

**02 - 08.2**

05.17.GB

**LDM Shut-off valves  
UV 526**



# UV 526



**Shut-off valves**  
**DN 10 to 65**  
**PN 63, 100, 160 and 250**

## Description

The UV 526 is single-seat, straight flow globe valves designed for medium flow shutting-off. The valve with control characteristic (the shaped plug) is intended for the rough control of the media flow.

The valve is controlled with a hand wheel or multi-turn electric actuator.

The valve is in accordance with demands of EN 13709.

The sealing surfaces of UV 526 valve closure is hardfaced. The spherical seating surface of the plug fits to the conical sealing surface of seat, which guarantees the high tightness of the valve.

Standard execution of valve is with welded ends, the execution with flanges (various types of sealing surface) is on customer's demand.

## Application

The UV 526 valves are intended for:

- power generation
- chemical processing industries

Maximal permissible pressures see table on page 7. Maximal permissible temperature depends on selected body material.

## Process media

- water
- steam
- other liquids and gases which are compatible with materials of the valve body and trim

## Installation

The UV 526 valve with hand wheel can be installed in any position.

The UV 526 valve with electric actuator can be installed in any position except the position with the actuator under the valve body.

For shut-off valve, both directions of flow are possible. For the valve with control plug, the direction of media flow must be in accordance with arrow, marked at valve's body ("under the plug").

It's recommended to insulate the valve body and the pipeline close to valve. On the contrary, the insulation of the valve yoke is prohibited.

Enough room for in-line operation, maintenance and repair must be ensured.

## Technical data

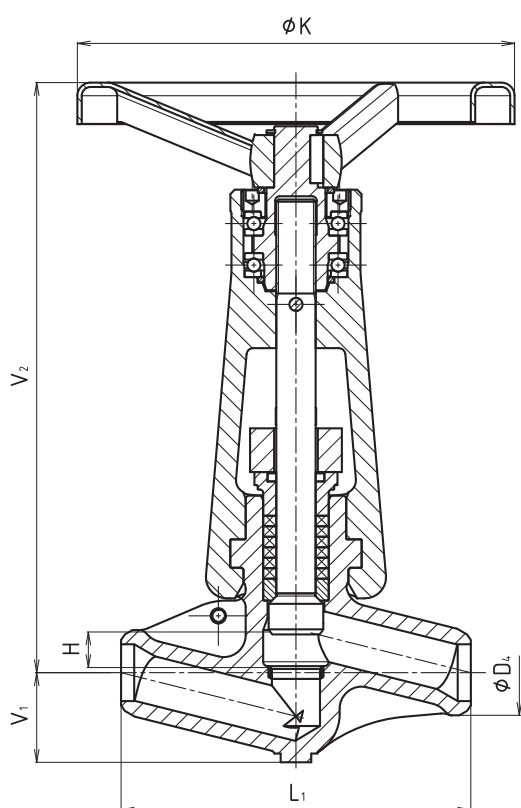
Series	UV 526											
Execution	Shut-off (Control) valve, single-seated, straight-through, two-way											
Nominal size	DN 10 to 65											
Nominal pressure	PN 63, 100, 16, 250											
Body material (ČSN; EN)	11416	12020	1.0460	15128	1.4571	1.4903	1.5415	1.7335	1.7380	1.7383	1.4541	
Operating temperature (from -10°C) to	400°C	350°C	450°C	575°C	600°C	600°C	550°C	550°C	600°C	600°C	600°C	
Seat material	Body mat. + hard metal overlay Stellite 6											
Plug material	1.4923 + hard metal Real 096											
Yoke material	1.0619						1.7357					
Weld ends connection	Acc. to EN 12627											
Flange ends connection	Acc. to EN 1092-1											
Available types of flanges	Raised-face (type B1 and B2); Tongue (type C); Groove (type D); Spigot/male (type E); Recess/female (type F)											
Flow characteristic	On-Off; control											
Leakage rate	Class A (On-Off characteristic) acc. to EN 12266-1											
	Class D (Control characteristic) acc. to EN 12266-1											
Packing	Expanded Graphite											

