

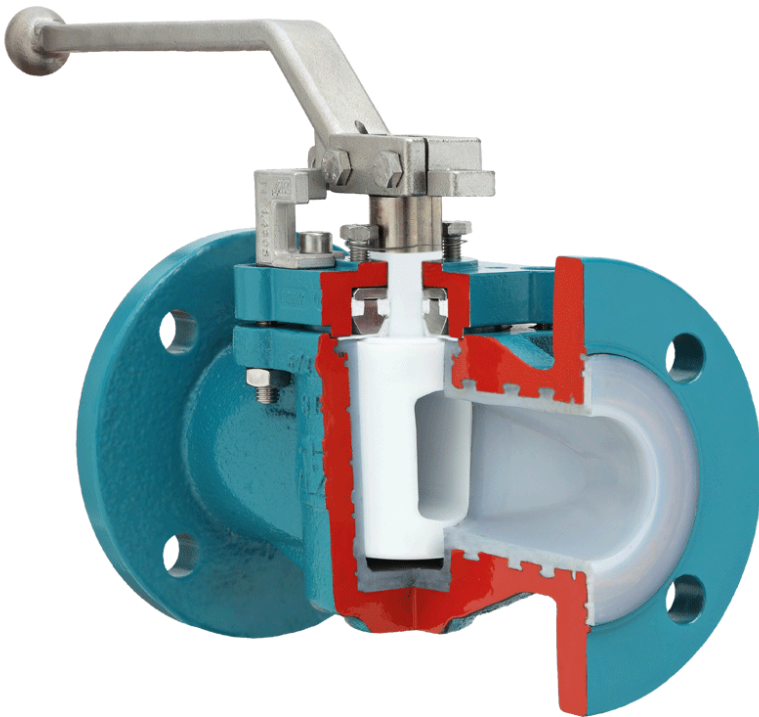
ISO-STANDARD A CA

Plug valve with chemical-resistant, vacuum-proof lining,
with ISO top flange, sealing system Type CA

DIN-EN: DN 15 - 600 / PN 10 - 40

ASME: NPS ½" - 24" / class 150 - 300

PT range: $-30 < T < 210^{\circ}\text{C}$, vacuum $10^{-8} >$ mbar



Design Features

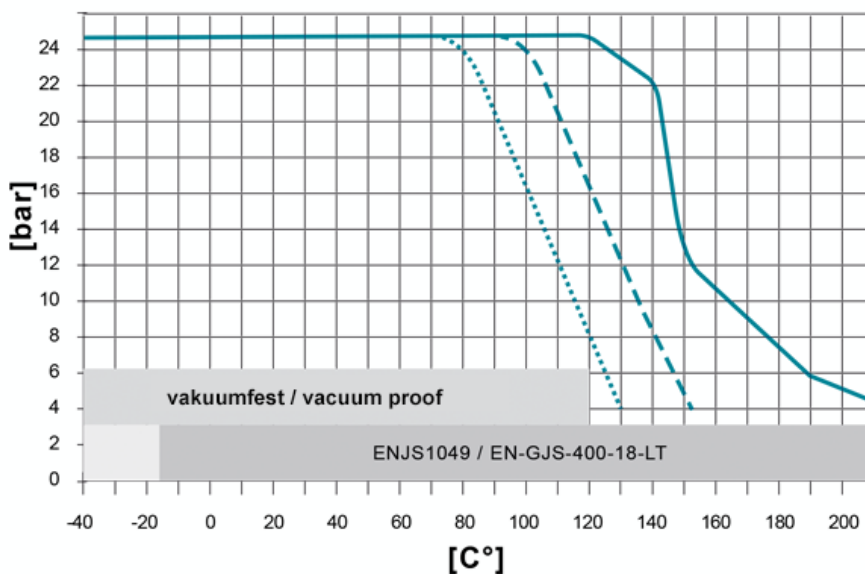
Design Characteristics

- free of cavities
- maintenance free - self lubricating
- mounting-flange for actuators acc. to DIN ISO 5211
- easy accessible adjustment of the plug, even with mounted actuator
- with chemical resistant lining - thickness min. 3 mm vacuum tight

- fugitive emission resp. clean air act certified (TA - Luft 2002 approval)
- PED 97/23/EG
- FDA conformity




PT-Diagramm

General Pressure-Temperature-Diagram



Lining materials		
Body	Plug	Tmax
PFA	PTFE	210°C
PFA/FEP	PFA	150°C
PFA	Special material	210°C
PFA cond.	PFA conductive	125°C

Standard lining materials::
PFA (body) and PTFE (plug)

Lining materials Body / Plug	
	PFA or FEP / PTFE
	PFA / FEP
	PFA / PFA

The specified values depend on the respective application (medium). Operating temperatures under -20°C only with body material 1.4408 or low-temperature steel. High pressure resistance / temperature resistance on request, e.g. PN 40.

