



**Pumping Gas/Steam or Gas Motive
Models GL, GH, U, L, 2NC**

Penberthy jet pumps can also use steam or a gas (air) as the operating media for exhausting, evacuating or priming operations.

Primary uses of these types of pumps are for exhausting or evacuating gases. **Exhausting** means removing gases from an area at a continuous rate while maintaining pressure at a constant level.

Evacuation means drawing gases from a defined volume by pumping the vessel down from an initial pressure to a final lower pressure. These steam/gas motive jet pumps meet the industry's most stringent requirements, while providing a simple, low-cost method of transporting gases, operating flawlessly even in the harshest work environments.

Penberthy **Models GL and GH** operate at pressures from 20 to 120 psig (140 to 830 kPag), the overall capacity being slightly higher when using air as the operating media. **U and L Models** are single-stage ejectors while the **2NC** is a two-stage, non-condensing ejector using steam as the operating media. All these units provide maintenance-free pumping capabilities. Some uses for steam/gas motive jet pumps include: creating vacuums, exhausting vapors from process systems, evacuating tanks & vessels, priming, fume removal, fluid concentration, humidifying and drying. Industries that could benefit from the use of these jet pumps might include: chemical processing, textile manufacturing, food processing, petroleum production & refining, sterilization and HVAC.

Models Available

GL, GH, U, L, 2NC



Selection Guide

As with pumping gas with liquid motive, steam/gas motive jet pumps require similar information in order to determine the specific jet pump model to fit a particular gas pumping application. These typical applications also involve either *exhausting* or *evacuating*. Complete the application form with the required information as shown below. Then consult your Penberthy sales representative on the proper pump for your specific application.

If Exhausting (Continuous Suction Flow)

MOTIVE:

Gas/Steam:

- Pressure (Available)
- Flow Rate (Available volume-scfm)
- Temperature
- Molecular Weight (Gas only)

SUCTION:

Gas/Steam:

- Pressure (Inches Hg Abs-kg/cm² Hg Abs)
- Flow Rate-scfm
- Temperature
- Molecular Weight

DISCHARGE:

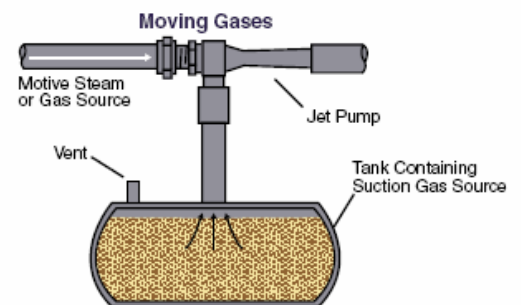
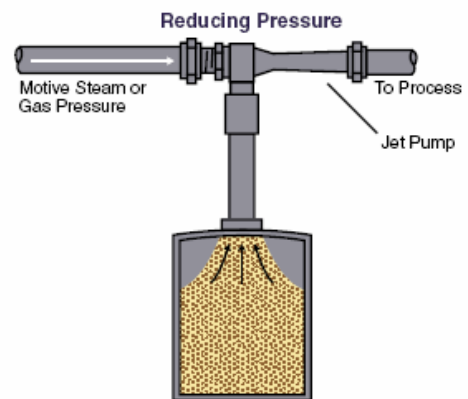
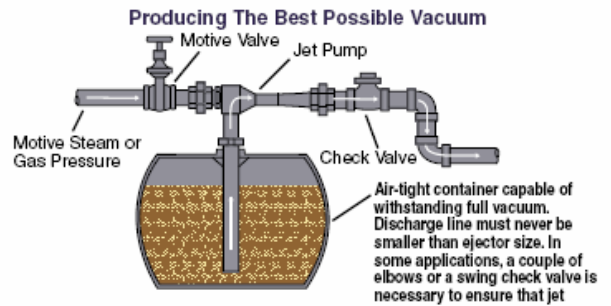
- Pressure (That unit must overcome)

If Evacuating (Sealed Vessel-Pump Down)

- Volume of Space To Evacuate
- Required Evacuation Time (minutes)

All conditions are measured at the Motive, Suction and Discharge ports.

Typical Applications



Model Construction Data

Model	GL, GH	U, L, 2NC
Sizes Available	1/2"A-4"	1H-18H Cast: Carbon Steel, Iron Body, 316 STS Nozzle or All 316 STS
	4" & up	
	1/2"A-3"	
	Standard Materials Cast: Low Lead Bronze, Iron, C. Steel, 316 STS Fabricated: Carbon Steel, 316 STS Non-Metallic: PVC, PP, PVDF (Kynar™)	

Model Specifications

Model	GL	GH	U	L	2NC
Motive medium	Steam, Gas	Steam, Gas	Steam	Steam	Steam
Motive medium pressure range	60-120 psig (415-830 kPag)	20-80 psig (140-550 kPag)	80-200 psig (550-1380 kPag)	80-200 psig (550-1380 kPag)	100-200 psig (690-1380 kPag)
Application range, inches Hg Abs/(kg/cm ² Abs)	6-30 (.18-1.04)	6.5-30 (.2-1.04)	6-12 (.18-.36)	3-6 (.09-.18)	0.5-3 (.002-.09)
Functions	Evac/Exh/Prime	Evac/Exh/Prime	Evac/Exh	Evac/Exh	Evac/Exh