

The MVA Transfer Valve



MVA GmbH • Mess- und Verfahrenstechnik
Lochhamer Schlag 6 • D-82166 Gräfelfing
Fon: +49/89-85 83 69-0 • Fax: +49/89-85 83 69-70
info@mva-messvt.de • www.mva-messvt.de



Model DUKE
DN 25 to DN 200

The competence for components

Transfer Valve

DUKE... with ball valve wafer type and actuator automatically



Model DUKE DN 25 to DN 200

The MVA 3/2-Way transfer valve model DUKE 025 to 150 is used in a continuous process to change over the flow to a stand-by unit without interrupting the process. The transfer valves are coupled together with a fixed rod or to offset any misalignment with universal joints. A lever which can be attached anywhere on the rod or an optionally available hand wheel permits the manual operation of the valves.

DUKE... with ball valve wafer type



Applications:

- Tubular
- Double-pipe-
- Plate heat exchanger
- Double filter for distribution/mixing liquids or gases

Nominal diameter:
DN 25 to DN 200

Pressure rating:
PN 16 and PN 40
150 and 300 lbs

Body:
ASTM A105 or stainless-
steel AISI 316/CF-8M

Ball and stem:
AISI 316 or AISI 304
stem seal Viton[®],
seat PTFE

Optional features:
hydraulically, pneumatically
or electrically actuated



DUKE-F... with ball valve standard type

DUKE Transfer Valve with ball valve wafer type

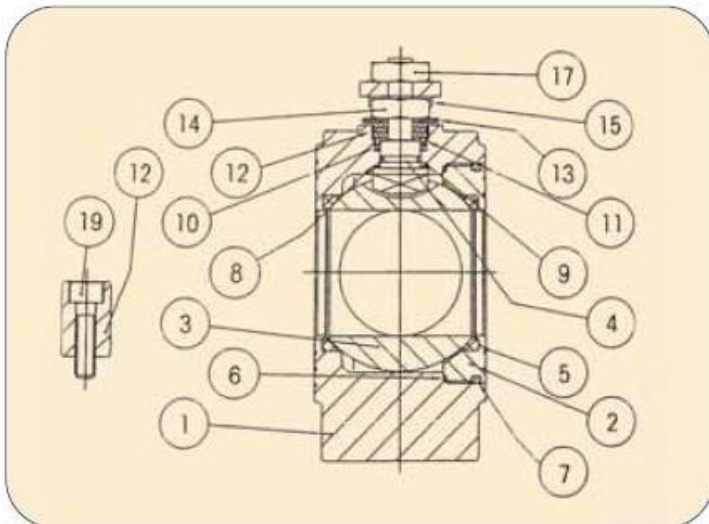
Connection flange acc. DIN PN 16 DN 25 to DN 100

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Main standard features

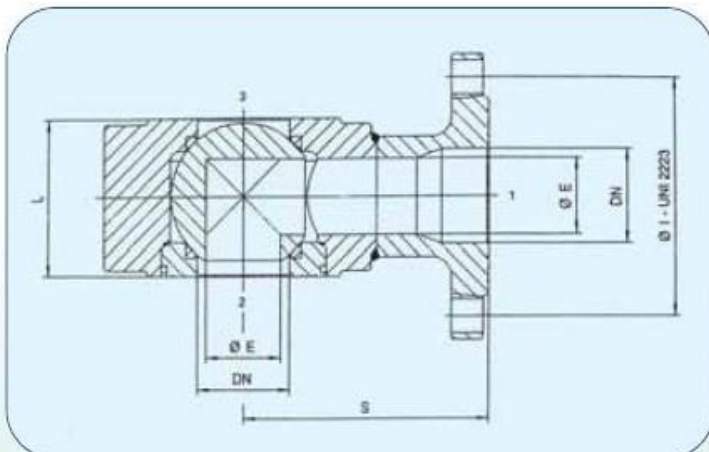
- Construction: AISI 316 and ASTM A 105
- General prescriptions: BS 5351
- Diameter: from DN 25 to DN 100
- Pressures: PN 16/40 from DN 25 to DN 50 and DN 80
PN 16 for DN 65 and DN 100
- Temperature limits: from -20°C to + 180°C
- Connections with flanges UNI 2223-2229 and DIN 2501 BL.1
- Flange drilling: metric, Depth of thread min. core diameter

- Blow-out proof stem with antistatic device from DN 40
- Wrapping side sealing composed of 2 seals
- Triple stem-packing with labyrinth effect and automatic adjustment by Belleville washers
- ISO 5211 mounting plate for actuators
- Operation device: lever handle optional with automatically actuator



