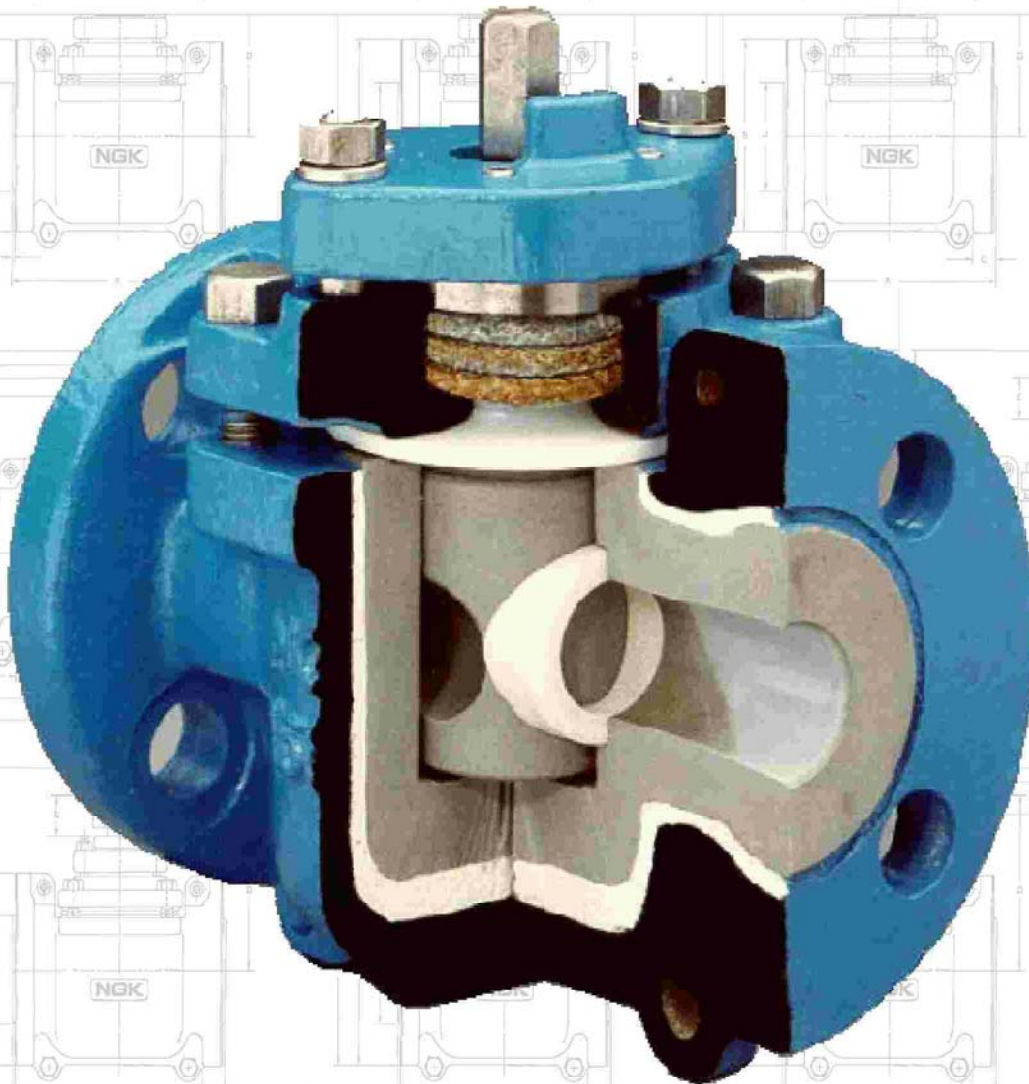


NGK™ Ceramic Plug Valve



Corrosion and Erosion Resistant NGK Valves

Look at “The Inside Story”

