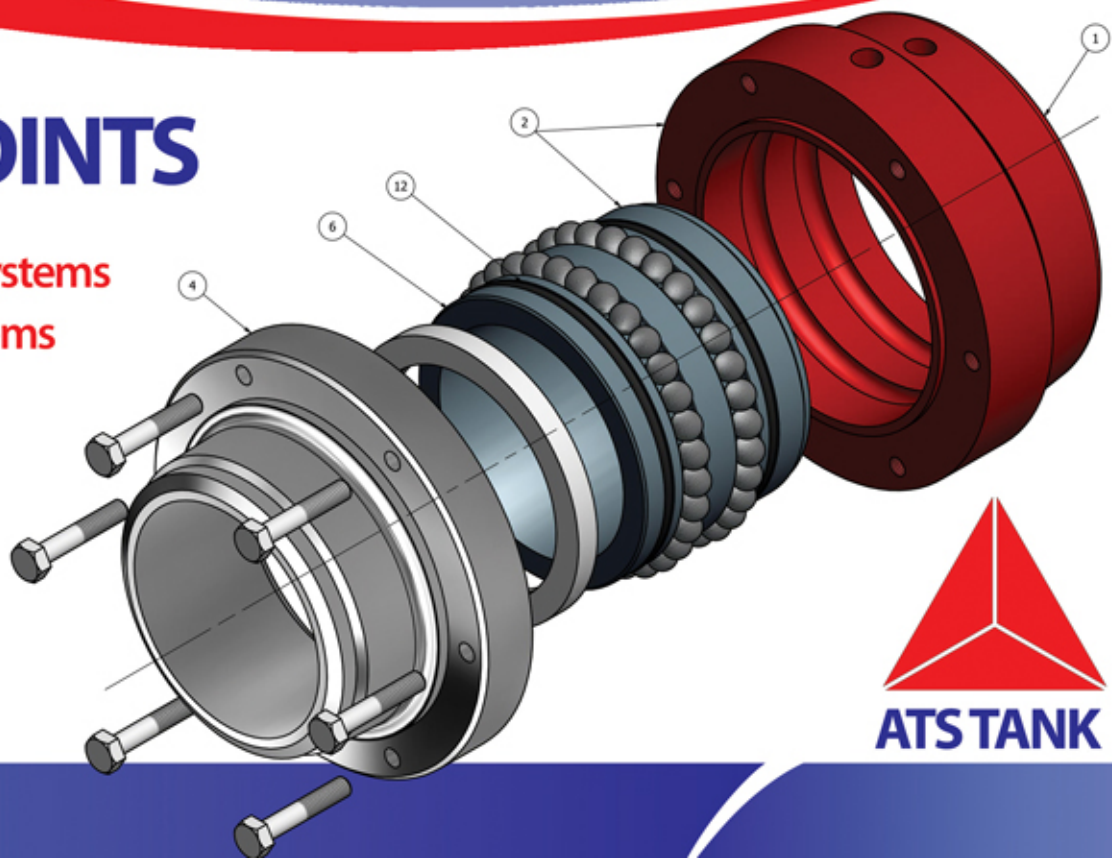




SWIVEL JOINTS

- Floating Roof Drain Systems
- Floating Suction Systems
- Articulated Pipework
- Loading Arms
- Hose Connection
- ... many more



THE SOLUTION BEST SUITED TO YOUR FLUID TRANSFER REQUIREMENTS

SWIVEL JOINTS - FULL BORE

Applications

The unrivalled success of ATS Loading Systems is largely due to another first in liquid handling, the ATS swivel joint, which ensures fluid transfer continuity between two mobile sections. The durability of this swivel joint has been field proven and regularly enhanced since its inception in the early 2004's. The new Series 5000 ATS swivel joint is the right solution for the widest possible range of products.

The ATS Swivel Joint acts as the "heart" of loading/unloading arms and jumper assemblies. It provides reliability and sealability while transferring the product even under extreme temperature and pressure conditions.

