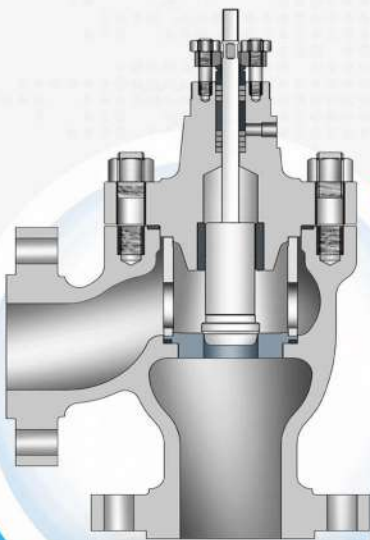
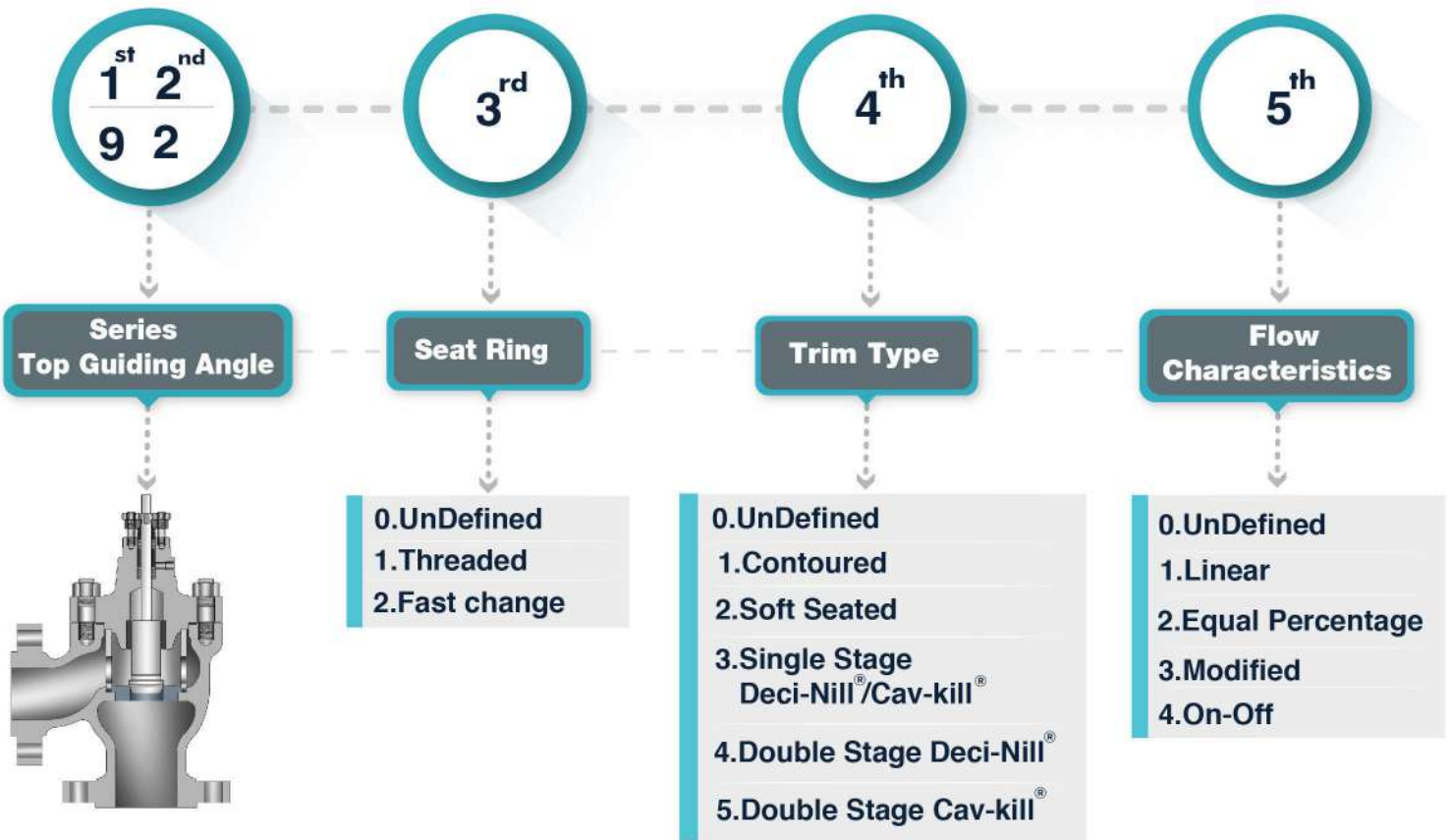


92000 SERIES CONTROL VALVE **TOP GUIDING** ANGLE TYPE



92000-Series Valve Code



Sample Model Numbering



Note:

[®]Trade names noted throughout are for viewer reference only. Unicorn valves reserves the right to supply trade named material or its equivalent.

SERIES - 92000 is a single seated angle valve, featured by rigid top guiding of the plug. The optimum design configuration ensures very good flow control and stability. The simple design makes it easy to maintain, Minimum replaceable parts with minimum inventory.



