

Lovejoy Hydraulics
Aluminum Tanks / Reservoirs
and Accessories





Aluminum Tanks / Reservoirs and Accessories

Table of Contents

	Page No.
Overview.....	4
Aluminum Tanks / 1.6 Gallon > Dimensional Data	5
Aluminum Tanks / 2.6 Gallon > Dimensional Data	6
Aluminum Tanks / 4.5 Gallon > Dimensional Data	7
Aluminum Tanks / 7.1 Gallon > Dimensional Data	8
Aluminum Tanks / 11 Gallon > Dimensional Data.....	9
Aluminum Tanks / 17 Gallon > Dimensional Data	10
1.6 – 17 Gallon Reservoirs > Dimensional Data	11
Enviro Tank Lid Seals > Dimensional Data.....	12
Filler Breathers and Oil Level Gauges > Specification / Dimensional Data.....	13
Aluminum Clean Out Covers > Dimensional Data	14
Oil Level Indicator Series LV > Performance / Dimensional Data	15
Oil Level Gauge RL > Specification Data	16
Oil Level Gauge RL > Dimensional Data.....	17
Screw-in Heating Rods > Specifications / Dimensional Data	18
Plunger Heater Series RH > Performance / Dimensional Data.....	19
Elastic Bushings > Overview / Dimensional Data.....	20
Product Warranty.....	23

Lovejoy, Inc has made every effort to assure the accuracy of the information contained in this catalog. However, Lovejoy, Inc expressly disclaims any and all liability for the contents of this catalog including, but not limited to, errors, inaccuracies, misstatements, omissions and any incidental or consequential damages which may occur as the result of relying on this information. Lovejoy reserves the right to change specifications and information without notice.

Hydraulic Tanks, Reservoirs and Accessories

Lovejoy offers a complete line of hydraulic tanks, reservoirs and reservoir accessories for fluid power transmission applications. The line includes aluminum tanks, complete reservoirs, lids, gaskets, legs/casters and associated parts for reservoirs including a complete line of oil gauges, tank heaters and elastic bushings for routing hydraulic lines directly into the reservoir.

Features

- Aluminum tanks provide **twice** the heat dissipation of steel!
- No painting or priming of tank required
- Leak-free performance (100% factory tested)
- Improves system cleanliness
- Design flexibility
- Variety of options including
 - 6 tank sizes
 - Gauges
 - Legs and Caster options
 - Filler Breathers
 - Heaters
- Easily customized
- Lightweight
- Stackable
- Inventory space savings
- Aluminum tanks are superior to steel!
- No sharp edges - easy and safe handling



Models and Available Options:

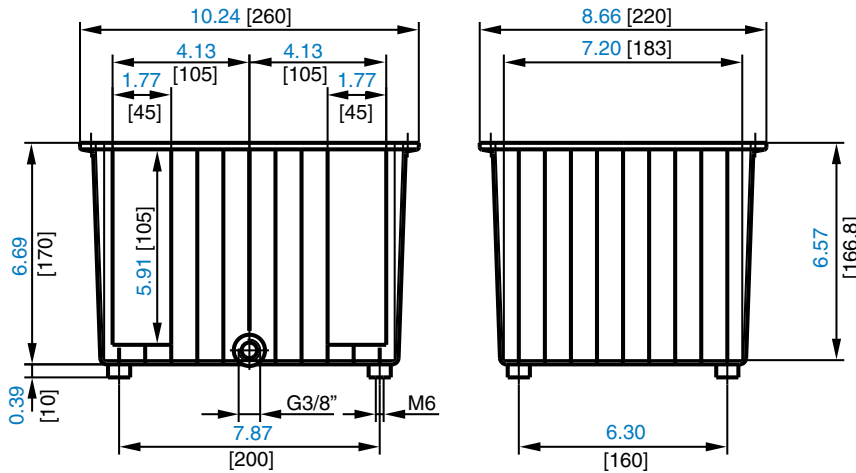
Tanks are supplied standard with a drain plug. Lids, legs, casters, gauges, heaters, filler breathers, gaskets and other accessories are sold separately.

Tank Technical Data

UPC Number	Total Volume		Available Volume		Cooling Capacity Specific		Cooling Capacity*		Surface Area with Tank Lid		Weight	
	Gallons	Liters	Gallons	Liters	P/Δt [W/K]	BTUH	P[kW] Δt = 40 K	BTUH	Sq Ft	[m2]	lbs	kg
2102	1.7	6.5	1.6	6	9	30,709	0.36	1,228	2.7	0.25	3.7	1.7
2103	3.2	12.0	2.6	10	15	51,182	0.60	2,047	3.8	0.35	5.1	2.3
2105	5.3	20.0	4.5	17	18	61,419	0.72	2,457	5.4	0.50	9.5	4.3
2107	7.9	30.0	7.1	27	23	78,479	0.92	3,139	8.1	0.75	11.0	5.0
2111	11.6	44.0	10.6	40	26	88,716	1.04	3,549	10.8	1.00	15.4	7.0
2117	18.5	70.0	16.6	63	29	98,952	1.16	3,958	14.0	1.30	22.0	10.0

Notes: ■ * indicates: Depending on surrounding conditions.
 ■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Aluminum Tank 1.6 Gallon (6 Liter)



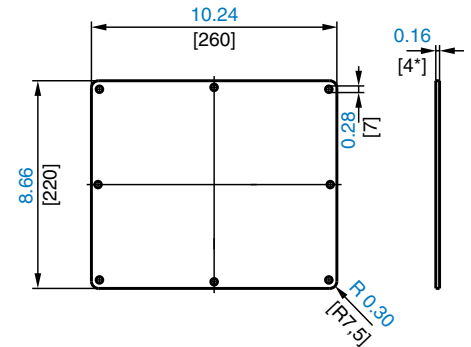
in [mm]

1.6 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2102	1.6 Gallon Tank	3.7	1.7
1412	Lid - Steel	3.1	1.4
1512*	Lid - Aluminum	1.6	0.8
2202	Lid Seal Kit (for steel lid)	0.2	0.1
2222	Lid Seal Kit (for aluminum lid)	0.2	0.1
1202	Lid Seal (seal only)	0.2	0.1

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard (UPC for drain plug G 3/8 thread is 1000).
 - Lid and lid seal kit ordered separately.
 - Lid seal kit includes fasteners for lid.
 - Recommended torque for lid fasteners: 7.5 ft-lbs [10Nm].
 - 1.6 gallon tank does not have options for legs or casters.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .24 in [6mm].

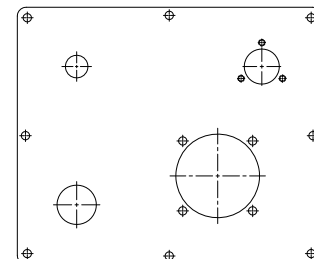
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

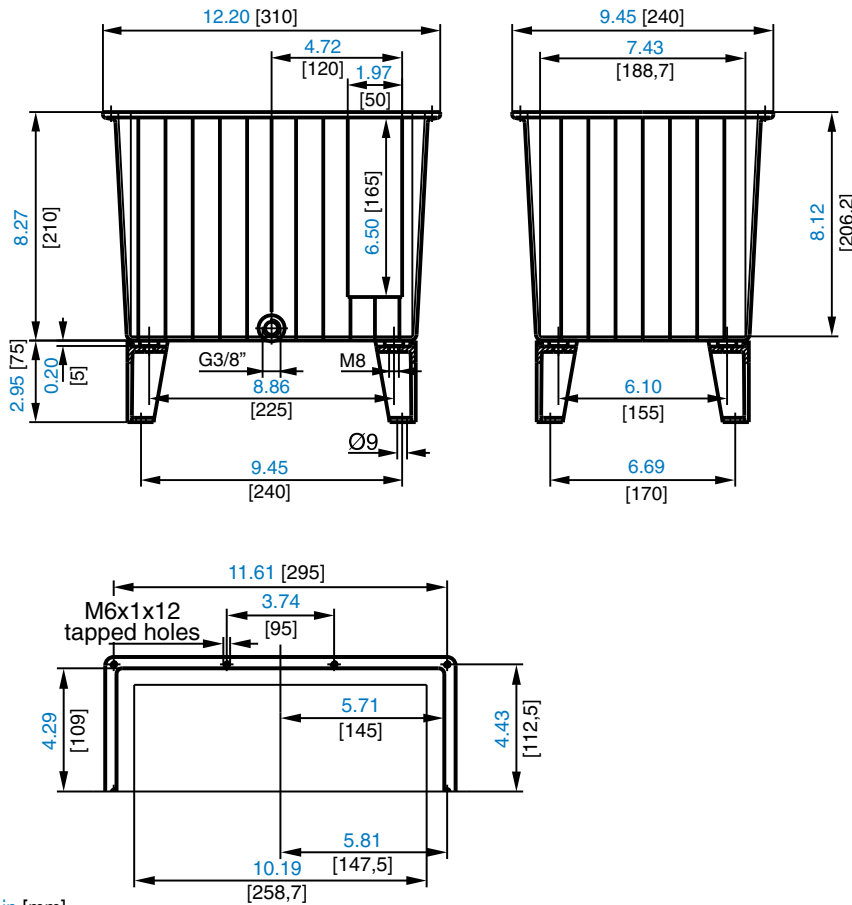
- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.



