

### Angle choke valve

#### DTP series

NPS 1<sup>3</sup>/<sub>16</sub>–9 (DN 46–228), ASME Classes 900–2500

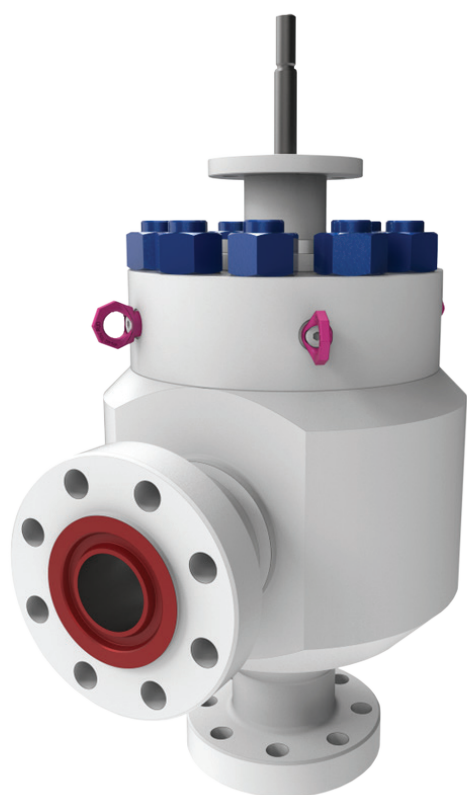
NPS 2–12 (DN 50–300), API Classes 5000–15000

Generally located at the wellhead, angle choke valves are designed for oil and gas processing, water and gas injection, and gas lift. Velan's DTP series are the optimal solution for controlling high levels of fluid pressure in the most difficult conditions such as dirty and corrosive fluid services.

Angle choke are traditional robust angle valves with a multi-stage trim and a corresponding plug specifically designed to provide high energy dissipation. The valve's multi-stage technology and discrete tortuous path design divides the

flow into many streams reducing pressure and fluid velocity avoiding cavitation, flashing, or erosion phenomena. Velan ABV offers the advantage of interchangeable plug and trim components, and the valve has no welded internal parts, resulting in low maintenance costs.

Actuation can be either hydraulic or pneumatic depending on the speed requested. Stepper actuators are an option for reaching the highest level of accuracy. Material selection is fully customizable to meet customers project specifications.



### Specifications

<b>Valve design</b>	As per API 6A or B16.34 standards and customer requirements
<b>Body design</b>	Forged angle one-piece
<b>Temperature range</b>	-150 to 428°F (-101 to 220°C)
<b>Face-to-face</b>	As per Velan standard
<b>End connections</b>	RF, RTJ as per B16.5 & B16.47 Hub connection 6B, 6BX as per API6A

### Design features

- Metal-seated with inserts in fully tungsten Carbide.
- Lip seal configuration.
- Blowout stem design.
- High capacity and accurate control with minimum opening.
- Low noise and no vibration with multistage trim.
- Quick change of all internal parts with no bolting.
- Plug and trim material with excellent erosion resistance property available.
- Disks clamped without internal threads.
- Ease maintenance without removal of actuator and instrument connections.
- Plug types: Balanced (to minimize the actuator thrust), unbalanced or pressurized.
- Over or under the plug flow configuration.
- One-piece tungsten sinterized trim for high erosion service.

### Operator

- Manual: gear with handwheel.
- Actuated: Linear pneumatic/ hydraulic, electric, or stepper.

### Testing & certification

- Compliance with API 6A or B16.34 inspection and testing.
- Fire safe and fire tested as per API 6FA/607.
- Fugitive emission as per ISO 15848.
- PED 2014/68/UE.
- Available as per API 6A:  
Product specification levels PSL 1, 2, 3, 3G, and 4.  
Performance requirement levels PR1, PR2.  
Design validation as per PR2F.