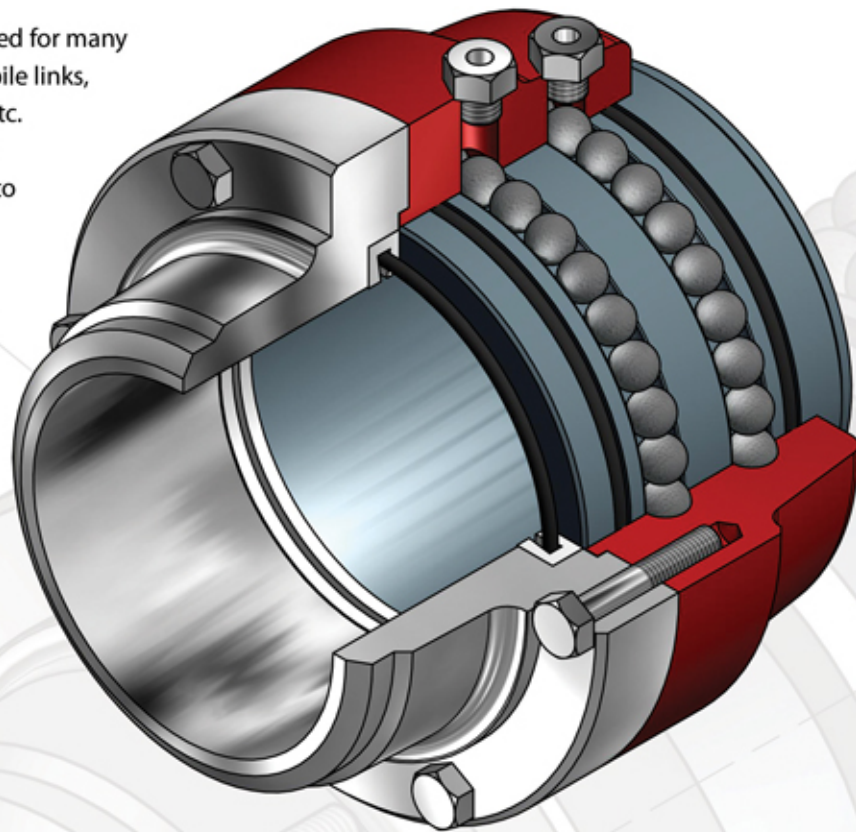
The swivel joints, which permit a wide range of horizontal and vertical movements, are very easy to handle, move and position. The range can meet almost all chemical, gas or oil product transfer requirements, even in the most difficult service conditions (low or high pressure, very low or high temperatures), while taking into account specific conditions of use (underwater applications, aggressive products, etc.).

Swivel joints ensure dynamic watertightness and can be used for many industrial applications, such as pneumatic or hydraulic mobile links, pneumatic or hydraulic machines with rotating elements, etc. The number one priority of ATS is to offer the solution best suited to your fluid transfer requirements, from the easiest to the most demanding. The ATS Series 5000 Swivel Joint is the latest result of our constant investment and commitment in R&D, benefiting from more than 8 years of experience, as well as the latest technological innovations.

Features

- Double row, 4 point angular contact bearing raceways.
- Increased raceway separation for higher load capacity.
- 3-Part design allowing easy product seal replacement without removing ball bearings.
- S/S Spring energised P.T.F.E product seal.
- 5 Years guarantee
- Standard diameters from 2" through 12".
- All styles in a variety of designs and materials
- Various packing according to the application
- Exclusive field replaceable stainless steel snap-in ball races