## Dimensions and weights of UV 526 valves with weld ends

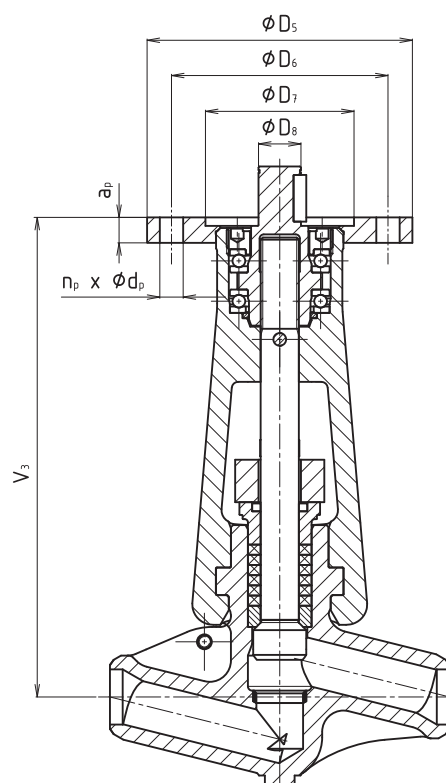
DN	H	L <sub>1</sub>	V <sub>1</sub>	V <sub>2</sub>	V <sub>3</sub>	D <sub>4 max</sub>	K	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	a <sub>p</sub>	n <sub>p</sub>	d <sub>p</sub>	m <sub>1</sub>
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	kg
10	12	150	30	252	211	26	200	125	102	70	20	12	8	11	4.0
15															5.7
20	16	160	41	267	226	39	250	175	140	100	30	16	8	17	12
25															22
32	22	210	60	343	295	54	400	175	140	100	30	16	8	17	22
40															36
50	36	250	80	450	381	83	400	175	140	100	30	16	8	17	22
65															

m<sub>1</sub> - approximate weight with weld ends

Dimensions of weld ends according to EN 12627, or by customer request.