MAIN FEATURES

Rugged Plug guiding offers excellent Plug stability under large pressure drop. Heavy top guiding eliminates trim vibration and ensures plug stability

Compact single seat, Streamlined flow path having high flow capacity and low pressure recovery

Rating ASME Class 150 thru 2500

Flow characteristic: Linear, Equal Percentage, or Customised

Flow capacity: Full, Medium and Reduced ports / areas are available

Bonnet type: Bolted

End Connection: RF, RJ, Tongue & groove Flanges, Butt Weld end. SW and Threaded ends is upto and including 2"

Rangeability 50:1

Trim design Dec-Nill[®] and Cav-Kill[®] with multi holes on cage / plug to reduce the noise and control cavitation respectively

Leakage Class: Standard is ANSI Class IV as per ANSI/FCI 70.2. Class V & VI are also available on request

General Description

Product Range	See Table 1
Valve End Connection	See Table 2
Body Type	High Capacity Globe Angle Type
Material of Construction	Carbon Steel
	Alloy steel
	Stainless Steel
	Duplex / Super Duplex SS
	Exotic alloys
Packing Material	Polymeric -46°C to 232°C
	Graphite -196°C to 538°C
Guide Type	Heavy Top Guided
Flow Capacity	Full
	Reduced
	Low
Trim Type	Contoured
	Single Stage Deci-Nill [®]
	Double Stage Deci-Nill [®]
	Single Stage Cav-kill [®]
	Double Stage Cav-kill [®]
Flow Characteristic	Linear
	Equal Percentage
	Other Characteristic
Seat Type	Threaded
	Fast Change
Leakage Class as per ANSI/FCI 70.2	IV
	V
	VI (Soft Seat)
Valve Stroke	See Table 3
Actuator Type ⁽¹⁾	Spring Diaphragm
	Piston Cylinder
	Electrical Actuators
Hand Wheel	Optional
Temperature Range ⁽²⁾	-196°C to +593°C
Special Applications ⁽³⁾	Bellow Sealed
	Cryogenic Service
	Oxygen Service
	NACE Application
	Low Emission

Note:

- 1.Spring Diaphragm(Single & Double Acting type) actuator is standard. Piston cylinder (single acting type) and Electric actuators are available on request.
- 2.The brief details of Body,Bonnet,Trim, Stem, Bolt&Nut materials with applicable temperature are given in the tables 4,5,6 and 7.
- 3.Special application valves are available on request.

Product Range

Table -1

Valve Size	ASME Class	ASME Class						
		Inches	mm	150	300	600	900	1500
0.5	15	•	•	•	•	•	•	•
0.75	20	•	•	•	•	•	•	•
1	25	•	•	•	•	•	•	•
1.5	40	•	•	•	•	•	•	•
2	50	•	•	•	•	•	•	•
2.5	65	•	•	•	•	•	•	•
3	80	•	•	•	•	•	•	•
4	100	•	•	•	•	•	•	•
6	150	•	•	•	•	•	•	•

End Connection

Table-2

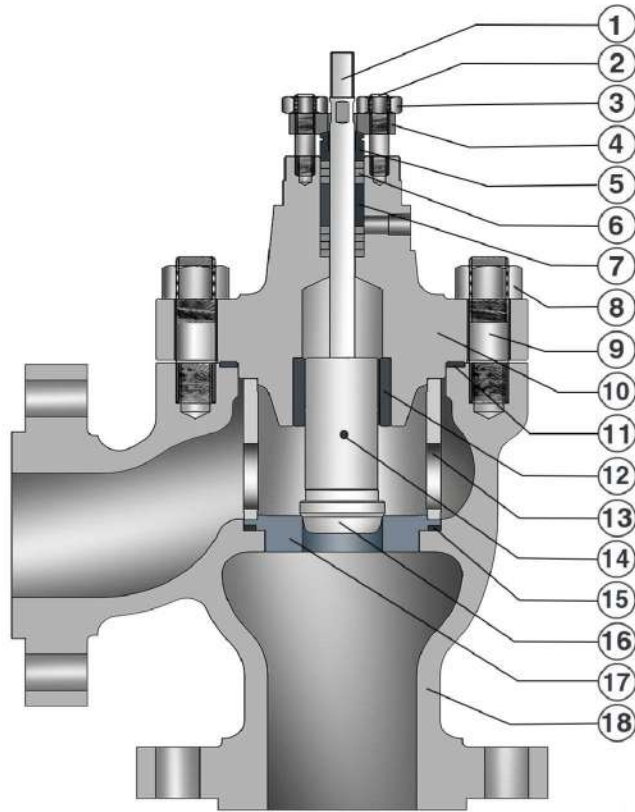
Connection Type	Valve Size	
	0.5" to 2"	2.5" to 6"
Flanged Rised Face	•	•
Flanged Ring Type Joint	•	•
Flanged Tongue & Groove	•	•
Butt Weld End	•	•
Socket Weld End	•	•
Threaded End	•	•

Valve Stroke

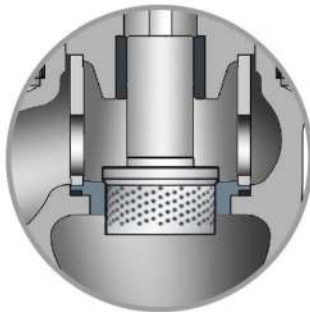
Table-3

Valve Size		Valve Stroke	
Inches	mm	Inches	mm
0.5	15	0.50	12.7
0.75	20	0.75	19.05
1	25	0.75	19.05
1.5	40	0.75	19.05
2	50	0.75	19.05
2.5	65	0.75	19.05
3	80	1.5	38.10
4	100	1.5	38.10
6	150	2	50.08