Aluminum Tank 2.6 Gallon (10 Liter)



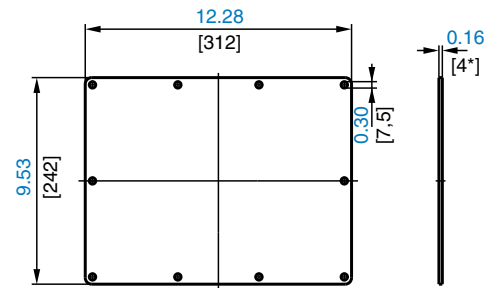
in [mm]

2.6 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2103	2.6 Gallon Tank	5.1	2.3
1413	Lid - Steel	5.5	2.5
1513*	Lid - Aluminum	3.5	1.6
2203	Lid Seal Kit (for steel lid)	0.2	0.1
2223	Lid Seal Kit (for aluminum lid)	0.2	0.1
1203	Lid Seal (seal only)	0.2	0.1
1301	Leg Kit (4 legs)	0.6	0.3
1312	Tank Leg (leg only)	0.2	0.1

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard (UPC for drain plug G 3/8 thread is 1000).
 - Lid, seal kit and legs ordered separately.
 - Lid seal kit includes fasteners for lid.
 - Leg kit includes fasteners.
 - Recommended torque for lid, leg fasteners: 7.5 ft-lbs [10Nm].
 - 2.6 gallon tank does not have option for casters.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .31 in [8mm].

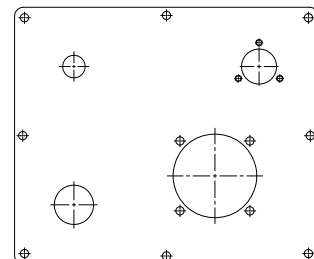
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

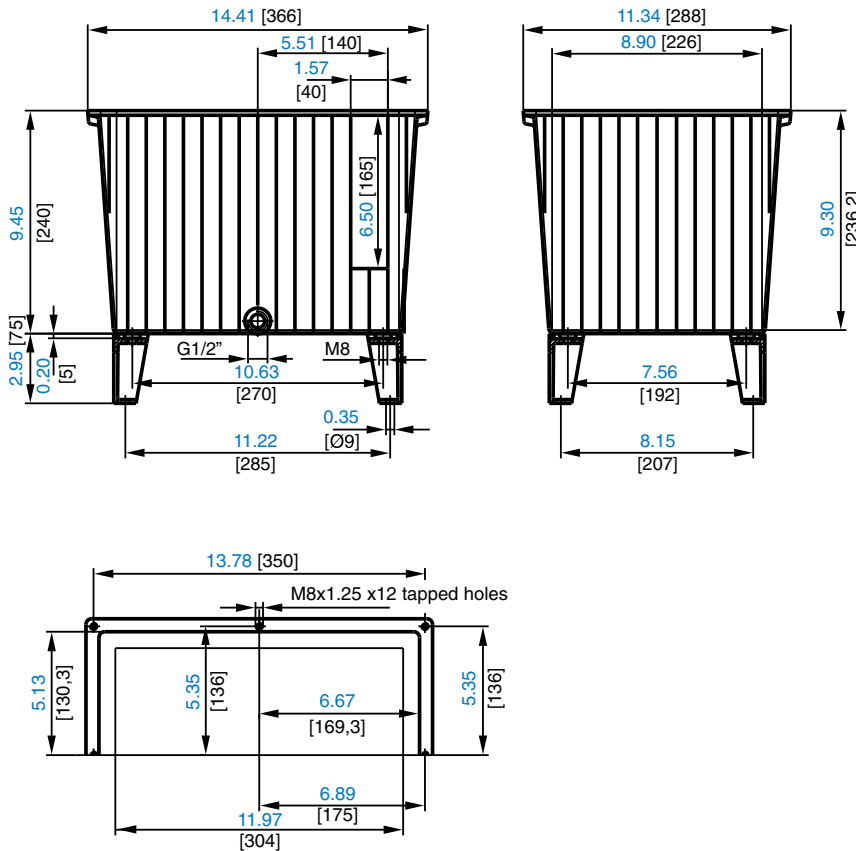
- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.



Aluminum Tank 4.5 Gallon (17 Liter)



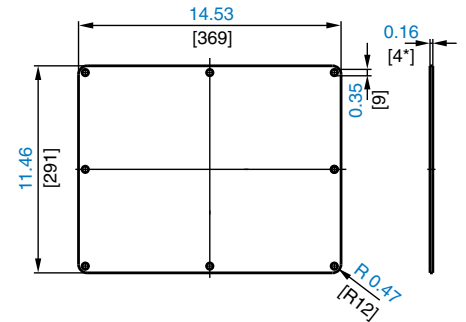
in [mm]

4.5 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2105	4.5 Gallon Tank	9.5	4.3
1415	Lid - Steel	7.9	3.6
1515*	Lid - Aluminum	5.0	2.3
2205	Lid Seal Kit (for steel lid)	0.2	0.1
2225	Lid Seal Kit (for aluminum lid)	0.2	0.1
1205	Lid Seal (seal only)	0.2	0.1
1301	Leg Kit (4 legs)	0.9	0.4
1312	Tank Leg (1 leg only)	0.2	0.1

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard. (UPC for drain plug G 1/2 thread is 1001).
 - Lid, seal kit and legs ordered separately.
 - Lid seal kit includes fasteners for lid.
 - Leg kit includes fasteners.
 - Recommended torque for lid, leg fasteners: 7.5 ft-lbs [10Nm].
 - 4.5 gallon tank does not have option for casters.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .31 in [8mm].

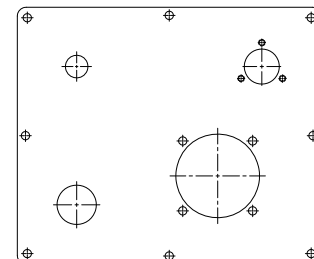
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

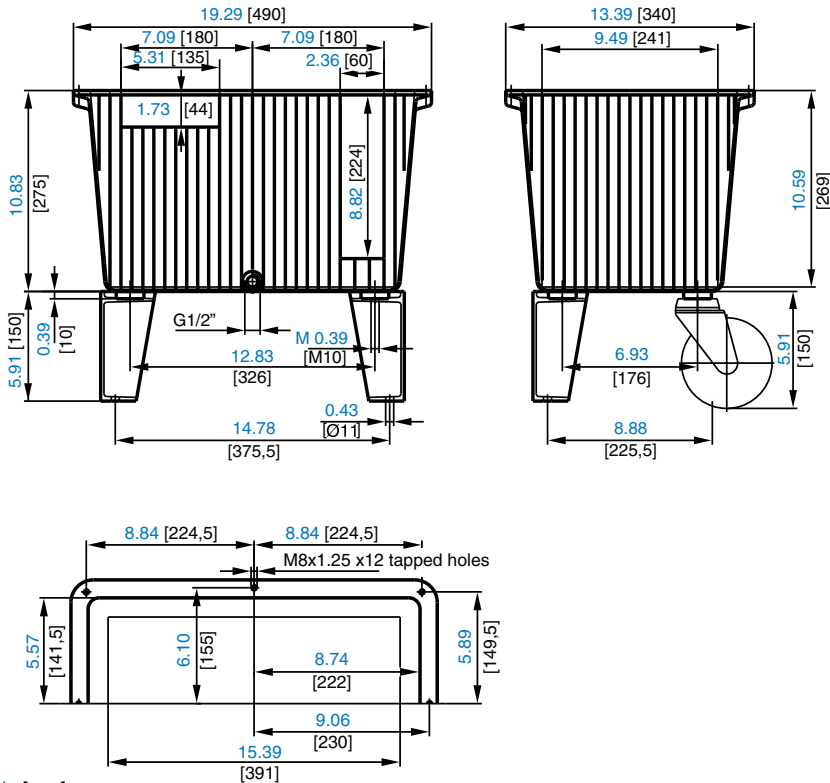
- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.