Sleeve: There are different sleeve materials / compounds available.

Materials

Standard body materials

- Ductile cast iron ENJS 1049, ASTM Gr 60-40-18 / A395

Standard plug materials

- Stainless Steel 1.4308, ASTM A351 CF8
- Ductile cast iron ENJS 1049, ASTM Gr 60-40-18 / A395

Special materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

Lining materials

- Body: PFA, PFA-conductive, FEP
- Plug: PTFE, PFA, PFA-conductive, FEP

Sealing Systems

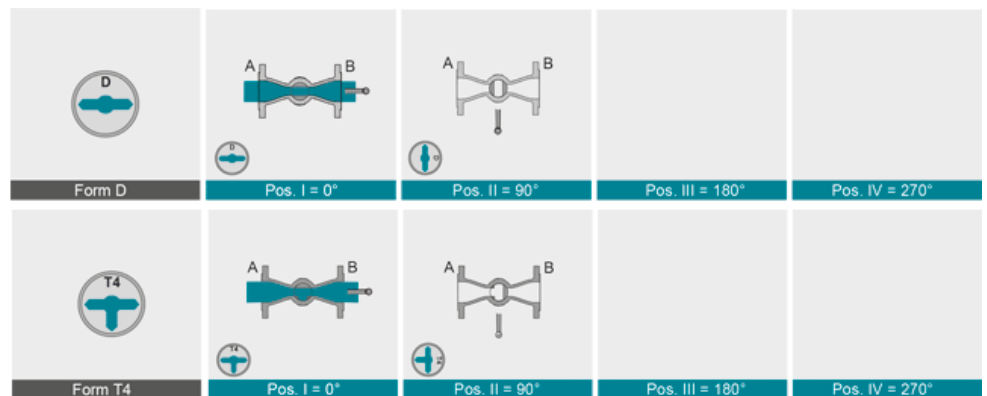
Chemical sealing to prevent fugitive emission of aggressive and toxic media with PTFE packing for additional stem sealing; T_{max} 230°C

