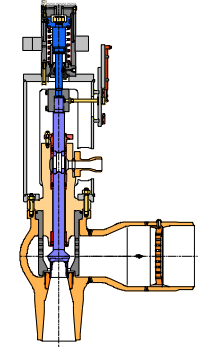
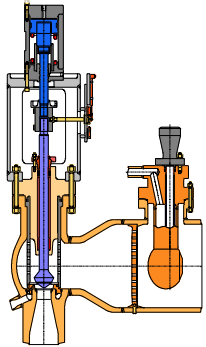


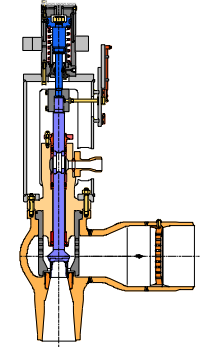
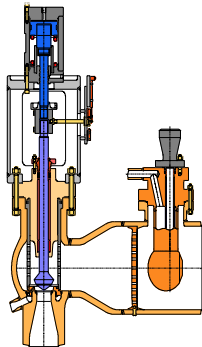
## Referencelist for Control Valves HP-Bypass Valves with integrated safety function

Customer Country	Power Plant Location	Delivery date	Type of Power Plant	Plant Cap. per unit (MW)	No. of units	Bypass- Function	Valves per unit	Byp. capty. (%)	Actuator type	Valve-type	Design data					Pipe			
											p <sub>E</sub> (bar)	T <sub>E</sub> (°C)	p <sub>A</sub> (bar)	T <sub>A</sub> (°C)	Q <sub>D</sub> (kg/s)	DN In	DN out	Material	
																		Inlet	Outlet
Neckarwerke Esslingen, Germany	Altbach 4 *) Germany	1983	CVP	450	1	HPS	2	100	H	SIRA BH	225	540	43	320	184,4	200	500	1.4922	1.5415
Babcock Borsig, Germany	Amagervaerket *) Denmark	1988	CVP	250	1	HPS	2	100	H	SIRA BH	276	545	57,5	355	107,5	200	350	1.4922	1.7335
Babcock Borsig, Germany	Avedorevaerket *) Denmark	1988	CVP	250	1	HPS	2	100	H	SIRA BH	276	545	57,5	355	107,5	200	350	1.4922	1.7335
Aalborg Boilers, Denmark	Fynsvaerket *) Denmark	1989	CVP	400	1	HPS	2	100	H	SIRA BH	270	540	60	325	164	200	400	1.4922	1.7335
Preussen Elektra, Germany	Rostock *) Germany	1990	CVP	500	1	HPS	2	100	H	SIRA BH	285	550	56,4	400	229,5	250	500	1.4922	1.7335
Preussen Elektra, Germany	Staudinger 5 *) Germany	1991	CVP	500	1	HPS	2	100	H	SIRA BH	285	550	55,4	400	229,5	250	500	1.4922	1.7335
VKR, Gelsenkirchen, Germany	Castrop Rauxel Germany	1993	CVP	150	1	HPS	2	100	H	SIRA BHL	206,9	540	61,8	380	77,5	200	350	1.4922	1.7335
Mercantile, Finland	Topilla II Finland	1994	CVP	120	1	HPS	2	100	H	SIRA BHL	166	540	32	480	50,7	180	300	1.4922	1.5415
VEBA Kraftwerk Ruhr, Germany	Schkopau A/B *) Germany	1994	CVP	450	2	HPS	2	100	H	SIRA BHL	285	545	70	460	188,9	250	400	1.4903	1.7380
Rhein.Westf. Olefinwerke, Germany	ROW Wesseling Germany	1995	CCPP	30	1	HPS	1	100	H	SIRA BHL	142	525	26	315	25	140	300	1.7335	1.5415