Aluminum Tank 7.1 Gallon (27 Liter)



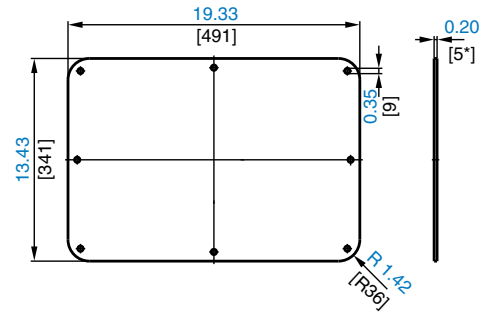
in [mm]

7.1 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2107	7.1 Gallon Tank	11.0	5.0
1427	Lid - Steel	14.1	6.4
1527*	Lid - Aluminum	7.1	3.2
2207	Lid Seal Kit (for steel lid)	0.2	0.1
2227	Lid Seal Kit (for aluminum lid)	0.2	0.1
1207	Lid Seal (seal only)	0.2	0.1
2307	Enviro Lid Seal Kit	1.1	0.5
1607	Enviro Lid Seal (seal only)	0.9	0.4
1302	Leg Kit (4 legs)	2.2	1.0
1305	Leg Kit (2 legs)	1.1	0.5
1313	Tank Leg (1 leg only)	0.4	0.2

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard. (UPC for drain plug G 1/2 thread is 1001).
 - Lid, seal kit, legs and casters ordered separately.
 - Lid seal kits include fasteners for lid.
 - Leg and caster kits include fasteners.
 - Recommended torque for lid, leg and caster fasteners: 7.5 ft-lbs [10Nm].
 - Lid seal kit is not needed when Enviro Seal™ kit is ordered.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .31 in [8mm].

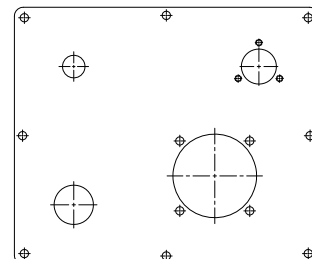
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

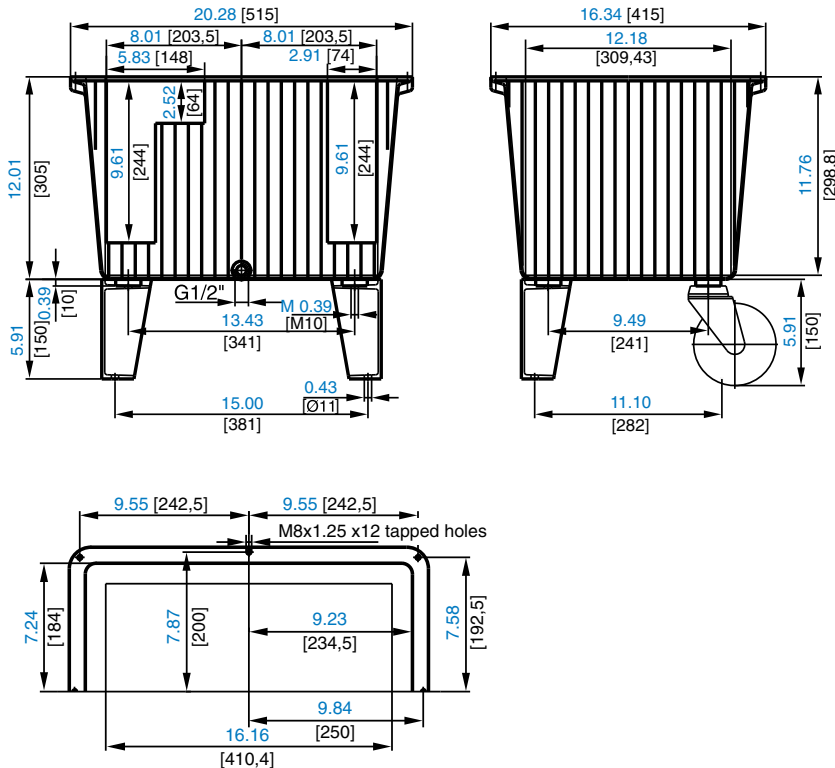
- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.



Aluminum Tank 11 Gallon (40 Liter)



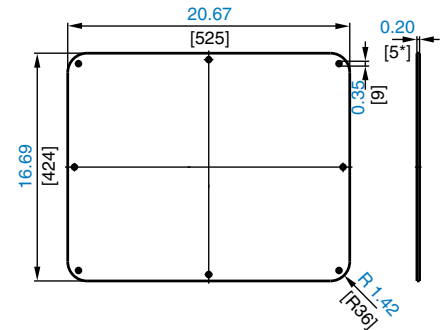
in [mm]

11 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2111	11 Gallon Tank	15.4	7.0
1431	Lid - Steel	18.7	8.5
1531*	Lid - Aluminum	9.5	4.3
2211	Lid Seal Kit (for steel lid)	0.2	0.1
2228	Lid Seal Kit (for aluminum lid)	0.2	0.1
1211	Lid Seal (seal only)	0.2	0.1
2311	Enviro Lid Seal Kit	1.2	0.6
1611	Enviro Lid Seal (seal only)	1.1	0.5
1303	Leg Kit (4 legs)	2.2	1.0
1306	Leg Kit (2 legs)	1.1	0.5
1321	Tank Leg (1 leg only)	0.4	0.2
1311	Caster Kit (2 casters)	5.1	2.3
1314	Caster (1 caster only)	2.4	1.1

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard. (UPC for drain plug G 1/2 thread is 1001).
 - Lid, seal kit, legs and casters ordered separately.
 - Lid seal kits include fasteners for lid.
 - Leg and caster kits include fasteners.
 - Recommended torque for lid, leg and caster fasteners: 7.5 ft-lbs [10Nm].
 - Lid seal kit is not needed when Enviro Seal™ kit is ordered.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .31 in [8mm].

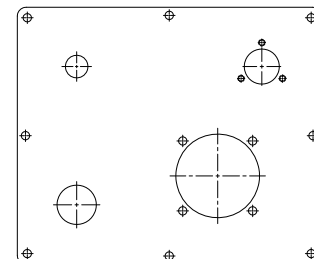
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

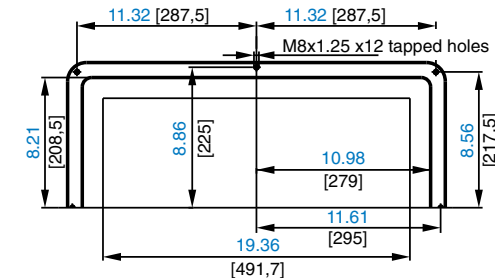
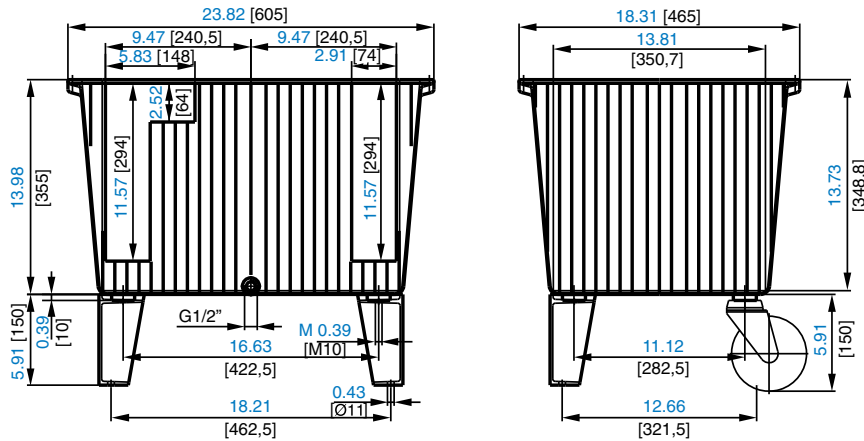
- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.

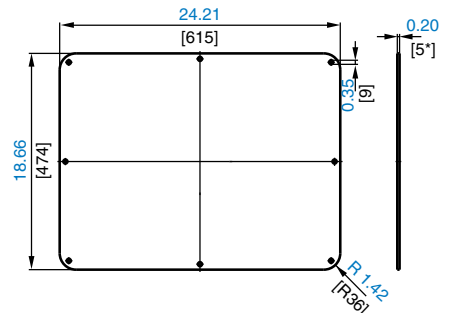


Aluminum Tank 17 Gallon (63 Liter)



in [mm]

Lid



- Notes:
- * indicates: Steel lid thickness.
 - Aluminum lid thickness is .31 in [8mm].

17 Gallon Tank and Accessories

UPC Number	Description	Weight	
		lbs	kg
2117	17 Gallon Tank	22.0	10.0
1437	Lid - Steel	23.1	10.5
1537*	Lid - Aluminum	11.7	5.3
2217	Lid Seal Kit (for steel lid)	0.2	0.1
2229	Lid Seal Kit (for aluminum lid)	0.2	0.1
1217	Lid Seal (seal only)	0.2	0.1
2317	Enviro Lid Seal Kit	1.2	0.6
1617	Enviro Seal (seal only)	1.1	0.5
1303	Leg Kit (4 legs)	2.2	1.0
1306	Leg Kit (2 legs)	1.1	0.5
1321	Tank Leg (1 leg only)	0.4	0.2
1311	Caster Kit (2 casters)	5.1	2.3
1314	Caster (1 caster only)	2.4	1.1

- Notes:
- * indicates: Aluminum tank lid option - please contact your Lovejoy Sales Representative.
 - Tanks supplied with drain plug standard. (UPC for drain plug G 1/2 thread is 1001).
 - Lid, seal kit, legs and casters ordered separately.
 - Lid seal kits include fasteners for lid.
 - Leg and caster kits include fasteners.
 - Recommended torque for lid, leg and caster fasteners: 7.5 ft-lbs [10Nm].
 - Lid seal kit is not needed when Enviro Seal™ kit is ordered.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

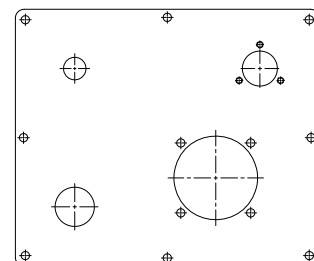
Value Added Services Available

Lovejoy Hydraulics can cut, drill and tap holes in your tank lids and tanks for:

- Supply lines
- Return lines
- Case drain lines
- Pump / Motor Mount holes for Vertical installations
- Filler / Breather holes
- Level gauges (on tanks)
- Mounting holes

Tank Lids are also available in a durable powder coat finish.

