# Globe Control Valves AGRVALVES OIL & GAS SOLUTIONS





#### AGR VALVES srl is a

prominent professional valve manufacturer whom strengthened by the design, manufacture and supply Ball valves, Gate, Globe, Plug & Axial flow Check valves with integrated capabilities of design, manufacturer, testing, supply.

#### AGR VALVES srl is

located in Lonate Pozzolo, Italy, is aimed to satisfy the customer's most strict requirements in terms of design and manufacturing of valves for Oil & Gas, Chemical and Water Power Plant.

> CRAGRVALVES OR & GAS SOLUTIONS

#### AGR VALVES srl was founded

in 2015 by an Italian team of people coming from previous long experiences acquired in other valves companies internationally recognized.

A professional and expert Project Team can support clients in designing optimum solution and produc puts HSE first and foremost in the minds of its employee. Company's commitment to health, safety, and the environment is always highlighted both internally and externally the organization. **AGR VALVES** srl Corporate Policy has a comprehensive quality assurance plan in accordance with the requirements of API-Q1 and ISO- 9001-2015 standards, which is the guideline of our management team.

The most common materials used for the manufacturing of our products are: Carbon Steel, Duplex, Super Duplex, Titanium, Monel, Inconel, SMO and other special alloy material upon request.

AGRVALVES

# **Globe Control Valves**

Size Range: DN 2" to 16" Pressure Class: ASME 150# to 1500#. Material: Carbon Steel, Stainless Steel, Alloy Steel, Duplex-Superduplex.

**Application:** Pneumatic Control Valve is a valve used to control fluid flow rate by varying the size of flow passage as directed by compressed air supply. The pneumatic control signal are traditionally based on a pressure range of 3-15 psi (0,2-1,0 bar) or commonly now, an electrical signal of 4-20 mA. Electric control often include a SMART comunication signal superimposed on the 4-20 mA control current, such that the verification of the valve position can signalled back to the controller.

Generally pneumatic control valves are equipped by an electro-pneumatic positioner (converter) signal from 4-20 mA to 3-15 psi plus valve position and condition monitoring in an integral unit mounted on valve body. The most common and versatile types of control valves are straight-through or angle sliding-stem globe. Equal Percentage, Linear and Quick Opening Plug type. - Rangeability 50:1.

#### Leakage Rate:

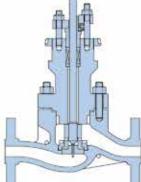
According to ASME FCI 70-2 Class IV (Metal Seat) - Class VI (Soft Seat). Design Temperature:-30°C to 260°C-Design ASME B16.34. Line Connections: ASME B16.5



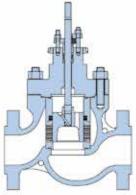
## **Globe Valves**

The globe valve is the most common and reliable product used in process control with many types and structures which is applicable in different working conditions, including normal temperature and pressure to all kinds of severe service. You can always find what you need for process control in AGR .

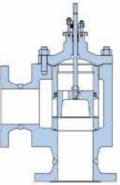




GS200 Small Flow Single Seat Globe Valve



GC200 Multi-hole Cage Guided Globe Valve



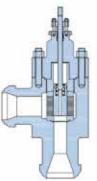
AC100 Cage Guided Angle Valve



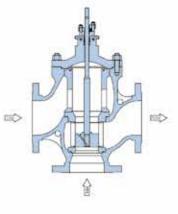


Various Kinds of Valve are Optional

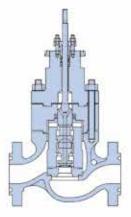




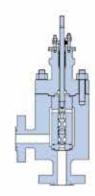
AC300 Labyrinth Cage Guided Angle Valve



#### GT200 Cage Guided 3-Way Mixing Globe Valve



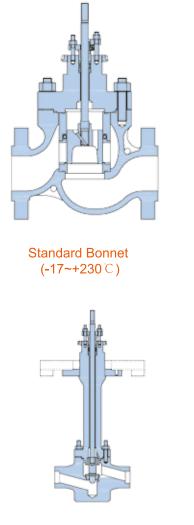
#### GC400 Multi-step Plug Cage Guided Globe Valve