List of components and materials

PEF. PART	SRAINLESS STEEL	STEEL	QTV
1 Body	AISI 316	ASTM A105	1
2 Threaded locking ring	AISI 316	ASTM A105	1
3 BALL	AISI 316	AISI 316	1
4 Stem	AISI 316	AISI 304	1
5 Seat	PTFE	PTFE	2
6 Side sealing ring	PTFE	PTFE	1
7 O-Ring	NBR	NBR	1
8 Upper ring	PTFE	PTFE	2
9 Stem O-Ring	VITON	VITON	1
10 Upper sealing couple	PTFE	PTFE	1
11 Gland washer	AISI 304	AISI 304	1
12 Operation stop	AISI 304	AISI 304	1
13 Belleville washers	50CrV4	50CrV4	2
14 Stem retaining nut	ACIER INOX	IDEM	1
15 Fixing nut plate	AISI 304	AISI 304	1
17 Locking nut	ACIER INOX	IDEM	1
19 Operation stop sorew	ACIER INOX	IDEM	1



Dimensions

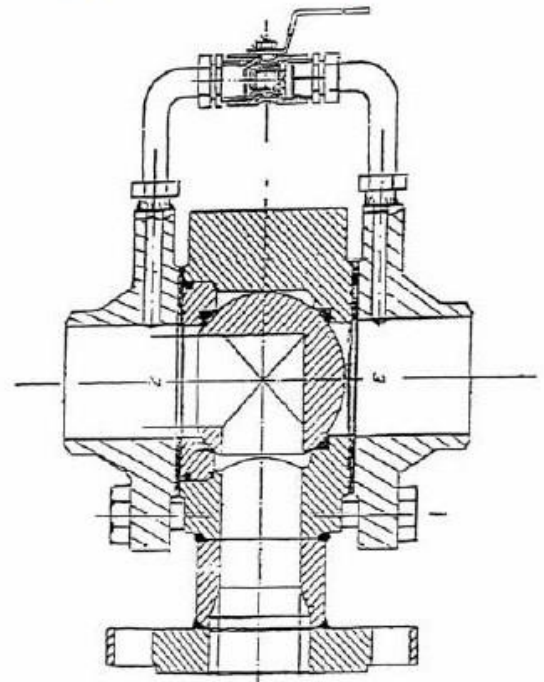
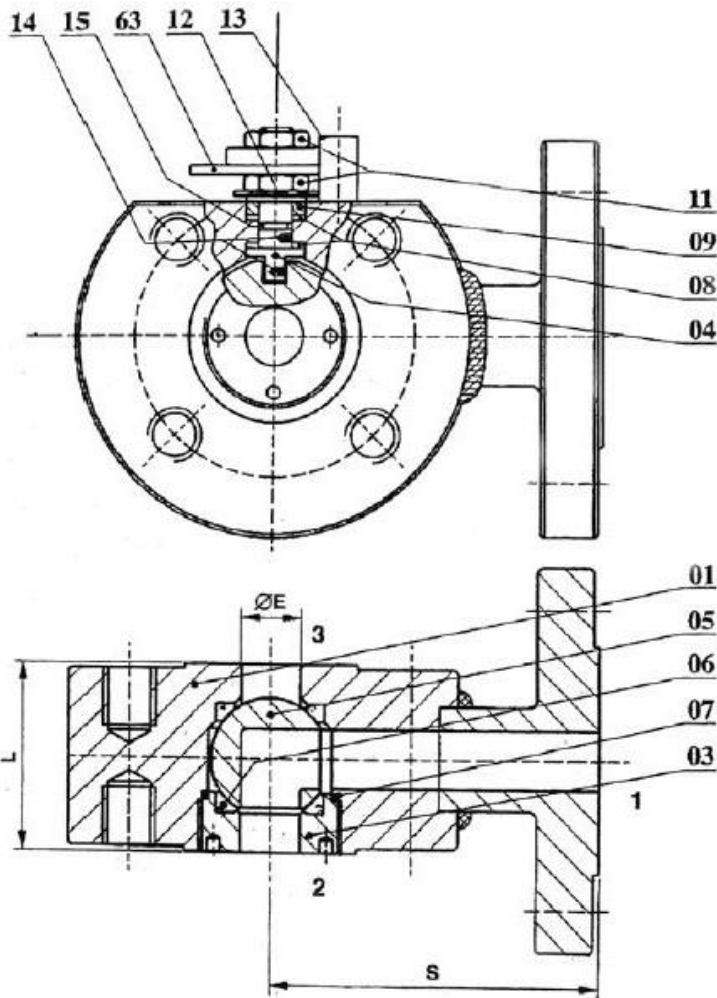
Nominal diameter	ØE	ØI	L	S	Number of holes	PN	ISO
DN25	20	85	43	90	4	40	F04
DN32	25	100	54	105	4	40	F04
DN40	32	110	66	120	4	40	F05
DN50	40	125	83	130	4	40	F05
DN65	50	145	103	150	4	16	F07
DN65	50	145	103	150	8	40	F07
DN80	65	160	122	175	8	40	F07
DN100	78	180	153	185	8	16	F10
DN100	78	190	153	195	8	40	F10

