

 TORUS	· Owner PROCESS DATASHEET, VS-101 VENT STACK	Document No.	PRO-DS-011		
		Revision / Date	A · September 29, 2026		
		Issue purpose	Issued for Review		
PROCESS · PROCESS DATASHEET, VS-101 VENT STACK					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
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STACK

Item	Value	Item	Value
Size	NPS 8 Sch 40 x 25 ft above grade	Material	304L/316L SS, spec S1
Minimum design temperature	-150 °F	Location	Plot (40, 160)
Tip	Open, no rain cap	Strakes	Helical, top 8 ft
Base drain	2 in valve with plug, portable pan	Support	Self-supporting or guyed, 108 mph wind

DESIGN FLOWS

Item	Value
Single-section blowdown, inlet section peak	16,900 lb/h
Simultaneous blowdown peak (not permitted)	36,000 lb/h
PSV-101 fire relief, rated	18,100 lb/h
Minimum gas temperature	-64 °F inlet section; -126 °F outlet section after upset

RADIATION IF IGNITED

Item	Value
Inlet section blowdown, at base	2,150 Btu/h-ft ²
Inlet section blowdown, at 50 ft	1,410 Btu/h-ft ²
Basis	API 521 simple method, solar 317 Btu/h-ft ² included

NOTES

- Sizing per PRO-CAL-008, Blowdown and Vent System. Sections shall be blown down one at a time; simultaneous blowdown would need a 43 ft stack.
- Grounding and lightning protection by the electrical design.
- 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.

