

# TRANSFLUID

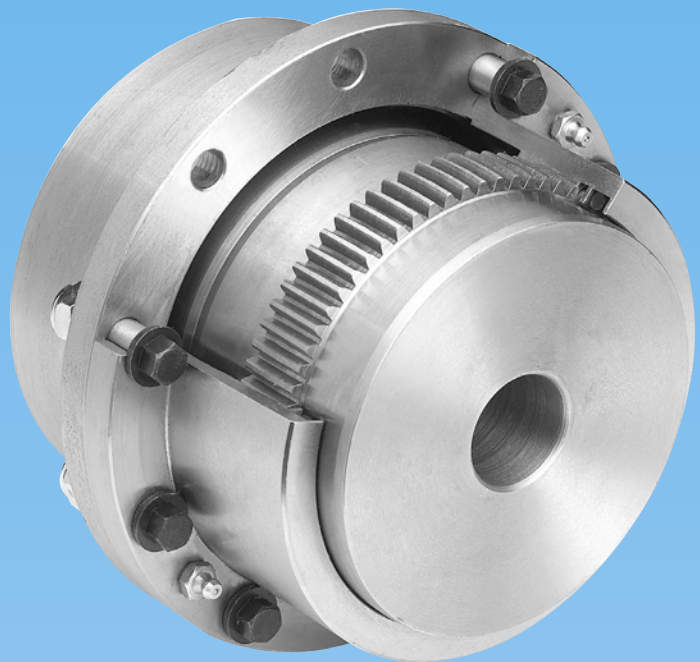


**drive with us**



# TRANSFLUID<sup>®</sup>

**industrial & marine**

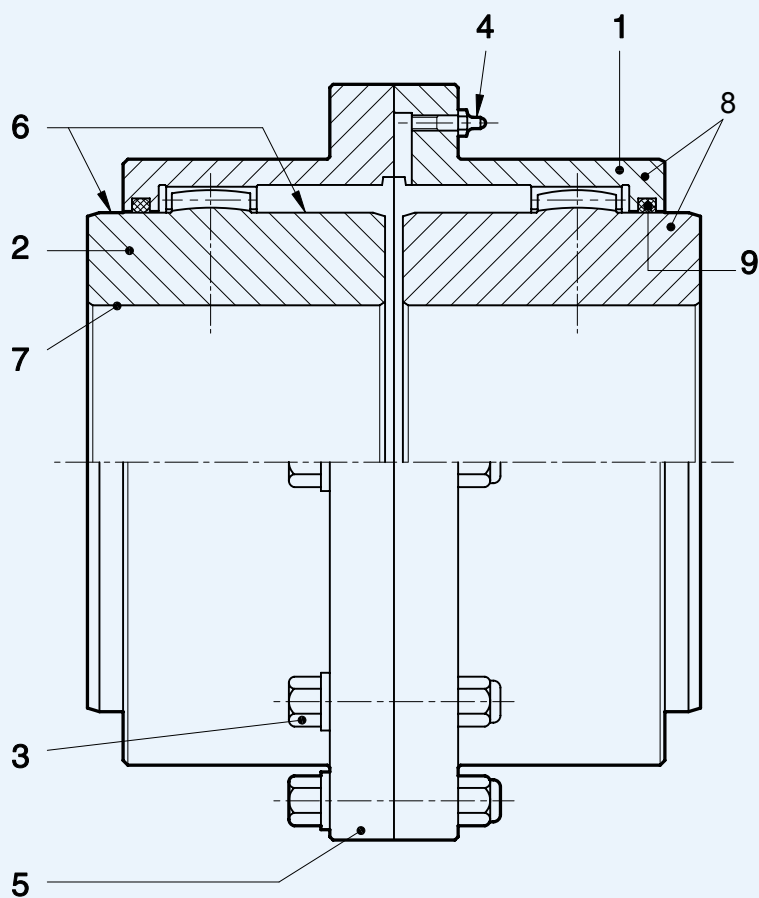


GEAR COUPLINGS P SERIES

# CROWNED TOOTH GEAR COUPLINGS

## P series

Maximum torque: up to 381.000 Nm  
Bores: up to 370 mm



1. One piece sleeve with internal straight teeth
2. Hub teeth
3. Calibrated special-steel screws
4. Two lubrication plugs are mounted on each half sleeve
5. Flange supplied in exposed bolt version
6. Hub diameters are identical
7. Machined bore and keyway upon request
8. Steel forgings hubs and sleeves
9. O-Rings

### • CROWNED HUB TEETH

Hub teeth are designed with a special crowned form to ensure a contact area larger than the conventional crowning. This solution involves reduced surface stresses and consequently a longer working life of the coupling.