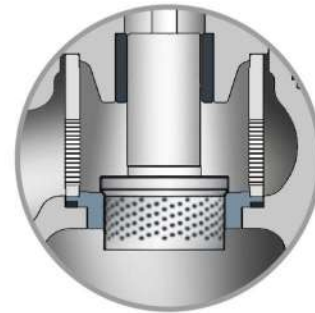
STANDARD CONSTRUCTION



Part. No	Part Name
1	Valve Stem
2	Packing Stud
3	Packing Stud Nut
4	Packing Flange
5	Packing Follower
6	Packing
7	Packing Spacer
8	Body Stud Nut
9	Body Stud
10	Bonnet
11	Body Gasket
12	Guide Bush
13	Cage
14	Plug Pin
15	Seat Ring Gasket
16	Plug
17	Seat Ring
18	Body

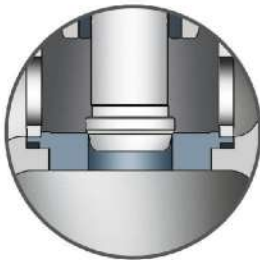


Single Stage Deci-Nill® & Cav-kill®
(Noise Reduction & Cavitation Control)

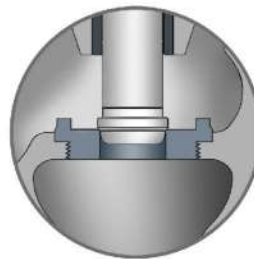


Double Stage Deci-Nill® & Cav-kill®
(Noise Reduction & Cavitation Control)

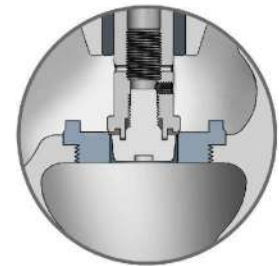
Seat Rings & Plug Type



1. Fast Change Seat Ring



2. Threaded Seat Ring



3. Soft Seated Plug

Note :

- 2. For Deci-Nill (Noise reduction) flow direction aids to Open.
- 3. For Cav-kill (Cavitation control) flow direction aids to Close.

Maximum and Minimum Temperature Limits For Body & Bonnet Materials / Table 4

Body/Bonnet Materials	-320°F	-238°F	-148°F	-50°F	-20°F	300°F	450°F	650°F	750°F	800°F	850°F	1000°F	1050°F	1100°F
	-196°C	-150°C	-100°C	-46°C	-29°C	149°C	232°C	343°C	400°C	427°C	454°C	538°C	566°C	593°C
ASTMA 216 Gr. WCB/A 105														
ASTMA 216 Gr. WCC														
ASTMA 217 Gr. C5														
ASTMA 217 Gr. C6														
ASTMA 217 Gr. WC9														
ASTMA 217 Gr. C12														
ASTMA 217 Gr. C12A														
ASTMA 352 Gr. LCC														
ASTMA 351 Gr. CF8														
ASTMA 351 Gr. CF8M														
ASTMA 351 Gr. CF3														
ASTMA 351 Gr. CF3M														
ASTMA 995 Gr. 4A														
ASTMA 995 Gr. 5A														
ASTMA 995 Gr. 6A														

Maximum and Minimum Temperature Limits For Stem Materials / Table 5

Stem Material	-320°F	-238°F	-148°F	-50°F	-20°F	300°F	450°F	650°F	750°F	800°F	850°F	1000°F	1050°F	1100°F
	-196°C	-150°C	-100°C	-46°C	-29°C	149°C	232°C	343°C	400°C	427°C	454°C	538°C	566°C	593°C
A479 Ty 304														
A479 Ty 316														
A479 Ty 316L														
A638 Gr. 660														
Nirtonic-50UNS S20910														
Super Duplex UNS 32750														
Inconel 625														
SA-479-XM-19 (S20910)														
A564-630 (17-4 PH) Cond. H1075														

Maximum and Minimum Temperature Limits For Trim Materials / Table 6

Trim materials	-320°F	-238°F	-148°F	-50°F	-20°F	300°F	450°F	650°F	750°F	800°F	850°F	1000°F	1050°F	1100°F
	-196°C	-150°C	-100°C	-46°C	-29°C	149°C	232°C	343°C	400°C	427°C	454°C	538°C	566°C	593°C
A743 GR CA6NM Class B														
A743 GR CA6NM C-B Chrom Plated														
SA-479-XM-19 (S20910)														
ASTMA 479 Ty 304														
ASTMA 479 Ty 304 Stellite Seat														
ASTMA 479 Ty 304 Full Stellite														
ASTMA 479 Ty 316														
ASTMA 479 Ty 316 Stellite Seat														
ASTMA 479 Ty 316 Full Stellite														
ASTMA276 Ty 440														
ASTMA 351 Gr. CF8														
ASTMA 351 Gr. CF8M														
Monel														
Hastealloy Grade B														
Hastealloy Grade c														
ASTMA 564 Ty 630 (17-4PH)														

Maximum and Minimum Temperature Limits For Stud, Bolt & Nut Materials / Table 7

Stud/Bolt Materials	Nut Materials	-320°F	-238°F	-148°F	-50°F	-20°F	300°	450°F	650°F	750°F	800°F	850°F	1000°F	1050°F	1100°F
		-196°C	-150°C	-100°C	-46°C	-29°C	149°C	232°C	343°C	400°C	427°C	454°C	538°C	566°C	593°C
A193 Gr B7	A194 Gr 2H														
A193 Gr B7M	A194 Gr 2HM														
A193 Gr B8	A194 Gr 8														
A193 Gr B8 CL 2	A194 Gr 8														
A193 Gr B8M	A194 Gr 8M														
A193 Gr B16	A194 Gr 8														
A320 Gr L7	A194 Gr 4 or 7														
A320 Gr B8(CL 1&2)	A194 Gr 8														
A320 Gr B8M(CL 1&2)	A194 Gr 8M														
A453 Gr 660	A194 Gr 8														