Contact your Lovejoy Sales Representative for details.





Aluminum Tanks / Reservoirs and Accessories

1.6 – 17 Gallon Reservoirs

Dimensional Data

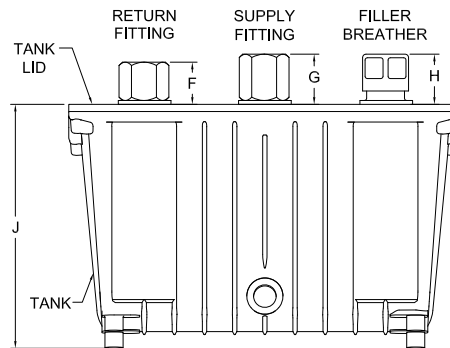
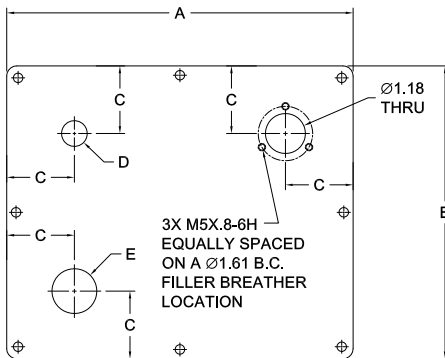
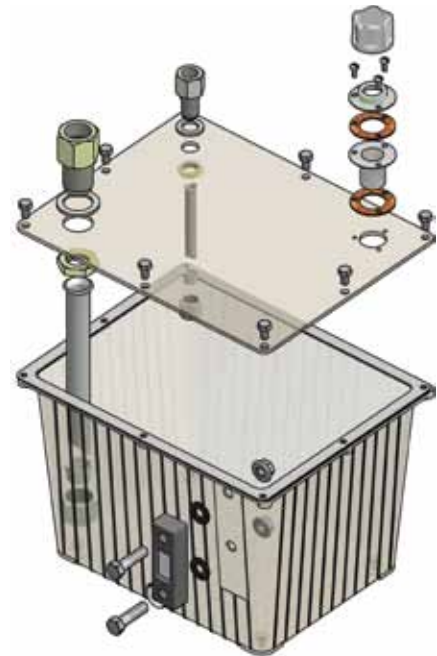
Lovejoy Hydraulic Reservoirs combine the most common hydraulic components and accessories into a design that fits a wide range of needs. Making it an easy, one step solution.

Features

- 6 popular sizes
- Cast aluminum tanks
- Leak-free performance (100% factory tested)
- Supply fitting / pick up tube
- Return fitting / return tube
- Filler Breather EB 50-10 (US Mesh 1250)
- Steel lid
- Lid gasket
- Drain plug
- Oil level gauge with thermometer
(3 inch on 1.6, 2.6 and 4.5 gallon and 5 inch on 7.1, 11 and 17 gallon)

Options

- Legs
- Casters
- Enviro Seal™



Reservoir Dimensional Data

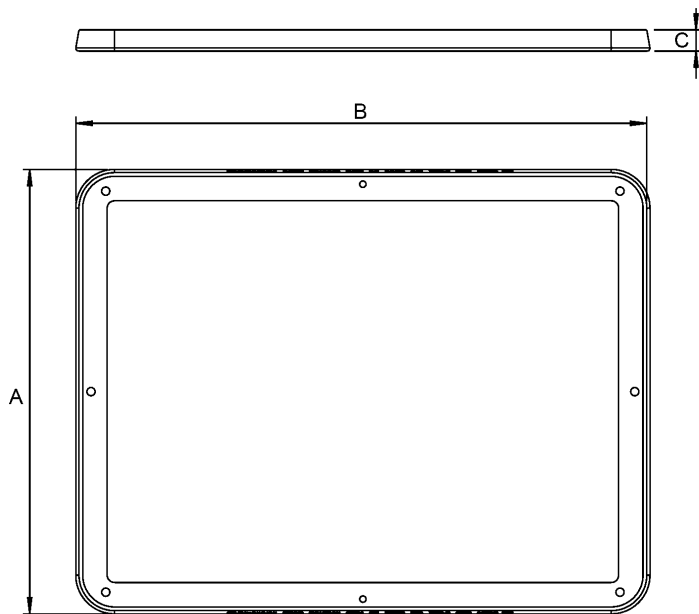
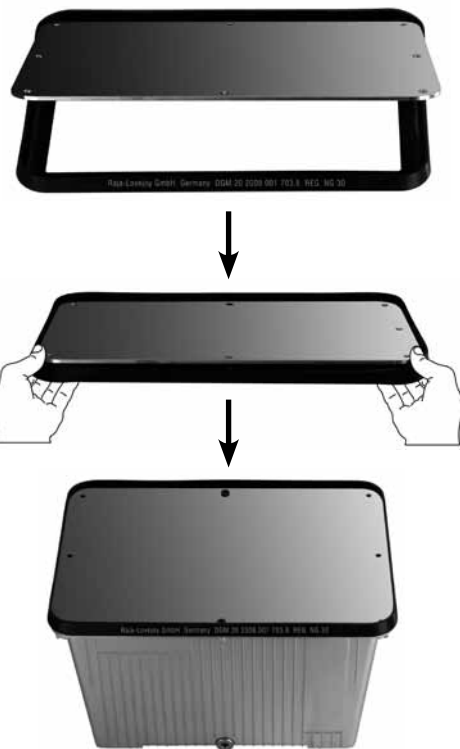
UPC Number	Description	A		B		C		D			E			F		G		H		J	
		in	mm	in	mm	in	mm	Return Side		Supply Side		in	mm	in	mm	in	mm	in	mm	in	mm
								Thru Hole	Fitting Female Thread NPTF	Thru Hole	Fitting Female Thread NPTF										
2356	1.6 Gal Aluminum Reservoir	10.24	260	8.66	220	2.00	50.80	0.760	19.3	1/2	1.325	33.7	1	1.25	31.8	1.55	39.4	1.75	44.5	7.24	184
2357	2.6 Gal Aluminum Reservoir	12.28	312	9.53	242	2.00	50.80	0.760	19.3	1/2	1.325	33.7	1	1.25	31.8	1.55	39.4	1.75	44.5	8.63	219
2358	4.5 Gal Aluminum Reservoir	14.53	369	11.46	291	2.00	50.80	0.760	19.3	1/2	1.325	33.7	1	1.25	31.8	1.55	39.4	1.75	44.5	9.81	249
2359	7.1 Gal Aluminum Reservoir	19.33	491	13.43	341	3.50	88.90	1.075	27.3	3/4	1.885	47.9	1-1/2	1.33	33.8	1.66	42.2	1.75	44.5	11.42	290
2360	11 Gal Aluminum Reservoir	20.67	525	16.69	424	3.75	95.25	1.075	27.3	3/4	1.885	47.9	1-1/2	1.33	33.8	1.66	42.2	1.75	44.5	12.60	320
2361	17 Gal Aluminum Reservoir	24.21	615	18.66	474	4.00	101.60	1.075	27.3	3/4	1.885	47.9	1-1/2	1.33	33.8	1.66	42.2	1.75	44.5	14.57	370

- Notes:
- Tank Technical Data is on page 4.
 - Additional Tank Dimensions are on pages 5 - 10.
 - Filler Breather EB 50-10, 3 inch and 5 inch Oil Level Gauge / Thermometer is on page 13.
 - Optional Legs and Casters are on pages 5 - 10.
 - Optional Enviro Seal™ information is on page 12.
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Enviro Seal™ for tank sizes 7.1, 11 and 17 Gallon

Features

- Traps oil leaks – prevents spills
- Reduces noise
- Absorbs vibration
- Compatible with most fluids
- Use in place of standard lid seal
- No additional seal or gasket is needed
- Simplifies assembly
- Available for 7.1, 11 and 17 Gallon tanks



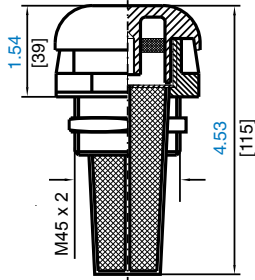
Enviro Seal™ Kits Dimensional Data

UPC Number	Oil Tank Size Gallons	A		B		C		Weight	
		in	mm	in	mm	in	mm	lbs	kg
2307	7.1	13.74	349	19.65	499	0.91	23	0.9	0.4
2311	11.0	17.01	432	20.98	533	0.91	23	1.1	0.5
2317	17.0	18.98	482	24.53	623	0.91	23	1.3	0.6