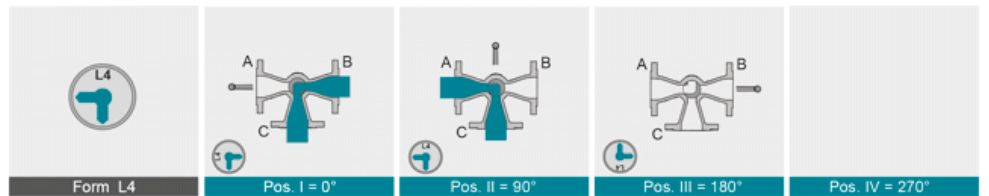
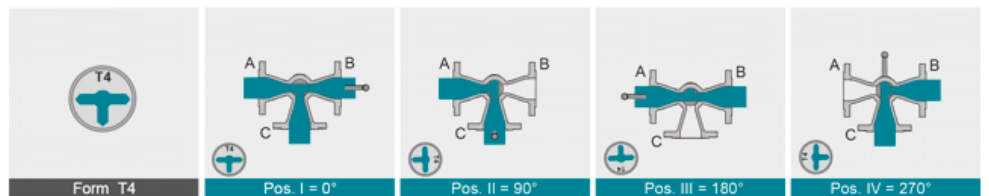
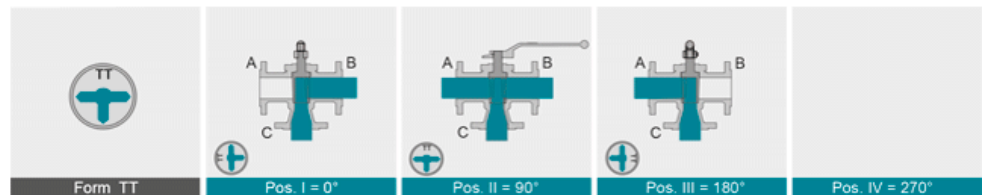
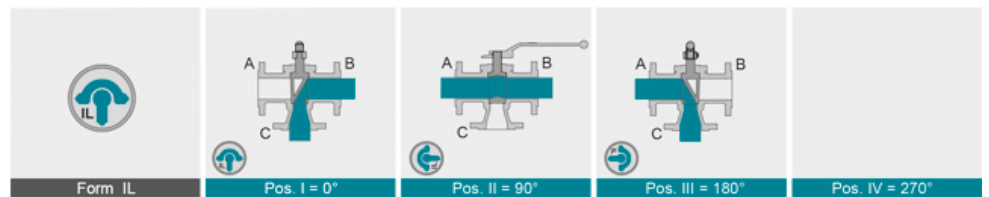
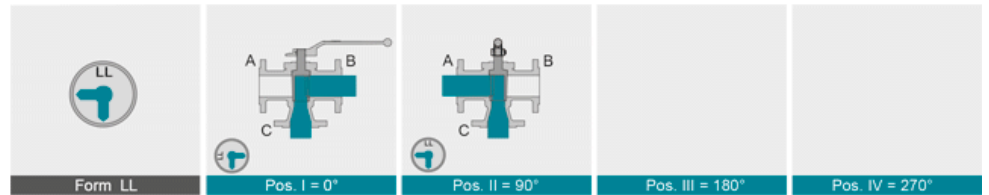
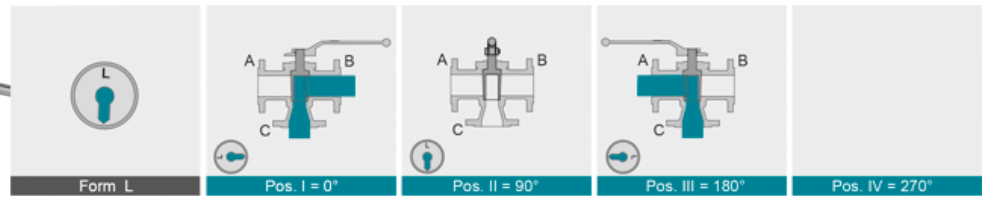
Type CA