*For other materials contact manufacturer

FLOW CO-EFFICIENT (Cv) VALUES



Contoured Trim

Series - 92211

Flow Characteristic : Linear

Body Rating : ASME Class 150-2500

Direction : Flow To Open (FTO)

Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100
Inches	mm		Orific ϕ		Travel		Rated Cv									
			Inches	mm	Inches	mm										
0.75-1	20-25	150-1500	0.125	3.2	0.75	19.05	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.11
			0.25	6.36	0.75	19.05	0.02	0.04	0.06	0.08	0.11	0.13	0.15	0.17	0.19	0.21
			0.25	6.36	0.75	19.05	0.03	0.06	0.09	0.13	0.16	0.19	0.22	0.25	0.28	0.32
			0.25	6.36	0.75	19.05	0.04	0.08	0.13	0.17	0.21	0.25	0.29	0.34	0.38	0.42
			0.25	6.36	0.75	19.05	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.50	0.57	0.63
			0.25	6.36	0.75	19.05	0.08	0.17	0.25	0.34	0.42	0.50	0.59	0.67	0.76	0.84
			0.25	6.36	0.75	19.05	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.84	0.95	1.1
			0.25	6.36	0.75	19.05	0.18	0.36	0.54	0.71	0.89	1.07	1.25	1.43	1.61	1.8
			0.38	9.53	0.75	19.05	0.40	0.80	1.20	1.60	2.00	2.39	2.79	3.19	3.59	4
			0.5	12.7	0.75	19.05	0.63	1.26	1.89	2.52	3.15	3.78	4.41	5.04	5.67	6
1.5	40	150-2500	0.81	21	0.75	19.05	1.37	2.73	4.10	5.46	6.83	8.19	9.56	10.92	12.29	14
			0.25	6.36	0.75	19.05	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.1
			0.25	6.36	0.75	19.05	0.03	0.06	0.09	0.13	0.16	0.19	0.22	0.25	0.28	0.3
			0.25	6.36	0.75	19.05	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.50	0.57	0.6
			0.25	6.36	0.75	19.05	0.18	0.36	0.54	0.71	0.89	1.07	1.25	1.43	1.61	1.8
			0.38	9.53	0.75	19.05	0.40	0.80	1.20	1.60	2.00	2.39	2.79	3.19	3.59	4
			0.5	12.7	0.75	19.05	0.63	1.26	1.89	2.52	3.15	3.78	4.41	5.04	5.67	6
			0.81	21	0.75	19.05	1.37	2.73	4.10	5.46	6.83	8.19	9.56	10.92	12.29	14
			1.25	32	0.75	19.05	2.73	5.46	8.19	10.92	13.65	16.38	19.11	21.84	24.57	27
			1.49	38	0.75	19.05	3.57	7.1	10.7	14.3	17.9	21.4	25.0	28.6	32.1	36
2	50	150-2500	0.25	6.36	0.75	19.05	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.1
			0.25	6.36	0.75	19.05	0.03	0.06	0.09	0.13	0.16	0.19	0.22	0.25	0.28	0.3
			0.25	6.36	0.75	19.05	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.50	0.57	0.6
			0.25	6.36	0.75	19.05	0.2	0.4	0.5	0.7	0.9	1.1	1.2	1.4	1.6	1.8
			0.38	9.53	0.75	19.05	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4
			0.5	12.7	0.75	19.05	0.6	1.3	1.9	2.5	3.2	3.8	4.4	5.0	5.7	6
			0.81	21	0.75	19.05	1.5	2.9	4.4	5.9	7.4	8.8	10.3	11.8	13.2	15
			1.25	32	0.75	19.05	2.7	5.5	8.2	10.9	13.7	16.4	19.1	21.8	24.6	27
			1.49	38	0.75	19.05	3.7	7.4	11.0	14.7	18.4	22.1	25.7	29.4	33.1	37
			1.63	41	0.75	19.05	4.7	9.5	14.2	18.9	23.6	28.4	33.1	37.8	42.5	47
3	80	150-1500	1.25	32	1.5	38.1	3.3	6.5	9.8	13.0	16.3	19.5	22.8	26	29.3	33
			1.63	41	1.5	38.1	4.8	9.7	14.5	19.3	24.2	29.0	33.8	38.6	43.5	48
			2.63	66.5	1.5	38.1	11.6	23.1	34.7	46.2	57.8	69.3	80.9	92.4	104	116
4	100	150-1500	1.63	41	1.5	38.1	5.1	10.3	15.4	20.6	25.7	30.9	36.0	41.2	46	51
			2.63	66.5	1.5	38.1	11.9	23.7	35.6	47.5	59.3	71.2	83.1	94.9	107	119
			3.5	89	1.5	38.1	20	41	61	82	102	123	143	164	184	205
6	150	150-600	2.63	66.5	2	50.8	13.2	26.5	39.7	52.9	66.2	79.4	92.6	105.8	119	132
			3.5	89	2	50.8	21.8	43.7	65.5	87.4	109.2	131	153	175	197	218
			5	127	2	50.8	42	84	125	167	209	251	293	334	376	418

FLOW CO-EFFICIENT (Cv) VALUES



Contoured Trim

Series - 92212

Flow Characteristic : Equal Percentage

Body Rating : ASME Class 150-2500

Direction : Flow To Open (FTO)