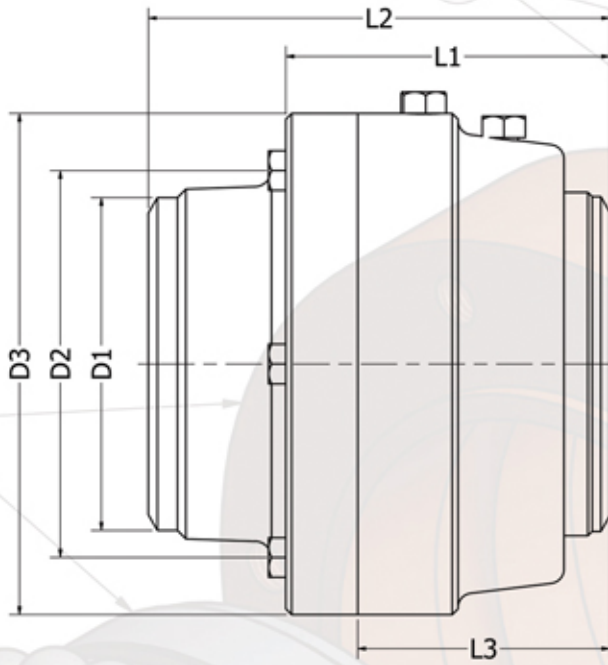
SWIVEL JOINTS - FULL BORE 3-Piece Design



BASE SWIVEL JOINT DIMENSIONS

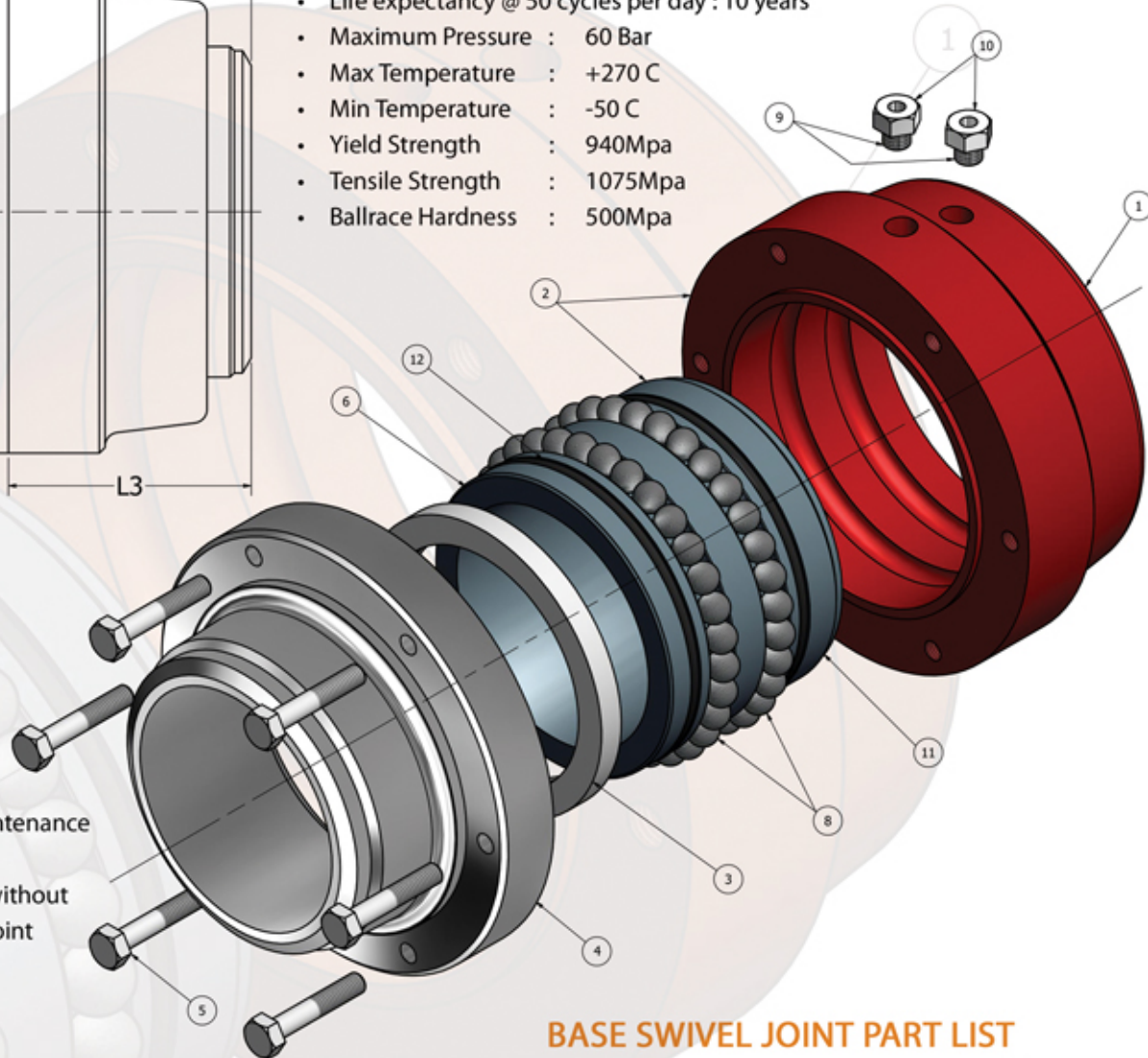
SIZE		DIMENSIONS							WEIGHT
		D1	D2	D3	L1	L2	L3	S	
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
1"	25	33,4	50	90	80	90	66	2,77 / 3,38	2,5
1 1/4"	32	42,2	50	90	80	90	66	2,77 / 3,56	2,3
1 1/2"	40	48	65	110	80	90	66	2,77 / 3,68	3,5
2"	50	60,3	82	117	112	145	87	2,77 / 3,54	5,2
2 1/2"	65	76,2	110	150	112	150	87	3,05 / 5,94	6,6
3"	80	88,9	116	152	112	155	87	3,05 / 5,94	8,0
4"	100	114,3	139	175	112	160	87	3,05 / 6,02	10,0
6"	150	168,3	185	262	153	160	120	3,40 / 7,11	28,6
8"	200	219,1	235	316	153	160	120	3,76 / 8,18	37,0
10"	250	273	290	390	183	205	155	4,19 / 9,27	79,0
12"	300	323	340	445	183	205	155	4,57 / 9,53	95,0

