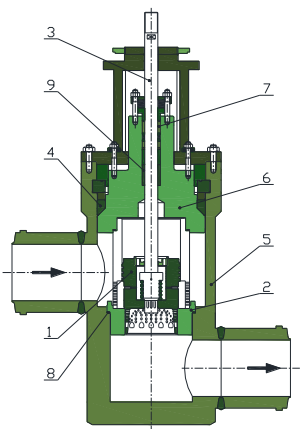


HCVZ1 Z-TYPE CONTROL VALVE TECHNICAL BRIEF

	Client:	Quotation No:	Valve desc:	KKS:	Valve specification:
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Specialized High Trim Control Valves **HCVZ** are dedicated to operate under extremely tough conditions PN250+600, T(-50+600°C). The construction is based on welded forged shape body. A wide variety of different trim designs makes the valves able to cope with heavy cavitation, flashing, choked flow and noise excessive conditions. This particular construction **HCVZ1** is applicable as boiler start-up water valve, feeding water valve also as steam start-up or dump valve or high and medium pressure reduction valve. The valve works with FTC direction. When the stem starts opening, pilot-piston moves first so that low flow is precisely controlled and simultaneously main plug balancing starts acting.

Benefits:

Interchangeable trim designs of wide variety
Rangeability 1:200 (important when start-up function)
High leakage class despite balancing
Self-seal bonnet construction
Any soft seals inside the body
Easy maintenance
Butt weld ends / flange connection matching the pipe size
All actuator systems are adaptable

Rangeability:	1:200
Perforated plug 100% open- main coefficients	FL=0,95; XT=0,78; Fd=0,1; xFz=0,75

Kvs	Stroke	Seat diam.	DN min	DN max
10	20	25	25	50
16	20	34	32	65
25	20	44	40	80
40	20	50	50	100
63	40	70	65	150
94	40	90	80	200
125	40	100	100	250
160	40	110	125	250
250	50	125	150	250
320	50	160	150	250
500	63	194	200	300
630	63	194	200	300
800	100	240	250	300
1000	100	240	300	300
1300	100	270	300	300

Part No	Part Name	Specification. position	Symbol	Material/performance	Part No	Part Name	Specification. position	Symbol	Material/performance
1	Plug	X1 Performance	P	Perforated	5	Body	X8 Performance	1	DIN/PN Flanged
		X2 Ballancing						2	ANSI Flanged
			B	Ballanced				3	BW Standard
		X3 Material	1	1.4571				4	BW Specified
			2	1.4571+stellite			1	1.0460	
			3	1.4571+nitrogen			3	1.5415	
			4	1.4057 hard. 35 HRC			4	1.7335	
			5	1.4125 hard. 55 HRC			7	1.4541	
			33	Other			8	1.4404	
		X4 Characteristic	L	Linear			11	1.7380	
			P	Equal-percentage			12	1.7715	
			M	Modified			13	1.4903 (P91)	
			S	Other			14	1.4901 (P92)	
			1	1.4571			33	Other	
2	1.4541+Stellite								
2	Seat	X5 Material			6	Bonnet	X10 Performance	1	Standard
								2	Spring strained
			33	Other				3	TA-LUFT
		X6 Leakage class EN-60534-4	1	IV Standard	7	Packing	X11 Material/ Performance	4	Bellows
			2	V Enhanced				1	PTFE V
								2	PTFE V
-	-						3	PTFE Oxygen	
		X7 Flow Direction					4	Graphite Brained	
			FC	Flow to Close	5	Graphite Expanded			
3	Stem		1.4571, 1.4057	Hardened 35 HRC	8	Seat Gasket		1.4404+Graphite Spiral	
4	Body Gasket		1.4404+Graphite	Trapeze	9	Guide Bushing-		14571+Nitrogen	

VALVE SPECIFICATION

Full specification of the valve consists of:

HCVZ1 – symbol

X1....X11- symbols from the table on left

PN, DN, Kvs

Medium

Design medium parameters

Shut-off pressure

Example:

HCVZ1-P-B-2-P-2-FC-1-4-1-5, DN100,

PN250, Kvs94.

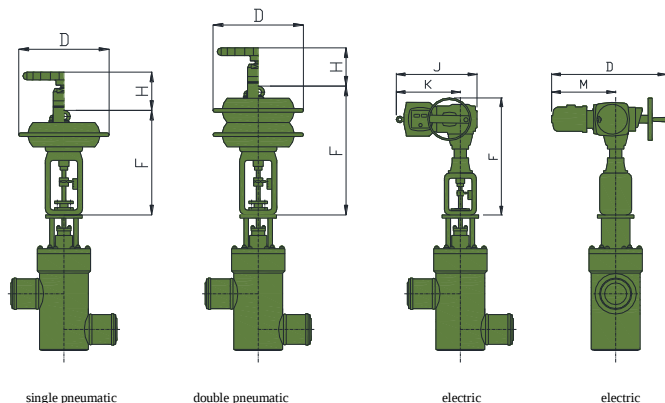
Medium: Steam, Td=400°C, Pd=160bar

Shut-off pressure=20bar

It is also recommended to specify upstream and downstream working parameters as working pressure, temperature, pressure drop, flow and additional remarks if needed.

CAUTION:

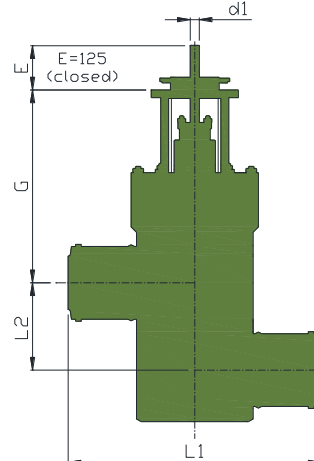
The client is not obligated to specify the valve when order. You can simply describe your expectations and INTEC sales person will specify adequate valve for you.



PNEUMATIC	Stroke	F	H	D	-	-	Mass
250							
400	25	385	175	305	-	-	20
2x400	25	500	175	305	-	-	40
630	40	485	315	375	-	-	40
2x630	40	715	315	375	-	-	55
1000	60	650	300	480	-	-	70
2x1000	60	920	300	480	-	-	95
ELECTRIC	Stroke	F	M	D	J	K	Mass
XIRa, XIRSa	50	612	318	586	393	322	25
XIRb, XIRsb	50	651	335	602	422	335	34
XIRc, XIRSc	80	841	449	765	490	374	78
XIRa, XIRSa	100	732	318	586	393	322	25
XIRb, XIRsb	100	771	335	602	422	335	34
XIRc, XIRSc	160	991	449	765	490	374	85

Other actuators adaptable. For example AUMA actuators have closely similar dimensions and the same mechanical connections.

PN/DN	Dim.	15	20	25	32	40	50	65	80	100	125	150	200	250
250	L1	Individually specified												
	L2	Individually specified												
	G	295	295	295	500	500	500	575	575	600	685	685	1020	1290
	Mass	15	15	15	40	40	40	85	85	120	210	210	480	850
320	L1	Individually specified												
	L2	Individually specified												
	G	295	295	295	500	500	500	575	575	600	685	685	1020	1290
	Mass	15	15	15	40	40	40	85	85	120	210	210	480	850
400	L1	Individually specified												
	L2	Individually specified												
	G	295	295	295	500	500	500	575	575	600	685	685	1020	1290
	Mass	15	15	15	40	40	40	85	85	145	280	280	715	1125
600	L1	Individually specified												
	L2	Individually specified												
	G	295	295	295	500	500	500	575	575	600	685	685	1020	1290
	Mass	15	15	15	40	40	40	85	85	145	280	280	715	1125



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