

APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Feinnord Maschinen GmbH and its affiliates with respect to the use of products and components is given in good faith and without charge, and Feinnord assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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FEINNORD



GEAR COUPLING Z SERIES

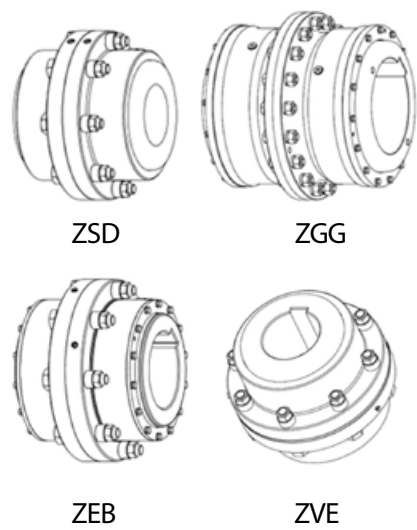
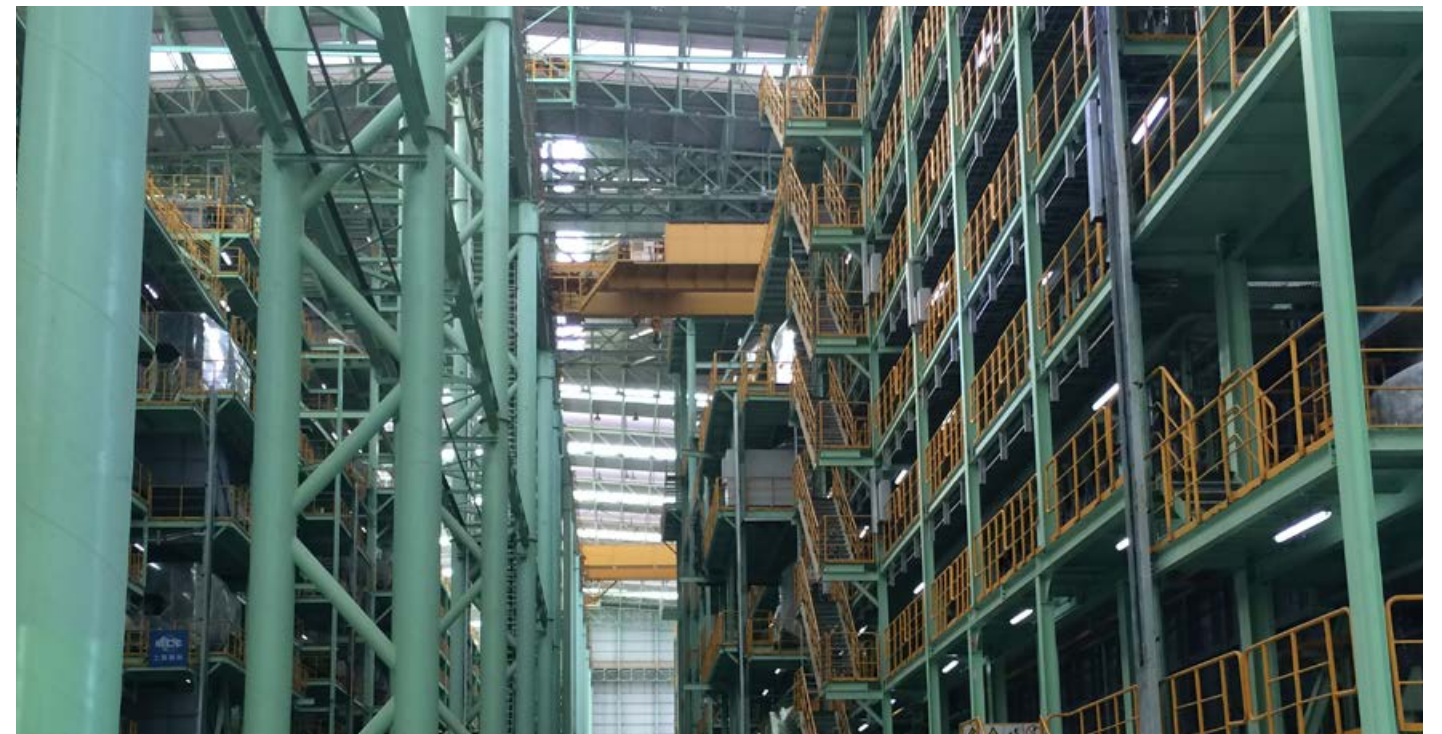




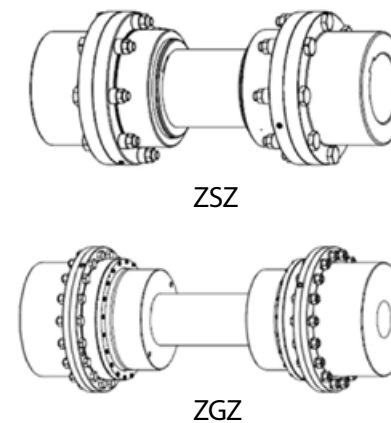
Very high-torque ratings, along with unparalleled bore capacities, give this coupling a great advantage over other types of couplings. This is a heavy duty coupling with incredible design flexibility, making it an economical choice for many applications. The unique design of the gear couplings tooth crowning dramatically reduces backlash and radial clearance. The hub bore capacities are the largest in the industry, allowing for low cost and long service life. In some applications it is not possible to go up in coupling size to accommodate a specific torque requirement, usually due to dimensional restraints or operating speeds. Special designs according to customer needs often come from close co-operation with our R&D and Engineering departments. Special solutions are normally based on the use of special seals and alloyed steels subjected to surface hardening treatments, such as:

- Nitriding
- Carburizing
- Induction hardening

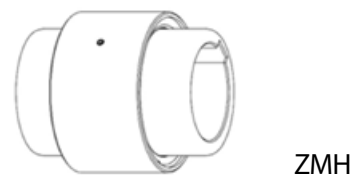




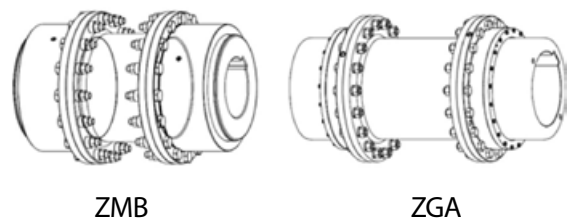
Type ZSD and ZEB double engagement, closecoupled type has two flex halves to accommodate both offset and angular misalignment or a combination of the two, as well as end float. It is ideal for all horizontal, close-coupled applications including fans, overhead cranes, conveyors, steel and paper mill equipment. It is adaptable with limited end float kits for use on electric motors, generators or any machines fitted with sleeve or straight roller bearings. (see page 09 and 11.) Type ZVE vertical double engagement coupling is a standard horizontal double engagement gear coupling modified to accommodate the sleeve-centering assembly. Recommended for inclinations over 10°. (see page 13.) The Type ZGG Large Gear Coupling is available in all types for capacities up to 17 737 500 Nm. (see page 10.)



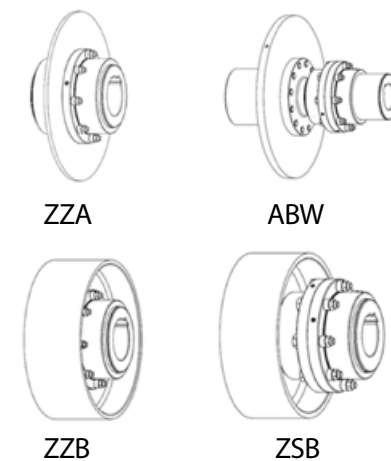
Type ZSD and ZGZ, floating shaft assemblies are used when the distance between equipment is too great for spacer couplings. A standard floating shaft assembly consists of two standard single engagement couplings, two gap discs and a connecting shaft. A floating shaft can eliminate the need for additional bearing supports along spanning shafts, because the shaft is supported by connected equipment through the single engagement couplings. When used with a vertical floating shaft on inclinations over 10°, the Type ZVE coupling is used as the lower coupling to support the shaft. Flex Hubs on Floating Shaft — Assembly of the flex hubs on the floating shaft allows for easier replacement and allows the rigid hubs with greater bore capacity to be used on the connected equipment shafts. This frequently means a smaller coupling size can be utilized. Rigid Hubs on floating Shaft — When the rigid hubs are on the floating shaft, shorter shaft spans can be accommodated, since no cover drawback is required. (see page 16 and 17.)



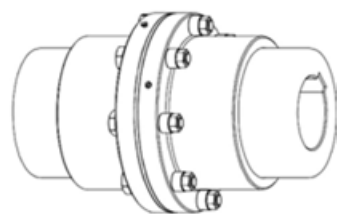
Type ZMH, with two hubs and one sleeve, the simplicity of this continuous sleeve coupling allows it to be easily adapted to a wide variety of applications. It's very compact, low in rotating mass, and has a lower initial cost than flanged types. (see page 12.)



Type ZMB and ZGA, spacer couplings for pump and compressor applications simplify servicing connected equipment. Spacer couplings use a standard double engagement coupling with a spacer tube and an additional set of fasteners. Stock spacer lengths for quick delivery are available in the popular sizes. Special lengths are also available. (see page 14 and 15.)

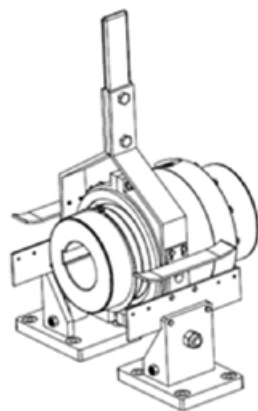


Type ZZA ABW ZZB and ZSB, double or single engagement brakedrum and disc brake couplings are used for applications such as cranes, hoists and conveyors. Brakedrum and disc brake couplings accommodate misalignment between connected equipment and eliminate the need for double shaft extensions on motors and gear drives for applications requiring brakes. (see page 18, 19, 20 and 21.)