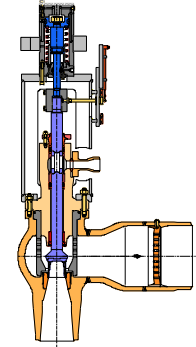
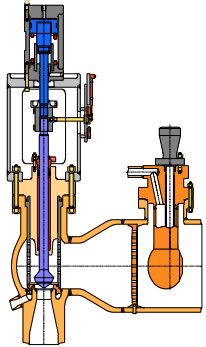
## Referencelist for Control Valves HP-Bypass Valves with integrated safety function

Customer Country	Power Plant Location	Delivery date	Type of Power Plant	Plant Cap. per unit (MW)	No. of units	Bypass- Function	Valves per unit	Byp. capty. (%)	Actuator type	Valve-type	Design data					Pipe			
											p <sub>E</sub> (bar)	T <sub>E</sub> (°C)	p <sub>A</sub> (bar)	T <sub>A</sub> (°C)	Q <sub>D</sub> (kg/s)	DN In	DN out	Material	
																		Inlet	Outlet
ABB Berlin, Germany	Berlin Germany	1995	CCPP	180	1	HPS	1	100	H	SIRA BHT	73	504	4	160	26,4	350	700	1.7380	1.5415
Gem.Kraftwerke Weser, Germany	GKW Weser *) Germany	1996	CVP	300	1	HPS	2	100	H	SIRA BHT	235	540	60	365	129,9	175	500	1.4922	1.7335
Siemens AG, Karlsruhe, Germany	Cayirhan 3/4 Turkey	1997	CVP	150	2	HPS	2	100	H	SIRA BHL	167	548	46	373,6	68,1	200	350	1.4922	1.7335
Alstom, Nürnberg, Germany	Vala II Finland	1997	CVP	120	1	HPS	1	100	H	SIRA BHL	210	543	56	370	99	180	350	1.4903	1.7335
Stadtwerke Hannover, Germany	Hannover-Linden Germany	1997	CCPP	40	1	HPS	1	100	H	SIRA BHT	129	545	44	390	30	230	300	1.4903	1.5415
Preussen Elektra, Germany	Heyden 4 Germany	1997	CVP	800	1	HPS	4	100	H	SIRA BHT	218	540	53	320	187,5	150	450	1.4903	1.7380
Preussen Elektra, Germany	Wilhelmshaven Germany	1998	CVP	750	1	HPS	4	100	H	SIRA BHT	210	537	54	350	162,5	150	400	1.7380	1.7335
Elektromark, Hagen, Germany	Elverlingsen *) Germany	1998	CVP	300	1	HPS	2	100	H	SIRA BHT	221	540	56	375	148,6	150	450	1.7380	1.7335
Bayernwerk, Germany	Ingolstadt 3/4 Germany	1999	HPP	400	2	HPS	2	100	H	SIRA BHT	208	540	50	420	173,6	300	500	1.4903	1.7335
Foster Wheeler Energy Oy, Finland	Vaesteras Finland	2000	CVP	150	1	HPS	2	100	H	SIRA BHT	188	563	60	385	60,3	150	250	1.4903	1.7335



