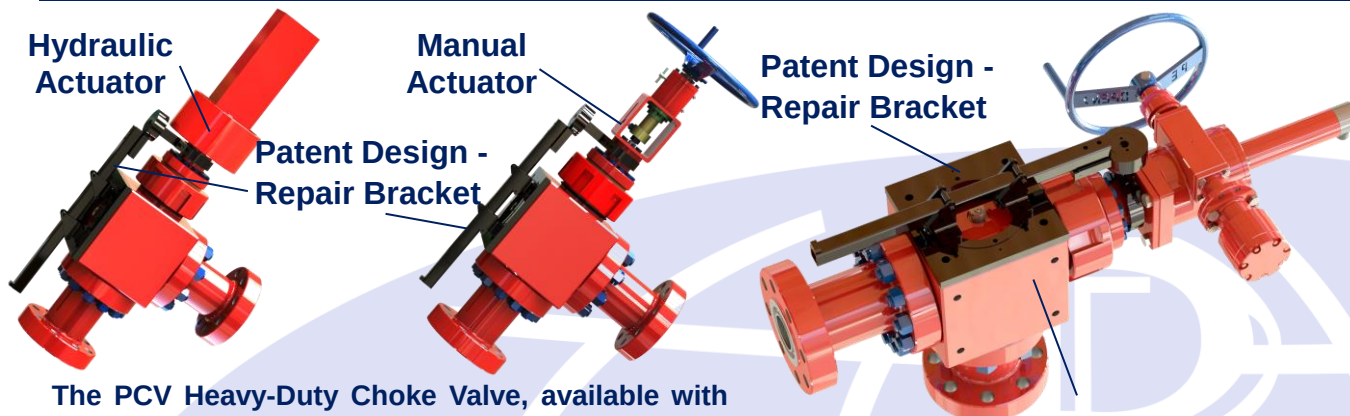


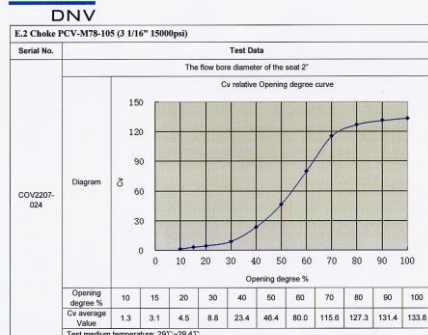


The PCV Heavy-Duty Choke Valve, available with manual or hydraulic-cylinder actuation, is suitable for both drilling well-control and surface-testing applications.

PCV-M Intelligent Pressure Control Heavy-duty Choke Valve (Invention Patent)

PCV-M Intelligent Pressure Control Heavy-duty Choke Valve (Worm Gear + Hydraulic Motor Drive) – The valve plug, valve seat, valve plug sleeve, and drive mechanism have been granted a national invention patent. It can be used for MPD intelligent pressure-controlled drilling, as well as for remote intelligent well control and testing. Compared with electric actuators, this choke valve offers strong adaptability in both high-temperature desert environments and low-temperature conditions, delivering stable and reliable performance.

- ### Features of PCV Heavy-Duty Choke Valve
- Excellent pressure control performance with shut-off capability (100% pressure control efficiency) — overturns the traditional belief that a choke valve can only be used for choking and not for shut-off.
 - High resistance to vibration-induced fracture
 - Strong erosion resistance (no unilateral erosion on downstream equipment)
 - Good fluid passage performance (full-bore flow capacity for open discharge)
 - Linear flow capacity (Cv value) / excellent linear regulation capability
 - Shearing and unblocking function (can shear brittle materials such as rock cuttings)
 - Convenient online maintenance (single-person online inspection and repair possible)
 - Symmetrical design of valve plug and seat (one choke valve functions equivalently to two choke valves)



Choke Valve Flow Coefficient (Cv) Curve – DNV Third-Party Witnessed

The PCV-M Intelligent Pressure-Control Heavy-Duty Choke Valve has fundamentally achieved intrinsic safety for well-control equipment. It ensures safe and reliable forward-circulation choke well-killing operations, significantly reduces the risks and costs of well-control interventions, and provides robust well-control safety assurance for unlocking hydrocarbon resources in ultra-deep and “three-high” (high-pressure, high-temperature, high-sulfur) oil and gas exploration and development, thereby facilitating the delivery of more high-yield and high-efficiency wells. Furthermore, it has successfully resolved the long-standing “bottleneck” technical challenges that have constrained China’s domestically manufactured well-control equipment in the exploration and development of ultra-deep and “three-high” hydrocarbon reservoirs.



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