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Technical Data

- Life cycle for 4" base swivel joint based on maximum bending moment of 4000Nm : 200,000
- Life expectancy @ 50 cycles per day : 10 years
- Maximum Pressure : 60 Bar
- Max Temperature : +270 C
- Min Temperature : -50 C
- Yield Strength : 940Mpa
- Tensile Strength : 1075Mpa
- Ballrace Hardness : 500Mpa



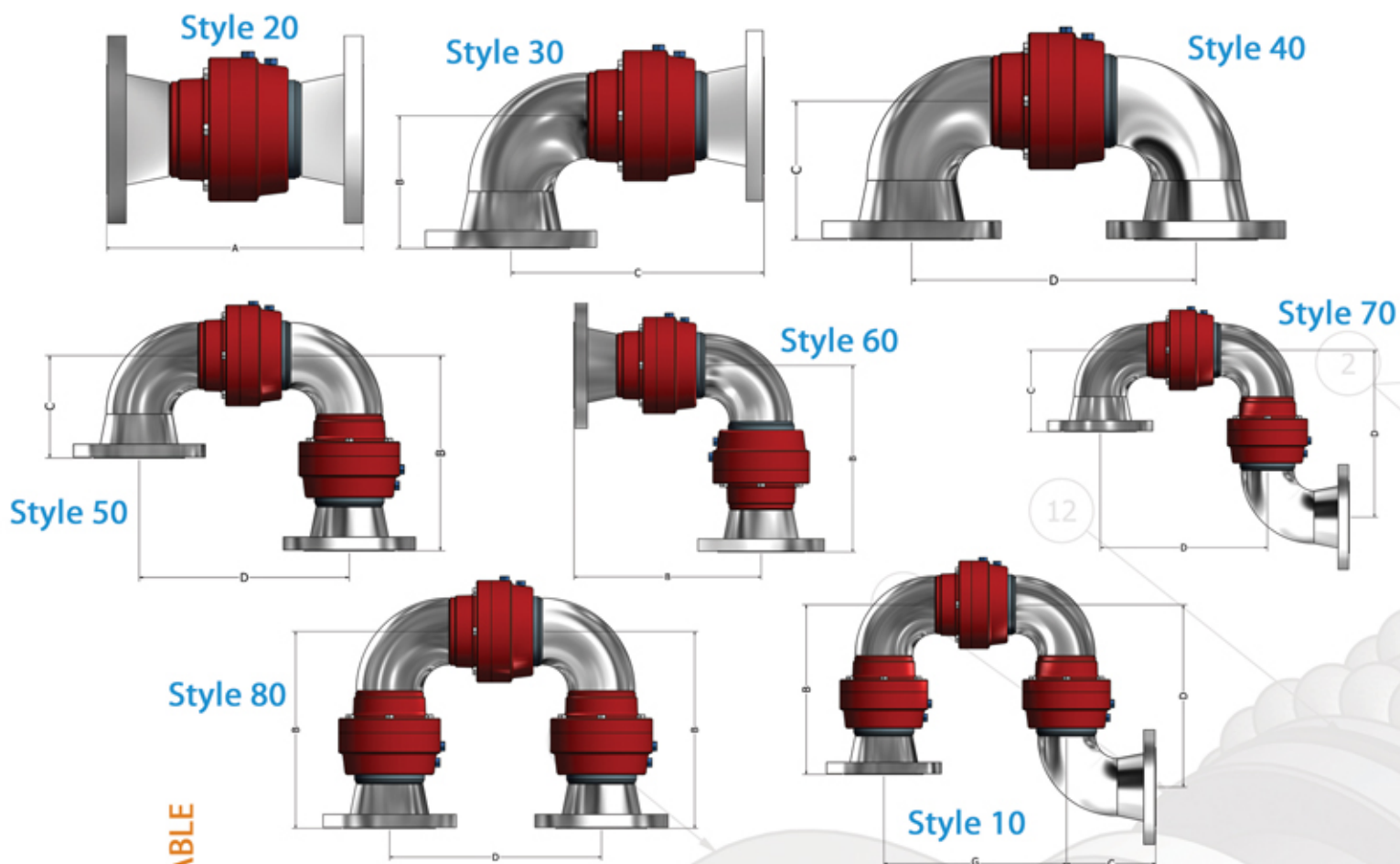
Benefits

- Bubble-tight sealability
- Reliable service life
- Easy and quick on-site maintenance
- Easy to replace
- Primary seal replacement without disassembly of the swivel joint

BASE SWIVEL JOINT PART LIST

ITEM	NAME	QUANTITY											MATERIAL
		1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	
		25	32	40	50	65	80	100	150	200	250	300	
1	Swivel Joint	1	1	1	1	1	1	1	1	1	1	1	CS/SS/AL/Hastelloy
2	Midpart	1	1	1	1	1	1	1	1	1	1	1	CS/SS/AL/Hastelloy
3	Product Seal, PTFE	1	1	1	1	1	1	1	1	1	1	1	PTFE
3	Product Seal, Viton	1	1	1	1	1	1	1	1	1	-	-	VITON
3	Product Seal, EPDM	-	-	-	1	1	1	1	1	1	-	-	EPDM
4	Swivel Flange	1	1	1	1	1	1	1	1	1	1	1	CS/SS/AL/Hastelloy
5	Bolts	8	8	8	6	8	8	10	12	20	20	20	Stainless Steel
6	Nipple*	1	1	1	1	1	1	1	1	1	1	1	Stainless Steel
7	Coupler*	1	1	1	1	1	1	1	1	1	1	1	CS/SS/AL/Hastelloy
8	Ball	44	44	44	44	60	64	78	76	98	96	110	Stainless Steel
9	Ballplug	2	2	2	2	2	2	2	2	2	2	2	Stainless Steel
10	Nuts	-	-	-	2	2	2	2	-	-	-	-	Stainless Steel
11	Dust Seal, PTFE	1	1	1	1	1	1	1	1	1	1	1	PTFE
11	Dust Seal, NBR	1	1	1	1	1	1	1	1	1	1	1	NBR
11	Dust Seal, FPM	1	1	1	1	1	1	1	1	1	1	1	FRM
12	Chamber Seal, PTFE	1	1	1	1	1	1	1	1	1	1	1	PTFE
12	Chamber Seal, FPM	1	1	1	1	1	1	1	1	1	1	1	FRM

