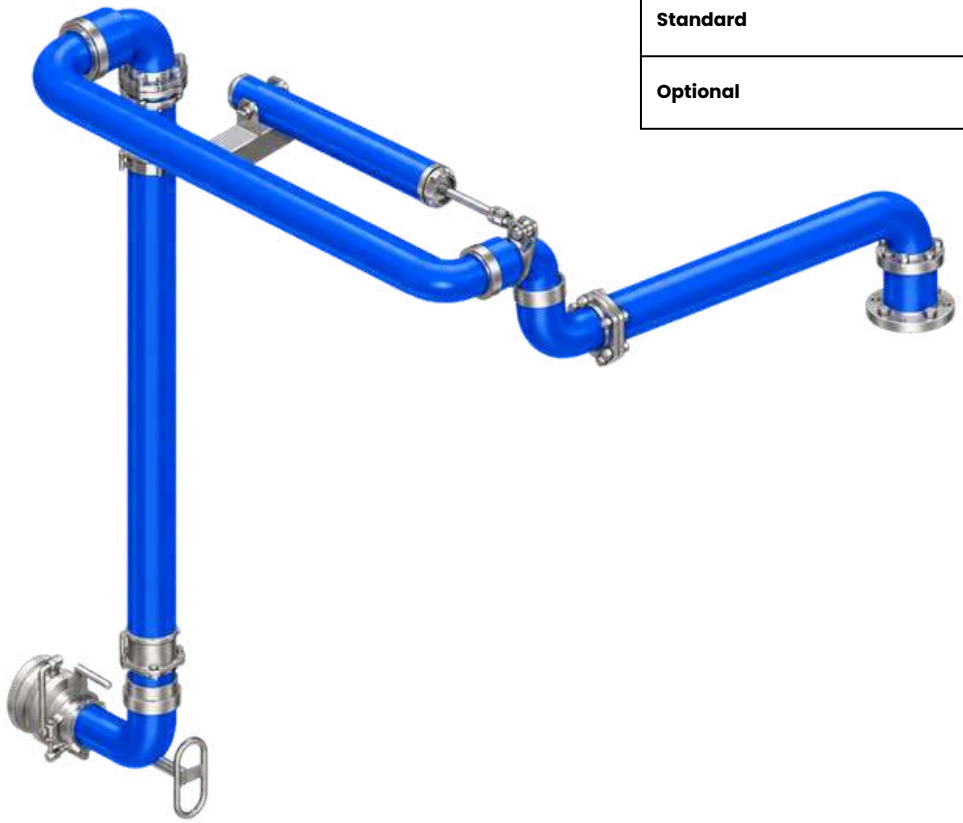
LONG REACH UNSUPPORTED

Long-reach unsupported bottom loading arm designed for safe and efficient transfer of liquid products into road tankers.

The articulated multi-section arm with swivel joints and spring-assisted balancing provides extended reach, smooth operation, and flexible positioning for different tanker bottom-loading connections.

KEY FEATURES

- Multi-section articulated arm design
- Spring-assisted balancing for reduced operating effort
- Smooth movement through swivel joints
- Suitable for different tanker loading positions
- API bottom loading coupler
- Robust construction for terminal applications
- Vapour recovery and grounding options



Primary Arm x Secondary Arm x Connection	Material Construction	Model No.
71" x 59" x 12"	Carbon Steel / PTFE	TGI-BL400-CS01
83" x 69" x 15"	Carbon Steel / PTFE	TGI-BL400-AL02
94" x 79" x 18"	SS304 / PTFE	TGI-BL400-S303
106" x 89" x 21"	SS316 / FKM	TGI-BL400-S604
118" x 98" x 24"	SS316L / Low-Temp FKM	TGI-BL400-SL05

MATERIALS OF CONSTRUCTION	
Standard	Carbon Steel
Optional	SS304 / SS316 / SS316L

OPTIONS / ACCESSORIES

- Parking Adaptor
- Vapour Recovery Line
- Grounding System
- Isolation Valve
- Vapour Recovery Coupler
- Breakaway Coupling

PROVIDE US YOUR REQUIREMENTS

WE'LL PROVIDE TAILORED SOLUTIONS THAT FIT YOUR NEEDS.