Valve Size		ASME Class	% Lift		Travel		10	20	30	40	50	60	70	80	90	100
Inches	mm		Inches	mm	Inches	mm	Rated Cv									
0.75-1	20-25	150-2500	0.25	6.36	0.75	19.05	0.05	0.08	0.12	0.17	0.25	0.37	0.55	0.82	1.21	1.8
			0.38	9.53	0.75	19.05	0.12	0.18	0.26	0.38	0.57	0.8	1.2	1.8	2.7	4
			0.5	12.7	0.75	19.05	0.19	0.28	0.41	0.60	0.89	1.3	1.9	2.9	4.3	6.3
			0.81	21	0.75	19.05	0.39	0.57	0.85	1.3	1.9	2.7	4.0	6.0	8.9	13
1.5	40		0.25	6.36	0.75	19.05	0.05	0.08	0.12	0.17	0.25	0.37	0.55	0.82	1.2	1.8
			0.38	9.53	0.75	19.05	0.12	0.18	0.26	0.38	0.57	0.8	1.2	1.8	2.7	4
			0.5	12.7	0.75	19.05	0.19	0.28	0.41	0.60	0.89	1.3	1.9	2.9	4.3	6.3
			0.81	21	0.75	19.05	0.42	0.62	0.92	1.4	2.0	3.0	4.4	6.5	9.6	14
			1.25	32	0.75	19.05	0.8	1.2	1.8	2.6	3.9	5.8	8.5	13	18.7	28
2	50		1.63	42	0.75	19.05	1.1	1.7	2.5	3.6	5.4	7.9	11.8	17.4	25.7	38
			0.25	6.4	0.75	19.05	0.05	0.08	0.11	0.17	0.25	0.37	0.55	0.81	1.2	1.8
			0.38	9.5	0.75	19.05	0.1	0.2	0.3	0.4	0.6	0.8	1.2	1.8	2.7	4
			0.5	12.7	0.75	19.05	0.19	0.28	0.41	0.60	0.89	1.3	1.9	2.9	4.3	6.3
			0.81	21	0.75	19.05	0.48	0.72	1.1	1.6	2.31	3	5	7	11	16.4
			1.25	32	0.75	19.05	0.82	1.2	1.8	2.6	3.9	5.8	9	13	19	28
3	80		1.49	38	0.75	19.05	1.09	1.6	2.4	3.5	5.2	7.7	11	17	25	37
		1.63	41	0.75	19.05	1.41	2.1	3.1	4.6	6.7	10	15	22	32	48	
		1.25	32	1.5	38.1	0.97	1.4	2.1	3.2	4.7	6.9	10	15	22	33	
4	100	1.63	41	1.5	38.1	1.4	2.1	3.1	4.7	6.9	10	15	22	33	49	
		2.63	66.5	1.5	38.1	3.4	5.0	7.4	11.0	16	24	36	53	78	115	
		1.63	41	1.5	38.1	1.5	2.2	3.3	4.8	7	11	16	23	34	51	
6	150	2.63	66.5	1.5	38.1	3.5	5.2	8	11	17	25	36	54	80	118	
		3.5	89	1.5	38.1	6.1	9.0	13	20	29	43	63	94	139	205	
		2.63	66.5	2	50.8	3.9	5.8	9	13	19	28	41	60	89	132	
6	150	3.5	89	2	50.8	6.5	10	14	21	31	46	68	100	148	219	
		5	127	2	50.8	13	19	27	55	60	89	131	194	287	418	

Contoured Trim

Series - 92211

Flow Characteristic : Linear

Body Rating : ASME Class 150-2500

Direction : Flow To Close (FTC)

Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100
			Orific ϕ		Travel		Rated Cv									
Inches	mm		Inches	mm	Inches	mm										
0.75-1	20-25	150-2500	0.25	6.36	0.75	19.05	0.25	0.37	0.50	0.65	0.81	0.98	1.17	1.37	1.58	1.8
			0.38	9.53	0.75	19.05	0.54	0.80	1.09	1.39	1.7	2.1	2.4	2.8	3.2	4
			0.5	12.7	0.75	19.05	0.85	1.3	1.8	2.3	2.8	3.4	4.1	4.7	5.5	6
			0.81	21	0.75	19.05	1.7	2.6	3.5	4.5	5.6	6.8	8.1	9	11	12
1.5	40		0.25	6.36	0.75	19.05	0.25	0.37	0.50	0.65	0.81	0.98	1.17	1.4	1.6	1.8
			0.38	9.53	0.75	19.05	0.54	0.8	1.09	1.40	1.73	2	2.45	2.8	3.3	4
			0.5	12.7	0.75	19.05	0.85	1.3	1.8	2.3	2.8	3.5	4.1	4.8	5.5	6
			0.81	21	0.75	19.05	1.86	2.8	3.8	4.9	6.0	7.3	8.6	10.0	12	13
			1.25	32	0.75	19.05	3.59	5.4	7.4	9.6	11.9	14	17.2	20	23	27
			1.49	38	0.75	19.05	5.0	7.5	10.3	13.3	16.6	20.1	24	28	32	37
2	50		0.25	6.36	0.75	19.05	0.25	0.37	0.50	0.65	0.81	0.98	1.17	1.4	1.6	1.8
			0.38	9.53	0.75	19.05	0.54	0.80	1.09	1.40	1.73	2	2.5	2.8	3.3	3.7
		0.5	12.7	0.75	19.05	0.85	1.3	1.8	2.3	2.8	3.5	4.1	4.8	5.5	6	
		0.81	21	0.75	19.05	2.15	3.2	4.4	5.7	7.1	8.6	10.2	11.8	14	16	
		1.25	32	0.75	19.05	3.73	5.6	7.7	9.9	12.3	15.0	17.8	21	24	27	
		1.49	38	0.75	19.05	5.03	7.5	10.3	13.3	17	20	24	28	32	37	
3	80	1.63	41	0.75	19.05	6.60	10	14	18	22	26	31	37	42	48	
		1.25	32	1.5	38.1	4.5	6.7	9.2	11.9	14.8	18.0	21.3	25	28.8	33	
		1.63	41	1.5	38.1	6.7	10.1	13.8	17.9	22.3	27	32.0	37	43	49	
4	100	2.63	66.5	1.5	38.1	16	24	32	42	52	63	75	88	101	115	
		1.63	41	1.5	38.1	7.02	10.57	14.47	18.7	23.3	28	34	39.3	45.3	52	
		2.63	66.5	1.5	38.1	16.3	24.4	33.3	43.1	53.6	65.0	77.1	90.1	104	119	
6	150	3.5	89	1.5	38.1	28	42	57	74	92	112	132	155	178	203	
		2.63	66.5	2	50.8	18.1	27.2	37.1	48.0	59.7	72.4	85.9	100.3	116	132	
		3.5	89	2	50.8	30.0	44.8	61.1	78.9	98.2	118.9	141.2	165.0	190	217	
			5	127	2	50.8	57	86	118	152	189	229	272	318	366	418