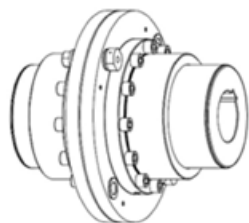
ZAH

Type ZAH, double and single engagement slide couplings are used for applications requiring axial movement to accommodate thermal shaft expansion or adjustment. (see page 22)



ZEA

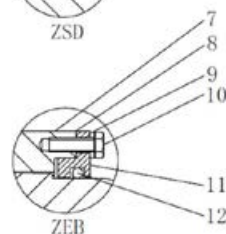
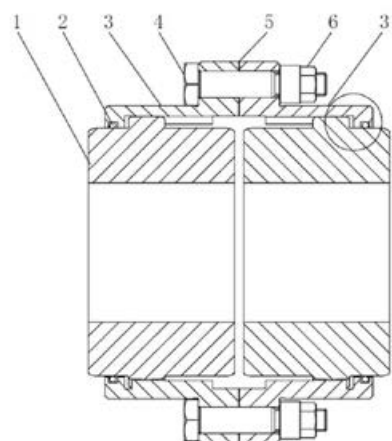
Type ZEA disengaging couplings are used for general applications that require quick disconnect of equipment or inching drives. It is used for occasional servicing or inspection of drive system components and is most commonly used on portable or stationary inching drive systems where the driving end hub/sleeve combination is mounted on the driving shaft on the incher for connecting or disconnecting at standstill. (see page 23.)



ZMA

Type ZMA, shear pin couplings are used for applications subject to jamming and overload. When pins break, the equipment is physically disconnected, preventing damage. If desired shear settings are unknown, theselection should be referred to the Factory. (see page 24.)

1. COMPONENTS



- 1-HUB
- 2-ORING
- 3-SLEEVE
- 4-BOLT
- 5-SEAL
- 6-NUT
- 7-SLEEVE
- 8-SEAL
- 9-WASHER
- 10-BOLT
- 11-SEALING COVER
- 12-ORING

2. SELECTION

- a) The first step is to determine what coupling type is to be selected for this application. The size will be determined by the selection torque and the shaft diameters.
- b) Calculate nominal torque T_N (Nm) as follows:

$$T = 9549 \frac{P_N \cdot K}{n}$$

P_N = Max. actual power in (Kw)

n = Coupling speed in (rpm.)

K = Service factor

Selection Service Factors (K): Recommended service factors are given in page07. The service factor can vary for each application and depending among other on:

- a. Type of driving and driven machine
- b. Reversing / Non-reversing load
- c. Peak torques

Select coupling size from catalogue with nominal torque capacity same or higher than obtained.

- c) Speed given in catalogue is maximum value for dynamically balanced couplings. For higher operational speed the coupling, other materials than carbon steels might be used. Please contact Feinnord engineering for support.
- d) Check in the catalogue maximum bore capacity for selected coupling. Should shafts be larger than the maximum admissible bore, select next bigger necessary size diameter.

e) SLECTION EXAMPLE

Inputs

Motor power $P_N = 400\text{Kw}$.

Speed $n = 1.000 \text{ r.p.m.}$

Gearbox shaft $d_1 = 80\text{mm}$.

Drum side shaft $d_2 = 100\text{mm}$.

Service Factor for Conveyor Heavy Duty Not Uniformly Fed Assembly in page07, $K=1.25$

Calculation

$$\text{Torque } T = 9549 \frac{P_N \cdot K}{n \cdot F_a} = 9549 \frac{400 \cdot 1.25}{1000} = 4775 \text{ Nm}$$

Tentative selection is ZSD20.

Check the maximum shaft capacity for selected size. $D_2=100\text{mm}$ leads to the selection of ZSD30.

Application speed is within the maximum speed in catalog.

f) Service Factor

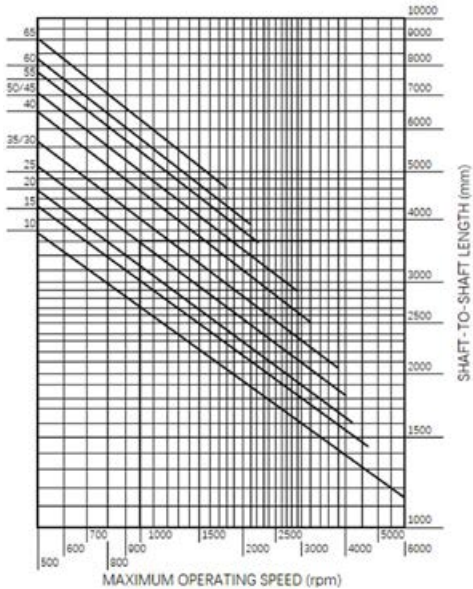
Values listed are intended only as a general guide, and are typical of usual service requirements. For systems which frequently utilize the peak torque capability of the power source, verify that the magnitude of this peak torque does not exceed the 1.0 Service Factor Rating of the coupling selected. Applications which involve extreme repetitive shock or high-energy load absorption characteristics should be referred -with full particulars- to Feinnord.

Values contained in the table are to be applied to smooth power sources such as electric motors and steam turbines. For drives involving internal combustion engines of four or five cylinders, add 1.0 to the values listed; for six or more cylinders, add 0.5 to the values listed. For systems utilizing AC or DC Mill Motors as the prime mover, refer to Note (1).

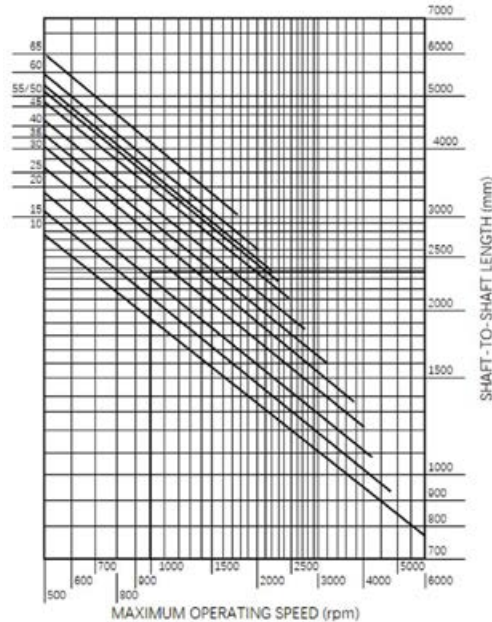
CAUTION: All people moving applications must be referred to engineering.

AGITATORS			Trimmer Feed	1.75	Barker Auxiliaries, Hydraulic	2.0
Pure Liquids	1.0		MARINE PROPULSION		Barker, Mechanical	2.0
Liquids & Solids	1.25		Main Drives	2.5	Barking Drum Spur Gear Only	2.25
Liquids - Variable Density	1.25		MACHINE TOOLS		Beater & Pulper	1.75
BLOWERS			Bending Roll	2.0	Bleacher	1.0
Centrifugal	1.0		Plate Planer	1.5	Calenders	2.0
Lobe	1.5		Punch Press -Gear Driven	2.0	Chippers	2.5
Vane	1.25		Tapping Machines	1.5	Coaters	1.0
BRIQUETTE MACHINES	2.0		Other Machine Tools		Converting Machines except Cutters, Platers	
CAR PULLERS- Intermittent Duty			Main Drives	1.5		1.5
	1.5		Auxiliary Drives	2.5	Couch Roll	1.75
COMPRESSORS			METAL MILLS		Cutters, Platers	2.0
Centrifugal	1.0		Draw Bench - Carriage	2.0	Cylinders	1.75
Centriaxial	1.25		Draw Bench -Main Drive	2.0	Disc Refiners	1.75
Lobe	1.5		Forming Machines	2.0	Dryers	1.75
Reciprocating-Multi-Cylinder	2.0		Slitters	1.5	Felt Stretcher	2.0
CONVEYORS-LIGHT DUTY UNIFORMLY FED			Table Conveyors		Felt Whipper	1.75
Apron, Bucked, Chain, Flight, Screw	1.25		Non-Reversing	2.25	Jordans	1.75
Assembly, Belt	1.0		Reversing	2.5	Line Shaft	1.5
Oven	1.5		Wire Drawing & Flattening Machine		Log Haul	2.0
CONVEYORS-HEAVY DUTY NOT UNIFORMLY FED			Wire Winding Machine	1.75	Pulp Grinder	1.75
Apron, Bucket, Chain, Flight, Over	1.5		METAL ROLLING MILLS (NOTE1)		Press Roll	2.0
Assembly, Belt	1.25		Coilers hot mill	2.0	Reel	1.5
Reciprocating, Shaker	2.5		Coilers cold mill	1.25	Stock Chests	1.5
CRANES AND HOISTS (NOTE 1 and 2)			Cold Mills	2.0	Suction Roll	1.75
Main hoists, Reversing	2.5		Cooling Beds	1.75	Washers & Thickeners	1.5
Skip Hoists, Trolley & Bridge Drives			Door Openers	2.0	Winders	1.5
	2.0		Draw Benches	2.0	PRINTING PRESSES	1.5
Slope	2.0		Edger Drives	1.75	PULLERS - Barge Haul PUMPS	2.0
CRUSHERS			Feed Rolls, Reversing Mills	3.5	Centrifugal	1.0
Ore, Stone	3.0		Furnace Pushers	2.5	Boiler Feed	1.5
DREDGES			Hot Mills	3.0	Reciprocating	
Cable Reels	1.75		Ingot Cars	2.5	Single Acting	
Conveyors	1.5		Kick-outs	2.5	1 or 2 Cylinders	2.25
Cutter Head Jig Drives	2.5		Manipulators	3.0	3 or more Cylinders	1.75
Maneuvering Winches	1.75		Merchant Mills	3.0	Doble Acting	2.0
Pumps	1.75		Piercers	3.0	Rotary, Gear, Lobe, Vane	1.5
Screen Drives	1.75		Pushers Rams	2.5	RUBBER INDUSTRY	
Stackers	1.75		Reel Drives	1.75	Mixer - Banbury	2.5
Utility Winches	1.5		Reel Drums	2.0	Rubber Calendar	2.0
ELEVATORS (NOTE 2)			Reelers	3.0	Rubber Mill (2 or more)	2.25
Bucket	1.75		Rod and Bar Mills	1.5	Sheeter	2.0
Centrifugal & Gravity Discharge	1.5		Roughing Mill Delivery Table	3.0	Tire Building Machines	2.5
Escalators	1.5		Runout Tables		Tire & Tube Press Openers	1.0
Freight	2.5		Reversing	3.0	Tubers & Strainers	2.0
FANS			Non-Reversing	2.0	SCREENS	
Centrifugal	1.0		Saws, hot & cold	2.5	Air Washing	1.0
Cooling Towers	1.5		Screwdown Drives	3.0	Grizzly	2.0
Forced Draft	1.5		Skelp Mills	3.0	Rotary - Stone or Gravel	1.5
Induced Draft without Damper Control			Slitters	3.0	Traveling Water Intake	2.25
	2.0		Slabbing Mills	3.0	Vibrating	2.5
FEEDERS			Soaking Pit Cover Drives	3.0	SEWAGE DISPOSAL EQUIPMENT	
Apron, Belt, Disc, Screw	1.25		Straighteners	2.5	Bar Screens	1.25
Reciprocating	2.5		Tables, transfer & runout	2.0	Chemical Feeders	1.25
GENERATORS			Thurst Block	3.0	Collectors, Circuline or Straightline	1.25
(Not Welding)	1.0		Traction Drive	3.0	Dewatering Screens	1.25
HAMMER MILLS	2.0		Tube Conveyor Rolls	2.5	Grit Collectors	1.25
LAUNDRY WASHERS			Unscramblers	2.5	Scum Breakers	1.25
Reversing	2.0		Wire Drawing	1.5	Slow or Rapid Mixers	1.25
LAUNDRY TUMBLERS	2.0		MILLS, ROTARY TYPE		Sludge Collectors	1.25
LINE SHAFT	1.5		Ball	2.25	Thickeners	1.25
LUMBER INDUSTRY			Dryers & Coolers	2.0	Vacuum Filters	1.25
Barkers-Drum Type	2.0		Hammer	1.75	STEERING GEAR	1.0
Edger Feed	2.0		Kilns	2.0	STOKERS	1.0
Live Rolls	2.0		Pebble & Rod	2.0	WINCH	1.5
Log Haul-Incline	2.0		Pug	1.75	WINDLASS	1.75
Log Haul-Well type	2.0		Tumbling Barrels	2.0		
Off Bearing Rolls	2.0		MIXERS		Notes:	
Planer Feed Chains	1.75		Concrete Mixers	1.75	(1) Maximun Torque at the coupling must	
Planer Floor Chains	1.75		Drum Type	1.5	not exceed Rated Torque of the coupling.	
Planer Tilting Hoist	1.75		OIL INDUSTRY		(2) Check local and industrial safety codes.	
Slab Conveyor	1.5		Chillers	1.25		
Sorting Table	1.5		Paraffin Filter Press	1.75		
			PAPER MILLS			

