

Model SCD 20,000 PSI Choke

The Model SCD is a forged body, 20,000 PSI choke for severe service, available as an Adjustable or a Positive model.

Features:

Adjustable Choke

- Worm gear drive actuator – eliminates backlash and provides precise control; self-locking to prevent movement even if hydraulic pressure is lost.
- Quick change actuator – no need to disconnect hoses for removal. Trim can be changed in 15 minutes or less without removing the choke from the line or breaking into the manifold.
- Accommodates 1-1/2" or 2" trim size
- Manual override capability - provided on all worm gear-operated hydraulic chokes in case of power loss.
- Other types of actuator available – in addition to the exclusive modified worm gear actuator, our chokes available with hydraulic piston, electric or manual actuators.
- Reversible gate and seat assembly – provides a minimum of two uses per piece, saving parts, reducing operating costs and maximizing efficiency. Can be reversed in the field.
- Solid tungsten carbide gate and seat – proven design provides maximum erosion resistance. Gate and seat are precision-ground to provide drop tight shutoff.

Positive Choke (except Model SCC)

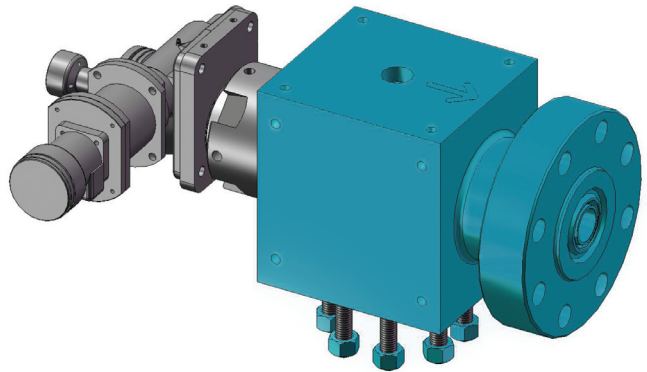
- Quick change bean – bonnet easily removable. Service tools available to remove bean and bean carrier quickly for inspection or replacement.
- Numerous bean sizes – accepts 1" (64/64ths) maximum orifice H2-style or OCT-style bean, or a 2" solid tungsten carbide bean seat (128/64).

All Chokes

- Pressure balanced trim – reduces operating forces, whether the choke is operated manually or automatically. Large balance ports provide protection against clogging.
- Downstream wear sleeve and retainer ring – extended-length solid tungsten carbide seat provides wear protection downstream and a smooth transition for fluid into the downstream piping.
- Large buffer cavity – slows velocity and distributes impact of solids, maximizing trim life.

Actuator Manipulator Option

- Allows one-man, in-line servicing of chokes
- No lifting device required
- 15-minute service time



Model SCD Choke with Actuator

Control Consoles

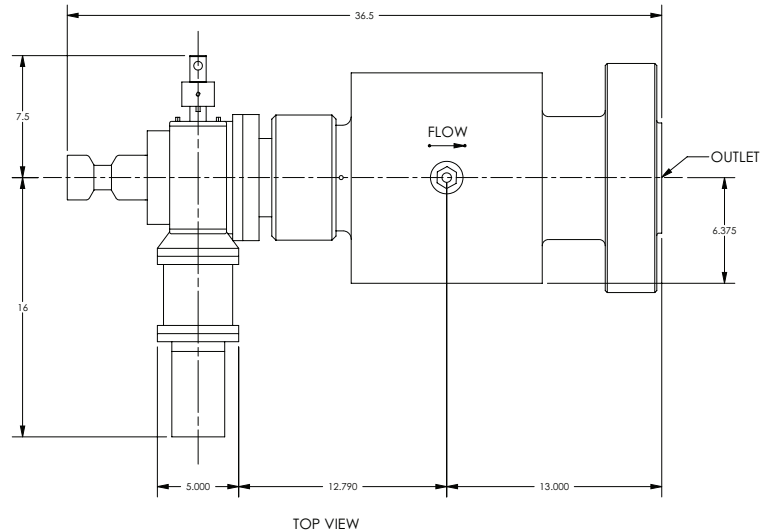
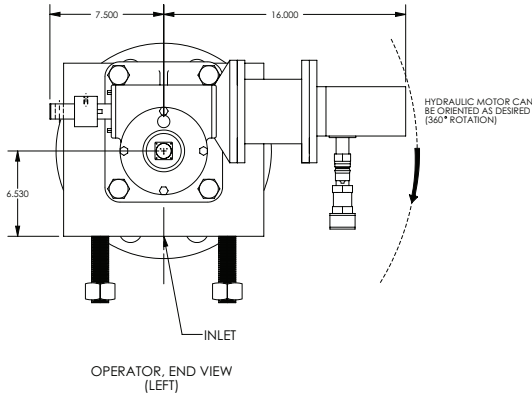
- Offer operation for one, two or more chokes and / or hydraulic control valves
- Speed adjusts to allow fast or slow choke movement
- One or two hydraulic pumps plus manual backup hydraulic pump
- Bourdon tube hydraulic pressure gauges or digital pressures gauges available
- Digital position indicator gauge standard
- Accumulators available for power backup or to smooth choke operation

Both Adjustable and Positive Chokes supplied with:

- Bleeder port to bleed pressure from choke body prior to choke bonnet removal for inspection or maintenance.
- Studded inlet X flanged outlet standard. Flanged inlets available.
- 2-9/16" X 3-1/16" outlet standard for use in API 20M service.
- Other inlet and outlet sizes available.

Model SCD 20,000 PSI Severe Service Choke

Technical Data:



Standard Configuration

Reversible, balanced, erosion-resistant trim

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|---------------------------|---|
| Pressure Rating Available | API 20,000 psi |
| Inlet Sizes | 1-13/16", 2-9/16" |
| Outlet Size | 3-1/16" |
| Trim Sizes Available | 1-1/2", 2" |
| Testing | API 6A, API 16C |
| Body Material | API 75K, Impact Tested IAW NACE MR0175 / ISO 15156 |
| Throttling Trim Material | Tungsten Carbide |
| Seat Material | Tungsten Carbide |
| Seat Leakage | Drop Tight |
| API Temperature Ranges | |
| Standard | -20°F to +250°F (-29°C to +121°C) |
| Optional | -75°F to +350°F (-60°C to +177°C) |
| API 6A PSL | 1 - 3, 3G |
| API 6A PR | 1 - 2 |

General Design Specifications

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|-----------------------------------|--------------------------------------|
| Maximum Open for Controllability | 85% |
| Minimum Open for Controllability | 2% |
| Maximum Exit Velocity | 1.0 Mach |
| Max. Downstream Velocity (Gas) | 0.3 Mach |
| Max. Downstream Velocity (Liquid) | 100 - 200 ft/sec |
| Hydraulic Operating Pressure | 1,800 - 2,000 psig |
| Shut Off | Drop Tight (Exceeds ANSI Class V) |
| Throttling Pressure Drop | Full-Rated Pressure |