Gas/Liquid Separators

Type L
Horizontal or Vertical
Fabricated Construction

• 10 Models for Application Flexibility
• Low Profile
• Horizontal or Vertical Flow
• Flanged Connections
• Fabricated Carbon Steel or Stainless Steel Construction

FEATURES
• Compact Design
• No Required Maintenance
• Removes 99% of Liquid and Solid Entrainment Particles Larger Than 10 Microns
• Gas, Steam, or Air Applications

OPTIONS
• Oversized Inlet Connections
• Reduced Size Inlet and Outlet Connections
• Different Flow Patterns
• Integral Sump
• ASME Code Stamp
• Support Legs

High Efficiency – No Maintenance
The Eaton Type L Gas/Liquid Separator automatically removes 99% of all liquid and solid entrainment particles 10 microns in size or larger. And it does so with no moving parts to break or wear out. Series L Gas/Liquid Separators perform to specification year in and year out with no maintenance.

Operation
Moisture-laden gas enters the inlet of the separator where it is deflected through a unique Cenpellar™ into a centrifugal motion. The entrained solids and moisture droplets are separated out by a reduction in velocity of the flow. Separated liquids and solids fall out of the gas stream below the exclusive Eaton Vortex Containment Plate (VCP) where they cannot be re-entrained. The VCP eliminates the need for the expensive, delicate baffles used in other separators, and helps direct the clean, dry flow to the outlet of the separator.

There are 10 different models available to match the needs of just about any application no matter what the flow direction or piping system orientation.

Type L with In-line Piping Connections
The Model 31-L Separator is an in-line separator that can be installed horizontally or vertically for downflow applications. Models installed horizontally can be ordered with sump and water gauge mountings. Horizontally and vertically installed models can be furnished with reduced size inlet and outlet flanges to accommodate higher flow rates in smaller pipelines with an acceptable pressure drop. In all, five different configurations are offered to meet exact application requirements. The Model 32-L is an in-line vertical upflow separator.
Standard Type L Separators for Horizontal or Vertical Upflow Applications

Model 31-L (Standard Model)  Model 31-LS with Optional Sump  Model 32-L Vertical Upflow Separator

Type L Separators with Offset Piping Connections

Model 33-L Vertical Downflow with Offset Outlet  Model 35-L Vertical Upflow with Offset Inlet  Model 37-L Vertical Upflow with Offset Outlet

Model 34-L Horizontal Downflow with Offset Outlet  Model 36-L Vertical Upflow with Horizontal Outlet
Dimensions: Type L Gas/Liquid Separators (in/mm)

| Size | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 36 | 42 |
|------|-------|---|-------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| T    | 14.00 | 14.50| 14.50| 16.50| 17.50| 19.50| 21.00| 24.00| 27.00| 30.00| 33.00| 35.00| 39.00| 42.00| 46.00| 47.00| 50.00| 54.00| 55.00| 63.00| 70.00|
| NPT  | 1.00 | 1.00 | 1.00 | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.50 | 2.50 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |

* Flanged drain

Notes: 1. Dimensions shown for 1 1/2" through 6" are valid for 150 lb., 300 lb., and 600 lb. ANSI flanges.
2. Dimensions for 8" size and larger are valid for 150 lb. and 300 lb. flanges. Four inch drains and larger have flanged fittings.
3. Designed and constructed for the latest ASME code for unfired vessels. Section VIII, division 1, with stamp.
**Installation Suggestions**

Eaton steam separator with Y-strainer and bucket-type trap

Eaton air or gas separator with sediment pocket and float-type trap

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**Notes:**

1. In air or gas installations, keep piping between separator and trap as short as possible and add 1/4” balance line as indicated.

2. For positive drainage of separator, install trap a minimum of 6” below separator drain. For every inch of horizontal piping to trap, add 1” to the vertical piping. Never allow the top of the trap to extend above drain connection.