g) Maximum Speeds, Series ZMB



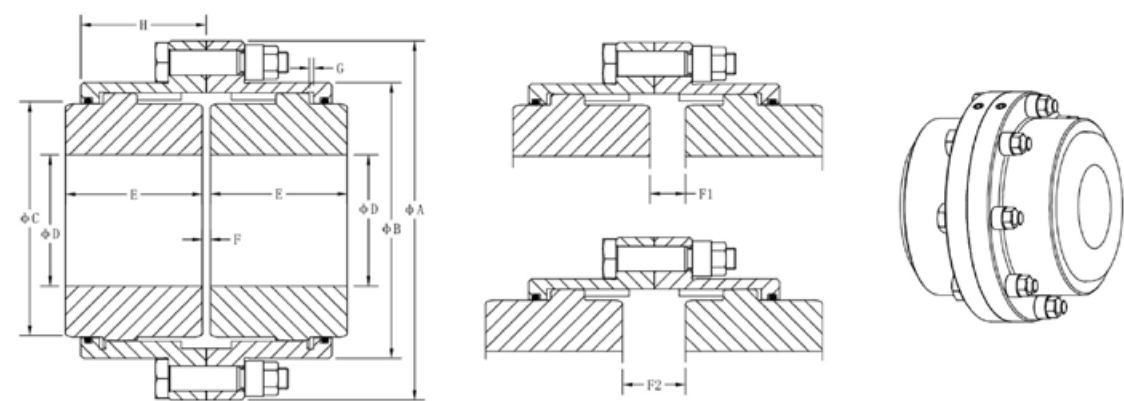
Series ZSZ



Note: The maximum speeds on this page are only a guide. The actual limits are determined by the characteristics of the system in which the coupling is installed. For lengths greater than shown, contact Feinnord.

SERIES ZSD | SIZE 10 - 65

Standard
Reverse Mounted One Hub / Two Hubs



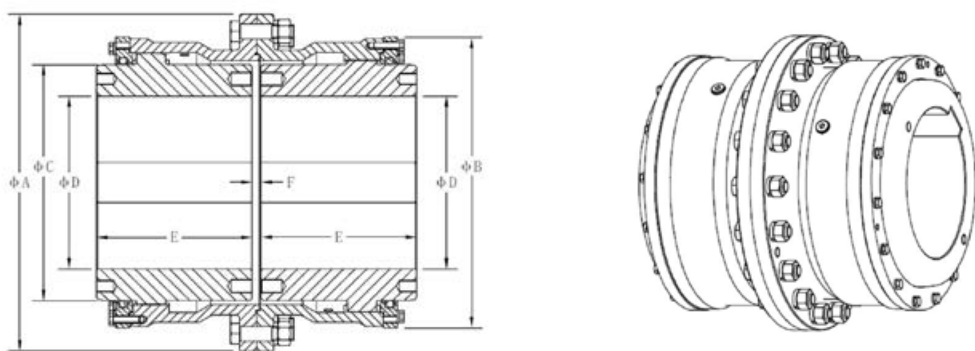
Size	TN Nm (1)	TP Nm (1)	n Max rpm(2)	A	B	C	D Max (3)	E	F	F1	F2	G	H	IWeight MaxKg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	2,937	5,940	8,600	111	82.5	69	52	43	3	5	7	1.5	39	4	3	0.005
15	4,604	9,108	7,000	141	104.5	85	62	50	3	8	13	1.5	46	8	6	0.016
20	9,240	18,315	5,800	171	127.5	107	78	62	3	14	25	1.5	61	14	10	0.04
25	14,025	28,710	4,700	210	156	133	98	76	5	12	19	2.5	69.5	26	18	0.11
30	23,100	46,530	4,200	234	181.5	152	112	90	5	24	43	2.5	84.5	39	26	0.20
35	37,950	75,240	3,600	274	210.5	178	132	105	6	27	48	3	96	58	42	0.45
40	57,915	114,840	3,200	312	248.5	209	156	120	6	32	58	3	109	91	61	0.88
45	73,260	145,200	2,900	337	274	234	174	135	8	37	66	4	123	115	77	1.33
50	113,025	230,340	2,600	380	308.5	254	190	150	8	50	92	4	142.5	165	115	2.48
55	139,590	276,540	2,400	405	334	279	210	175	8	52	96	4	154.5	211	142	3.59
60	249,150	501,600	2,200	444	365.5	305	233	190	8	58	108	4	166.5	260	167	5.00
65	339,075	671,550	2,000	506	424	355	275	220	10	72	134	5	193.5	411	252	10.39

√ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
√ Setscrews can be included upon request.
√ Adapted hub length and value F available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
(3) Max. allowable bore for couplings with DIN 6885/1key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore.

SERIES ZGG | SIZE 100 -1900

Standard



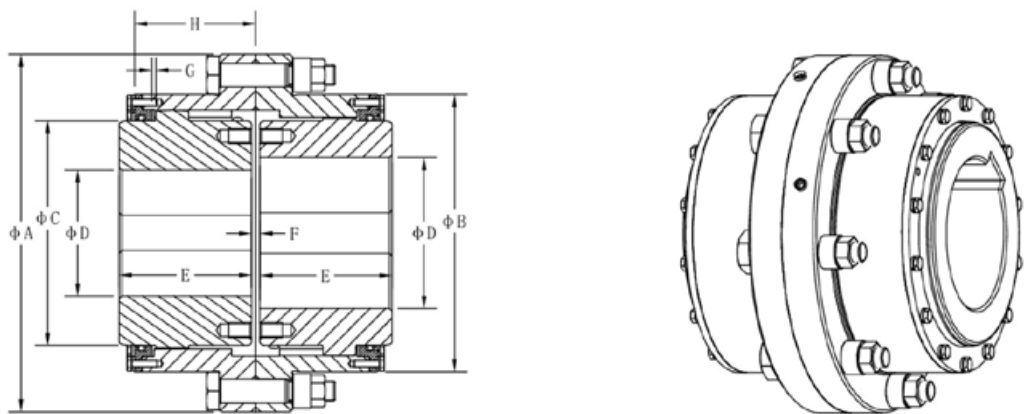
Size	TN Nm (1)	TP Nm (1)	N Max rpm (2)	A	B	C	D Max(3)	E	F	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2 (4)
100	363,000	726,000	1,800	540	465	370	280	250	16	527	346	14.95
200	412,500	825,000	1,600	585	505	410	310	270	16	676	442	22.93
300	528,000	1,056,000	1,500	650	548	450	345	290	16	884	574	36.84
400	660,000	1,320,000	1,400	690	588	490	370	325	20	1,105	733	53.16
500	841,500	1,683,000	1,300	760	640	520	390	345	20	1,379	957	79.63
600	1,089,000	2,178,000	1,200	805	690	560	420	365	20	1,667	1,154	110
700	1,287,000	2,574,000	1,100	850	730	600	460	400	20	2,043	1,372	153
800	1,650,000	3,300,000	1,050	930	780	650	500	410	25	2,452	1,643	217
900	1,980,000	3,960,000	950	995	850	710	550	430	25	3,035	1,991	313
1000	2,640,000	5,280,000	900	1,055	910	760	590	470	25	3,720	2,413	434
1100	2,970,000	5,940,000	850	1,140	970	810	620	500	30	4,648	3,145	633
1200	3,135,000	6,270,000	800	1,190	1,020	840	650	520	30	5,152	3,469	765
1300	3,465,000	6,930,000	750	1,250	1,080	890	680	540	30	5,954	4,077	990
1400	4,290,000	8,580,000	700	1,300	1,150	950	730	570	30	6,956	4,634	1,277
1500	6,270,000	12,540,000	660	1,420	1,270	1,050	800	600	30	9,036	5,971	1,980
1600	8,943,000	17,886,000	590	1,600	1,430	1,180	900	670	35	13,330	8,670	3,633
1700	11,962,500	23,925,000	550	1,740	1,570	1,320	1,000	740	35	17,975	11,130	5,766
1800	14,272,500	28,545,000	500	1,880	1,710	1,450	1,100	800	35	23,150	13,930	8,683
1900	17,737,500	35,475,000	480	1,990	1,830	1,580	1,200	850	35	28,605	16,680	12,239

√ The coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes. Lift holes are available upon request.
√ Setscrews can be included upon request.
√ Adapted hub length and value F available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord'.
(3) Max. allowable bore for couplings with DIN 6885/1'key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore.

