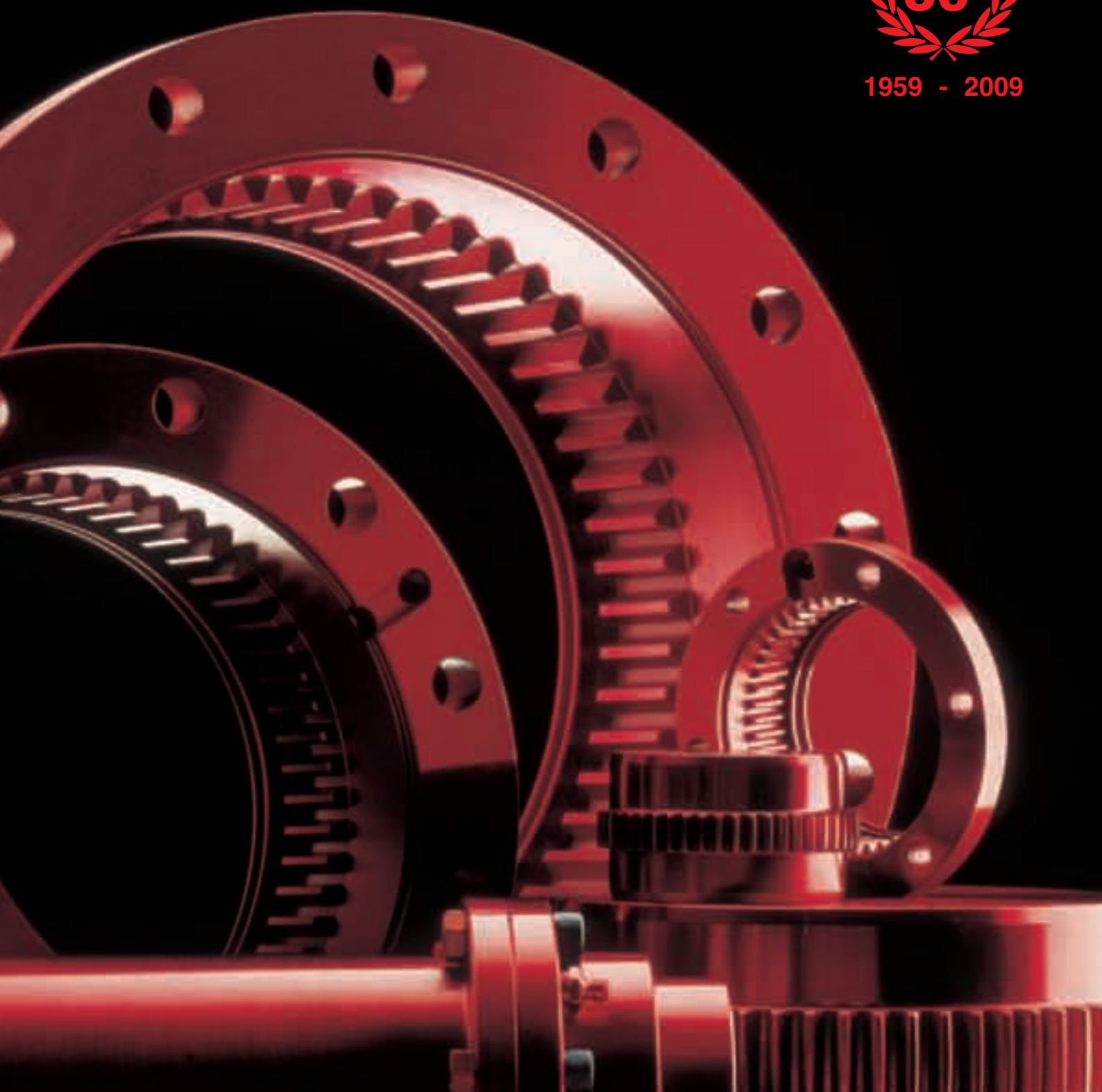


NORTHON

GEAR COUPLING



1959 - 2009





Every **NORTHON** coupling and parts are exclusively **MADE IN ITALY**

GEAR COUPLINGS



NORTHON gear couplings have been designed to compensate for all the angular and parallel misalignment that may take place while connecting the shafts of two machines and to guarantee, at the same time, the transmission of the power requested.

It is well known that it is practically impossible to achieve the perfect alignment between shafts and even more, to be able to preserve it over time considering the vibrations and the thermal expansion of the structures concerned.

NORTHON gear couplings offer a solution to this problem whilst assuring freedom of movement, transmission safety and operating reliability.

MANUFACTURING FEATURES

- exclusive use of alloy steel, casted or forged and heat-treated
- accurate C.N.C. machines
- special convex toothing allowing the oscillation of the toothed hub in the bell, however constantly guaranteeing the radial contact
- application versatility thanks to the possibility of obtaining different mountings only by simple inversion of the toothed hubs in the same couplings
- easy lubrication due to two greasers positioned on each half-coupling
- interchangeability in accordance with Italsider standards

In order to increase the loading capacity and the life of the couplings it is possible to implement hardened toothing of the surface through induction hardening or through gaseous nitridation upon request.

For finished holes working it is necessary to specify the diameters and tolerances in accordance with the UNI standards. Keyways in accordance with UNI 6604-69.

Upon request, we can provide holes for hot fitting and unblocking with oil pressure.

Exceptional performances are allowable only in case of instantaneous peak torque.

Couplings are circular shaped elements entirely machined in a concentric way in each part so there is no lack of balance.

ANGULAR MISALIGNMENT

Angular misalignment of each half-coupling is the following:

- Static $\pm 1^\circ$
- Dynamic $\pm 0^\circ 20'$

It is advisable not to overcome the indicated value of dynamic misalignment in order not to compromise the wear and tear of the toothing hence the life cycle of the coupling.

Upon request it is possible to manufacture couplings with capacity of dynamic angular misalignment up to 2° .



HOW TO CHOOSE THE RIGHT COUPLING SIZE

To make a correct choice of the coupling to be used you firstly need to consider the following factors:

- Loading Parameters (table A)
- Service Factor (table B)
- Correction Factors (table C)

TABLE A: LOADING PARAMETERS IN RELATION TO THE TYPE OF OPERATING MACHINE

<p>Building trade machines</p> <p>M Hoits</p> <p>M Concrete mixers</p> <p>M Machines for road construction</p> <p>Chemical industry</p> <p>M Cooling drums</p> <p>M Mixer</p> <p>L Liquid agitators</p> <p>M Viscous liquid agitators</p> <p>M Drying drums</p> <p>L Light centrifuges</p> <p>M Hevy centrifuges</p> <p>Excavating machines</p> <p>H Bucket excavator</p> <p>M Vehicles on rails</p> <p>H Tracked vehicles</p> <p>M Manoeuvring winches</p> <p>M Suction pumps</p> <p>H Paddle wheels</p> <p>H Cutting heads</p> <p>M Revolving devices</p> <p>H Dredges</p> <p>Oil industry</p> <p>M Pipeline pumps</p> <p>H Drilling systems</p> <p>M Natural-gas pumping station</p> <p>Metal processing</p> <p>M Sheet metal bending machines</p> <p>H Sheet metal straightening machines</p> <p>H Power hammers</p> <p>H Planers</p> <p>H Presses</p> <p>M Shears</p> <p>H Presses for forging</p> <p>H Punching machines</p> <p>L Shaft line</p> <p>L Machines tools</p>	<p>Conveyors</p> <p>M Winches</p> <p>M Belt conveyors for general mixed cargo</p> <p>L Light belt conveyors</p> <p>M Bucket lifts</p> <p>M Chain conveyors</p> <p>M Continuous conveyors</p> <p>M Hoists</p> <p>L Bucket lifts for flour</p> <p>M Lifts</p> <p>M Screw feeders</p> <p>M Bucket lifts for crushed stone</p> <p>H Angled hoists</p> <p>M Conveyors for steel belts</p> <p>M Ducted scraping chain conveyors</p> <p>M Plate conveyors</p> <p>Hoisting machines</p> <p>L Overhead crane</p> <p>H Translation devices</p> <p>L Lifting devices</p> <p>M Revolving device</p> <p>M Tilting unloaders</p> <p>L Bridge crane</p> <p>Machines for plastics</p> <p>M Extruders</p> <p>M Calenders</p> <p>M Mixers</p> <p>M Stamping mill</p> <p>Quarries and bricks</p> <p>H Crushers</p> <p>H Rotating ovens</p> <p>H Ball mills</p> <p>H Centrifuge mills</p> <p>H Presses for bricks</p>	<p>Textile industry</p> <p>M Winders</p> <p>M Machines to colour and print on fabrics</p> <p>M Rag grinders</p> <p>M Frames</p> <p>Compressors</p> <p>H Piston compressors</p> <p>M Turbo-compressors</p> <p>Iron and steel industry</p> <p>M Drawing machines</p> <p>H Sheet metal trains</p> <p>M Piece turners</p> <p>H Ingot pushers</p> <p>H Roller tops for ingots and thick slabs</p> <p>H Cold rolling mills</p> <p>M Light rollerways</p> <p>H Heavy rollerways</p> <p>H Continuous casting system</p> <p>M Tube-straighteners</p> <p>Fans and blowers</p> <p>M Rotating piston blowers</p> <p>L Axial and radial compressors</p> <p>M Cooling tower fans</p> <p>M Tower for suction</p> <p>L Turbo-blowers</p> <p>L Centrifuge fans</p> <p>Food industry</p> <p>L Bottling machines</p> <p>M Mixing machines</p> <p>L Packing machines</p> <p>M Cane crushers</p> <p>M Cane shears</p> <p>M Beet shears</p> <p>H Cane mills</p> <p>M Centrifuges for beet</p>	<p>Converters and generators</p> <p>L Generators</p> <p>H Frequency converters</p> <p>H Welding generators</p> <p>Paper industry</p> <p>H Wet presses</p> <p>H Wood planing machines</p> <p>M Calenders</p> <p>H Rag grinders</p> <p>H Presses for blotting paper</p> <p>H Rollers for blotting paper</p> <p>H Drying cylinders</p> <p>Pumps</p> <p>H Piston pumps</p> <p>L Centrifuge pumps (normal liquid)</p> <p>M Centrifuge pumps (viscous liquid)</p> <p>H Plunger pumps</p> <p>H Delivery pumps</p> <p>Wood processing</p> <p>H Bark-peelers</p> <p>M Veener cutting machines</p> <p>L Wood processing machines</p> <p>H Circular saws</p> <p>Rubber machines</p> <p>H Extruders</p> <p>M Calenders</p> <p>H Masticators</p> <p>M Mixers</p> <p>H Cylinder crushers</p> <p>H Scorifyng plants</p> <p>H Handling machines</p> <p>M Belt towns</p> <p>H Tumbling machines for foundries</p> <p>Landry machines</p> <p>M Tumble dryers</p> <p>M Washing machines</p>
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L = light load

M = medium load

H = heavy load

TABLE B: SERVICE FACTOR 'S'

Driving machine	Operating machine load parameter		
	L	M	G
Electric motors Turbines Hydraulic motors	1	1,25	1,75
Combustion engines 4 ÷ 8 cylinders	1,25	1,5	2
Combustion engines 1 ÷ 3 cylinders	1,5	2	2,5

TABLE C: CORRECTION FACTORS St, Sa, Ss

Description	Abb	Definition				
		Ambient temperature °C	-30	+100	+130	+180
Temperature factor	St	-30	1	1,1	1,2	1,4
		+80	1	1,1	1,2	1,4
Starting factor	Sa	Frequency nr.of starts per hour	120	240	400	800
		Sa	1	1,2	1,4	1,6
Pick-up factor	Ss	Light starting pick-up				1,2
		Medium starting pick-up				1,5
		Heavy starting pick-up				1,8

For the purposes of calculation it is therefore necessary to identify:

- type of driving machine
- power (**P**) of the driving machine expressed in kW (*)
- speed of rotation of coupling (**n**) expressed in rpm
- type of machine controlled
- type of loads (peaks, impacts, moments of inertia)
- number of starts per hour
- ambient temperature in °C

(*) If the power of driving machine is expressed in HP, to find the value expressed in kW must split HP value per 1,33

$$\text{example: } \frac{20\text{HP}}{1,33} = 15 \text{ kW}$$

EXAMPLE OF SIZING

A **NORTHON** gear coupling “Z” series is required to control a rolling mill to be placed between an electric motor and a gearbox.

Data: Power of electric motor (**P**) = 55 kW
Speed of rotation (**n**) = 450 rpm
Starts per hour = 4
Ambient temperature = + 22°C
Medium starting pick-up

From table A) we obtain the load parameter for the rolling mill = H

From table B) we obtain the the service factor **S** = 1,75

From table C) we obtain the correction factors **St** = 1, **Sa** = 1, **Ss** = 1,5

The coupling must therefore be sized for the power **N** that will be:

$$\mathbf{N} = \mathbf{P} \times \mathbf{S} \times \mathbf{St} \times \mathbf{Sa} \times \mathbf{Ss} = 55 \times 1,75 \times 1 \times 1 \times 1,5$$

$$\text{So: } \frac{\mathbf{N}}{\mathbf{n}} = \frac{\text{kW } 144}{450 \text{ rpm}} = 0,32$$

The coupling we choose will then be Type **Z-142**

Finally, check if the chosen coupling can be worked for diameters of the shafts to be connected, otherwise choose a higher size coupling.



DET NORSKE VERITAS QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificato No. / Certificate No. **108598-2011-AQ-ITA-ACCREDIA**

Si attesta che / This certifies that

Il sistema di gestione per la qualità di / the quality management system of

TRANS MOTO S.r.l.

Via Toscana, 10 - 25069 Villa Carcina (BS) - Italy

È conforme ai requisiti della norma per i sistemi di gestione per la qualità
Conforms to the quality management systems standard

UNI EN ISO 9001:2008 (ISO 9001:2008)

Questa certificazione è valida per il seguente campo applicativo:
This certificate is valid for the following products or services:

*(Ulteriori chiarimenti riguardanti lo scopo e l'applicabilità dei requisiti della normativa si possono ottenere consultando l'organizzazione certificata)
(Further clarifications regarding the scope and the applicability of the requirements of the standard(s) may be obtained by consulting the certified organization)*

Progettazione e produzione di giunti di trasmissione
Design and manufacture of transmission couplings

Data di scadenza
Expiry Date
2014-12-27

per l'Organismo di Certificazione
for the Accredited Unit

DET NORSKE VERITAS ITALIA S.R.L.

Zeno Beltrami
Management Representative

Luogo e data
Place and date

Agrate Brianza, (MB) 2011-12-27

Settore EA : 18

Massimo Schiavone
Lead Auditor



SGQ N°003 A PRG N°003 B
SCA N°003 D SSI N°002 G
SCB N°004 F FSA N°001 I

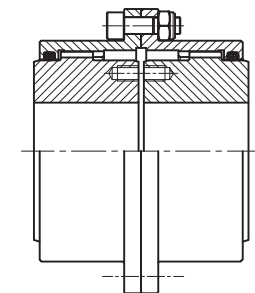
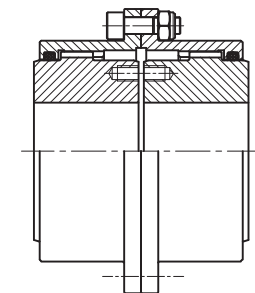
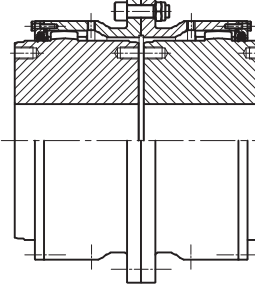
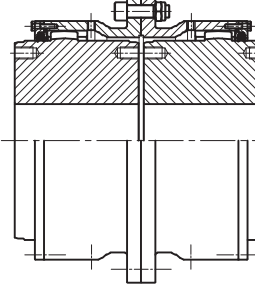
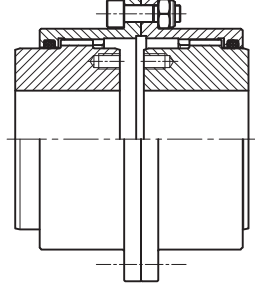
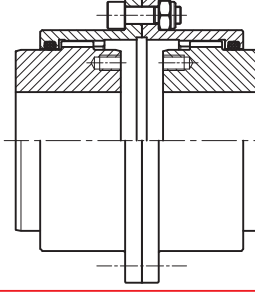
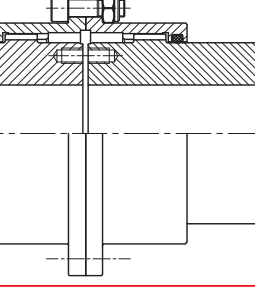
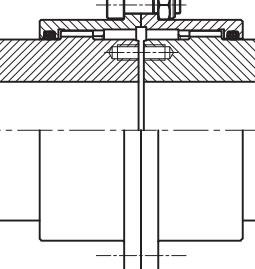
Member of IFA EA per gli schemi di accreditamento SGQ,
SGA, PRG, FSA e IFA, di IFA per gli schemi di
accreditamento SSI, SCA, SSI, FSA e PRG
e di IFA IAC per gli schemi di accreditamento IAC

La validità del presente certificato è subordinata a sorveglianza periodica (ogni 6, 9 o 12 mesi) e al riesame completo del sistema con periodicità triennale

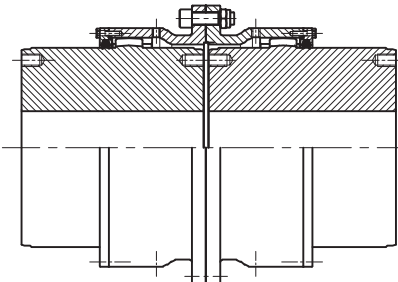
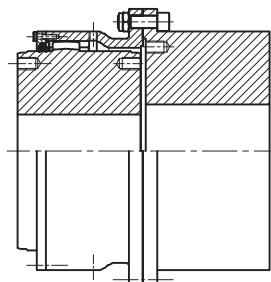
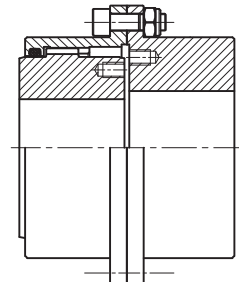
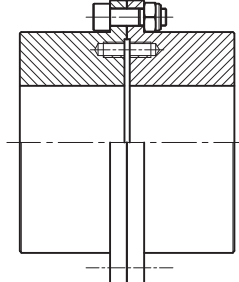
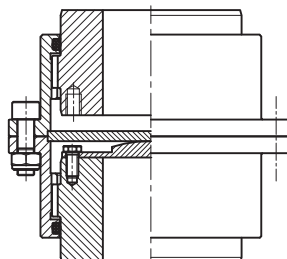
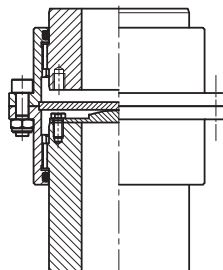
The validity of this certificate is subject to periodical audits (every 6, 9 or 12 months) and the complete re-assessment of the system every three years

Le aziende in possesso di un certificato valido sono presenti nelle banche dati sul sito www.dnv.it e sul sito www.accredia.it - All the companies with a valid certificate are online at the following addresses: www.dnv.it and www.accredia.it

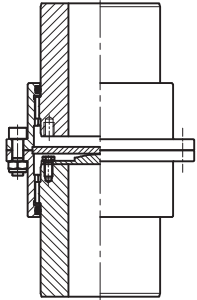
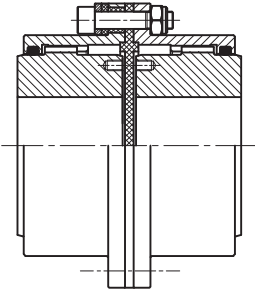
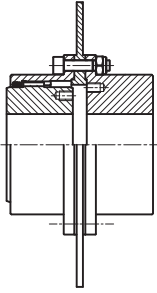
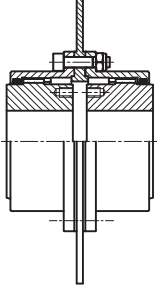
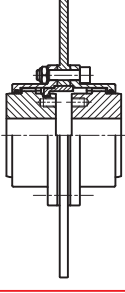
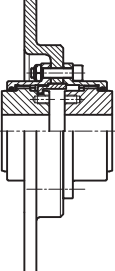
Production range STANDARD

12	<p>Z series Standard version with two oscillating hubs</p>	
13	<p>ZHP series Quenched and tempered steel construction</p>	
14	<p>ZA series Two oscillating hubs and open bells</p>	
15	<p>ZAHP series Quenched and tempered steel construction</p>	
16	<p>Z1MR series Two oscillating hubs, one overturned</p>	
17	<p>Z2MR series Two oscillating hubs, both overturned</p>	
18	<p>ZP series Two oscillating hubs, one extended</p>	
19	<p>Z2P series Two oscillating hubs, both extended</p>	

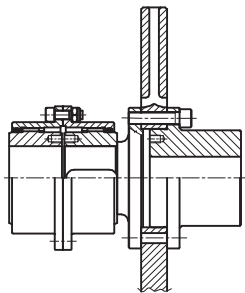
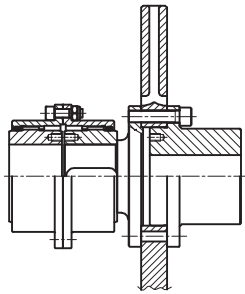
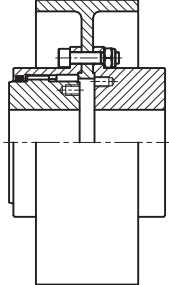
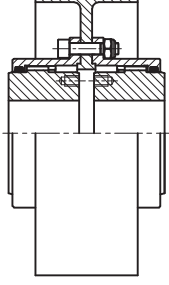
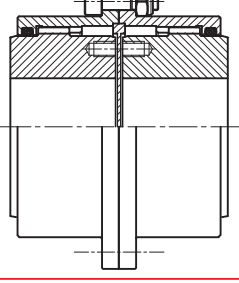
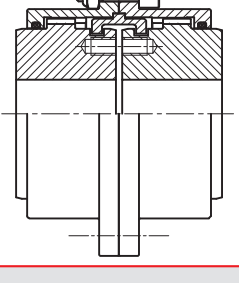
Production range STANDARD

20	<p>ZA2P series Two oscillating hubs, both extended and open bells</p>	
21	<p>ZAR series One oscillating and one rigid hub, with open bell</p>	
22	<p>ZR series One oscillating and one rigid hub</p>	
23	<p>R series Two rigid hubs</p>	
24	<p>ZV series Two oscillating hubs for vertical fitting</p>	
25	<p>ZVP series Two oscillating hubs, one extended, for vertical fitting</p>	

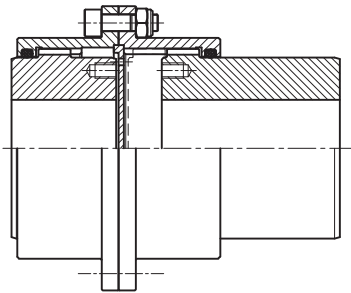
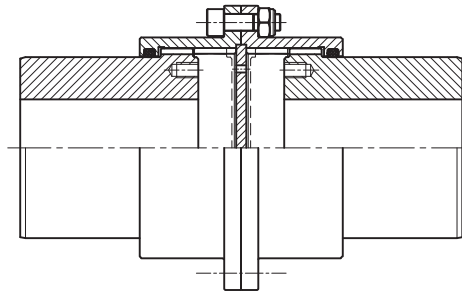
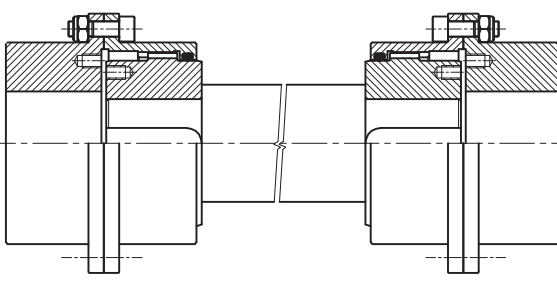
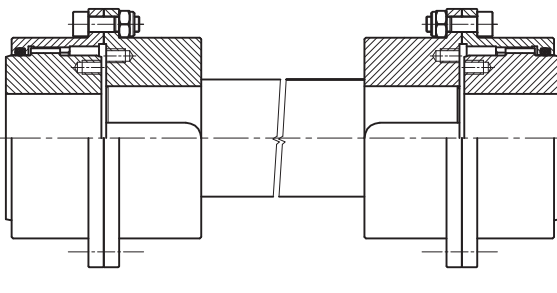
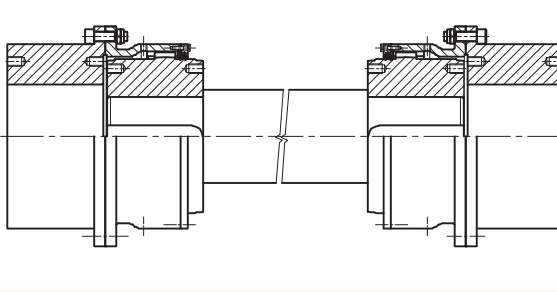
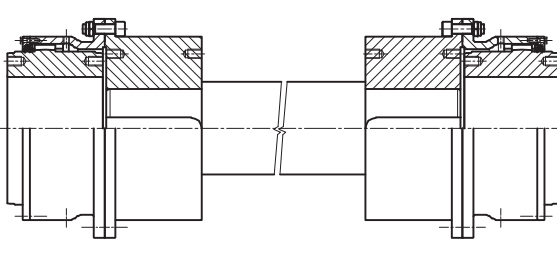
Production range STANDARD

<p>26</p>	<p>ZV2P series Two extended oscillating hubs for vertical fitting</p>	
<p>27</p>	<p>ZIE series Two oscillating hubs and electric insulation</p>	
<p>28</p>	<p>ZRDF series One oscillating and one rigid hub with steel brake disc</p>	
<p>29</p>	<p>ZDF series Two oscillating hubs and steel brake disc</p>	
<p>30</p>	<p>ZDFGAR series Two oscillating hubs, steel brake disc and reduced backlash</p>	
<p>31</p>	<p>ZDFTWGAR series Two oscillating hubs, cast iron brake disc (Twiflex) and reduced backlash</p>	

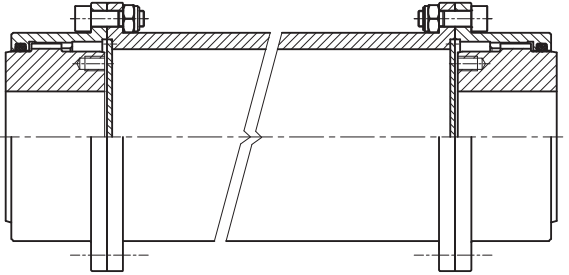
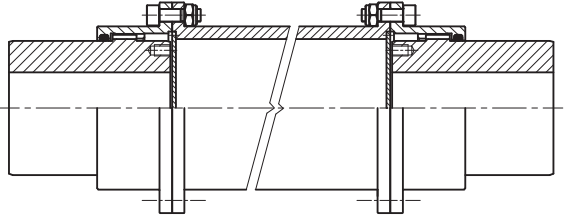
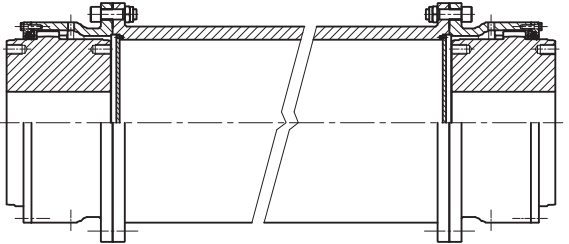
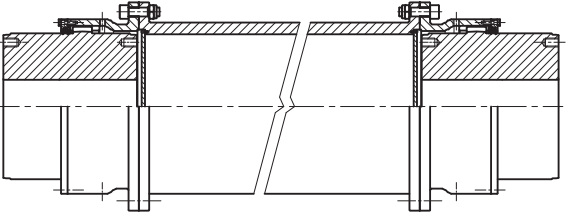
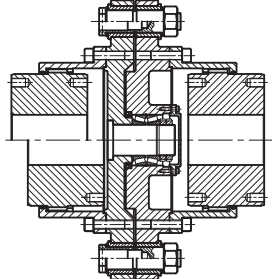
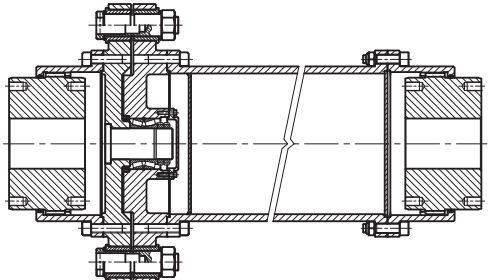
Production range STANDARD

32	<p>ZADF30 series Two oscillating hubs and brake disc shaft, thickness 30</p>	
33	<p>ZADF42 series Two oscillating hubs and brake disc shaft, thickness 42 mm</p>	
34	<p>ZRFF series One oscillating and one rigid hub with brake band</p>	
35	<p>ZFF series Two oscillating hubs and brake band</p>	
36	<p>ZGAR series Two oscillating hubs and intermediate disc for reduced backlash</p>	
37	<p>Z2GAR series Two oscillating hubs and double reduced backlash</p>	