Weld ends execution with hand wheel



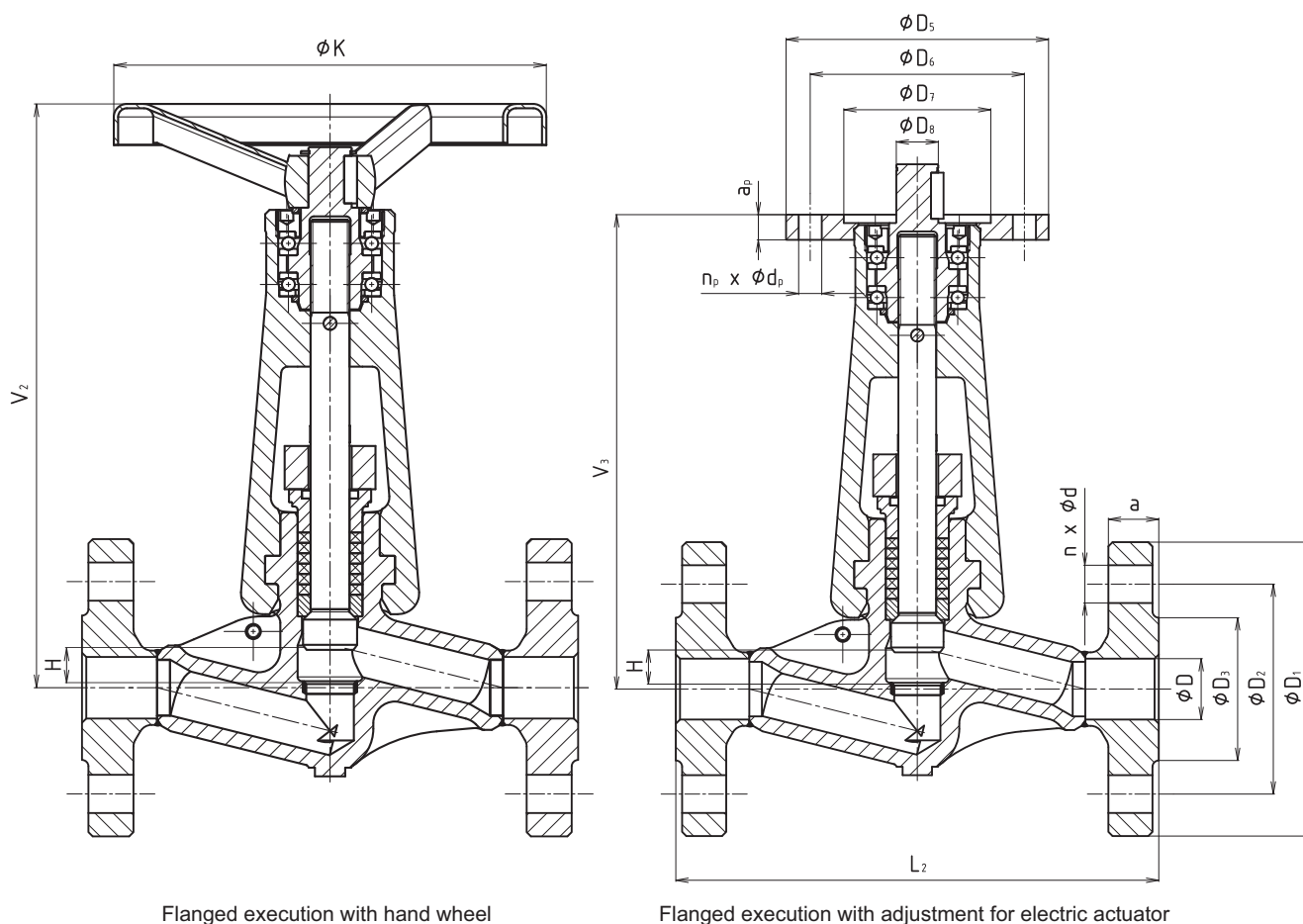
Weld ends execution with adjustment for electric actuator

## Dimensions and weights of UV 526 valves with flanges

DN	PN63							PN100							PN160								
	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	a	d	n	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	a	d	n	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	a	d	n		
	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	
10	10	100	70	40	20	14		10	100	70	40	20	14		10	100	70	40	20	14	4		
15	15	105	75	45				15	105	75	45				15	105	75	45					
20	20	130	90	58	22			20	130	90	58	22			---	---	---	---	---	---	---		
25	25	140	100	68		4		25	140	100	68		18		25	140	100	68	24	18	4		
32	32	155	110	78	24			32	155	110	78	24			---	---	---	---	---	---	---		
40	40	170	125	88		22		40	170	125	88	26			40	170	125	88	28	22	4		
50	50	180	135	102	26			50	195	145	102	28			50	195	145	102	30	26	4		
65	65	205	160	122		8		65	220	170	122	30			65	220	170	122	34	26	8		

DN	PN250							PN63-250											PN63-160	PN250	
	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	a	d	n	H	V <sub>2</sub>	V <sub>3</sub>	K	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	a <sub>p</sub>	n <sub>p</sub>	d <sub>p</sub>	m <sub>2</sub>	L <sub>2</sub>	L <sub>2</sub>
	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	kg	mm	mm
10	10	125	85	40	24	18	4	12	252	211									5.5	210	230
15	15	130	90	45	26						200								5.7		
20	---	---	---	---	---	---	---	16	267	226		125	102	70	20	12	8	11	9.5	230	---
25	25	150	105	68	28	22	4											10	260	260	
32	---	---	---	---	---	---	---	22	343	295	250								18	---	---
40	40	185	135	88	34		4											19	300	300	
50	50	200	150	102	38	26	8	36	450	381	400	175	140	100	30	16	8	17	32	300	350
65	65	230	180	122	42													36	340	400	

