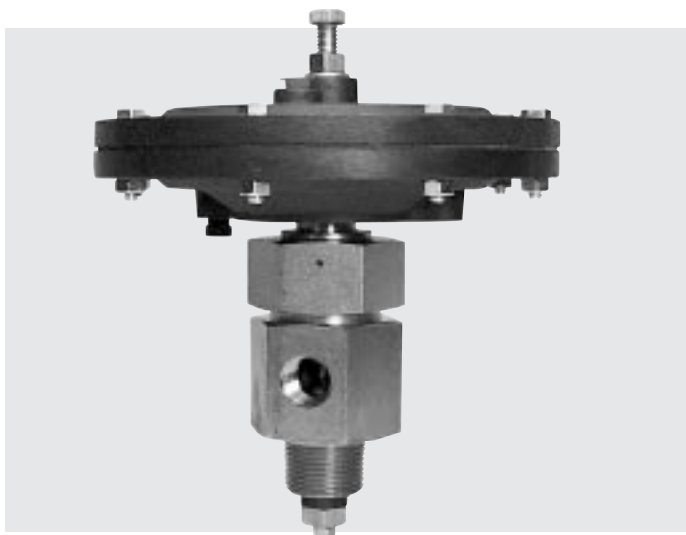


Dump Valves

DVU-01069B
Revised 07-02
Catalog Section 15
(00-02-0482)

FWMurphy



DVU Series

- For Separators/Scrubbers to 2000 psi (13.8 MPa) [138 bar] Vessel Pressure
- Hex Union Allows Plug and Seat Replacement Without Piping Removal
- Operates on 30–70 psi (2.07–4.83 kPa) [2.07–4.83 bar] Control Pressure
- Compatible With Murphy Level Controls
- Soft Seat Valve

Description

The DVU Series models are pneumatically controlled dump valves. The valves open and close automatically by pneumatic control from a Murphy L1200NDVOR or similar level controller and dump valve operator. Diaphragm actuated, the DVU series dump valves operate at 30–70 psi (207–483 kPa) [2.07–4.83 bar] and up to 2000 psi (13.8 MPa) [138 bar] vessel pressure (depending on the model).

A key benefit of this design is a hex union that provides the ability to replace the seat without removing the valve from piping.

Application

Designed for gas compressor scrubbers, the DVU Series can be used to dump any liquids compatible with its specifications.

Specifications

Operating Temperature:

-30 to 250°F (-34.4 to +121°C)

Valve Operating Pressure: See chart below.

Maximum Process Pressure:

DVU150 and DVU175: 1800 psi (12.4 MPa) [124 bar].

DVU2105: 500 psi (3.44 MPa) [34 bar].

DVU2115: 1500 psi (10.3 MPa) [103 bar].

DVU2120: 2000 psi (13.8 MPa) [138 bar].

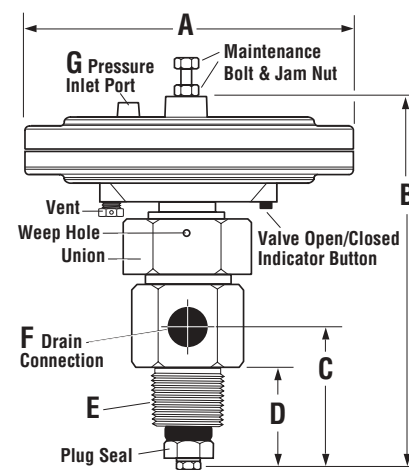
Body Material: Electroless Nickel Plated
12L14 Carbon Steel.

Internal Wetted Parts:

Plug Seal: 90 Durometer Urethane.

Other: 303 stainless steel; Electroless
Nickel Plated 12L14 Carbon Steel.

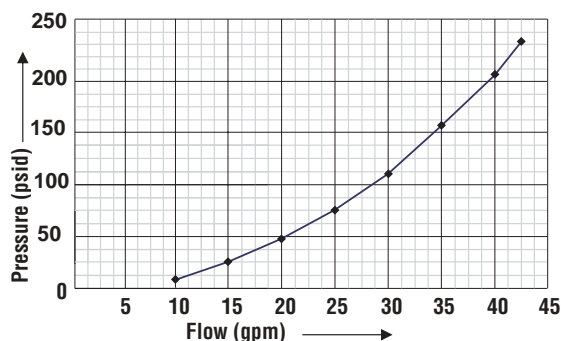
Dimensions



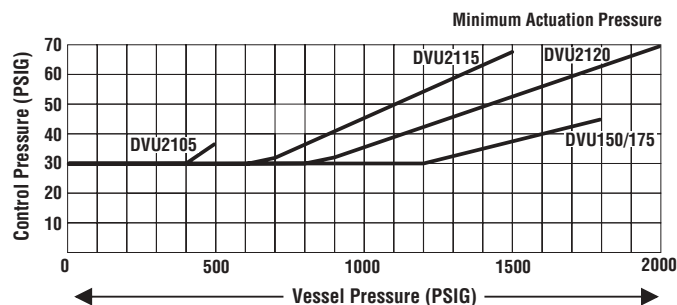
	DVU150	DVU75	DVU2105	DVU2115	DVU2120
A	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)
B	7.86 (200)	7.86 (200)	8.94 (227)	9.00 (229)	9.09 (231)
C	3.04 (77)	3.04 (77)	3.58 (91)	3.64 (92)	3.73 (95)
D	2.04 (52)	2.04 (52)	1.92 (49)	1.98 (50)	2.07 (53)
E	1-11.5 NPT	1-11.5 NPT	2-11.5 NPT	2-11.5 NPT	2-11.5 NPT
F	1/2-14 NPT	3/4-14 NPT	1-11.5 NPT	1-11.5 NPT	1-11.5 NPT
G	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT

NOTE: Dimensions are in inches and (millimeters)

Pressure vs. Flow (DVU150/175)



Control Pressure vs. Vessel Pressure



Dump Valve Operation ►

As condensate rises in the scrubber, the float on the L1200NDVOR rises and trips its pneumatic valve. The valve opens allowing pressure to enter the dump valve pilot chamber. Once the pressure enters the pilot chamber it forces the diaphragm and valve stem forward thus opening the valve seat (valve open/closed indicator button pops out) and releasing condensate through the valve stem and out the drain. As the condensate level drops, the L1200NDVOR pneumatic valve closes to shut off the pressure to the dump valve causing it to close.

