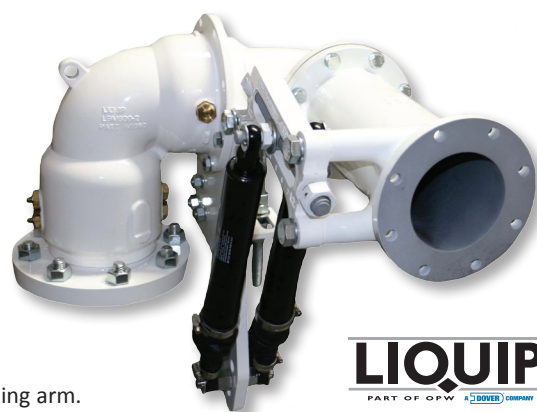


LBM800 Liquip Balance Mechanism

A new benchmark has been set for all bottom loading arms with the introduction of the LBM800. This state of the art design is essential when you require safety and long service life with minimal maintenance.

The 'bulletproof' LBM800 provides effortless bottom loading in petrochemical distribution depots through the use of the unique design known as the 'Velvet Touch'.

The ability of 360° rotation in the horizontal plane allows the LBM800 to easily move from a parked to loading position to service vehicles on either side of the loading bay. While the vertical plane swivel allows users to position the coupler at different heights within the API envelope.



LIQUIP
PART OF OPW A DOVER COMPANY

Key Features

- Velvet touch provides smooth operation over the entire stroke of the loading arm.
- Superior safety through Liquip's unique gas strut design.
- Exceptional durability and minimal servicing requirements thanks to the best in class base swivel assembly and overall design.
- Any unit can be easily configured for left hand, right hand, upward and downward configurations on site.
- Slimline drop leg bracket provides easy installation and compact overall size.
- Enhanced strength and ease of adjustment through a heavy duty adjustment mechanism.
- Downtime during installation is reduced by an all flanged design.
- Outlet spool provides an industry standard 4" TTMA connection for simple installation and allows for future applications.
- Adjustable up/down stop that can be set with minimal effort.
- Viton GFLT seals fitted as standard. Other seals to suit a range of products available on request.

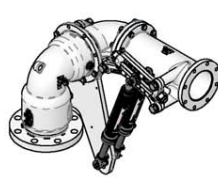
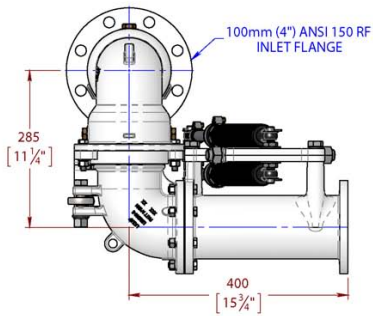
Adjustment or Service

- Force adjustment is provided through spool piece adjustment bracket.
- Three hole positions on the drop bracket provide angular adjustment.
- Balancing the arm is achieved by changing strut positions.
- Up/down stop is adjustable by changing position of the locking nuts on the rod.

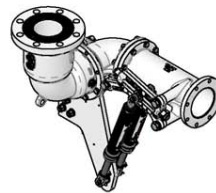
Specifications

Material	Investment cast 4130 steel construction
Seals	<ul style="list-style-type: none"> • Standard - Fitted with Viton GFLT seals. (Other special seals available on request) • Aviation - Fitted with Viton GFLT seals & grease suitable for use with aviation fuel.
Working Pressure	1000 kPa (145 PSI)
Test Pressure	1500 kPa (217 PSI)
Weight	60kg
Operating Temperature	-40°C to +60°C (-40°F to + 140°F)
Min Moment	90 kg.m (650 ft.lb)
Max Moment	250 kg.m (1800 ft.lb)
Up / Down Angular Movement	-15° to +15° (From horizontal)
Typical Horizontal Spacing	650mm (24")
Typical Vertical Spacing	450mm (18")
Typical Radius of arm	1300mm to 2000mm (50" to 80")
Typical No. of arms per bay	6
Installation & Maintenance	See LBM800 Fitting and Maintenance Instructions (P/N-59102).
Ordering Information	<ul style="list-style-type: none"> • LBM800 - Standard Balance Mechanism • LBM800AVI - Aviation Balance Mechanism • LBM800-1Z - LBM800 with 2 X 2800N Struts • LBM800-2Z - LBM800 with 2 X 5200N Struts • LBM800-3Z - LBM800 with 2800N&5200N Strut
Associated Equipment	<ul style="list-style-type: none"> • VNI-A4VG - 4" Intermediate Swivel, Viton GFLT for Loading Arm • VNC-A4VG - 4" Coupler Swivel, Viton GFLT for Loading Arms • API800 Series Coupler