Port Forms

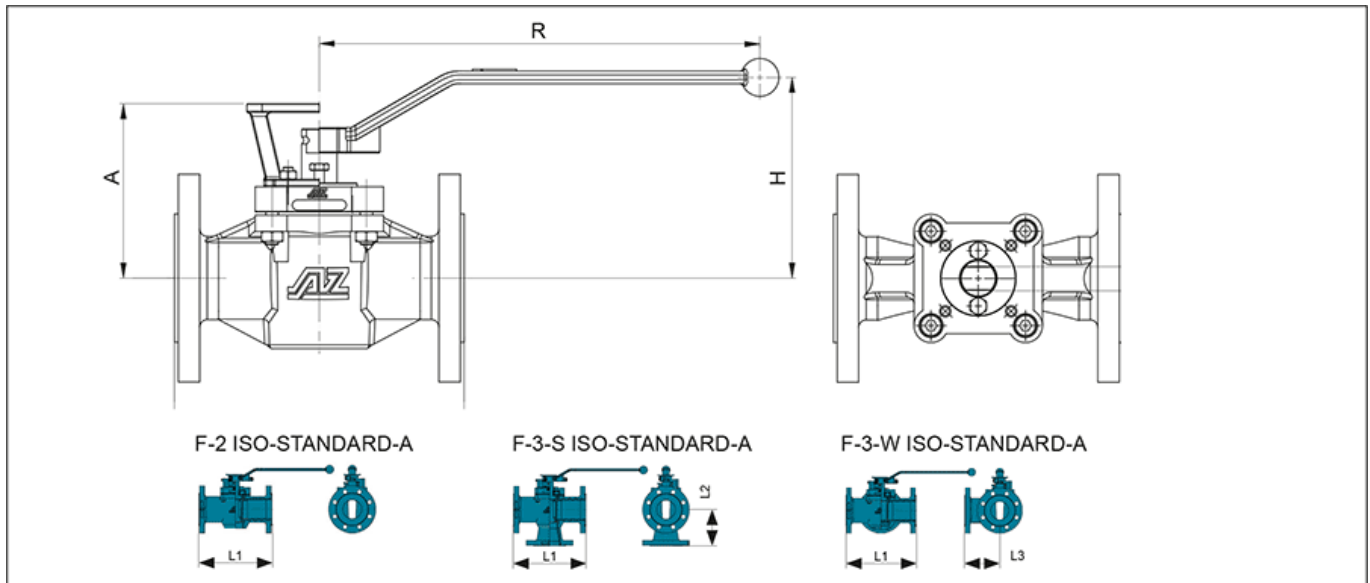


AZ plug valves are fitted with cast, rust proof position indicators
The position indicator is securely welded to the plug to prevent it from working loose.





Dimensions



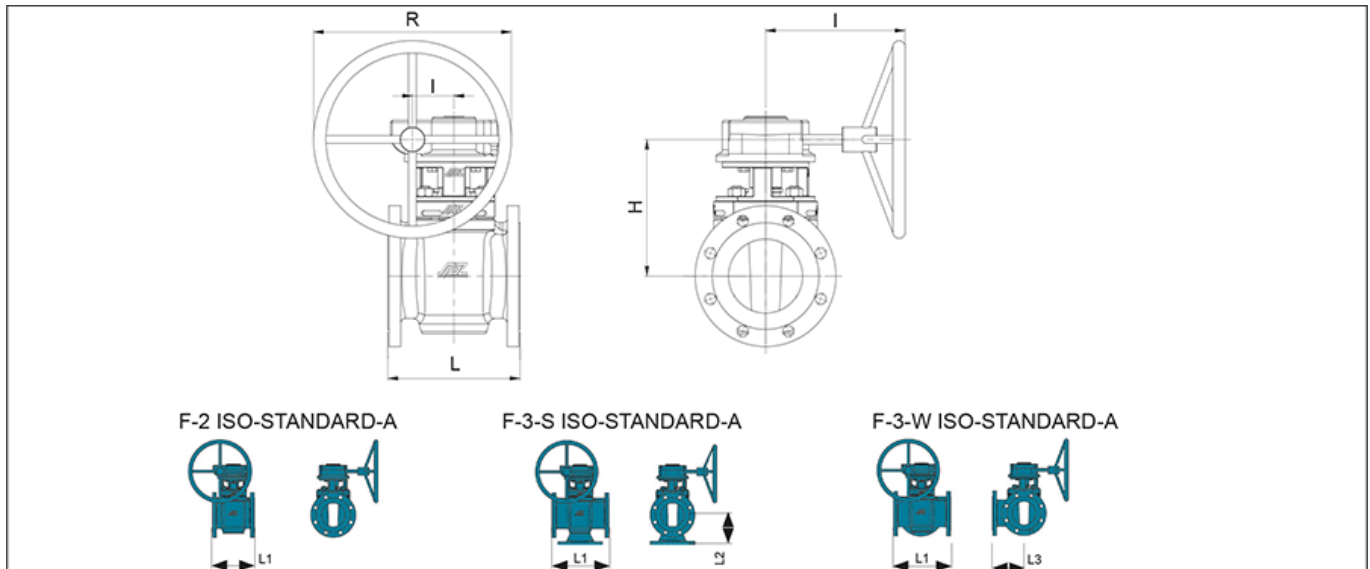
	DIN EN 1092/1 / 558-1														
	DN	PN	L1	L2	L3	A	H	R	ISO 5211 flange	dihedron [mm]	torque* [Nm]	weight [kg]	K _{vs} -value [m ³ /h]	C _v -value [US.gal/min]	
	15	10-40	130	*	*	88	98	200	F05	11	40/--	3,8	7,1	8,2	
	20	10-40	150	75	75	88	98	200	F05	11	40/--	4,0	5,8	6,7	
	25	10-40	160	80	80	94	110	200	F07	11	90/60	6,5	32	37	
	32	10-40	180	90	90	102	117	320	F07	14	90/60	7,5	51	59	
	40	10-40	200	100	100	109	124	320	F07	14	160/80	10	79	92	
	50	10-40	230	115	115	139	160	420	F07	19	250/120	12	127	147	
	65	10-16 25-40	290	*	*	158	170	600	F10	22	400/260	20	179	207	
	80	10-40	310	155	155	158	170	600	F10	22	400/260	20	246	285	
	100	10-16 25-40	350	175	175	158	170	600	F10	22	400/260	30	203	203	
	ASME B 16.5 / 16.10														
	NPS		L1	L2	L3	A	H	R	ISO 5211 flange	dihedron [mm]	torque* [Nm]	weight [kg]	K _{vs} -value [m ³ /h]	C _v -value [US.gal/min]	
	½"	150	108	**	**	88	110	200	F05	11	40/--	2,7	7,7	9,0	
		300	140	**	**							3,8			
	¾"	150	117	64	64	88	110	200	F05	11	40/--	3,2	6,4	7,4	
		300	152	83	83							4,3			
	1"	150	127	**	**	94	110	200	F05	11	90/60	3,5	35	41	
		300	165	**	**							6,0			
	1¼"	150	140	89	89	102		320	F07	14	90/60	7,5	56	65	
		300	178	**	**							8,5			
	1½"	150	165	**	**	109	124	320	F07	14	160/80	9	87	101	
		300	190	**	**							10			
	2"	150	178	**	**	139	160	420	F07	19	250/120	13	140	162	
		300	216	**	**							16			
	2½"	150	190	**	**	158		600	F10	22	400/260	16	197	228	
		300	241	**	**							19			
	3"	150	203	**	**	158	170	600	F10	22	400/260	18	271	314	
		300	282	**	**							23			
	4"	150	229	154	**	158	170	600	F10	22	400/260	26	223	223	
		300	305	**	**							31			