THE SOLUTION BEST SUITED TO YOUR FLUID TRANSFER REQUIREMENTS



CONFIGURATION DIMENSION TABLE

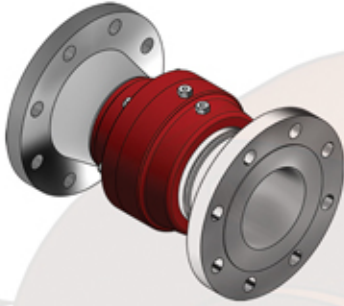
SIZE	A	B	C	D	E	F	G	H
inc	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
1"	208	177	84	146	261	354	230	323
1 1/4"	210	185	92	160	277	370	252	345
1 1/2"	220	196	103	172	299	392	275	368
2"	277	265	117	253	382	530	370	518
2 1/2"	296	290	137	284	427	580	421	574
3"	301	307	149	313	456	614	462	620
4"	318	344	181	370	525	688	551	714
6"	346	408	245	470	653	816	715	878
8"	370	471	308	572	779	942	880	1043
10"	415	567	359	719	926	1134	1078	1286
12"	439	630	422	821	1052	1260	1243	1451

CONFIGURATION WEIGHT TABLE

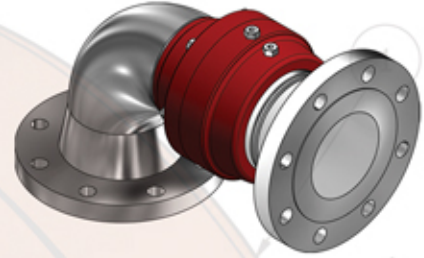
SIZE		STYLE 10	STYLE 20	STYLE 30	STYLE 40	STYLE 50	STYLE 60	STYLE 70	STYLE 80
inch	mm	[kg]	[kg]	[kg]	[kg]	[kg]	[kg]	[kg]	[kg]
1"	25	9,70	4,50	4,60	4,70	7,20	7,10	7,30	9,80
1 1/4"	32	10,42	5,10	5,26	5,42	7,92	7,76	8,08	10,58
1 1/2"	40	13,98	6,50	6,74	6,98	10,48	10,24	10,72	14,22
2"	50	21,06	9,80	10,23	10,66	15,86	15,43	16,29	21,49
2 1/2"	65	28,84	14,00	14,82	15,64	22,24	21,42	23,06	29,66
3"	80	35,10	16,40	17,75	19,10	27,10	25,75	28,45	36,45
4"	100	56,00	24,80	27,40	30,00	43,00	40,40	45,60	58,60
6"	150	115,70	45,60	52,05	58,50	87,10	80,65	93,55	122,15
8"	200	171,00	64,00	80,50	97,00	134,00	117,50	150,50	187,50
10"	250	338,30	118,00	149,15	180,30	259,30	228,15	290,45	369,45
12"	300	423,00	153,00	193,00	233,00	328,00	288,00	368,00	463,00

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CONFIGURATIONS



1. **(20)** Single swivel for 360° rotation in one plane.



2. **(30)** Single swivel with elbow to allow swinging at 90°.



3. **(40)** Single swivel with two elbows to permit swinging lines in parallel



4. **(50)** Two swivels with full 360° rotation in two planes at 90° angle.



5. **(60)** Two swivels at 90° angle with full 360° rotation in each plane.