m<sub>2</sub> - approximate weight with flanges



## Values of Kvs and pressure loss coefficient $\zeta$ (zeta)

DN	$\varnothing$ B	Loss coefficient of shut-off valve $\zeta$ (zeta)	Kvs value of shut-off valve [m <sup>3</sup> /h]	Kvs value of control valve [m <sup>3</sup> /h]
10	10	6,74	1,54	1,53
15	16	6,72	3,95	3,37
20	22	7,20	7,21	5,76
25	26	8,33	9,36	7,02
32	30	7,90	12,8	11,1
40	41	18,6	15,6	14,1
50	52	13,5	29,4	22,5
65	66	35,1	29,4	22,5

## Complete specification code for UV 526 valve ordering

		XX	XXX	XXX	XXXX	XX	XXX	/	XXX	-	XXX
1. Valve	Shut-off valve	UV									
2. Series	Shut-off globe valve, forged		526								
3. Type of actuating	Electric actuator			EXX							
	Hand wheel			RXX							
4. Connection	Flanges with raised face, type B1 (rough)				1						
	Flanges with recess, type F (female)				2						
	Flanges with raised face, type B2 (fine)				3						
	Weld ends				4						
	Flanges with spigot, type E (male)				5						
	Flanges with tongue, type C				6						
	Flanges with groove, type D				7						
	Other connection on request				9						
5. Body material	Carbon steel 11416 (-10 to 400 °C)				A						
	Carbon steel 12020 (-10 to 350 °C)				B						
	Alloy steel 15128 (-10 to 575 °C)				C						
	Carbon steel 1.0460 (-10 to 450 °C)				D						
	Stainless steel 1.4571 (-10 to 600 °C)				E						
	Stainless steel 1.4903 (-10 to 600 °C)				F						
	Alloy steel 1.5415 (-10 to 550 °C)				G						
	Alloy steel 1.7335 (-10 to 550 °C)				H						
	Alloy steel 1.7380 (-10 to 600 °C)				I						
	Alloy steel 1.7383 (-10 to 600 °C)				J						
Stainless steel 1.4541 (-10 to 600 °C)				K							
Other material on request				9							
6. Packing	Expanded Graphite				5						
7. Execution	Standard				0						
8. Plug type	Shut-off					0					
	Control					1					
9. Accessories	No accessories					0					
10. Nominal pressure	PN 63						063				
	PN 100						100				
	PN 160						160				
	PN 250						250				
11. Operating temperature °C	Acc. to operating conditions/material selection							/	XXX		
12. Nominal diameter	DN									-	XXX

### Ordering code example:

UV526 R20 4B50 00 063/350-025, weld ends acc. to EN 12627-2-DN20, pipe size 26,9 x 2,3

## Data for an actuator specification

The UV 526 EXX valves are ready for attachment of multi-turn electric actuators, e.g. Auma, Schiebel, ZPA Pečky. The flange dimensions necessary for the attachment of actuator correspond to EN ISO 5210, see dimensional sketch on the page 3, resp. 4.

In case, the valves are delivered with actuators, they are adjusted by the manufacturer. In the "closed" position, i.e. plug is in the contact with body seat, the torque limit switch turns off. In the "opened" position the end switch (position limit switch) turns off. The torque limit switch for "opened" position is adjusted as safety, to protect the valve against damage only. The flange for the attachment of actuator allows to turn the actuator gradually by 45°.