FLOW CO-EFFICIENT (Cv) VALUES



Contoured Trim

Series - 92212

Flow Characteristic : Equal Percentage				Body Rating : ASME Class 150-2500				Direction : Flow To Close(FTC)									
Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100	
Inches	mm		Orific Ø		Travel		Rated Cv										
			Inches	mm	Inches	mm											
0.75-1	20-25	150-2500	0.25	6.36	0.75	19.05	0.10	0.10	0.20	0.22	0.30	0.50	0.81	1.11	1.53	1.8	
			0.38	9.53	0.75	19.05	0.20	0.20	0.30	0.39	0.68	1.1	1.8	2.5	3.3	4	
			0.5	12.7	0.75	19.05	0.30	0.40	0.50	0.64	1.08	1.8	2.8	4.0	5.2	6	
			0.81	21	0.75	19.05	0.60	0.81	1.21	1.5	2.3	4.3	6.8	9.2	10.9	13	
1.5	40		0.25	6.36	0.75	19.05	0.10	0.10	0.20	0.22	0.30	0.50	0.81	1.11	1.5	1.8	
			0.38	9.53	0.75	19.05	0.20	0.20	0.30	0.39	0.68	1.1	1.8	2.5	3.3	4	
			0.5	12.7	0.75	19.05	0.30	0.40	0.50	0.64	1.08	1.8	2.8	4.0	5.2	6	
			0.81	21	0.75	19.05	0.60	0.81	1.11	1.5	2.3	3.9	6.1	8.6	11.3	14	
			1.25	32	0.75	19.05	1.2	1.6	2.2	2.8	4.5	7.5	11.7	17	21.8	27	
			1.63	42	0.75	19.05	2.0	2.4	3.5	4.3	6.8	13	20	27	32	37	
2	50		0.25	6.4	0.75	19.05	0.10	0.10	0.20	0.22	0.30	0.50	0.81	1.11	1.5	1.8	
			0.38	9.5	0.75	19.05	0.2	0.2	0.3	0.4	0.7	1.1	1.8	2.5	3.3	4	
		0.5	12.7	0.75	19.05	0.30	0.40	0.50	0.64	1.08	1.8	2.8	4	5.2	6		
		0.81	21	0.75	19.05	0.70	1.01	1.3	1.7	2.70	4	7	10	13	16		
		1.25	32	0.75	19.05	1.21	1.6	2.3	2.8	4.7	7.8	12	17	23	27		
		1.49	38	0.75	19.05	1.29	2.0	3.7	6.2	9.6	13.9	19	25	32	40		
3	80	1.63	41	0.75	19.05	2.62	3.2	4.6	5.7	8.9	17	26	35	42	48		
		150-1500	1.25	32	1.5	38.1	1.41	2.0	2.7	3.4	5.6	9.3	14	21	27	32	
			1.63	41	1.5	38.1	2.2	3.0	4.2	5.3	8.4	14	22	31	41	49	
2.63	66.5		1.5	38.1	6.0	7.7	11.1	13.6	21	40	63	84	100	115			
4	100		1.63	41	1.5	38.1	2.3	3.1	4.3	5.4	9	15	23	33	43	51	
			2.63	66.5	1.5	38.1	5.2	7.1	10	13	20	34	53	75	99	118	
			3.5	89	1.5	38.1	10.6	13.7	20	24	38	70	111	149	178	204	
6	150	2.63	66.5	2	50.8	5.8	8.1	11	14	23	38	59	84	110	132		
		3.5	89	2	50.8	9.7	13	18	23	37	62	97	138	181	217		
		5	127	2	50.8	22	28	40	50	78	144	229	306	365	418		