AC400 Multi-step Plug Cage Guided Angle Valve

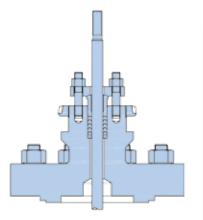


## Various Kinds of Bonnet are Optional

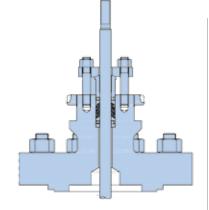


Cryogenic Bonnet (With Cool Box Plate) (-196~-45<sup>°</sup>C)

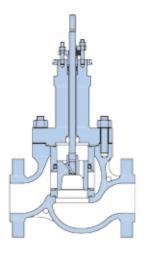
## Various Kinds of Packing are Optional



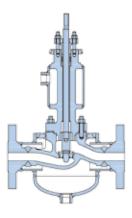
**RFFE V Ring Packing** 



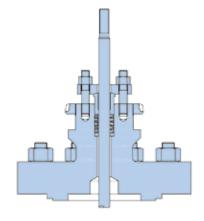
EVSP9000 Graphite Packing



Extension Bonnet (-45~-17℃, ≥230℃)

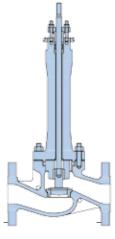


Full-Jacket Bonnet & Body

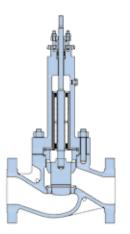


Square Braided Fiber Packing





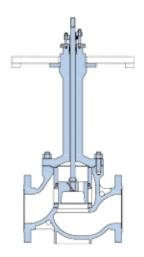
Cryogenic Bonnet (Without Plate)(-196~-45<sup>°</sup>C)



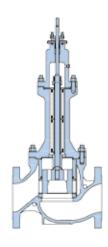
**GS100 Bellows Bonnet** 



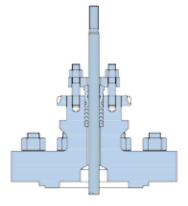
GC100 Bellows Bonnet (Up to 4")



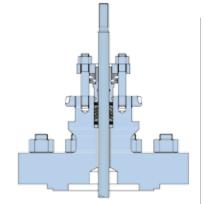
Cryogenic Bonnet (With Cool Box Plate) (-196~-45<sup>°</sup>C)



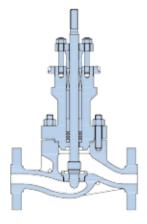
GC100 Bellows Bonnet (Over 6")



Double Seal Packing (-45°C~+200°C)



Low Fugitive Emissions Live-Loading Packing for API 622



Packing for Slurry Service



## GC SERIES CAGE GUIDED GLOBE VALVES Various Kinds of Cage are Optional



GC100 EQ% Cage



GC200 EQ% Cage



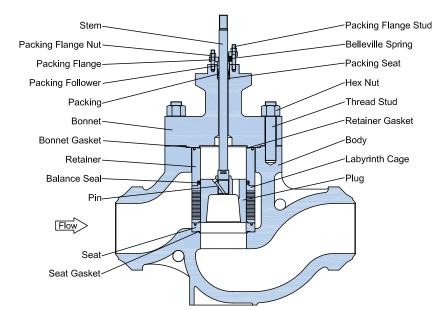
GC100 Linear Cage



GC200 Linear Cage

Body Styles		GC100: Globe Valve		GC200: Globe Valve	
		AC100: Angle Valve		AC200: Angle Valve	
Body Size		1"~32"	1"~18"		1"~16"
Body Rating		ANSI 150#~600	ANSI 900#~1500# AN		ANSI 2500#
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc			
Fluid Temperature		-196~+565℃			
Body Mate	erial	WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L,			
Trim Mate	rial	Duplex, Monel, Hastelloy, Inconel, Titanium, etc A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Flow Characteristics		EQ%, Linear, Modified EQ%, Molified Linear			
Rangeability		50:1			
Seat	Metal Seat	ANSI Class IV, V or MSS-SP-61			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator			
		P100LA: Pneumatic Piston Cylinder Actuator			