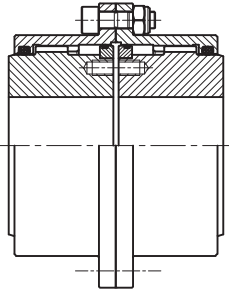
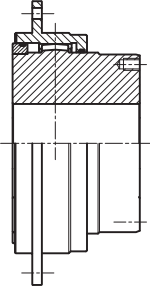
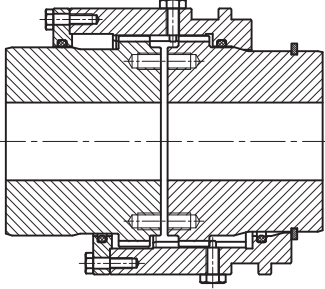
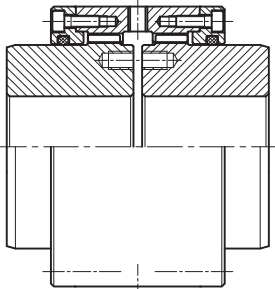
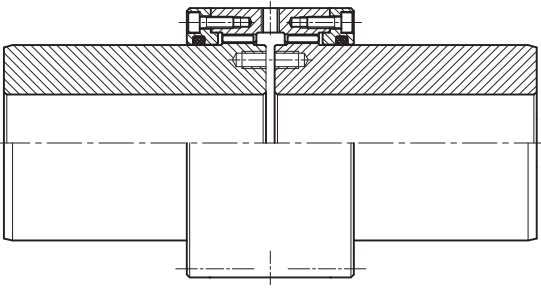
Production range STANDARD

38	<p>ZSA series Two oscillating hubs for axial sliding</p>	
39	<p>Z2SA series Two oscillating hubs for double axial sliding</p>	
40	<p>ZIAF series Two internal oscillating hubs and floating shaft</p>	
41	<p>ZEAF series Two external oscillating hubs and floating shaft</p>	
41	<p>ZIAF series Two internal oscillating hubs, open bells and floating shaft</p>	
41	<p>ZAEAF series Two external oscillating hubs, open bells and floating shaft</p>	

Production range STANDARD

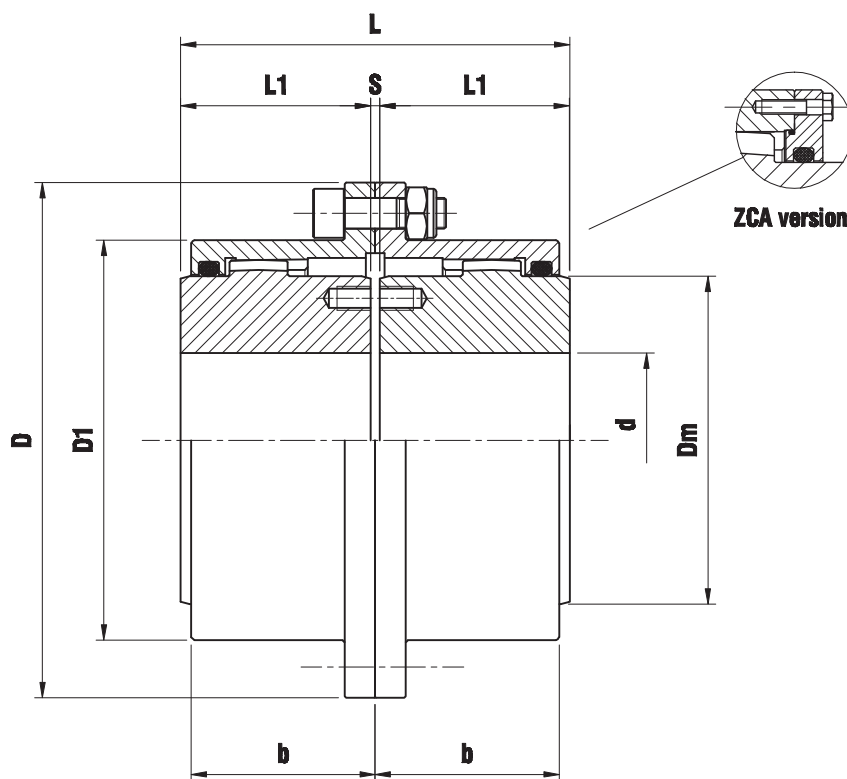
42	<p>ZAT series Two oscillating hubs and spacer</p>	
	<p>ZAT2P series Two extended oscillating hubs and spacer</p>	
43	<p>ZAAT series Two oscillating hubs, open bells and spacer</p>	
	<p>ZAAT2P series Two extended oscillating hubs, open bells and spacer</p>	
44-45	<p>ZSR series Shear pins coupling</p>	
46-47	<p>ZATSR series Shear pins coupling with a spacer</p>	

Production range STANDARD

48 - 49	ZPR series Shear bolts coupling	
50 - 51	ZTS series Barrel coupling	
52 - 53	ZDIS series Disengageable coupling	
54	ZM series One sleeve and two standard oscillating hubs	
55	ZM2P series One sleeve and two extended oscillating hubs	
56 - 57	Components	
58	Fitting instructions	
59	Spare parts table	
60	Maintenance and lubrication	
61	Safety regulation	

Z series

Standard version with two oscillating hubs

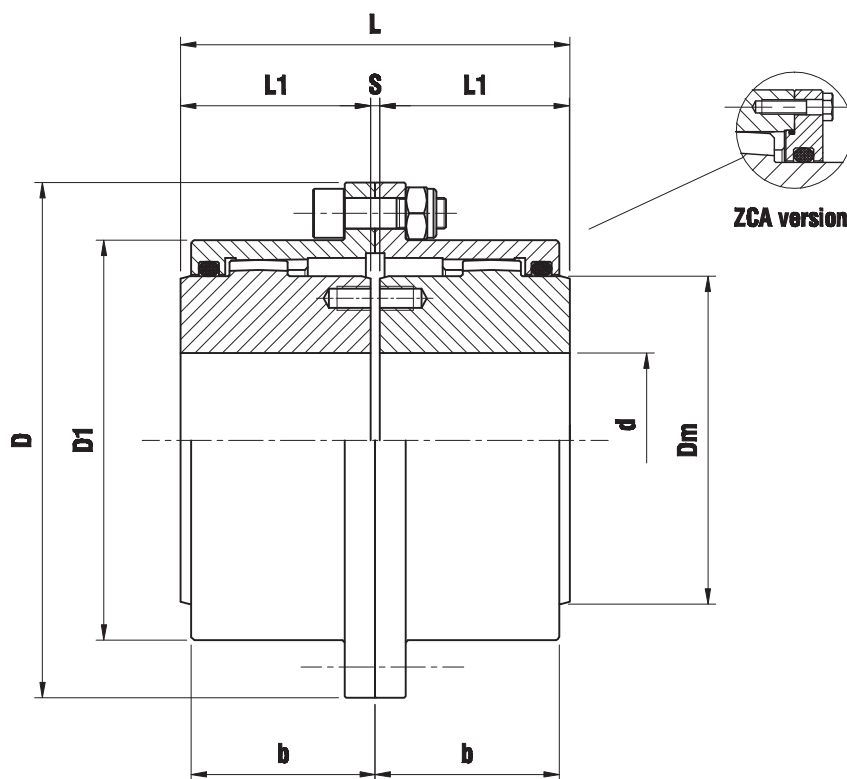


TYPE	TECHNICAL DATA				DIMENSIONS (mm)									Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L	L1	s	b		
Z - 110	0,19	1,82	4	6200	0,016	50	110	83	69	89	43	3	40	0,15	4,1
Z - 142	0,30	2,85	6,27	5270	0,048	60	142	105	85	103	50	3	46	0,20	7,4
Z - 168	0,59	5,6	12,32	4490	0,136	75	168	131	107	127	62	3	60	0,25	13,7
Z - 200	0,93	8,8	19,36	4010	0,352	95	200	159	133	157	76	5	69	0,30	25
Z - 225	1,50	14,3	31,46	3870	0,672	110	225	184	152	185	90	5	83	0,40	37
Z - 265	2,41	23	50,6	3700	1,564	130	265	212	178	216	105	6	94	0,45	60
Z - 300	3,67	35	77	3200	3,020	150	300	246	209	246	120	6	107	0,50	91
Z - 330	4,64	44,3	97,46	2900	5,044	170	330	275	234	278	135	8	119	0,55	125
Z - 370	7,33	70	154	2580	8,728	190	370	307	254	308	150	8	139	0,60	172
Z - 405	8,80	84	184,8	2350	13,640	210	405	335	279	358	175	8	154	0,70	232
Z - 440	15,95	152,3	335	2170	21,056	230	440	367	305	388	190	8	166	0,80	302
Z - 500	21,34	203,8	448,3	1820	42,276	280	500	423	355	450	220	10	193	1,00	461

Weights and PD² are calculated considering hubs with pilot bore.
On request we can supply couplings in ZCA version without bells.

ZHP series

Quenched and tempered steel construction

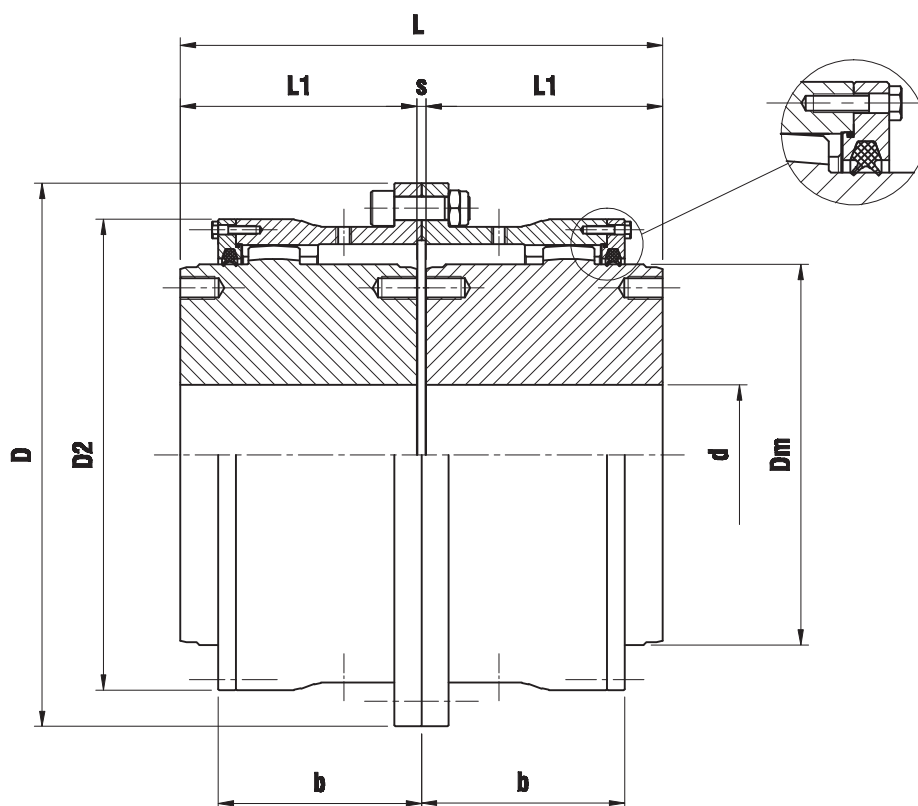


TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L	L1	s	b		
Z - 110	0,38	3,6	7,2	10200	0,016	50	110	83	69	89	43	3	40	0,15	4,1
Z - 142	0,60	5,7	11,4	8720	0,048	60	142	105	85	103	50	3	46	0,20	7,4
Z - 168	1,17	11,2	22,4	7480	0,136	75	168	131	107	127	62	3	60	0,25	13,7
Z - 200	1,90	18,2	36,4	6900	0,352	95	200	159	133	157	76	5	69	0,30	25
Z - 225	2,87	27,4	54,8	6100	0,672	110	225	184	152	185	90	5	83	0,40	37
Z - 265	4,42	42,2	84,4	4700	1,564	130	265	212	178	216	105	6	94	0,45	60
Z - 300	7,79	74,4	148,8	4080	3,020	150	300	246	209	246	120	6	107	0,50	91
Z - 330	9,21	88	176	3420	5,044	170	330	275	234	278	135	8	119	0,55	125
Z - 370	13,19	126	252	3060	8,728	190	370	307	254	308	150	8	139	0,60	172
Z - 405	16,75	160	320	2700	13,640	210	405	335	279	358	175	8	154	0,70	232
Z - 440	27,28	260,5	521	2440	21,056	230	440	367	305	388	190	8	166	0,80	302
Z - 500	33,57	320,6	641,2	2180	42,276	280	500	423	355	450	220	10	193	1,00	461

Weights and PD² are calculated considering hubs with pilot bore.
 On request we can supply couplings in ZCA version without bells.

ZA series

Two oscillating hubs and open bells

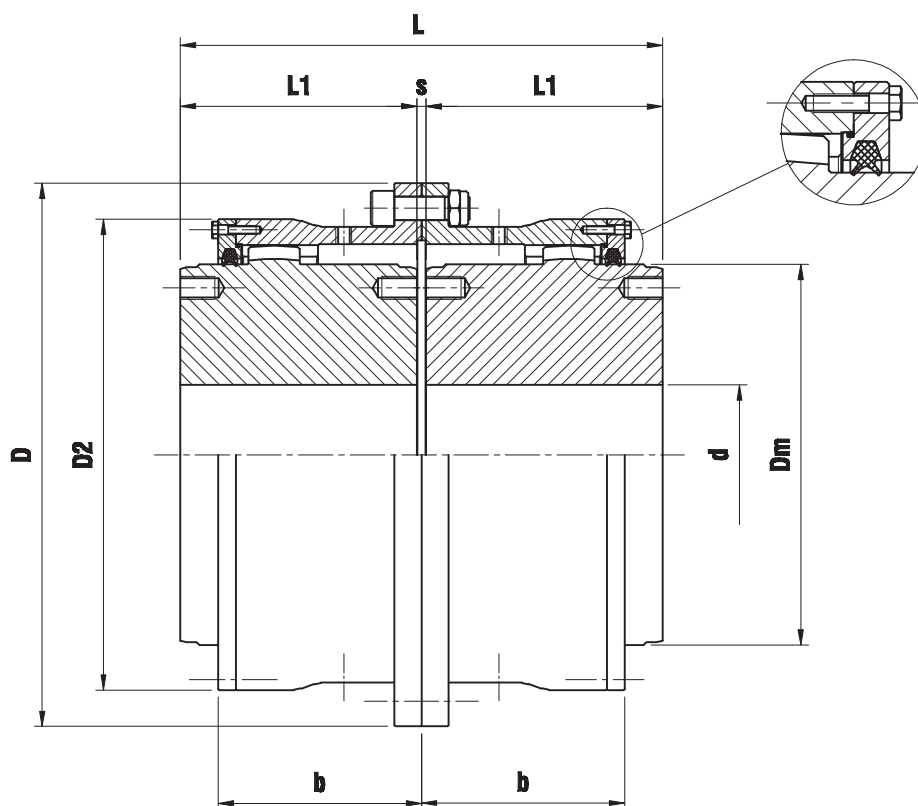


TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D2	Dm	L	L1	b	S	
		Nominal	Peak											
ZA - 580	28,60	273	546	1150	86,36	325	580	506	400	512	250	221	12	703
ZA - 630	39,80	380	760	1000	139,42	370	630	556	450	562	275	245	12	945
ZA - 700	51,30	490	980	910	217	400	700	606	490	622	305	262	12	1236
ZA - 760	68,60	655	1310	830	341	430	760	666	550	672	330	280	12	1620
ZA - 825	86,90	830	1660	700	513,21	475	825	730	610	722	355	292	12	2063
ZA - 885	102,40	978	1956	650	725,36	510	885	770	650	780	380	315	20	2541
ZA - 935	123,50	1180	2360	620	967,42	530	935	820	680	840	410	327	20	3039
ZA - 1010	160,80	1536	3072	560	1421,5	580	1010	900	750	880	430	346	20	3790
ZA - 1085	187,70	1793	3586	530	1930,8	610	1085	950	790	950	460	385	30	4550
ZA - 1185	259,70	2480	4960	480	3108	680	1185	1050	870	1050	510	414	30	6080
ZA - 1340	365,20	3488	6976	420	5778,4	780	1340	1190	1000	1150	560	460	30	8720
ZA - 1440	459,40	4387	8774	390	8774	860	1440	1290	1100	1260	610	507	40	11265
ZA - 1575	612,50	5850	11170	315	14083	950	1575	1430	1220	1360	660	568	40	14865
ZA - 1705	742,80	7094	14188	290	19960	1020	1705	1530	1310	1460	710	602	40	18350
ZA - 1805	879,60	8400	16800	270	27297	1090	1805	1630	1400	1560	760	635	40	22210
ZA - 1935	1069,70	10474	20948	250	39536	1180	1935	1760	1520	1660	810	680	40	27640

Weights and PD² are calculated considering hubs without bore.

ZAHP series

Quenched and tempered steel construction

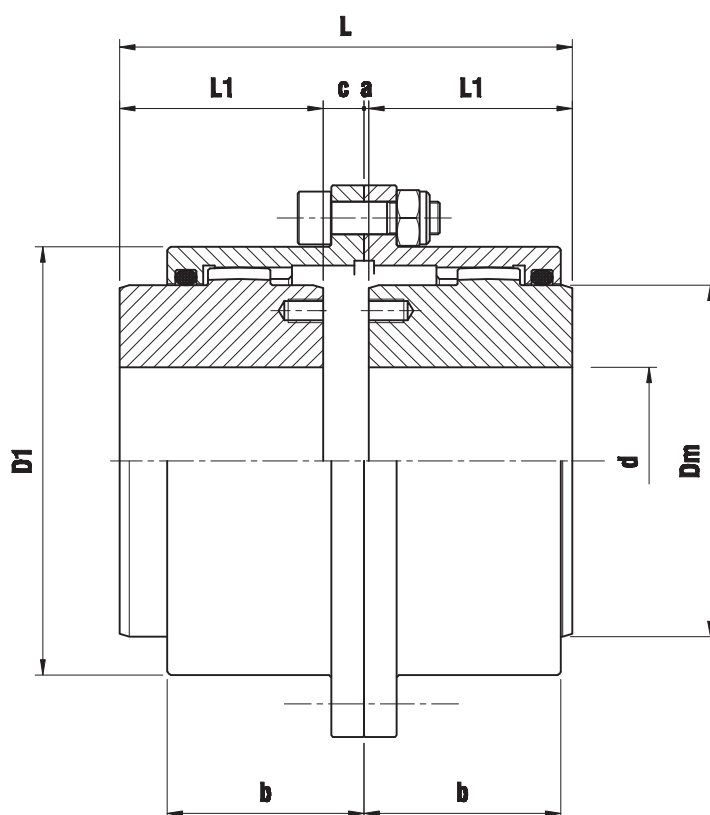


TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D2	Dm	L	L1	b	S	
		Nominal	Peak											
ZA - 580	42,93	410	820	1950	86,36	325	580	506	400	512	250	221	12	703
ZA - 630	59,68	570	1140	1710	139,42	370	630	556	450	562	275	245	12	945
ZA - 700	77,48	740	1480	1550	217	400	700	606	490	622	305	262	12	1236
ZA - 760	102,82	982	1964	1410	341	430	760	666	550	672	330	280	12	1620
ZA - 825	129,84	1240	2480	1200	513,21	475	825	730	610	722	355	292	12	2063
ZA - 885	152,87	1460	2920	1110	725,36	510	885	770	650	780	380	315	20	2541
ZA - 935	186,38	1780	3560	1060	967,42	530	935	820	680	840	410	327	20	3039
ZA - 1010	240,83	2300	4600	960	1421,5	580	1010	900	750	880	430	346	20	3790
ZA - 1085	280,62	2680	5360	900	1930,8	610	1085	950	790	950	460	385	30	4550
ZA - 1185	392,67	3750	7500	820	3108	680	1185	1050	870	1050	510	414	30	6080
ZA - 1340	548,69	5240	10480	710	5778,4	780	1340	1190	1000	1150	560	460	30	8720
ZA - 1440	686,91	6560	13120	670	8774	860	1440	1290	1100	1260	610	507	40	11265
ZA - 1575	918,32	8770	17740	540	14083	950	1575	1430	1220	1360	660	568	40	14865
ZA - 1705	1109,94	10600	21200	500	19960	1020	1705	1530	1310	1460	710	602	40	18350
ZA - 1805	1319,37	12600	25200	460	27297	1090	1805	1630	1400	1560	760	635	40	22210
ZA - 1935	1643,97	15700	31400	430	39536	1180	1935	1760	1520	1660	810	680	40	27640

Weights and PD² are calculated considering hubs without bore.

Z1MR series

Two oscillating hubs, one overturned



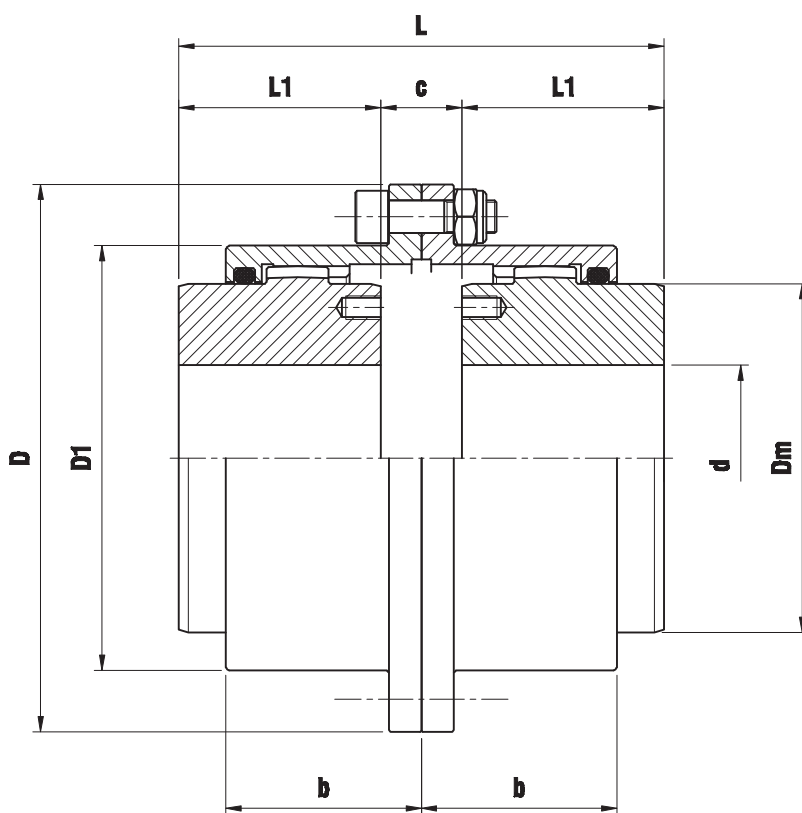
TYPE	TECHNICAL DATA					DIMENSIONS (mm)									Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L	L1	c	a	b		
Z1MR - 110	0,19	1,82	4	6200	0,016	50	110	83	69	91	43	3,5	1,5	40	0,15	4,1
Z1MR - 142	0,30	2,85	6,27	5270	0,048	60	142	105	85	108	50	6,5	1,5	46	0,20	7,4
Z1MR - 168	0,59	5,6	12,32	4490	0,136	75	168	131	107	138	62	12,5	1,5	60	0,25	13,7
Z1MR - 200	0,93	8,8	19,36	4010	0,352	95	200	159	133	164	76	9,5	2,5	69	0,30	25
Z1MR - 225	1,50	14,3	31,46	3870	0,672	110	225	184	152	204	90	21,5	2,5	83	0,40	37
Z1MR - 265	2,41	23	50,6	3700	1,564	130	265	212	178	237	105	24	3	94	0,45	60
Z1MR - 300	3,67	35	77	3200	3,020	150	300	246	209	272	120	29	3	107	0,50	91
Z1MR - 330	4,64	44,3	97,46	2900	5,044	170	330	275	234	307	135	33	4	119	0,55	125
Z1MR - 370	7,33	70	154	2580	8,728	190	370	307	254	350	150	46	4	139	0,60	172
Z1MR - 405	8,80	84	184,8	2350	13,640	210	405	335	279	403	175	49	4	154	0,70	232
Z1MR - 440	15,95	152,3	335	2170	21,056	230	440	367	305	438	190	54	4	166	0,80	302
Z1MR - 500	21,34	203,8	448,3	1820	42,276	280	500	423	355	512	220	67	5	193	1,00	461

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

Z2MR series

Two oscillating hubs, both overturned



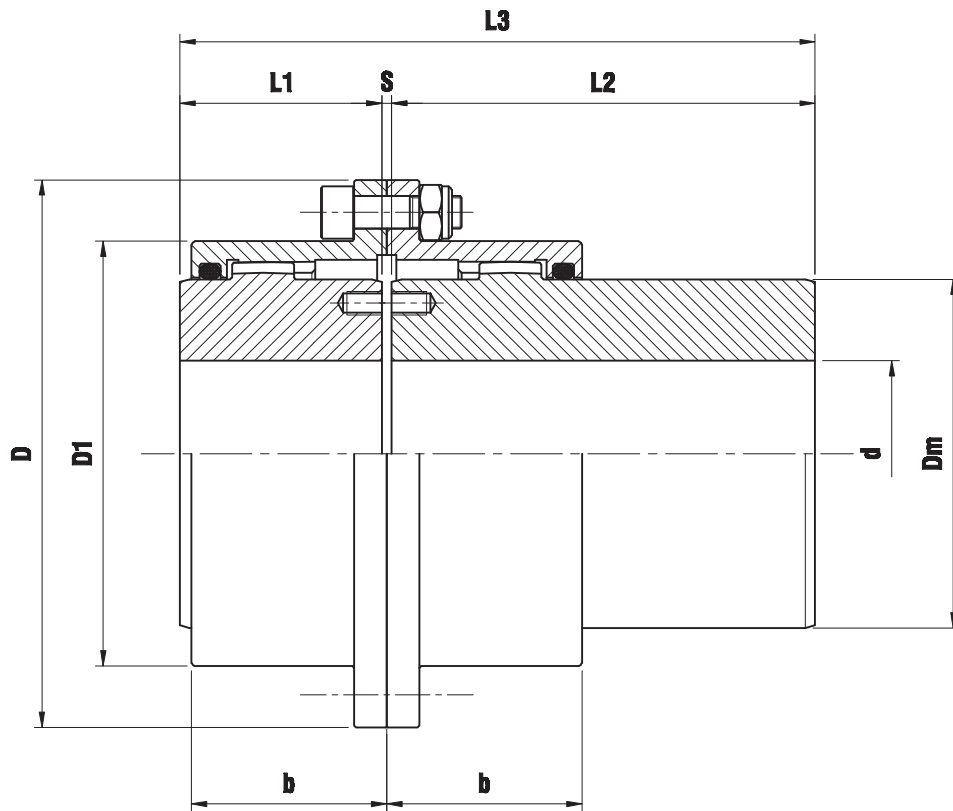
TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L	L1	c	b		
Z1MR - 110	0,19	1,82	4	6200	0,016	50	110	83	69	93	43	7	40	0,15	4,1
Z1MR - 142	0,30	2,85	6,27	5270	0,048	60	142	105	85	113	50	13	46	0,20	7,4
Z1MR - 168	0,59	5,6	12,32	4490	0,136	75	168	131	107	149	62	25	60	0,25	13,7
Z1MR - 200	0,93	8,8	19,36	4010	0,352	95	200	159	133	171	76	19	69	0,30	25
Z1MR - 225	1,50	14,3	31,46	3870	0,672	110	225	184	152	223	90	43	83	0,40	37
Z1MR - 265	2,41	23	50,6	3700	1,564	130	265	212	178	258	105	48	94	0,45	60
Z1MR - 300	3,67	35	77	3200	3,020	150	300	246	209	298	120	58	107	0,50	91
Z1MR - 330	4,64	44,3	97,46	2900	5,044	170	330	275	234	336	135	66	119	0,55	125
Z1MR - 370	7,33	70	154	2580	8,728	190	370	307	254	392	150	92	139	0,60	172
Z1MR - 405	8,80	84	184,8	2350	13,640	210	405	335	279	448	175	98	154	0,70	232
Z1MR - 440	15,95	152,3	335	2170	21,056	230	440	367	305	488	190	108	166	0,80	302
Z1MR - 500	21,34	203,8	448,3	1820	42,276	280	500	423	355	574	220	134	193	1,00	461

