

 TORUS	 - Owner PROCESS DATASHEET, PVRV-193, FA-193 AND EV-193 TANK VENTING	Document No.	PRO-DS-008		
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PROCESS · PROCESS DATASHEET, PVRV-193, FA-193 AND EV-193 TANK VENTING					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
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TANK

Item	Value	Item	Value
Tag	T-101	Type	API 12F, 100 bbl
Size	9 ft 6 in OD x 8 ft shell	Design pressure	16 oz/in ²
Design vacuum	1 oz/in ²	Contents	Condensate, water, oil; flashing on receipt

VENTING REQUIREMENTS

Item	Value
Normal outbreathing	30,900 SCFH air
Normal inbreathing	4,900 SCFH air
Emergency, external fire	253,000 SCFH air
Emergency, LCV-104 blow-by with RO-104	131,000 SCFH air
Emergency venting required	253,000 SCFH air

DEVICES

Tag	Description	Setting
PVRV-193	NPS 6 pressure and vacuum relief valve	8 oz/in ² pressure, 0.4 oz/in ² vacuum
FA-193	NPS 6 in-line deflagration flame arrestor, Group IIA (NEC Group D)	Pressure drop under 1 oz/in ² at rated flow
EV-193	16 in emergency pressure-relief manway	Set 12 oz/in ² , full open by 16 oz/in ²

MATERIALS

Item	Value
Bodies	Aluminum or stainless steel
Internals and seats	Stainless steel; FKM or PTFE seats

NOTES

- Venting per API 2000 (7th edition), calculated in  PRO-CAL-007. Normal outbreathing is governed by flash gas during a liquid dump (flash factor HOLD H-12).
- EV-193 is required because PVRV-193 alone cannot pass the fire case or the blow-by case.
- Flow curves: Vendor to confirm (HOLD H-15).
- Process data only. The mechanical, instrument and electrical datasheets complete the purchase specification.
- Pressures are gauge unless stated. Standard conditions are 14.73 psia and 60 °F; local atmospheric pressure is 14.10 psia.
- Values marked HOLD H-15 are typical and shall be confirmed by the selected vendor.

