

spirax/sarco®

KEA41 and KEA43 Cast Steel Valves

Description

A range of two port stainless steel single seat globe valves conforming to ANSI/ASTM standards in sizes 1/2" to 4" (DN15 to DN100) available with screwed or flanged connections. When used in conjunction with a pneumatic or electric linear actuator, they provide characterized modulating or on/off flow control. For close control with pneumatic actuators, a valve positioner should additionally be used.

Sizes and pipe connections

KEA41 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2" screwed NPT.

KEA43 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3" and 4" (DN15, 20, 25, 40, 50, 65, 80 and 100) flanged ANSI150 and ANSI 300.

Options

Trim	Equal %, linear, reduced C _v , fast opening (on/off) soft seal, hard faced, low noise, and anti-cavitation.
Stem seal	PTFE chevrons and graphite packing.

Refer to TIS for further details.

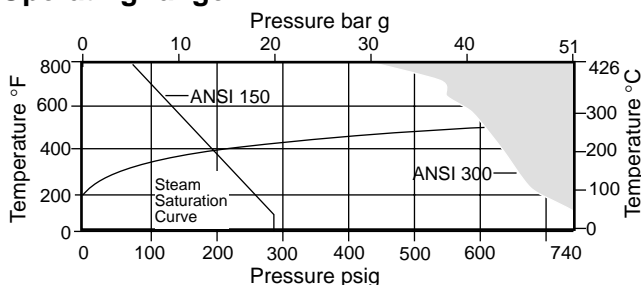
Technical data

Plug design	1/2" to 1-1/4" (DN15 to DN32)	Caged parabolic
	1-1/2" to 4" (DN40 to DN100)	Vee port
Leakage	Metal-to-metal seat	ANSI/FCI 70/2 Class IV
	PTFE soft seal	ANSI/FCI 70/2 Class VI
Flow characteristic	KEA valves	Equal percentage (modulating)
	KLA valves	Linear (modulating)
	KFA valves	Fast opening (on/off)
Rangeability		50 to 1
Travel	1/2" to 2" (DN15 to DN50)	3/4" (20 mm)
	2-1/2" to 4" (DN65 to DN100)	1-3/16" (30 mm)

Limiting conditions

Body design conditions	ANSI 150 and ANSI 300	
Maximum design temperature	PTFE chevron seals	482°F (250°C)
	Graphite packed seals	800°F (426°C)
Minimum design temperature	14°F (-10°C)	
Maximum cold hydraulic test pressure	ANSI 150	450 psig (31.0 bar g)
	ANSI 300	1125 psig (77.6 bar g)
Maximum differential pressures	see actuator TIS	

Operating range

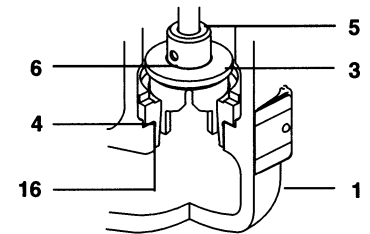
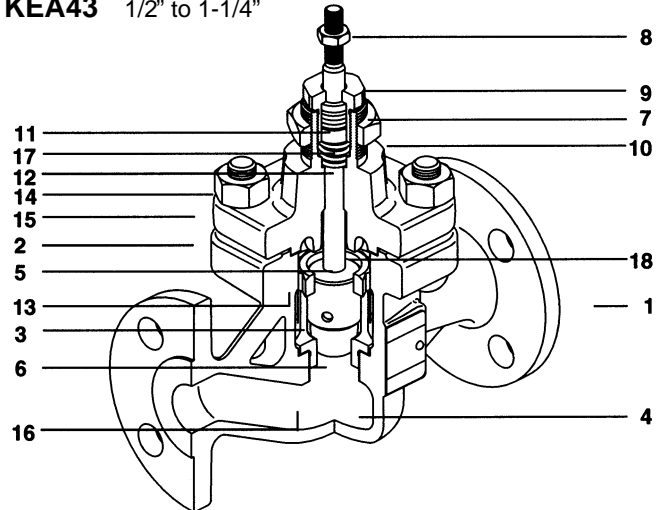


The product must not be used in this region.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.