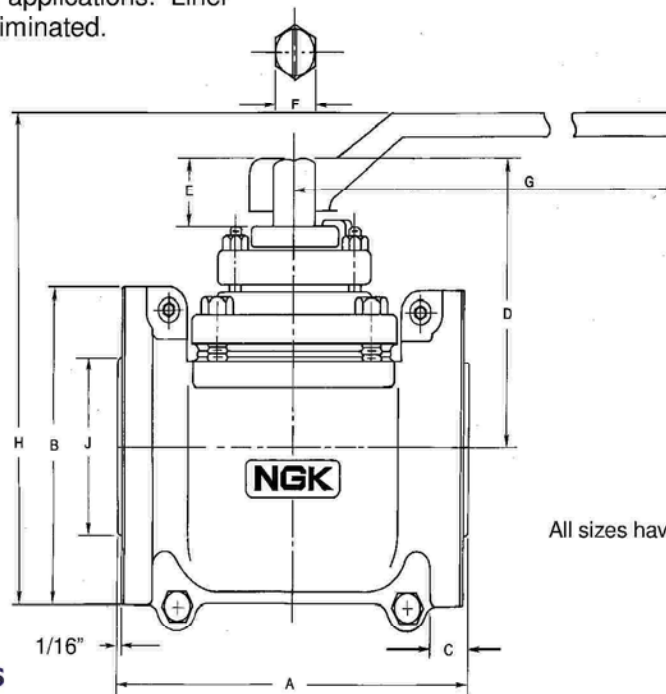
The inside story on resisting attack by abrasive and corrosive chemicals is the solid, cast NGK chemical ceramic lining and plug.

You can depend on the superior performance of NGK Plug Valves. Unlike PTFE-lined plug valves, the NGK design provides the added assurance and durability of a 3/8" thick cast lining – an obvious advantage over PTFE-lined valves that have a mere 1/8" thick lining.

The Heavy-duty NGK ceramic interior construction assures you'll obtain MAXIMUM corrosion resistance, longer valve life and less chance in all heavy duty applications. Liner collapse in vacuum service is also eliminated.

A Hard Story Line

Why NGK Solid Chemical Ceramic instead of fluoroplastic materials? Because NGK ceramic is harder and tougher, providing unsurpassed abrasion and corrosion resistance in the most difficult CPI applications. Shore hardness for NGK Chemical Ceramic is D105, compared with D50 for PTFE. Valves using metal, such as Titanium, have a Brinell hardness of 200, compared with 650 for NGK Ceramic.



All sizes have ANSI 150 lb. flanges

General Dimensions

Size	Flange Drilling			A	B	C	D	E	F	G	H	J	Port Dia.	Net Wgt. Lbs.	Code
	No.	Size	Bolt Circle												
3/4"	4	5/8"	2 3/4"	4 5/8"	3 7/8"	7/16"	4"	7/8"	1/2"	8 5/8"	4 5/8"	1 11/16"	13/16"	8	700214
1"	4	5/8"	3 1/8"	5"	4 1/4"	9/16"	4"	7/8"	1/2"	8 5/8"	4 5/8"	1 31/32"	13/16"	10	700223
1 1/2"	4	5/8"	3 7/8"	6 1/2"	5"	11/16"	4 7/16"	1"	11/16"	14 7/8"	5 3/8"	2 3/4"	1 13/32"	17	700224
2"	4	3/4"	4 3/4"	7"	6"	3/4"	4 15/16"	1"	11/16"	14 7/8"	6 3/16"	3 1/8"	1 3/4"	25	700225
3"	4	3/4"	6"	8"	7 1/2"	3/4"	6 5/16"	1 7/16"	1 1/16"	24"	7 1/2"	4 11/32"	2 13/32"	46	700274
4"	8(a)	3/4"	7 1/2"	9"	9"	15/16"	7 9/16"	1 7/16"	1 1/16"	24"	8 11/16"	5 1/4"	3 3/8"	75	700275
6"	8(b)	7/8"	9 1/2"	10 1/2"	11"	1"	8 1/2"	1 7/16"	1 1/4"	(c)	15 7/16"	7 9/16"	4 1/4"	112	700281

- (a) Two top and two bottom holes tapped 5/8" – 11
 (b) Two top and two bottom holes tapped 3/4" – 10
 (c) Manual gear operated

Built to Last Longer

When you have a superior "inside story" it's only natural to cap it off with the best possible exterior protection.