LBM800 - Configuration & Dimensions



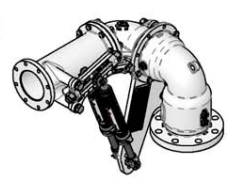
LEFT HAND
UPWARD FEED INLET



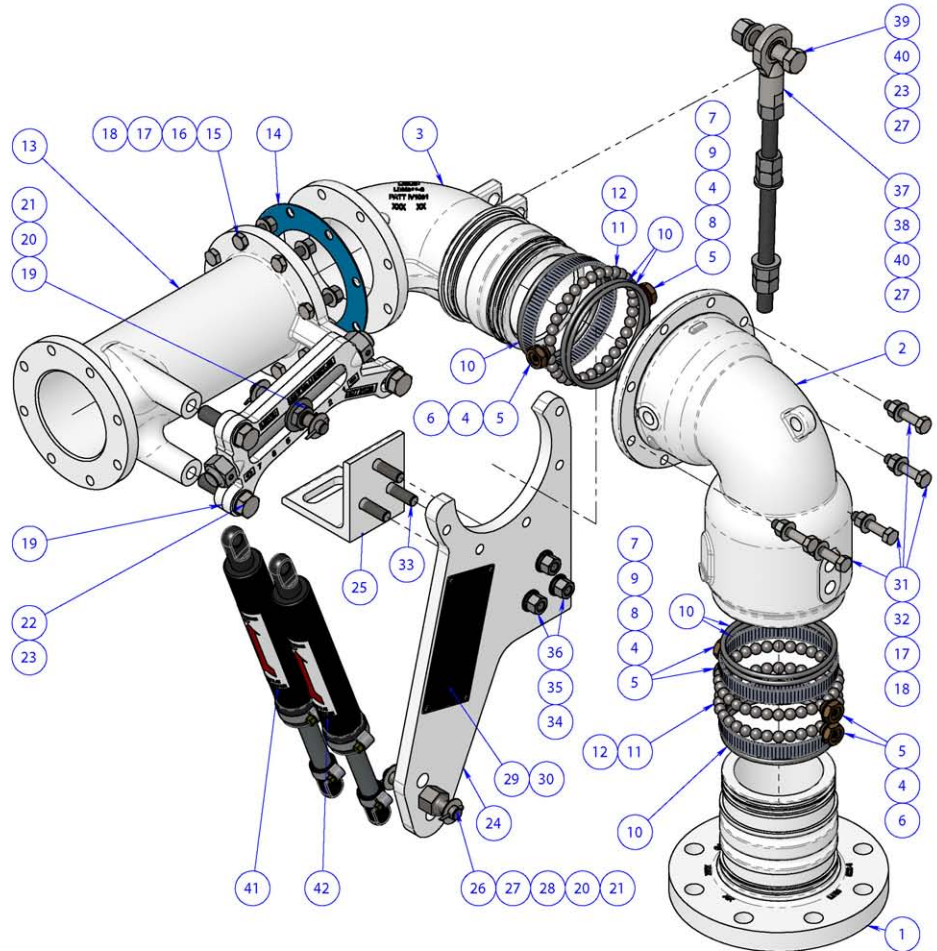
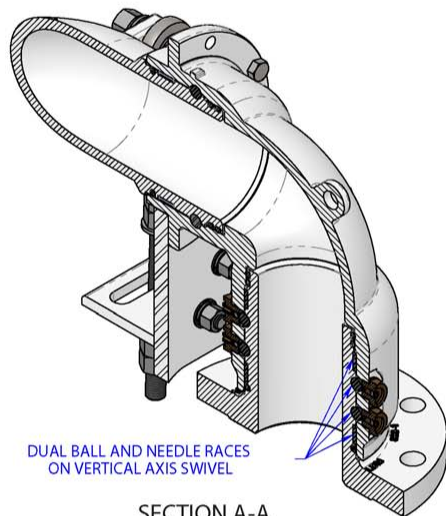
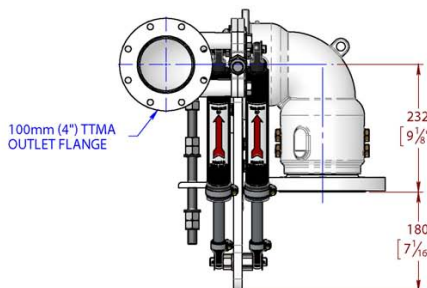
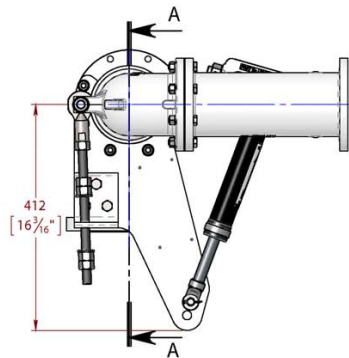
LEFT HAND
DOWNWARD FEED INLET