### HOW TO SELECT THE RIGHT COUPLING SIZE

- A.** The selection depends on the shaft outside diameter that it has to be inferior or equal to the max. bore inside diameter accepted.  
**B.** Check the coupling capacity versus the actual job conditions, using the following formula

$$Nm = \frac{P \times F \times 9550}{n}$$

Where: P = Power in kW  
 F = Service factor according to tabulation hereunder  
 9550 = Fixed ratio  
 n = Speed in Rev/min

- C.** Verify that the figured reading does not exceed the nominal torque.  
 Max torque can be transmitted by the coupling during starts or for short periods of time.

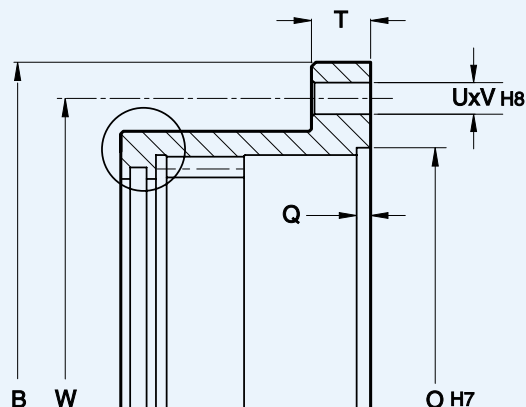
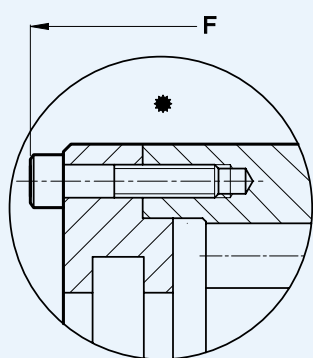
TYPE OF LOAD	APPLICATIONS	SERVICE FACTOR	
		Electric motors Turbines	Hydraulic motors Gear drives
UNIFORM LIGHT SHOCKS	Blowers, generators, conveyors (belt and chain) Agitators (pure liquids), centrifugal pumps and compressors, escalators, machine tools: auxiliary drives. Textile machines, woodworking machinery. Can filling machines and bottling machinery.	1.5	1.75
MODERATE SHOCKS	Conveyors (belt and chain not uniformly fed, bucket, screw), gear pumps. Agitators (liquids variable density), multiple compressors, blowers (lobe), elevators, cranes, lift trucks, tackles and winches machine tools (main drives), winders (paper industry) wire winding machines, reels, propellers (ships).	1.75	2
HEAVY SHOCKS	Generators (welding), reciprocating compressors and pumps. Laundry washers, presses, hot rolling mills, bending rolls. Barkers, calenders, cement furnaces, draw bench, wire drawing and flattening machines.	2	2.25
VERY HEAVY SHOCKS	Crushers (ore and stone), hammer mills, rubber mills, road and railroad equipment, machines for agriculture.	2.5	2.75

LEGEND OF USED SYMBOLS		
	max.	Maximum bore (mm)
	min.	Minimum bore (mm)
	Tn	Nominal torque (Nm)
	Tp	Peak torque
	Max	Max speed (rpm)
		• Maximum offset (mm)
		• Maximum angular misalignment (degree) (on each side)
	J (WR <sup>2</sup> )	Inertia (kgm)
		Weight (Kg)
		Grease quantity (Kg)

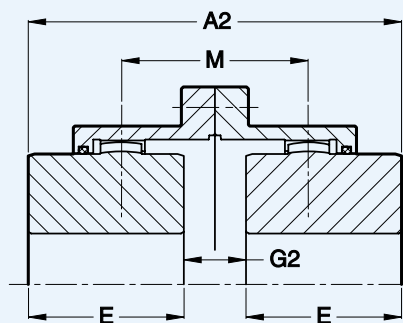
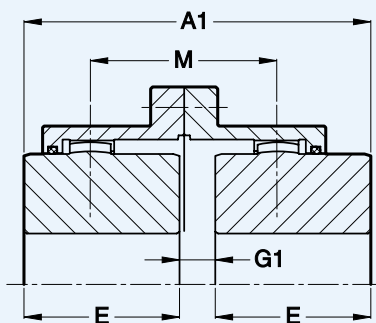
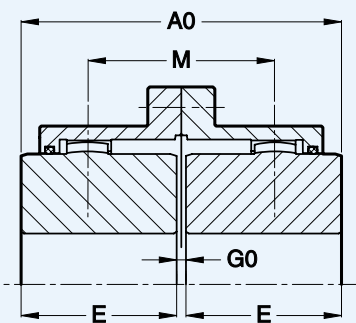
NOTES FOR DATA SHEETS
<ol style="list-style-type: none"> <li>1. For key according to ISO R 773 (DIN 6885/1)</li> <li>2. Gear maximum continuous transmissible torque for the tabulated misalignment. The effective transmissible torque depends on the bore and shaft/hub connection.</li> <li>3. Higher speed on special request.               <ol style="list-style-type: none"> <li>3.1 For grease withstanding centrifugal acceleration of 1.000 g: see installation and maintenance manual</li> <li>3.2 For grease withstanding centrifugal acceleration of 2.000 g: see installation and maintenance manual</li> <li>3.3 Depends on L</li> </ol> </li> <li>4. For solid bore               <ol style="list-style-type: none"> <li>4.1 Depends on L</li> </ol> </li> <li>5. For pilot bored hubs               <ol style="list-style-type: none"> <li>5.1 Depends on L</li> </ol> </li> <li>6. See installation and maintenance manual</li> <li>7. Values for S minimum. S maximum depends on torque and speed</li> <li>8. G must remain constant during operation</li> <li>9. Needed to control the alignment and inspect the gears</li> </ol>

