



PN 10...40  
DN 150...1600\*

### Product Features

- Control valve in through-passage design
- Rotationally symmetric flow path
- Annular flow cross section in any open position
- Axial movement of the plunger by means of crank shaft drive
- With worm gear box with limit stops at the input shaft and position indicator
- Face to face to EN 558-1, basic series 15 (DIN 3202 F5), from DN 500 1,5 x DN
- Single part body
- Final Inspection Test to EN 12266 (DIN 3230 part 4)

### Materials

- Ductile iron with EN - JS 1030 (GGG-40)
- Up to DN 600 all internal parts and screws of stainless steel; > DN 600 crank mechanism of ductile iron EN-JS 1030 (GGG-40) all other internal parts of stainless steel
- Piston guides of bronze welded overlay
- Bearing bush of bronze
- Connecting rods with bronze/PTFE bearing bush

### Corrosion Protection

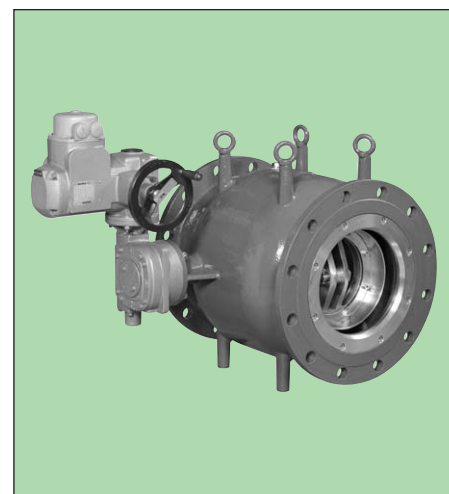
- Inside and outside epoxy coated

### Field of Application

- Max. operation temperature: 50°C

### Alternative regulating characteristics to avoid cavitation

- With sudden enlargement of cross section (version "E")
- With slotted sleeve cylinder (version "SZ")
- With multiple orifice cylinder (version "LH")
- With electric actuator
- With pneumatic or hydraulic actuator
- With brake and lift cylinder
- Special versions on request
- \* DN 700 and 1400 only as RKV plunger valve available



**For ordering, please ask for questionnaire.**

For information about installation, commissioning, operating and maintenance we kindly refer to our **KAT 2014-B Installation and Operating Instructions.**

## Field of Use

**Water**

## Final Inspection Test in acc. with EN 12266

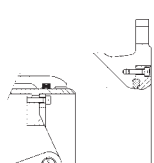
DN	PN	max. operating pressure	max. operating temperature for neutral liquids	Test pressure in bar with water	
				in body	in seat
mm	bar	bar	°C		
150...1600	10	10	50	15	11
150...1600	16	16	50	24	18
150...1600	25	25	50	37.5	28
150...1200	40	40	50	60	44

For performance data of values, see **KAT 20 14-U**

We reserve the right to make technical changes and use similar or higher-quality materials. Drawings are non-binding



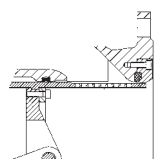
### Regulating inserts



#### Version E

Application

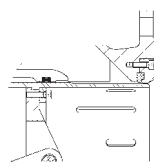
- preferably as regulating valve with enough back pressure
- as pump start-up valve



#### Version LH

Application

- preferably as regulating valve
- optimum adjustability to plant requirements
- prevention of cavitation in case of high pressure differences



