

Free Floating Guided Lever Drain Traps

For Loads to 19 000 kg/h...Pressures to 69 bar



Armstrong's forged steel, free-floating guided lever drain traps use the same bodies, caps, lever mechanisms, valves and seats of Armstrong inverted bucket steam traps that have been proven in years of service. Elliptical floats and high leverage make it possible to open large orifices to provide adequate capacity for drain trap size and weight.

The hemispherical valve, seat and leverage of the 32-LD, 33-LD and 36-LD stainless steel traps are identical in design, materials and workmanship to those for saturated steam service up to 69 bar with the exception of the addition of a guidepost to assure a positive, leaktight valve closing under all conditions.

Model No.	Valve & Seat	Leverage System	Float	Body & Cap	Gasket
32-LD 33-LD 36-LD	Stainless Steel			Forged Steel ASTM A105	Compressed Asbestos-free

For information on special materials, consult the Armstrong Application Engineering Department.

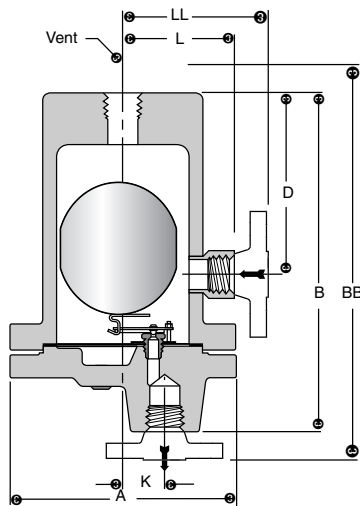


Figure LD-455-1.

Models 32-LD, 33-LD and 36-LD forged steel guided lever drain trap. Socketweld or flanged connections are also available.



Model No.	Forged Steel		
	32-LD †	33-LD †	36-LD †
Pipe Connections	15 – 20 – 25	15 – 20 – 25	40 – 50
"A"	171	203	302
"B"	259	295	435
"BB" (PN100*)	300 – 305	343 – 349 – 355	500 – 505
"D"	141	154	229
"K"	32	37	54
"L"	86	98	154
"LL" (PN100*)	127 – 132	145 – 153 – 159	198 – 204
Weight in kg (screwed & SW)	14	22	74
Weight in kg (flanged PN100*)	15,8 – 17,8	25,0 – 26,0	83,2 – 87,2
Maximum Allowable Pressure (Vessel Design)	41 bar @ 38°C 35 bar @ 400°C	69 bar @ 38°C 41 bar @ 400°C	

Note: Vessel design pressure may exceed float collapse pressure in some cases.

Pipe size of vent connection is same as that of inlet and outlet connections.

† Available in Type 316 stainless steel. Consult factory.

* Other flange sizes, ratings and face-to-face dimensions are available on request.

Shade indicates products that are CE Marked according to the PED (97/23/EC). All the other models comply with the Article 3.3 of the same directive.

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.



Fixed Pivot and Snap Action Drain Traps

For Loads to 1 770 kg/h...Pressures to 69 bar

Continuous Flow or On-Off Float Type Drain Traps

Armstrong's line of fixed lever and snap action drain traps includes two basic models available in cast iron and forged steel. The floats are light enough to handle light liquids.

No. 21 – A small, high-quality, economical drain trap for use on drainage jobs where dirt and oil are not encountered. It employs a single lever with a fixed pivot.

No. 21-312 – Forged steel version of the No. 21 with larger float and higher leverage.

No. 71-A – Wide open, tight-shut drain trap for use where fine dirt and grit may be present or where liquid load is light. A flat spring in the leverage system holds the valve closed until the trap body is nearly full of water. Then it snaps open, washing dirt through. When the trap body is nearly empty, the spring snaps the valve shut.

No. 71-315 – Forged steel version of No. 71-A.