• Maximum values referred to a speed range from 0 to 250 rpm. For higher speed see installation and maintenance manual.

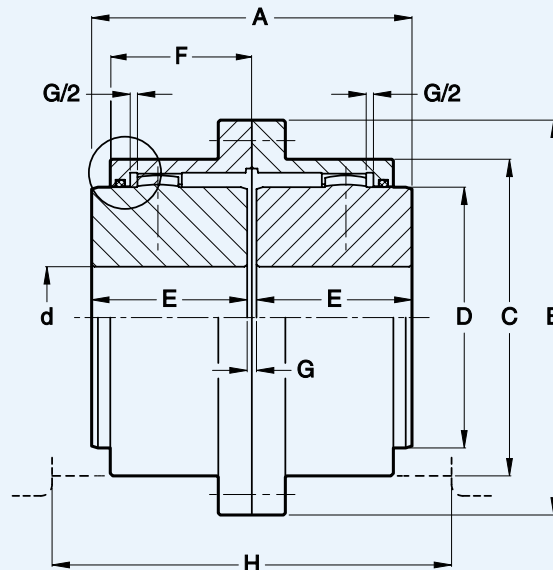
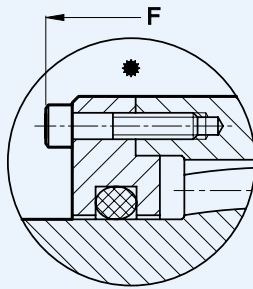
# Type P



		2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320
<b>P</b>	mm	111	142	168	200	225	265	300	330	370	406	438	505	580	630
<b>O</b>	mm	80	100	122	148	172	200	232	260	286	315	345	400	432	480
<b>Q</b>	mm	3	3	3	3	3	4	4	5	5	5	5	6	5	5
<b>T</b>	mm	12	10	10	13	13	22	22	22	24	25	25	28	25	25
<b>U</b>	Qty.	6	8	10	10	12	12	14	14	14	14	14	16	18	22
<b>V</b>	mm	8	10	10	12	12	16	16	16	18	22	22	24	25	25
<b>W</b>	mm	96	122	148	178	203	236	270	300	335	368	400	460	530	580



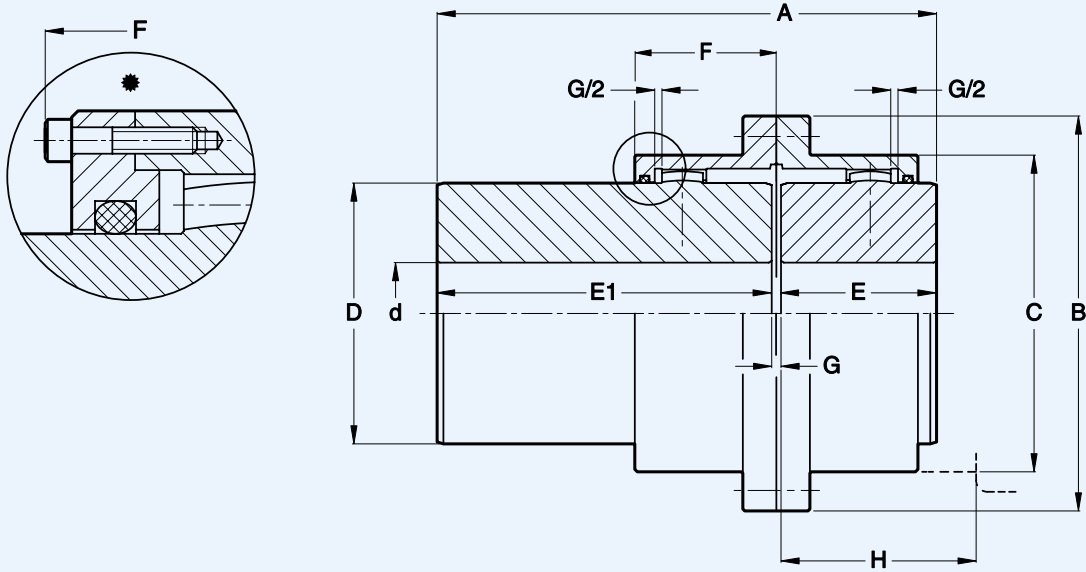
		2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320
<b>A0</b>	mm	89	103	127	157	185	216	246	278	308	358	388	450	512	562
<b>A1</b>	mm	91	108	138	164	204	237	272	307	350	403	438	512	564	629
<b>A2</b>	mm	93	113	149	171	223	258	298	336	392	448	488	574	616	696
<b>E</b>	mm	43	50	62	76	90	105	120	135	150	175	190	220	250	275
<b>G0</b>	mm	3	3	3	5	5	6	6	8	8	8	8	10	12	12
<b>G1</b>	mm	5	8	14	12	24	27	32	37	50	53	58	72	64	79
<b>G2</b>	mm	7	13	25	19	43	48	58	66	92	98	108	134	116	146
<b>M</b>	mm	48	58	76	88	114	132	152	172	200	228	248	292	-	-