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZP series

Two oscillating hubs, one extended



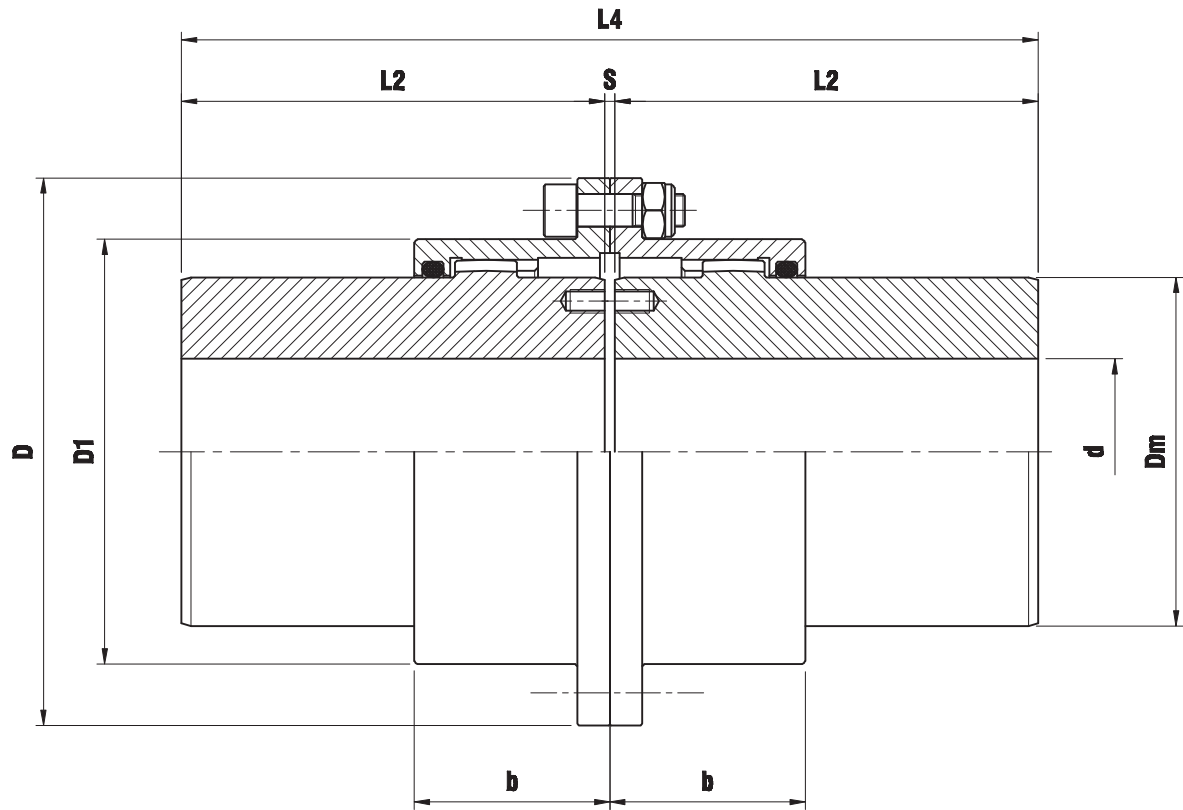
TYPE	TECHNICAL DATA					DIMENSIONS (mm)										Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L3	L1	L2	s	b			
ZP - 110	0,19	1,82	4	6200	0,024	50	110	83	69	151	43	105	3	40	0,15	7,2	
ZP - 142	0,30	2,85	6,27	5270	0,064	60	142	105	85	168	50	115	3	46	0,20	10,3	
ZP - 168	0,59	5,6	12,32	4490	0,164	75	168	131	107	195	62	130	3	60	0,25	18,5	
ZP - 200	0,93	8,8	19,36	4010	0,420	95	200	159	133	231	76	150	5	69	0,30	32,4	
ZP - 225	1,50	14,3	31,46	3870	0,804	110	225	184	152	265	90	170	5	83	0,40	48,3	
ZP - 265	2,41	23	50,6	3700	1,808	130	265	212	178	296	105	185	6	94	0,45	76	
ZP - 300	3,67	35	77	3200	3,572	150	300	246	209	341	120	215	6	107	0,50	116	
ZP - 330	4,64	44,3	97,46	2900	6,044	170	330	275	234	388	135	245	8	119	0,55	161	
ZP - 370	7,33	70	154	2580	10,584	190	370	307	254	453	150	295	8	139	0,60	229	
ZP - 405	8,80	84	184,8	2350	16,088	210	405	335	279	483	175	300	8	154	0,70	291	
ZP - 440	15,95	152,3	335	2170	24,048	230	440	367	305	503	190	305	8	166	0,80	337	
ZP - 500	21,34	203,8	448,3	1820	46,604	280	500	423	355	540	220	310	10	193	1,00	530	

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

Z2P series

Two oscillating hubs, both extended



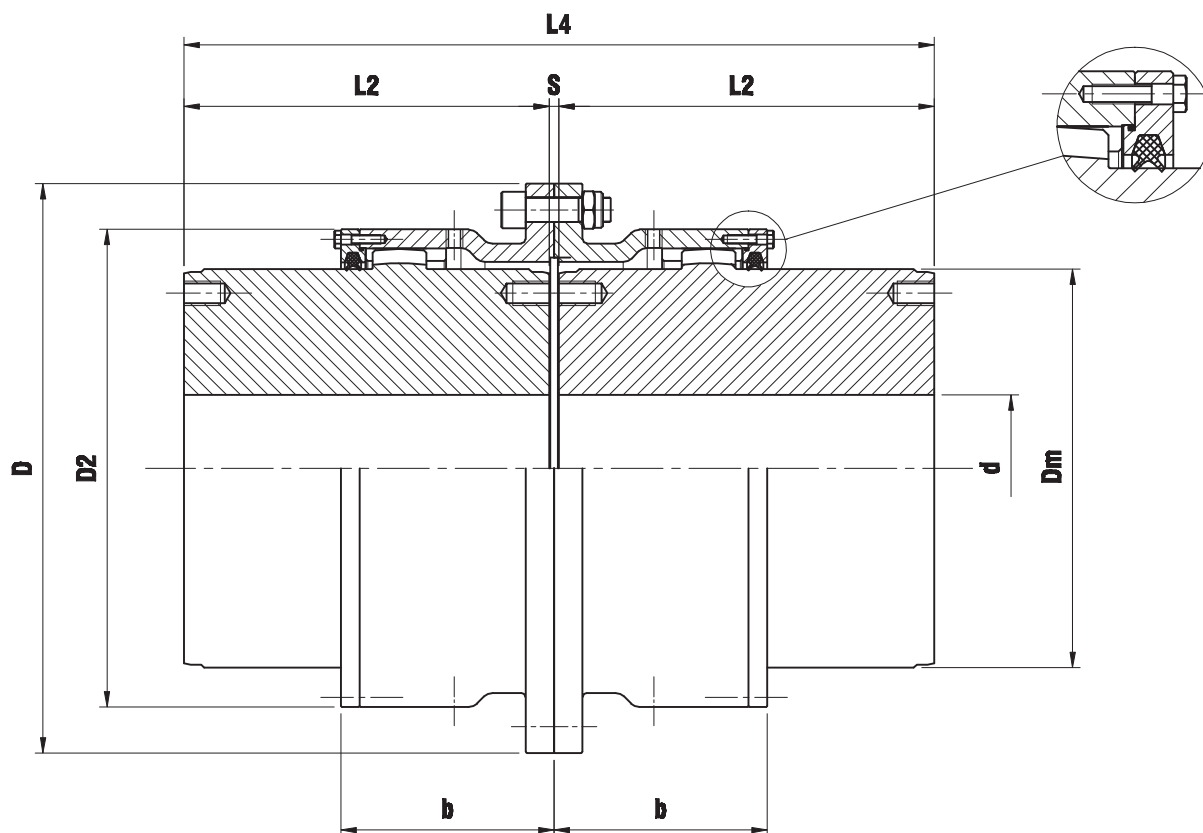
TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L4	L2	s	b		
Z2P - 110	0,19	1,82	4	6200	0,028	50	110	83	69	213	105	3	40	0,15	7,7
Z2P - 142	0,30	2,85	6,27	5270	0,072	60	142	105	85	233	115	3	46	0,20	13,2
Z2P - 168	0,59	5,6	12,32	4490	0,192	75	168	131	107	263	130	3	60	0,25	23,3
Z2P - 200	0,93	8,80	19,36	4010	0,492	95	200	159	133	305	150	5	69	0,30	40,4
Z2P - 225	1,50	14,3	31,46	3870	0,936	110	225	184	152	345	170	5	83	0,40	60
Z2P - 265	2,41	23	50,6	3700	2,056	130	265	212	178	376	185	6	94	0,45	91
Z2P - 300	3,67	35	77	3200	4,128	150	300	246	209	436	215	6	107	0,50	141
Z2P - 330	4,64	44,3	97,46	2900	7,048	170	330	275	234	498	245	8	119	0,55	199
Z2P - 370	7,33	70	154	2580	12,456	190	370	307	254	598	295	8	139	0,60	285
Z2P - 405	8,80	84	184,8	2350	18,552	210	405	335	279	608	300	8	154	0,70	351
Z2P - 440	15,95	152,3	335	2170	27,092	230	440	367	305	618	305	8	166	0,80	428
Z2P - 500	21,34	203,8	448,3	1820	50,980	280	500	423	355	630	310	10	193	1,00	596

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZA2P series

Two oscillating hubs, both extended and open bells

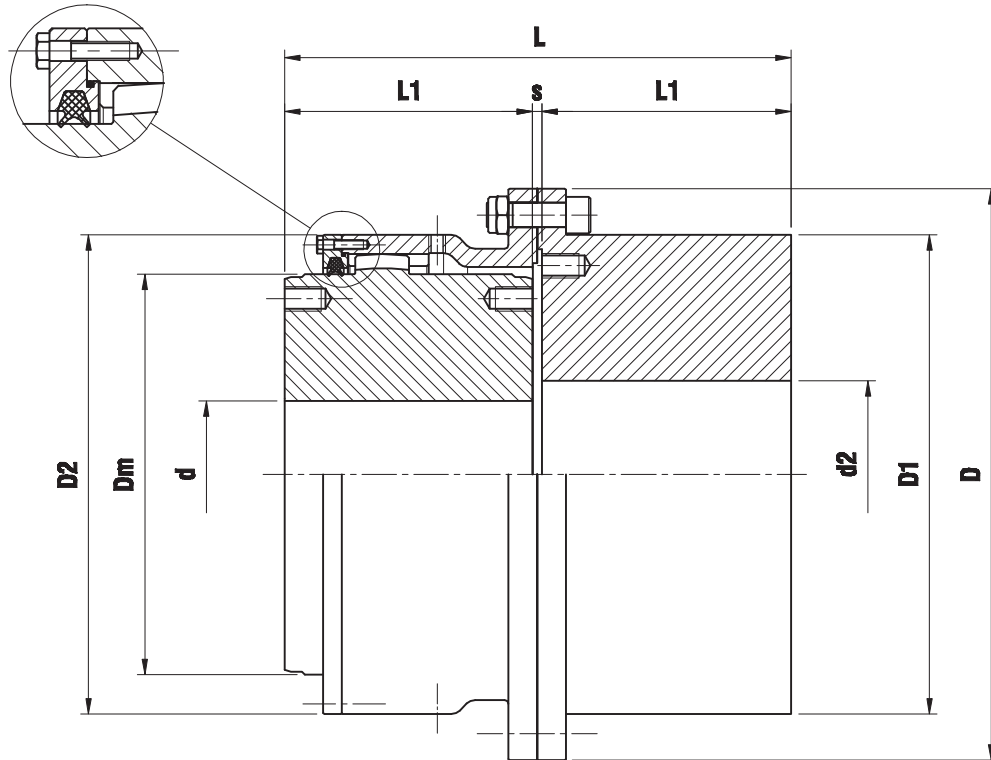


TYPE	TECHNICAL DATA					DIMENSIONS (mm)								WEIGHT (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D2	Dm	L4	L2	b	S	
		Nominal	Peak											
ZA - 580	28,60	273	546	1150	99	325	580	506	400	712	350	221	12	890
ZA - 630	39,80	380	760	1000	161,7	370	630	556	450	772	380	245	12	1200
ZA - 700	51,30	490	980	910	252	400	700	606	490	832	410	262	12	1550
ZA - 760	68,60	655	1310	830	398,6	430	760	666	550	892	440	280	12	2030
ZA - 825	86,90	830	1660	700	618	475	825	730	610	952	470	292	12	2620
ZA - 885	102,40	978	1956	650	856,5	510	885	770	650	1040	510	315	20	3200
ZA - 935	123,50	1180	2360	620	1116	530	935	820	680	1090	535	327	20	3730
ZA - 1010	160,80	1536	3072	560	1694	580	1010	900	750	1160	570	346	20	4760
ZA - 1085	187,70	1793	3586	530	2267	610	1085	950	790	1230	600	385	30	4630
ZA - 1185	259,70	2480	4960	480	3566	680	1185	1050	870	1310	640	414	30	7300
ZA - 1340	365,20	3488	6976	420	6518	780	1340	1190	1000	1390	680	460	30	10200
ZA - 1440	459,40	4387	8774	390	9766	860	1440	1290	1100	1480	720	507	40	12900
ZA - 1575	612,50	5850	11170	315	15583	950	1575	1430	1220	1580	770	568	40	16880
ZA - 1705	742,80	7094	14188	290	21956	1020	1705	1530	1310	1680	820	602	40	20670
ZA - 1805	879,60	8400	16800	270	29904	1090	1805	1630	1400	1780	870	635	40	24870
ZA - 1935	1069,70	10474	20948	250	43154	1180	1935	1760	1520	1880	920	680	40	30770

Weights and PD² are calculated considering hubs without bore.

ZAR series

One oscillating and one rigid hub, with open bell

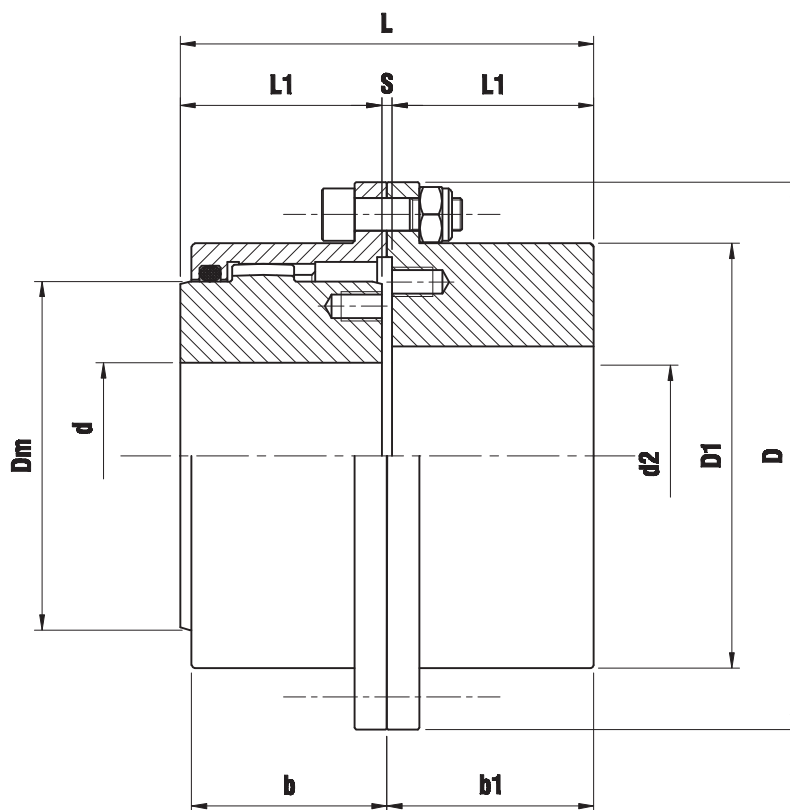


TYPE	TECHNICAL DATA					DIMENSIONS (mm)								WEIGHT (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	d2 max.	D	D1	Dm	L	L1	S	
		Nominal	Peak											
ZA.R - 580	28,60	273	546	1150	92,5	325	370	580	495	400	512	250	12	740
ZA.R - 630	39,80	380	760	1000	149,7	370	405	630	545	450	562	275	12	990
ZA.R - 700	51,30	490	980	910	253,3	400	440	700	590	490	622	305	12	1330
ZA.R - 760	68,60	655	1310	830	369,2	430	485	760	650	550	672	330	12	1720
ZA.R - 825	86,90	830	1660	700	570,9	475	535	825	715	610	722	355	12	2210
ZA.R - 885	102,40	978	1956	650	777,6	510	570	885	755	650	780	380	20	2660
ZA.R - 935	123,50	1180	2360	620	1054,5	530	610	935	805	680	840	410	20	3210
ZA.R - 1010	160,80	1536	3072	560	1568	580	600	110	880	750	880	430	20	4030
ZA.R - 1085	187,70	1793	3586	530	2124	610	700	1085	930	790	950	460	30	4800
ZA.R - 1185	259,70	2480	4960	480	3455	680	780	1185	1030	870	1050	510	30	6500
ZA.R - 1340	365,20	3488	6976	420	6335	780	880	1340	1165	1000	1150	560	30	9240
ZA.R - 1440	459,40	4387	8774	390	9541	860	960	1440	1265	1100	1260	610	40	11860
ZA.R - 1575	612,50	5850	11170	315	15310	950	1060	1575	1400	1220	1360	660	40	15650
ZA.R - 1705	742,80	7094	14188	290	21805	1020	1135	1705	1500	1310	1460	710	40	19350
ZA.R - 1805	879,60	8400	16800	270	29890	1090	1215	1805	1600	1400	1560	760	40	23310
ZA.R - 1935	1069,70	10474	20948	250	49656	1180	1315	1935	1730	1520	1660	810	40	29150

Weights and PD² are calculated considering hubs without bore.

ZR series

One oscillating and one rigid hub



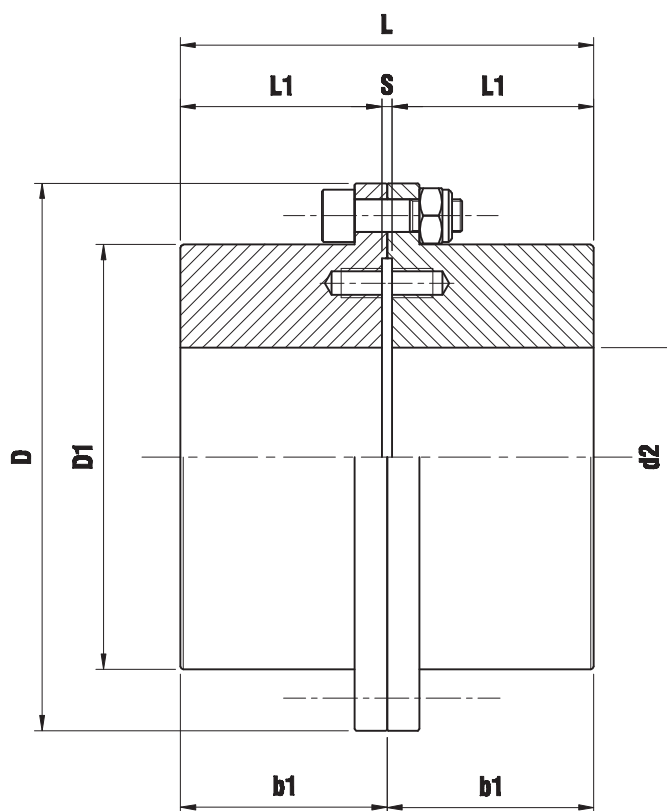
TYPE	TECHNICAL DATA					DIMENSIONS (mm)										Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	d2 max.	D	D1	Dm	L	L1	s	b	b1	
		Nominal	Peak													
ZR - 110	0,19	1,82	4	6200	0,018	50	60	110	83	69	89	43	3	40	44,5	4,2
ZR - 142	0,30	2,85	6,27	5270	0,051	60	75	142	105	85	103	50	3	46	54,5	7,7
ZR - 168	0,59	5,6	12,32	4490	0,140	75	90	168	131	107	127	62	3	60	63,5	14,2
ZR - 200	0,93	8,8	19,36	4010	0,368	95	110	200	159	133	157	76	5	69	78,5	25,3
ZR - 225	1,50	14,3	31,46	3870	0,718	110	130	225	184	152	185	90	5	83	92,5	38,7
ZR - 265	2,41	23	50,6	3700	1,659	130	150	265	212	178	216	105	6	94	108	63
ZR - 300	3,67	35	77	3200	3,200	150	175	300	246	209	246	120	6	107	123	94
ZR - 330	4,64	44,3	97,46	2900	5,372	170	195	330	275	234	278	135	8	119	139	130
ZR - 370	7,33	70	154	2580	9,324	190	220	370	307	254	308	150	8	139	154	180
ZR - 405	8,80	84	184,8	2350	14,908	210	240	405	335	279	358	175	8	154	179	245
ZR - 440	15,95	152,3	335	2170	22,842	230	260	440	367	305	388	190	8	166	194	318
ZR - 500	21,34	203,8	448,3	1820	45,93	280	300	500	423	355	450	220	10	193	225	487

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

R series

Two rigid hubs

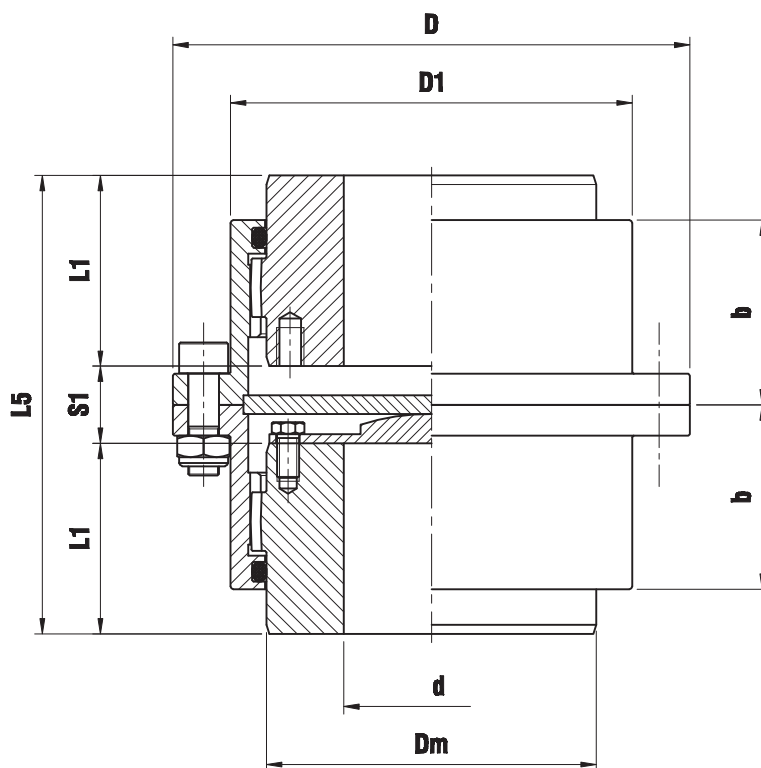


TYPE	TECHNICAL DATA					DIMENSIONS (mm)							Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	L	L1	s	b1	
		Nominal	Peak										
R - 110	0,19	1,82	4	6200	0,019	60	110	83	89	43	3	44,5	4,3
R - 142	0,30	2,85	6,27	5270	0,054	75	142	105	103	50	3	54,5	8
R - 168	0,59	5,6	12,32	4490	0,146	90	168	131	127	62	3	63,5	14,6
R - 200	0,93	8,8	19,36	4010	0,387	110	200	160	157	76	5	78,5	26,3
R - 225	1,50	14,3	31,46	3870	0,764	130	225	184	185	90	5	92,5	40
R - 265	2,41	23	50,6	3700	1,757	150	265	212	216	105	6	108	66
R - 300	3,67	35	77	3200	3,385	175	300	246	246	120	6	123	98
R - 330	4,64	44,3	97,46	2900	5,707	195	330	276	278	135	8	139	136
R - 370	7,33	70	154	2580	9,935	220	370	308	308	150	8	154	188
R - 405	8,80	84	184,8	2350	16,194	240	405	336	358	175	8	179	260
R - 440	15,95	152,3	335	2170	24,678	260	440	368	388	190	8	194	335
R - 500	21,34	203,8	448,3	1820	49,652	300	500	424	450	220	10	225	513

Weights and PD² are calculated considering hubs without bore.

ZV series

Two oscillating hubs for vertical fitting



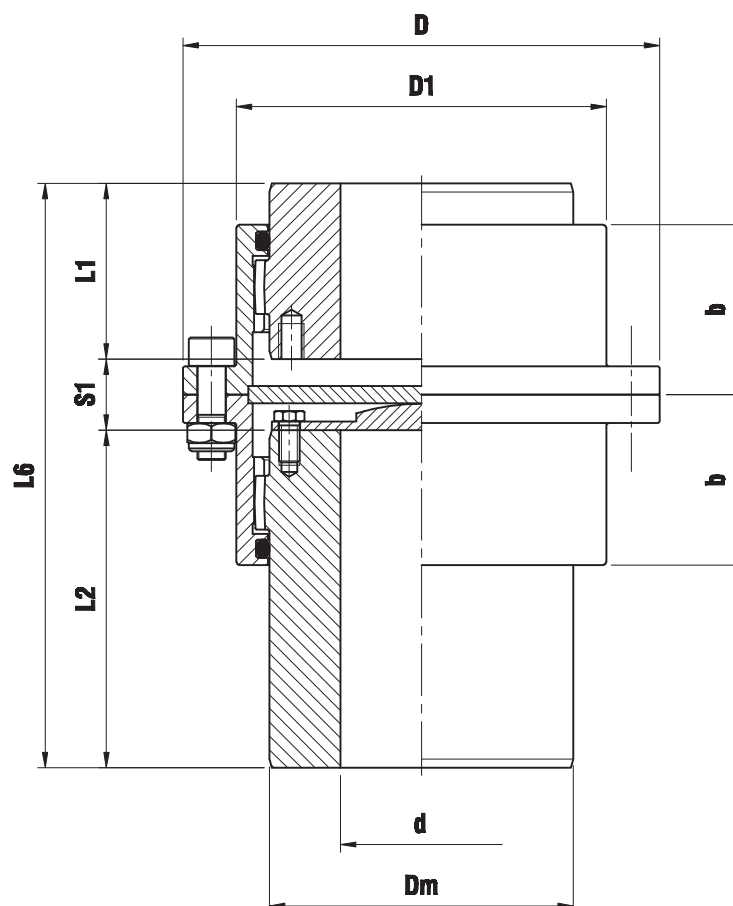
TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L5	L1	s1	b		
		Nominal	Peak												
ZV - 110	0,19	1,82	4	6200	0,020	50	110	83	69	103	43	17	40	0,15	4,4
ZV - 142	0,30	2,85	6,27	5270	0,056	60	142	105	85	123	50	23	46	0,20	7,9
ZV - 168	0,59	5,6	12,32	4490	0,940	75	168	131	107	149	62	25	60	0,25	14,5
ZV - 200	0,93	8,8	19,36	4010	0,364	95	200	159	133	191	76	39	69	0,30	26,2
ZV - 225	1,50	14,3	31,46	3870	0,712	110	225	184	152	223	90	43	83	0,40	40,3
ZV - 265	2,41	23	50,6	3700	1,660	130	265	212	178	258	105	48	94	0,45	66,3
ZV - 300	3,67	35	77	3200	3,196	150	300	246	209	298	120	58	107	0,50	99,4
ZV - 330	4,64	44,3	97,46	2900	5,364	170	330	275	234	336	135	66	119	0,55	137
ZV - 370	7,33	70	154	2580	9,256	190	370	307	254	392	150	92	139	0,60	189
ZV - 405	8,80	84	184,8	2350	14,668	210	405	335	279	448	175	98	154	0,70	255
ZV - 440	15,95	152,3	335	2170	22,136	230	440	367	305	488	190	108	166	0,80	326
ZV - 500	21,34	203,8	448,3	1820	44,852	280	500	423	355	574	220	134	193	1,00	505

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZVP series

Two oscillating hubs, one extended, for vertical fitting



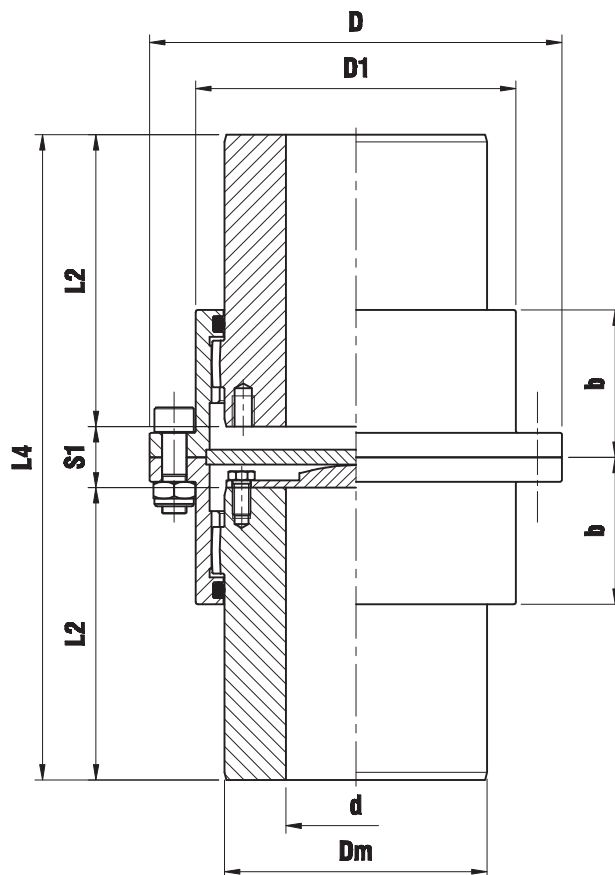
TYPE	TECHNICAL DATA					DIMENSIONS (mm)									Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L6	L1	L2	s1	b		
ZVP - 110	0,19	1,82	4	6200	0,024	50	110	83	69	158	43	98	17	40	0,15	6,0
ZVP - 142	0,30	2,85	6,27	5270	0,064	60	142	105	85	178	50	105	23	46	0,20	10,3
ZVP - 168	0,59	5,6	12,32	4490	0,164	75	168	131	107	206	62	119	25	60	0,25	18,5
ZVP - 200	0,93	8,8	19,36	4010	0,420	95	200	159	133	248	76	133	39	69	0,30	32,3
ZVP - 225	1,50	14,3	31,46	3870	0,812	110	225	184	152	284	90	151	43	83	0,40	49
ZVP - 265	2,41	23	50,6	3700	1,840	130	265	212	178	317	105	164	48	94	0,45	77
ZVP - 300	3,67	35	77	3200	3,596	150	300	246	209	367	120	189	58	107	0,50	118
ZVP - 330	4,64	44,3	97,46	2900	6,104	170	330	275	234	417	135	216	66	119	0,55	164
ZVP - 370	7,33	70	154	2580	10,528	190	370	307	254	495	150	253	92	139	0,60	229
ZVP - 405	8,80	84	184,8	2350	16,152	210	405	335	279	528	175	255	98	154	0,70	293
ZVP - 440	15,95	152,3	335	2170	23,832	230	440	367	305	553	190	255	108	166	0,80	363
ZVP - 500	21,34	203,8	448,3	1820	46,216	280	500	423	355	602	220	248	134	193	1,00	527