If for any reason the condensate continues to rise beyond normal dump levels, model L1200 operates the alarm and/or shuts down the equipment.

The L1200NDVOR Filter/Regulator and the MURPHYGAGE® help keep the control pressure clean and dry. They also allow the operator to adjust pressure to recommended levels.

NOTE: Always use clean, dry, instrument quality gas.

Replacement Parts

Typical Seal Kit includes: Nut, Washer (1 to 3), "O" Ring, Plug and Seal, Seat, Crush Washer.

Typical Diaphragm Repair Kit includes:

Diaphragm, Diaphragm Washer (upper), Diaphragm Nut, Diaphragm Plate (1 or 2 pcs.), Packing, "O" Ring, Stem, Seal Washer for Maintenance Bolt.

Part No. Description

DVU150

55-00-0230 Seal Kit (includes plug)
55-00-0231 Diaphragm Kit

DVU175

55-00-0230 Seal Kit (includes plug)
55-00-0231 Diaphragm Kit

DVU2105

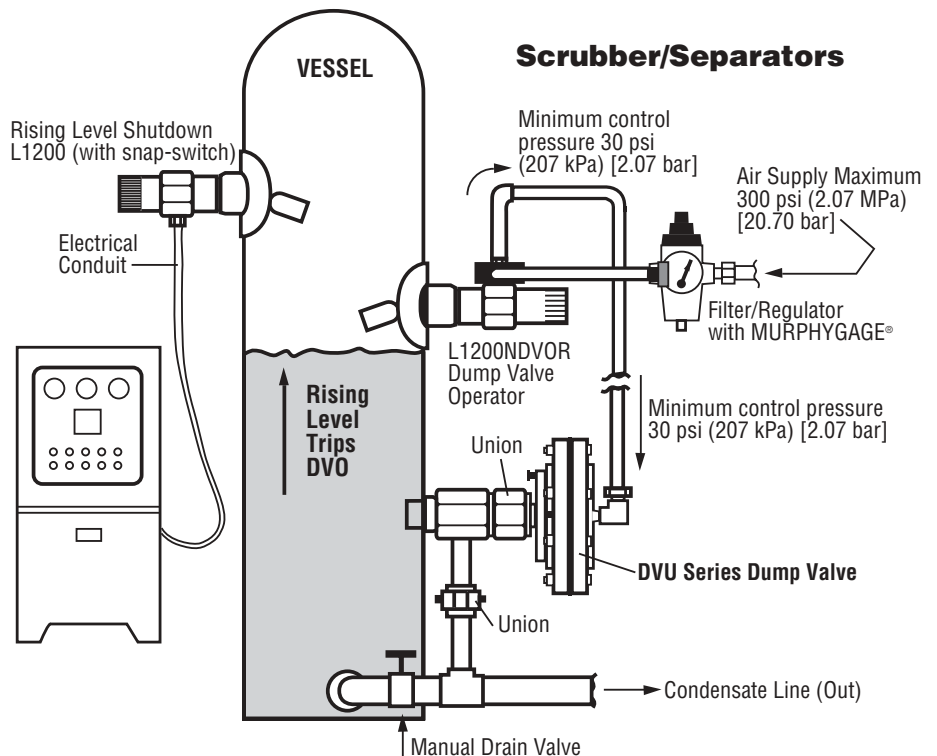
55-00-0245 Seal Kit (includes plug)
55-00-0244 Diaphragm Kit

DVU2115

55-00-0241 Seal Kit (includes plug)
55-00-0240 Diaphragm Kit

DVU2120

55-00-0237 Seal Kit (includes plug)
55-00-0236 Diaphragm Kit



How to Order Specify model number:

Model	Inlet	Outlet	Trim Size
DVU150	1 NPT	1/2 NPT	0.359 in. (9 mm)
DVU175	1 NPT	3/4 NPT	0.359 in. (9 mm)
DVU2105	2 NPT	1 NPT	0.859 in. (22 mm)
DVU2115	2 NPT	1 NPT	0.576 in. (15 mm)
DVU2120	2 NPT	1 NPT	0.436 in. (11 mm)

Shipping Weights

DVU150 and DVU175: 9 lbs. (4 kg.).

DVU2105, DVU2115, DVU2120: 14 lbs. (6.4 kg.).

Shipping Dimensions

7-1/2 x 7-1/2 x 10-3/4 in. (191 x 191 x 274 mm.).

Scrubber Level Systems

(Includes L1200, L1200NDVOR, and DVU valve)

SLS02A: Includes DVU150 valve

SLS02C: Includes DVU175 valve

SLS02BA: Includes DVU2105 valve

SLS02BB: Includes DVU2115 valve

SLS02BC: Includes DVU2120 valve

-LR: Less Regulator option

Warranty

A two year limited warranty on materials and workmanship is provided with this Murphy product. Consumable elastomers are not included. Details are available on request and are packed with each unit.



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