KEA43 1/2" to 1-1/4"



KEA

1-1/2" to 4" plug and seat

Materials

1	Body	Stainless steel	ASTM A216 WCB
2	Bonnet	Stainless steel	ASTM A216 WCB
3	Valve plug	Stainless steel	ASTM A276 Gr. 431
4	Valve seat	Stainless steel	ASTM A276 Gr. 431
5	Valve stem	Stainless steel	ASTM A276 Gr. 431
6	Pin	Stainless steel	AISI 302
7	Gland nut gasket	Semi-rigid graphite laminated	
8	Lock-nut	Stainless steel	
9	Gland nut	Stainless steel ASTM A276 Gr.431	
10	Mounting nut	Mild steel zinc plated	
11	Gland seals	PTFE chevrons	
12	Gland spring	Stainless steel	
13	Bonnet gasket	Semi-rigid graphite laminated	
14	Bonnet studs	Stainless steel	ASTM A193 B7
15	Bonnet nuts	Stainless steel	ASTM A194 2H
		1/2" to 3/4" (DN15 and DN20)	3/8" UNC
		1" to 2" (DN25 to DN50)	1/2" UNC
		2-1/2" to 4" (DN65 to DN100)	5/8" UNC
16	Seat gasket	Semi-rigid graphite laminated	
17	Guide bush	Glass reinforced PTFE	
18	Bonnet guide	Stainless steel AISI 440B Hardened	

Note: Part No.18 'Bonnet guide' used on all valves above 1-1/2" and valves having soft seat and hard faced trims in smaller sizes.

KEA41 and KEA43 Cast Steel Valves

C_v Values

Size	1/2" (DN15)	3/4" (DN20)	1" (DN25)	1-1/4" (DN32)	1-1/2" (DN40)	2" (DN50)	2-1/2" (DN65)	3" (DN80)	4" (DN100)
Equal % and linear trim	4.7	7.4	11.7	18.7	29.3	42	74	117	187
On/Off trim	4.7	7.4	11.7	21.0	32.8	59	99	137	211

Three reductions in C_v are available for equal percentage and linear trims, for details see TIS KEA valve options.
For conversion C_v(UK) = C_v(US) x 0.833 K_{VS} = C_v(US) x 0.855

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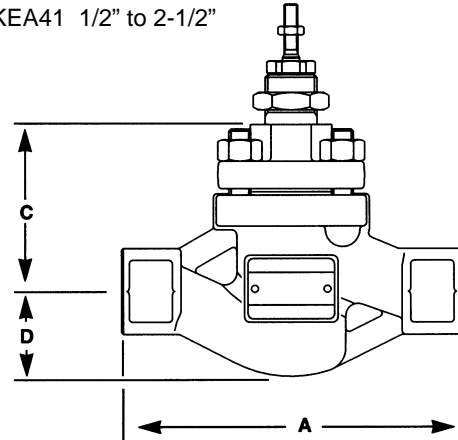
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Weights

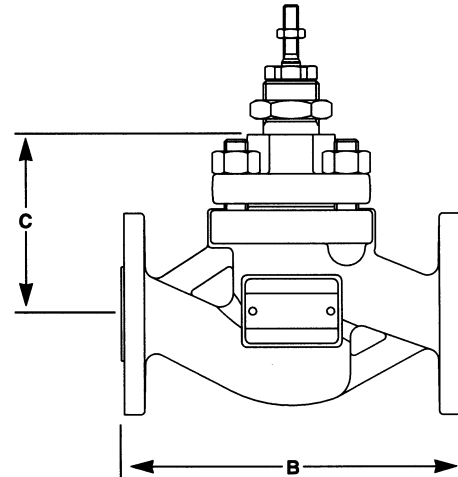
(approximate) in pounds (kg)

Valve size	KEA41	KEA43
1,2" (DN15)	8.4 (3.8)	10.6 (4.8)
3/4" (DN20)	8.8 (4.0)	13.2 (6.0)
1" (DN25)	12.1 (5.5)	18.1 (8.2)
1-1/4" (DN32)	17.6 (8.0)	-
1-1/2" (DN40)	19.9 (9.0)	30.9 (14.0)
2" (DN50)	23.2 (10.5)	36.4 (16.5)
2-1/2" (DN65)	-	59.5 (27.0)
3" (DN80)	-	72.8 (33.0)
4" (DN100)	-	103.6 (47.0)

KEA41 1/2" to 2-1/2"



KEA43 1/2" to 4"



TIS 1.429 US 08.00