SERIES ZEB | SIZE 10 - 65

Separate Sealing Cover



Size	TN Nm(1)	TP Nm	n Max rpm (2)	A	B	C	D Max (3)	E	F	F1	F2	G	H	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	2,937	5,940	8,600	119	90.2	69	52	43	3	5	7	1.5	39	5	4	0.007
15	4,604	9,108	7,000	147	109.6	85	62	50	3	8	13	1.5	46	9	7	0.018
20	9,240	18,315	5,800	179	135	107	78	62	3	14	25	1.5	59.5	16	12	0.048
25	14,025	28,710	4,700	220	166	133	98	76	5	12	19	2.5	69.5	30	21	0.13
30	23,100	46,530	4,200	242	188.6	152	112	90	5	24	43	2.5	82.5	42	29	0.22
35	37,950	75,240	3,500	284	220	178	132	105	6	27	48	3	96	69	48	0.56
40	57,915	114,840	3,200	315	252.5	209	156	120	6	32	58	3	106.5	93	64	0.89
45	73,260	145,200	2,900	340	279	234	174	135	8	37	66	4	123	118	80	1.37
50	113,025	230,340	2,500	380	308.5	254	190	150	8	50	92	4	139.5	164	114	2.38
55	139,590	276,540	2,400	408	341	279	210	175	8	52	96	4	154.5	216	147	3.60
60	249,150	501,600	2,200	444	372	305	233	190	8	58	108	4	166.5	261	168	4.99
65	339,075	671,550	2,000	506	427	355	275	220	10	72	134	5	193.5	408	249	9.96

√ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.

√ Setscrews can be included upon request.

√ Adapted hub length available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

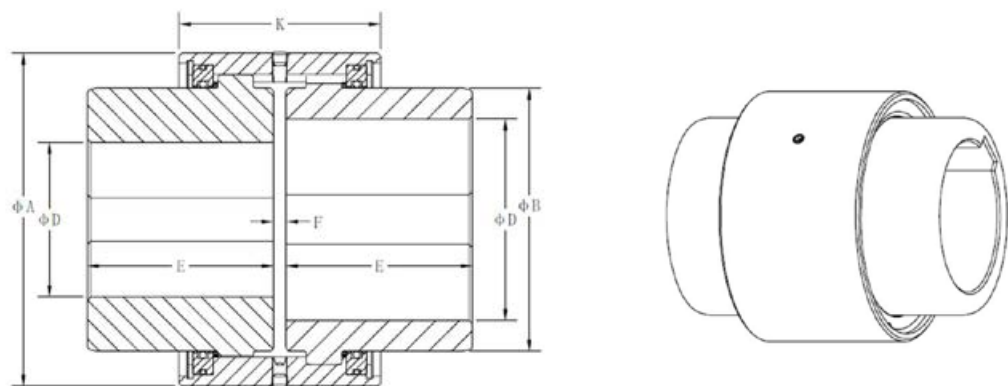
(3) Max. allowable bore for couplings with DIN 6885/1key. For other types of keys or connections please contact Feinnord.

(4) Weight and moment of inertia are given for minimum bore.

(5) weight is given for maximum bore.

SERIES ZMH | SIZE 1 - 62

Continuous Sleeve



Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	K	D Max(3)	E	F	Weight Max Kg (4)	Weight Min Kg(5)	Inertia J Kgm2(4)
1	500	1,000	12,000	56	36	47	22	30	4	0.88	0.73	0.0003
2	650	1,300	10,500	70	48	56	32	40	4	1.80	1.34	0.001
3	750	1,500	9,500	80	56	68	38	45	4	2.71	2.02	0.002
8	1,150	2,300	9,000	96	68	74	50	55	6	4.68	3.20	0.005
12	2,260	5,200	7,000	112	80	85	58	70	6	7.84	5.28	0.011
18	5,000	10,000	5,600	140	101	106	75	80	6	14.88	9.65	0.033
22	8,600	17,200	4,700	164	124	116	95	95	8	24.41	14.51	0.073
28	14,000	23,000	4,200	185	143	120	105	105	8	34.10	20.84	0.128
32	20,600	41,200	3,600	215	170	130	130	120	8	53.56	29.71	0.270
38	33,000	66,000	3,150	255	205	150	150	135	10	85.52	51.29	0.622
42	45,600	91,200	2,860	280	216	170	165	150	10	109.66	64.70	0.963
48	61,400	122,300	2,580	317	250	190	190	170	10	163.18	94.56	1.835
52	80,800	161,600	2,320	345	275	210	210	185	12	213.28	122.32	2.873
58	105,500	211,000	2,200	374	300	226	230	200	12	260.76	152.57	4.263
62	161,000	322,000	2,000	414	340	266	260	230	12	374.87	217.46	7.659

√ From size 48 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes

√ Setscrews can be included upon request.

√ Adapted hub length and value F available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

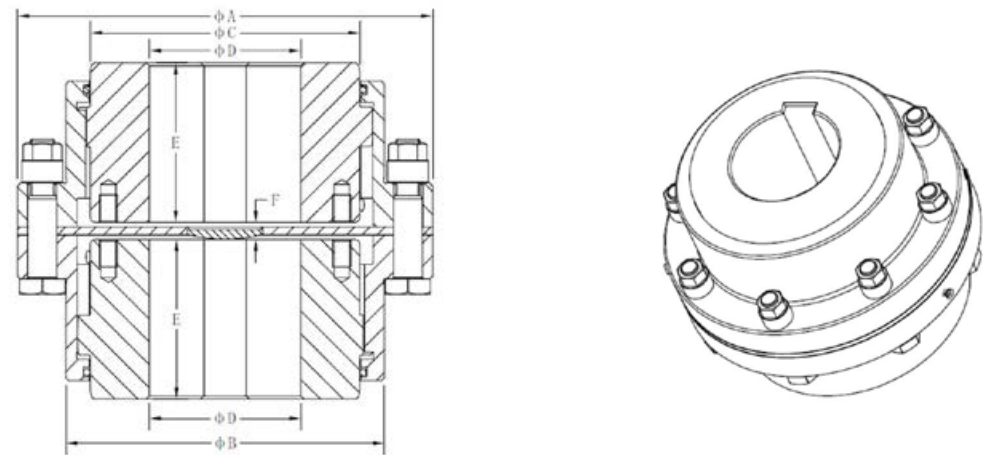
(3) Max. allowable bore for couplings with DIN 6885/1key. For other types of keys or connections please contact Feinnord.

(4) Weight and moment of inertia are given for minimum bore.

(5) Weight is given for maximum bore.

SERIES ZVE | SIZE10 - 65

Vertical Mounting



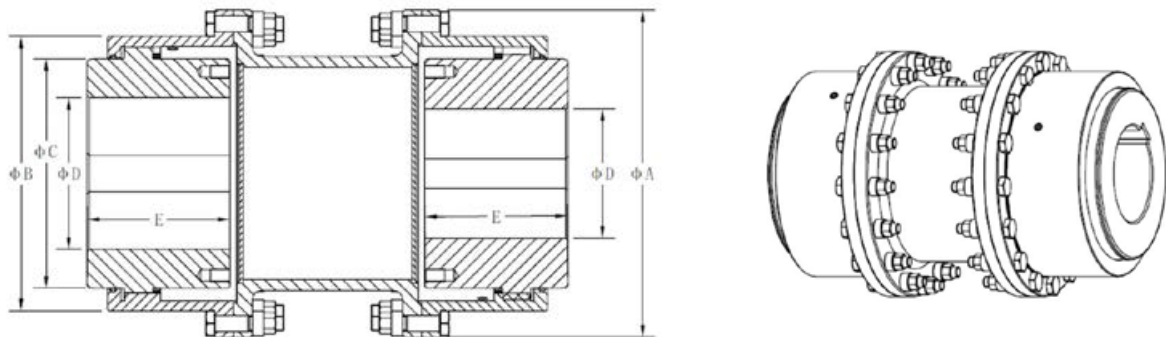
Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	F	L	H	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)	Grease Top Kg(6)	Grease Bottom Kg(6)
10	1,780	3,600	8,600	111	82.5	69	52	43	6	3	39	4	3	0.005	0.018	0.017
15	2,790	5,520	7,000	141	104.5	85	62	50	6	3	46	8	6	0.017	0.038	0.032
20	5,600	11,100	5,800	171	127.5	107	78	62	6	3	61	15	11	0.042	0.056	0.046
25	8,500	17,400	4,700	210	156	133	98	76	8	3	69.5	27	18	0.11	0.100	0.68
30	14,000	28,200	4,200	234	181.5	152	112	90	8	3	84.5	40	27	0.21	0.184	0.142
35	23,000	45,600	3,600	274	210.5	178	132	105	11	5	96	61	44	0.47	0.279	0.210
40	35,100	69,600	3,200	312	248.5	209	156	120	11	5	109	94	64	0.92	0.392	0.298
45	44,400	88,000	2,900	337	274	234	174	135	13	5	123	119	81	1.38	0.669	0.511
50	68,500	139,600	2,600	380	308.5	254	190	150	13	5	142.5	170	120	2.56	1.052	0.865
55	84,600	167,600	2,400	405	334	279	210	175	14	6	154.5	217	148	3.71	1.465	1.240
60	151,000	304,000	2,200	444	365.5	305	233	190	14	6	166.5	267	174	5.17	1.996	1.727
65	205,500	407,000	2,000	506	424	355	275	220	16	6	193.5	420	261	10.67	3.097	2.641

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length and value F available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
- (2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
- (3) Max. allowable bore for couplings with DIN 6885/1key. For other types of keys or connections please contact Feinnord.
- (4) Weight and moment of inertia are given for minimum bore.
- (5) Weight is given for maximum bore.
- (6) The amount of grease indicated in the catalogue is for guidance only. For exact amount please refer to coupling instructions.

