

Pneumatic Needle Valve



Pneumatic needle valve series includes four sub-categories: basic pneumatic, heavy-duty pneumatic, miniature pneumatic, and hydraulic control types. Designed for ultra-high pressure fluid systems, they adopt low-pressure air/hydraulic drive with spring reset structure, supporting NO (Normally Open) and NC (Normally Closed) modes. Covering a full pressure range from 15000PSI to 60000PSI, the valves are made of 316/316L stainless steel with 17-4PH or carbide valve needles. Featuring excellent pressure resistance, wear resistance and corrosion resistance, they are suitable for gas, oil, water and various fluid media.

Feature

1. Stable drive: Piston actuator design with longer service life than diaphragm valves, sensitive action and stable operation, supporting remote automatic control;
2. Premium material: 316/316L stainless steel body for anti-corrosion and wear resistance; 17-4PH/carbide needle for reliable high-pressure hard sealing;
3. Reliable structure: Non-rotating needle & stem design avoids wear and jamming; split stem structure for easy maintenance and replacement;
4. Strong compatibility: 6 port configurations, multi-directional installation to adapt to various pipeline layouts;
5. Full traceability: All pressure-bearing parts with exclusive serial numbers, traceable to raw materials;
6. Complete models: Cover miniature compact, standard general, heavy-duty high-flow and hydraulic-driven types to meet all working conditions.

Datashheet

Product Type	Max Working Pressure	Tube OD	Orifice	Core Description
Basic Pneumatic Needle Valve	20/30/60KPSI	1/4"	2.0~2.8mm	Standard ultra-high pressure model, 75psi air driven, optional position sensor, universal for general high-pressure fluid systems
Heavy-Duty Pneumatic Needle Valve	20/30/60KPSI	1/4", 3/8"	2.0~4.5mm	Anodized aluminum actuator, large flow passage, designed for heavy-duty conditions, compatible with remote control upgrade
Miniature Pneumatic Needle Valve	15KPSI	1/4"	Custom	Ultra-compact structure, wide temperature resistance, ideal for confined spaces and portable precision equipment
Hydraulic Needle Valve	22/23KPSI	3/8"	1.6~3.2mm	Hydraulic drive with high thrust and stable performance, suitable for high-precision hydraulic control systems

Application

1. Oil & Natural Gas Industry: Downhole impulse tubing, well site sample line flow fine regulation, field instrument isolation valve for wide ambient temperature.
2. Chemical & Petrochemical: Corrosive reagent dosing pipeline, pilot plant small-bore process flow control; PEEK/graphite packing for high-temperature corrosive medium.
3. Power Generation & New Energy: Thermal power boiler water/steam sampling, cabinet instrument gas circuit regulation, renewable energy pressure monitoring piping.
4. Laboratory & Analytical Equipment: Lab chroma to graph gas/liquid circuit precise throttling, ferrule connection for leak-free analytical test bench.
5. Hydraulic & Offshore Equipment: High-pressure hydraulic test bench, offshore platform instrument tubing isolation.

If you have any questions about similar or special models, please contact us.

Telephone/WeChat/WhatsApp: +8615823232364

Email: sales1@cdindustry-og.com