Single Stage Deci-Nill® /Cav-Kill®

Series - 92231

Flow Characteristic: Linear				Body Rating : ASME Class 150-2500				Direction : Flow To Open (FTO) & Flow To Close(FTC)									
Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100	
Inches	mm		Orific Ø		Travel		Rated Cv										
			Inches	mm	Inches	mm											
0.75-1	20-25	150-2500	0.94	24	0.75	19.05	0.4	0.8	1.3	1.7	2.1	2.5	2.9	3.4	3.8	4	
			0.94	24	0.75	19.05	0.9	1.9	2.8	3.8	4.7	5.7	6.6	7.6	8.5	9.5	
1.5	40		1.25	32	0.75	19.05	0.8	1.7	2.5	3.4	4.2	5.0	5.9	6.7	7.6	8.4	
			1.25	32	0.75	19.05	1.6	3.2	4.7	6.3	7.9	9.5	11.0	12.6	14.2	15.8	
2	50		1.25	32	0.75	19.05	0.8	1.7	2.5	3.4	4.2	5.0	5.9	6.7	7.6	8.4	
			1.25	32	0.75	19.05	1.6	3.2	4.7	6.3	7.9	9.5	11.0	12.6	14	16	
3	80		1.63	41	0.75	19.05	2.7	5.5	8.2	10.9	13.7	16.4	19.1	21.8	25	27	
			2.63	66.5	1.5	38.1	5.0	10.1	15.1	20.2	25.2	30.2	35.3	40	45	50	
4	100		2.63	66.5	1.5	38.1	7.9	15.8	23.6	31.5	39.4	47.3	55.1	63	71	79	
			2.63	66.5	1.5	38.1	6.6	13.2	19.8	26.5	33.1	39.7	46.3	53	60	66	
			3.5	89	1.5	38.1	10.5	21.0	31.5	42	53	63	74	84	95	105	
6	150		5	127	2	50.8	15.8	31.5	47.3	63	79	95	110	126	142	158	
		5	127	2	51	21	42	63	84	105	126	147	168	189	210		

FLOW CO-EFFICIENT (Cv) VALUES



Double Stage Deci-Nill®

Series - 92241

Flow Characteristic : Linear

Body Rating : ASME Class 150-2500

Direction : Flow To Open(FTO)

Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100
Inches	mm		Orific Ø		Travel		Rated Cv									
			Inches	mm	Inches	mm										
0.75 - 1	20-25	150-2500	0.81	21	0.75	19.05	0.2	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.1	2.3
			0.81	21	0.75	19.05	0.5	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5
1.5	40		0.81	21	0.75	19.05	0.2	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.1	2.3
			1.25	32	0.75	19.05	0.5	0.9	1.4	1.9	2.3	2.8	3.3	3.7	4.2	4.7
2	50		1.25	32	0.75	19.05	0.9	1.8	2.6	3.5	4.4	5.3	6.2	7.1	7.9	8.8
			1.25	32	0.75	19.05	0.5	0.9	1.4	1.9	2.3	2.8	3.3	3.7	4.2	4.7
3	80		1.63	41	0.75	19.05	0.9	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.2	9.1
			1.63	41	0.75	19.05	1.5	3.0	4.5	6.0	7.5	8.9	10.4	11.9	13.4	15
4	100		2.63	66.5	1.5	38.1	2.9	5.7	8.6	11.4	14.3	17.1	20	22.8	25.7	29
			2.63	66.5	1.5	38.1	4.4	8.9	13.3	17.7	22.2	26.6	31.1	35.5	39.9	44
			2.63	66.5	1.5	38.1	4.2	8.5	12.7	16.9	21.1	25.4	30	34	38	42
			3.5	89	1.5	38.1	6.5	13.0	19.5	26	32	39	45	52	58	65

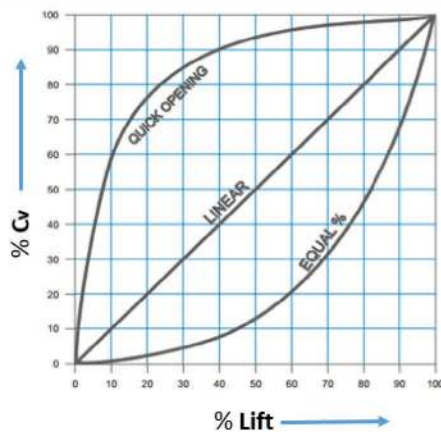
Flow Characteristic : Linear

Body Rating : ASME Class 150-2500

Direction : Flow To Close(FTC)