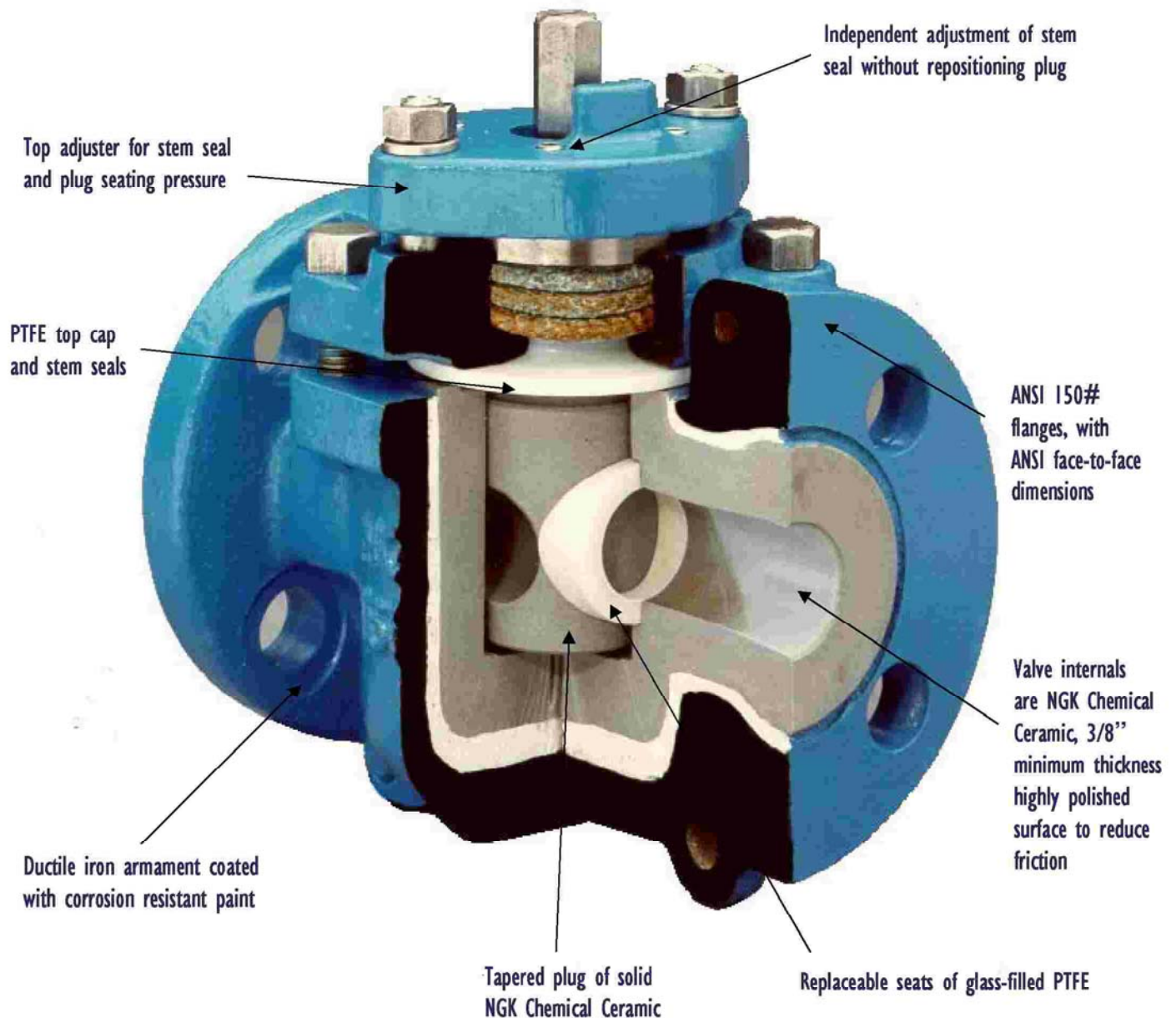
The NGK brand Chemical Ceramic Plug Valve is encased in a tough, ductile iron armor which is coated with corrosion-resistant paint.

Easy Does It

The easy open design allows top access for quick and simple seat replacement.