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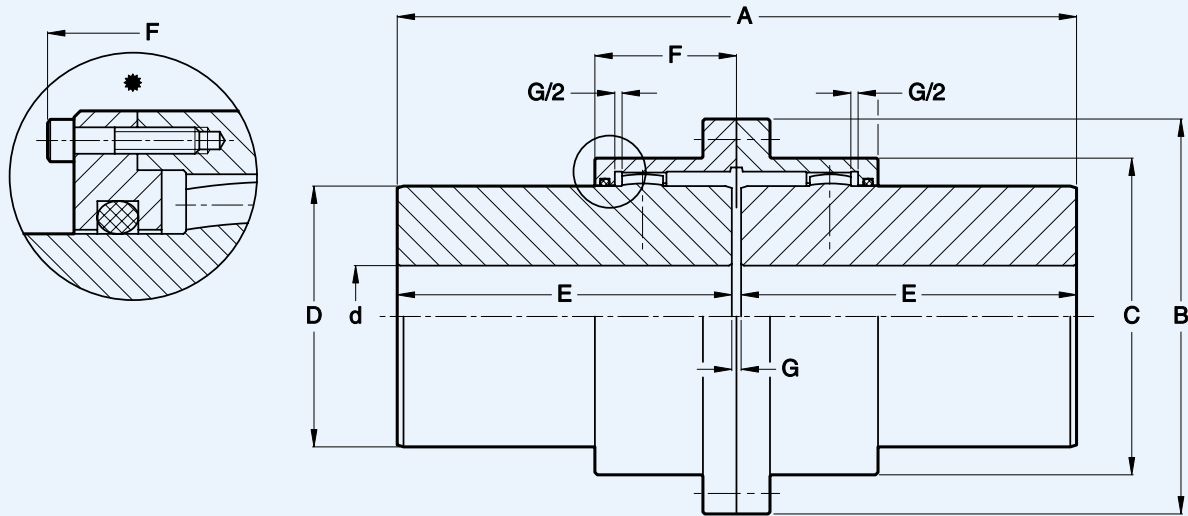
			Type PST													•	•	
			2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320		
	d	max	1	mm	50	60	75	95	110	130	155	170	190	210	230	280	325	370
		min	1	mm	12	18	28	40	50	60	70	85	95	110	120	130	150	170
	Tn Tp	Nm	2		1700	2700	5500	8500	13500	22000	34000	43000	68000	8200	150000	195000	275000	381000
					4100	6200	12000	21000	34000	54000	83000	99000	156000	195000	348000	479000	550000	762000
	max	rpm	3.1		5000	4400	4000	3600	3350	3100	2800	2700	2550	2320	2100	1800	1200	980
			3.2															
	α	degree	-	2 x 0.150														
		mm±	-	0.25				0.50				0.80			0.90			
	J (WR <sup>2</sup> )	kgm <sup>2</sup>	4	0.005	0.012	0.032	0.084	0.162	0.375	0.728	1.225	3.105	3.401	5.052	10.32	20.60	33.50	
		kg	5	4	8	13	26	37	59	91	123	170	234	295	455	685	920	
		kg	6	0.08	0.09	0.15	0.25	0.45	0.70	0.90	1.54	2.3	3.2	3.9	5.4	6.5	7.2	
Dimensions	A	mm		89	103	127	157	185	216	246	278	308	358	388	450	512	562	
	B	mm		111	142	168	200	225	265	300	330	370	406	438	505	580	630	
	C	mm		82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423	495	545	
	D	mm		69	85	107	133	152	178	209	234	254	279	305	355	400	450	
	E	mm		43	50	62	76	90	105	120	135	150	175	190	220	250	275	
	F	mm		39	45.5	59	68.5	82.5	93	106	118	138	154	166	193	223	247	
	G	mm		3	3	3	5	5	6	6	8	8	8	8	10	12	12	
	H	mm		10	119	139	177	195	245	266	276	318	398	448	480	556	-	-