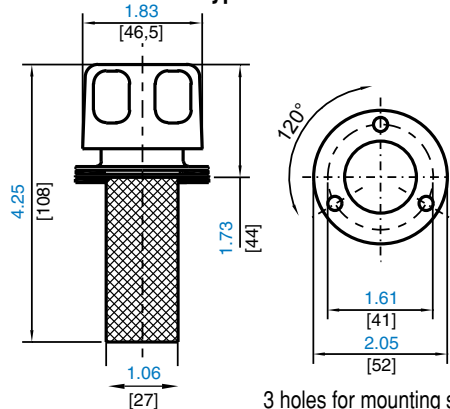
- Notes:
- German utility patent granted: No 20 2006 001 703.8.
 - Seal Kits include seal and fasteners for tank lid.
 - Recommended torque for lid fasteners: 7.5 ft-lbs [10 Nm].
 - When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Filler Breathers

Type E 35 ES

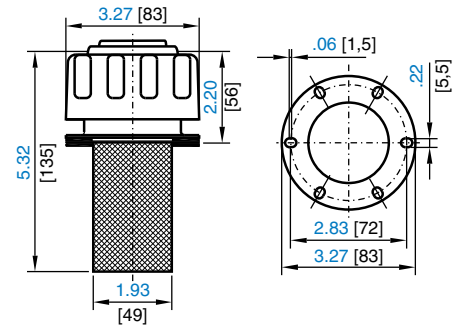


Type EB 50-10



3 holes for mounting screws
 M5 x 12 mm

Type EB 80-10



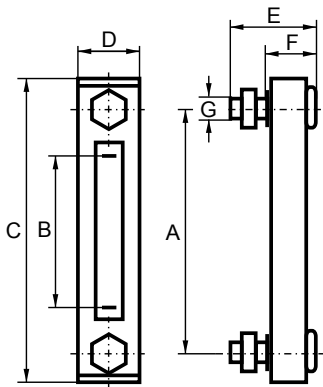
6 slots for mounting screws M5 x 12 mm.
 Mounting bolt circle diameter 70-73 mm

Filler Breathers Specification Data

UPC Number	Type	Recess Tank Lid (diameter)		Material	Air Filter Size	
		in	mm		US Mesh	Micron
1801	E 35 ES	1.81	46	Plastic	325	45
1802	EB 50-10	1.18	30	Metal	1250	10
1803	EB 80-10	2.01	51	Metal	1250	10

Note: ■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown..

Oil Level Gauge SF 1 – SF 3



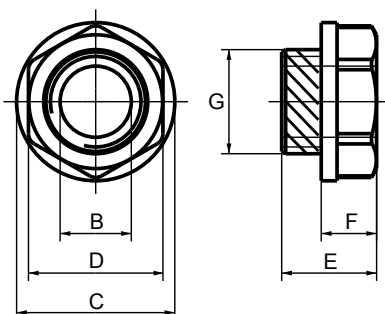
Oil Level Gauge Dimensional Data

UPC Number	Type	A		B		C		D		E		F		G	Thread
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
1701	SF1	3	76	1.26	32	4.25	108	1.34	34	1.77	45	1.06	27	M12	
1702	SF1 T*	3	76	1.26	32	4.25	108	1.34	34	1.77	45	1.06	27	M12	
1703	SF2	5	127	2.99	76	6.26	159	1.34	34	1.77	45	1.06	27	M12	
1704	SF2 T*	5	127	2.99	76	6.26	159	1.34	34	1.77	45	1.06	27	M12	
1705	SF3 T*	10	254	7.99	203	11.26	286	1.34	34	1.77	45	1.06	27	M12	

Notes: ■ * indicates: With thermometer.

■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Oil Level Sight (Oil Eye Sight) KL 13, KL 33, A 18



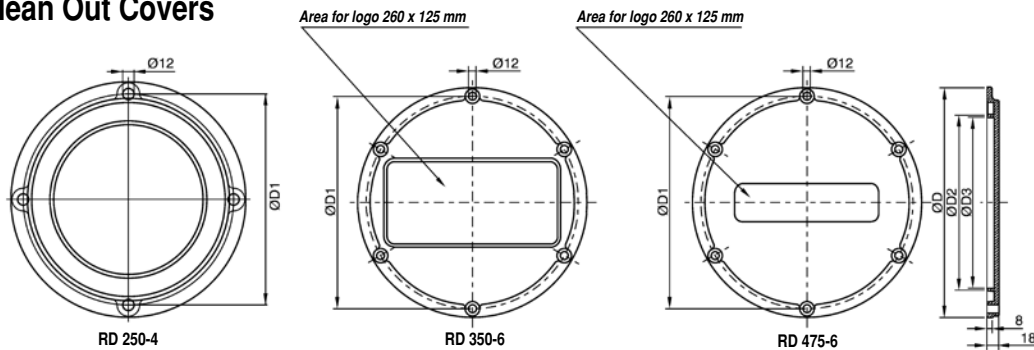
Oil Level Sight (Oil Eye Sight) Dimensional Data

UPC Number	Type	B (diameter)		C (diameter)		D		E		F		G	Thread
		in	mm	in	mm	in	mm	in	mm	in	mm		
1713	KL 13	0.35	9	0.79	20	0.67	17	0.63	16	0.28	7	G 1/4	
1711	A 18*	0.71	18	1.38	35	1.26	32	0.67	17	0.31	8	G 3/4	
1712	KL 33	0.91	23	1.65	42	1.34	34	0.94	24	0.43	11	G 1	

Notes: ■ * indicates: With nut.

■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Aluminum Clean Out Covers



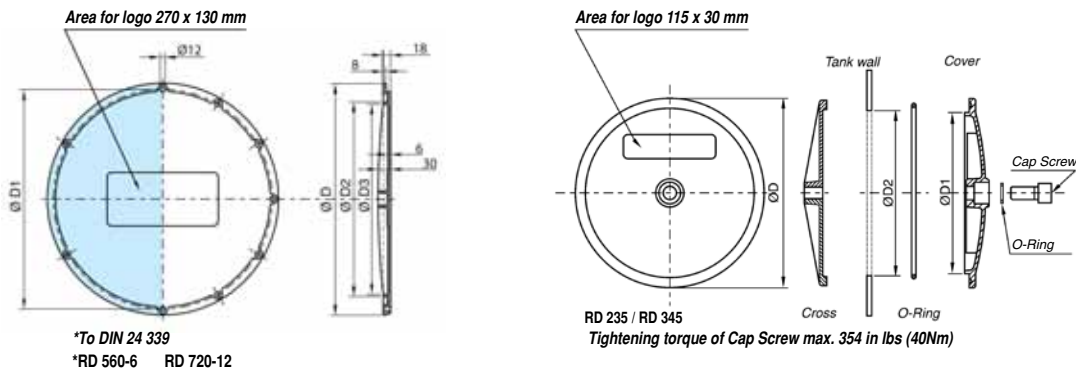
Aluminum Clean Out Covers Dimensional Data

UPC Number	Clean Out Cover	Profile Gasket 16 x 18 Type	D		D1		D2		D3	
			in	mm	in	mm	in	mm	in	mm
1123	RD 250-4	Buna N	9.84	250	8.82	224	6.57	167	6.26	159
1124		Viton								
1125	RD 350-V 324-6	Buna N	13.78	350	12.76	324	10.51	267	10.28	261
1126		Viton								
1127	RD 475-V 449-6	Buna N	18.70	475	17.68	449	15.43	392	15.04	382
1128		Viton								

Replacement Gasket

UPC Number	Profile Gasket 16 x 18 Type
1101	Buna N
1104	Viton
1102	Buna N
1105	Viton
1103	Buna N
1106	Viton

- Notes:
- Each Clean Out Cover comes with one specific gasket as shown.
 - Order Replacement Gasket UPC number only when needing a replacement gasket.
 - When referencing the Lovejoy Hydraulics UPC number in these tables, include 842710 as a prefix to the number shown.