SERIES ZMB | SIZE 10 - 65

with Spacer



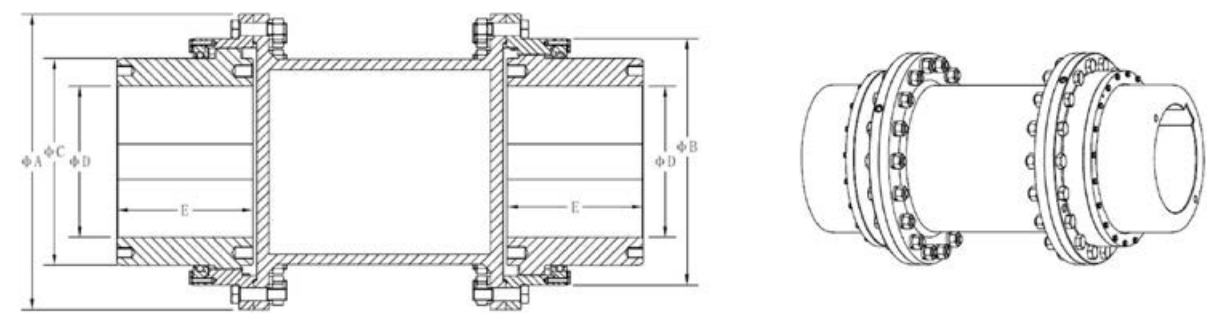
Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	Weight Max Kg (4)	Weight /1000mm Spacer Kg	Weight Min Kg (5)	Inertia J Kgm2(4)	Inertia /1000mm Spacer Kgm2
10	2,937	5,940	REFER TO PAGE P08	111	82.5	69	52	43	4	0.8	3	0.005	0.0009
15	4,604	9,108		141	104.5	85	62	50	8	1.0	6	0.016	0.0019
20	9,240	18,315		171	127.5	107	78	62	14	1.5	10	0.04	0.0033
25	14,025	28,710		210	156	133	98	76	26	2.4	18	0.11	0.0096
30	23,100	46,530		234	181.5	152	112	90	39	2.7	26	0.20	0.015
35	37,950	75,240		274	210.5	178	132	105	58	3.9	42	0.45	0.025
40	57,915	114,840		312	248.5	209	156	120	91	4.7	61	0.88	0.042
45	73,260	145,200		337	274	234	174	135	115	6.6	77	1.33	0.074
50	113,025	230,340		380	308.5	254	190	150	165	10.1	115	2.48	0.17
55	139,590	276,540		405	334	279	210	175	211	8.0	142	3.59	0.14
60	249,150	501,600		444	365.5	305	233	190	250	12.2	167	5.00	0.29
65	339,075	671,550		506	424	355	275	220	411	17.2	252	10.39	0.52

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
- (2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
- (3) Max. allowable bore for couplings with DIN 6885/1key. For other types of keys or connections please contact Feinnord.
- (4) Weight and moment of inertia are given for minimum bore.
- (5) Weight is given for maximum bore.

SERIES ZGA | SIZE 100 -1900

with Spacer



Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	Weight Max Kg (4)	Weight /1000mm Spacer Kg	Weight Min Kg (5)	Inertia J Kgm2(4)	Inertia /1000mm Spacer Kgm2
100	363,000	726,000	REFER TO PAGE P08	540	443	370	280	250	765	25.0	584	23	0.72
200	412,500	825,000		585	488	410	310	270	935	27.8	700	33	0.99
300	528,000	1,056,000		650	531	450	345	290	1,178	31.6	868	53	1.45
400	660,000	1,320,000		690	571	490	370	325	1,450	36.4	1,078	71	1.64
500	841,500	1,683,000		760	627	520	390	345	1,816	46.2	1,394	108	2.55
600	1,089,000	2,178,000		805	673	560	420	365	2,072	46.4	1,559	142	3.19
700	1,287,000	2,574,000		850	717	600	460	400	2,486	56.2	1,815	193	4.59
800	1,650,000	3,300,000		930	769	650	500	410	2,997	61.2	2,188	279	5.90
900	1,980,000	3,960,000		995	834	710	550	430	3,563	65.0	2,519	389	8.04
1000	2,640,000	5,280,000		1,055	894	760	590	470	4,370	81.6	3,062	533	11.06
1100	2,970,000	5,940,000		1,140	944	810	620	500	5,475	89.3	3,972	781	13.06
1200	3,135,000	6,270,000		1,190	984	840	650	520	5,940	92.5	4,257	929	14.52
1300	3,465,000	6,930,000		1,250	1,059	890	680	540	6,810	94.9	4,934	1,188	17.39
1400	4,290,000	8,580,000		1,300	1,109	950	730	570	7,758	106.0	5,436	1,493	24.22
1500	6,270,000	12,540,000		1,420	1,224	1,050	800	600	9,990	141.7	6,924	2,270	38.80
1600	8,943,000	17,886,000		1,600	1,384	1,180	900	670	14,308	176.1	9,682	4,084	62.50
1700	11,962,500	23,925,000		1,740	1,524	1,320	1,000	740	18,746	198.3	12,136	6,265	89.19
1800	14,272,500	28,545,000		1,880	1,664	1,450	1,100	800	23,940	230.0	14,988	9,328	118.66
1900	17,737,500	35,475,000		1,990	1,784	1,580	1,200	850	29,217	254.1	17,590	12,806	159.84

√ The coupling is supplied by default with puller holes.

√ Setscrews can be included upon request.

√ Adapted hub length available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

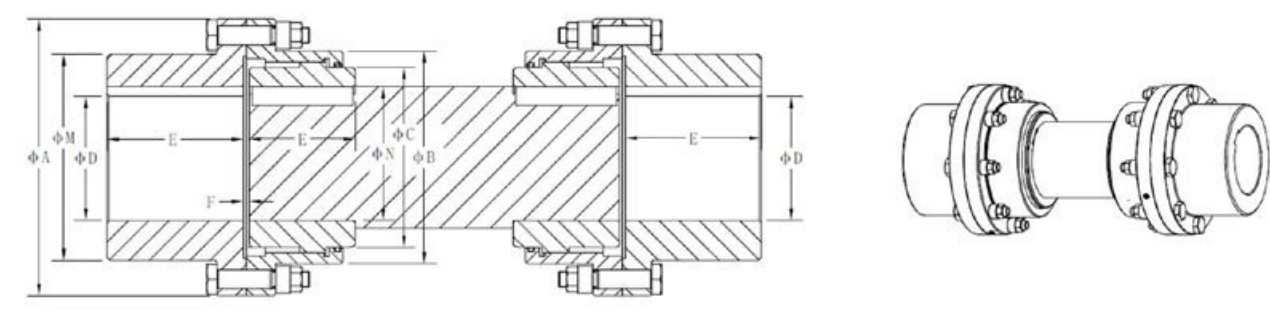
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.

(4) Weight and moment of inertia are given for minimum bore.

(5) Weight is given for maximum bore.

SERIES ZSZ | SIZE 10 - 65

Floating Shaft



Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	F	M	N Max (3)	Weight Max Kg (4)	Weight /1000mm Spacer Kg	Weight Min Kg (5)	Inertia J Kgm2 (4)	Inertia /1000m m Spacer Kgm2
10	2,937	5,940	REFER TO PAGE P08	111	82.5	69	55	43	3	80	52	27	2.0	25	0.018	0.001
15	4,604	9,108		141	104.5	85	70	50	3	100	62	42	2.8	40	0.048	0.002
20	9,240	18,315		171	127.5	107	90	62	3	125	78	68	4.4	63	0.117	0.004
25	14,025	28,710		210	156	133	105	76	5	148	98	111	6.8	103	0.30	0.01
30	23,100	46,530		234	181.5	152	120	90	5	173	112	150	8.6	137	0.54	0.01
35	37,950	75,240		274	210.5	178	145	105	6	204	132	227	12.3	206	1.18	0.03
40	57,915	114,840		312	248.5	209	170	120	6	242	156	321	17.0	292	2.28	0.06
45	73,260	145,200		337	274	234	190	135	8	268	174	404	21.1	366	3.47	0.09
50	113,025	230,340		380	308.5	254	215	150	8	302	190	535	24.9	485	6.13	0.13
55	139,590	276,540		405	334	279	230	175	8	327	210	669	30.4	600	9.01	0.19
60	249,150	501,600		444	365.5	305	250	190	8	354	233	820	37.3	727	12.18	0.28
65	339,075	671,550		506	424	355	290	220	10	410	275	1,199	51.1	1,039	25.66	0.53

√ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.

√ Setscrews can be included upon request.