Now you know what the NGK Plug Valve is and does. Here's what it doesn't do:

- NO pinholing
- NO peeling
- NO permeation of chemical ceramic
- NO plug swelling



Operating Data

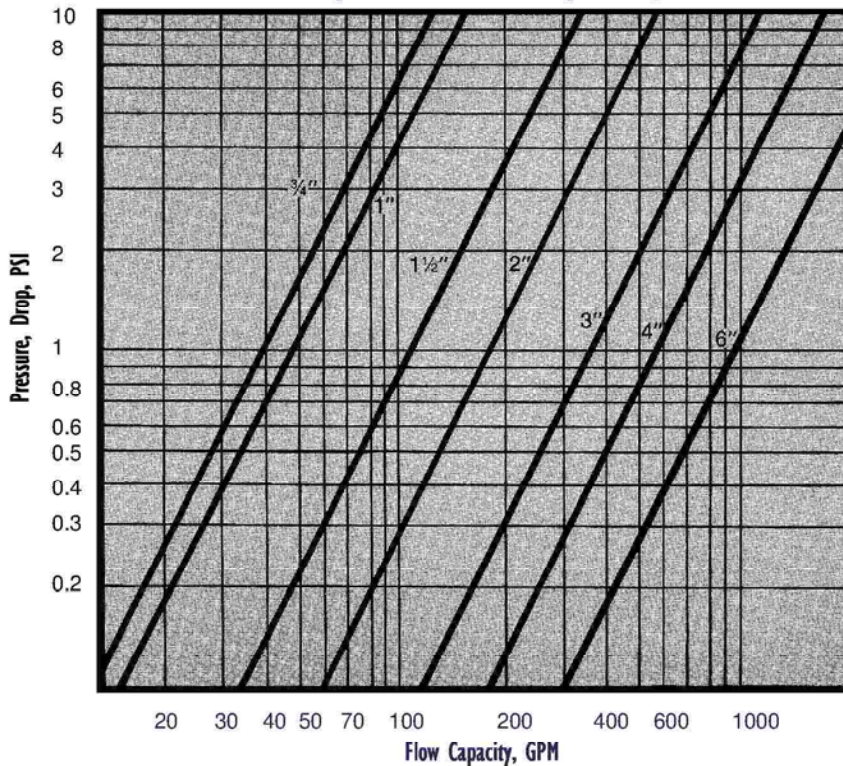
Size	Running Torque Ft.-lb.	Break Torque Ft.-lb.	Maximum Sudden Temp. Differential	Fluid Pressure	Cv Value*	% Port Opening Based On Nominal Valve Size
3/4"	15	20	220° F	200 psi	40	100
1"	18	25	220° F	200 psi	48	66
1 1/2"	40	55	220° F	200 psi	105	87
2"	55	68	220° F	200 psi	180	76
3"	95	135	180° F	150 psi	350	62
4"	128	160	180° F	120 psi	530	70
6"	178	255	150° F	120 psi	930	49

*Cv Value: US gallons per minute at 1 psi pressure drop, 100% open.

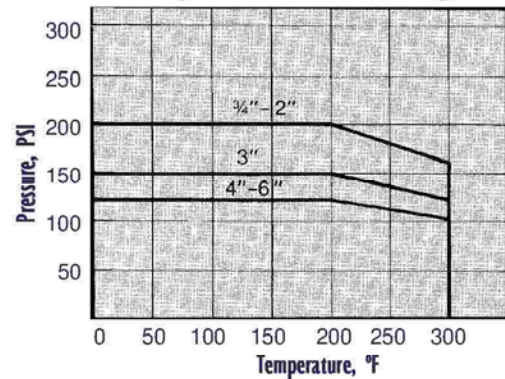
Service Pressure

Size	-20° F to 200° F	300° F
3/4"	200 psi	160 psi
1"	200 psi	160 psi
1 1/2"	200 psi	160 psi
2"	200 psi	160 psi
3"	150 psi	120 psi
4"	120 psi	100 psi
6"	120 psi	100 psi