Aluminum Clean Out Covers Dimensional Data

UPC Number	Clean Out Cover	Profile Gasket 16 x 18 Type	D		D1		D2		D3	
			in	mm	in	mm	in	mm	in	mm
1129	RD 560	Buna N	22.05	560	20.87	530	18.50	470	18.11	460
1137	RD 720	Buna N	28.35	720	26.77	680	24.41	620	23.94	608

Replacement Gasket

UPC Number	Profile Gasket 16 x 18 Type
1113	Buna N
1115	Buna N

UPC Number	Clean Out Cover	Cover O-Ring Type	D		D1		D2		Cap Screw O-Ring		Cap Screw mm
			in	mm	in	mm	in	mm	in	mm	
2606	RD 235	Buna N	9.25	235	7.87	200	7.95	202	.63 x .08	16 x 2.0	M16 x 40
2610		Viton									
2607	RD 345	Buna N	13.58	345	12.01	305	12.13	308	.79 x .10	20 x 2.5	M20 x 80

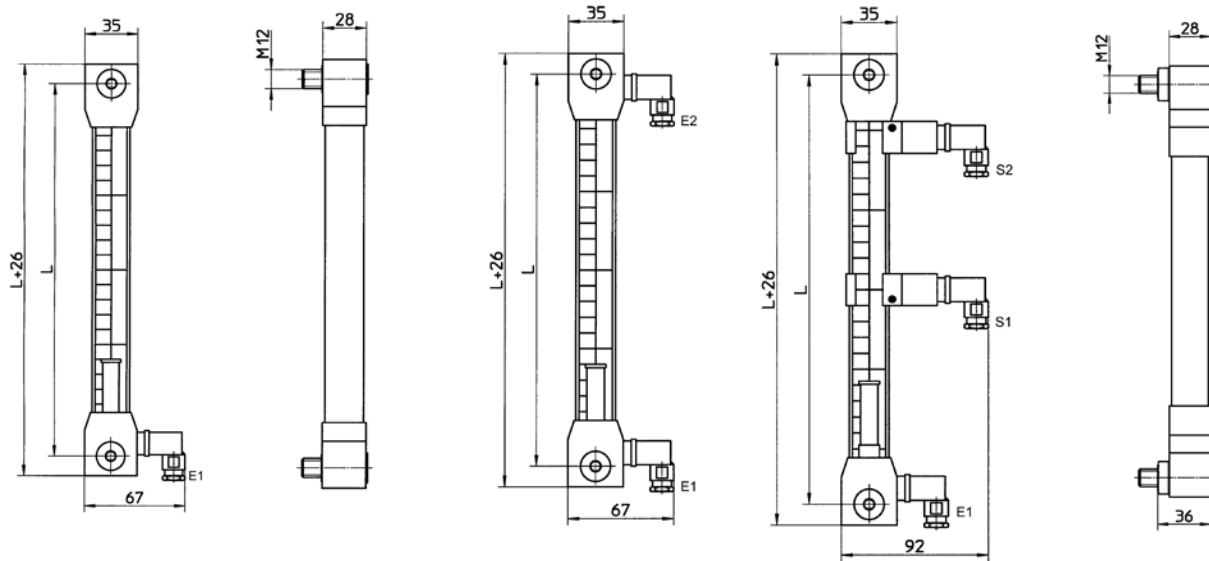
Replacement O-Ring

UPC Number	Cover O-Ring Type
1120	Buna N
1130	Viton
1119	Buna N

- Notes:
- Each Clean Out Cover comes with one specific gasket / O-Ring as shown.
 - Order Replacement Gasket or O-Ring UPC number only when needing a replacement gasket or O-Ring.
 - When referencing the Lovejoy Hydraulics UPC number in these tables, include 842710 as a prefix to the number shown.

Features

- Provides visual and electrical control of minimum and maximum oil level
- Selectable of alarm and control points
- Available in standard lengths and special lengths up to 157 inches (4000 mm)



LV / E1 - 254 - M12 - S1

Oil level indicator	
Without switch, visual indicator	E
No variable switch possible minimum level	E1*
No variable switch possible min/max level	E2**
Round Thermometer	TS

Interaxis fastening screws		
	76	127
Standard length L (mm)	254	381
	508	635
Special length up to 4000 mm	----	

Optional electromagnetic switches, variable only starting from 127 mm		
S1	Low Switch	Contacts open, with oil***
S2	Low, High Switch	
S3	Low, Midlevel, High Switch	

Fastening screws	
M12	Standard thread
M10	On request

- Notes:
- * indicates: Contacts closed, without oil.
 - ** indicates: Contacts closed, with oil.
 - *** indicates: Standard version / Simple reed.

Material Specification	
End covers	Nylon glass-fibre 35%
Protection shield	Aluminium U-profile
Control glass	Shock-resistant Acryl tube
Gaskets	NBR
Gaskets in connection with Pyrex tube	Viton
Fastening screws M12 (M10)	Stainless steel

Technical Data	
Commutable power D.C.	20 W
Commutable power A.C.	20 VA
Maximum current D.C./A.C.	1 A
Operation voltage	200 V
Temperature range Acryl tube	-20 to +70 °C
Temperature range Pyrex tube	-20 to +100 °C
Connector	DIN 40050; PG 7
Protection class	IP 65
Suitable liquids	Hydraulic oil, petroleum, water

Note: ■ Other voltages and performances on request.

Model Type

RL / G 2 - R - F 3 - S 2 - S 1 - A 6 5 0 - B 2 8 0

Type	
One-float type	RL/G1
Two-float type	RL/G2
Single float side mounting	RL/L

Standard version	-
Heavy duty version (turbulent fluids)	R

Type of fastening			
Flange		Thread	
F2	2 holes M4	T1 T2	G 1 G 1-1/4
F3	3 holes M4	T3	NTP 1-1/4

Wiring diagram lower float or with RL/G1				
Simple-Reed	S1	Closed contacts in absence of fluid	S1A	Open contacts in absence of fluid
Alternate-Reed	S2		S2	

Control rod B upper float 1	
B -	Standard length 400 mm
B 900	Optional length 900 mm
---	Special length 30-900 mm

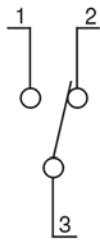
Control rod A upper float 2	
A -	Standard length 500 mm
A 1000	Optional length 1000 mm
----	Special length 100-1000 mm

Wiring diagram lower float or with RL/G1				
Simple-Reed	S1	Closed contacts in absence of fluid	S1A	Open contacts in absence of fluid
Alternate-Reed	S2		S2	

Wiring Diagrams

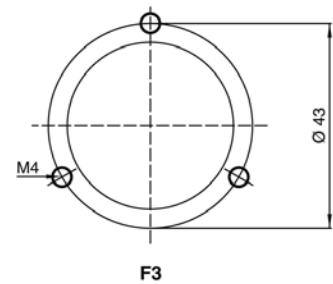
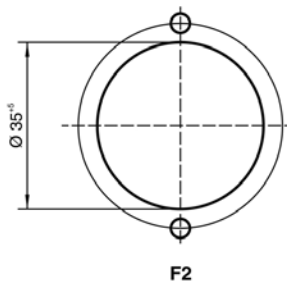


S1 (S1A)
 Simple-Reed



S2 (S2A)
 Alternate-Reed

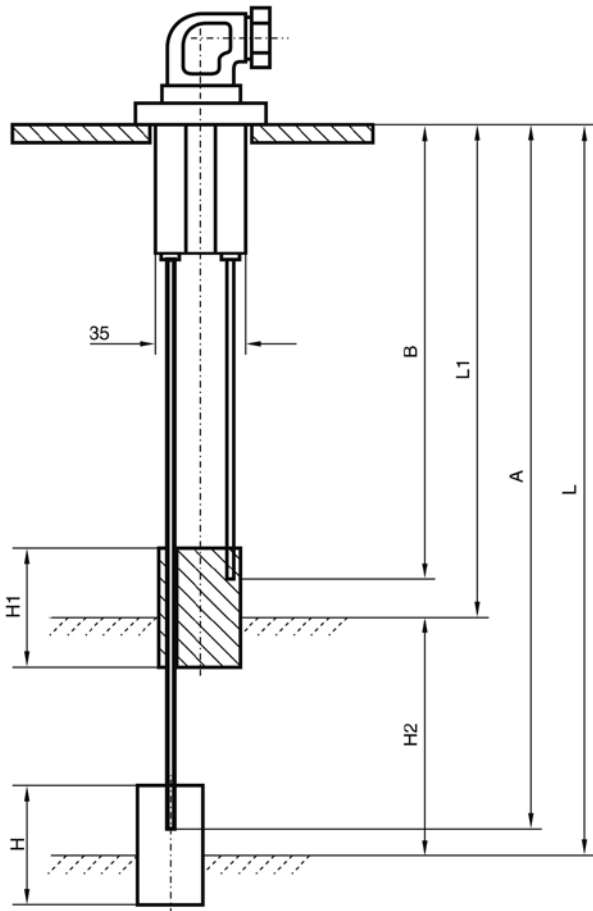
Flange Fastenings



Features

- Check fluid levels easily
- Easy to install
- Contamination resistant
- Available for vertical and horizontal mounting