ISO flange instructions, weights and Kvs values for straight-way valves

*) Maximum breakaway torque MD_{breakaway [Nm]} for F2 and F3S ISO STANDARD A depending on material combinations (PFA+PFA / PFA+PTFE).

All data incl. 100% safety factor. Breakaway torques for valves - tapes F-4 and F3W on request

**) on request



	DN	PN	L1	L2	L3	E	R	H	I	gear	ISO 5211 flange	dihedron	torque* [Nm]	weight [kg]	K _{vs} -value [m ³ /h]	C _v -value [US.gal/min]	
	DIN EN 1092/1 / 588-1	100S	10-16 25-40	325	**	**	84	400	230	290	Q1500-S	F16	36	600/350	32 32	447	517
125		10-16 25-40	325	**	**	84	400	260	290	Q1500-S	F16	36	600/350	74 78	358	414	
150		10-16 25-40	350	200	200	84	400	265	290	Q1500-S	F16	36	1200/900	85 87	822	951	
200		10-16 25 40	400	**	**	96,5	600	320	350	Q2000-S	F16	36	2600/--	119 131	1727	1997	
250		10 16 25 40	450	**	**	117,5	600	352	465	Q5000-S	F16	36	3200/--	195 259	2052	2373	
300		10 16 25 40	500	**	**	117,5	600	340	465	Q5000-S	F16	36	3200/--	253 274	1707	1973	
ASME B 16.5 / 16.10		4"S	150 300	254 325	154 **	154 **	84	500	230	328	Q1500-S	F16	27	600/350	27 32	492	569
		5"	150 300	254 325	** **	** **	118	500	260	363	Q1500-S	F16	27	1200/900	61 78	394	455
		6"	150 300	267 403	** **	** **	118	500	265	363	Q1500-S	F16	27	1200/900	66 77	904	1046
		8"	150 300	292 419	** **	** **	138	500	320	440	Q2000-S	F16	36	2600/--	103 138	1900	2197
		10"	150 300	330 457	** **	** **	138	500	352	440	Q5000-S	F16	36	3200/--	140 176	2257	2610
		12"	150 300	356 502	** *	** *	138	500	340	440	Q5000-S	F16	36	3200/--	168 187	1877	2170

ISO flange instructions, weights and Kvs values for straight-way valves

*) Maxium breakaway torque MD_{breakaway [Nm]} for F2 and F3S ISO STANDARD A depending on material combinations (PFA+PFA / PFA+PTFE). All data incl. 100% safety factor. Breakaway torques for valves - tapes F-4 and F3W on request

