

 TORUS	  · Owner PROCESS DATASHEET, TSV-136 THERMAL RELIEF VALVE	Document No.	PRO-DS-007		
		Revision / Date	A · September 29, 2026		
		Issue purpose	Issued for Review		
PROCESS · PROCESS DATASHEET, TSV-136 THERMAL RELIEF VALVE					
Rev.	Date	Revision description	Prepared	Reviewed	Approved
A	2026-09-29	Issued for Review			

GENERAL

Item	Value	Item	Value
Tag	TSV-136	Protected section	Line 1040, SDV-102 to SDV-103
Contingency	Solar heating after trip	Trapped state	1,290 psig, 18 °F (OPSS peak bound)
Pressure if unprotected	2,060 psig at 150 °F	Code	ASME Section XIII

RELIEVING CONDITIONS AND SELECTION

Item	Value	Item	Value
Set pressure	1,440 psig	Relief load	71 lb/h
Relieving temperature	68 °F	Z / ideal-gas k	0.765 / 1.279
Required area	0.0006 in ²	Selected	3/4 x 1 in, 0.038 in ² orifice
Inlet loss	0.5 % of set	Built-up back pressure	5.1 % of set

VALVE

Item	Value	Item	Value
Inlet	3/4 in Class 600	Outlet	1 in, expanded to NPS 1-1/2 into line 1074
Materials	316 SS body and trim	Discharge	Vent header to VS-101

NOTES

- Sizing per  PRO-CAL-007. The load is small, so a thermal relief valve smaller than API 526 D is used.
- Orifice area: 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.