

LOW PROFILE LOADING ARM

Low profile arms can be used for loading or unloading (gravity or pumped) of rail and road tankers. Liquip's low profile arms are designed for use with standard fuels, aviation, oil and chemical products.

Low profile arms can load at flow rates of up to 2,500 litres per minute and are popular for large single compartment tanker loading and unloading such as railcars and aviation bridging tankers.

Liquip's low profile arms incorporate a minimum of five swivel planes of rotation offering complete flexibility and reach to suit a wide range of operational/loading envelopes.

Low Profile arms are designed to be installed at or near ground level and can be mounted on staggered risers to achieve crossover of multiple arms in a compact space.

Liquip can supply loading arm couplers that provide the connection between the tanker and loading arm that are compliant with API RP 1004.



Low Profile Loading Arm

Features and Benefits

- Versatile low profile design can connect within the standard API envelope, back of a vehicle or underside of a tank.
- Designed to provide long reach operation whilst being easy to operate/manoeuvre.
- Reduce trip hazardous by eliminating the need for hose on the ground.
- Compact and safe storage design provides clearance for vehicles and is ideal for where there is confined space limitations.
- Scissor back design means compact storage and no wasted space.
- Can be used in sites without a gantry structure in place.
- Available in a self draining design.
- Quick loading at flow rates of up to 2,500 LPM.
- Provides flexible long range movement.
- Suitable for gravity or pumped discharge of road and rail tankers, as well as for bottom loading.
- Swivel design accommodates changes in elevation or tilting.
- Uses Liquip's unique gas strut "Velvet Touch" technology
- Available in a range of materials to suit various fluid transfer applications.

Ordering Information

Loading arm survey forms are available for users to fill out. Survey forms detail all technical requirements for your loading arm needs. These forms can be downloaded once you login to the Liquip website.

Alternatively, you can contact Liquip to receive a loading arm survey form and discuss any specific requirements you may have.

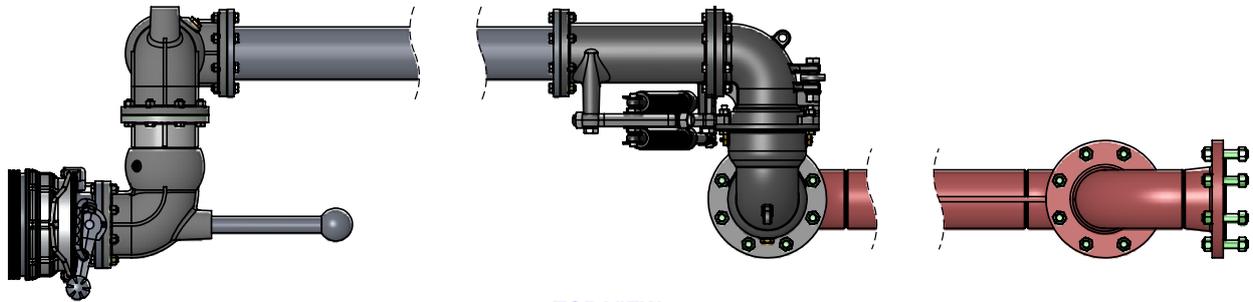
Associated Equipment

Riser Pipes	As Required	Drop Hose Covers	3576, 3577, 4683,4748
Balance Assembly	LBM800	Straight Swivels	VNS-A4, VNS-A4AVI
Gas Struts	4416 or 3008	Coupler Swivels	VNC-A4VG, VNC-A4AVI, VNC-A4DVG, VNC-A4T,
Horizontal Spool	LIQL219A Series	Spacer Spools	VSA4, VSS4
Intermediate Swivels	VNI-A4VG, VNI-A4AVI	Butterfly Valves	LBV450VGx
Drop Spools	LIQL229A Series or As Required.	Sightglasses	API-SG-150, BF4-SG-xxx
Drop Hoses	5639P	API/LYNX Series Coupler	LYNX85xxx, LYNX86xxx

