

# Control Valves

## Series 2003

Valve 3-way diverting/mixing



### Technical data

Size (DN)	DN 15 — 150
Pressure rating	PN16, PN40 ANSI 300
Connections	Flanges UNI/DIN PN16, PN40 Flanges ANSI 300
Type sealing	Metallic (Class IV - V) Soft (Class VI)
Characteristic	Linear
Action	Pneumatic with diaphragm (supply max 3,5 bar)
Temperature	from -196 to +350 °C

### Description

Serie 2003 "Heavy Duty" control valves are linear, 3-way valves for industrial use. The Series 2003 valve offers superior performance in nearly all types in liquid and gaseous services within a wide temperature range. Due to the modular body construction the valves can easily be upgraded to special applications. The Series 2003 is the industry choice for a reliable and tough control valve. All Burocco valves are delivered after testing and calibration and ready for a long utilize, without maintenance.

### Options

- ⇒ Soft seal
- ⇒ Special 3 way DIVERTING CORRECT (size DN40-150)
- ⇒ High temperature extension (finned bonnet)
- ⇒ Extension (- 60 / - 100 °C)
- ⇒ Cryogenic extension (- 196 °C)
- ⇒ Bellows seal (double wall PN16, triple wall PN40)
- ⇒ Flanges can be drilled to ANSI 150 but with face to face and rating according to DIN
- ⇒ Full stainless steel actuator for corrosive environment
- ⇒ Handwheel for emergency operation
- ⇒ Valve positioners
- ⇒ Limit switches
- ⇒ Position feedback
- ⇒ Airset
- ⇒ Electric linear actuators (230 V AC, 110/115 V AC, 24 V AC/DC)



### Flow rate coefficient (CV)

DN	CV			
	4	2,5	-	-
15	4	2,5	-	-
20	7	4	2,5	-
25	12	7	4	-
32	18	12	7	4
40	28	18	12	7
50	48	28	18	12
65	72	48	28	18
80	105	72	48	28
100	160	105	72	48
125	210	160	105	72
150	300	210	160	105

# Control Valves

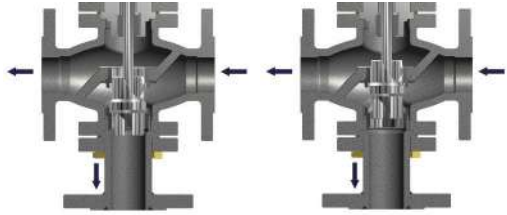
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### Function overview

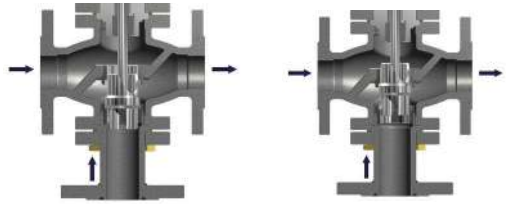
#### Diverting serie 2003D



Normally open straight way

Normally open square way

#### Mixing serie 2003M



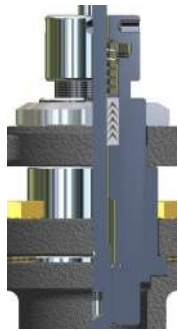
Normally open straight way

Normally open square way

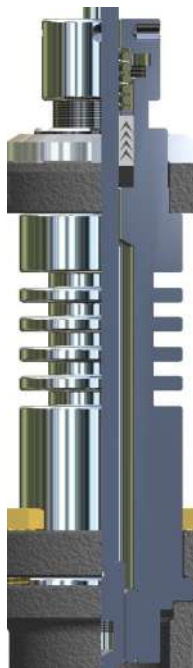
Materials	
Valve body *	Nodular cast iron GGG 40 (PN16) Carbon steel ASTM A216WCB Stainless steel ASTM CF8M
Trim (plug - seat)	316L / 17-4PH / 316L+Stellite / Hastelloy / Monel
Stem	316L / Hastelloy / Monel
Packing	PTFE, PTFE/CG, graphite, special
Body gasket	SIL C4500, NOVAPHIT, PTFE, special
Acuator	FE (epoxy varnish)
Yoke	GGG 40 (epoxy varnish)

\* Special body materials on request

### Bonnet specifications (temperatures limit employment )



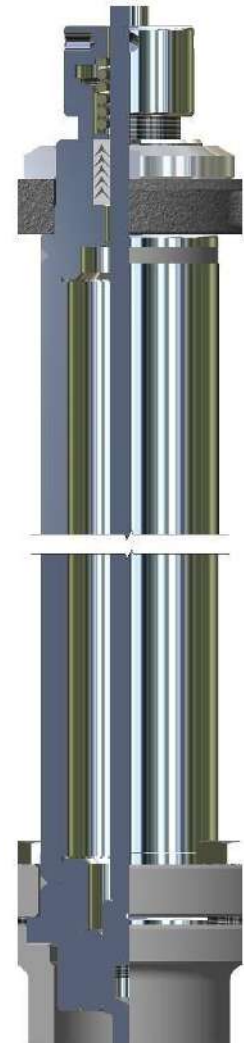
Standard (-30°C / +250 °C)



Finned (-30°C / +350 °C)



Bellows (-100°C / +350 °C)



Criogenic (-196°C / +180 °C)

