Selection Guide for Hansen Relief Valves incl. Discharge Pipe Sizes with Equivalent Lengths

Vessel Diameter (m)	0.900		Min. Capacity	Equivalent Length of Discharge Pipe, Maximum (m)											Atmospheric
Vessel Length (m)	2.000			Internal Pipe Diameter (DN)							Internal Tube Diameter (DN)				Pressure at 20°C
Refrigerant	Model	Set Pressure (kPa)	[Air] (kg/hr)	20	25	32	40	50	65	80	20	25	32	40	(kPa)
R717 (NH_3)	~~H5600R~~	~~½" x ¾" FPT~~	~~456~~	~~6.86~~	~~29.31~~	~~132.75~~	~~301.22~~				~~10.56~~	~~53.86~~	~~170.39~~	~~427.74~~	101.325
Near Combustibles?	~~H5602R~~	~~¾" x 1" FPT~~	~~456~~	~~6.86~~	~~29.31~~	~~132.75~~	~~301.22~~				~~10.56~~	~~53.86~~	~~170.39~~	~~427.74~~	Rupture Disc?
Yes	H5632R	¾" x 1" FPT	954		4.40	27.08	64.89	252.56				7.63	32.93	90.38	No
Elevation (m)	H5633R	1" x 1¼" FPT	1226		1.49	14.73	37.28	150.19	390.23			2.23	16.88	50.97	Tattle Indicator?
0	H5600A	½" x ¾" FPT	1355		0.68	11.29	29.60	121.69	317.90			0.72	12.41	40.00	No
Steps:	H5634R	1¼" x 1½" FPT	1461		0.17	9.13	24.75	103.70	272.23				9.58	33.08	*Available 1" to 4"*
1. Enter Vessel	H5601	½" x 1" FPT	1549			7.65	21.45	91.49	241.22				7.67	28.37	**Steps (cont'd):**
Diameter/Length	H5602	¾" x 1" FPT	1549			7.65	21.45	91.49	241.22				7.67	28.37	6. Rupture Disc
2. Enter Set Pressure	H5613	1" x 1¼" FPT	2293			1.20	7.02	37.97	105.37	344.08				7.77	Required?
3. Select Refrigerant	H5604	1¼" x 1½" FPT	3117				1.46	17.36	53.05	181.01					
4. Vessel within 6.1m of Combustibles?	~~EZB~~	~~½" x ¾" MPT or BW ¾" x 1" MPT or BW~~	~~456~~	~~6.86~~	~~29.31~~	~~132.75~~	~~301.22~~				~~10.56~~	~~53.86~~	~~170.39~~	~~427.74~~	7. Tattle Relief Vent Indicator Required?
5. Enter elevation	EZC	¾" x 1" MPT or BW	953		4.41	27.14	65.04	253.11				7.66	33.02	90.59	
(above sea level)	EZE	1" x 1¼" MPT or BW	1226		1.49	14.73	37.28	150.19	390.23			2.23	16.88	50.97	
	EZF	1¼" x 1½" MPT or BW	1452		0.21	9.29	25.12	105.08	275.72				9.80	33.61	

The derived figures in the table above are generated based on expectations of AS/NZS 5149.2:2016 and information & data from Hansen Bulletins. The formulation is erred to give conservative equivalent length (slightly shorter) but expected to be within 0.5% of length required so to correspond to the manufacturer's expected flow capacity rating stamped on the valve label. Should your application requirements be within 1% of the guide figure limits it is likely worth checking vessel dimensions, the actual manufacturer's stamped valve capacity and your discharge pipe length requirements before possibly selecting a larger valve and/or a larger outlet pipe size. For applications venting into manifolds or a common vent line or to a diffusion tank, additional and alternative considerations outside of this guide will need to be made to ensure that each relief valve outlet pressure is less than the maximum allowable under the standard.

Note that the Hansen H56__ range will be manufactured as standard with the POP-EYE feature (bright flashing LED when a relief valve lifts) from August 2019.

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