# Type PMM



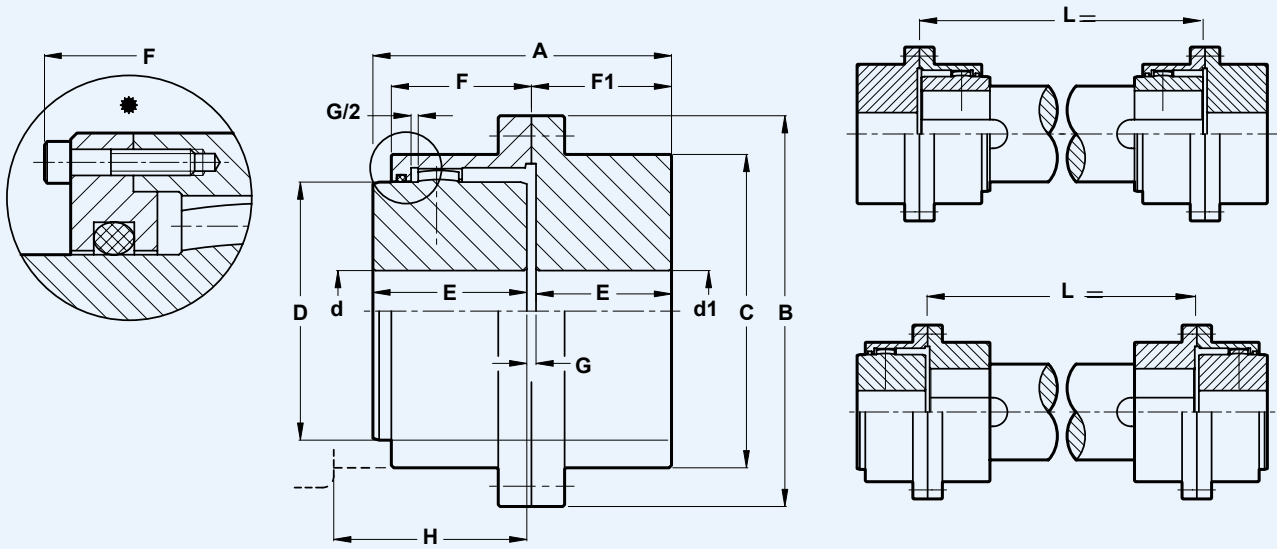
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		Type PMM																
			2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320		
	d	max	50	60	75	95	110	130	155	170	190	210	230	280	325	370		
		min	12	18	28	40	50	60	70	85	95	110	120	130	150	170		
	Tn		1700	2700	5500	8500	13500	22000	34000	43000	68000	82000	150000	195000	275000	381000		
	Tp		4100	6200	12000	21000	34000	54000	83000	99000	156000	195000	348000	479000	550000	62000		
	max	3.1	500	4400	4000	3600	3350	3100	2800	2700	2550	2320	2100	1800	1200	980		
		3.2																
		-	degree															
		-	0.25				0.50				0.80				0.90			
	J (WR <sup>2</sup> )	4	0.006	0.015	0.039	0.101	0.196	0.440	0.869	1.48	2.57	3.975	5.601	11.41	-	-		
		5	6	10.40	17	32	46	72	113	152	215	276	339	501	-	-		
		6	0.08	0.09	0.15	0.25	0.45	0.70	0.90	1.54	2.3	3.2	3.9	5.4	7.5	9.5		
Dimensions	A	mm	151	168	195	231	265	296	341	388	453	483	503	540	-			
	B	mm	111	142	168	200	225	265	300	330	370	406	438	505	580	630		
	C	mm	82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423	495	545		
	D	mm	69	85	107	133	152	178	209	234	254	279	305	355	400	450		
	E	mm	43	50	62	76	90	105	120	135	150	175	190	220	250	275		
	E1	mm	105	115	130	150	170	185	215	245	295	300	305	310	AS REQUIRED			
	F	mm	39	45.5	59	68.5	82.5	93	106	118	138	154	166	193	223	247		
	G	mm	3	3	3	5	5	6	6	8	8	8	8	10	12	12		
H	10	mm	58	68	87	95	120	130	135	155	195	220	236	273	-	-		



