Visualizing flow rate adjustment and control

Rotary needle valves DVL-S and DVL-N with linear flow characteristics indicate the number of dial rotations.
Anyone can adjust cylinder speed and flow rate easily and accurately with good reproducibility.

Use as a speed controller

The standard type has a built-in check valve and can be used as a speed adjustment valve or vacuum breaker valves for pneumatic cylinders.

Oil-prohibited specifications available

These specifications enable use in environments susceptible to oil, in clean rooms and in vacuum applications.

- Adjustment of ionizer purge gas flow rate
- Flow adjustment of vacuum breaker in vacuum conveyance processes
- Cylinder drive
- Air knife
- Transfer of LCD substrates (noncontact)

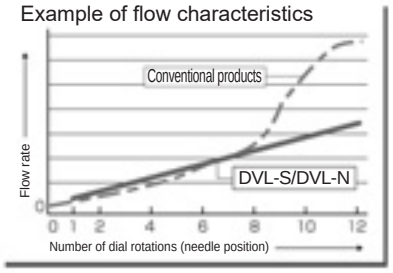
DVL Series

Industry's first needle valve with dial

Linear flow characteristics

Linear flow characteristics in proportion to number of dial rotations can be provided.

Example of flow characteristics



Indicator shows number of rotations

The indicator window shows the number of dial rotations.

Visible control of flow rates

Easy management of flow rate.
The manual operation can now be quantified.

Prevent misadjustment

Value adjustment is easy for anyone at any level. Accurate and reproducible adjustments can minimize errors.

Easy lock

Fixing the needle is easy with the sliding lock lever. This mechanism greatly eases adjustment work.

Reduce work hours

Adjustments can be completed in a short time and hours for setup change or other works are now a thing of the past.

Unrestricted installation

The installation area rotates by 360°, allowing you to freely select the mounting and installation methods as desired from base-mounting, side-mounting and panel-mounting. Mounting brackets are not required.

Example of manifold

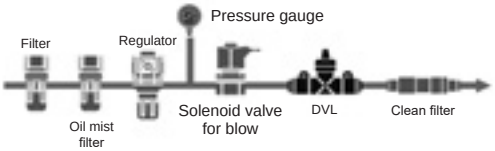
Example of base mounting

Example of panel mounting

Seal materials with excellent ozone resistance (oil-prohibition) have been adopted.

RoHS-compliant.

Example of circuit



DVL Series products

Series variation	Tube outer diameter	Flow rate range	Applications
Check valve (standard) **DVL-S**	φ4, φ6, φ8, φ10, φ12	20, 80, 160, 240, 400	● Speed control of actuator ● Adjustment of vacuum burst flux of small electronic parts ● Control of pushing force and tension
Needle valve (oil-prohibition) **DVL-N**	φ4, φ6, φ8, φ10, φ12	20, 80, 160, 240, 400	Meeting clean environment and vacuum application requirements ● Flow rate adjustment of floating conveyor ● Flow rate control of ionizer purge gas ● Air blowing on workpiece