Connection Rod and Float Section Series RL Oil Level Gauges - Dimensional Data



L Fluid Level		A Cutting Level Rod 1, Lower Float		B Cutting Level Rod 2, Upper Float	
in	mm	in	mm	in	mm
4.72	120	4.57	116	4.57	116
5.51	140	5.39	137	5.39	137
6.30	160	6.22	158	6.22	158
7.09	180	7.05	179	7.05	179
7.87	200	7.87	200	7.87	200
8.66	220	8.70	221	8.70	221
9.45	240	9.53	242	9.53	242
10.24	260	10.35	263	10.35	263
11.02	280	11.18	284	11.18	284
11.81	300	12.01	305	12.01	305
12.60	320	12.83	326	12.83	326
13.39	340	13.66	347	13.66	347
14.17	360	14.49	368	14.49	368
14.96	380	15.31	389	15.31	389
15.75	400	16.14	410	16.14	410
16.54	420	16.97	431	16.97	431
17.32	440	17.80	452	17.80	452
18.11	460	18.62	473	18.62	473
18.90	480	19.45	494	19.45	494
19.69	500	20.28	515	20.28	515
20.47	520	20.12	511	21.10	536
21.26	540	20.94	532	21.93	557
22.05	560	21.77	553	22.76	578
22.83	580	22.60	574	23.58	599
23.62	600	23.43	595	24.41	620
24.41	620	24.25	616	25.24	641
25.20	640	25.08	637	26.06	662
25.98	660	25.91	658	26.89	683
26.77	680	26.73	679	27.72	704
27.56	700	27.56	700	28.54	725
28.35	720	28.39	721	29.37	746
29.13	740	29.21	742	30.20	767
29.92	760	30.04	763	31.02	788
30.71	780	30.87	784	31.85	809
31.50	800	31.69	805	32.68	830
32.28	820	32.52	826	33.50	851
33.07	840	33.35	847	34.33	872
33.86	860	34.17	868	—	—
34.65	880	35.00	889	—	—
35.43	900	35.83	910	—	—

Dimensions of float (depending on fluid level)

H = 2.4 in (60mm) L = 4.7 in (120mm) - 19.7 (500mm)
 H = 3.5 in (90mm) L = 19.7 in (501mm) - 39.4 (1000mm)
 H1 = 2.8 in (70mm) L1 = 19.7 (120mm) - 39.4 in (1000mm)
 H1 = 1.3 in (33mm) L1 = 3.4 in (85mm)
 H2 - greater than or equal to 3.5 in (90mm)

Screw-in Heating Rods for Hydraulic Oil

G 2 - 650 - 074 - 230 WS - IP 65

Basic type	
Screw-in thread	G 1-1/2
	G 2

Immersion length in mm	
G 1-1/2	400
G 2	650
	950

Heating capacity in kW	
G 1-1/2	0,37
	1,0
	0,8
G 2	0,74
	1,6
	2,0
	1,08
	2,3
	3,0

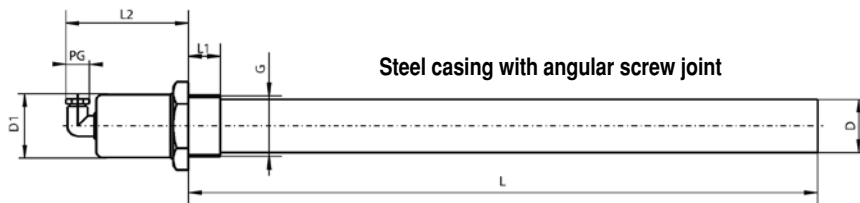
Protection class
IP65

Connected load	
230 WS	230 V AC
400 DS	400 V Three-phase AC
400 WS	400 V AC

Screw-in Heating Rods for Hydraulic Oil Specification Data

Type	Immersion Length (L)		Connected Load Voltage			Heating Capacity kW	Special Surface Strain W/cm ²	Restrictions
	in	mm						
G 1-1/2	15.75	400	230 WS	400 DS	—	0.4	0.7	0.7 W/cm ² for synthetic esters 1.5 W/cm ² for mineral oils
			230 WS	400 DS	400 WS	1.0	2.0	
						0.8	1.5	
G 2	25.59	650	230 WS	400 DS	400 WS	0.7	0.7	
						1.6	1.5	
						2.0	2.0	
G 2	37.40	950	230 WS	400 DS	400 WS	1.1	0.7	
						2.3	1.5	
						3.0	2.0	

Note: ■ These heaters are Rated Protection Class IP65. Certificates of conformity are available on request for CSA and UL listing. Please contact your Lovejoy Sales Representative for additional information.

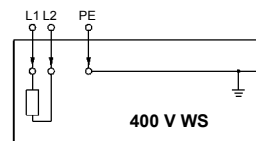
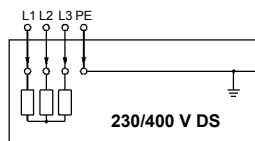
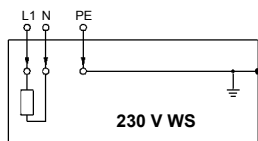


Screw-In Heating Rods for Hydraulic Oil Dimensional Data

Type	Hex Flats		G Thread	L		L1		L2		D		D1		PG	
	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
G 1-1/2	2.36	60	G 1-1/2	15.75	400	0.98	25	3.78	96	1.65	42	1.93	49	0.43	11
G 2	2.76	70	G 2	25.59/37.40	650/950	1.02	26	4.17	106	2.05	52	2.32	59	0.63	16

Note: ■ These heaters are Rated Protection Class IP65. Certificates of conformity are available on request for CSA and UL listing. Please contact your Lovejoy Sales Representative for additional information.

Wiring Diagrams



Plunger Heater Series RH

RHM - 1000 - 40

Type	
Without magnets	RH
With magnets	RHM

Dimensions
250
256
500
506
1000

Thermostat setting
40° C*
Special

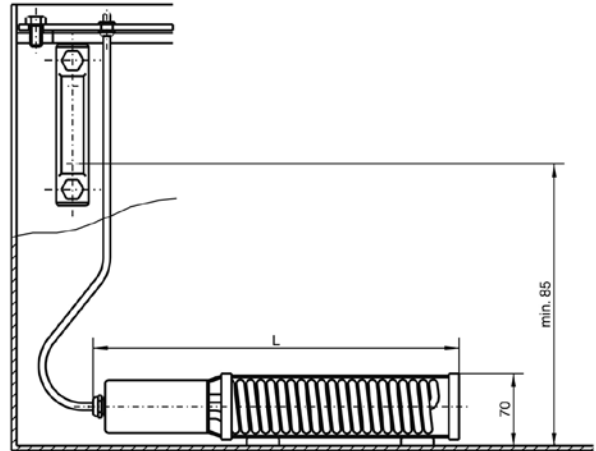
Notes: ■ * indicates: Standard setting.
■ Temperature interval 3° C.

Features

- Easy installation
- Heats hydraulic fluid temperature between 60° F [15° C] and 120° F [50° C] to improve system cold start
- Ideal for system retro-fits
- Minimizes fluid level required
- Suitable for vertical or horizontal mounting
- Integral magnetic clamps for collecting metal particles from fluid

Construction

- Tubular heater coil available in 250, 500, and 1000 W versions / 230V
- 3-pole elastomer cable (resistant against common hydraulic fluids)
- Push on cable screw joint



RH Series - Tank Heater Specification Data

Type	Heating Capacity	Length		Special Surface Strain [W/cm ²]	Restrictions
	Watts [W]	in	mm		
RH(M) 250	250	9.84	250	1.2	0.6 W/cm ² for synthetic esters 1.2 W/cm ² for mineral oils
RH(M) 256	250	11.42	290	0.6	
RH(M) 500	500	11.42	290	1.2	
RH(M) 506	500	15.35	390	0.6	
RH(M) 1000	1000	15.35	390	1.2	

Notes: ■ (M) indicates: With magnets.

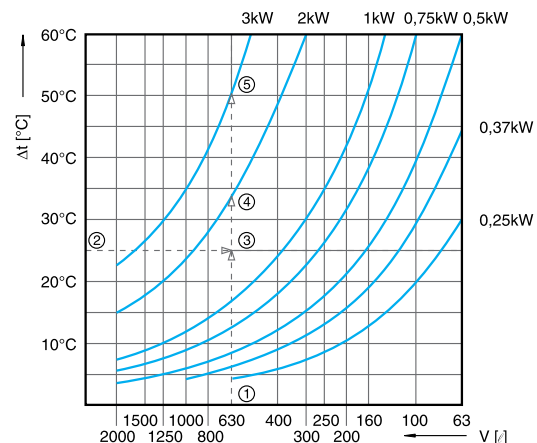
- These heaters are Rated Protection Class IP65. Certificates of conformity are available on request for CSA and UL listing. Please contact your Lovejoy Sales Representative for additional information.

Selection Chart

The Selection Chart (right) shows the maximum maintainable temperature difference in relation to the reservoir size.

A reservoir with 630 ℓ volume ① should be held at an oil temperature of 45° C with an ambient temperature of 20° C ($\Delta t=25^{\circ}\text{C}$ ②). The heating capacity needed here arises out of the point of intersection ③. In order to maintain the temperature, a heating rod with the next higher heating capacity of 2kW ④ will have to be chosen. By cold starts and on grounds of a shorter heating period, it is recommended to choose a larger heating rod (capacity factor 1.5 to 2.0 ⑤).