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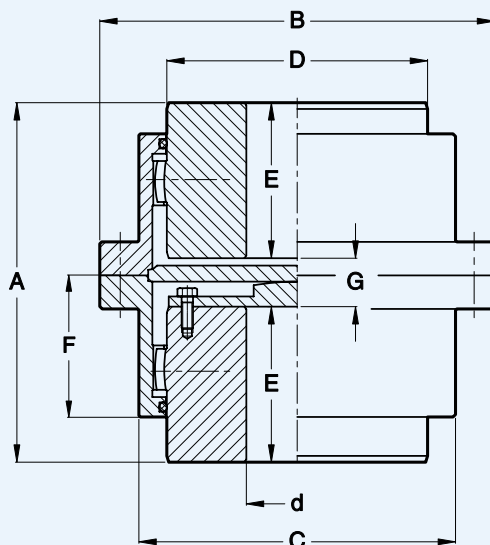
		Type PDMM																
		2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320			
	d	max	1	mm	50	60	75	95	110	130	155	170	190	210	230	280	325	370
		min		mm	12	18	28	40	50	60	70	85	95	110	120	130	150	170
	Tn		2	Nm	1700	2700	5500	8500	13500	22000	34000	43000	68000	82000	150000	195000	275000	381000
	Tp				4100	6200	12000	21000	34000	3100	83000	99000	156000	195000	348000	479000	550000	762000
	max	3.1	rpm	5000	4400	4000	3600	3350	3100	2800	2700	2550	2320	2100	1800	1200	980	
		3.2																
	α	-	degree	2 x 0.150														
		-	mm±	0.25				0.50				0.80				0.90		
	J (WR <sup>2</sup> )	4	kgm <sup>2</sup>	0.007	0.018	0.045	0.118	0.230	0.505	1.010	1.735	3.03	4.55	6.15	12.5	-	-	
		5	kg	7.9	12.7	21	38	55	84	134	180	260	317	3.82	546	-	-	
		6	kg	0.08	0.09	0.15	0.25	0.45	0.70	0.90	1.54	2.3	3.2	3.9	5.4	7.5	9.5	
<b>Dimensions</b>	A		mm	213	233	263	305	345	376	436	498	598	608	618	630	-	-	
	B		mm	111	142	168	200	225	265	300	330	370	406	438	505	580	630	
	C		mm	82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423	495	545	
	D		mm	69	85	107	133	152	178	209	234	254	279	305	355	400	450	
	E		mm	105	115	130	150	170	185	215	245	295	300	305	310	AS REQUIRED		
	F		mm	39	45.5	59	68.5	82.5	93	106	118	138	154	166	193	223	247	
	G		mm	3	3	3	5	5	6	6	8	8	8	8	10	12	12	



see page 2

		Type PFS															
			2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320	
	d	max	50	60	75	95	110	130	155	170	190	210	230	280	325	370	
		min	12	18	28	40	50	60	70	85	95	110	120	130	150	170	
	d1	max	60	75	90	110	130	150	175	195	220	240	260	300	365	395	
	Tn		1700	2700	5500	8500	13500	22000	34000	43000	68000	82000	150000	195000	275000	381000	
	Tp		4100	3200	12000	21000	34000	54000	83000	99000	156000	195000	348000	479000	550000	762000	
	max	3.3															
		-	degree														
	J (WR <sup>2</sup> )	4	0.005	0.014	0.035	0.090	0.180	0.410	0.780	1.33	2.28	3.73	5.59	10.55	21.11	34.5	
		5	4.6	8.5	13.8	27	39.5	62.5	94.6	130	181	250	320	490	718	940	
		6	0.04	0.05	0.08	0.14	0.24	0.34	0.47	0.77	1.14	1.55	1.95	2.85	3.80	4.85	
Dimensions	A	mm	89	103	127	157	185	216	246	278	308	358	388	450	512	562	
	B	mm	111	142	168	200	225	265	300	330	370	406	438	505	580	630	
	C	mm	82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423	475	520	
	D	mm	69	85	107	133	152	178	209	234	254	279	305	355	400	450	
	E	mm	43	50	62	76	90	105	120	135	150	175	190	220	250	275	
	E1	mm	39	45.5	59	68.5	82.5	93	106	118	138	154	166	193	223	247	
	F	mm	44.5	51.5	63.5	78.5	92.5	108	123	139	154	179	194	225	256	281	
	G	mm	3	3	3	5	5	6	6	8	8	8	8	10	12	12	
H	10	mm	58	68	87	95	120	130	135	155	195	220	236	273	-	-	