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZV2P series

Two extended oscillating hubs for vertical fitting



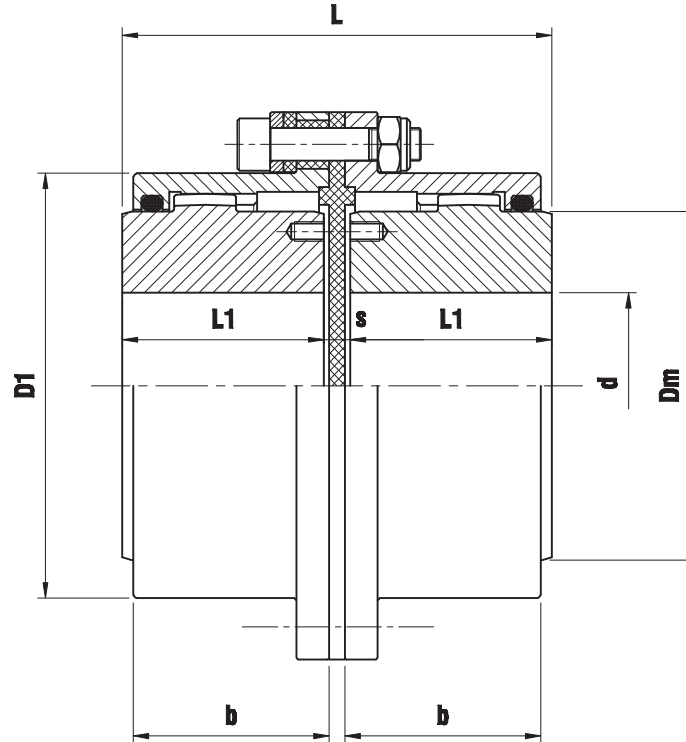
TYPE	TECHNICAL DATA					DIMENSIONS (mm)								Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L4	L2	s1	b		
ZV2P - 110	0,19	1,82	4	6200	0,028	50	110	83	69	213	98	17	40	0,15	7,6
ZV2P - 142	0,30	2,85	6,27	5270	0,072	60	142	105	85	233	105	23	46	0,20	12,8
ZV2P - 168	0,59	5,6	12,32	4490	0,188	75	168	131	107	263	119	25	60	0,25	22,5
ZV2P - 200	0,93	8,8	19,36	4010	0,472	95	200	159	133	305	133	39	69	0,30	39,3
ZV2P - 225	1,50	14,3	31,46	3870	0,912	110	225	184	152	345	151	43	83	0,40	57
ZV2P - 265	2,41	23	50,6	3700	2,024	130	265	212	178	376	164	48	94	0,45	89
ZV2P - 300	3,67	35	77	3200	4,00	150	300	246	209	436	189	58	107	0,50	136
ZV2P - 330	4,64	44,3	97,46	2900	6,852	170	330	275	234	498	216	66	119	0,55	191
ZV2P - 370	7,33	70	154	2580	11,808	190	370	307	254	598	253	92	139	0,60	269
ZV2P - 405	8,80	84	184,8	2350	17,640	210	405	335	279	608	255	98	154	0,70	332
ZV2P - 440	15,95	152,3	335	2170	25,556	230	440	367	305	618	255	108	166	0,80	400
ZV2P - 500	21,34	203,8	448,3	1820	47,576	280	500	423	355	630	248	134	193	1,00	548

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZIE series

Two oscillating hubs and electric insulation



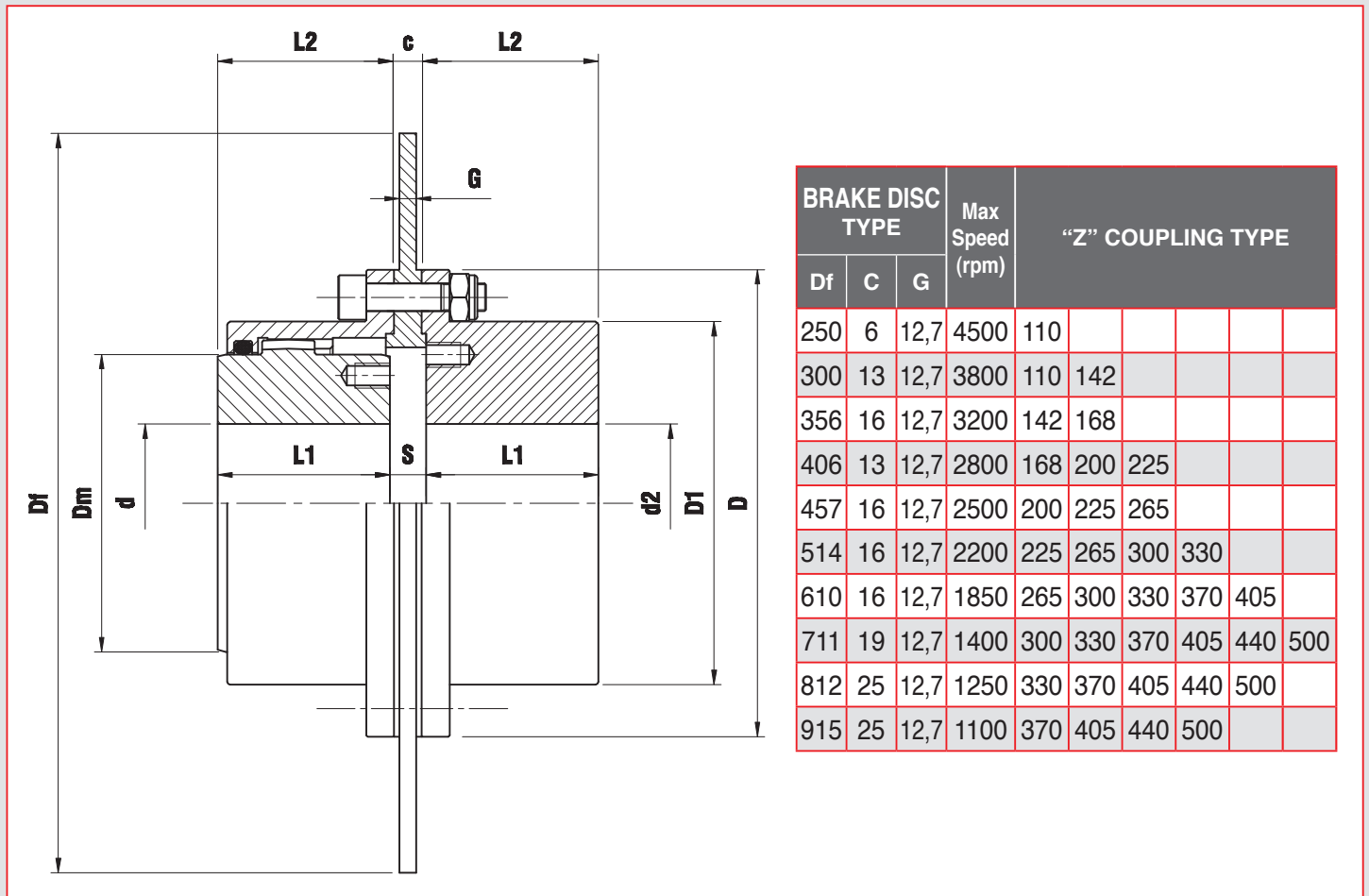
TYPE	TECHNICAL DATA				DIMENSIONS (mm)										Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	D1	Dm	L	L1	s	b			
ZIE - 110	0,19	1,82	4	6200	0,020	50	110	83	69	93	43	7	40	0,15	4,3	
ZIE - 142	0,30	2,85	6,27	5270	0,056	60	142	105	85	108	50	8	46	0,20	7,8	
ZIE - 168	0,59	5,6	12,32	4490	0,148	75	168	131	107	132	62	8	60	0,25	14,3	
ZIE - 200	0,93	8,8	19,36	4010	0,372	95	200	159	133	162	76	10	69	0,30	25,2	
ZIE - 225	1,50	14,3	31,46	3870	0,704	110	225	184	152	190	90	10	83	0,40	38	
ZIE - 265	2,41	23	50,6	3700	1,612	130	265	212	178	221	105	11	94	0,45	61	
ZIE - 300	3,67	35	77	3200	3,720	150	300	246	209	251	120	11	107	0,50	102	
ZIE - 330	4,64	44,3	97,46	2900	5,160	170	330	275	234	283	135	13	119	0,55	126	
ZIE - 370	7,33	70	154	2580	8,896	190	370	307	254	313	150	13	139	0,60	174	
ZIE - 405	8,80	84	184,8	2350	14,188	210	405	335	279	364	175	14	154	0,70	237	
ZIE - 440	15,95	152,3	335	2170	21,492	230	440	367	305	394	190	14	166	0,80	304	
ZIE - 500	21,34	203,8	448,3	1820	43,08	280	500	423	355	458	220	18	193	1,00	466	

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZRDF series

One oscillating and one rigid hub with steel brake disc



TYPE	TECHNICAL DATA			DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		d max.	d2 max.	D	D1	Dm	L1	L2	S
		Nominal	Peak								
ZRDF - 110	0,19	1,82	4	50	60	110	83	69	43	44,5	3 + C
ZRDF - 142	0,30	2,85	6,27	60	75	142	105	85	50	51,5	3 + C
ZRDF - 168	0,59	5,6	12,32	75	90	168	131	107	62	63,5	3 + C
ZRDF - 200	0,93	8,8	19,36	95	110	200	159	133	76	78,5	5 + C
ZRDF - 225	1,50	14,3	31,46	110	130	225	184	152	90	92,5	5 + C
ZRDF - 265	2,41	23	50,6	130	150	265	212	178	105	108	6 + C
ZRDF - 300	3,67	35	77	150	175	300	246	209	120	123	6 + C
ZRDF - 330	4,64	44,3	97,46	170	195	330	275	234	135	139	8 + C
ZRDF - 370	7,33	70	154	190	220	370	307	254	150	154	8 + C
ZRDF - 405	8,80	84	184,8	210	240	405	335	279	175	179	8 + C
ZRDF - 440	15,95	152,3	335	230	260	440	367	305	190	194	8 + C
ZRDF - 500	21,34	203,8	448,3	280	300	500	423	355	220	225	10 + C

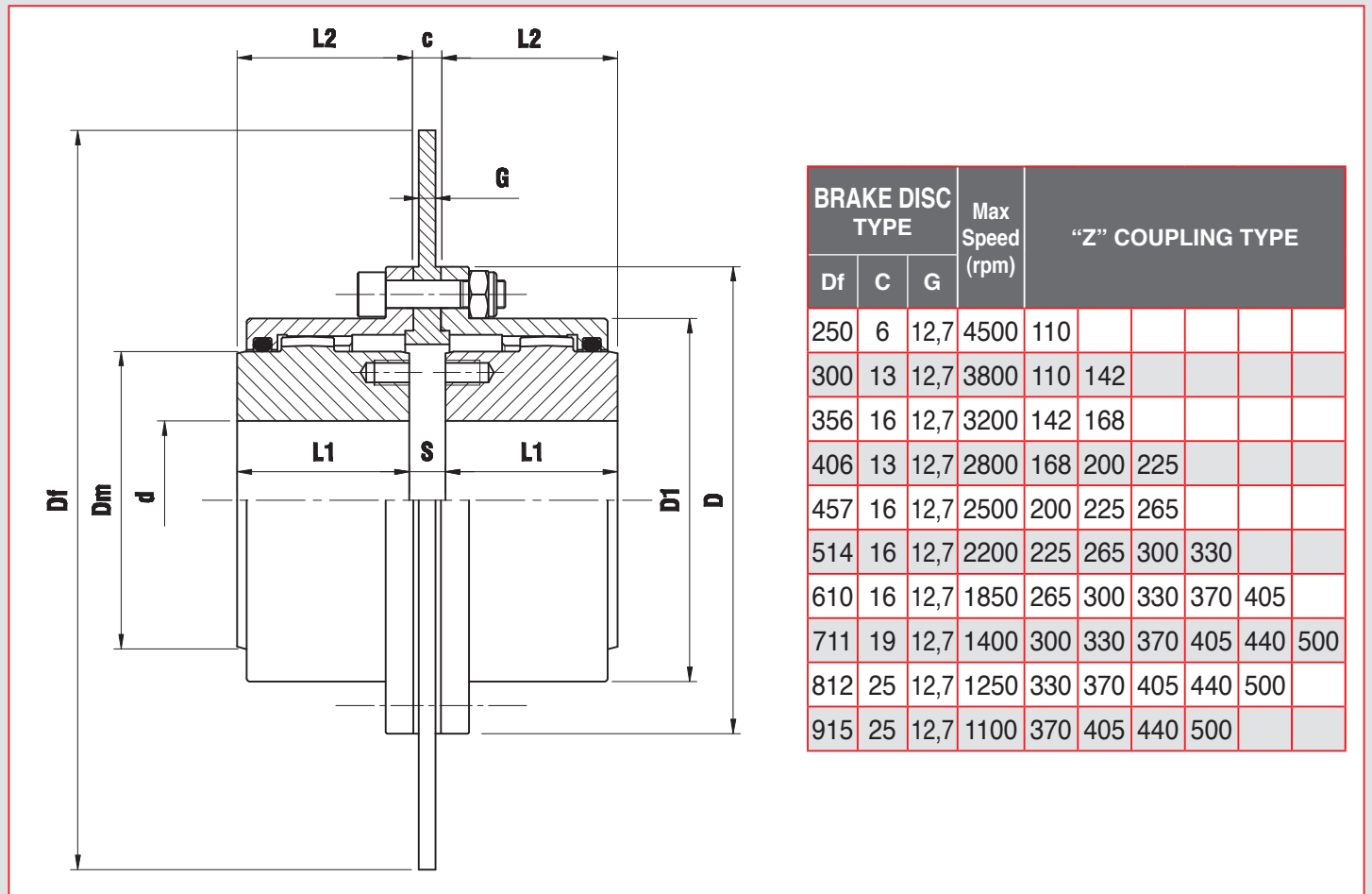
On request we can supply couplings in ZCA version with open bells.

Specify the dimension DF when making the request.

On request we can supply couplings with different brake diameter and thickness.

ZDF series

Two oscillating hubs and steel brake disc



TYPE	TECHNICAL DATA			d max.	D	D1	Dm	L1	L2	S	Maximum Parallel Misalignment (mm)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)									
		Nominal	Peak								
ZDF - 110	0,19	1,82	4	50	110	83	69	43	44,5	3 + C	0,15
ZDF - 142	0,30	2,85	6,27	60	142	105	85	50	51,5	3 + C	0,20
ZDF - 168	0,59	5,6	12,32	75	168	131	107	62	63,5	3 + C	0,25
ZDF - 200	0,93	8,8	19,36	95	200	159	133	76	78,5	5 + C	0,30
ZDF - 225	1,50	14,3	31,46	110	225	184	152	90	92,5	5 + C	0,40
ZDF - 265	2,41	23	50,6	130	265	212	178	105	108	6 + C	0,45
ZDF - 300	3,67	35	77	150	300	246	209	120	123	6 + C	0,50
ZDF - 330	4,64	44,3	97,46	170	330	275	234	135	139	8 + C	0,55
ZDF - 370	7,33	70	154	190	370	307	254	150	154	8 + C	0,60
ZDF - 405	8,80	84	184,8	210	405	335	279	175	179	8 + C	0,70
ZDF - 440	15,95	152,3	335	230	440	367	305	190	194	8 + C	0,80
ZDF - 500	21,34	203,8	448,3	280	500	423	355	220	225	10 + C	1,00

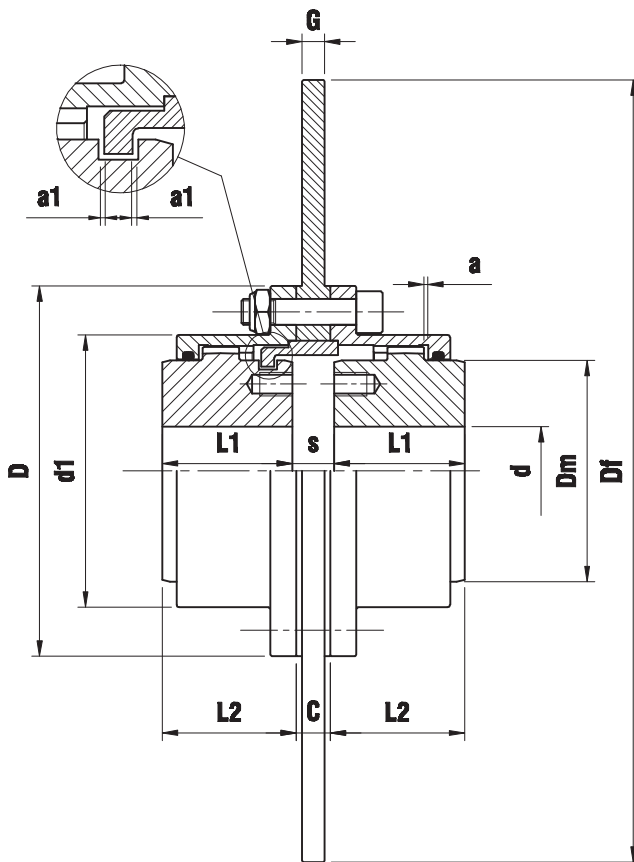
On request we can supply couplings in ZCA version with open bells.

Specify the dimension DF when making the request.

On request we can supply couplings with different brake diameter and thickness.

ZDFGAR series

Two oscillating hubs, steel brake disc and reduced backlash



BRAKE DISC TYPE			Max Speed (rpm)	"Z" COUPLING TYPE								
Df	C	G										
250	6	12,7	4500	110								
300	13	12,7	3800	110	142							
356	16	12,7	3200	142	168							
406	13	12,7	2800	168	200	225						
457	16	12,7	2500	200	225	265						
514	16	12,7	2200	225	265	300	330					
610	16	12,7	1850	265	300	330	370	405				
711	19	12,7	1400	300	330	370	405	440	500			
812	25	12,7	1250	330	370	405	440	500				
915	25	12,7	1100	370	405	440	500					

TYPE	TECHNICAL DATA			DIMENSIONS (mm)								
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		d max.	D	D1	Dm	L1	L2	s	a	a1
		Nominal	Peak									
ZDFGAR - 110	0,19	1,82	4	50	110	83	69	43	44,5	3 + C	1,5	0,5
ZDFGAR - 142	0,30	2,85	6,27	60	142	105	85	50	51,5	3 + C	1,5	0,5
ZDFGAR - 168	0,59	5,6	12,32	75	168	131	107	62	63,5	3 + C	1,5	0,5
ZDFGAR - 200	0,93	8,8	19,36	95	200	159	133	76	78,5	5 + C	2,5	1
ZDFGAR - 225	1,50	14,3	31,46	110	225	184	152	90	92,5	5 + C	2,5	1
ZDFGAR - 265	2,41	23	50,6	130	265	212	178	105	108	6 + C	3	1
ZDFGAR - 300	3,67	35	77	150	300	246	209	120	123	6 + C	3	1
ZDFGAR - 330	4,64	44,3	97,46	170	330	275	234	135	139	8 + C	4	1
ZDFGAR - 370	7,33	70	154	190	370	307	254	150	154	8 + C	4	1
ZDFGAR - 405	8,80	84	184,8	210	405	335	279	175	179	8 + C	4	1
ZDFGAR - 440	15,95	152,3	335	230	440	367	305	190	194	8 + C	4	1
ZDFGAR - 500	21,34	203,8	448,3	280	500	423	355	220	225	10 + C	5	1

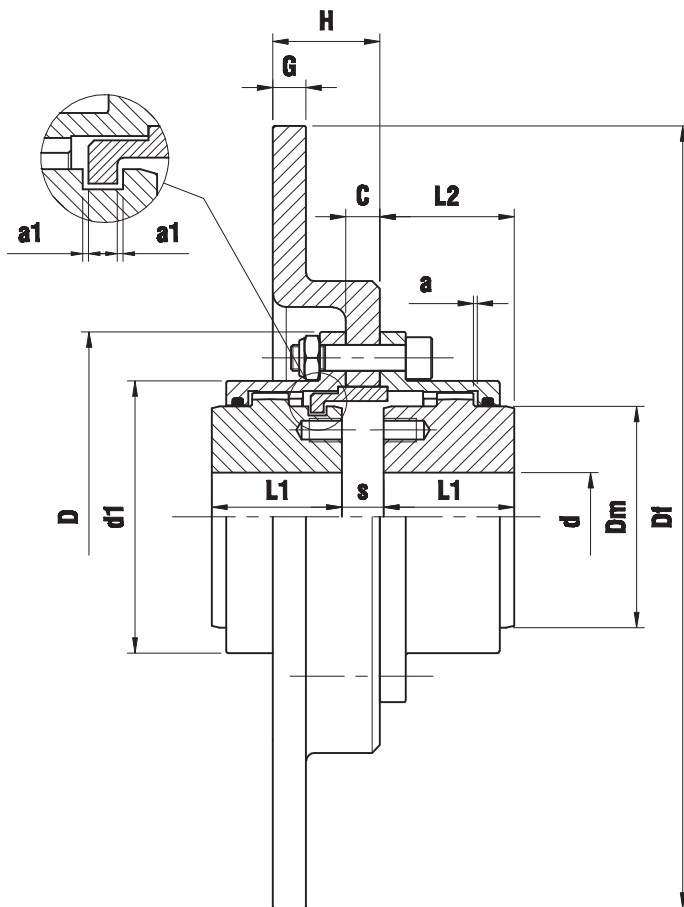
On request we can supply couplings in ZCA version with open bells.

Specify the dimension DF when making the request.

On request we can supply couplings with different brake diameter and thickness.

ZDFTWGAR series

Two oscillating hubs, cast iron brake disc (Twiflex) and reduced backlash



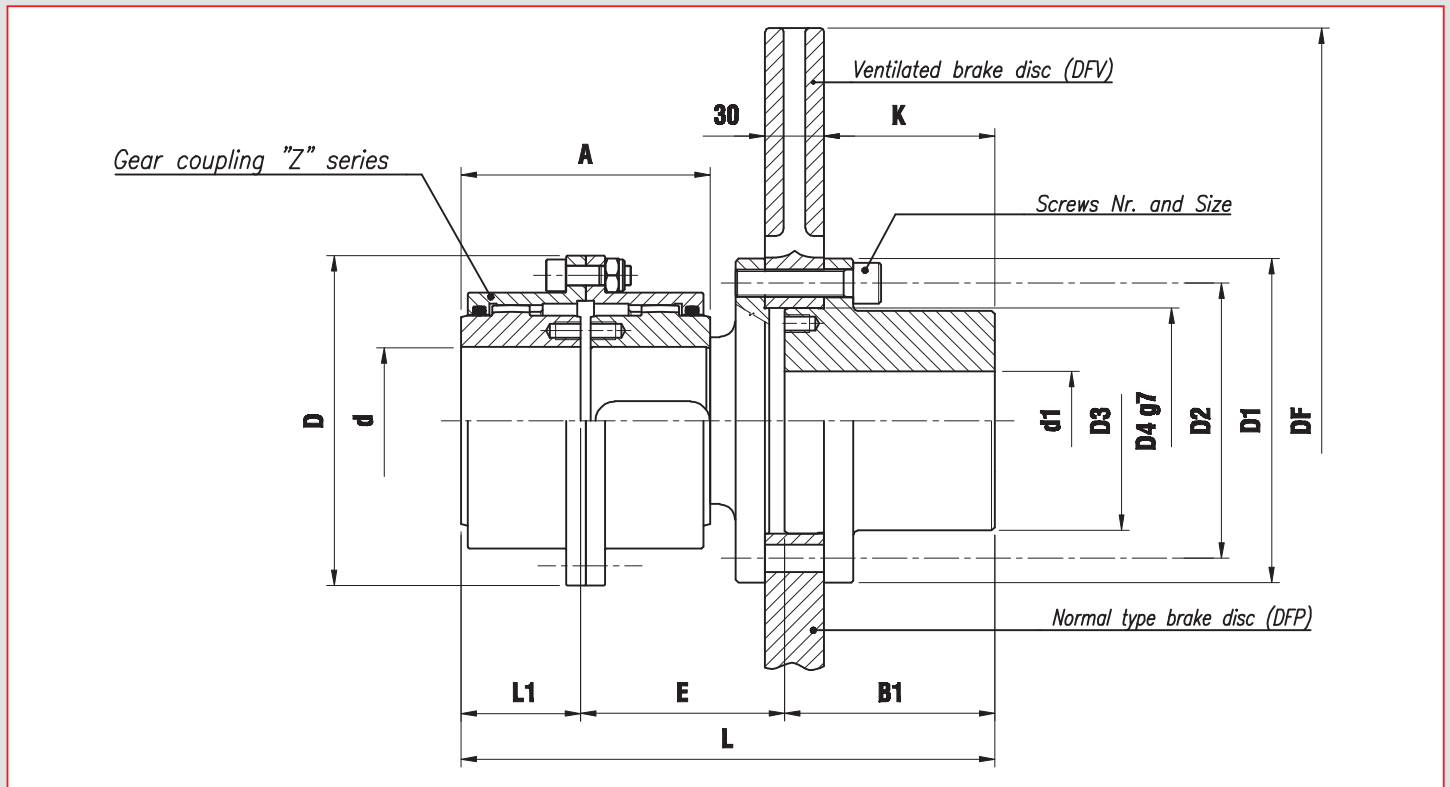
TWIFLEX BRAKE DISC TYPE				Max Speed (rpm)	"Z" COUPLING TYPE							
Df	G	C	H									
250	12,7	6	36	4500	110							
300	12,7	13	41	3800	110	142						
356	12,7	16	54	3200	142	168						
406	12,7	13	54	2800	168	200	225					
457	12,7	16	54	2500	200	225	265					
514	12,7	16	54	2200	225	265	300	330				
610	12,7	16	54	1850	265	300	330	370	405			
711	12,7	19	54	1400	300	330	370	405	440	500		
812	12,7	25	54	1250	330	370	405	440	500			
915	12,7	25	54	1100	370	405	440	500				

TYPE	TECHNICAL DATA			DIMENSIONS (mm)								
	$\frac{N}{n} = \frac{kw}{rpm}$	Torque (kNm)		d max.	D	D1	Dm	L1	L2	s	a	a1
		Nominal	Peak									
ZDFTWGAR - 110	0,19	1,82	4	50	110	83	69	43	44,5	3 + C	1,5	0,5
ZDFTWGAR - 142	0,30	2,85	6,27	60	142	105	85	50	51,5	3 + C	1,5	0,5
ZDFTWGAR - 168	0,59	5,6	12,32	75	168	131	107	62	63,5	3 + C	1,5	0,5
ZDFTWGAR - 200	0,93	8,8	19,36	95	200	159	133	76	78,5	5 + C	2,5	1
ZDFTWGAR - 225	1,50	14,3	31,46	110	225	184	152	90	92,5	5 + C	2,5	1
ZDFTWGAR - 265	2,41	23	50,6	130	265	212	178	105	108	6 + C	3	1
ZDFTWGAR - 300	3,67	35	77	150	300	246	209	120	123	6 + C	3	1
ZDFTWGAR - 330	4,64	44,3	97,46	170	330	275	234	135	139	8 + C	4	1
ZDFTWGAR - 370	7,33	70	154	190	370	307	254	150	154	8 + C	4	1
ZDFTWGAR - 405	8,80	84	184,8	210	405	335	279	175	179	8 + C	4	1
ZDFTWGAR - 440	15,95	152,3	335	230	440	367	305	190	194	8 + C	4	1
ZDFTWGAR - 500	21,34	203,8	448,3	280	500	423	355	220	225	10 + C	5	1

On request we can supply couplings in ZCA version with open bells.
Specify the dimension DF when making the request.