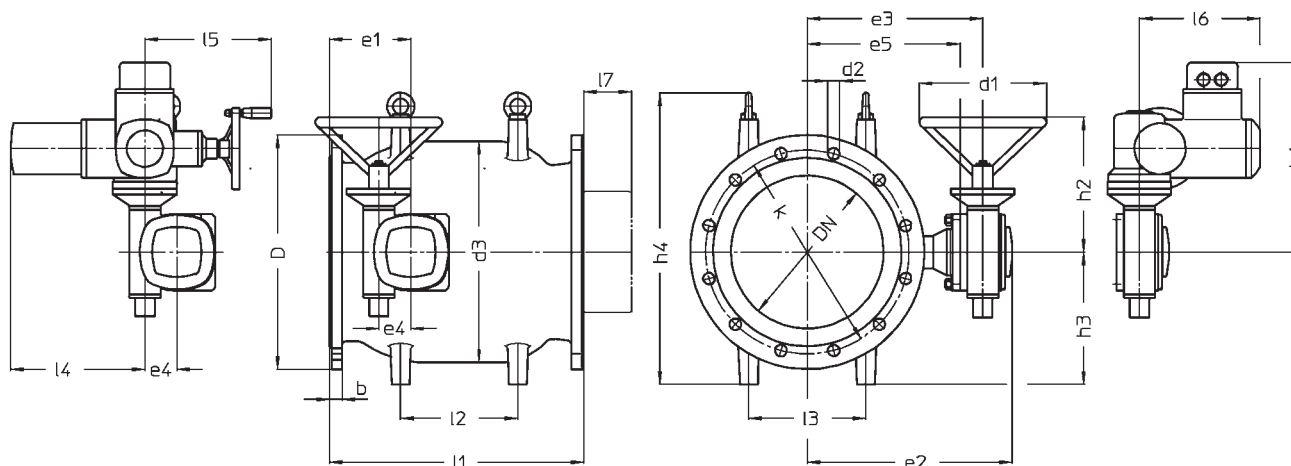
#### Version SZ

Application

- preferably as regulating valve
- for water with suspended particles
- optimum adjustability to plant requirements
- prevention of cavitation in case of high pressure differences

Dimensions in mm															
DN	150	200	250	300	400	450	500	600	800	900	1000	1200	1600		
Flange dimensions	PN 10	D	285	340	395	445	565	615	670	780	1015	1115	1230	1455	1915
		k	240	295	350	400	515	565	620	725	950	1050	1160	1380	1820
	holes	8	8	12	12	16	20	20	20	24	28	28	32	40	
	d2	22	22	23	23	28	28	28	31	34	34	37	41	50	
	b	26	22	24,5	24,5	28	30	31,5	36	43	46,5	50	57	50	
	PN 16	D	285	340	405	460	580	640	715	840	1025	1125	1255	1485	1930
		k	240	295	355	410	525	585	650	770	950	1050	1170	1390	1820
		holes	8	12	12	12	16	20	20	20	24	28	28	32	40
		d2	22	23	28	28	31	31	34	37	40	41	44	50	57
	PN 25	D	300	360	425	485	620	670	730	845	1085	1185	1320	1530	1975
k		250	310	370	430	550	600	660	770	990	1090	1210	1420	1860	
holes		8	12	12	16	16	20	20	20	24	28	28	32	40	
d2		28	28	31	31	37	37	37	41	50	50	57	57	62	
PN 40	D	300	375	450	515	660	685	755	890	1140	1250	1360	1575	-	
	k	250	320	385	450	585	610	670	795	1030	1140	1250	1460	-	
	holes	8	12	12	16	16	20	20	20	24	28	28	32	-	
	d2	28	31	34	34	41	41	44	50	56	56	56	62	-	
		b	26	30	34,5	39,5	48	49	52	58	65	76	80	88	-
		d1	250	250	250	250	250	250	400	400	400	400	400	400	
		d3	236	302	371	434	575	632	711	840	1127	1258	1380	1645	2244
		e1	130	150	145	160	170	150	175	280	400	420	460	560	725
		e2	328	328	403	403	518	518	629	654	797	880	1016	1136	1609
		e3	270	270	345	345	467	467	550	575	725	800	898	1040	1490
		e4	63	63	63	63	80	80	100	100	125	160	160	200	250
		e5	225	225	300	300	410	410	475	500	650	725	800	950	1350
		l1	350	400	450	500	600	650	750	900	1200	1350	1500	1800	2500
		l2	130	130	170	230	300	350	400	500	600	700	750	800	1200
		l3	140	140	170	230	300	350	40	500	600	700	750	800	1200
		l4	264	264	264	264	282	282	282	282	282	282	384	282	384
		l5	249	249	249	249	256	256	256	256	256	336	256	336	
		l6	237	237	237	237	247	247	247	247	247	285	247	384	
		l7	48	68	83	94	127	144	153	150	244	275	291,5	363	480
		h2	265	265	265	265	268	268	439	449	454	520	520	600	705
		h3	155	190	230	260	335	345	385	460	600	650	720	850	1200
		h4	355	425	513	573	741	761	841	1010	1309	1428	1568	1828	2608
		h6	373	373	373	373	380	380	509	509	509	509	630	720	945
Net weight kg		PN 10	70	105	145	170	305	350	540	940	1900	2500	3640	4900	12000
		PN 16	70	105	145	170	305	350	550	990	1950	2550	3640	5000	12000
		PN 25	70	105	155	180	340	405	610	1020	2030	2600	3800	5200	-
		PN 40	70	115	180	210	395	465	670	1120	2200	2800	4125	5500	-