## Assigning actuator to valve

DN	Stroke	Turns / stroke	Torque limit	Connection acc. to EN ISO 5210
	[mm]	[-]	[Nm]	
10 - 15	12	6	20	F10 / type B3
20 - 25	16	8	40	F10 / type B3
32 - 40	22	7,3	80	F10 / type B3
50 - 65	36	6	180	F14 / type B3

## Recommended values of output speed (rpm)

DN	Shut-off valve (running time 10 - 20 sec.)	Shut-off valve with control plug (running time 40 - 60 sec.)
	[rpm]	[rpm]
10 - 15	18 - 36	6 - 9
20 - 25	24 - 48	8 - 12
32 - 40	22 - 44	7,5 - 11
50 - 65	18 - 36	6 - 9

## Marking of actuator in valve specification code

Electric actuator Auma SA 07.2	E A A	Electric actuator SIPOS 2SA70, 2SA73	E T B
Electric actuator Auma SAEx 07.2	E A B	Electric actuator SIPOS 2SA75	E T C
Electric actuator Auma SAR 07.2	E A C	Electric actuator SIPOS 2SA78 HiMod	E T C
Electric actuator Auma SAREx 07.2	E A D	Electric actuator Modact MON/MOP	E Y E
Electric actuator Auma SA 07.6	E A E	Electric actuator Modact MON/MOP Control	E Y F
Electric actuator Auma SAEx 07.6	E A F	Electric actuator Modact MONED/MOPED	E Y F
Electric actuator Auma SAR 07.6	E A G	Electric actuator Modact MONJ	E Y E
Electric actuator Auma SAREx 07.6	E A H	Electric actuator Modact MONJ Control	E Y F
Electric actuator Auma SA 10.2	E A I	Electric actuator Modact MONEDJ	E Y F
Electric actuator Auma SAEx 10.2	E A L	Hand wheel for DN 10 - 25 (diameter 200mm)	R 2 0
Electric actuator Auma SAR 10.2	E A J	Hand wheel for DN 32 - 40 (diameter 250mm)	R 2 5
Electric actuator Auma SAREx 10.2	E A K	Hand wheel for DN 50 - 65 (diameter 400mm)	R 4 0
Electric actuator Auma SA(R,Ex) 14.2	E A M		
Electric actuator Schiebel AB3	E Z A		
Electric actuator Schiebel exAB3	E Z B		
Electric actuator Schiebel rAB3	E Z C		
Electric actuator Schiebel exrAB3	E Z D		
Electric actuator Schiebel AB5	E Z E		
Electric actuator Schiebel exAB5	E Z F		
Electric actuator Schiebel rAB5	E Z G		
Electric actuator Schiebel exrAB5	E Z H		
Electric actuator Schiebel AB8	E Z I		
Electric actuator Schiebel exAB8	E Z J		
Electric actuator Schiebel rAB8	E Z K		
Electric actuator Schiebel exrAB8	E Z L		