RIGHT HAND
DOWNWARD FEED INLET



RIGHT HAND
UPWARD FEED INLET



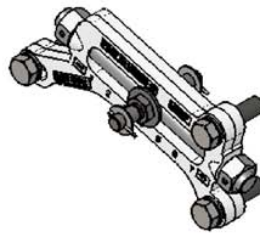
LBM800 - Parts List

ITEM	PART No.	DESCRIPTION	QTY.	MATERIAL
1	LBM800-1	MALE STRAIGHT	1	CAST STEEL
2	LBM800-2	ELBOW FEMALE	1	CAST STEEL
3	LBM800-3	OUTLET ELBOW	1	CAST STEEL
4	0885	WASHER FIBRE	6	FIBRE
5	SJW100-3	BALL RETAINER PLUG	6	BRASS
6	6696	GRUBSCREW CUP POINT	3	ST STEEL
7	4480	SPRING COMPRESSION	3	ST STEEL
8	6688	SCREW RETAINING	3	BRASS
9	4580	BALL BEARING	3	STEEL
10	0126VG	O-RING	6	VITON GFLT
11	2334	BALL BEARING	96	BEARING STEEL
12	4531	NEEDLE ROLLER	282	BEARING STEEL
13	LBM800-9	OUTLET SPOOL	1	CAST STEEL
14	0657DMV	GASKET TTMA 100mm (4")	1	VITON A
15	6745	BOLT METRIC	8	Z/P STEEL
16	6744	NUT METRIC	8	Z/P STEEL
17	5261	WASHER SPRING	13	Z/P STEEL
18	5288	WASHER FLAT	13	Z/P STEEL
19	LBM800-10	BRACKET ADJUSTER - ASSEMBLY LBM8xx	1	CAST STEEL
20	4359	WASHER FLAT	4	Z/P STEEL
21	4871	SPLIT PIN	4	ST STEEL
22	4054	BOLT METRIC	3	Z/P STEEL
23	5359	WASHER SPRING	4	Z/P STEEL
24	LBM800-7	DROP BRACKET	1	STEEL
25	LBM800-17	BRACKET-UP DOWN STOP	1	STEEL
26	LBM800-11	PIVOT PIN BOTTOM	1	Z/P STEEL
27	5361	WASHER FLAT	4	Z/P STEEL
28	4055	NUT METRIC FINE	1	Z/P STEEL
29	4711	LABEL ID - LOADING ARMS	1	ALUMINUM
30	0005	POP RIVET	4	ALUMINUM
31	4020	SETSCREW METRIC	5	Z/P STEEL
32	0055	NUT METRIC	5	Z/P STEEL
33	2936	BOLT METRIC	3	Z/P STEEL
34	5266	WASHER FLAT	3	Z/P STEEL
35	5280	WASHER SPRING	3	Z/P STEEL
36	4971	NUT METRIC	3	Z/P STEEL
37	4052	ROD END - UP/DOWN STOP	1	Z/P STEEL
38	LBM800-14	UP DOWN STOP	1	Z/P STEEL
39	4053	BOLT METRIC	1	Z/P STEEL
40	1076	NUT METRIC	6	Z/P STEEL
41	4416	LIFT-O-MAT STRUT	AS REQD	STEEL
42	3008	LIFT-O-MAT STRUT	AS REQD	STEEL

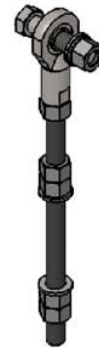
LBM800 - Spare Parts



LBM800-100
COMPLETE SWIVEL ASSEMBLY
SIMPLE BOLT-IN REPLACEMENT



LBM800-ABA
ADJUSTER BRACKET ASSEMBLY
WITH MOUNTING BOLTS



LBM800-UDL
UP/DOWN LIMITER BOLT
WITH MOUNTING FASTENERS



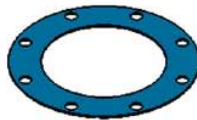
LBM800-VSK
BEARING & SEAL COMPONENTS
FOR VERTICAL AXIS SWIVEL



LBM800-HSK
BEARING & SEAL COMPONENTS
FOR HORIZONTAL AXIS SWIVEL



LBM800-PPA
PIVOT PIN ASSEMBLY
FOR LOWER STRUT MOUNT



0657DMV
100mm VITON TTMA GASKET
BETWEEN SWIVEL & OUTLET



4416
LIFTOMAT STRUT
2800N
(BLACK BOOT)



3008
LIFTOMAT STRUT
5200N
(GREEN BOOT)