 TORUS	 - Owner PROCESS DATASHEET, LCV-104 FILTER SEPARATOR LIQUID DUMP VALVE	Document No.	PRO-DS-002		
		Revision / Date	A · September 29, 2026		
		Issue purpose	Issued for Review		
PROCESS · PROCESS DATASHEET, LCV-104 FILTER SEPARATOR LIQUID DUMP VALVE					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
A	2026-09-29	Issued for Review			

GENERAL

Item	Value	Item	Value
Tag	LCV-104, with LT-104 / LIC-104	Service	V-101 liquid dump to T-101
Fluid	Condensate, water, oil; gas-saturated	Specific gravity	About 0.85
Upstream line	2"-L-1060-A6	Downstream line	4"-L-1060-D1
Design pressure, inlet	1,440 psig	Design temperature	-20 to 150 °F

OPERATING CONDITIONS

Condition	Case C1, maximum pressure	Case C5, minimum pressure
Liquid flow, gpm	30	30
Inlet pressure, psia	1,164	913
Outlet pressure, psia	19.1	19.1
Vapor pressure	Equal to inlet (saturated)	Equal to inlet (saturated)
F_F (water basis)	0.791	0.811
Choked pressure drop, psi	197	140
Required C_v	2.14	2.53
Share of rated C_v , %	53	63

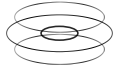
VALVE

Item	Value	Item	Value
Body	NPS 2 angle	Rating	Class 600 RF inlet
Trim	Reduced, hardened, flow over plug	Rated C_v	4.0
F_L / x_T	0.9 / 0.7	Characteristic	Linear
Seat leakage	ANSI/FCI 70-2 Class V	Actuator	Electric, fail as-is

PROTECTION

Item	Value
Upstream shutoff	SDV-106, electric spring-return, fail closed
Trips	LSLL-106 and LSHH-192 close SDV-106 and LCV-104; station ESD closes SDV-106
Blow-by limiter	RO-104, 7/16 in, downstream
Blow-by, valve wide open, with RO-104	8,000 lb/h (131,000 SCFH air)



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NOTES

1. Sizing per  PRO-CAL-005, Filter Separator, and  PRO-CAL-007, Pressure Relief Devices.
2. The flashing liquid is sized on the choked pressure drop with water properties, which gives the larger C_v .
3. The normal liquids rate is HOLD H-20 and the pig slug volume HOLD H-16.
4. Rated C_v , F_L and x_T : Vendor to confirm (HOLD H-15).
5. Process data only. The mechanical, instrument and electrical datasheets complete the purchase specification.
6. Pressures are gauge unless stated. Standard conditions are 14.73 psia and 60 °F; local atmospheric pressure is 14.10 psia.
7. Values marked HOLD H-15 are typical and shall be confirmed by the selected vendor.