Caution: Ball float drain traps are not recommended where heavy oil, sludge or considerable dirt are encountered in lines. Under these circumstances use Armstrong inverted bucket BVSU traps.

Table LD-456-1. Maximum Operating Pressures in bar for Handling Different Specific Gravity With Orifices Available in Fixed Lever and Snap Action Drain Traps (See pages LD-438 and LD-439)

Model No.	Sp. Grav.	1,00	0,95	0,90	0,85	0,80	0,75	0,70	0,65	0,60	0,55	0,50	
													Maximum Operating Pressure in bar @ 38°C
Orifice Size (in)		bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	bar	
21	1/4"	1,5	1,4	1,3	1,1	1,0	0,9	0,8	0,7	0,5	0,4	0,3	
	7/32"	1,9	1,8	1,6	1,5	1,0	1,2	1,0	0,9	0,7	0,6	0,4	
	3/16"	2,6	2,4	2,2	2,0	1,8	1,6	1,4	1,2	1,0	0,7	0,5	
	5/32"	3,8	3,5	3,2	2,9	2,6	2,3	2,0	1,7	1,4	1,1	0,8	
	9/64"	4,6	4,2	3,9	3,5	3,1	2,8	2,4	2,1	1,7	1,3	1,0	
	1/8"	5,8	5,4	4,9	4,4	4,0	3,5	3,0	2,6	2,1	1,7	1,2	
	3/32"	10,2	9,4	8,6	7,7	6,9	6,1	5,3	4,5	3,7	2,9	2,1	
	5/64"	14,0	13,0	12,0	11,0	9,9	8,7	7,6	6,4	5,3	4,1	3,0	
1/16"	17,0	17,0	17,0	17,0	15,0	13,0	12,0	9,9	8,1	6,3	4,6		
21-312*	96 g Float	1/4"	2,9	2,7	2,5	2,3	2,1	1,9	1,7	1,5	1,3	1,1	0,9
		7/32"	3,8	3,5	3,2	3,0	2,7	2,5	2,2	2,0	1,7	1,5	1,2
		3/16"	5,1	4,7	4,4	4,0	3,7	3,4	3,0	2,7	2,3	2,0	1,6
		5/32"	14,0	14,0	13,0	12,0	10,6	9,6	8,6	7,6	6,6	5,6	4,6
	128 g Float	9/64"	16,0	15,0	14,0	14,0	13,0	12,0	10,6	9,4	8,1	6,9	5,7
		1/8"	20,0	18,0	17,0	15,0	14,0	14,0	13,0	12,0	10,2	8,7	7,2
		3/32"	34,0	32,0	29,0	27,0	24,0	21,0	19,0	16,0	14,0	14,0	13,0
	170 g Float	5/64"	41,0	37,0	34,0	34,0	34,0	30,0	27,0	23,0	19,0	15,0	14,0
		1/16"	41,0	41,0	41,0	41,0	39,0	34,0	34,0	34,0	29,0	23,0	17,0
	71-A & 71-315	1/4"	0,7	0,7	0,7	0,7	**	**	**	**	–	–	–
		3/16"	1,4	1,4	1,4	1,4	**	**	**	**	–	–	–
		1/8"	6,9	6,9	6,9	6,9	**	**	**	**	–	–	–
7/64"		14,0	14,0	14,0	14,0	**	**	**	**	–	–	–	
71-A	5/64"	17,0	17,0	17,0	17,0	–	–	–	–	–	–	–	
71-315	5/64"	35,0	35,0	35,0	35,0	–	–	–	–	–	–	–	
	1/16"	69,0	69,0	69,0	69,0	–	–	–	–	–	–	–	

Note: If actual specific gravity falls between those shown in above table, use next lower. For example, if actual gravity is 0,73, use 0,70 gravity data.

* 5/32" orifice (and smaller) utilizes higher leverage mechanism designated 21-312V.

** For applications on liquids of specific gravity 0,65 to 0,85, consult factory.