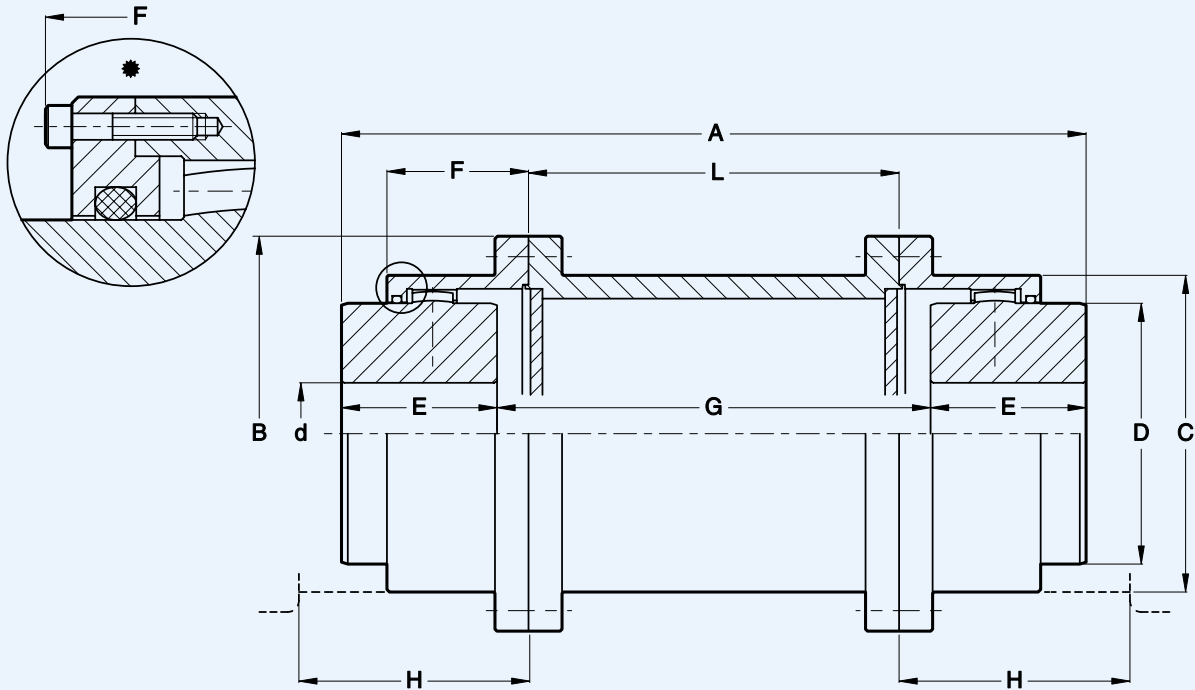











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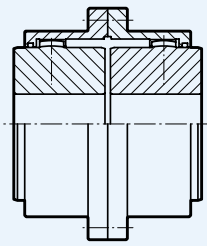
			Type PSV													
			2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250		
	d	max	1	mm	50	60	75	95	110	130	155	170	190	210	230	280
		min	mm	12	18	28	40	50	60	70	85	95	110	120	130	
	Tn	Tp	2	Nm	1700	2700	5500	8500	13500	22000	34000	43000	68000	8200	150000	195000
					4100	6200	12000	21000	34000	54000	83000	99000	156000	195000	348000	479000
	max			rpm	5000	4400	4000	3600	3350	3100	2800	2700	2550	2320	2100	1800
	α		-	degree	2 x 0.150											
			-	mm±	0.25				0.50				0.80			
	J (WR <sup>2</sup> )		4	kgm <sup>2</sup>	0.005	0.012	0.032	0.084	0.162	0.375	0.728	1.225	2.105	3.401	5.052	10.32
			5	kg	5	9	15	28	49	62	95	129	178	244	307	470
			6	kg	2x0.04	2x0.045	2x0.051	2x0.13	2x0.23	2x0.35	2x0.45	2x0.77	2x1.15	2x1.6	2x1.95	2x3.12
<b>Dimensions</b>	A			mm	109	123	155	183	223	258	298	336	392	448	488	574
	B			mm	111	142	168	200	225	265	300	330	370	406	438	505
	C			mm	82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423
	D			mm	69	85	107	133	152	178	209	234	254	279	305	355
	E			mm	43	50	62	76	90	105	120	135	150	175	190	220
	F			mm	39	45.5	59	68.5	82.5	93	106	118	138	154	166	193
	G			mm	23	23	31	31	43	48	58	66	92	98	108	134

# Type PSE

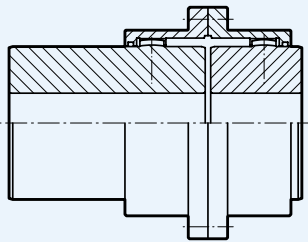


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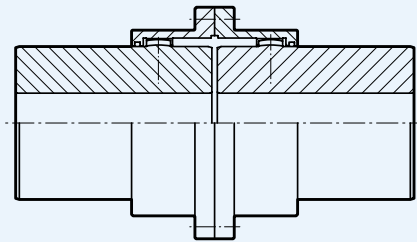
			Type PSE														
			2040	2055	2070	2085	2100	2120	2140	2160	2180	2200	2220	2250	2280	2320	
	d	max	mm	50	60	75	95	110	130	155	170	190	210	230	280	325	370
		min	mm	12	18	28	40	50	60	70	85	95	110	120	130	150	170
	Tn	Tp	Nm	1700	2700	5500	8500	13500	22000	34000	43000	68000	82000	150000	195000	275000	381000
				4100	6200	12000	21000	34000	54000	83000	99000	156000	195000	348000	479000	550000	762000
	max	3.3	rpm														
	-	-	degree	0.150													
	J (WR <sup>2</sup> )	4.1	kgm <sup>2</sup>														
		5.1	kg														
		6	kg	2x0.04	2x0.05	2x0.07	2x0.14	2x0.24	2x0.30	2x0.50	2x0.80	2x1.20	2x1.60	2x2.00	2x3.10	2x3.8	2x4.85
Dimensions	A	8	mm	173	203	239	271	323	368	408	466	542	608	658	754	upon request	
	B		mm	111	142	168	200	225	265	300	330	370	406	438	505	580	630
	C		mm	82.5	104.5	130.5	158.5	183.5	211.5	245.5	275	307	335	367	423	495	545
	D		mm	69	85	107	133	152	178	209	234	254	279	305	355	400	450
	E		mm	43	50	62	76	90	105	120	135	150	175	190	220	250	275
	F		mm	39	45.5	59	68.5	82.5	93	106	118	138	154	166	193	223	247
	G	8	mm	87	103	115	119	143	158	168	196	242	258	278	314	upon request	
	H	10	mm	59.5	69.5	88.5	97.5	122.5	133	138	159	199	224	240	278	-	-
Lmin	8	mm	80	90	90	100	100	110	110	130	150	160	170	180	upon request		