ZADF30 series

Two oscillating hubs and brake disc shaft, thickness 30



TYPE	TECHNICAL DATA			DIMENSIONS (mm)														Screw Nr.	Size						
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	d max.	d1 max.	D	DF	D1	D2	D3	D4 g7	A	L1	E	B1	L			K					
ZADF30-142D315	0,30	2,85	6,27	3000	60	55	142	315	124	105	82	85	103	50	103	107	260	87	9	M10					
ZADF30-142D355				2680		70		355	145	125	110	105								M12					
ZADF30-142D395				2420		75		395	165	140	112	115								M14					
ZADF30-142D445	0,59	5,6	12,32	2150	75	168	445	175	146	112	120	127	62	128	140	293	120	12	12	M16					
ZADF30-168D395				2420			75	395	165		140									112	115	M14			
ZADF30-168D445				2150			75	445	175		146									112	120	M16			
ZADF30-168D495	0,93	8,8	19,36	1950	95	200	495	218	190	155	160	157	76	140	140	356	120	12	12	M18					
ZADF30-168D550				1760			110													550	218	190	155	160	M18
ZADF30-200D445				2150			75													445	175	146	112	120	M16
ZADF30-200D495	1,50	14,3	31,46	1950	110	225	495	218	190	155	160	185	90	160	140	390	120	12	12	M18					
ZADF30-200D550				1760			120													550	238	205	168	170	M20
ZADF30-200D625				1550			120													625	238	205	168	170	M20
ZADF30-225D495	2,41	23	50,6	1950	130	265	495	268	230	190	195	216	105	175	140	420	120	12	12	M18					
ZADF30-225D550				1760			120													550	268	230	190	195	M22
ZADF30-225D625				1550			120													625	268	230	190	195	M22
ZADF30-225D705	3,67	35	77	1360	150	300	705	268	230	190	195	246	120	195	140	455	120	12	12	M22					
ZADF30-265D625				1550			120													625	268	230	190	195	M20
ZADF30-265D705				1360			135													705	268	230	190	195	M22
ZADF30-265D795	4,64	44,3	97,46	1200	170	330	795	300	260	216	220	278	135	205	140	480	120	12	12	M24					
ZADF30-300D625				1550			120													625	268	230	190	195	M20
ZADF30-300D705				1360			135													705	268	230	190	195	M22
ZADF30-300D795	4,64	44,3	97,46	1200	170	330	795	300	260	216	220	278	135	205	140	480	120	12	12	M24					
ZADF30-330D705				1360			135													705	268	230	190	195	M22
ZADF30-330D795	1200	150	795	300	260	216	220	M24																	

The parallel misalignment (mm) IS=Same to standard

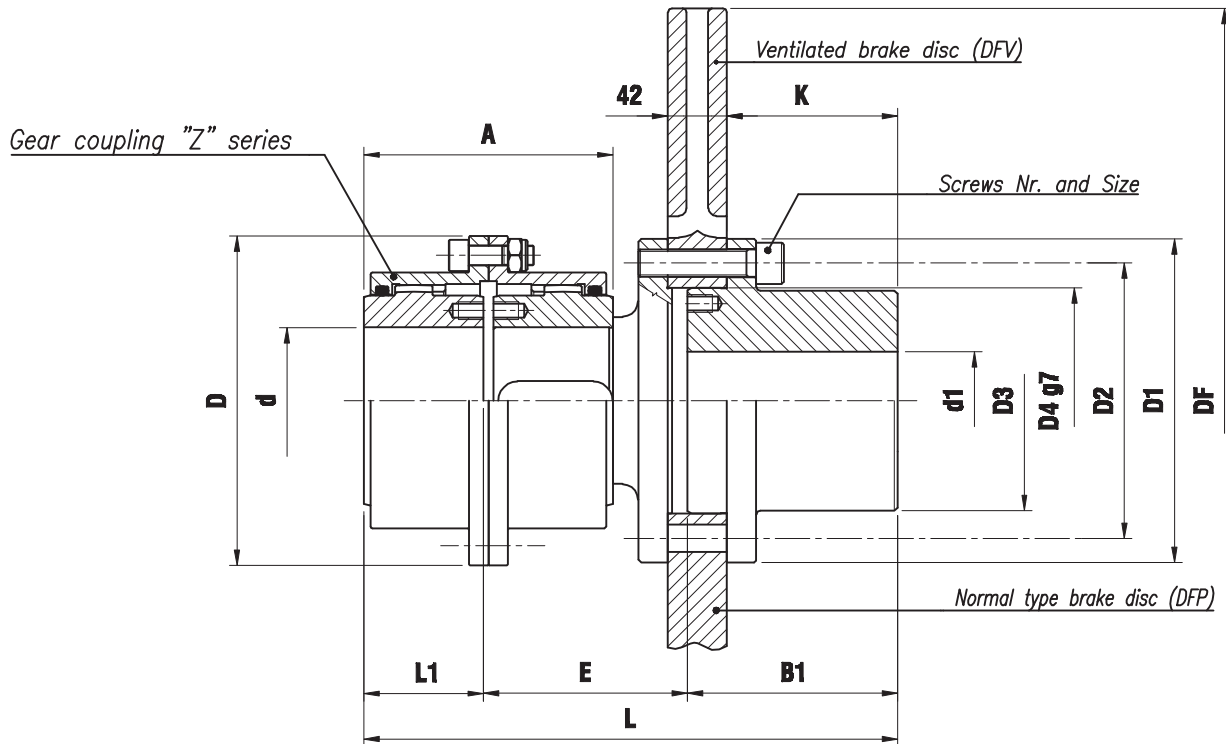
Specify if normal type brake disc (DFP) or ventilated brake disc (DFV) when making the request.

On request we can supply couplings with different brake diameter and thickness.

On request we can supply couplings in ZCA version

ZADF42 series

Two oscillating hubs and brake disc shaft, thickness 42 mm



TYPE	TECHNICAL DATA				DIMENSIONS (mm)															
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	d1 max.	D	DF	D1	D2	D3	D4 g7	A	L1	E	B1	L	K	Screw Nr.	Size
		Nominal	Peak																	
ZADF42 - 225D625	1,50	14,3	31,46	1550	110	150	225	625	300	260	210	220	185	90	215	140	445	120	12	M24
ZADF42 - 265D625				1550		150		625	300	260	210	220			231	140	476	120		M24
ZADF42 - 265D795	2,41	23	50,6	1200	130	185	265	795	380	330	260	280	216	105	212	180	497	160	12	M30
ZADF42 - 265D995				960				995							208		493			
ZADF42 - 300D625				1550		150		625	300	260	210	220			246	140	506	120		M24
ZADF42 - 300D795	3,67	35	77	1200	150	185	300	795	380	330	260	280	246	120	239	180	539	160	12	M30
ZADF42 - 300D995				960				995							235		535			
ZADF42 - 330D795	4,64	44,3	97,46	1200	170	185	330	795	380	330	260	280	278	135	253	180	568	160	12	M30
ZADF42 - 330D995				960				995							250		565			
ZADF42 - 370D995	7,33	70	154	960	190	185	370	995	380	330	260	280	308	150	298	180	628	160	12	M30

The parallel misalignment (mm) IS=Same to standard

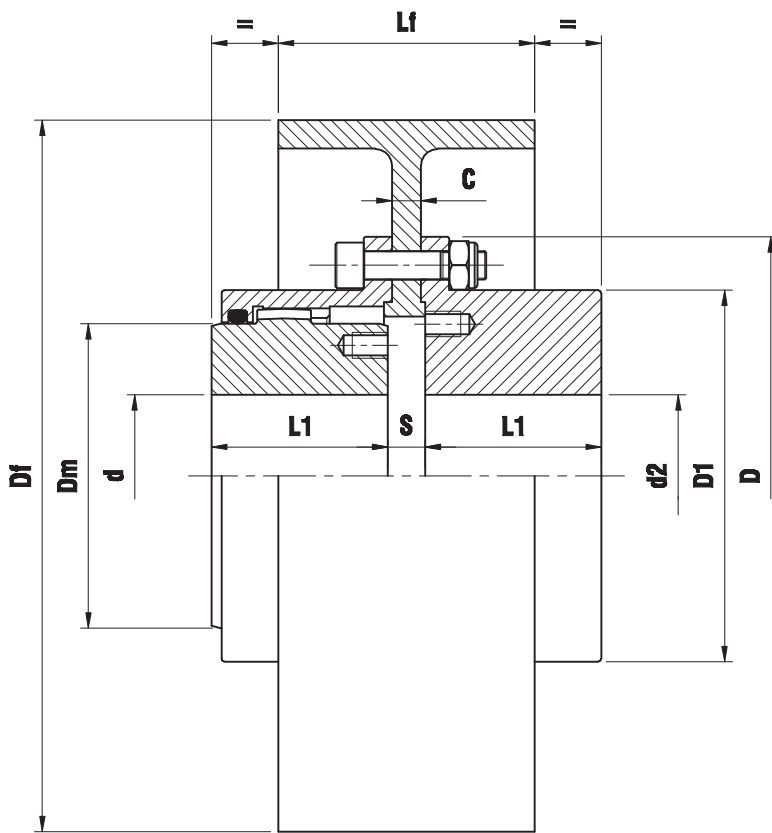
Specify if normal type brake disc (DFP) or ventilated brake disc (DFV) when making the request.

On request we can supply couplings with different brake diameter and thickness.

On request we can supply couplings in ZCA version

ZRFF series

One oscillating and one rigid hub with brake band



BRAKE BAND TYPE DIN 15431			Max Speed (rpm)	"Z" COUPLING TYPE					
Df	Lf	C							
200	75	8	4770	110	142	168			
250	95	10	3820	110	142	168	200		
315	118	12	3030	142	168	200	225		
400	150	14	2380	200	225	265	300	330	
500	190	18	1820	265	300	330	370	405	440
630	236	22	1510	300	330	370	405	440	500
710	265	22	1340	370	405	440	500		

TYPE	TECHNICAL DATA			DIMENSIONS (mm)							Maximum Parallel Misalignment (mm)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		d max.	d2 max.	D	D1	Dm	L1	S	
		Nominal	Peak								
ZRFF - 110	0,19	1,82	4	50	60	110	83	69	43	3 + C	0,15
ZRFF - 142	0,30	2,85	6,27	60	75	142	105	85	50	3 + C	0,20
ZRFF - 168	0,59	5,6	12,32	75	90	168	131	107	62	3 + C	0,25
ZRFF - 200	0,93	8,8	19,36	95	110	200	159	133	76	5 + C	0,30
ZRFF - 225	1,50	14,3	31,46	110	130	225	184	152	90	5 + C	0,40
ZRFF - 265	2,41	23	50,6	130	150	265	212	178	105	6 + C	0,45
ZRFF - 300	3,67	35	77	150	175	300	246	209	120	6 + C	0,50
ZRFF - 330	4,64	44,3	97,46	170	195	330	275	234	135	8 + C	0,55
ZRFF - 370	7,33	70	154	190	220	370	307	254	150	8 + C	0,60
ZRFF - 405	8,80	84	184,8	210	240	405	335	279	175	8 + C	0,70
ZRFF - 440	15,95	152,3	335	230	260	440	367	305	190	8 + C	0,80
ZRFF - 500	21,34	203,8	448,3	280	300	500	423	355	220	10 + C	1,00

Specify the dimension D_f when making the request.

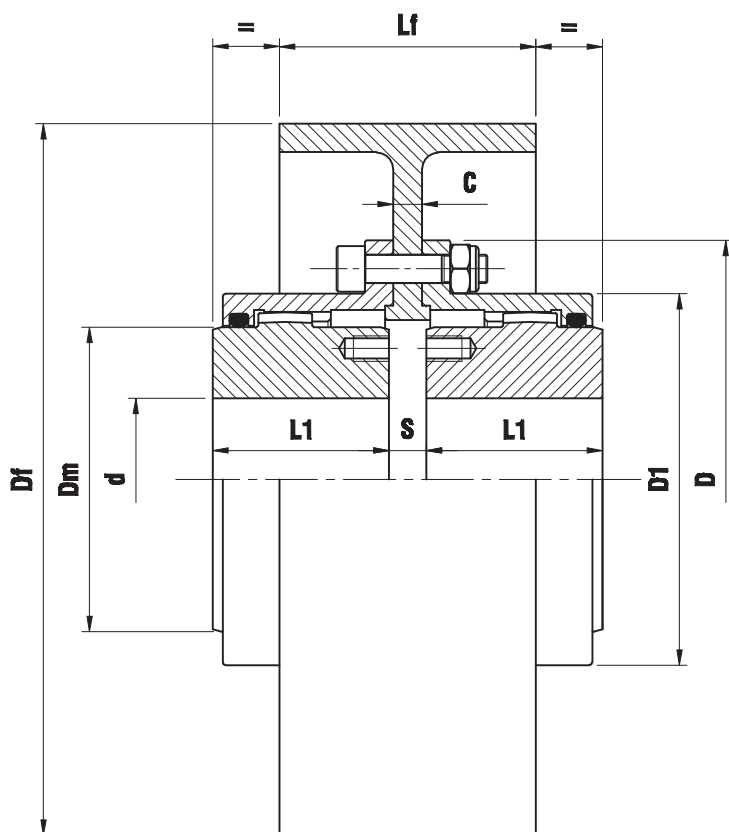
On request we can supply hardened brake band.

We can supply brake band with different dimensions.

On request we can supply couplings in ZCA version

ZFF series

Two oscillating hubs and brake band



BRAKE BAND TYPE DIN 15431			Max Speed (rpm)	"Z" COUPLING TYPE					
Df	Lf	C							
200	75	8	4770	110	142	168			
250	95	10	3820	110	142	168	200		
315	118	12	3030	142	168	200	225		
400	150	14	2380	200	225	265	300	330	
500	190	18	1820	265	300	330	370	405	440
630	236	22	1510	300	330	370	405	440	500
710	265	22	1340	370	405	440	500		

TYPE	TECHNICAL DATA			d max.	D	D1	Dm	L1	s	Maximum Parallel Misalignment (mm)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)								
		Nominal	Peak							
ZDF - 110	0,19	1,82	4	50	110	83	69	43	3 + C	0,15
ZDF - 142	0,30	2,85	6,27	60	142	105	85	50	3 + C	0,20
ZDF - 168	0,59	5,6	12,32	75	168	131	107	62	3 + C	0,25
ZDF - 200	0,93	8,8	19,36	95	200	159	133	76	5 + C	0,30
ZDF - 225	1,50	14,3	31,46	110	225	184	152	90	5 + C	0,40
ZDF - 265	2,41	23	50,6	130	265	212	178	105	6 + C	0,45
ZDF - 300	3,67	35	77	150	300	246	209	120	6 + C	0,50
ZDF - 330	4,64	44,3	97,46	170	330	275	234	135	8 + C	0,55
ZDF - 370	7,33	70	154	190	370	307	254	150	8 + C	0,60
ZDF - 405	8,80	84	184,8	210	405	335	279	175	8 + C	0,70
ZDF - 440	15,95	152,3	335	230	440	367	305	190	8 + C	0,80
ZDF - 500	21,34	203,8	448,3	280	500	423	355	220	10 + C	1,00

Specify the dimension Df when making the request.

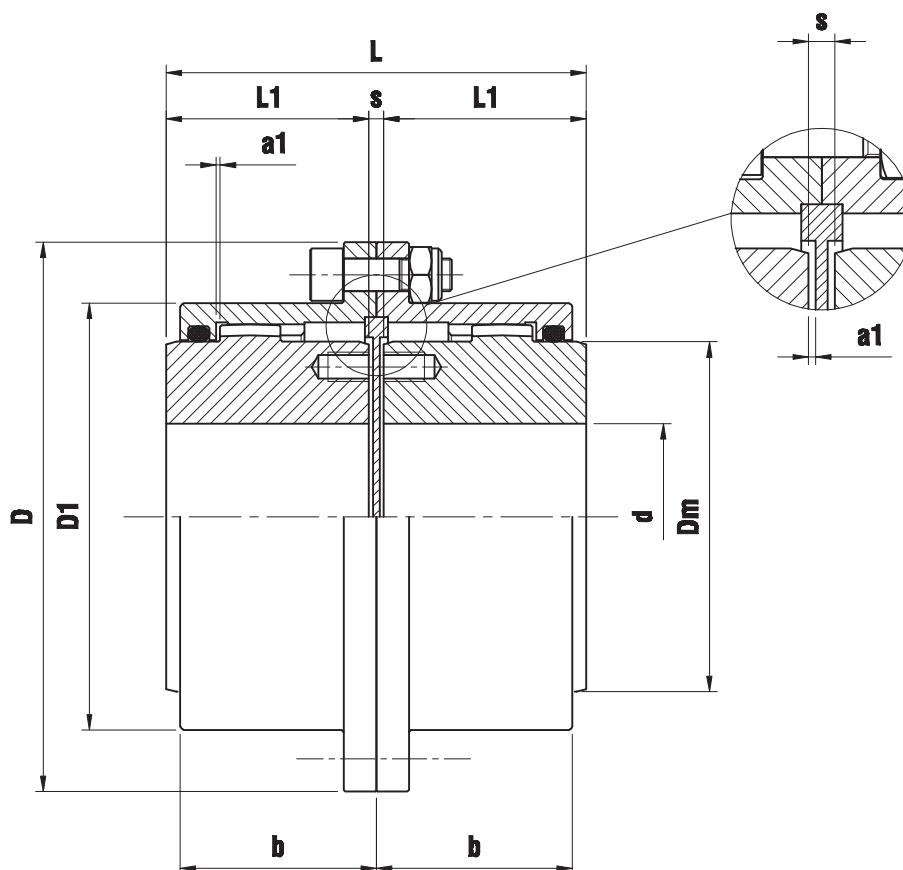
On request we can supply hardened brake band.

We can supply brake band with different dimensions.

On request we can supply couplings in ZCA version

ZGAR series

Two oscillating hubs and intermediate disc for reduced backlash



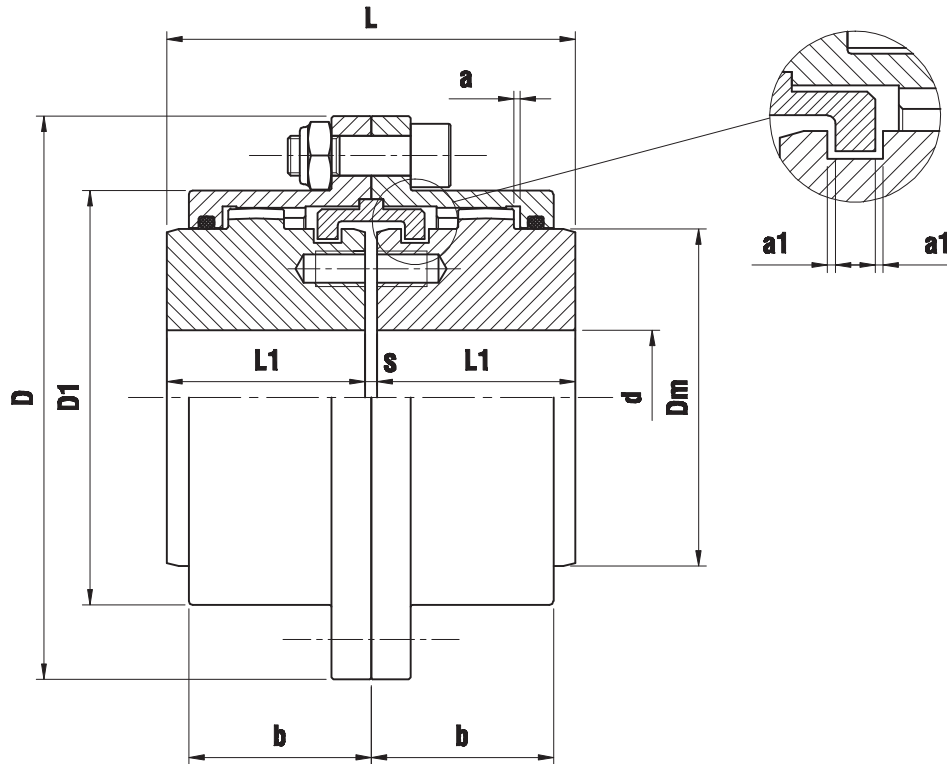
TYPE	TECHNICAL DATA					DIMENSIONS (mm)									Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L	L1	S	a1	b		
		Nominal	Peak													
ZGAR - 110	0,19	1,82	4	6200	0,020	50	60	110	83	91	43	5	0,5	40	0,15	4,2
ZGAR - 142	0,30	2,85	6,27	5270	0,048	60	75	142	105	105	50	5	0,5	46	0,20	7,7
ZGAR - 168	0,59	5,6	12,32	4490	0,140	75	90	168	131	129	62	5	0,5	46	0,25	14
ZGAR - 200	0,93	8,8	19,36	4010	0,360	95	110	200	159	160	76	8	1	69	0,30	25
ZGAR - 225	1,50	14,3	31,46	3870	0,688	110	130	225	184	188	90	8	1	83	0,40	38
ZGAR - 265	2,41	23	50,6	3700	1,600	130	150	265	212	220	105	10	1	94	0,45	62
ZGAR - 300	3,67	35	77	3200	3,084	150	175	300	246	250	120	10	1	107	0,50	93
ZGAR - 330	4,64	44,3	97,46	2900	5,164	170	195	330	275	283	135	13	1,5	119	0,55	128
ZGAR - 370	7,33	70	154	2580	8,944	190	220	370	307	313	150	13	1,5	139	0,60	177
ZGAR - 405	8,80	84	184,8	2350	13,920	210	240	405	335	363	175	13	1,5	154	0,70	237
ZGAR - 440	15,95	152,3	335	2170	21,440	230	260	440	367	393	190	13	1,5	166	0,80	308
ZGAR - 500	21,34	203,8	448,3	1820	43,232	280	300	500	423	456	220	16	2	193	1,00	473

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

Z2GAR series

Two oscillating hubs and bouble reduced backlash



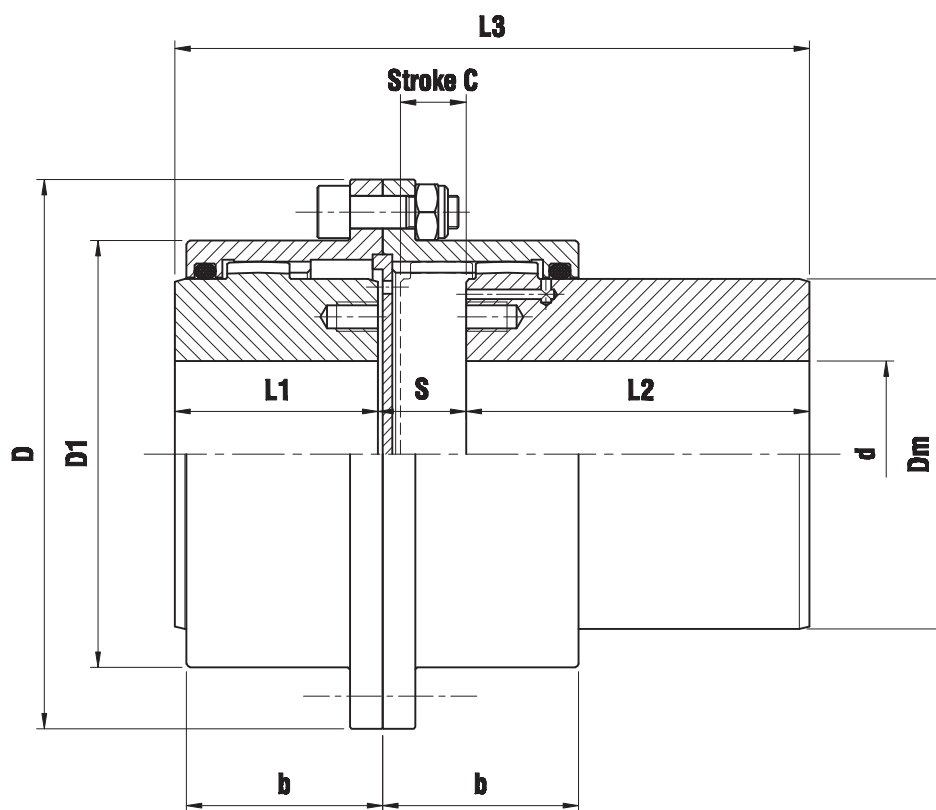
TYPE	TECHNICAL DATA					DIMENSIONS (mm)										Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L	L1	S	a1	a	b		
		Nominal	Peak														
Z2GAR - 110	0,19	1,82	4	6200	0,020	50	110	83	69	89	43	3	0,5	1,5	40	0,15	4,1
Z2GAR - 142	0,30	2,85	6,27	5270	0,048	60	142	105	85	103	50	3	0,5	1,5	46	0,20	7,6
Z2GAR - 168	0,59	5,6	12,32	4490	0,136	75	168	131	107	127	62	3	0,5	1,5	60	0,25	14
Z2GAR - 200	0,93	8,8	19,36	4010	0,356	95	200	159	133	157	76	5	1	2,5	69	0,30	25
Z2GAR - 225	1,50	14,3	31,46	3870	0,688	110	225	184	152	185	90	5	1	2,5	83	0,40	38
Z2GAR - 265	2,41	23	50,6	3700	1,596	130	265	212	178	216	105	6	1	3	94	0,45	62
Z2GAR - 300	3,67	35	77	3200	3,076	150	300	246	209	246	120	6	1	3	107	0,50	92
Z2GAR - 330	4,64	44,3	97,46	2900	5,160	170	330	275	234	278	135	8	1	4	119	0,55	127
Z2GAR - 370	7,33	70	154	2580	8,960	190	370	307	254	308	150	8	1	4	139	0,60	175
Z2GAR - 405	8,80	84	184,8	2350	14,276	210	405	335	279	358	175	8	1	4	154	0,70	238
Z2GAR - 440	15,95	152,3	335	2170	21,540	230	440	367	305	388	190	8	1	4	166	0,80	306
Z2GAR - 500	21,34	203,8	448,3	1820	43,392	280	500	423	355	450	220	10	1	5	193	1,00	469

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZSA series

Two oscillating hubs for axial sliding



TYPE	TECHNICAL DATA				DIMENSIONS (mm)											Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L3	L1	L2	s	b	stroke C		
		Nominal	Peak														
ZSA - 110	0,19	1,82	4	6200	0,022	50	110	83	69	151	43	89	19	40	13	0,15	5,6
ZSA - 142	0,30	2,85	6,27	5270	0,062	60	142	105	85	168	50	96	22	46	16	0,20	9,7
ZSA - 168	0,59	5,6	12,32	4490	0,160	75	168	131	107	195	62	105	28	60	22	0,25	17,2
ZSA - 200	0,93	8,8	19,36	4010	0,406	95	200	159	133	231	76	122	33	69	25	0,30	30
ZSA - 225	1,50	14,3	31,46	3870	0,765	110	225	184	152	265	90	130	45	83	37	0,40	44
ZSA - 265	2,41	23	50,6	3700	1,722	130	265	212	178	296	105	138	53	94	43	0,45	69
ZSA - 300	3,67	35	77	3200	3,368	150	300	246	209	341	120	161	60	107	50	0,50	104
ZSA - 330	4,64	44,3	97,46	2900	5,684	170	330	275	234	388	135	183	70	119	57	0,55	145
ZSA - 370	7,33	70	154	2580	10,000	190	370	307	254	453	150	222	81	139	68	0,60	194
ZSA - 405	8,80	84	184,8	2350	15,092	210	405	335	279	483	175	215	93	154	80	0,70	260
ZSA - 440	15,95	152,3	335	2170	22,676	230	440	367	305	503	190	215	98	166	85	0,80	326
ZSA - 500	21,34	203,8	448,3	1820	43,484	280	500	423	355	540	220	204	166	193	100	1,00	465

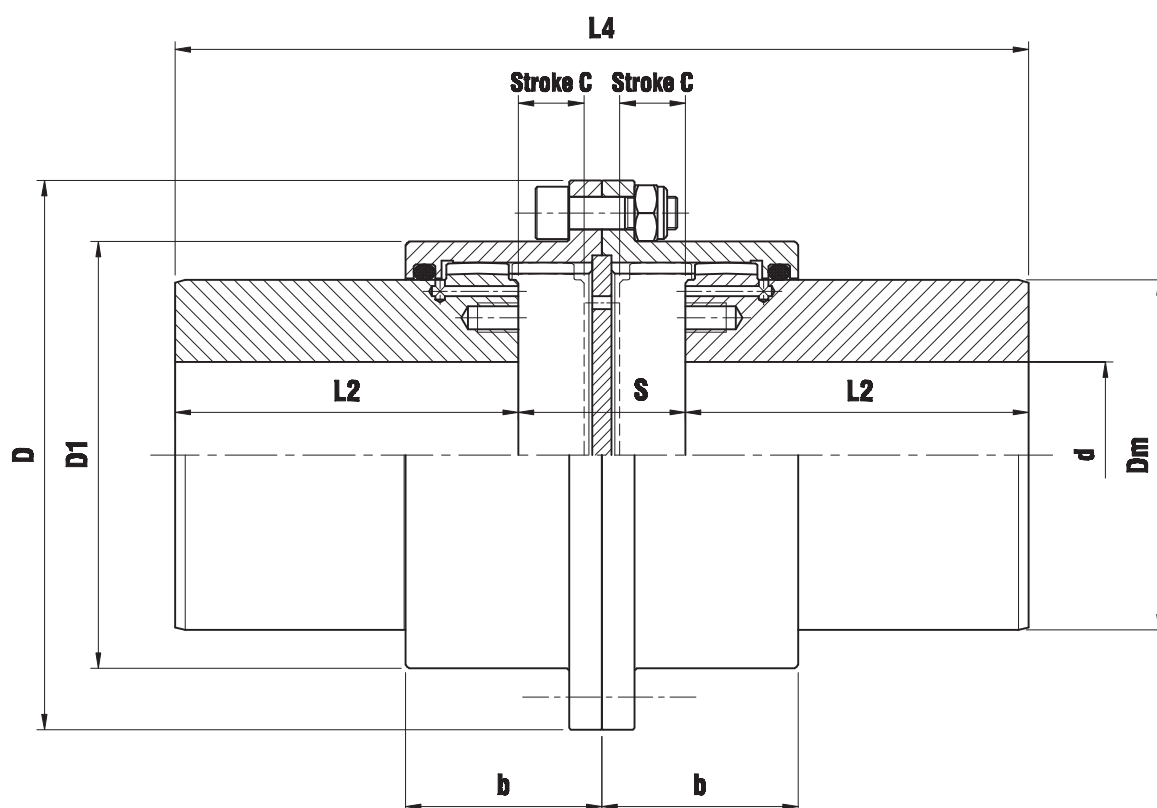
On request we can supply couplings with different strokes "C" and lengths "L2".