Example: Established capacity ~ 1.5kW multiplied by factor 2.0 = 3kW.... ⑤



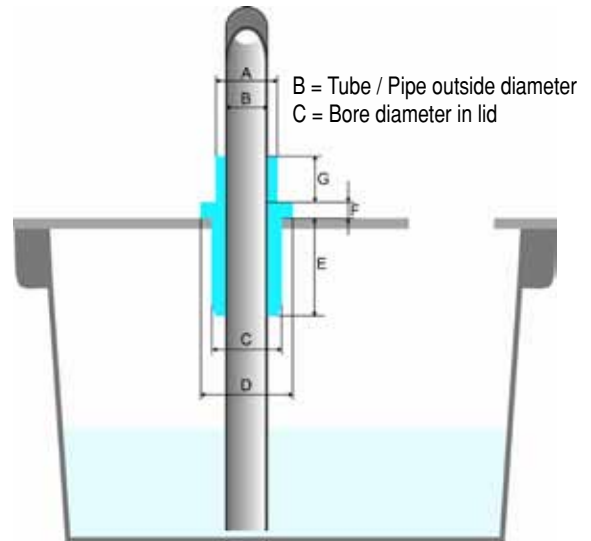
Hydraulic steel tank acc. to DIN 24 339

Features

- Provides oil-tight and dust-proof sealing of hydraulic lines into the reservoir
- Reduces noise (elastomeric bushing insulates the oil line from the lid)
- Simplifies installation

Technical Data

- Maximum continuous operating temperature:
 194° - 203° F [90° - 95° C]
- Excellent resistance against mineral oil, grease based, diesel, light fuel oil, vegetable oil and animal fat
- Low resistance against aromatic hydrocarbons (e.g. benzoyl), chlorinated hydrocarbons (e.g. trichloroethylene, and ester solvents)



Metric Tubing - Elastic Bushing Dimensional Data

UPC Number	Tubing OD mm	A		B		C		D		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
1903	8	0.47	12	0.31	8	0.55	14	0.79	20	0.98	25	0.12	3	0.47	12
1905	10	0.55	14	0.39	10	0.71	18	0.92	24	0.98	25	0.12	3	0.47	12
1906	12	0.63	16	0.47	12	0.71	18	0.94	24	0.98	25	0.16	4	0.47	12
1930	15	0.75	19	0.59	15	0.94	24	1.26	32	0.98	25	0.16	4	0.47	12
1931	16	0.79	20	0.63	16	0.94	24	1.26	32	0.98	25	0.16	4	0.47	12
1932	18	0.87	22	0.71	18	0.94	24	1.26	32	0.98	25	0.16	4	0.47	12
1914	20	0.94	24	0.79	20	1.18	30	1.57	40	0.98	25	0.20	5	0.47	12
1915	22	1.02	26	0.87	22	1.18	30	1.57	40	0.98	25	0.20	5	0.47	12
1916	25	1.14	29	0.98	25	1.38	35	1.77	45	0.98	25	0.20	5	0.47	12
1918	28	1.26	32	1.10	28	1.38	35	1.77	45	0.98	25	0.20	5	0.47	12
1919	30	1.34	34	1.18	30	1.57	40	1.97	50	0.98	25	0.20	5	0.47	12
1922	35	1.54	39	1.38	35	1.89	48	2.17	54	0.98	25	0.20	5	0.47	12
1923	38	1.65	42	1.50	38	1.89	48	2.17	54	0.98	25	0.20	5	0.47	12

Note: ■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Imperial Tubing - Elastic Bushing Dimensional Data

UPC Number	Tubing OD in	A		B		C		D		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
1907	1/4	0.41	10.5	0.25	6.35	0.47	12	0.71	18	0.98	25	0.12	3	0.47	12
1908	3/8	0.53	13.5	0.38	9.52	0.63	16	0.91	23	0.98	25	0.12	3	0.47	12
1909	1/2	0.67	17.0	0.50	12.70	0.94	24	1.26	32	0.98	25	0.12	3	0.47	12
1910	3/4	0.91	23.0	0.75	19.00	0.94	24	1.26	32	0.98	25	0.16	4	0.47	12
1911	1-1/4	1.42	36.0	1.25	31.75	1.57	40	1.97	50	0.98	25	0.20	5	0.47	12

Note: ■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.

Imperial Pipe - Elastic Bushing Dimensional Data

UPC Number	*Pipe Size in	A		B		C		D		E		F		G	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
1901	1/4	0.69	17.5	0.47	11.9	0.94	24.0	1.26	32	0.98	25	0.16	4	0.47	12
1933	1/2	0.98	25.0	0.76	19.4	1.18	30.0	1.57	40	0.98	25	0.20	5	0.47	12
1913	3/4	1.18	30.0	0.96	24.4	1.38	35.0	1.77	45	0.98	25	0.20	5	0.47	12
1917	1	1.46	37.0	1.24	31.4	1.57	40.0	1.97	50	0.98	25	0.20	5	0.47	12
1920	1-1/4	1.81	46.0	1.59	40.4	2.05	52.0	2.44	62	0.98	25	0.20	5	0.47	12
1924	1-1/2	2.05	52.0	1.83	46.4	2.28	58.0	2.68	68	0.98	25	0.24	6	0.47	12
1925	2	2.52	64.0	2.30	58.4	2.83	72.0	3.15	80	0.98	25	0.24	6	0.47	12
1926	2-1/2	3.15	80.0	2.97	75.4	3.48	88.5	4.33	110	0.98	25	0.24	6	0.47	12

Notes: ■ *indicates: Nominal Pipe Size (NPS).

■ When referencing the Lovejoy Hydraulics UPC number in this table, include 8452710 as a prefix to the number shown.



Product Warranty

Lovejoy, Inc. warrants all products it manufactures to be free from defects in material and workmanship at the time of delivery to the purchaser. Defective products may be returned to Lovejoy after inspection by the purchaser and upon receipt from Lovejoy of shipping instructions specific to the defective products authorized by Lovejoy to be returned. Products returned in accordance with the foregoing procedure will be replaced or repaired, at the option of Lovejoy, without charge and returned to the purchaser F.O.B. Downers Grove, Illinois or South Haven, Michigan, depending upon origin of manufacture. In all cases, transportation costs and charges for returned products shall be paid by the purchaser and Lovejoy hereby disclaims all responsibility for any and all such transportation costs and charges.

This warranty is subject to the following LIMITATIONS:

The purchaser's exclusive remedy under this warranty is limited to the repair or replacement of defective products supplied by Lovejoy, as set forth above. LOVEJOY IS NOT RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF THIS OR ANY OTHER EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE PRODUCTS, WHETHER ARISING IN TORT OR BY CONTRACT. LOVEJOY FURTHER DISCLAIMS ALL LIABILITY FROM PERSONAL INJURY RELATING TO ITS PRODUCTS TO THE EXTENT PERMITTED BY LAW. BY ACCEPTANCE OF ANY OF LOVEJOY'S PRODUCTS, THE PURCHASER ASSUMES ALL LIABILITY FOR THE CONSEQUENCES ARISING FROM THEIR USE OR MISUSE.

This express warranty is the only warranty applicable to this transaction. *IT EXCLUDES ALL OTHER EXPRESS ORAL OR WRITTEN WARRANTIES AND ALL WARRANTIES IMPLIED BY LAW WITH RESPECT TO THE PRODUCTS, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.*

Every claim under this warranty shall be deemed waived by the purchaser unless made in writing within one (1) year of the receipt of the products to which such claim relates. This warranty is void in the event that repairs are made by anyone other than Lovejoy without prior authorization from Lovejoy. No person, firm or corporation is authorized to assume for Lovejoy any other liability in connection with the sale of its products. No person, firm or corporation is authorized to modify or waive the terms of this Warranty unless done in writing and signed by a duly authorized agent of Lovejoy.

Note: Specifications are subject to change without notice, and without liability therefor.

Lovejoy's Hydraulic Products



Aluminum Tanks /
Reservoirs and Accessories



Water-Oil Coolers



Pump / Motor Mounts



Couplings for Hydraulics



THE FPDA
MOTION & CONTROL NETWORK
MEMBER

Member of
Hydraulic
INDUSTRY



ISO 9001:2008 Certified

Lovejoy, Inc. World Headquarters

2655 Wisconsin Avenue
Downers Grove, IL 60515 U.S.A.
Phone: 630-852-0500
Fax: 630-852-2120
hydraulicsinfo@lovejoy-inc.com

R+L Hydraulics GmbH

Friedrichstrasse 6
D-58791 Werdohl
Germany
Phone +49 (0) 23 39 / 5 09-0
Fax +49 (0) 23 92 / 5 09-509
info@rl-hydraulics.com
www.rl-hydraulics.com

Lovejoy Canada

171 Superior Boulevard
Mississauga, Ontario
Canada L5T 2L6
Phone: 905-670-9421
Fax: 905-670-4594
lovejoycanada@lovejoy-inc.com

Other Lovejoy Affiliates:

Lovejoy Sintered Solutions LLC

Manufacturer of made-to-order powder metal components
www.lovejoy-LSS.com

www.lovejoyhydraulics.com

Lovejoy® is a registered trademark of Lovejoy, Inc. All other trademarks, brands, and names mentioned in this publication are property of their respective owners.