### Dimensions / weights



We reserve the right to make technical changes and use similar or higher-quality materials. Drawings are non-binding



PN 10...40  
DN 700/1400

### Product Features

- Control valve in through-passage design
- Rotationally symmetric flow path
- Annular flow cross section in any open position
- Axial movement of the plunger by means of crank shaft drive
- With worm gear box with limit stops at the input shaft and position indicator
- For face to face length see the following page
- Two part body
- Final Inspection Test to EN 12266 (DIN 3230 part 4)

### Materials

- Body and outlet section of cast iron EN - JL 1040 (GG-25)
- Connecting rod bearing, crank and connecting rod bush of ductile cast iron EN - JS 1050 (GGG-50)
- Connecting rod bush and bearing bush of stainless steel 1.4021
- Plunger and seat ring of stainless steel 1.4301

### Corrosion Protection

- Epoxy coated

### Field of Application

- Max. operation temperature: 50°C

### Alternative regulating characteristics to avoid cavitation

- With sudden enlargement of cross section (version "E")
- With multiple orifice cylinder (version "LH")
- With short diffuser
- With electric actuator
- With hydraulic actuator
- With brake and lift cylinder



**For ordering, please ask for questionnaire.**

For information about installation, commissioning, operating and maintenance we kindly refer to our **"Installation and Operating Instructions - Valves"**.

### Field of Use

**Water**

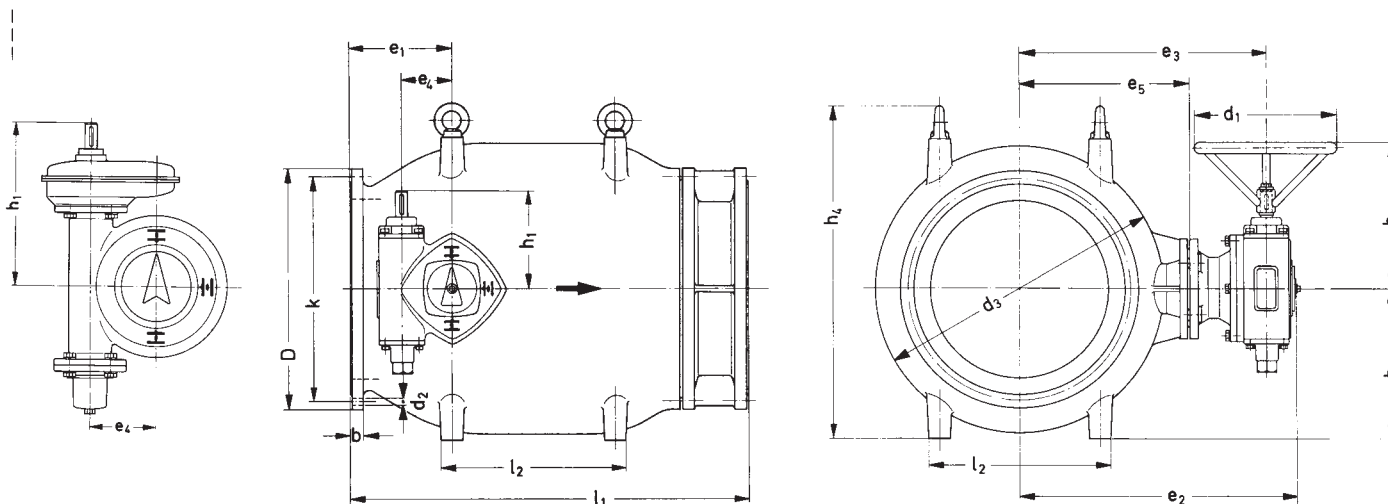
### Final Inspection Test in acc. with EN 12266

