

NATCO SHV Flare

Emission control system

APPLICATIONS

- Controlling emissions from the glycol dehydration process

BENEFITS

- Proprietary internal-burner venturi design requires less fuel gas, generates greater volatile organic compound (VOC) combustion (destruction) efficiency, and decreases or eliminates reconcentrator backpressure to reduce opex
- External superheater (stack heat exchanger) uses waste heat from the reboiler exhaust stack, reduces liquid accumulation and disposal, enhances clean burn and water vaporization, and operates in cold weather without freezing to reduce opex
- Safety-enhanced operation is enabled by automated ignition and shutdown capabilities and the caged platform and ladder per OSHA design requirements for adjusting the flare for a wide range of operating conditions

Enabling gas producer compliance with emission regulations

The NATCO SHV Flare* emission control system is installed downstream of glycol reboiler still columns to burn unwanted emissions and help gas producers comply with environmental regulations governing VOC emissions, including benzene, toluene, ethylbenzene, and xylene (BTEX). Whether supplied with new equipment or easily retrofitted to existing glycol dehydration units, the NATCO SHV Flare system delivers VOC destruction efficiency of 95%–98%. Reboiler emission vapors are superheated before being burned to eliminate costly liquid disposal.

The system and piping are designed to reduce backpressure on the atmospheric glycol reconcentration system, which in turn prevents glycol contamination in the reboiler surge tank. The vapor superheater economically uses waste heat from the reboiler flue gas to superheat the emissions, so no other heat source is required.



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NATCO SHV Flare System Specifications

Model	Waste Gas, lbm/h		Assist Gas, lbm/h		Mixer Eductor	Standpipe, ft
	Min.	Max.	5 psi	20 psi		
2S	0	25	1.9	3.4	2	8
2L	25	60	7.8	13.7	2	8
2.5S	60	100	9.16	16.1	2.5	8
2.5L	100	175	21.7	38.2	2.5	8
3	175	300	30.4	53.6	3	12
4	300	450	52.0	91.7	4	12
5	450	650	74.6	132	5	16
6	650	950	132	233	6	18

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