√ Adapted hub length available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

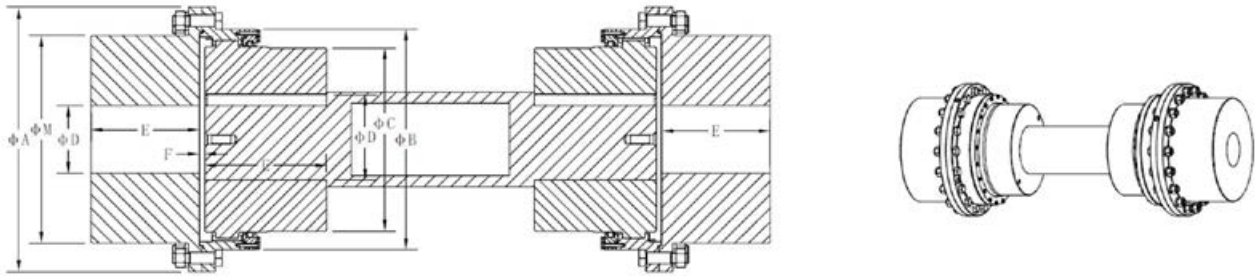
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.

(4) Weight and moment of inertia are given for minimum bore.

(5) Weight is given for maximum bore.

SERIES ZGZ | SIZE 100 -1900

Floating Shaft



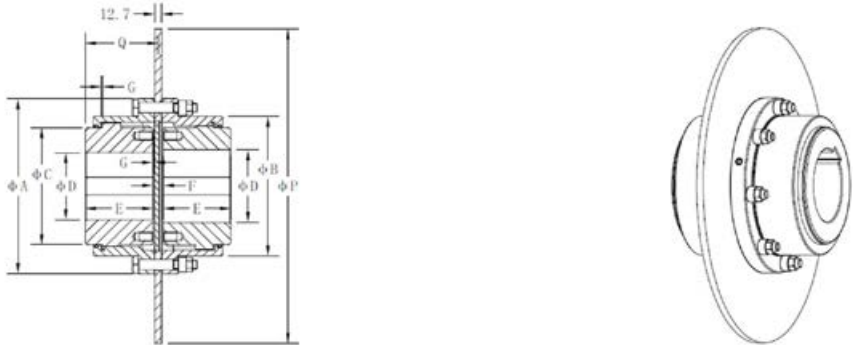
Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	F	M	n Max (3)	Weight MaxKg (4)	Weight /1000mm Spacer Kg	Weight Min Kg (5)	Inertia J Kgm2(4)	Inertia /1000mm Spacer Kgm2
100	363,000	726,000	REFER TO PAGE	540	465	370	290	250	16	410	280	1,980	55.5	1,781	33	0.624
200	412,500	825,000		585	505	410	350	270	16	460	310	2,470	67.1	2,147	51	0.914
300	528,000	1,056,000		650	548	450	380	290	16	500	345	3,072	82.1	2,671	79	1.368
400	660,000	1,320,000		690	588	490	410	325	20	540	370	3,632	93.8	3,135	109	1.78
500	841,500	1,683,000		760	640	520	450	345	20	590	390	4,258	103.6	3,621	155	2.18
600	1,089,000	2,178,000		805	690	560	480	365	20	630	420	5,021	122.1	4,266	210	3.02
700	1,287,000	2,574,000		850	730	600	520	400	20	680	460	6,056	145.0	5,096	296	4.26
800	1,650,000	3,300,000		930	780	650	560	410	25	730	500	7,161	169.9	6,031	418	5.85
900	1,980,000	3,960,000		995	850	710	600	430	25	790	550	8,646	203.8	7,297	592	8.42
1000	2,640,000	5,280,000		1,055	910	760	650	470	25	850	590	10,316	237.0	8,577	822	11.39
1100	2,970,000	5,940,000		1,140	970	810	680	500	30	890	620	11,848	260.5	9,864	1,096	13.76
1200	3,135,000	6,270,000		1,190	1,020	840	710	520	30	930	650	13,094	285.1	10,887	1,331	16.48
1300	3,465,000	6,930,000		1,250	1,080	890	770	540	30	1,010	680	15,177	319.6	12,432	1,777	20.71
1400	4,290,000	8,580,000		1,300	1,150	950	810	570	30	1,060	730	17,501	375.1	14,313	2,276	28.53
1500	6,270,000	12,540,000		1,420	1,270	1,050	900	600	30	1,170	800	21,610	435.0	17,286	3,410	38.37
1600	8,943,000	17,886,000		1,600	1,430	1,180	900	670	35	1,330	900	29,654	556.4	23,292	6,125	62.77
1700	11,962,500	23,925,000		1,740	1,570	1,320	1000	740	35	1,470	1,000	29,506	692.7	20,575	7,999	97.30
1800	14,272,500	28,545,000		1,880	1,710	1,450	1100	800	35	1,610	1,100	36,272	829.6	24,332	10,894	140.00
1900	17,737,500	35,475,000		1,990	1,830	1,580	1200	850	35	1,730	1,200	43,404	978.8	28,607	16,590	194.00

√ The coupling is supplied by default with puller holes.
√ Setscrews can be included upon request.
√ Adapted hub length available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore.

SERIES ZZA | SIZE 10 - 60

with Brake Disc

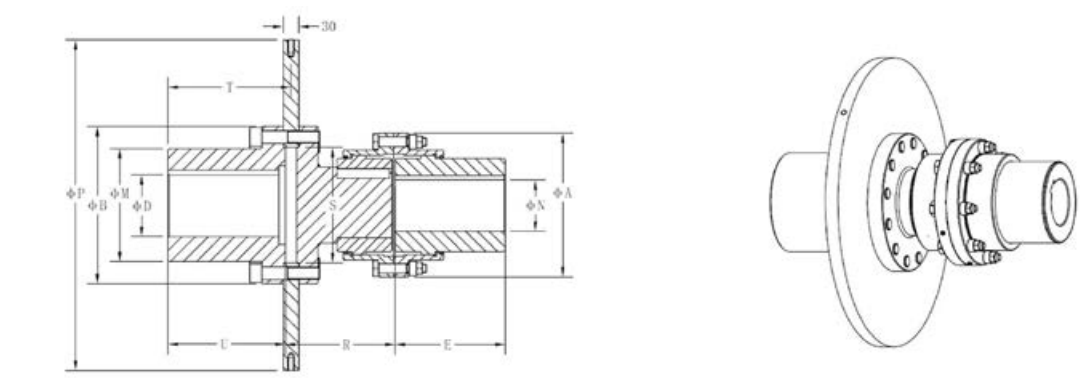


Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	C	D Max (3)	E	F	F1	G	P	Q	Weight MaxKg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	1,800	3,600	4,200 3,500	111	82.5	69	52	43	17	19	0.5	215 315	52	9 11	8 10	0.043 0.101
15	2,760	5,520	3,500 3,100 2,800	141	104.5	85	62	50	17	22	0.5	315 355 395	59	15 17 20	13 15 18	0.112 0.171 0.254
20	5,550	11,100	2,800 2,500 2,200 2,000	171	127.5	107	78	62	17	28	0.5	395 445 495 550	71	25 29 32 37	21 25 28 33	0.277 0.422 0.626 0.934
25	8,700	17,400	2,500 2,200 2,000 1,800	210	156	133	98	76	20	27	0.5	445 495 550 625	87	40 44 49 55	32 36 41 47	0.492 0.695 1.00 1.60
30	14,100	28,200	2,200 2,000 1,800 1,600	234	181.5	152	112	90	20	39	0.5	495 550 625 705	101	57 61 68 76	44 48 55 63	0.78 1.09 1.69 2.61
35	22,800	45,600	1,800 1,600 1,400	274	210.5	178	132	105	21	42	1.0	625 705 795	116	86 95 105	70 79 89	1.94 2.86 4.35
40	34,800	69,600	1,800 1,600 1,400	312	248.5	209	156	120	21	47	1.0	625 705 795	131	119 127 138	89 97 108	2.36 3.28 4.78
45	44,000	88,000	1,800 1,600 1,400	337	274	234	174	135	24	53	1.0	625 705 795	149	142 150 161	104 112 123	2.80 3.73 5.22
50	69,800	139,600	1,800 1,300 1,200	380	308.5	254	190	150	24	66	1.0	625 705 795	163	192 200 211	142 150 161	3.95 4.87 6.36
55	83,800	167,600	1,800 1,400	405	334	279	210	175	24	68	1.0	705 795	188	245 256	176 187	5.97 7.46
60	152,000	304,000	1400	444	365.5	305	233	190	24	74	1.0	795	203	304	211	8.85

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
√ Setscrews can be included upon request.
√ Adapted hub length and value F available upon request.
- (1)The torque of the coupling does not include the connection transmission capacity.
(2) n MAX speed calculated according to standard brake material (S355). For higher speed, please contact Feinnord. n MAX speed for balanced couplings. For higher speeds contact Feinnord.
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore.

SERIES ZBW | SIZE 15 - 45

with Offset Brake Disc



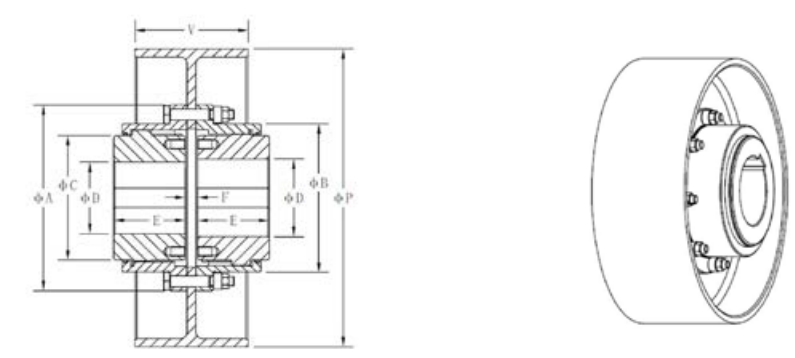
Size	TN Nm(1)	TP Nm(1)	n Max rpm (2)	A	B	D Max (3)	E	M	P	R(6)	S	T	U	Weight MaxKg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
15	2,760	5,520	3,500	141	124	50	50	82	315	117	85	102	107	34	31	0.253
			3,100		145	60		100	355	117	105	102	107	42	38	0.402
			2,800		165	70		110	395	117	115	102	107	50	46	0.612
			2500		175	70		112	445	117	120	135	140	63	58	0.972
20	5,550	11,100	2,800	171	165	70	62	110	395	117	115	102	107	57	51	0.634
			2500		175	70		112	445	130	120	135	140	70	64	0.996
			2200		218	100		155	495	145	160	135	140	92	82	1.565
			2000		218	100		155	550	145	160	135	140	104	93	2.30
25	8,700	17,400	2500	210	175	70	76	112	445	145	120	135	140	82	74	1.063
			2200		218	100		155	495	164	160	135	140	106	93	1.64
			2000		218	100		155	550	164	160	135	140	117	104	2.37
			1800		238	105		168	625	164	170	135	140	140	126	3.85
30	14,100	28,200	2200	234	218	100	90	155	495	180	160	135	140	120	106	1.730
			2000		218	100		155	550	180	160	135	140	131	117	2.46
			1800		238	105		168	625	180	170	135	140	154	139	3.94
			1600		268	120		190	705	180	195	135	140	185	167	6.27
35	22,800	45,600	1800	274	238	105	105	168	625	196	170	135	140	178	160	4.18
			1600		268	120		190	705	196	195	135	140	195	189	6.51
			1400		300	135		216	795	196	220	135	140	250	225	10.27
40	34,800	69,600	1800	312	238	105	120	168	625	223	170	135	140	216	192	4.60
			1600		268	120		190	705	223	195	135	140	248	221	6.93
			1400		300	135		216	795	223	220	135	140	287	257	10.69
45	44,000	88,000	1600	337	268	120	135	190	705	238	195	135	140	281	250	7.39
			1400		300	135		216	795	238	220	135	140	320	286	11.15