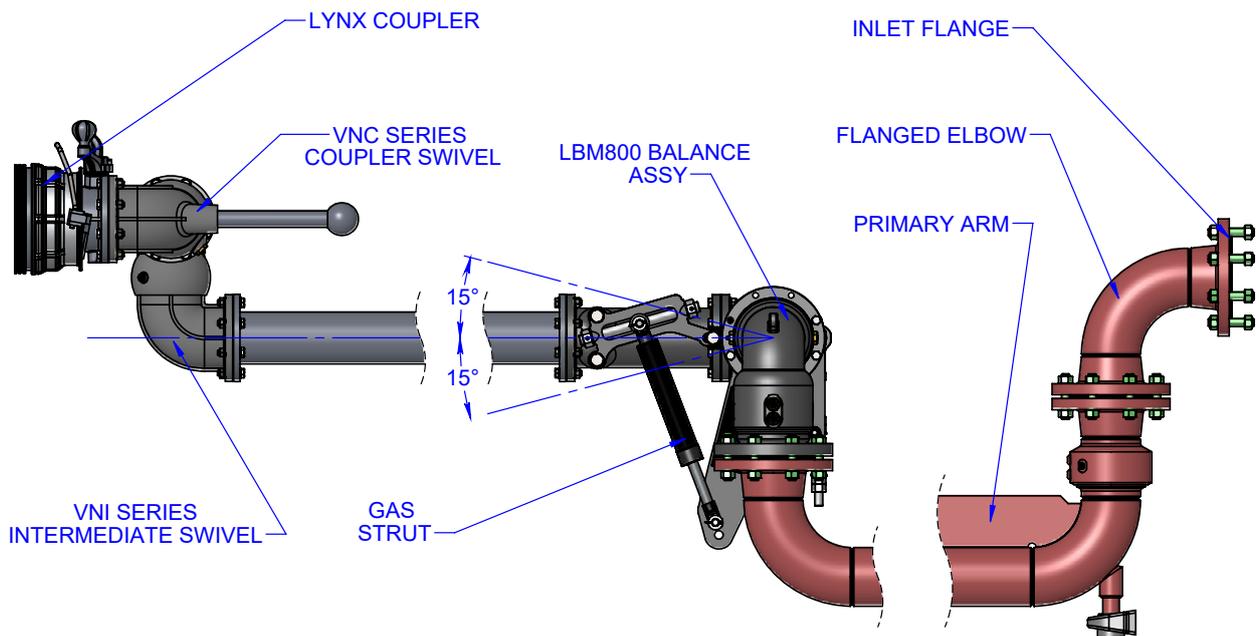
Technical Information - General Low Profile Loading Arm

Low Profile Loading Arm			
Materials	Carbon steel / Aluminium	End connections	Balance Mechanism Inlet - 4" (DN100) 150 lb ANSI RF flange. Outlet Coupling - API Coupler
Design Pressure	1,000 kPa.	Counter balance type	Single or Dual gas struts.
Test Pressure	1,500 kPa.	Maximum coupling pressure	517 kPa working.
Temperature limits	-28°C to +90°C (-18°F to +200°F) - GFLT seals.	Primary seal materials	Viton™ B70 or GFLT. (Others on request).
Range of motion	Horizontal 360°, Vertical +15° to -15°.	Dust seal material	Buna Nitrile or HAN. (Others on request).
Typical Low Profile Lengths	5 metres	Gasket material	Klingerite or Viton™ A. (Others on request).
		Standard Configuration	1.8m or 2m reach. See technical specifications.
		Typical no. of arms per bay	6

LOW PROFILE LOADING ARM TECHNICAL SPECIFICATIONS

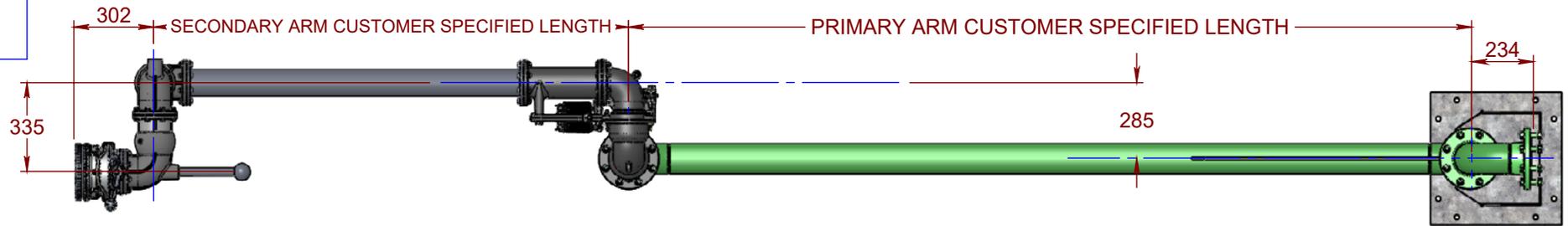
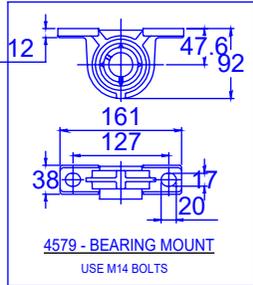


