

NOV Choke Line Comparison Chart

Specifications

Choke models	CH2/CH2M	CH2/CH2M	CH2/CH2M	CVC-MPB/MPC/MPX	CVC-ME/MPC/C20	CVC-MSC	CVC-IT	STC	MPC20 PLF
Trim type	Bean	Caged bean	Needle and seat	Plug and cage	External sleeve	Multistage	Intermitter trim	Plug and cage	Dual-stage low flow
Choke style	Non-adjustable, pre-set orifice	Non-adjustable, pre-set orifice	Adjustable	Adjustable	Adjustable	Adjustable	On/Off, zero leakage	Adjustable	Adjustable
Body style	Angle body	Angle body	Angle body	Angle/Inline body	Angle/Inline body	Angle body	Angle body	Angle body	Angle body
Material class	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL	BB to HH-NL
Trim size available	Up to 3-in. max.	Up to 2-in max.	0.25 to 3 in.	0.38 to 14 in.	0.5 to 5 in.	Consult factory	1 to 2 in.	0.5 to 6 in.	Up to 0.25 in.
Bean size	5/16 in. to 19/64 in.	5/16 in. to 128/64 in.	Up to 19/64 in.	Up to 89/64 in.	Up to 320/64 in.	Consult factory	6/64 in. to 128/64 in.	Up to 38/64 in.	Up to 1/64 in.
Max Cv	160	74	160	1,700	550	Consult factory	70	520	1
Trim material	6% cobalt	DZ05 tungsten	6% cobalt	DZ05 tungsten/6% cobalt	DZ05 tungsten/6% cobalt	DZ05 tungsten/stellite	Stainless steel	Stellite/6% cobalt	6% cobalt
Characterizable flow	Not applicable	Not applicable	No - Quick open	Yes - Linear std.	Yes - Equal % std.	No - Linear std.	Not applicable	Yes - Linear std.	No - Linear std.
Outlet TC sleeve	Yes	Extended	Yes	Yes	Extended	Yes	Yes	Yes	Yes
Outlet pressure recovery	Low	High	Low	Medium	High	Very high	Not applicable	Medium	High
Turn down ratio	Not applicable	Not applicable	20:1	20:1	20:1	20:1	Not applicable	20:1	8:1
(Controlability)	Not applicable; pre-set by selected bean size	Not applicable; pre-set by selected bean size	Low	High	High	High	Not applicable	High	High
Pressure rating	5k, 10k, 15k	5k, 10k, 15k	5k, 10k, 15k, 20k	5k, 10k, 15k	5k, 10k, 15k, 20k	5k, 10k,	ANSI 2500	ANSI 2500	5k, 10k, 15k, 20k

Applications

Choke models	CH2/CH2M	CH2/CH2M	CH2/CH2M	CVC-MPB/MPC/MPX	CVC-ME/MPC/C20	CVC-MSC	CVC-IT	STC	MPC20 PLF
Trim type	Bean	Caged bean	Needle and seat	Plug and cage	External sleeve	Multistage	Intermitter trim	Plug and cage	Dual-stage low flow
Typical applications	Static pressure control, often used to create back pressure	Static pressure control for high-pressure drop	Tight gas and oil and low-pressure production	High flow-rate production and injection for offshore production systems	Wellhead, production for high sand producers, injection, flowback manifold, well cleanup, and sand dump applications	Noise control for high-pressure gas and cavitation control for high-pressure water	Artificial lift synchronization with pumping unit	Steam injection and heavy crude production	Methanol and ethylene glycol (MEG) injection or service application
Erosion control	Moderate erosion resistance	Excellent erosion resistance	Low erosion resistance	Moderate erosion resistance	Excellent erosion resistance	Low erosion resistance	Not applicable	Low erosion resistance	Low erosion resistance
Flow-rate range	None - Static	None - Static	Limited	Very wide	Wide	Limited	Fixed	Wide	Limited
Controlability	Not applicable	Not applicable	Limited	High	High	High	Not applicable	High	High
*Sealing abilities	Not applicable	Not applicable	Class IV	Class V	Class V	Class V	Class VI	Class V	Class V
Hydrate mitigation	Average	Average	Poor	Excellent	Excellent	Excellent	N/A	Excellent	N/A
Noise level	High	Moderate	High	Low	Low	Very low	Low	Low	Low

*Applicable to new chokes.