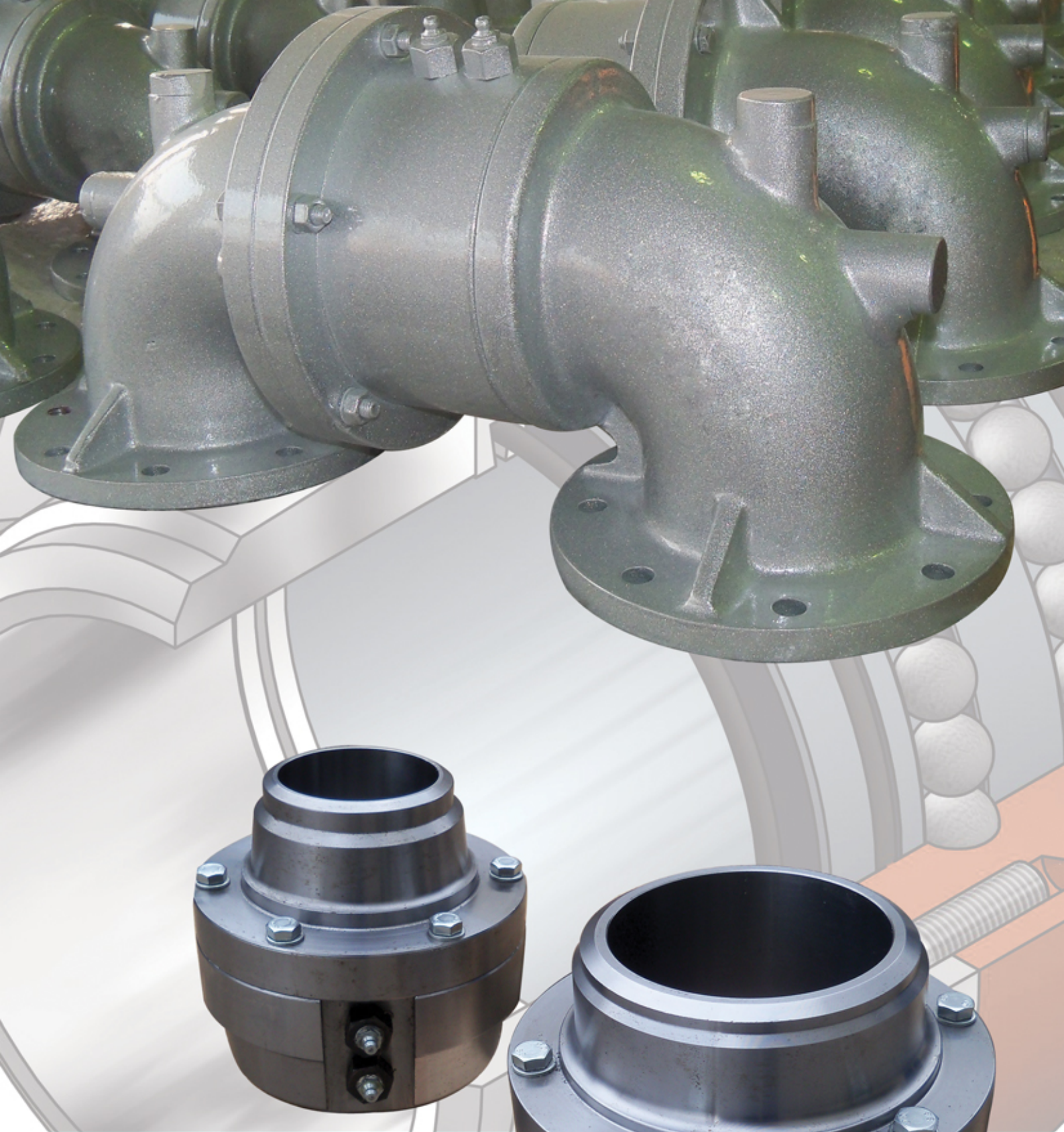
6. **(70)** Two swivels at 90° angle with elbows on each end to permit swinging lines at any angle.



7. **(80)** Three swivels with full 360° rotation, plus an additional elbow to permit swinging lines at any



8. **(10)** Three swivels with full 360° rotation permitting movement in three different planes.



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