Subject to change without prior notice, issue August 2010

DUKE Transfer Valve with ball valve wafer type

Connection flange acc. ANSI Class 150/300 DN 1" to 6" and DIN PN 16 DN 125 and DN 150

With counterflange and bypass according to API



Min. depth of thread equals to bolt diameter

List of components and materials

ITEM	PART	STEEL	STAINLESS STEEL
01	Body	ASTM A105	ASTM A479 F316
02	Screw	8.8 UNI 3740 zinc coated	8.8 UNI 3740 zinc coated
03	Closure	ASTM A105	ASTM A479 F316
04	Stem	ASTM A182 F6 ASTM A276 F24	ASTM A182 F316
05	Ball	ASTM A182 F304	ASTM A182 F316
06	Seats	PT.F.E. / R.T.F.E. / PT.F.E. / + A.M.	PT.F.E. / + A.M.
07	Body Gasket	PT.F.E. + GRAF.	PT.F.E.
08	Washer	PT.F.E. + GRAF.	PT.F.E.
09	Gland	CF9SMnPb36UNI 4838 zinc coated	ASTM A479 F304
11	Nut/Lock Nut	6S UNI 3740 zinc coated	6S UNI 3740 zinc coated
12	Spring Washer	50 CrV4 UNI 3545 zinc coated	50 CrV4 UNI 3545 zinc coated
13	Stop Device	8.8 UNI 3740 zinc coated	8.8 UNI 3740 zinc coated
14	Antistatic Device	ASTM A182 F304	ASTM A182 F316
15	Stem O'Ring	VITON	VITON

Dimensions

	ANSI B16.5							DIN DN 125 DN 150 ANSI B16.5	
	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
ØE	19	24	34	43	60	70	84	110	140
L	50	60	70	100	115	130	150	185	300
S	90	105	120	130	150	175	185	200	215
Kg.	4,5	6	9	17	22	30	44	65	111
ISO 5211	F03	F03	F05	F05	F07	F07	F10	F10	F14

Standard design

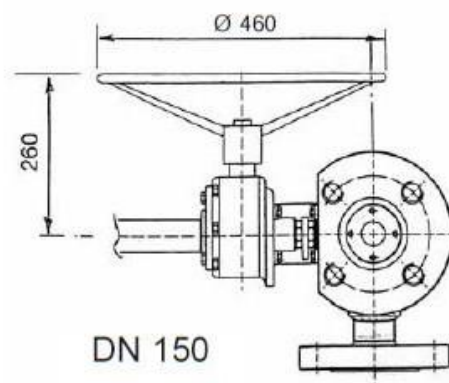
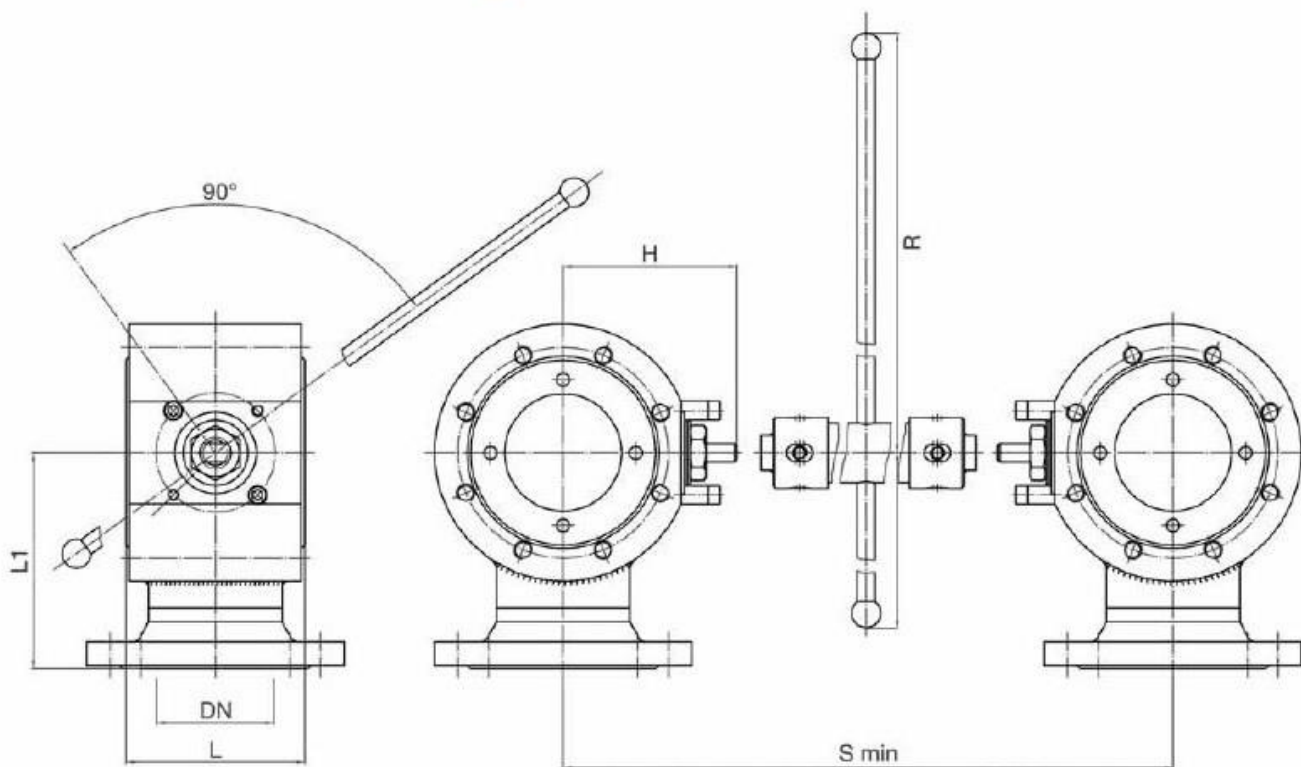
- from bar stock in stainless or carbon steel
- anti blow-out stem
- antistatic device
- additional stem with o-ring
- drilling of top mounting according to ISO 5211