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

Z2SA series

Two oscillating hubs for double axial sliding



TYPE	TECHNICAL DATA				DIMENSIONS (mm)										Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (kgm ²)	d max.	D	D1	Dm	L2	L4	s	b	stroke C		
		Nominal	Peak													
Z2SA - 110	0,19	1,82	4	6200	0,024	50	110	83	69	89	213	35	40	13	0,15	7
Z2SA - 142	0,30	2,85	6,27	5270	0,072	60	142	105	85	96	233	41	46	16	0,20	12
Z2SA - 168	0,59	5,6	12,32	4490	0,180	75	168	131	107	105	236	53	60	22	0,25	21
Z2SA - 200	0,93	8,8	19,36	4010	0,460	95	200	159	133	122	305	61	69	25	0,30	36
Z2SA - 225	1,50	14,3	31,46	3870	0,852	110	225	184	152	130	315	85	83	37	0,40	51
Z2SA - 265	2,41	23	50,6	3700	1,880	130	265	212	178	138	376	100	94	43	0,45	77
Z2SA - 300	3,67	35	77	3200	3,724	150	300	246	209	161	436	114	107	50	0,50	118
Z2SA - 330	4,64	44,3	97,46	2900	6,300	170	330	275	234	183	498	132	119	57	0,55	165
Z2SA - 370	7,33	70	154	2580	11,296	190	370	307	254	222	598	154	139	68	0,60	241
Z2SA - 405	8,80	84	184,8	2350	16,496	210	405	335	279	215	608	178	154	80	0,70	287
Z2SA - 440	15,95	152,3	335	2170	24,256	230	440	367	305	215	618	188	166	85	0,80	351
Z2SA - 500	21,34	203,8	448,3	1820	44,468	280	500	423	355	204	630	204	193	100	1,00	467

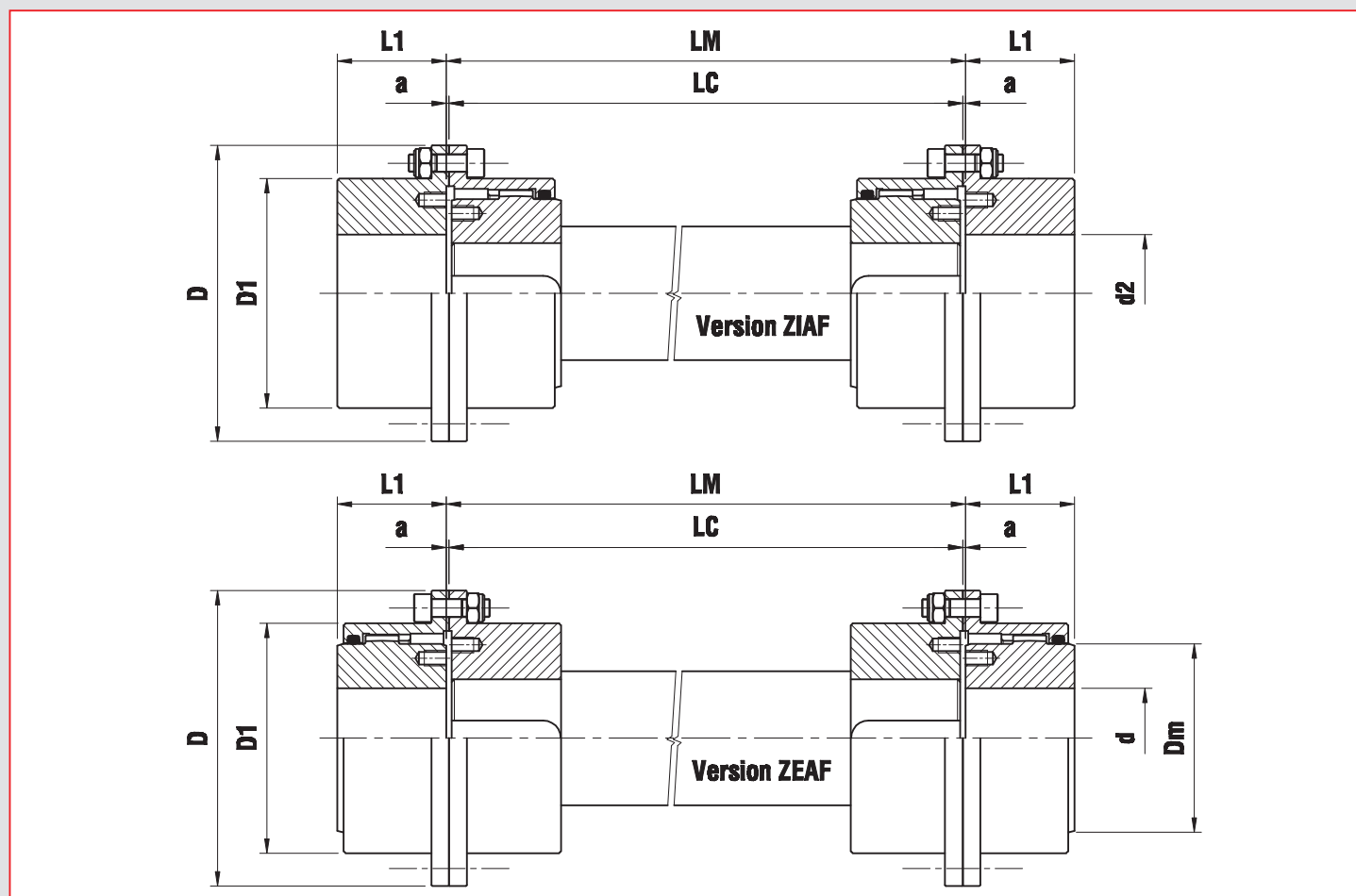
On request we can supply couplings with different strokes "C" and lengths "L2".

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings in ZCA version with open bells.

ZIAF - ZEAF series

Two oscillating hubs and floating shaft

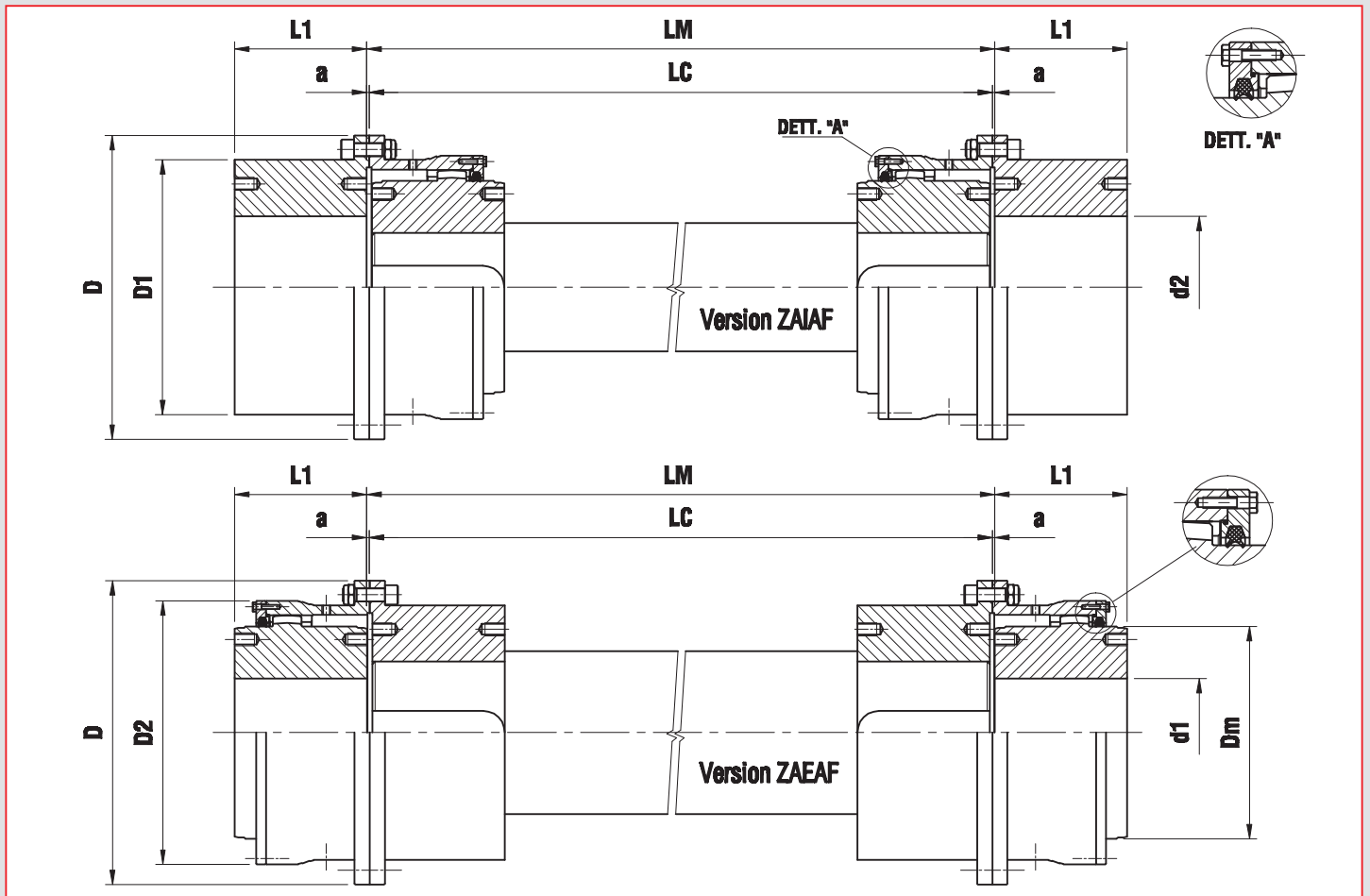


SIZE	TECHNICAL DATA				DIMENSIONS (mm)					
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	d2 max.	D	D1	L1	a
		Nominal	Peak							
110	0,19	1,82	4	6200	50	60	110	83	43	1,5
142	0,30	2,85	6,27	5270	60	75	142	105	50	1,5
168	0,59	5,6	12,32	4490	75	90	168	131	62	1,5
200	0,93	8,8	19,36	4010	95	110	200	159	76	2,5
225	1,50	14,3	31,46	3870	110	130	225	184	90	2,5
265	2,41	23	50,6	3700	130	150	265	212	105	3
300	3,67	35	77	3200	150	175	300	246	120	3
330	4,64	44,3	97,46	2900	170	195	330	275	135	4
370	7,33	70	154	2580	190	220	370	307	150	4
405	8,80	84	184,8	2350	210	240	405	335	175	4
440	15,95	152,3	335	2170	230	260	440	367	190	4
500	21,34	203,8	448,3	1820	280	300	500	423	220	5

Specify the dimension LM and speed when making the request.
 On request we can supply couplings in ZCA version with open bells.

ZAIAF - ZAEAF series

Two oscillating hubs, open bell and floating shaft

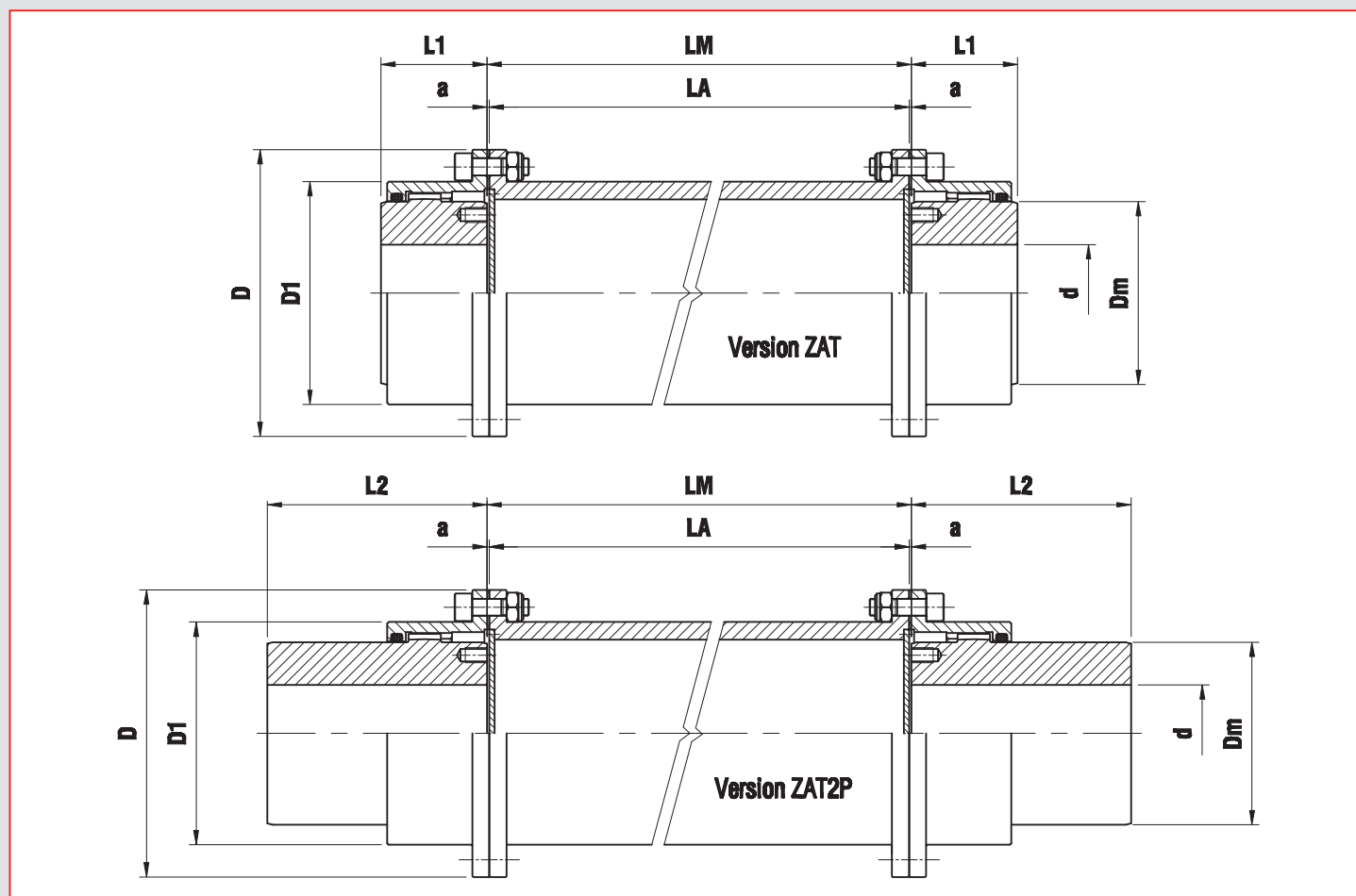


SIZE	TECHNICAL DATA				DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	d2 max.	D	D1	D2	Dm	L1	a
		Nominal	Peak									
580	28,60	273	546	1150	325	370	580	495	506	400	250	6
630	39,80	380	760	1000	370	405	630	545	556	450	275	6
700	51,30	490	980	910	400	440	700	590	606	490	305	6
750	68,60	655	1310	830	430	485	760	650	666	550	330	6
825	86,90	830	1660	700	475	535	825	725	730	610	355	6
885	102,40	978	1956	650	510	570	885	755	770	650	380	10
935	123,50	1180	2360	620	530	610	935	805	820	680	410	10
1010	160,80	1536	3072	560	580	660	1010	880	900	750	430	10
1085	187,70	1793	3586	530	610	700	1085	930	950	790	460	15
1185	259,70	2480	4960	480	680	780	1185	1030	1050	870	510	15
1340	365,20	3488	6976	420	780	880	1340	1165	1190	1000	560	15
1440	159,40	4387	8774	390	860	960	1440	1265	1290	1100	610	20
1575	612,50	5850	11170	315	950	1060	1575	1400	1430	1220	660	20
1705	742,80	7094	14188	290	1020	1135	1705	1500	1530	1310	710	20
1805	879,60	8400	16800	270	1090	1215	1805	1600	1630	1400	760	20
1935	1069,70	10474	20948	250	1180	1315	1935	1730	1760	1520	810	20

Specify the dimension LM and speed when making the request.

ZAT - ZAT2P series

Two oscillating hubs and spacer

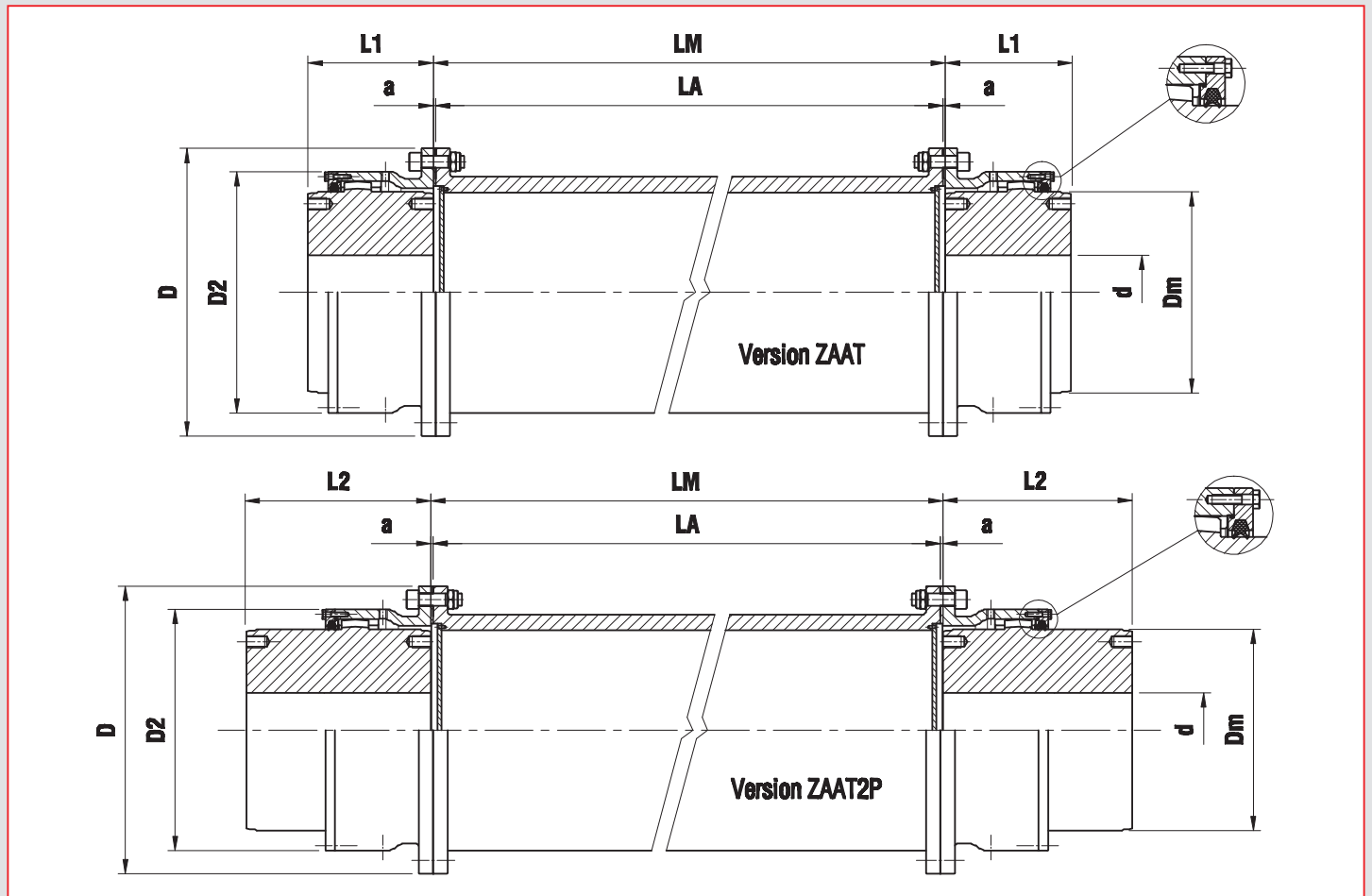


SIZE	TECHNICAL DATA				DIMENSIONS (mm)						
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	D	D1	Dm	L1	L2	a
		Nominal	Peak								
110	0,19	1,82	4	6200	50	110	83	69	43	105	1,5
142	0,30	2,85	6,27	5270	60	142	105	85	50	115	1,5
168	0,59	5,6	12,32	4490	75	168	131	107	62	130	1,5
200	0,93	8,8	19,36	4010	95	200	159	133	76	150	2,5
225	1,50	14,3	31,46	3870	110	225	184	152	90	170	2,5
265	2,41	23	50,6	3700	130	265	212	178	105	185	3
300	3,67	35	77	3200	150	300	246	209	120	215	3
330	4,64	44,3	97,46	2900	170	330	275	234	135	245	4
370	7,33	70	154	2580	190	370	307	254	150	295	4
405	8,80	84	184,8	2350	210	405	335	279	175	300	4
440	15,95	152,3	335	2170	230	440	367	305	190	305	4
500	21,34	203,8	448,3	1820	280	500	423	355	220	310	5

Specify the dimension LM and speed when making the request.
 On request we can supply couplings in ZCA version with open bells.

ZAAT - ZAAT2P series

Two oscillating hubs, open bells and spacer

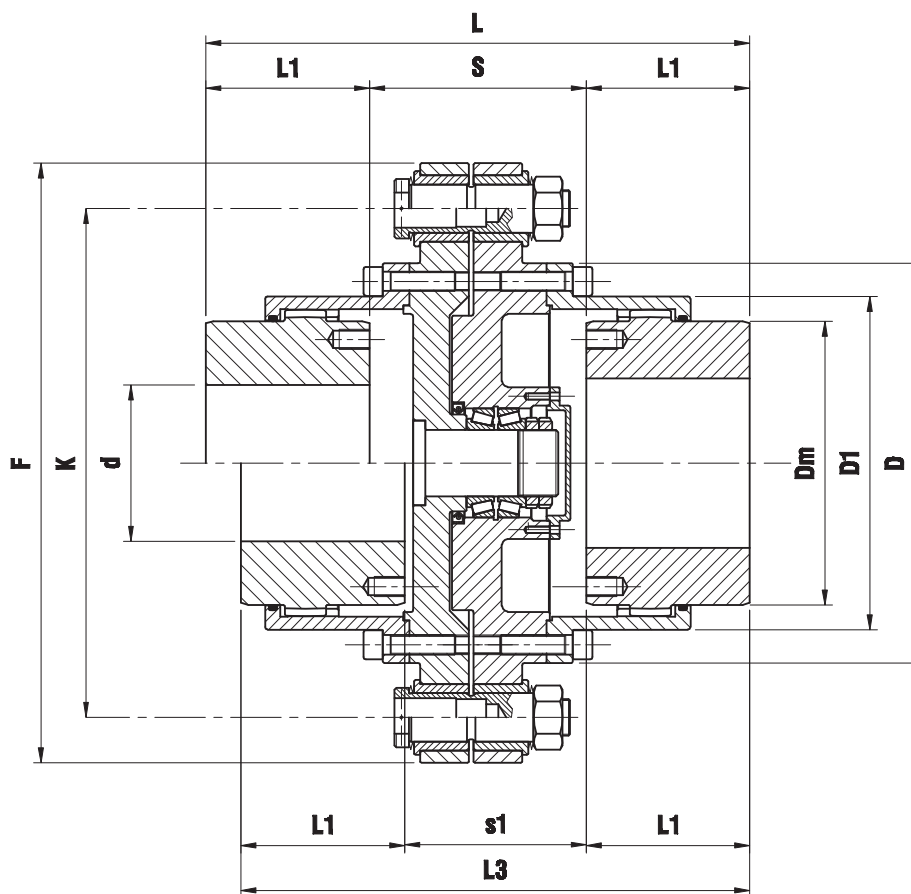


SIZE	TECHNICAL DATA				DIMENSIONS (mm)						
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	D	D2	Dm	L1	L2	a
		Nominal	Peak								
580	28,60	273	546	1150	325	580	506	400	250	350	6
630	39,80	380	760	1000	370	630	556	450	275	380	6
700	51,30	490	980	910	400	700	606	490	305	410	6
750	68,60	655	1310	830	430	760	666	550	330	440	6
825	86,90	830	1660	700	475	825	730	610	355	470	6
885	102,40	978	1956	650	510	885	770	650	380	510	10
935	123,50	1180	2360	620	530	935	820	680	410	535	10
1010	160,80	1536	3072	560	580	1010	900	750	430	570	10
1085	187,70	1793	3586	530	610	1085	950	790	460	600	15
1185	259,70	2480	4960	480	680	1185	1050	870	510	640	15
1340	365,20	3488	6976	420	780	1340	1190	1000	560	680	15
1440	159,40	4387	8774	390	860	1440	1290	1100	610	720	20
1575	612,50	5850	11170	315	950	1575	1430	1220	660	770	20
1705	742,80	7094	14188	290	1020	1705	1530	1310	710	820	20
1805	879,60	8400	16800	270	1090	1805	1630	1400	760	870	20
1935	1069,70	10474	20948	250	1180	1935	1760	1520	810	920	20

Specify the dimension LM and speed when making the request.

ZSR series

Shear pins coupling



TYPE	TECHNICAL DATA		CALIBRATION TORQUE OF SHEAR PINS		Pins Nr.	DIMENSIONS (mm)											
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Torque (kNm)		K	F	d max.	D	D1	Dm	L	L1	L3	s1	s	
		Nominal	Peak	min	max												
ZSR-142D215X212N	0,30	2,85	6,27	0,7	1,1	2	180	215	60	142	105	85	163	50	168	63	68
ZSR-142D215X212P				1,05	1,8												
ZSR-142D215X214P				1,45	2,65												
ZSR-142D215X314P				2,2	4	3											
ZSR-168D245X214P	0,59	5,6	12,32	1,2	2,15	2	210	245	75	168	131	107	199	62	210	75	86
ZSR-168D245X214P				1,7	3,1												
ZSR-168D258X217P				2,55	4,65	3	220	258									
ZSR-168D258X317P				3,85	7												
ZSR-200D270X212P	0,93	8,8	19,36	1,35	2,4	2	240	270	95	200	159	133	235	76	242	83	90
ZSR-200D290X214P				1,9	3,6												
ZSR-200D290X217N				3,1	5,35												
ZSR-200D308X222P				4,8	9,1	3	260	308									
ZSR-200D308X322P				7,2	13,6												
ZSR-225D325X217N	1,50	14,3	31,46	2,1	3,6	2	280	325	110	225	184	152	290	90	309	110	129
ZSR-225D325X217P				3,35	5,9												
ZSR-225D345X225N				4,4	8	3	290	345									
ZSR-225D345X225P				6,5	12,2												
ZSR-225D345X325P				9,8	18,3												

ZSR series

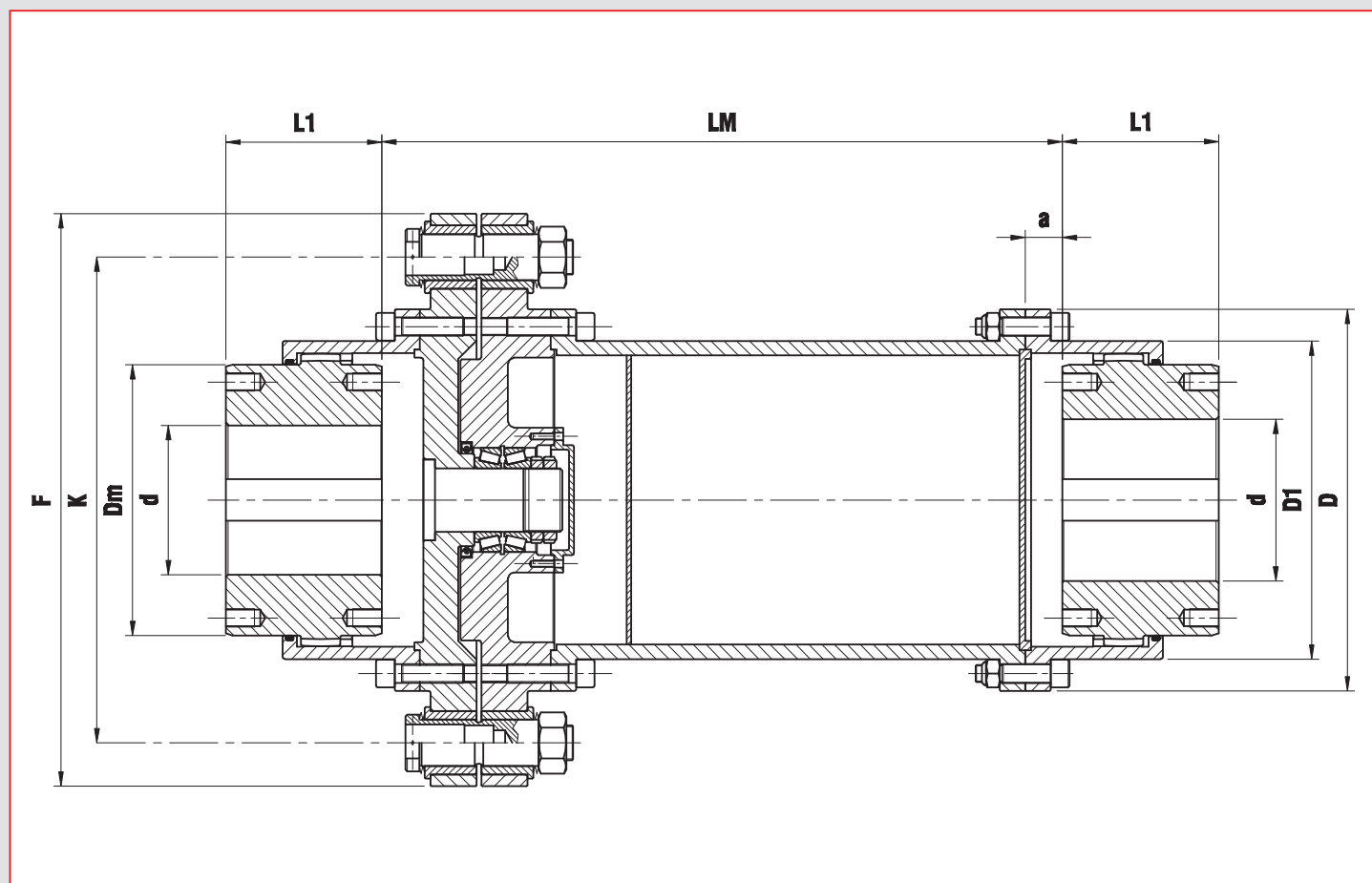
Shear pins coupling

TYPE	TECHNICAL DATA			CALIBRATION TORQUE OF SHEAR PINS		Pins Nr	DIMENSIONS (mm)										
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Torque (kNm)			K	F	d _{max}	D	D1	Dm	L	L1	L3	s1	s
		Nominal	Peak	min	max												
ZSR-265D365X217N	2,41	23	50,6	2,3	4,2	2	320	365	130	265	212	178	330	105	351	120	141
ZSR-265D365X217P				3,9	7												
ZSR-265D365X222P				6	11,2												
ZSR-265D395X230P				10,2	19,5												
ZSR-265D395X330P				15	29	3	330	395									
ZSR-300D410X222N	3,67	35	77	3,9	7,5	2	360	410	150	300	246	209	390	120	416	150	176
ZSR-300D410X222P				6,6	12,5												
ZSR-300D430X230N				9,7	20,4												
ZSR-300D450X235P				16	31,2												
ZSR-300D450X335P				24,5	47	3	380	450									
ZSR-330D435X222N	4,64	44,3	97,46	4,4	8,3	2	390	435	170	330	275	234	430	135	459	160	189
ZSR-330D435X222P				7,3	14												
ZSR-330D480X230P				13	25												
ZSR-330D495X240P				24,2	45												
ZSR-330D495X340P				36,3	67,5	3	420	495									
ZSR-370D480X222P	7,33	70	154	7,9	15	2	430	480	190	370	307	254	500	150	542	200	242
ZSR-370D520X235N				13,6	24												
ZSR-370D520X235P				19,4	37												
ZSR-370D560X245P				34	64,7												
ZSR-370D560X345P				51	97	3	470	560									
ZSR-405D510X222P	8,80	84	184,8	8,5	16,5	2	460	510	210	405	335	279	560	175	605	210	255
ZSR-405D550X235N				13,5	26												
ZSR-405D550X235P				20,7	39												
ZSR-405D580X245P				35,4	67,2												
ZSR-405D580X345P				53,1	100,8	3	490	580									
ZSR-440D545X225P	15,95	152,3	355	11,1	20,8	2	490	545	230	440	367	305	600	190	650	220	270
ZSR-440D600X240N				19,6	36,5												
ZSR-440D615X240P				31	57												
ZSR-440D625X255P				55,6	106,4												
ZSR-440D625X355P				83,4	159,6	3	530	625									
ZSR-500D615X222P	21,34	203,8	448,3	10,5	19,6	2	560	615	280	500	423	355	720	220	782	280	342
ZSR-500D660X230P				18,6	34,8												
ZSR-500D670X240P				34,1	63,4												
ZSR-500D700X255P				62,7	120,5												
ZSR-500D710X360P				115,3	220	3	600	710									

On request we can supply couplings in ZCA version with open bells.
 Specify shear pins setting torque when making the request.
 We can supply bigger shear pins couplings on request.