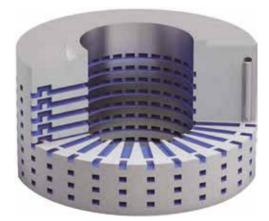
## LABYRINTH CAGE GUIDED GLOBE VALVES



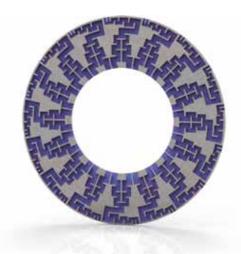


#### Labyrinth Cage

GC300 Parts List



### GC300 Labyrinth Cage with Large Path



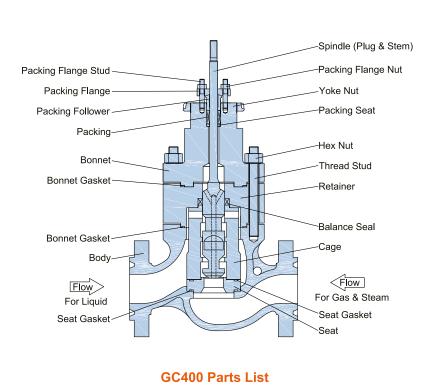
Disc of Labyrinth Cage after EDM

Body Styles		GC300: Globe Valve		AC300: Angle Valve	
Body Size		1"~32"	1"~24"		1"~18"
Body Rating		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc			
Fluid Temperature		-196~+565℃			
Body Material		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Flow Characteristics		Linear, Modified Linear, Modified EQ%			
Rangeability		20:1~50:1			
Seat	Metal Seat	ANSI Class IV, V or MSS-SP-61			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator			

Multi-step Plug Cage Guided GLOBE VALVES GC400: Multi-step Plug Cage Guided Globe Valve AC400: Multi-step Plug Cage Guided Angle Valve

Regulating valve with multi-step plug of series GC400 and AC400 of AGR is specially designed for liquid with high pressure drop. This kind of valve adopts the same multi-stage pressure reducing principles with the labyrinth cage valve. Yet the flow channel is the adjustable large flow path which ensures smooth flow through the bending path if particles and impurities contained in the fluid.

The flow channel is not of right angle turning, thus the velocity control is not as good as labyrinth cage valve. Therefore this valve is recommended when only particles contained in the flow.





**Multi-step Plug** 



Multi-step Cage

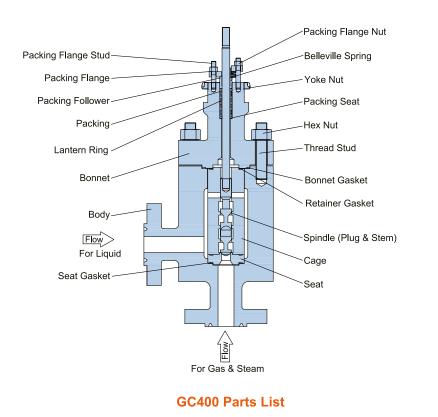
Body Styles		GC400: Globe Valve		AC400: Angle Valve	
Body Size		1"~32"	1"~24"		1"~18"
Body Rating		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc			
Fluid Temperature		-196~+565℃			
Body Material		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Flow Characteristics		Linear, Modified Linear			
Rangeability		30:1~50:1			
Seat Metal Seat		ANSI Class IV, V or MSS-SP-61			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator			



## Multi-step Plug Cage Guided GLOBE VALVES GC400: Multi-step Plug Cage Guided Globe Valve AC400: Multi-step Plug Cage Guided Angle Valve

Regulating valve with multi-step plug of series GC400 and AC400 of AGR is specially designed for liquid with high pressure drop. This kind of valve adopts the same multi-stage pressure reducing principles with the labyrinth cage valve. Yet the flow channel is the adjustable large flow path which ensures smooth flow through the bending path if particles and impurities contained in the fluid.

The flow channel is not of right angle turning, thus the velocity control is not as good as labyrinth cage valve. Therefore this valve is recommended when only particles contained in the flow.