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
- (2) n MAX speed calculated according to standard brake material (S355). For higher speed, please contact Feinnord. n MAX speed for balanced couplings. For higher speeds contact Feinnord.
- (3) Max. allowable bore for couplings with DIN6885/1 key. For other types of keys or connections please contact Feinnord.
- (4) Weight and moment of inertia are given for minimum bore.
- (5) Weight is given for maximum bore.
- (6) R can be supplied with different length on demand.

SERIES ZZB | SIZE 10 - 45

with Brake Drum



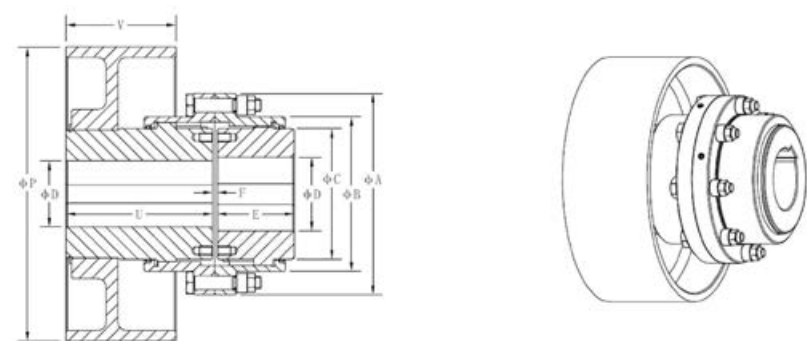
Size	TN Nm(1)	TP Nm	n Max rpm (2)	A	B	C	D Max (3)	E	F	P	V	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	1,800	3,600	2850	111	82.5	69	52	43	13	200	75	9	8	0.045
15	2,760	5,520	2850	141	104.5	85	62	50	13	200	75	13	11	0.056
			2300						13	250	95	17	14	0.119
			1800						15	315	118	24	22	0.326
20	5,550	11,100	2300	171	127.5	107	78	62	13	250	95	23	19	0.144
			1800						15	315	118	31	26	0.351
			1650						15	350	130	35	30	0.519
			1450						19	400	150	50	45	1.112
25	8,700	17,400	1800	210	156	133	98	76	17	315	118	42	33	0.411
			1650						19	350	130	47	39	0.604
			1450						19	400	150	60	51	1.152
30	14,100	28,200	1800	234	181.5	152	112	90	17	315	118	54	41	0.500
			1650						19	350	130	60	47	0.700
			1450						19	400	150	72	59	1.240
			1300						19	450	170	79	66	1.770
35	22,800	45,600	1450	274	210.5	178	132	105	20	400	150	90	73	1.480
			1300						20	450	170	97	80	2.01
			1150						20	500	190	107	90	2.88
40	34,800	69,600	1150	312	248.5	209	156	120	21	500	190	142	112	3.37
			1100						21	530	195	150	120	4.10
			1000						24	630	236	192	163	8.68
45	44,000	88,000	1150	337	274	234	174	135	23	500	190	168	130	3.85
			1100						23	530	195	176	138	4.58
			1000						26	630	236	218	180	9.16
			800						26	710	265	247	208	14.07

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length and value F available upon request.

- (1)The torque of the coupling does not include the connection transmission capacity.
- (2) Maximun speed calculated according to standard brake material (EN-GJL-250) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
- (3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.
- (4) Weight and moment of inertia are given for minimum bore.
- (5) Weight is given for maximum bore.

SERIES ZSB | SIZE 10 - 45

With Offset Brake Drum



Size	TN Nm(1)	TP Nm	n Max rpm(2)	A	B	C	D Max (3)	E	F	P	U	V	Weight Max Kg (4)	Weight MinKg (5)	Inertia J Kgm2(4)
10	1,800	3,600	2850	111	82.5	69	52	43	3	200	105	75	11	8	0,040
15	2,760	5,520	2850	141	104.5	85	62	50	3	200	115	75	17	13	0.060
			2300						3	250	125	95	21	18	0.126
			1800						3	315	140	118	28	24	0.296
20	5,550	11,100	2300	171	127.5	107	78	62	3	250	130	95	30	24	0.166
			1800						3	315	145	118	39	32	0.359
			1650						3	350	145	130	45	37	0.550
			1450						3	400	160	150	59	51	1.060
25	8,700	17,400	1800	210	156	133	98	76	5	315	155	118	55	42	0.460
			1650						5	350	155	130	61	49	0.670
			1450						5	400	170	150	76	63	1.190
30	14,100	28,200	1800	234	181.5	152	112	90	5	315	155	118	66	48	0.540
			1650						5	350	155	130	71	54	0.740
			1450						5	400	170	150	88	69	1.280
			1300						5	450	180	170	107	88	2.12
35	22,800	45,600	1450	274	210.5	178	132	105	6	400	200	150	119	88	1.590
			1300						6	450	210	170	137	105	2.42
			1150						6	500	220	190	158	126	3.76
40	34,800	69,600	1150	312	248.5	209	156	120	6	500	220	190	181	144	4.16
			1100						6	530	220	195	192	151	4.90
			1000						6	630	250	236	239	195	9.16
45	44,000	88,000	1150	337	274	234	174	135	8	500	235	190	225	172	4.96
			1100						8	530	235	195	231	179	5.69
			1000						8	630	265	236	273	216	9.85
			800						8	710	280	265	304	245	14.66

√ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.

√ Setscrews can be included upon request.

√ Adapted hub length and value F available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) Maximun speed calculated according to standard brake material (EN-GJL-250) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

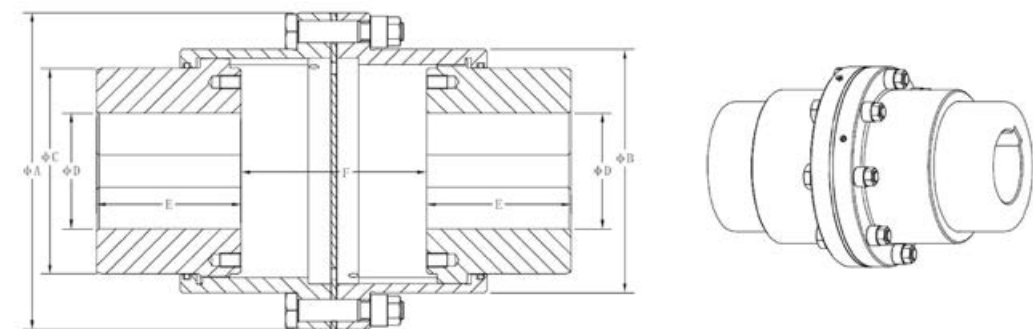
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.

(4) Weight and moment of inertia are given for minimum bore.

(5) Weight is given for maximum bore

SERIES ZAH | SIZE 10 - 65

Axial Travel



Size	TN Nm(1)	TP Nm	n Max rpm (2)	A	B	C	D Max (3)	E	F	F1(6)	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	1,800	3,600	8600	111	82.5	69	52	43	6	26	4	3	0.005
15	2,760	5,520	7000	141	104.5	85	62	50	6	36	8	6	0.016
20	5,550	11,100	5800	171	127.5	107	78	62	6	46	14	10	0.040
25	8,700	17,400	4700	210	156	133	98	76	8	58	26	18	0.110
30	14,100	28,200	4200	234	181.5	152	112	90	8	88	39	26	0.200
35	22,800	45,600	3600	274	210.5	178	132	105	11	92	59	42	0.450
40	34,800	69,600	3200	312	248.5	209	156	120	11	102	91	61	0.880
45	44,000	88,000	2900	337	274	234	174	135	13	122	115	77	1.330
50	69,800	139,600	2600	380	308.5	254	190	150	13	146	165	115	2.48
55	83,800	167,600	2400	405	334	279	210	175	14	168	211	142	3.59
60	152,000	304,000	2200	444	365.5	305	233	190	14	180	260	167	5.00
65	205,500	407,000	2000	506	424	355	275	220	16	212	411	252	10.39

√ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.

√ Setscrews can be included upon request.

√ Adapted hub length available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.

(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.

(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.

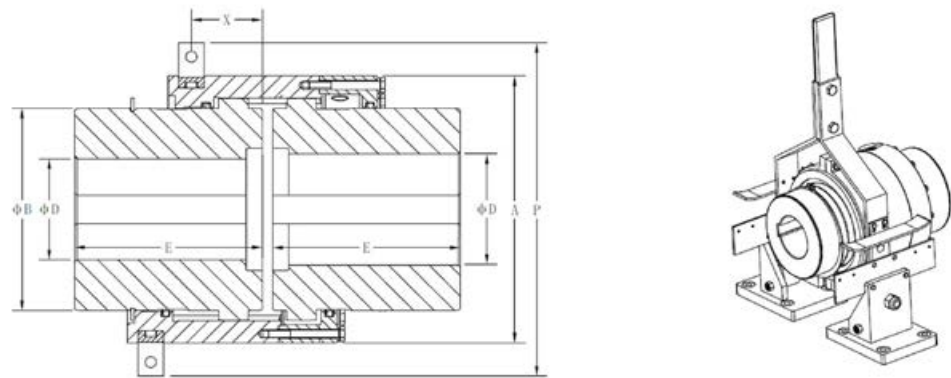
(4) Weight and moment of inertia are given for minimum bore.