## Referencelist for Control Valves HP-Bypass Valves with integrated safety function

Customer Country	Power Plant Location	Delivery date	Type of Power Plant	Plant Cap. per unit (MW)	No. of units	Bypass- Function	Valves per unit	Byp. capty. (%)	Actuator type	Valve-type	Design data					Pipe			
											p <sub>E</sub> (bar)	T <sub>E</sub> (°C)	p <sub>A</sub> (bar)	T <sub>A</sub> (°C)	Q <sub>D</sub> (kg/s)	DN In	DN out	Material	
																		Inlet	Outlet
ABB Serv, Mannheim, Germany	Niederaußem D Germany	2000	CVP	300	1	HPS	2	100	H	SIRA BHT	189,3	535	45,1	320	132,9	250	350	1.4903	1.7380
RWE, Germany	Niederaußem K *) Germany	2000	CVP	900	1	HPS	4	100	H	SIRA BHT	291	585	82	400	185	190	450	1.4905	1.4903
Wienstrom, Austria	Donaustadt Austria	2000	CVP	350	1	HPS	1	100	H	SIRA BHT	130	560	40	520	76	250	400	1.4903	1.7380
Steag, Germany	Voerde A / B Germany	2001	CVP	700	2	HPS	4	100	H	SIRA BHT	207	535	50	380	150	150	450	1.7380	1.7335
Babcock Borsig, Germany	H Hamborn Germany	2001	HPP	450	1	HPS	2	100	H	SIRA BHT	200	568	64	410	186,7	200	400	1.4903	1.7335
Salzgitter AG, Germany	Salzgitter Germany	2001	CVP	100	1	HPS	1	100	H	SIRA BHL	206	535	55	465	75	150	250	1.4903	1.7335
Alstom, Stg., Germany	CAN Turkey	2002	CVP	120	2	HPS	1	100	H	SIRA BHT	200	558	65	350	113	200	300	1.4903	1.7335
Lahti Energy Oy, Finland	Lahden Lämpövoima Finland	2002	CVP	150	1	HPS	2	100	H	SIRA BHT	212	547	60	400	68	170	300	1.4903	1.7335
Doosan Heavy Ind.&Con. Korea	Tangjin #5,6 *) Korea	2003	CVP	500	2	HPS	4	100	H	SIRA BHL	273	575	71	358	111,5	300	350	A182F91	A182F12
Doosan Heavy Ind.&Con. Korea	Taeon #7,8 *) Korea	2004	CVP	500	2	HPS	4	100	H	SIRA BHL	273	575	71	358	111,5	300	350	A182F91	A182F12



## Referencelist for Control Valves HP-Bypass Valves with integrated safety function

Customer Country	Power Plant Location	Delivery date	Type of Power Plant	Plant Cap. per unit (MW)	No. of units	Bypass- Function	Valves per unit	Byp. capty. (%)	Actuator type	Valve-type	Design data					Pipe			
											p <sub>E</sub> (bar)	T <sub>E</sub> (°C)	p <sub>A</sub> (bar)	T <sub>A</sub> (°C)	Q <sub>D</sub> (kg/s)	DN In	DN out	Material	
														Inlet	Outlet				
Doosan Heavy Ind.&Con. Korea	Dangjin #7,8 Korea *)	2005	CVP	500	2	HPS	4	100	H	SIRA BHL	273	575	71	358	111,5	300	350	A182F91	A182F12
Doosan Heavy Ind.&Con. Korea	Yonghung #3,4 Korea *)	2005	CVP	900	2	HPS	4	100	H	SIRA BHL	273	575	71	358	183,1	300	400	A182F91	A182F12
RWE Power AG Germany	Weisweiler G,H Germany *)	2005	CVP	1000	2	HPS	2	100	H	SIRA BHsT	191	535	48	350	269,4	350	700	1.4903	1.7335
e-on Kraftwerke GmbH Germany	Franken I/2 Germany *)	2006	CVP	350	1	HPS	2	100	H	SIRA BHT	222	547	50	520	175,5	200	400	1.4922	1.7335
China Int'l Intell. Corp. China	Waigaoqiao #3,4 China *)	2006	CVP	1000	2	HPS	4	100	H	SIRA BHT	298	610	77	425	205,2	350	500	A182F92	A182F22

**Powerplant-type:**

CCPP: combined cycle power-plant:  
CVP: Conventional powerplant:  
HPP: Heat recovery powerplant:  
\*) super-critical plants

**Actuator-type:**

H: Hydraulic  
P: Pneumatic  
E: Electric

**Valve-type**

SIRA BHL: Spindle-injection  
SIRA BHT: Steam atomizing nozzle  
SIRA BH: In the valve body