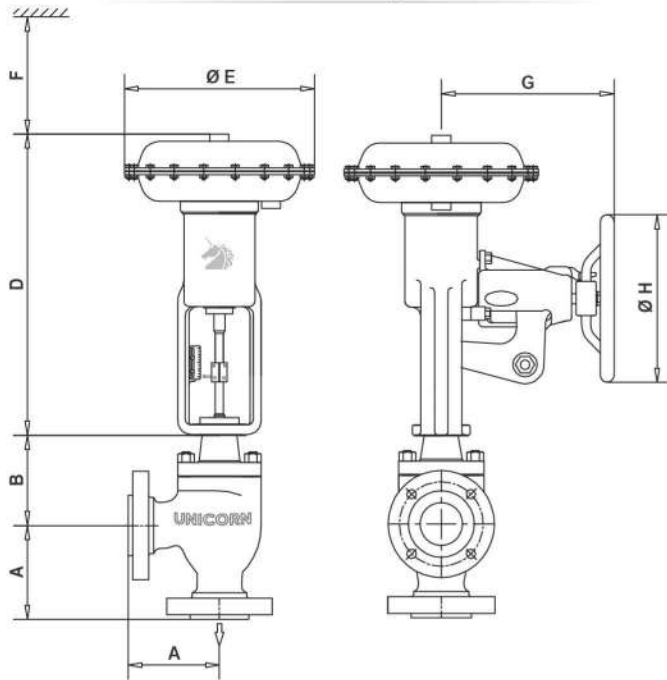
Valve Size		ASME Class	% Lift				10	20	30	40	50	60	70	80	90	100	
Inches	mm		Orific Ø		Travel		Rated Cv										
			Inches	mm	Inches	mm											
0.75-1	20-25	150-2500	0.81	21	0.75	19.05	0.4	0.8	1.1	1.5	1.9	2.3	2.7	3.1	3.4	3.8	
			0.81	21	0.75	19.05	0.6	1.2	1.9	2.5	3.1	3.7	4.4	5.0	5.6	6.2	
1.5	40		1.25	32	0.75	19.05	0.9	1.7	2.6	3.4	4.3	5.1	6.0	6.8	8	9	
			1.25	32	0.75	19.05	1.4	2.8	4.1	5.5	6.9	8.3	10	11	12	14	
2	50		1.25	32	0.75	19.05	1.4	2.8	4.1	5.5	6.9	8.3	10	11	12	14	
			1.63	41	0.75	19.05	2.2	4.3	6.5	8.7	11	13	15	17	20	22	
3	80		2.63	66.5	1.5	38.1	4.2	8.3	12.5	16.7	21	25	29	33	38	42	
			2.63	66.5	1.5	38.1	6.6	13.2	20	26	33	39	46	53	59	66	
4	100		2.63	66.5	1.5	38.1	5.5	11.1	17	22	28	33	39	44	50	55	
			3.5	89	1.5	38.1	8.7	17	26	35	44	52	61	70	79	87	
6	150		150-600	5	127	2	50.8	13	26	39	53	66	79	92	105	118	131

Flow Characteristic



Flow Vs Lift

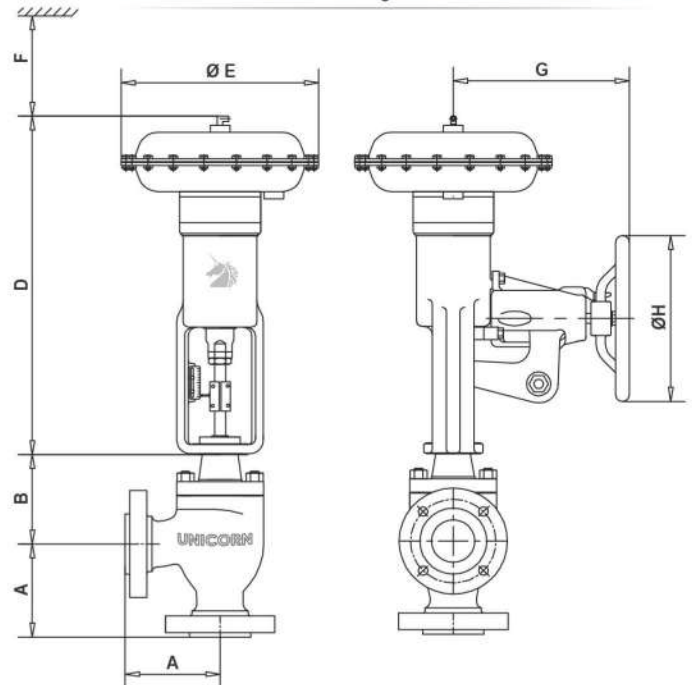
92000 Series Valve Body with Actuator UA-11



Without Handwheel

With Handwheel

92000 Series Valve Body with Actuator UA-12



Without Handwheel

With Handwheel

Dimensions Of Valve

Valve Size		A						B			
Inches	mm	150	300	600	900	1500	2500	<=300	600	900-1500	2500
0.5	15	92	95	102	137	137	154	140	140	214	214
0.75	20	92	97	103	137	137	154	140	140	214	214
1	25	92	99	105	137	137	154	140	140	214	214
1.5	40	111	117	126	146	146	159	140	140	214	229
2	50	127	133	143	168	168	180	140	140	229	272
2.5	65	138	146	156	188	203	207	204	204	229	-
3	80	149	159	168	194	233	-	204	204	285	-
4	100	176	184	197	232	-	-	208	208	375	-
6	150	226	236	254	-	-	-	290	-	-	-

Dimensions Of Actuator

Actuator Type	Actuator Model	Actuator Size	Actuator Stroke(inches)	Actuator Stroke(mm)	D	Ø E	F	G	Ø H
Spring Diaphragm	UA-11	30	0.75	19.05	470	335	112	230	250
	UA-12	30	0.75	19.05	510	335	112	230	250
	UA-11	35	1.5	38.1	575	386	112	290	300
	UA-12	35	1.5	38.1	635	386	112	290	300
	UA-11	40	2	50.8	740	452	170	408	450
	UA-12	40	2	50.8	840	452	170	408	450
	UA-11	45	2.5	63.5	780	532	180	408	450
	UA-12	45	2.5	63.5	1110	532	180	408	450
	UA-11	50	4	101.6	950	532	180	470	570
	UA-12	50	4	101.6	1240	532	180	470	570

Note:


- 1.Actuator Model UA-11 is a Direct Actuator (Air To Close).
- 2.Actuator Model UA-12 is a Reverse Actuator (Air To Open).

UNICORN VALVES


Revolutionizing The Flow



Contact us :

 S.F. No. 100/2B, Valukkuparai P.O,
Marichettipathy Road, Nachipalayam,
Madukkarai (Taluk), Coimbatore-641032,
Tamil Nadu - India.

 Sales@unicorn-valves.com

 +91-422-2901322

 www.unicorn-valves.com



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