(5) Weight is given for maximum bore.

(6) Max. travel.

SERIES ZEA | SIZE 5 - 62

Disengaging



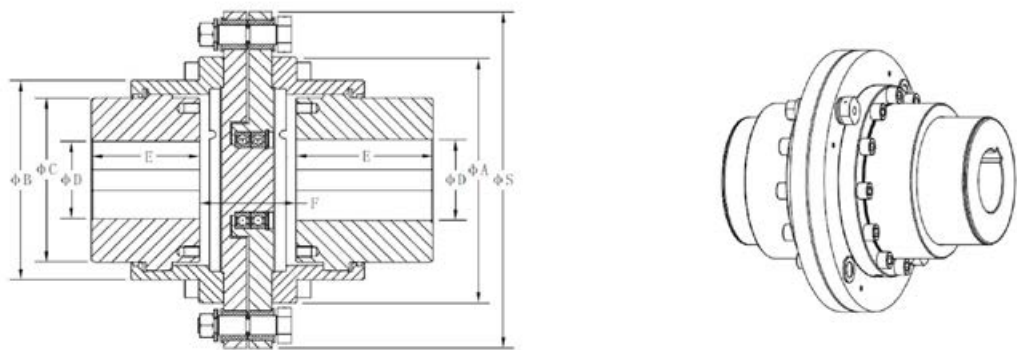
Size	TN Nm(1)	TP Nm	n Max rpm (2)	A	B	D Max (3)	E	F	P	W	X	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
5	1,150	2,300	3,000	100	60	44	55	6	104	12	24	6	5	0.008
12	2,600	5,200	2,500	120	79	60	70	6	124	14	33	10	7	0.018
18	5,000	10,000	2,000	150	101	75	80	6	154	16	40	18	13	0.051
22	8,600	17,200	1,700	177	120	95	95	8	187	16	50	30	21	0.120
28	14,000	28,000	1,500	200	143	105	105	8	210	18	56	43	30	0.210
32	20,600	41,200	1,300	226	170	130	120	8	240	20	62	63	39	0.400
38	33,000	66,000	1,150	264	200	150	135	10	280	20	70	98	64	0.830
42	45,600	91,200	1,050	290	220	165	150	10	300	22	72	126	82	1.280
48	61,400	122,800	950	325	250	190	170	10	330	24	77	178	110	2.24
52	80,800	161,600	850	353	275	210	185	12	368	26	81	229	139	3.39
58	105,500	211,000	800	377	300	230	200	12	390	26	86	283	167	4.67
62	161,000	322,000	700	435	340	260	230	12	450	30	102	415	261	9.37

- √ From size 48 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.
(2) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore.

SERIES ZMA | SIZE 10 - 65

with shear pin



Size	TN Nm(1)	TP Nm	n Max rpm (2)	A	B	C	D Max (3)	E	F	S	Weight Max Kg (4)	Weight Min Kg (5)	Inertia J Kgm2(4)
10	1,800	3,600	8,600	111	82.5	69	52	43	39	170	10	9	0.025
15	2,760	5,520	7,000	141	104.5	85	62	50	49	220	18	16	0.075
20	5,550	11,100	5,800	171	127.5	107	78	62	61	250	27	24	0.139
25	8,700	17,400	4,700	210	156	133	98	76	55	285	43	35	0.270
30	14,100	28,200	4,200	234	181.5	152	112	90	100	335	73	63	0.700
35	22,800	45,600	3,500	274	210.5	178	132	105	105	370	106	86	1.160
40	34,800	69,600	3,200	312	248.5	209	156	120	115	410	148	119	1.960
45	44,000	88,000	2,900	337	274	234	174	135	123	435	180	145	2.69
50	69,800	139,600	2,600	380	308.5	254	190	150	166	520	282	232	6.10
55	83,800	167,600	2,400	405	334	279	210	175	170	560	340	277	8.35
60	152,000	304,000	2,200	444	365.5	305	233	190	182	590	412	318	10.74
65	205,500	407,000	2,000	506	424	355	275	220	208	660	603	443	78.83

- √ From size 45 (included) the coupling is supplied by default with puller holes. If required, puller holes can also be made for smaller sizes.
- √ Setscrews can be included upon request.
- √ Adapted hub length and value F available upon request.

(1)The torque of the coupling does not include the connection transmission capacity.
(2) Maximun speed calculated according to standard brake material (EN-GJL-250) n MAX speed for balanced couplings. For higher speeds contact Feinnord.
(3) Max. allowable bore for couplings with DIN 6885/1 key. For other types of keys or connections please contact Feinnord.
(4) Weight and moment of inertia are given for minimum bore.
(5) Weight is given for maximum bore

3. APPENDIX

a) TYPE INTERCHANGE

FEINNORD	
NEW	OLD
ZSD	FG
ZVE	FGV
ZMB	FGX
ZSZ	FGD
ZZA	FGBD
ZBW	FGBDS
ZZB	FGBW
ZAH	FGCO
ZMA	FGB
ZGG	FGC
ZGA	FGXC

b) RECOMMENDED FITS

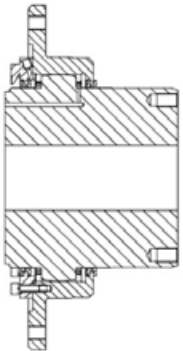
The following recommendations, according to ISO, are given for shaft/bores fits

Fitting	Shaft Tolerance	Bore Tolerance
Interference Fitting with Parallel Keyway	h6	S7
	k6	M7
	m6	K7
	n6	J7
	p6	H7
Shrink Fitting without Parallel Keyway	u6	H7
	v6	
	x6	

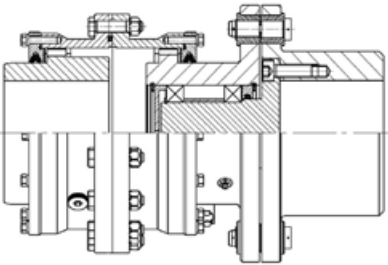
* The stresses on the hub must be checked.

APPENDIX

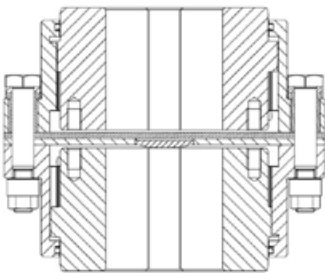
c) TYPE INTERCHANGE



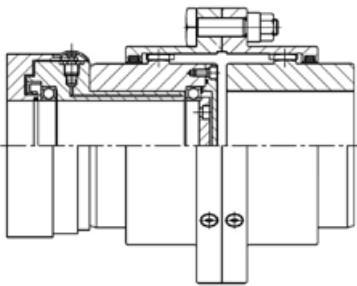
ZX01 Gear Coupling for Lifting Drums.



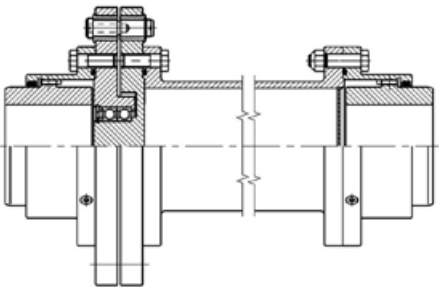
ZX03 with Shear Pins



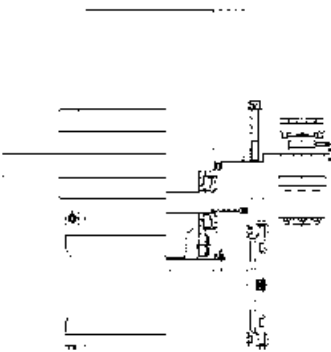
ZX02 with Electrical Insulation



ZX04 Combination with Safeset (Trade Mark of Voith) Safety Element;



ZX05 Spacer Shear Pin



ZX06 Combination with Auto-reset Safety Element

d) General Application Data for Selection and Design

Customer _____	Inquiry No _____
Contact Name _____	No. of Units _____
Type of Mill _____	Phone _____
Email _____	No. of Pages _____
Date _____	

Motor Power _____	Operating Offset _____
Motor RPM _____	No Load Angle _____
Required Service Factor _____	No Load Offset _____
Operating RPM _____	Horizontal Application _____
Reducer Ratio _____	Vertical Application _____
Normal Operating Torque _____	Drive End Bore (DxL)(**) _____
DBSE(*) minimum _____	Drive End Keyway _____
DBSE(*) maximum _____	Driven End Bore (DxL)(**) _____
Operating angle _____	Driven End Keyway _____
Diameter Limitations _____	

* DBSE: Distance Between Shaft Ends.

**** DxL: Diameter x Length**

Comments or special conditions such as: ambient temperature, atmospheric, etc.:

Note: if bolting to existing drive and driven flanges, please specify flange diameter, pilot diameter, bolt circle, number of bolts and bolt size

CAUTION: This product will be selected based on the information supplied to Feinnord by the purchaser. Complete and accurate information will help to minimize errors and misapplications. Further, it is the responsibility of the purchaser to assure the interface connection between couplings and connected equipment (flanges, bolting, keys, hydraulic fits, etc.), and capable of handling anticipated loads. Feinnord will not be responsible for errors due to inaccurate or incomplete information supplied to Feinnord.

Space provided below for sketch

This image shows a full page of blank graph paper. The grid consists of small, equal-sized squares formed by thin black lines. There are 20 columns and 20 rows of squares, creating a total of 400 square units. The grid covers the entire area of the page, leaving no margins or other markings.