ZATSR

Shear pins coupling with a spacer



TYPE	TECHNICAL DATA			CALIBRATION TORQUE OF SHEAR PINS		Pins Nr	DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Torque (kNm)			K	F	d _{max}	D	D1	Dm	L1	a
		Nominal	Peak	min	max									
ZATSR-142D215X212N	0,30	2,85	6,27	0,70	1,10	2	180	215	60	142	105	85	50	6,5
ZATSR-142D215X212P				1,05	1,80									
ZATSR-142D215X214P				1,45	2,65									
ZATSR-142D215X314P				2,20	4,00									
ZATSR-168D245X214P	0,59	5,6	12,32	1,20	2,15	2	210	245	75	168	131	107	62	12,5
ZATSR-168D245X214P				1,70	3,10									
ZATSR-168D258X217P				2,55	4,65									
ZATSR-168D258X317P				3,85	7,00									
ZATSR-200D270X212P	0,93	8,8	19,36	1,35	2,40	2	240	270	96	200	159	133	76	9,5
ZATSR-200D290X214P				1,90	3,60									
ZATSR-200D290X217N				3,10	5,35									
ZATSR-200D308X222P				4,80	9,10									
ZATSR-200D308X322P				7,20	13,60									
ZATSR-225D325X217N	1,50	14,3	31,46	2,10	3,60	2	280	325	110	225	184	152	90	21,5
ZATSR-225D325X217P				3,35	5,90									
ZATSR-225D345X225N				4,40	8,00									
ZATSR-225D345X225P				6,50	12,20									
ZATSR-225D345X325P				9,80	18,30									

ZATSR series

Shear pins coupling with a spacer

TYPE	TECHNICAL DATA			CALIBRATION TORQUE OF SHEAR PINS		Pins Nr	DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Torque (kNm)			K	F	d _{max}	D	D1	Dm	L1	a
		Nominal	Peak	min	max									
ZATSR-265D365X217N	2,41	23	50,6	2,3	4,2	2	320	356	130	265	121	178	105	24
ZATSR-265D365X217P				3,9	7									
ZATSR-265D365X222P				6	11,2									
ZATSR-265D395X230P				10,2	19,5	3	330	395						
ZATSR-265D395X330P				15	29									
ZATSR-300D410X222N	3,67	35	77	3,9	7,5	2	360	410	150	300	246	209	120	29
ZATSR-300D410X222P				6,6	12,5									
ZATSR-300D430X230N				9,7	20,4									
ZATSR-300D450X235P				16	31,2	3	380	450						
ZATSR-300D450X335P				24,5	47									
ZATSR-330D435X222N	4,64	44,3	97,46	4,4	8,3	2	390	435	170	330	275	234	135	33
ZATSR-330D435X222P				7,3	14									
ZATSR-330D480X230P				13	25									
ZATSR-330D495X240P				24,2	45	3	420	495						
ZATSR-330D495X340P				36,3	67,5									
ZATSR-370D480X222P	7,33	70	154	7,9	15	2	430	480	190	370	307	254	150	46
ZATSR-370D520X235N				13,6	24									
ZATSR-370D520X235P				19,4	37									
ZATSR-370D560X245P				34	64,7	3	470	560						
ZATSR-370D560X345P				51	97									
ZATSR-405D510X222P	8,80	84	184,8	8,5	16,5	2	460	510	210	405	335	279	175	49
ZATSR-405D550X235N				13,5	26									
ZATSR-405D550X235P				20,7	39									
ZATSR-405D580X245P				35,4	67,2	3	490	580						
ZATSR-405D580X345P				53,1	100,8									
ZATSR-440D545X225P	15,95	152,3	355	11,1	20,8	2	490	545	230	440	367	305	190	54
ZATSR-440D600X240N				19,6	36,5									
ZATSR-440D615X240P				31	57									
ZATSR-440D625X255P				55,6	106,4	3	530	625						
ZATSR-440D625X355P				83,4	159,6									
ZATSR-500D615X222P	21,34	203,8	448,3	10,5	19,6	2	560	615	280	500	423	355	220	67
ZATSR-500D660X230P				18,6	34,8									
ZATSR-500D670X240P				34,1	63,4									
ZATSR-500D700X255P				62,7	120,5	3	600	710						
ZATSR-500D710X360P				115,3	220									

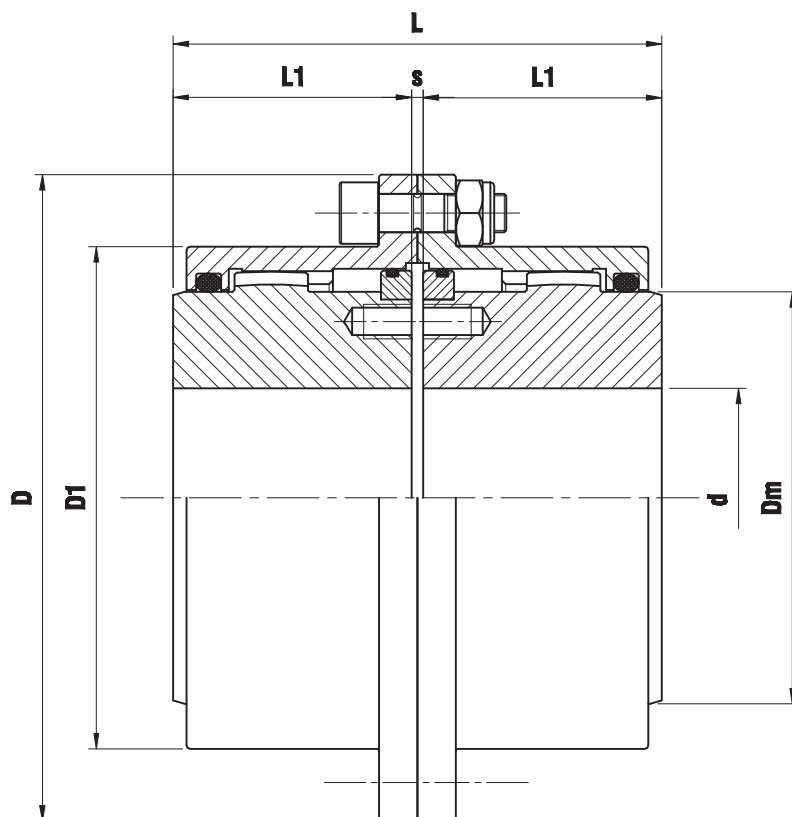
On request we can supply couplings in ZCA version with open bells.

Specify the dimension LM, shear pins setting torque and speed when making the request.

We can supply bigger shear pins couplings on request.

ZPR series

Shear bolt coupling



TYPE	TECHNICAL DATA				CALIBRATION TORQUE OF SHEAR BOLTS			DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	Torque (kNm)		Bolts Nr	K	d max	D	D1	Dm	L	L1	s
		Nominal	Peak		Min	Max									
ZPR-110N208P	0,19	1,82	4	6200	0,29	1,58	2	96	50	110	83	69	89	43	3
ZPR-110N308P					0,43	2,37	3								
ZPR-110N408P					0,58	3,16	4								
ZPR-142N210P	0,30	2,85	6,27	5270	0,50	1,28	2	122	60	142	105	85	103	50	3
ZPR-142N310P					0,98	3,94	3								
ZPR-142N410P					20,5	5,25	4								
ZPR-168N210P	0,59	5,6	12,32	4490	0,8	2,44	2	148	75	168	131	107	127	62	3
ZPR-168N310P					1,87	4,78	3								
ZPR-168N410P					3,58	8,06	4								
ZPR-200N212P	0,93	8,8	19,36	4010	2,15	4,85	2	178	95	200	159	133	157	76	5
ZPR-200N312P					3,23	8,98	3								
ZPR-200N412P					5,87	15	4								

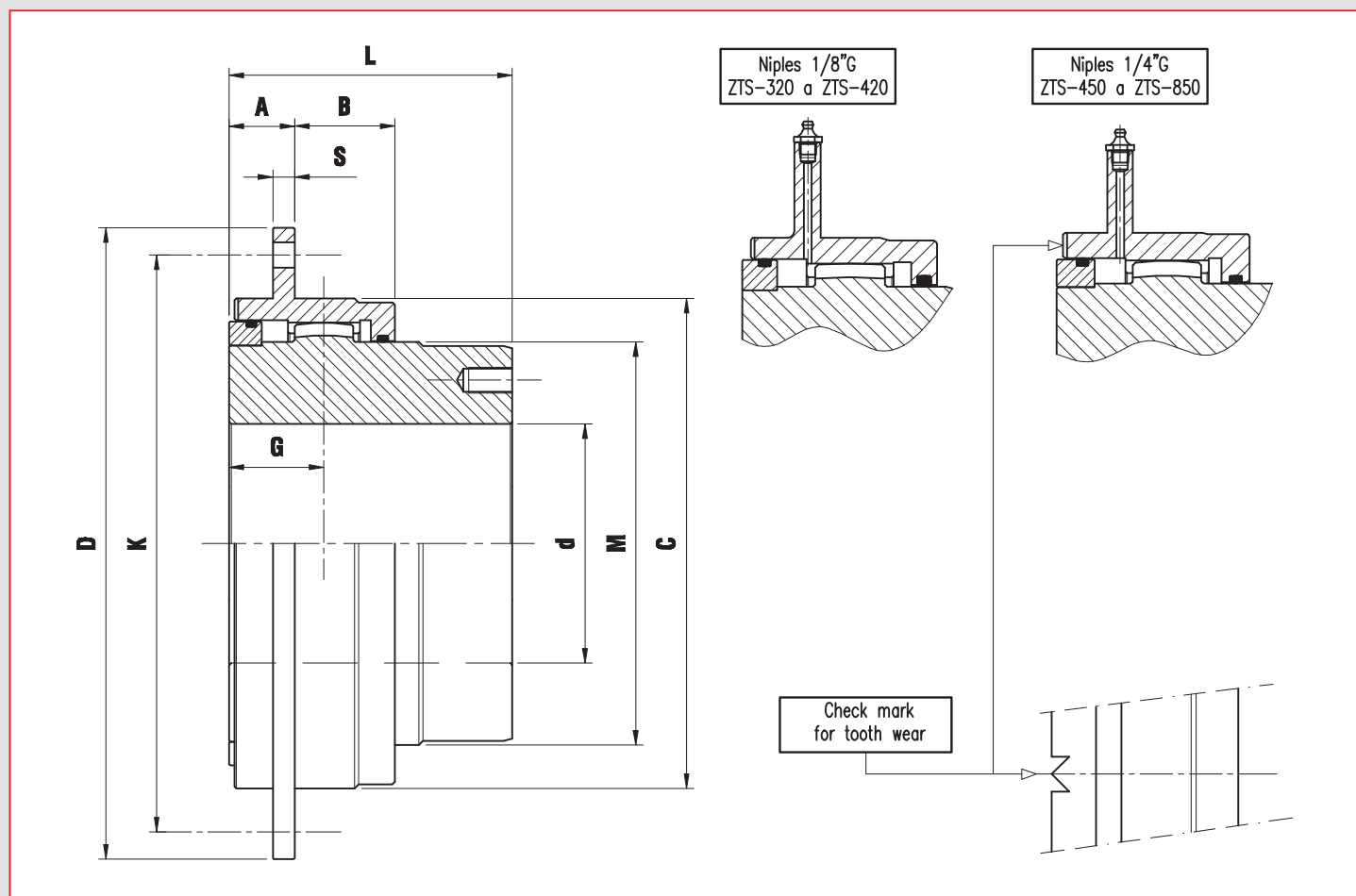
ZPR series

Shear bolt coupling

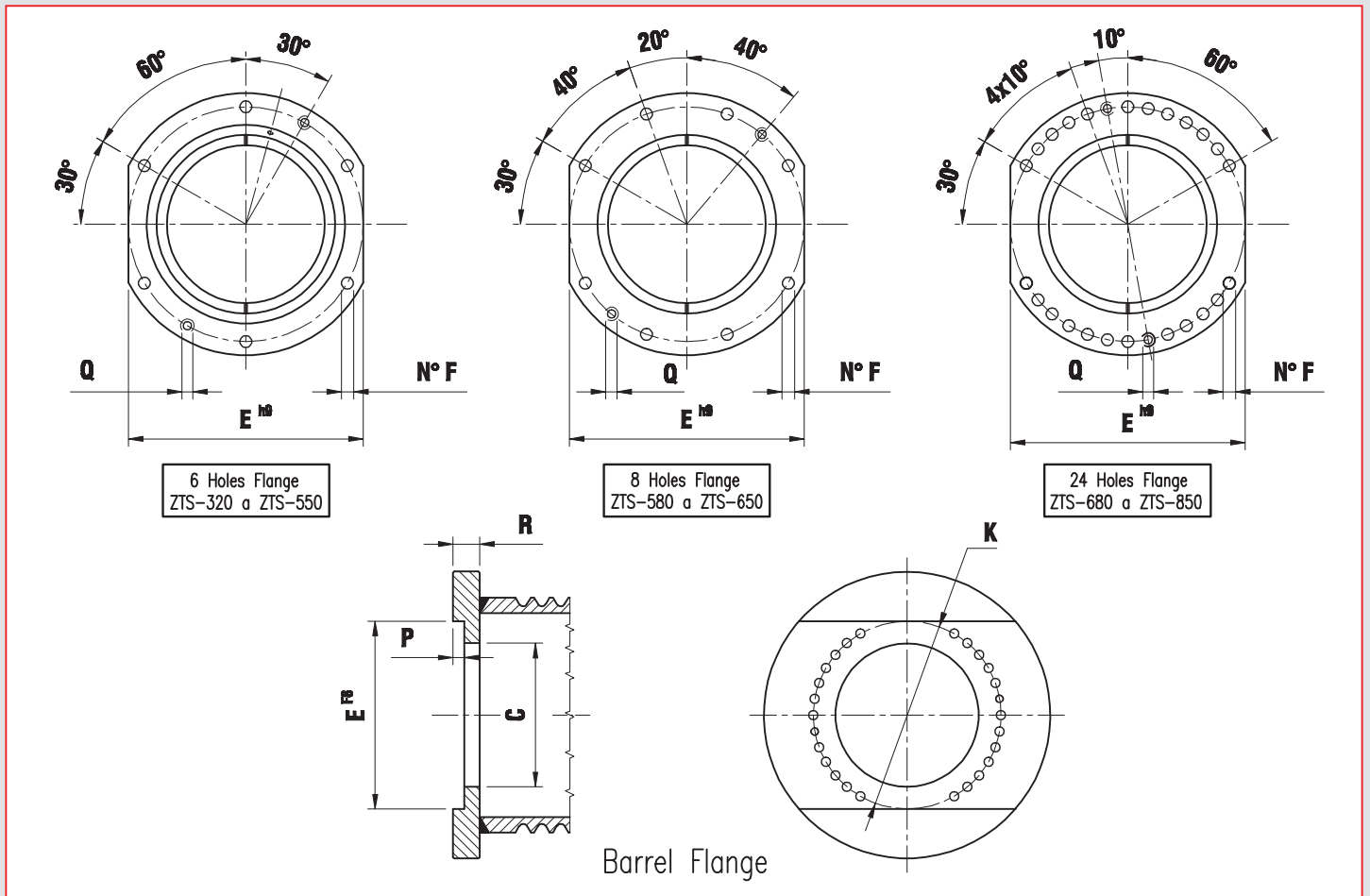
TYPE	TECHNICAL DATA				CALIBRATION TORQUE OF SHEAR BOLTS			DIMENSIONS (mm)							
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	Torque (kNm)		Bolts Nr	K	d max	D	D1	Dm	L	L1	s
		Nominal	Peak		Min	Max									
ZPR-225N212P	1,50	14,3	31,46	3870	2,46	6,82	2	203	110	225	184	152	185	90	5
ZPR-225N312P					3,68	10,25	3								
ZPR-225N412P					6,69	16,52	4								
ZPR-265N216P	2,41	23	50,6	3700	5,08	15,56	2	236	130	265	212	178	216	105	6
ZPR-265N316P					9,65	23,35	3								
ZPR-265N416P					11,9	35,72	4								
ZPR-300N216P	3,67	35	77	3200	5,82	17,8	2	270	150	300	246	209	246	120	6
ZPR-300N316P					11,03	26,7	3								
ZPR-300N416P					18,16	40,88	4								
ZPR-330N216P	4,64	44,3	97,46	2900	6,45	19,78	2	300	170	330	275	234	278	135	8
ZPR-330N316P					12,26	29,67	3								
ZPR-330N416P					20,18	45,4	4								
ZPR-370N218P	7,33	70	154	2580	9,13	28,85	2	335	190	370	307	254	308	150	8
ZPR-370N318P					16,9	43,28	3								
ZPR-370N418P					32,45	65,15	4								
ZPR-405N222P	8,80	84	184,8	2350	12,38	40,1	2	368	210	405	335	279	358	175	8
ZPR-405N322P					26,74	60,16	3								
ZPR-405N422P					48,53	99,05	4								
ZPR-440N222P	15,95	152,3	335	2170	13,45	43,6	2	400	230	440	367	305	388	190	8
ZPR-440N322P					29,06	65,4	3								
ZPR-440N422P					52,75	107,65	4								
ZPR-500N224P	21,34	203,8	448,3	1820	15,47	61,9	2	460	280	500	423	355	450	220	10
ZPR-500N324P					33,42	92,85	3								
ZPR-500N424P					60,66	149,8	4								

On request we can supply couplings in ZCA version with open bells.
Specify shear bolts setting torque when making the request.
We can supply bigger shear bolt coupling on request.

ZTS series Barrel coupling



TYPE	TECHNICAL DATA				DIMENSIONS (mm)								
	$\frac{N}{n} = \frac{kW}{rpm}$	Nominal Torque (kNm)	Peak Torque (kNm)	Maximum Load Kg	D	d max.	A	B	C f8 - H7	G	L	M	S
ZTS - 320	3,14	30	45	3600	320	100	45	47	200	53	110	149	15
ZTS - 340	3,98	38	57	4050	340	110	45	54	220	55	125	165	15
ZTS - 360	5,44	52	78	4500	360	120	45	54	240	55	130	184	15
ZTS - 380	6,80	65	97,5	5500	380	130	45	58	260	57	145	196	15
ZTS - 400	8,08	77,2	115,8	6750	400	150	45	65	280	62	170	222	15
ZTS - 420	10,26	98	147	8300	420	165	45	67	310	62	175	253	15
ZTS - 450	11,85	113,2	169,8	11300	450	175	60	73	340	77	185	266	20
ZTS - 510	14,65	140	210	14600	510	210	60	75	400	77	220	317	20
ZTS - 550	16,64	159	238,5	16000	550	220	60	82	420	82	240	330	20
ZTS - 580	20,73	198	297	18200	580	245	60	92	450	87	260	368	20
ZTS - 650	32,25	308	462	22500	650	290	65	107	530	97	315	435	25
ZTS - 680	38,53	368	552	25400	680	305	65	122	560	107	350	460	25
ZTS - 710	50,89	486	729	29400	710	330	81	125	600	123	380	500	35
ZTS - 780	59,68	570	855	35800	780	375	81	127	670	123	410	560	35
ZTS - 850	71,83	686	1029	42000	850	410	81	130	730	123	450	610	35



TYPE	DIMENSIONS (mm)							Weight (Kg)
	E h9 - F8	Ø K	Holes Nr. F	Ø F	Ø Q	P min.	R min.	
ZTS - 320	280	280	6	18	M16	10	25	28
ZTS - 340	300	300	6	18	M16	10	25	36
ZTS - 360	320	320	6	18	M16	10	25	44
ZTS - 380	340	340	6	18	M16	10	25	53
ZTS - 400	360	360	6	18	M16	10	25	73
ZTS - 420	380	380	6	18	M16	10	25	96
ZTS - 450	400	400	6	23	M20	10	25	120
ZTS - 510	460	460	6	23	M20	10	25	158
ZTS - 550	500	500	6	23	M20	10	25	223
ZTS - 580	530	530	8	23	M20	20	40	284
ZTS - 650	580	600	8	23	M20	25	50	466
ZTS - 680	600	630	24	23	M20	25	50	574
ZTS - 710	640	670	24	28	M24	35	60	718
ZTS - 780	700	730	24	28	M24	35	60	956
ZTS - 850	760	800	24	28	M24	35	60	1230

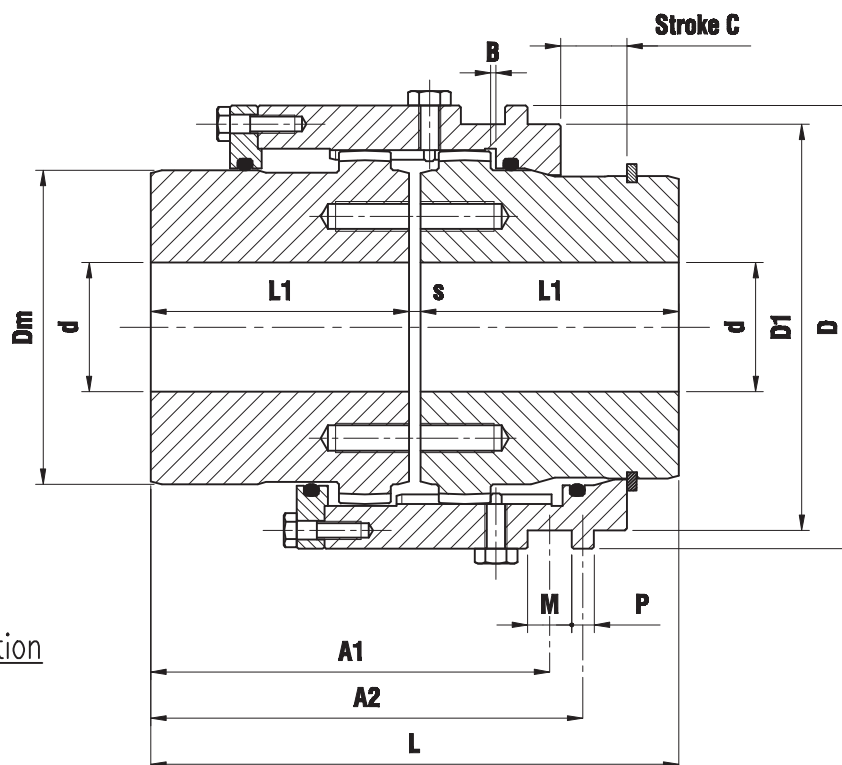
Coupling weights are calculated considering hubs without bore.

ZDIS series

Disengageable coupling

"MN" Version (with manual engage)

Engaged position



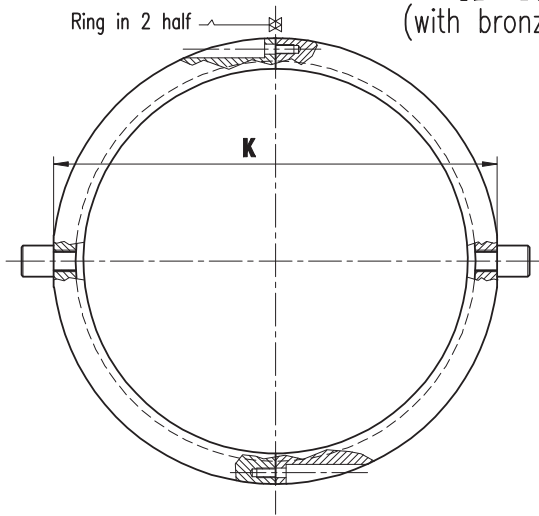
Disengaged position

TYPE	TECHNICAL DATA				DIMENSIONS (mm)													Maximum Parallel Misalignment (mm)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	d max.	D	D1	Dm	L1	S	B	A1	A2	M	P	C	L	
ZDIS - 110	0,19	1,82	4	6200	50	100	90	69	60	3	1,5	94	103	12	6	17	123	0,15
ZDIS - 142	0,30	2,85	6,27	5270	60	120	110	85	70	3	1,5	108	117	12	6	18	143	0,20
ZDIS - 168	0,59	5,6	12,32	4490	75	152	138	107	85	3	1,5	140	152	16	8	29	173	0,25
ZDIS - 200	0,93	8,8	19,36	4010	95	175	161	133	95	5	2,5	164	176	16	8	32	195	0,30
ZDIS - 225	1,50	14,3	31,46	3870	110	200	186	152	105	5	2,5	180	192	16	8	34	215	0,40
ZDIS - 265	2,41	23	50,6	3700	130	230	215	178	120	6	3	204	220	20	12	39	246	0,45
ZDIS - 300	3,67	35	77	3200	150	260	248	209	130	6	3	219	235	20	12	45	266	0,50
ZDIS - 330	4,64	44,3	97,46	2900	170	290	273	234	150	8	4	256	272	20	12	50	308	0,55
ZDIS - 370	7,33	70	154	2580	190	320	300	254	175	8	4	303	319	20	12	56	358	0,60
ZDIS - 405	8,80	84	184,8	2350	210	350	329	279	190	8	4	331	348	22	12	62	388	0,70
ZDIS - 440	15,95	152,3	335	2170	230	395	374	305	220	8	4	390	407	22	12	70	448	0,80
ZDIS - 500	21,34	203,8	448,3	1820	280	450	420	355	250	10	5	441	461	24	16	77	510	1,00

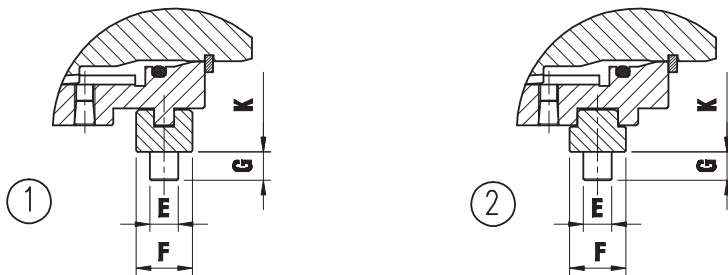
Weights and PD² are calculated considering hubs without bore.