GENERAL INFORMATION

Project Name:	Contact Number:
Customer Name:	Contact Person:
RFQ Order Number:	Email:
Quantity:	Area of Classification:

APPLICATION DETAILS

1	Loading Arm Required For:			
	Road Tanker ☐	Rail Wagon ☐	Tank Container ☐	
2	Operation Type:			
	Top Loading ☐	Top Unloading ☐	Bottom Loading ☐	Bottom Unloading ☐
3	Operation Mode:			
	Manual ☐	Pneumatic ☐	Hydraulic ☐	
4	Layout:			
	Left Hand Side ☐	Right Hand Side ☐		

PROCESS PARAMETERS

1	Product:	
2	Density:	KG/M³
3	Viscosity:	CP
4	Flow Rate: (Normal / Max)	M³/HR
5	Design Pressure:	BAR(G)
6	Operating Pressure:	BAR(G)
7	Hydrotest Pressure:	BAR(G)
8	Design Temperature:	°C
9	Operating Temperature:	°C
10	Allowable Pressure Drop:	BAR(G)
11	Corrosion Allowance:	MM

LOADING ARM SPECIFICATIONS

1	Size of Product Arm:
2	Vapour ReturnLine: Yes ☐ No ☐ (SIZE:)
3	Pipe Size(Inlet /Arm): Class:
4	MOC: Jack Material: Yes ☐ No ☐ Size:
5	Seal Material : PTFE ☐ Viton ☐ Other:
6	Drop Pipe Material:
7	DropPipe Type: Fixed ☐ Telescopic ☐ Sealing Cone ☐
8	Heating tracing: Yes ☐ No ☐ Type: Steam ☐ ELectrical ☐
9	Insulation: Yes ☐ No ☐ Type:
10	Balancing: Spring Cylinder ☐ Counterweight ☐ Gasstruct ☐
11	Support Type: StandPost ☐ Other:

ACCESSORIES

1	Emergency Breakaway Coupler	☐	5	Dry Disconnect Coupling	☐	9	High Level Sensor	☐
2	Grounding Unit	☐	6	Drain / Vent Valve	☐	10	Vacuum Breaker	☐
3	Collection Bucket	☐	7	Drop Pipe Deflector	☐	11	Rest Position Switch	☐
4	Rest Position Sensor	☐	8	Filling Switch	☐	12	Filling Sensor	☐