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DUKE Transfer Valve with ball valve wafer type

Dimensions and weights DN 25 to DN 150

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Weights in kg

Nominal diameter	DUKE...-40-CS	DUKE...-15-CS	DUKE...-30-CS
	01-.. PN 16	01-.. ANSI 150 lbs RF	01-.. ANSI 300 lbs RF
DN 25	14 kg	15 kg	16 kg
DN 32	18 kg	18 kg	18 kg
DN 40	23 kg	24 kg	24 kg
DN 50	29 kg	40 kg	40 kg
DN 65	45 kg	50 kg	50 kg
DN 80	56 kg	66 kg	66 kg
DN 100	84 kg	94 kg	94 kg
Nominal diameter	DUKE...-16-CS	DUKE...-15-CS	DUKE...-30-CS
	01-.. PN 16	01-.. ANSI 150 lbs RF	01-.. ANSI 300 lbs RF
DN 125	137 kg	137 kg	137 kg
DN 150	230 kg	230 kg	230 kg

Dimensions in mm

DN150	300	215	220	750	880	—	60,3
DN125	185	200	167	650	760	700	48,3
DN100	153	185	148,5	420	520	500	42,4
DN80	122	175	129,5	370	470	440	42,4
DN65	103	150	119,5	350	450	440	42,4
DN50	83	130	87	270	350	380	33,7
DN40	66	120	80	250	330	380	33,7
DN32	54	105	67	250	330	380	33,7
DN25	43	90	63	250	330	380	33,7
DN	L	L1	H	S min.	S *min.	R	d