DN mm	PN bar	Flange connection dimensions in acc. with DIN 2501, PN	Max. operating pressure bar	Max. operating temperature for water °C	Test pressure in bar	
					with water in body	with water in seat
700/1400	10	10	10	50	15	11
700/1400	16	16	16	50	24	18
700/1400	25	25	25	50	37,5	28
700	40	40	40	50	60	44

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## Dimensions / weights



Dimensions in mm			
DN		700	1400
PN 10	D	895	1675
	k	840	1590
	holes	24	36
	d2	30	44
	b	40	60
PN 16	D	910	1685
	k	840	1590
	holes	24	36
	d2	36	50
	b	54	60
PN 25	D	910	1755
	k	875	1640
	holes	24	36
	d2	42	62
	b	70	74
PN 40	D	995	
	k	900	
	holes	24	
	d2	48	
	b	64	

## Outlets

### Version E

#### Application

- Preferably as control unit with sufficient back pressure
- As pump start valve

### Version short diffuser

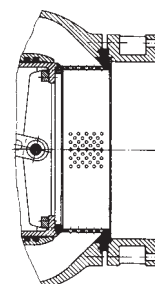
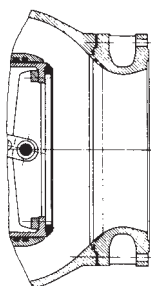
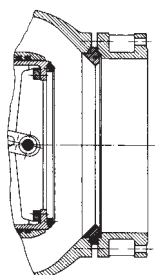
#### Application:

- preferably for shut-off operation
- for low friction loss
- for small differential pressure

### Version LH

#### Application

- Preferably as control unit
- For large pressure differences
- Optimizing flow characteristic
- To avoid cavitation



We reserve the right to make technical changes and use similar or higher-quality materials. Drawings are non-binding



## Dimensions / weights

Dimensions in mm, net weight and volume requirements for version with handwheel			
DN		700	1400
PN 10	d1	500	400
	d3	950	1800
	e1	350	500
	e2 ≈	800	1284
	e3 ≈	730	1165
	e4	125	250
	e5	556	1035
	h1 ≈	235	560
	h2	375	580
	h3	490	950
	h4	1108	2138
	l1	1300	2080
	l2	580	1120
		Type	GS 125.2
Gearbox	Multiplication i	52	848
	Turns/stroke	13	212
Net weight kg ≈		1700	7900
Volume req m <sup>3</sup> ≈		2,35	9,72
PN 16	d1	500	400
	d3	950	1800
	e1	350	500
	e2 ≈	800	1284
	e3 ≈	730	1165
	e4	125	250
	e5	556	1035
	h1 ≈	235	560
	h2	375	580
	h3	490	950
	h4	1108	2138
	l1	1300	2080
	l2	580	1120
		Type	GS 125.2
Gearbox	Multiplication i	52	848
	Turns/stroke	13	212
Net weight kg ≈		1840	8100
Volume req m <sup>3</sup> ≈		2,35	9,72
PN 25	d1	500	400
	d3	950	1800
	e1	350	500
	e2 ≈	800	1284
	e3 ≈	730	1165
	e4	125	250
	e5	556	1035
	h1 ≈	235	560
	h2	375	580
	h3	490	950
	h4	1108	2138
	l1	1350	2080
	l2	580	1120
		Type	GS 125.2
Gearbox	Multiplication i	52	848
	Turns/stroke	13	212
Net weight kg ≈		2040	8200
Volume req m <sup>3</sup> ≈		2,44	9,72
PN 40	d1	350	
	d3	950	
	e1	350	
	e2 ≈	865	
	e3 ≈	780	
	e4	160	
	e5	556	
	h1 ≈	445	
	h2	565	
	h3	480	
	h4	1108	
	l1	1350	
	l2	580	
		Type	GS 160/GZ 14
Gearbox	Multiplication i	432	
	Turns/stroke	108	
Net weight kg ≈			
Volume req m <sup>3</sup> ≈		2,33	