# Control Valves

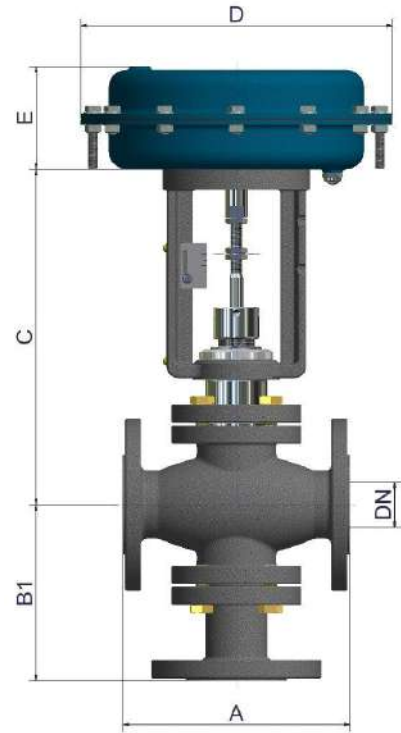
## Series 2003

Valve 3-way diverting/mixing



Dimensions (mm) and weight (kg) serie 2003 - UNI/DIN PN16/40 ANSI 150

Special actuator double for DN100/150



Actuator S430 DOUBLE	DN100		DN125		DN150	
	S430	S430	S430 HP	S430	S430 HP	S430 HP
E (mm)	270	310	390	310	390	390
Indicative weight (kg)*	108	172	188	214	230	230

### Dimensions

DN	A	B1	C						D	E
			Standard	-60 °C (extension)	-100 °C (extension)	-200 °C (criogenic)	High.Temp. (finned)	Bellows		
15	130	156	297	359	434	729	382	403	205 / 275	88 / 100
20	150	156	297	359	434	729	382	403	205 / 275	88 / 100
25	160	156	297	359	434	729	382	403	205 / 275	88 / 100
32	180	156	297	359	434	729	382	403	275 / 340	100 / 135
40	200	156	297	359	434	729	382	403	275 / 340	100 / 135
50	230	166	297	359	434	729	382	403	275 / 340	100 / 135
65	290	220	333	395	470	765	418	439	340 / 430	135
80	310	220	333	395	470	765	418	439	340 / 430	135
100	350	240	350	412	487	782	435	456	430	135
125	400	350	495	-	642	990	642	740	430 / 430HP	160 / 200
150	480	350	495	-	642	990	642	740	430 / 430HP	160 / 200

### Indicative weight\*

DN	15	20	25	32	40	50	65	80	100	125	150
kg	18 / 21	20 / 23	21 / 24	28 / 34	29 / 35	36 / 42	61 / 67	65 / 71	90	150/158	192 / 200

\* without positioner, airset or other accessories

### Extra weight with bonnet extension

DN	-60 / -100 °C	-200 °C	High Temp.	Bellows
15-50	+ 2	+ 3,5	+ 1	+ 1,5
65-100	+ 2	+ 4	+ 3	+ 2
125/150	+ 5	+ 15	+ 10	On request

KLINGER reserves the right to make improvements without prior notice 12/16

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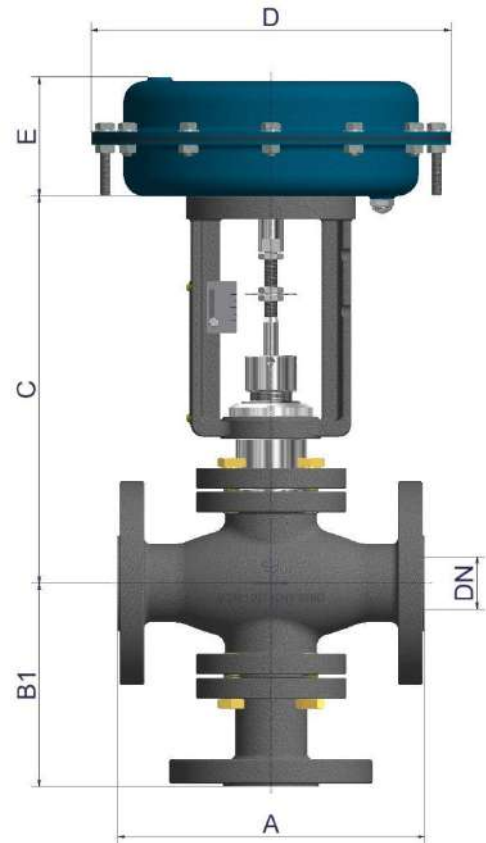


Dimensions (mm) and weight (kg) serie 2003 - ANSI 300

Special actuator double for DN100/150



Actuator S430 DOUBLE	DN100		DN150	
	S430	S430	S430	S430 HP
E (mm)	270	310	390	
Indicative weight (kg)*	112	224	240	



### Dimensions

DN	A	B1	C						D	E
			Standard	-60 °C (extension)	-100 °C (extension)	-200 °C (criogenic)	High.Temp. (finned)	Bellows		
25	197	156	297	359	434	729	382	403	205 / 275	88 / 100
40	235	156	297	359	434	729	382	403	275 / 340	100 / 135
50	267	166	297	359	434	729	382	403	275 / 340	100 / 135
80	318	220	333	395	470	765	418	439	340 / 430	135
100	368	240	350	412	487	782	435	456	430	135
150	473	350	495	-	642	990	642	On request	430 / 430HP	160 / 200

### Indicative weight\*

DN	25	40	50	80	100	150
kg	21 / 24	30 / 36	38 / 44	67 / 73	94	202 / 210

\* without positioner, airset or other accessories

### Extra weight with bonnet extension

DN	-60 / -100 °C	-200 °C	High Temp.	Bellows
25-50	+ 2	+ 3,5	+ 1	+ 1,5
80-100	+ 2	+ 4	+ 3	+ 2
150	+ 5	+ 15	+ 10	On request