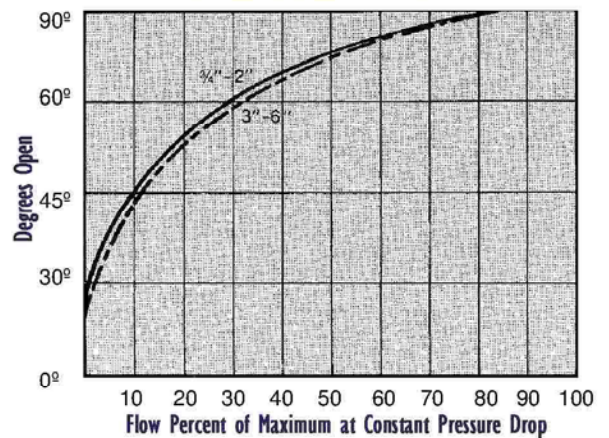
Pressure Drop vs. Flow Capacity



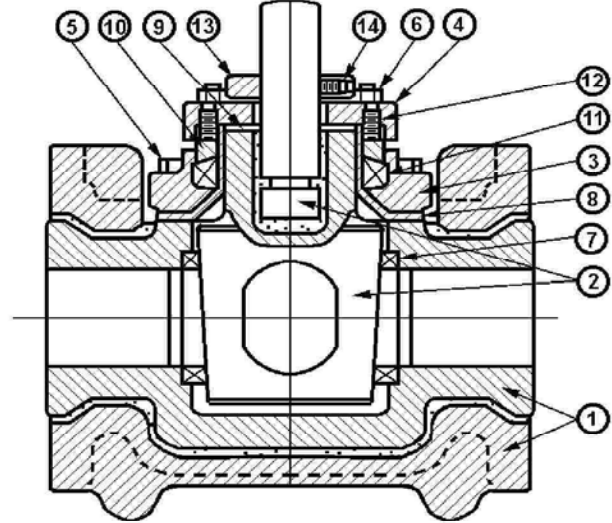
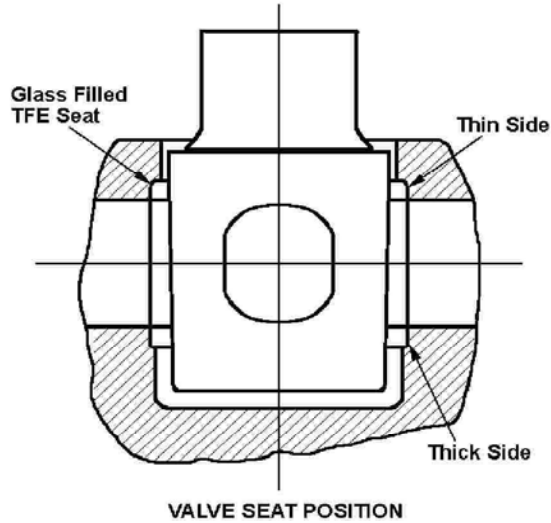
Temperature Ratings



Flow Characteristics



Parts and Materials



Item Number	Quantity Required	Part	Material
1	1	Body	Ductile Iron and Ceramic
2	1	Plug and Stem	Carbon Steel and Ceramic
3	1	Top Cap	Ductile Iron
4	1	Adjuster	Ductile Iron
5	(a)	Top Cap Bolts	Mild Steel
6	(b)	Adjuster Bolts, Nuts & Spring Washer	Mild Steel
7	2	Seats	Glass-Filled PTFE
8	1	Cap Seal	PTFE
9	1	Friction Washer	Glass-Filled PTFE
10	1	Gland Collar	Ductile Iron
11	1 Set	Gland Packing	Braided Packing
12	4	Gland Collar Set Screws	304 Stainless Steel
13	1	Stop Collar	Ductile Iron
14	1	Set Screw	304 Stainless Steel
15 (c)	1	Wrench	Ductile Iron
16 (c)	1	Gear Protector	Ductile Iron and Steel

- (a) Valve sizes 3/4" - 3" require 4 bolts, 4" - 6" require 6 bolts
 (b) Valve sizes 3/4" - 1" require 2 sets, 1.5" - 6" require 4 sets
 (c) Not Shown



Distributed by:

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