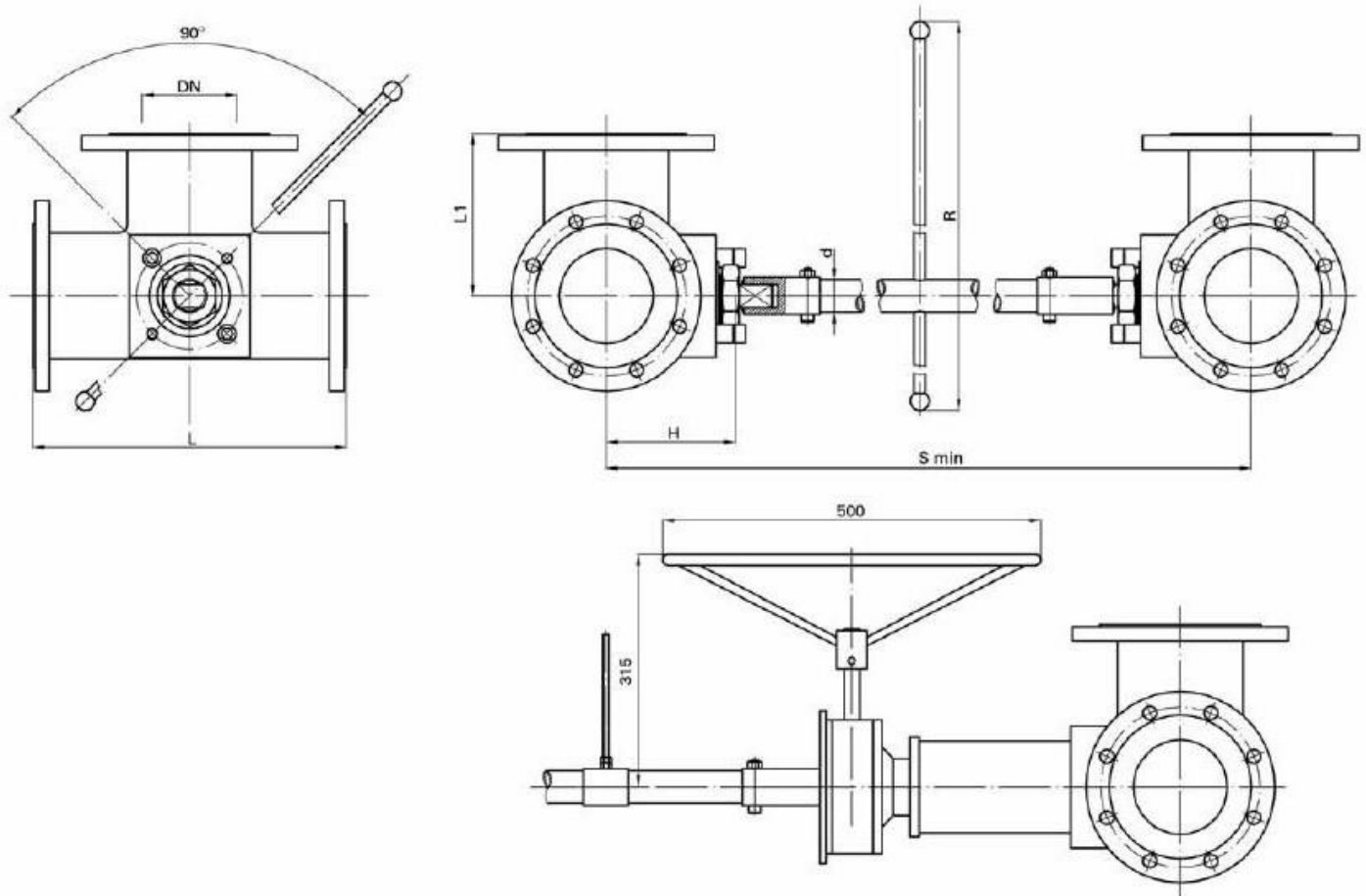
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*Valve with 2 of cardan shafts

Please note following approx. weights for DUKE ball valve assemblies with movable lever, without bypass, without hinges, without counterflanges, with rods of 2000 mm length.

DUKE Transfer Valve with ball valve standard type

Connection flange acc. DIN DN 40 to DN 200 or ANSI
DN 1 1/2" to 8" dimensions and weights



Dimensions in mm

Nennweite	PN 16		Class 150		Class 300		H ± 2,5	S min	S* min	R	d
	L	L1	L	L1	L	L1					
DN 40	188	94	183	91,5	219	109,5	110	250	-	700	33,7
DN 50	226	113	220	110	238	169	116	270	-	700	33,7
DN 65	287	143,5	281	140,5	285	142,5	161,5	350	-	700	42,4
DN 80	302	151	285	142,5	301	150,5	174	370	-	700	42,4
DN 100	349	174,5	348	174	390	195	209	-	835	-	42,4
DN 125	415	207,5	373	186,5	414	207	214	-	870	-	42,4
DN 150	450	225	430	215	468	234	260	-	900	-	42,4
DN 200	530	265	539	268	608	304	281	-	960	-	42,4

S*min with manual operation of the valves

Weights in kg

Nennweite	DUKE ...-16-01-... DIN PN 16	DUKE ...-15-01-... ANSI 150 lbs RF	DUKE ...-30-01-... ANSI 300 lbs RF
DN 40	36,5	46	51
DN 50	40	54	60
DN 65	59	65	82
DN 80	73	81	99
DN 100	134	166	180
DN 125	210	262	286
DN 150	246	312	341
DN 200	386	602	659

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Please note following approx. weights for DUKE-F... ball valve assemblies with movable lever, without bypass, without hinges, without counterflanges, with rods of 2000 mm length.