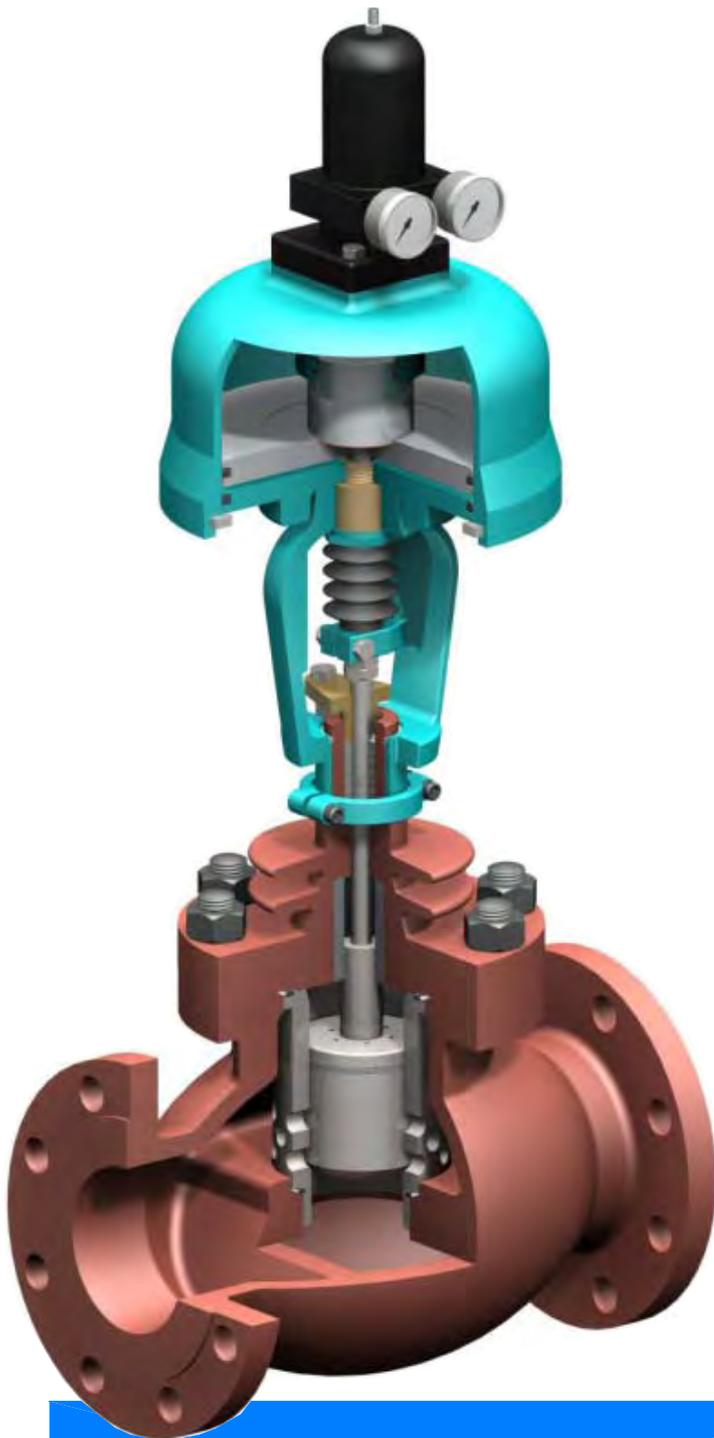


A100 Control Valve

...control plus custom fitted options for special duties



The A100 Globe Control Valve has been designed for special duties including pressure reducing and sustaining particularly when the pressure differential is great or the temperature elevated. It is a single seated balanced valve with the body to seat ratios optimised for these duties.

Having 10 sizes and 4 material options. It can be used on a wide range of fluids including superheated steam. Add to these features a number of standard design options and the final valve will closely match the specified duty. The valve is robustly built and well guided and is top entry for in-line maintenance. It has excellent rangeability from full bore to dead tight. The A100 is actuated by air or electro-hydraulically and controlled by a 3-15psi air signal or a 4-20mA signal.