## Maximal permissible pressure values [MPa]

Material	PN	Temperature [ °C ]											
		100	150	200	250	300	350	400	450	500	550	575	600
Carbon steel 11416	63	6.3	6.3	6.3	5.55	4.82	4.13	3.58	---	---	---	---	---
	100	10.0	10.0	10.0	8.81	7.65	6.55	5.68	---	---	---	---	---
	160	16.0	16.0	16.0	14.1	12.2	10.5	9.09	---	---	---	---	---
	250	25.0	25.0	25.0	22.0	19.1	16.4	14.2	---	---	---	---	---
Carbon steel 12020	63	6.3	5.82	5.51	5.04	4.56	4.09	---	---	---	---	---	---
	100	10.0	9.25	8.75	8.0	7.25	6.5	---	---	---	---	---	---
	160	16.0	14.8	14.0	12.8	11.6	10.4	---	---	---	---	---	---
	250	25.0	20.5	19.4	17.7	16.1	14.4	---	---	---	---	---	---
Alloy steel 15128	63	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	3.91	2.47	---
	100	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	6.2	3.91	---
	160	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	9.92	6.26	---
	250	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	15.5	9.78	---
Carbon steel 1.0460 C22.8, P250GH	63	5.85	5.55	5.25	4.8	4.35	4.05	3.75	2.07	---	---	---	---
	100	9.28	8.8	8.33	7.61	6.9	6.42	5.95	3.28	---	---	---	---
	160	14.85	14.09	13.33	12.19	11.04	10.28	9.52	5.25	---	---	---	---
	250	23.21	22.02	20.83	19.04	17.26	16.07	14.88	8.21	---	---	---	---
Stainless steel 1.4571 X6CrNiMoTi17-12-2	63	6.3	6.09	5.64	5.38	5.12	4.85	4.59	4.41	4.15	3.67	3.39	2.45
	100	10.0	9.66	8.96	8.54	8.12	7.7	7.28	7.0	6.58	5.82	5.39	3.89
	160	16.0	15.46	14.34	13.67	13.0	12.33	11.65	11.21	10.53	9.32	8.62	6.23
	250	25.0	24.16	22.41	21.36	20.31	19.26	18.21	17.51	16.45	14.56	13.47	9.74
Alloy steel 1.4903 X10CrMoVNb9-1	63	6.3	6.3	6.3	6.3	6.3	5.91	5.38	4.97	4.15	3.67	3.52	3.15
	100	10.0	10.0	10.0	10.0	10.0	9.38	8.53	7.89	6.58	5.82	5.59	5.0
	160	16.0	16.0	16.0	16.0	16.0	15.02	13.66	12.62	10.53	9.32	8.94	8.0
	250	25.0	25.0	25.0	25.0	25.0	23.47	21.34	19.72	16.45	14.56	13.97	12.5
Alloy steel 1.5415 15Mo3, 16Mo3	63	6.3	6.16	5.75	5.37	4.99	4.69	4.54	4.2	2.86	1.01	---	---
	100	10.0	9.78	9.12	8.52	7.92	7.44	7.2	6.67	4.53	1.6	---	---
	160	16.0	15.66	14.6	13.64	12.68	11.91	11.53	10.68	7.26	2.56	---	---
	250	25.0	24.46	22.81	21.31	19.81	18.61	18.01	16.68	11.34	4.0	---	---
Alloy steel 1.7335 13CrMo4-5	63	6.3	6.3	6.3	6.3	6.3	5.87	5.38	4.97	3.93	1.85	---	---
	100	10.0	10.0	10.0	10.0	10.0	9.31	8.53	7.89	6.24	2.93	---	---
	160	16.0	16.0	16.0	16.0	16.0	14.91	13.66	12.62	9.99	4.7	---	---
	250	25.0	25.0	25.0	25.0	25.0	23.29	21.34	19.72	15.6	7.34	---	---
Alloy steel 1.7380 10CrMo9-10	63	6.3	6.3	6.3	6.3	6.3	5.91	5.38	4.97	4.15	2.22	2.17	0.94
	100	10.0	10.0	10.0	10.0	10.0	9.38	8.53	7.89	6.58	3.52	3.44	1.49
	160	16.0	16.0	16.0	16.0	16.0	15.02	13.66	12.62	10.53	5.63	5.51	2.39
	250	25.0	25.0	25.0	25.0	25.0	23.47	21.34	19.72	16.45	8.8	8.6	3.73
Alloy steel 1.7383 11CrMo9-10	63	6.3	6.3	6.3	6.3	6.3	5.91	5.38	4.97	4.15	2.22	2.17	0.94
	100	10.0	10.0	10.0	10.0	10.0	9.38	8.53	7.89	6.58	3.52	3.44	1.49
	160	16.0	16.0	16.0	16.0	16.0	15.02	13.66	12.62	10.53	5.63	5.51	2.39
	250	25.0	25.0	25.0	25.0	25.0	23.47	21.34	19.72	16.45	8.8	8.6	3.73
Stainless steel 1.4541 X6CrNiTi18-10	63	5.82	5.47	5.12	4.85	4.59	4.41	4.23	4.06	3.88	3.36	3.28	2.89
	100	9.24	8.68	8.12	7.7	7.28	7.0	6.72	6.44	6.16	5.33	5.2	4.59
	160	14.79	13.89	13.0	12.33	11.65	11.21	10.76	10.31	9.86	8.54	8.32	7.34
	250	23.11	21.71	20.31	19.26	18.21	17.51	16.8	16.1	15.4	13.34	13.0	11.47



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