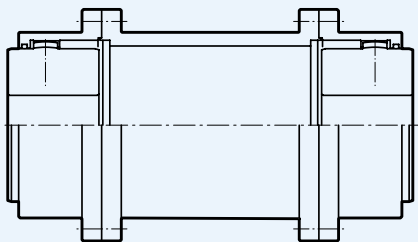
**PST standard**



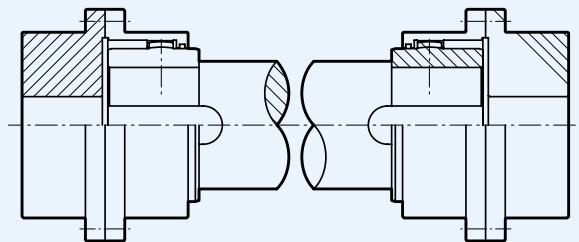
**PMM mill motor**



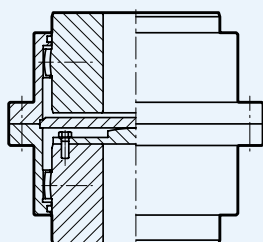
**PDMM double mill motor**



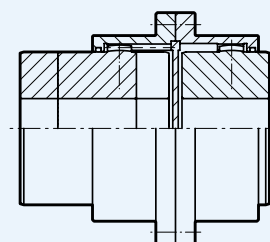
**PSE spacer execution**



**PFS floating shaft**

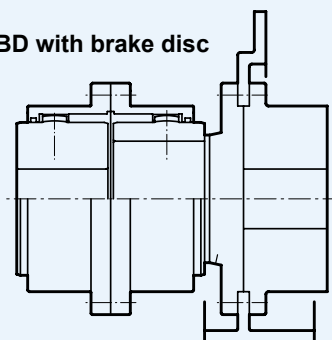


**PSV standard vertical**

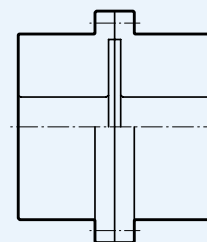


**PSH sliding hub**

**PBD with brake disc**



**PBP with brake pulley**



**PRR rigid-rigid**

**FLUID COUPLING  
K SERIES**

Oil or water constant fill  
Up to 2500 kW



**FLUID COUPLING  
KX SERIES**

Oil or water constant fill  
low drag torque  
Up to 1000 kW



**FLUID COUPLING  
KSL SERIES**

Start up and variable  
speed drive  
Up to 4000 kW



**FLUID COUPLING  
KPT SERIES**

Start up and variable  
speed drive  
Up to 1700 kW



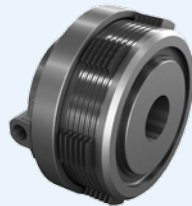
**FLEXIBLE COUPLING  
BM-B3M SERIES**

Up to 33100 Nm



**AIR AND HYDRAULIC CLUTCH  
HYDRAULIC BRAKE  
TP-SHC-SL SERIES**

Up to 11500 Nm  
Up to 2500 Nm  
Up to 9000 Nm



**DISC AND DRUM BRAKE  
NBG-TFDSSERIES**

Up to 19000 Nm



**OIL OPERATED POWER  
TAKE OFF  
HF SERIES**

Up to 1300 kW



**FLUID COUPLING  
KPTO SERIES**

For internal combustion engine  
P.T.O. for pulley and cardan shaft  
Up to 1000 kW



**MULTI PUMP DRIVE  
STELLADRIVE SERIES**

Up to 1300 kW



**POWER SHIFT  
TRANSMISSION**

With torque converter  
Up to three speeds  
Electric selector  
Up to 95 kW



**ELASTIC COUPLING  
RBD SERIES**

For internal combustion engine  
Up to 16000 Nm



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