Technical specification

Feature	Standard	Options	
Seat to lid	Stainless	soft	hardfaced
Cage trim	full	low	special
Valve lid	linear	equal %	flash
Top cover	heat dispersing	cold	
Actuator positioner	air	electro-hydro	
Actuator failure	close	open	lock
Action	direct		
Handwheel	no	side-mounted	
Controller	air	electronic	
signal	3-15 psig	4-20mA	
IP converter	air actuator		



PRESSURE CONTROL AND SAFETY VALVES

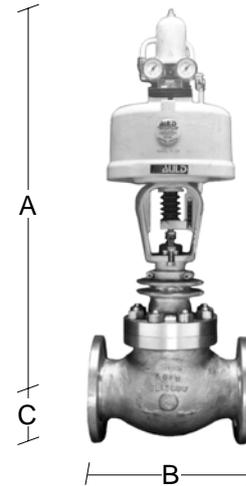
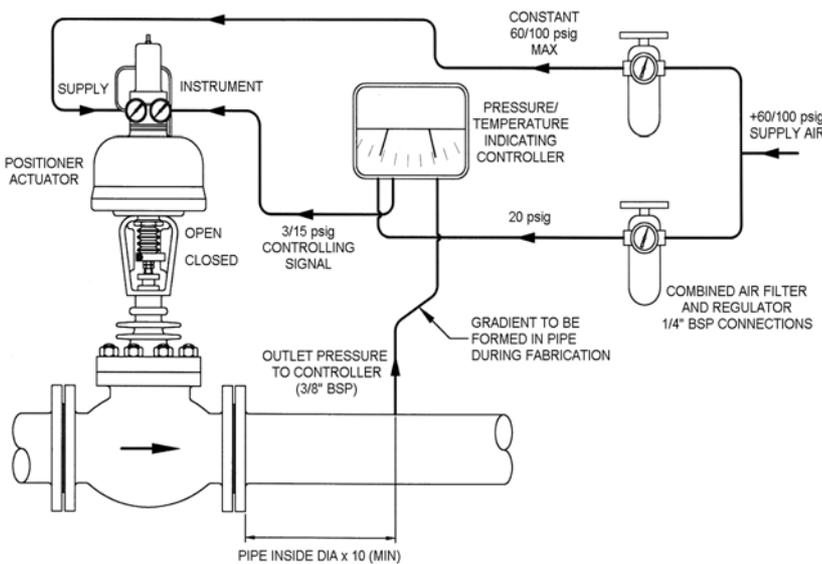
A100 CONTROL VALVE

OPERATION

The diagram describes an A100 Control Valve with the valve in the reducing mode actuated and controlled by air. Alternative control loops and functions are available from Auld including sustaining and temperature control.

As the fluid passes through the valve and builds up the outlet pressure which in turns is fed to the pneumatic pressure controller which converts a steady air supply of 20 psig to a signal pressure varying between 3 – 15 psig. The controller continuously compares the actual outlet pressure against the set point, modifies the signal pressure in reverse proportion to the outlet pressure and feeds this to a double diaphragm housed in the positioner. As long as the positioner receives a constant signal pressure the supply pressure is prevented from stroking the valve.

As the valve outlet pressure starts to exceed the set point the signal pressure changes and unbalances the actuator/piston causing the valve lid position to change. When the set point is reached the controller will maintain this in the same way.



AVAILABILITY

Sizes up to 6" carried part machined to be finished to customer specification. Alternative flanges from Auld's foundry.

MATERIAL OPTIONS

Reference	M1	M2	M3	M4
Body	Steel	Bronze	SS	CMS
Wetted parts	SS	Bronze	SS	SS
Actuator	Standard			

INSTALLATION

The piping and air regulators shown are not supplied. Air filter regulators are recommended as 90% of instrument faults can be traced to dirt. The indicating controller can be supplied through Auld or from your instrument supplier. Connections shown are 1/4" BSP unless otherwise stated.

LIMITING FACTORS

Maximum temperature	1000°F
Maximum inlet pressure	1000 psi

FOR MORE INFORMATION

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DATA TABLE

Valve size	1"	1½"	2"	2½"	3"	4"	6"	8"	10"	12"
Cv steam and gas	20	20	44	80	125	182	330	500	750	1000
Cv liquid	16	16	35	64	100	145	265	400	600	800
Height C/L to top	A	26"	26"	26"	27"	29½"	29½"	33"	38"	38"
Face to face	B	6¾"	7½"	9"	11½"	11½"	14"	17½"	22"	30"
C/L to bottom	C	3¼"	3¼"	3¼"	3½"	3½"	4½"	6½"	8½"	10"
Finished weight (kg)	27	29	31	45	51	85	156	267	363	440

