Model SCS Workover / Snubbing Choke

The Model SCS is a forged body workover / snubbing 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 11/2", 2" or 3" 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 maximising 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 shut off

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 (128/64ths)

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
- Large buffer cavity – slows velocity and distributes impact of solids, maximising trim life

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

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 back up 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
- 21/16" inlet X 31/16" outlet standard for use in Application Programme Interface (API) 5M, 10M or 15M service
- Other inlet and outlet sizes available
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Standard configuration
(Reversible, balanced, erosion-resistant trim)
Pressure ratings available
Application Programme Interface (API) 5,000, 10,000, 15,000 psi
Inlet size range
$2^{1/4}$”
Outlet size range
$3^{1/4}$”
Trim sizes available
$1^{1/4}$”, 2”
Testing
Application Programme Interface (API) 6A, API 16C
Body material
Application Programme Interface (API) 75K, impact tested IAW NACE MR01-75
Throttling trim material
Tungsten carbide
Seat material
Tungsten carbide
Seat leakage
Drop tight
API temperature ranges
Standard
-20°F to +250°F (-29ºC to +121ºC)
Optional
-75°F to +350°F (-60ºC to +177ºC)
API 6A PSL
1 - 3, 3G
API 6A PR
1 - 2
Standard X & Y
4.375” x 13”

General design specifications
Open for controllability (maximum)
85%
Open for controllability (minimum)
2%
Exit velocity (maximum)
1.0 Mach
Downstream velocity (gas) (maximum)
0.3 Mach
Downstream velocity (liquid) (maximum)
100 - 200 ft/sec
Hydraulic operating pressure
1,800 psi - 2,000 psi
Seat leakage
Drop tight (Exceeds ANSI class V)
Throttling pressure drop
Full rated pressure

Note: Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email expro.powerchokes@exprogroup.com