TOP VIEW

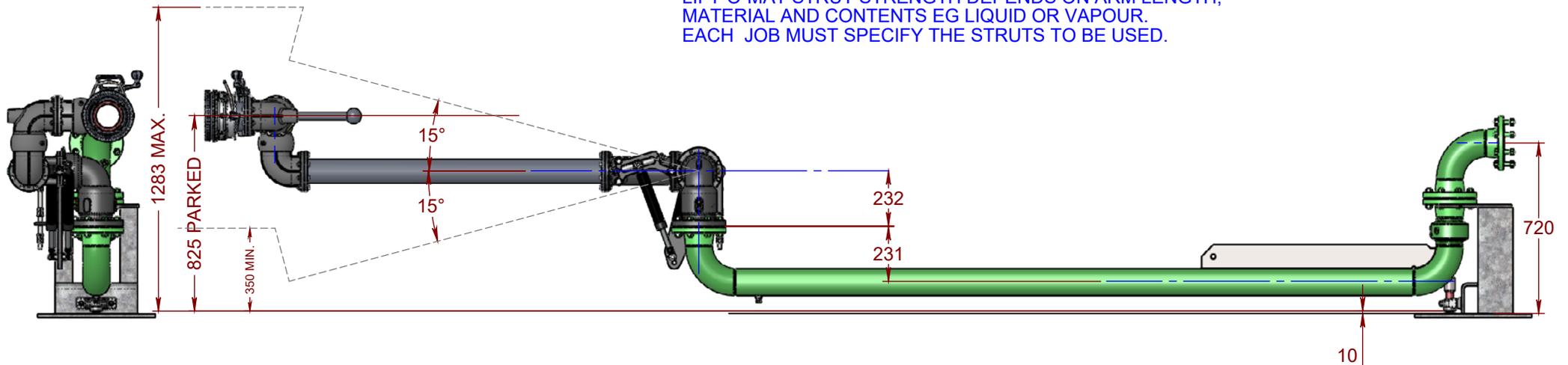


SIDE VIEW

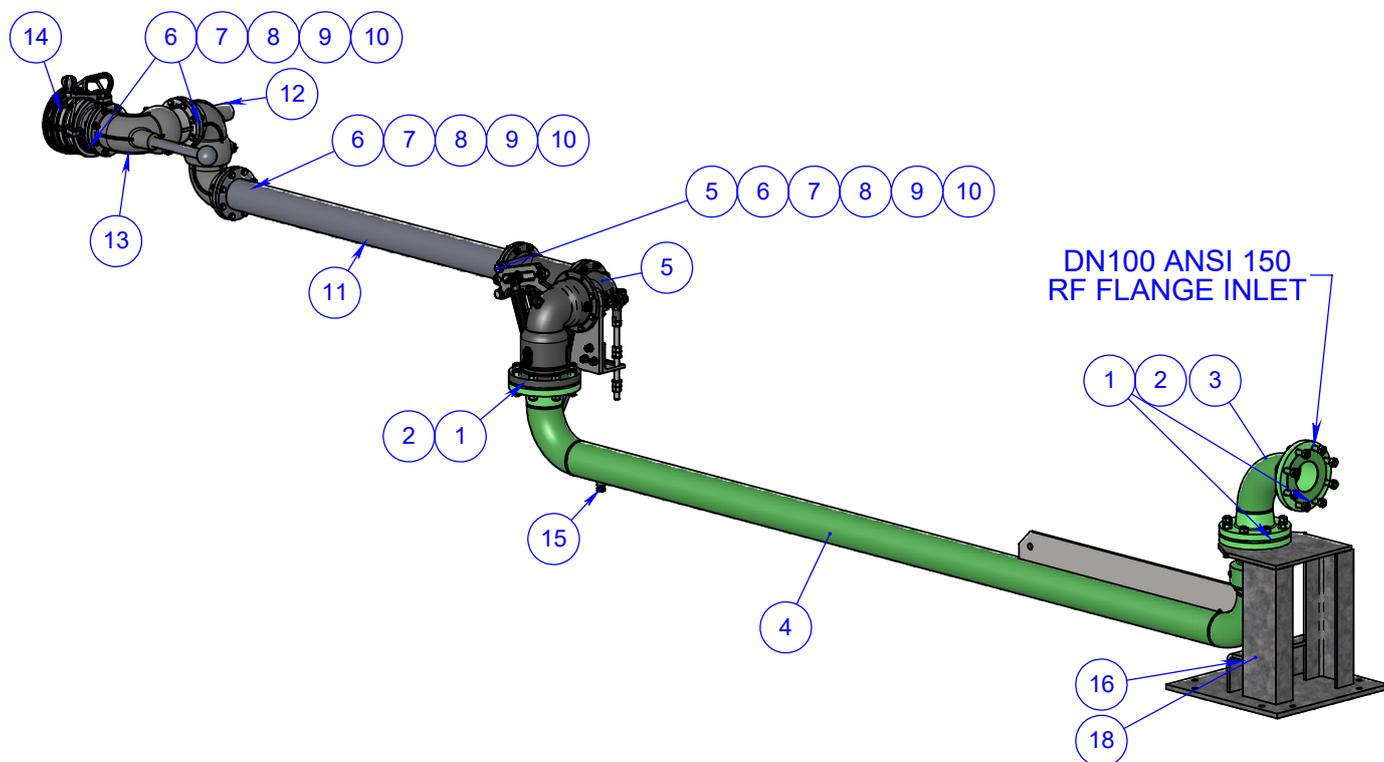
LOW PROFILE LOADING ARM TECHNICAL SPECIFICATIONS



NOTE:
ALL LOADING ARMS ARE INDIVIDUALLY DESIGNED
LIFT-O-MAT STRUT STRENGTH DEPENDS ON ARM LENGTH,
MATERIAL AND CONTENTS EG LIQUID OR VAPOUR.
EACH JOB MUST SPECIFY THE STRUTS TO BE USED.



LOW PROFILE LOADING ARM TECHNICAL SPECIFICATIONS



ITEM	PART No.	DESCRIPTION	QTY	MATERIAL	GRADE
1	4235	GASKET 4" ASME 150	3	KLINGERSIL	C4430
2	4892	STUD HI-TEMP WITH 2 x NUTS	24	Z/P STEEL	B7 & 2H
3	FIE100-L150WW	FLANGED INLET ELBOW	1	STEEL	A105 & A234 WPB
4	FABRICATE	PRIMARY ARM 100mm	1	STEEL	NOTES
5	LBM800	BALANCE MECHANISM	1	CAST STEEL	4130
6	4248	GASKET TTMA 100mm (4")	4	KLINGERSIL	C4430
7	6745	BOLT METRIC	32	Z/P STEEL	PC8.8
8	6744	NUT METRIC	32	Z/P STEEL	PC8
9	5261	WASHER SPRING	32	Z/P STEEL	250
10	5288	WASHER FLAT	64	Z/P STEEL	250
11	L219A-1280	HORIZONTAL SPOOL Ø101.6 x 6.35mm WALL	1	ALUMINIUM	6061-T6
12	VNI-A4VG	INTERMEDIATE SWIVEL	1	ALUMINIUM	AA601
13	VNC-A4VG	COUPLER SWIVEL 100mm TTMA	1	ALUMINIUM	AA601
14	LYNX850	API COUPLER	1	ALUMINIUM	AA601
15	0614	PLUG HEX HEAD	1	Z/P STEEL	350
16	4579Z	BEARING & BLOCK	1	IRON	DUCTILE
17	4416	LIFT-O-MAT STRUT 2800N	2	STEEL	-
18	USC100SR-1	WELDED SUPPORT COLUMN	1	GAL STEEL	300PLUS