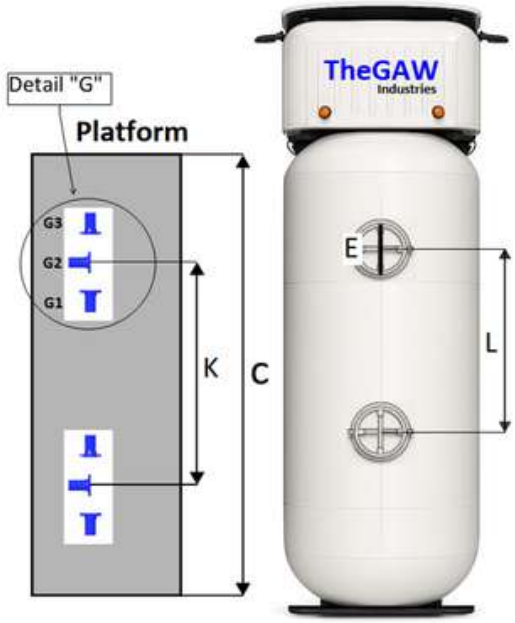
INSPECTION & TESTING REQUIREMENT

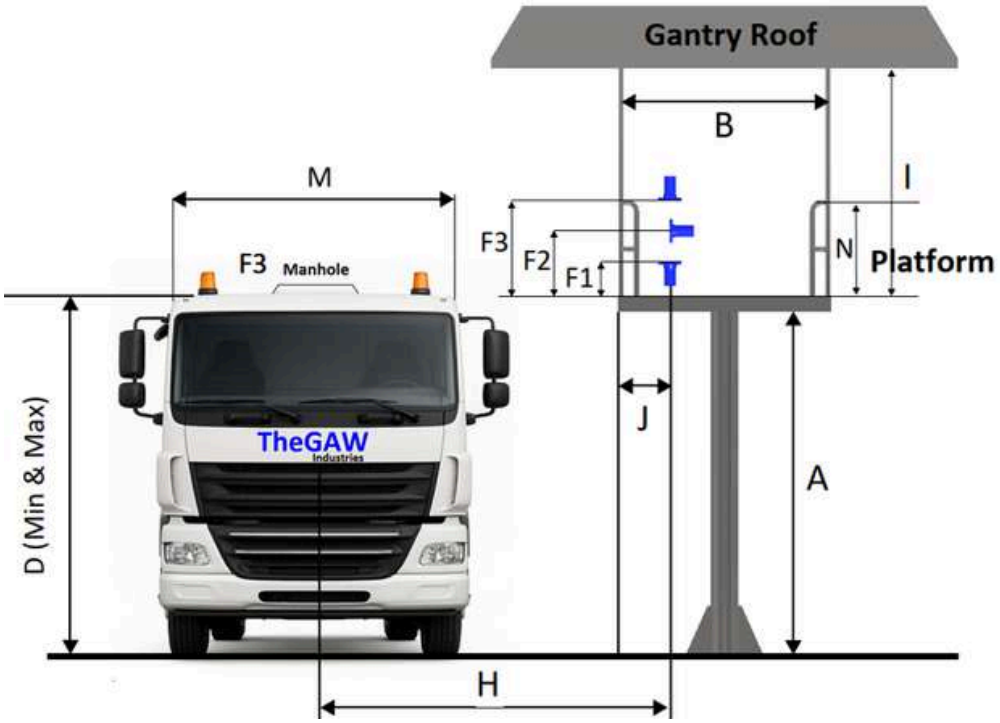
1	Radiography (Welding Test)	YES ☐ NO ☐ iF YES, (☐ 10% , ☐ 100% , ☐ OTHER _____ %)
2	Penetrant Test	

Special Requirement:

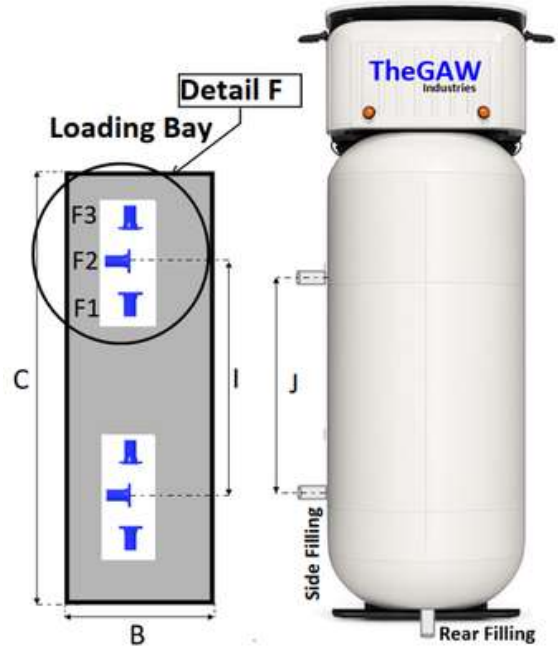


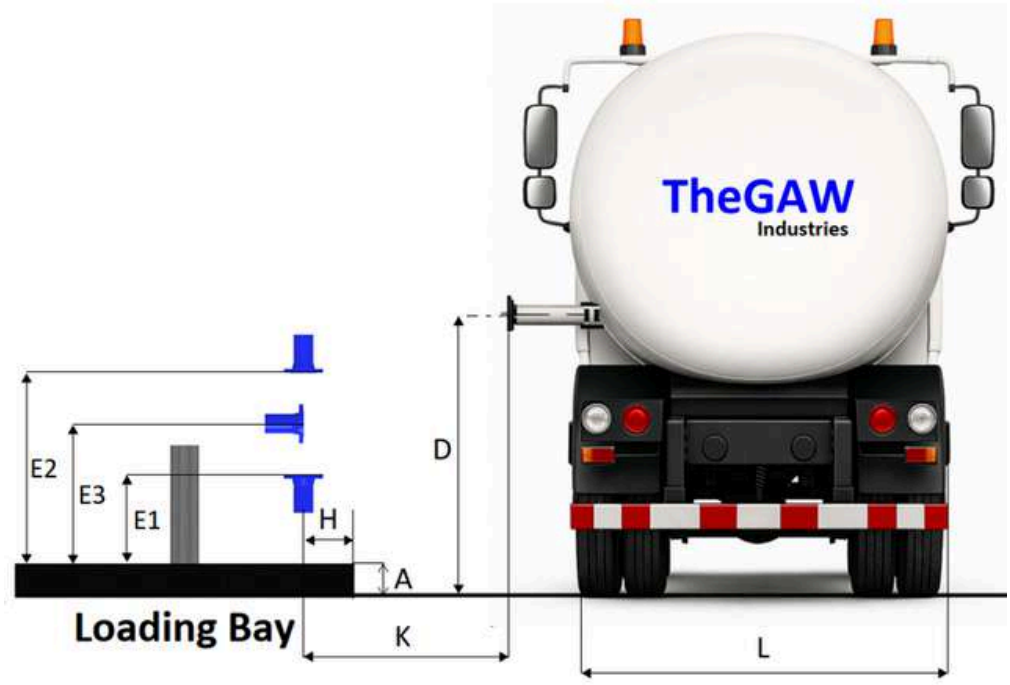
TOP LOADING:





BOTTOM LOADING:





TOP LOADING/UNLOADING ARM

**Kindly refer to the reference image provided before (page: 12)*

DIMENSIONS OF INSTALLATION	
1	Platform Elevation: A ____ mm
2	Platform Width: B ____ mm
3	Platform Length: C ____ mm
4	Tanker Height: D (Max) ____ mm / D (Min) ____ mm
5	Manhole Diameter: E (Max) ____ mm / E (Min) ____ mm
6	Distance: Top of the platform to inlet: F1(Bottom Feed) ____ mm F2 (Side Feed) ____ mm F3(Top Feed) ____ mm IF INLET ORIENTATAION IS SIDEWAYS, TICK THE APPROPIATE OPTION G1 ☐ G2 ☐ G3 ☐
7	Distance: Inlet to Tanker : H ____ mm
8	Distance: Platform to Roof: I ____ mm
9	Distance: Inlet to Platform Edge: J ____ mm
10	(For multiple loading arms & Tanker Manholes)
10 A	Number of Loading Arm per Bay/Platform: Distance: Inlet to Inlet: K ____ mm
10 B	Number of Manhole: ____ Distance: Manhole to Manhole: L ____ mm
11	Connection Type: Flanged ☐ Coupling ☐ NPS Size ____ Class ____
12	Drop End : Plain ☐ 45° Deflector ☐ Vapour Cone ☐ Other: ____
13	Width of the tanker: M ____ mm
14	Railing Height : N ____ mm

BOTTOM LOADING/UNLOADING ARM

**Kindly refer to the reference image provided before (page: 12)*

DIMENSIONS OF INSTALLATION	
1	Loading Bay Elevation: A ☐ mm
2	Loading Bay Width: B ☐ mm
3	Platf Loading Bay Length: C ☐ mm
4	Distance: Tanker Connection to Ground: D ☐ mm
5	Distance: Loading Bay to Inlet: F1(Bottom Feed) ☐ mm F2 (Side Feed) ☐ mm F3(Top Feed) ☐ mm IF INLET ORIENTATAION IS SIDEWAYS, TICK THE APPROPIATE OPTION F1 ☐ F2 ☐ F3 ☐
6	Distance: Inlet to Tanker connection: G ☐ mm
7	Distance: Inlet to Loading Bay: H ☐ mm
8	For multiple loading arms & Tanker Manholes
8 A	Number of Loading Arm per Platform/Bay: Distance: Inlet to Inlet: I ☐ mm
8 B	Number of Tanker Connection: Distance: : Between Tanker Connections: J ☐ mm
9	Connection Type: Flanged ☐ Coupling ☐ NPS Size ☐ Class ☐
10	Coupling: Type ☐ Size ☐ mm
11	Distance: Inlet to tanker side filling: K ☐ mm
12	Width of the tanker: L ☐ mm
13	Side Filling ☐ Rear Filling ☐

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