#### **Multi-step Cage**

Body Styles		GC400: Globe Valve		AC400: Angle Valve	
Body Size		1"~32"	1"~24"		1"~18"
Body Rating		ANSI 150#~600	ANSI 900#~1500#		ANSI 2500#
Connections		Flanges, Butt Weld, Socket Weld, Integral Flanges, etc			
Fluid Temperature		-196~+565℃			
Body Material		WCB/A105, WC6/F11, WC9/F22, LCB/LF2, CF8/F304, CF8M/F316, CF3/F304L, CF3M/F316L, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Trim Material		A182-F6a, A182-F316, A564-630, F11/Stellited, Duplex, Monel, Hastelloy, Inconel, Titanium, etc			
Flow Characteristics		Linear, Modified Linear			
Rangeability		30:1~50:1			
Seat Metal Seat		ANSI Class IV, V or MSS-SP-61			
Leakage	Soft Seat	ANSI Class VI			
Actuator Combination		D100LA: Multi-spring Pneumatic Diaphragm Actuator P100LA: Pneumatic Piston Cylinder Actuator			

## Control Valves Range

Туре	Valve Name	Pressure Rating	Valve Size
Globe Va	lve	·	
CS400 Tan Quidad Single Spot Clabe Values		ANSI 150#~600#	1/2"~8"
GS100	Top Guided Single Seat Globe Valves	ANSI 900#~2500#	1"~2"
GS200	Small Flow Single Seat Globe Valves	ANSI 150#~2500#	1/2"~1"
GC100	Cage Guided Globe Valves		
GC200	Multi-hole Cage Guided Globe Valves	ANSI 150#~600#	1"~24"
GC300	Labyrinth Cage Guided Globe Vaves	ANSI 900#~1500# ANSI 2500#	1"~18" 1"~16"
GC400	Multi-step Plug Cage Guided Globe Valves	ANSI 2300#	1 10
GT100	3-Way Diverting Globe Valves	ANOL 450# 0500#	4" 04"
GT200	3-Way Mixing Globe Valves	ANSI 150#~2500#	1"~24"
AS100	Top Guided Single Seat Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC100	Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC200	Multi-hole Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
AC300	Labyrinth Cage Guided Angle Vaves	ANSI 150#~ANSI 2500#	1"~16"
AC400	Multi-step Plug Cage Guided Angle Valves	ANSI 150#~ANSI 2500#	1"~16"
Ball Valve	9	•	
DE400	Eccentric Rotating Plug Valves (Wafer)	ANSI 150#~600#	1"~12"
BE100		ANSI 150#~300#	1"~18"
	Eccentric Rotating Plug Valves (Flanged)	ANSI 150#~600#	1"~12"
BE120		ANSI 150#~300#	1"~18"
D0400	Straight Through Ball Valves (Floating)	ANSI 150#	1/2"~8"
BS100		ANSI 300#	1/2"~6"
BS100	Straight Through Ball Valves (Floating)	ANSI 600#	1/2"~4"
BS200	Straight Through Ball Valves (Trunnion)	ANSI 150#~600#	2"~24"
BM100	Metal Seated Ball Valves (Floating)	ANSI 150#~600#	1/2"~4"
BM200	Metal Seated Ball Valves (Trunnion)	ANSI 150#~600#	2"~24"
Parallel S	lide Gate Valve	·	
PG100	Parallel Slide Gate Valves	ANSI 150#~600#	1-1/2"~32"
Butterfly	Valve		•
BT200	Double Offset Butterfly Valves (Wafer)	ANSI 150#	3"~60"
DTOOO	Triple Offset Butterfly Valves (Wafer)	ANSI 150#~300#	3"~60"
BT300		ANSI 600#	3"~36"
		ANSI 900#	3"~24"
BT320	Triple Offset Butterfly Valves (Double Flange)	ANSI 1500#~2500#	4"~18"
BT600	Light Duty Damper Type Butterfly Valves	ANSI 125#, GB/HG PN0.25~1.0	3"~128"

## Actuator Ranges

Туре	Actuator Name	Motion Type	Actuator Size
D100LA	Multi Spring Pneumatic Diaphragm	Linear	220、270、350、450、550、650
P100LA	Pneumatic Double Action Cylinder	Linear	300、450、600
D100RA	Multi Spring Pneumatic Diaphragm	Rotary	220、270、350、450、550、650
P200RA	Pneumatic Cylinder (Rack & Pinion)	Rotary	60、80、90235、300、340



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