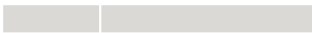
 TORUS	 · Owner PROCESS DATASHEET, V-101 FILTER SEPARATOR	Document No.	PRO-DS-010		
		Revision / Date	A · September 29, 2026		
		Issue purpose	Issued for Review		
PROCESS · PROCESS DATASHEET, V-101 FILTER SEPARATOR					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
A	2026-09-29	Issued for Review			

OPERATING CASES

Case	Gas flow, MMSCFD	Pressure, psig	Temperature, °F	Actual flow, acfm	Nozzle pv^2 , lb/ft·s ²
C1	120	1,149	45	799	1,470
C2	90	1,050	70	736	1,010
C3	10	1,000	60	84	13
C4	120	1,099	120	1,090	1,990
C5	120	899	60	1,130	2,080
C6	120	1,149	45	799	1,470
C7	120	1,099	60	856	1,680

VESSEL

Item	Value	Item	Value
Type	Horizontal two-stage filter separator	Size	42 in ID x 15 ft S/S
Design	1,440 psig at -20 / 150 °F	Code	ASME VIII Div. 1, 1/16 in CA
Shell	1.75 in, PWHT, CVN at -20 °F	Closure	Quick-opening, pressure warning interlock
Liquid barrel	NPS 24 x 14 ft, two compartments	Shop hydrotest	2,225 psig

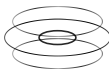
SEPARATION

Item	Value	Item	Value
First stage	16 coalescing elements, 4.5 in x 72 in	Element rating	1 micron absolute, 50 psid collapse
Second stage	High-capacity double-pocket vanes	Vane K	At least 0.90 ft/s at pressure
Removal	99 % of 8 micron and larger, case C5	Clean pressure drop	2 psi at 120 MMSCFD, 900 psig
Change-out	10 psid on PDIT-103	Inlet device	Vane type

LIQUIDS AND LEVELS

Item	Value	Item	Value
Normal liquids	2 bbl/d	Pig slug	5 bbl in 2 min
LSLL-106	10 % of barrel ID	LAL	20 %
NLL	30 %	LAH	70 %
LSHH-105	85 %	Dump valve	LCV-104



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NOZZLES AND RELIEF

Item	Value
Nozzles	Inlet 12 in; gas outlet 12 in; liquid outlet 2 in per compartment; PSV 2 in
Relief	PSV-101, API 526 E, set 1,440 psig

NOTES

1. Sizing per  PRO-CAL-005, Filter Separator.
2. The normal liquids rate is HOLD H-20 and the pig slug volume HOLD H-16.
3. Element and vane performance: Vendor to confirm (HOLD H-15).
4. Process data only. The mechanical, instrument and electrical datasheets complete the purchase specification.
5. Pressures are gauge unless stated. Standard conditions are 14.73 psia and 60 °F; local atmospheric pressure is 14.10 psia.
6. Values marked HOLD H-15 are typical and shall be confirmed by the selected vendor.