ZDIS series
Disengageable coupling

"CB" Version
(with bronze collar)

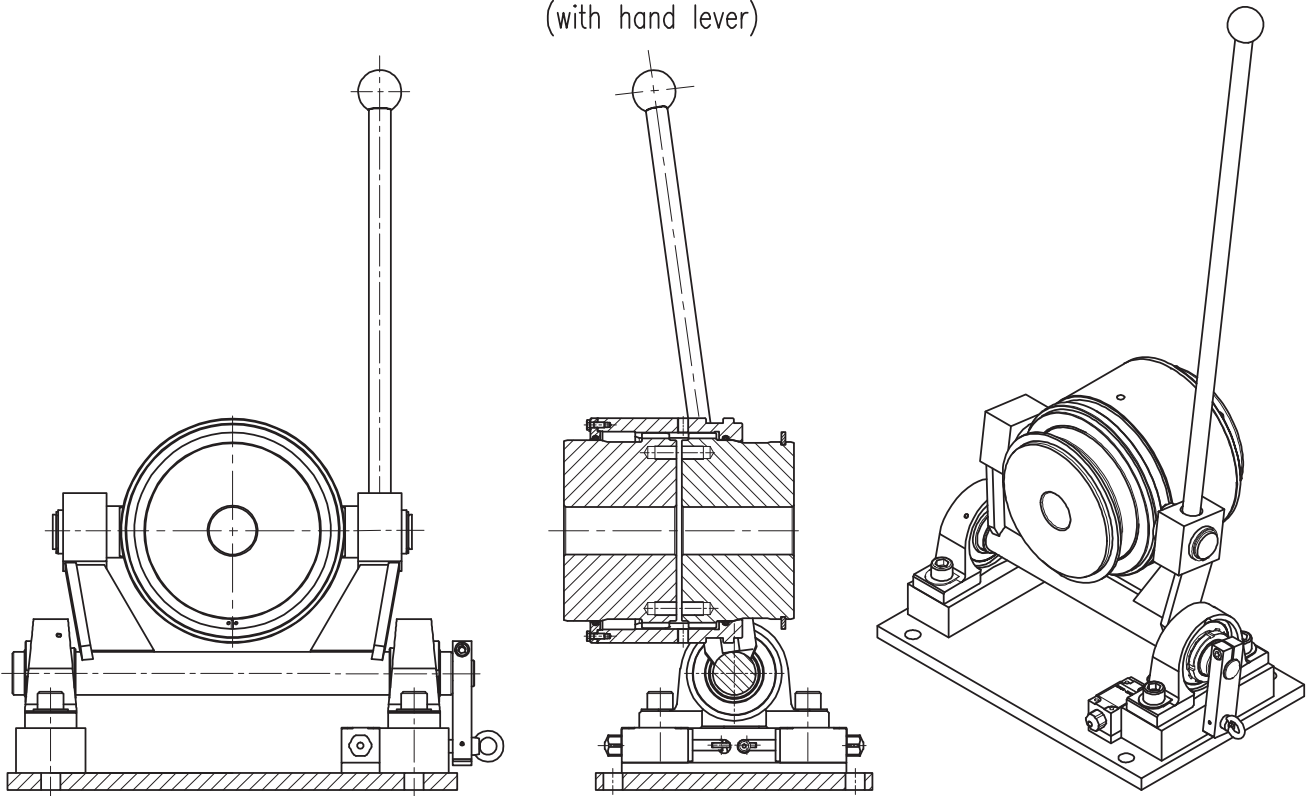


Two types of assembly



TYPE	DIMENSIONS (mm)			
	K	G	E h9	F
ZDIS - 110	125	12	12	20
ZDIS - 142	150	12	12	20
ZDIS - 168	187	16	16	24
ZDIS - 200	210	16	16	24
ZDIS - 225	240	16	16	24
ZDIS - 265	270	20	20	32
ZDIS - 300	310	20	20	32
ZDIS - 330	330	20	20	32
ZDIS - 370	360	20	20	32
ZDIS - 405	400	22	24	36
ZDIS - 440	445	22	24	36
ZDIS - 500	510	24	27	44

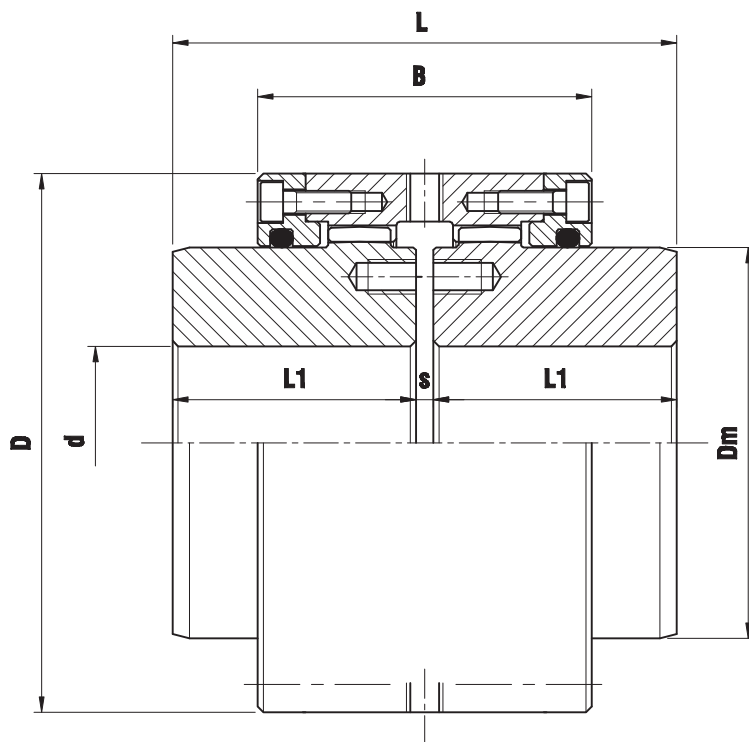
"L" Version
(with hand lever)



On request we can supply ZDIS coupling with "L" version.

ZM series

One sleeve and two standard oscillating hubs



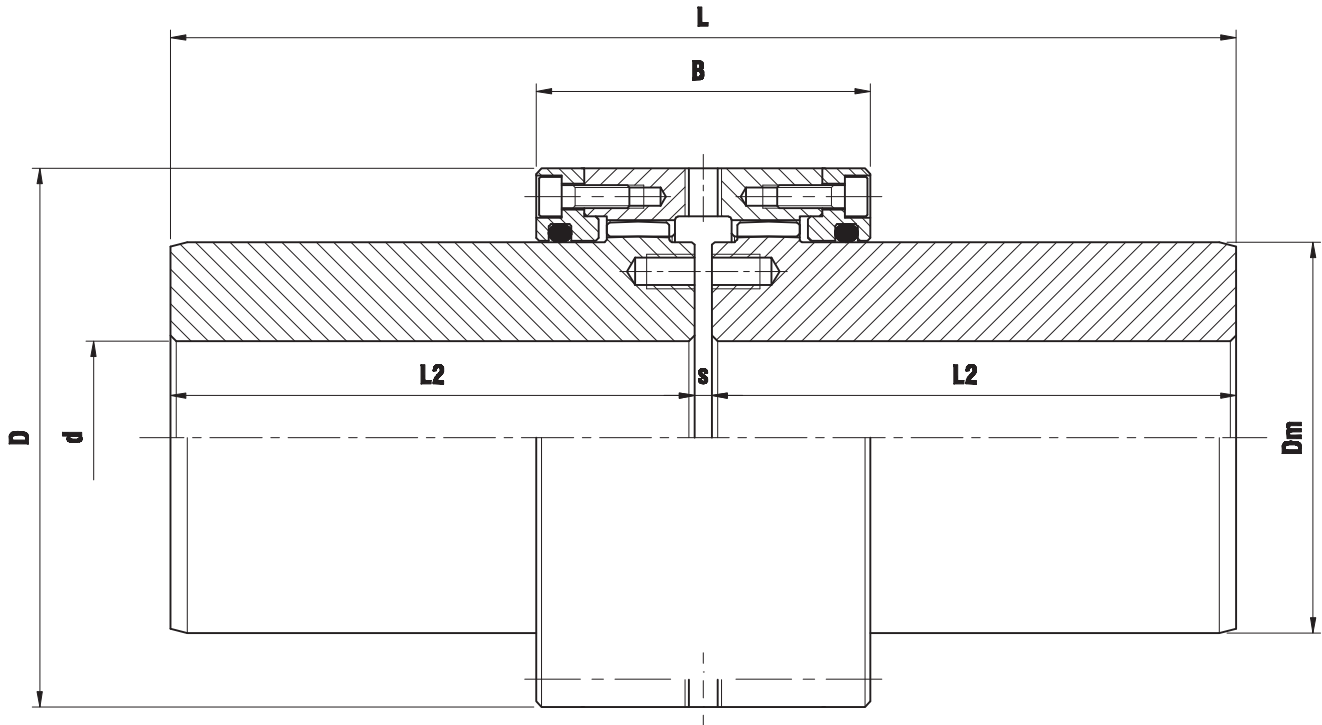
TYPE	TECHNICAL DATA					DIMENSIONS (mm)							Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{kW}{rpm}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kgm. ²)	d max.	D	Dm	L	L1	s	B		
		Nominal	Peak											
ZM - 110	0,19	1,82	4	6200	0,016	50	95	69	89	43	3	59	0,13	4
ZM - 142	0,30	2,85	6,27	5270	0,040	60	115	85	103	50	3	69	0,16	7
ZM - 168	0,59	5,6	12,32	4490	0,104	75	140	107	127	62	3	81	0,19	12
ZM - 200	0,93	8,8	19,36	4010	0,260	95	167	133	157	76	5	92	0,23	21
ZM - 225	1,50	14,3	31,46	3870	0,504	110	192	152	185	90	5	97	0,25	32
ZM - 265	2,41	23	50,6	3700	1,164	130	225	178	216	105	6	110	0,27	52
ZM - 300	3,67	35	77	3200	2,160	155	255	209	246	120	6	121	0,31	78
ZM - 330	4,64	44,3	97,46	2900	3,728	170	285	234	278	135	8	129	0,34	109
ZM - 370	7,33	70	154	2580	5,912	190	313	254	308	150	8	145	0,36	143
ZM - 405	8,80	84	184,4	2350	9,904	210	346	279	358	175	8	160	0,39	200
ZM - 440	15,95	152,3	335	2170	16,632	230	386	305	388	190	8	180	0,44	269
ZM - 500	21,34	203,8	448,3	1820	32,172	280	436	355	450	220	10	204	0,52	405

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings up to size ZM-1935, even in hardened and tempered steel.

ZM2P series

One sleeve and two extended oscillating hubs

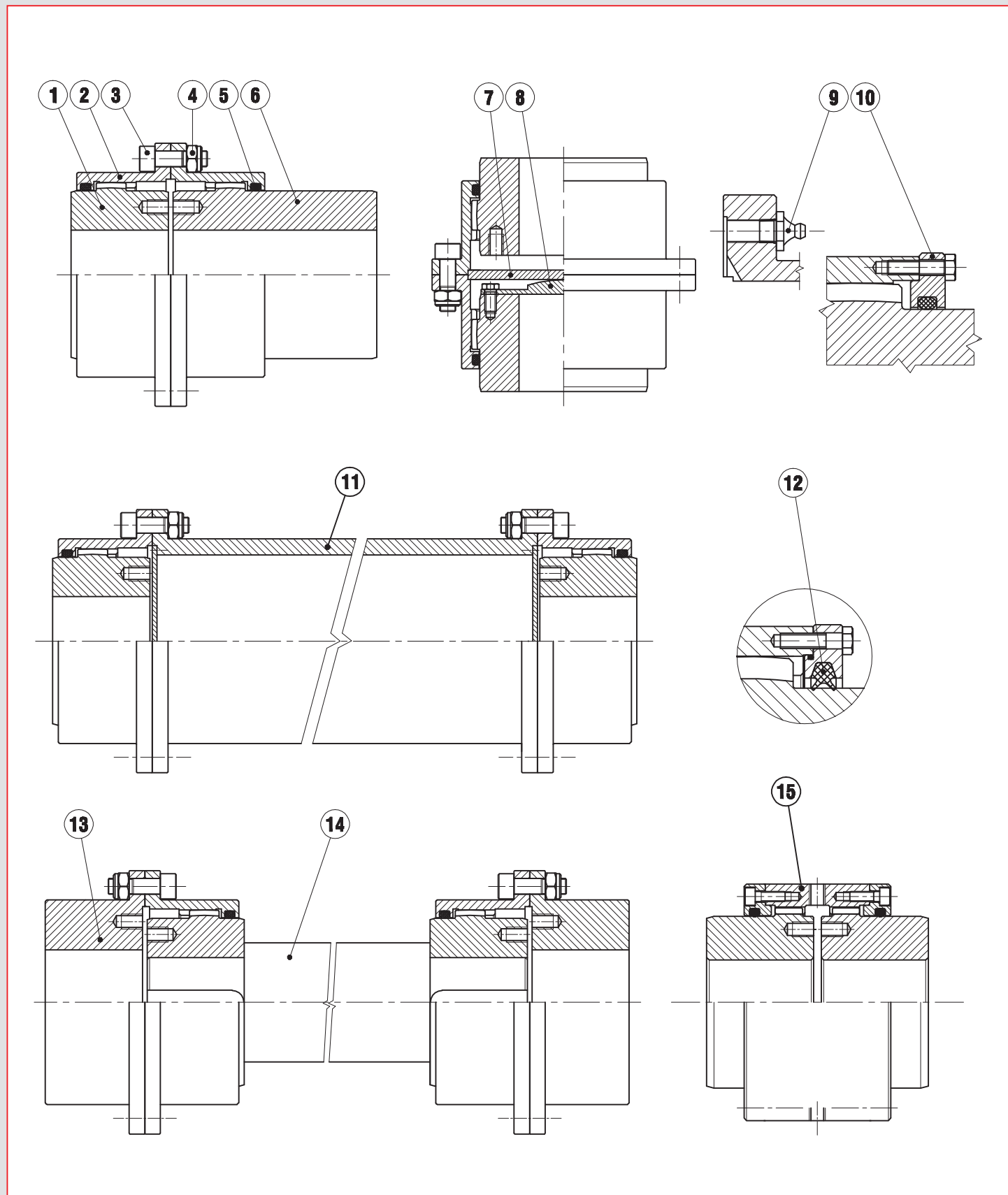


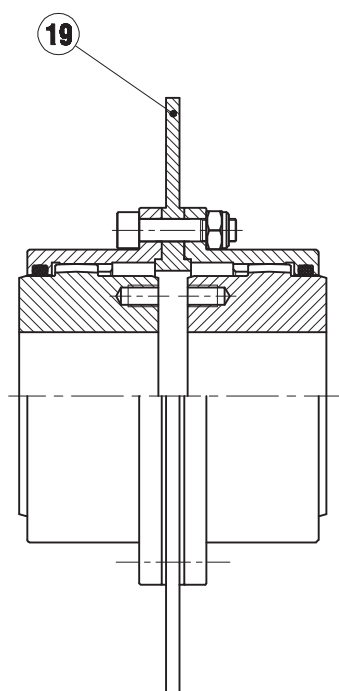
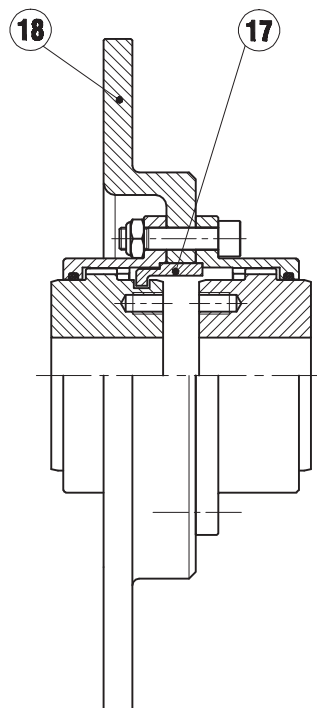
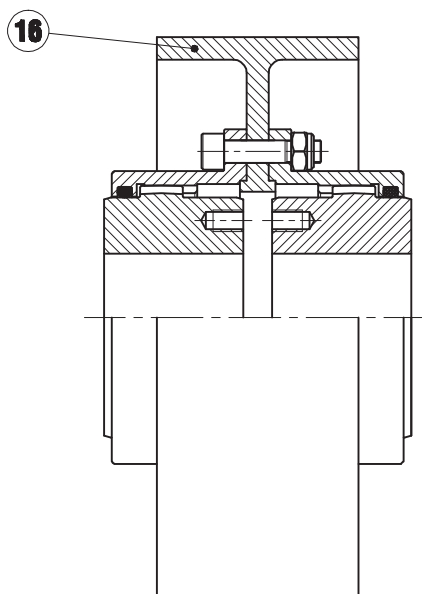
TYPE	TECHNICAL DATA					DIMENSIONS (mm)							Maximum Parallel Misalignment (mm)	Weight (Kg)
	$\frac{N}{n} = \frac{\text{kW}}{\text{rpm}}$	Torque (kNm)		Max Speed (rpm)	PD ² (Kg.m. ²)	d max.	D	Dm	L	L2	s	B		
		Nominal	Peak											
ZM2P - 110	0,19	1,82	4	6200	0,024	50	95	69	187	92	3	59	0,13	7
ZM2P - 142	0,30	2,85	6,27	5270	0,056	60	115	85	203	100	3	69	0,16	11
ZM2P - 168	0,59	5,6	12,32	4490	0,140	75	140	107	219	108	3	81	0,19	18,5
ZM2P - 200	0,93	8,8	19,36	4010	0,356	95	167	133	257	126	5	92	0,23	32
ZM2P - 225	1,50	14,3	31,46	3870	0,648	110	192	152	273	134	5	97	0,25	45
ZM2P - 265	2,41	23	50,6	3700	1,344	130	225	178	292	143	6	110	0,27	66
ZM2P - 300	3,67	35	77	3200	2,692	155	255	209	336	165	6	121	0,31	102
ZM2P - 330	4,64	44,3	97,46	2900	4,708	170	285	234	384	188	8	129	0,34	144
ZM2P - 370	7,33	70	154	2580	7,808	190	313	254	460	226	8	145	0,36	203
ZM2P - 405	8,80	84	184,4	2350	13,616	210	346	279	558	275	8	160	0,39	295
ZM2P - 440	15,95	152,3	335	2170	22,464	230	386	305	608	300	8	180	0,44	395
ZM2P - 500	21,34	203,8	448,3	1820	41,900	280	436	355	650	320	10	204	0,52	560

Weights and PD² are calculated considering hubs without bore.

On request we can supply couplings up to size ZM-1935, even in hardened and tempered steel.

COMPONENTS





PARTS

01	Standard hub
02	Toothed bell
03	Calibrated screw
04	Nylon nut
05	O-ring
06	Extended hub
07	Plate
08	Convex plate
09	Nipple
10	O-ring flange
11	Spacer
12	Coupling seal
13	Rigid hub
14	Floating shaft
15	Toothed sleeve
16	Brake band
17	Twiflex brake disc
18	Gar ring (reduced backlash)
19	Iron brake disc

FITTING

While fitting NORTHON gear couplings please follow this instructions:

- Carefully clean both the shafts that will be connected and the holes of the two half-couplings.
- First fit the gear bell onto the shaft to be connected checking that seal is fitted.
- Heat up the gear hub to the temperature indicated below in function of the acceptable tolerance.

Tolerance H7/m6	Tolerance H7/n6	Tolerance H7/r6	Tolerance H7/s6
+ 90°	+ 110°	+ 160°	+ 200°

- Place the hub on the ends of each shaft taking care to prevent it touching the seal while it is still hot.
- Move the gear bells outwards to uncover the two gear hub as much as possible.
- Put the shafts to be connected close together until reaching the value "s" indicated in the table.

In order to check this value use a thickness gauge and make sure that the gaps are the same in four different points at 90° (Fig. nr. 1)

- Check the angular and parallel misalignment of the shaft with a straight edge at two points at 90° of the outer diameter of the hubs (Fig. nr. 2).

Alignment may be considered correct when no light can be see between the straight edge and the hubs.

- When the hubs are cold, join the two bells using the calibrated screws (to be screwed respecting the tightening torques indicated in the table beneath), then fill the coupling with grease.

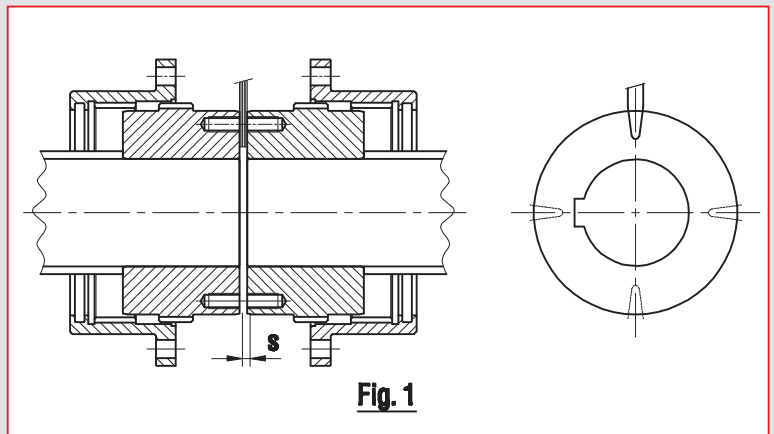


Fig. 1

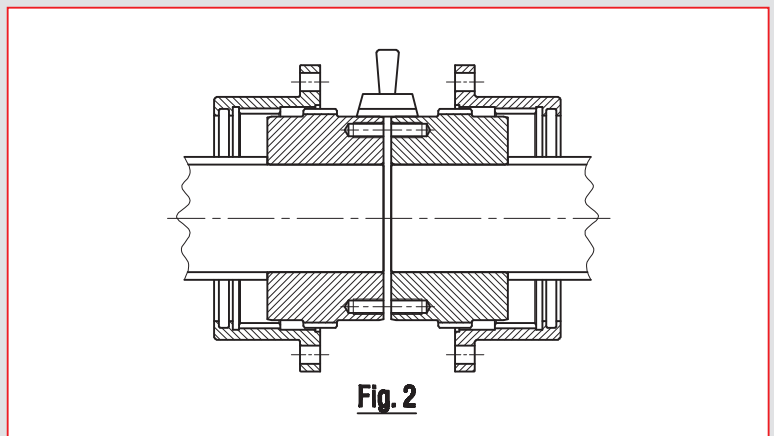


Fig. 2

Size	110	142	168	200	225	265	300	330	370	405	440	500	580	630
Nm	19	37	37	63	63	158	158	158	217	415	415	540	540	540
Size	700	760	825	885	935	1010	1085	1185	1340	1440	1575	1705	1805	1935
Nm	1090	1090	1090	1835	1835	1835	2990	2990	4518	4518	4518	7015	7015	7015

It is superfluous to say that the best alignment corresponds to longer service life of the coupling.

GEAR COUPLINGS

SPARE PARTS TABLE

COUPLING SIZE	SEALS				CALIBRATED SCREWS WITH NYLON NUT	
	N°	TYPE		DIMENSIONS	N°	Ø
		Angst+Pfister	Parker			
110	2	OR 171	OR 5-361	Ø 68,26 x 3,53	6	8
142	2	OR 4337	OR 2-237	Ø 85,32 x 3,53	8	10
168	2	OR 6425	OR 2-347	Ø 107,32 x 5,34	10	10
200	2	OR 210	OR 6-688	Ø 133,40 x 5,34	10	12
225	2	OR 6600	OR 2-361	Ø 151,77 x 5,34	12	12
265	2	OR 6700	OR 2-365	Ø 177,17 x 5,34	12	16
300	2	OR 6820	OR 2-370	Ø 208,92 x 5,34	14	16
330	2	OR 6920	OR 2-374	Ø 234,32 x 5,34	14	16
370	2	OR 81000	OR 2-449	Ø 253,3 x 7,0	14	18
405	2	OR 81100	OR 2-451	Ø 278,77 x 7,0	14	22
440	2	OR 81200	OR 2-453	Ø 304,17 x 7,0	14	22
500	2	OR 81400	OR 2-457	Ø 354,97 x 7,0	16	24
580	2	GDL 580		Ø 400x400x20	18	24
630	2	GDL 630		Ø 450x490x20	22	24
700	2	GDL 700		Ø 490x530x20	16	30
760	2	GDL 760		Ø 550x590x20	20	30
825	2	GDL 825		Ø 610x650x20	22	30
885	2	GDL 885		Ø 650x690x20	18	36
935	2	GDL 935		Ø 680x720x20	20	36
1010	2	GDL 1010		Ø 750x790x20	24	36
1085	2	GDL 1085		Ø 790x850x30	20	42
1185	2	GDL 1185		Ø 870x930x30	24	42
1340	2	GDL 1340		Ø 1000x1060x30	24	48
1440	2	GDL 1440		Ø 1100x1160x30	28	48
1575	2	GDL 1575		Ø 1220x1300x40	32	48
1705	2	GDL 1705		Ø 1310x1390x40	28	56
1805	2	GDL 1805		Ø 1400x1480x40	32	56
1935	2	GDL 1935		Ø 1520x1600x40	30	56

MAINTENANCE AND LUBRIFICATION

- It is advisable to check every 5 months that the bells freely slide axially on the toothed hubs.
- Fresh grease should be added every 6 months at the latest, and complete replacement is recommended after 7000 working hours or anyhow after 18 months.
- During the complete replacement of the grease, carefully clean the coupling, at the same time checking the state of wear of the tothing and alignment of the hubs.

We shall now list the type of grease of different brands suitable for temperatures between -10° C and +60° C.

IP	Atthesia GR EP1	SHELL	Alvania EP Grease 1	AGIP	GR MU EP1
ESSO	Beacon EP1	FIAT	Lambda 1 EP	BP	Grease LTX1-EP

Grease amount table for the various types of "NORTHON" gear couplings (values expressed in kg)

COUPLING SIZE	TYPE					COUPL. SIZE	TYPE		COUPL. SIZE	TYPE
	Z ZP Z2P ZAT ZAT2P	ZV ZVP ZV2P	Z1MR	Z2MR	ZR		ZA ZA2P ZAIAF ZAEAF ZAAT	ZAR		
110	0,08	0,09	0,09	0,10	0,04	580	7,00	3,50	320	0,15
142	0,10	0,11	0,13	0,16	0,05	630	8,40	4,20	340	0,17
168	0,16	0,18	0,26	0,36	0,08	700	10,00	5,00	360	0,18
200	0,28	0,31	0,35	0,42	0,14	760	12,50	6,25	380	0,20
225	0,48	0,52	0,82	1,16	0,24	825	15,00	7,50	400	0,26
265	0,70	0,75	1,22	1,74	0,35	885	21,50	10,75	420	0,28
300	0,90	0,97	1,80	2,70	0,45	935	29,00	14,50	450	0,32
330	1,50	1,60	2,75	4,00	0,75	1010	32,00	16,00	510	0,48
370	2,20	2,32	4,33	6,46	1,10	1085	48,00	24,00	550	0,58
405	3,00	3,13	5,75	8,50	1,50	1185	62,00	31,00	580	0,70
440	4,00	4,15	7,65	11,30	2,00	1340	81,00	40,50	650	1,10
500	6,10	6,30	12,20	18,30	3,00	1440	101,50	50,75	680	1,40
						1575	123,00	61,50	710	1,80
						1705	168,00	84,00	780	2,20
						1805	202,00	101,00	850	2,60
						1935	257,00	128,50		

COUPLING SIZE	TYPE									
	ZRDF ZRFF	ZDF ZFF	ZGAR	Z2GAR	ZSA	Z2SA	ZM Z2M	ZIE	ZPR	ZDIS
110	0,07	0,11	0,05	0,02	0,11	0,13	0,02	0,05	0,04	0,08
142	0,12	0,17	0,06	0,03	0,16	0,25	0,04	0,08	0,06	0,09
168	0,18	0,26	0,09	0,04	0,32	0,52	0,06	0,15	0,10	0,16
200	0,32	0,46	0,17	0,22	0,57	0,90	0,12	0,24	0,12	0,27
225	0,48	0,72	0,34	0,38	1,00	1,73	0,18	0,45	0,32	0,47
265	0,77	1,12	0,45	0,55	1,60	2,75	0,25	0,70	0,48	0,68
300	1,00	1,47	0,56	0,70	2,40	4,30	0,35	1,00	0,75	0,93
330	1,50	2,25	0,95	1,15	3,60	6,10	0,54	1,35	1,10	1,54
370	2,20	3,30	1,50	1,75	5,20	8,85	0,68	2,20	1,72	2,28
405	2,80	4,30	2,20	2,34	7,40	12,50	0,84	3,12	2,44	3,10
440	3,70	5,70	3,00	3,23	9,70	16,00	1,10	4,10	3,28	3,90
500	5,80	8,90	4,50	4,88	15,00	25,00	1,80	6,40	5,26	6,20

Type ZSR and ZATSR Quantity grease on request.

SAFETY REGULATIONS

1. Before starting any assembling operation of NORTHON couplings make sure that machines that will be connected can not start running in any way.
Verify that the power supply is off.
2. Assembling operations must be done exclusively by qualified and trained personnel.
3. Personnel that take part in the assembling operations must wear adequate clothes and should have personal safety devices.
4. The couplings are normally supplied with corrosion inhibitor for the internal warehousing.
When remove it, it is required to protect adequately both assembling personnel and the working environment.
5. The use of lifting equipment in order to position and assemble the coupling requires a complete respect of the safety rules.
6. In case of use of flames respect safety rules. Keep in mind that is prohibited to use flames in saturated environments with a high risk of explosions.
7. In any case of tampering or modification of the couplings from its original state, the constructor will not be liable for any kind of possible direct or indirect damage caused to people, animals or things.
8. During the first starting of the installation make sure that there are no safety risks for the personnel in charge of assembling. It is absolutely necessary to keep a certain safety distance from the point of the installation of the coupling.
9. The couplings, being rotating parts, are subject to the present EU industrial injury legislation that provides the use of the protection carter.
10. Finally, it is important to remember that the coupling should not exceed the values of the working torque, speed or angular misalignment indicated by the constructor.

This catalogue replaces every previous edition. TRANS-MOTO reserves the right to modify it without any prior notice. 2013 edition



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