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100MM (4") CHECK VALVE SPOOL

DATA SHEET

PART No: CVS110

- TITLE:** Check Valve for loading arm.
- OPERATION:** Product flow through the loading arm opens the poppet inside the CVS110. The poppet starts to open at 40kPa (5.8 PSI) against the pre-set spring. Optional sight glass shows presence of product.
- Since the arm can no longer be drained by just opening the coupler, 2 drain bosses have been incorporated into the valve. One on the API side of the poppet, to allow product to be drained from the outlet side of the CVS110, for removal and servicing of the API coupler. The 2nd is on the loading arm side of the poppet to allow sampling or complete draining of the loading arm for servicing and repair of up stream components like the outboard swivel and hose.
- FEATURES:** The valve is designed to hold back the product in the loading arm so that the pipework will not drain when the API coupler is opened. For example if the arm is accidentally connected to the wrong compartment and the coupler opened, a volume of product can spill into the tanker prior to pumping starting. This can contaminate the correct product when the correct arm is finally connected.
- CVS110 also prevents pilfering by drainage of the drop hose section.
- DISMANTLE:** Remove from loading arm. Clamp valve between the two flanges. Remove the 2 countersunk screws. Carefully loosen the clamps and allow the spring to reach its free length. Remove spring & poppet assembly by tilting the poppet.
- ADJUSTMENT:** None
- MOUNTING:** 100mm (4") TTMA flanges.
- TECHNICAL DATA:**
- Aluminium body, poppet and spider.
 - Stainless steel spring & high-tensile steel shaft.
 - Viton product seal.
 - Brass drain plugs and over pressure valve.
 - Opening pressure in flow direction = 45kPa (6.5 PSI)
 - Over pressure in non-flow direction = 250kPa (36 PSI) (emergency relief in reverse direction to allow for thermal expansion).
 - Weight 4.0 kg (8.8lb)
- ASSOCIATED EQUIPMENT:** VSA4 (15 degree spool)
VSS4 (straight spool).

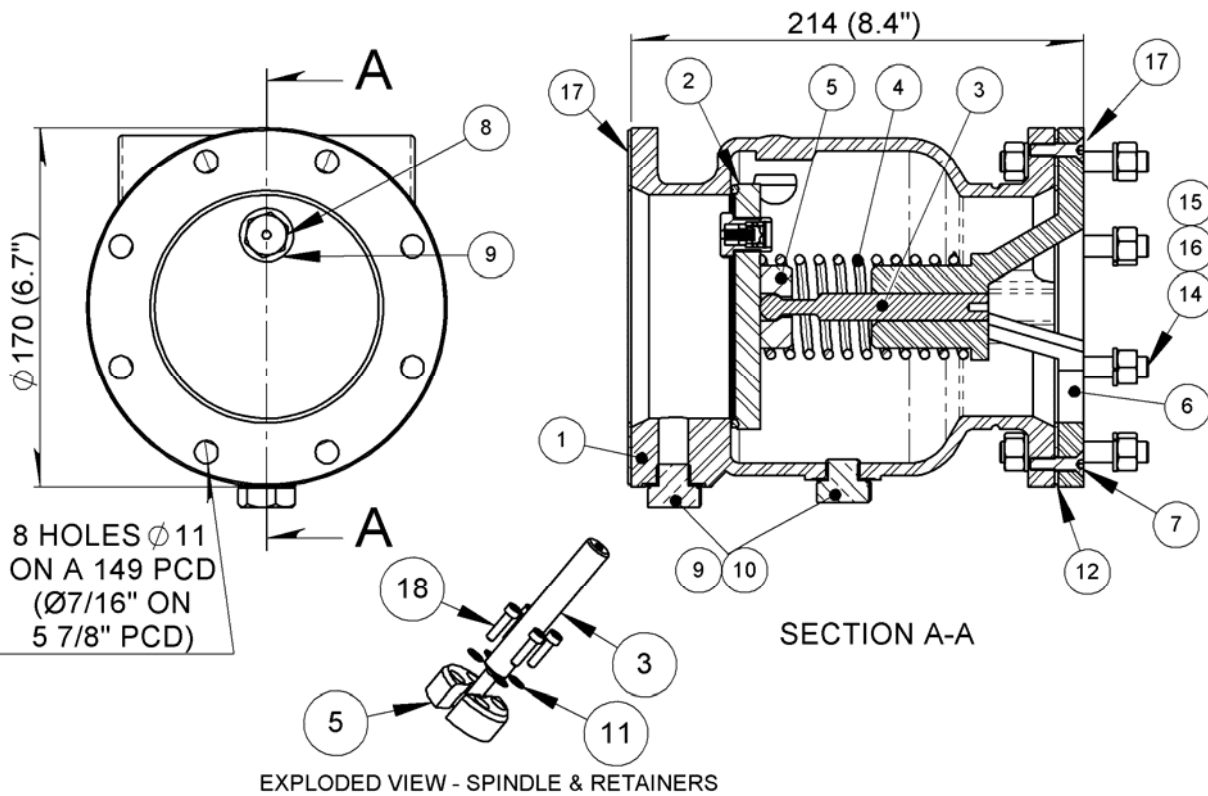
Overall dimensions shown on the drawing overleaf.



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LIQUIP CVS110



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	MATERIAL
1	CVS110-1	BODY FOR HOLD BACK VALVE	1	ALUMINIUM
2	CVS110-3	POPPET	1	ALUMINIUM / VITON
3	CVS110-5	SPINDLE	1	GROUND STEEL BAR
4	6167	SPRING COMPRESSION	1	SPRING STEEL
5	CVS110-6	RETAINER FOR SPINDLE	2	ALUMINIUM
6	CVS110-4	SPIDER	1	ALUMINIUM
7	6657	CAPSCREW C/SUNK METRIC	2	STEEL
8	CVM103	CHECK VALVE MINIATURE	1	ASSEMBLY
9	0885	WASHER FIBRE	3	FIBRE
10	PCU201-7	PLUG M16 CONDUIT	2	BRASS
11	5324	WASHER SHK-PRF INT	4	ST STEEL
12	7557	GASKET TTMA 100mm (4")	1	KLINGER SIL
13	7449	DATASHEET/INSTRUCTIONS	1	PAPER
14	6665	STUD METRIC	8	ST STEEL
15	5261	WASHER SPRING	16	STEEL
16	6473	NUT METRIC	16	ST STEEL
17	4248	GASKET TTMA 100mm (4")	2	KLINGER SIL
18	4835	CAPSCREW METRIC	4	STEEL ZP

X300105

Issue: D

METERS - VALVES - VENTS - MANHOLES - PUMPS - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS



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