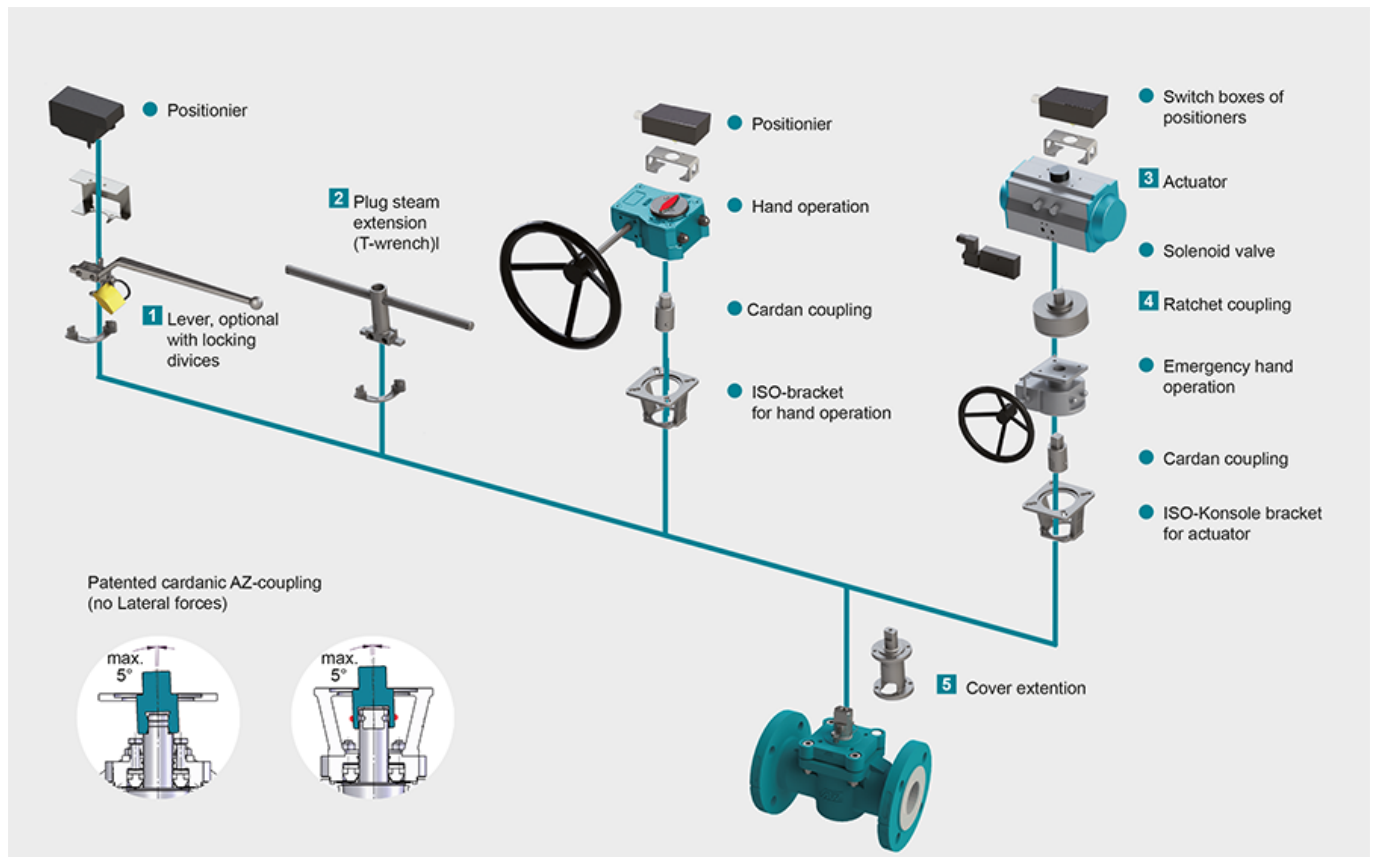
**) on request

For geometric reasons, threads are used in the flange bores in a few cases

ISO flange instructions, weights and Kvs values for straight-way valves

*) Maxium breakaway torque MD_{breakaway [Nm]} for F2 and F3S ISO STANDARD A depending on material combinations (PFA+PFA / PFA+PTFE). All data incl. 100% safety factor. Breakaway torques for valves - tapes F-4 and F3W on request

Actuation



1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.

2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request

3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

NEW: Pneumatic actuator AIR GEAR for plug valves with high torque =150.000 Nm

4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°

5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL