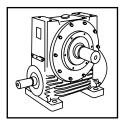


Elign Gear Couplings



PRODUCTS IN THE RANGE

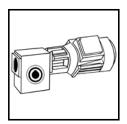
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are here to make a positive difference to the supply of drive solutions.



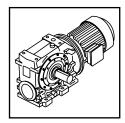
Series A Worm Gear units and geared motors in single & double reduction types



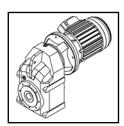
Series BD Screwjack worm gear unit



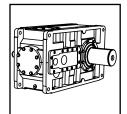
Series BS Worm gear unit



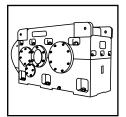
Series CRight angle drive helical worm geared motors & reducers



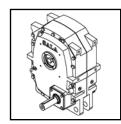
Series F Parallel angle helical bevel helical geared motors & reducers



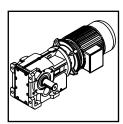
Series G
Helical parallel shaft
& bevel helical right
angle drive gear
units



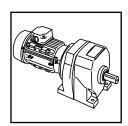
Series H Large helical parallel shaft & bevel helical right angle drive units



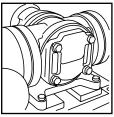
Series JShaft mounted helical speed reducers



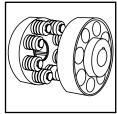
Series KRight angle helical bevel helical geared motors & reducers



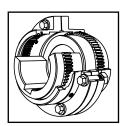
Series M In-line helical geared motors & reducers



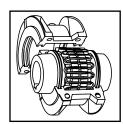
Roloid Gear Pump Lubrication and fluid transportation pump



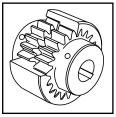
Series X
Cone Ring
Pin and bush
elastomer coupling



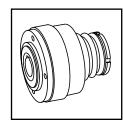
Series X
Gear
Torsionally rigid,
high torque coupling



Series X
Grid
Double flexing steel
grid coupling



Series X Nylicon Gear coupling with nylon sleeve



Series X Torque Limiter Overload protection device



We offer a wide range of repair services and many years experience of repairing demanding and highly critical transmissions in numerous industries.

INTRODUCTION

GEAR COUPLINGS

A Gear Coupling is used to join two rotating shafts for efficient transmission of mechanical power. Although the shafts are accurately aligned at the time of installation, it is likely that during the operation the alignment may get disturbed due to setting of foundation, thermal expansion, shaft deflection, wearing out of other parts, improper maintenance and many more reasons. Due to this unavoidable misalignment occurring during the operation a gear coupling provides a better solution to compensate or minimise the effect of misalignment. The gear Couplings are therefore ideally suited for wide range of application in the entire field of drive technology.

MISALIGNMENT

The main function of any Gear coupling is not only to connect two rotating shafts but also to accommodate misalignments of the connecting shafts ELIGN Gear coupling accommodates the following three types of misalignment.

A. Radial

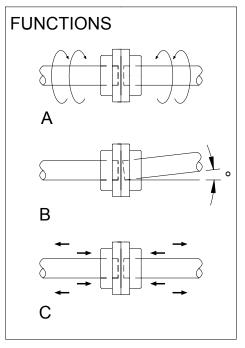
When axes of connected shafts are parallel but not in the same straight line.

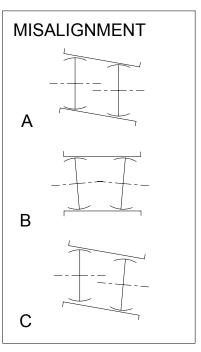
B. Angular

When axes of connected shafts intersect at the centre point of the coupling but not in the same straight line.

C. Combined radial and angular.

When the axes of connected shafts do not intersect at the point of the coupling and are not parallel.





Besides the above three types of misalignment, the ELIGN Gear coupling range also permit axial movement of the shaft.

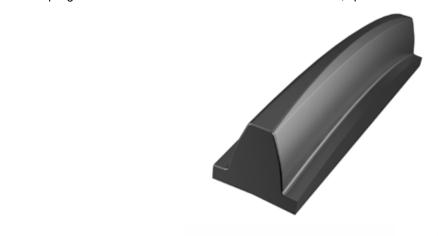
CAUTION.

Normally permissible angular misalignment of ELIGN gear coupling is 0.75 for each half. However, it does not mean that the misalignment should be permitted to this limit from the initial installation. Since misalignment can occur during operation the Elign gear coupling takes care of this without undue damage to the connected equipment. However the coupling's life may reduce due to relative motion between hub teeth and housing teeth causing increased wear on the teeth. It is therefore extremely important to align the interconnecting shafts precisely during initial installation.

FEATURES

FEATURES OF ELIGN COUPLINGS

ELIGN Gear coupling consists of hubs with multi crowned teeth at Flank, tip and chamfering on teeth.









Crowned Flanks: The flanks of the teeth are crowned so that the tooth thickness is greatest at that centre of the tooth. This ensures a larger contact area per tooth for higher torque requirements and puts more teeth in contact for the given angle. Actual tooth loading takes place near the centre of the tooth face where tooth thickness is greatest, Crowned flanks also eliminate end-of-tooth loading, provide optimal load distribution, and accommodate all types of misalignment with minimum backlash.

Crowned Tips: The tips of the teeth are crowned. The crowned tip contacts the root of the internal gear teeth in the external sleeve, accurately piloting the sleeve with true concentric ball-and-socket action. This allows minimum diametral sleeve clearance and centres the sleeve physically to ensure a good dynamic balance under various loading and misalignment conditions.

Crowned Chamfers: The faces of the teeth are adjacent to the tips and are chamfered to eliminate interference with the sleeve tooth fillets. This allows the true involute flanks of the gear teeth to be in contact with the sleeve teeth and ensures freedom to misalign.

The hub teeth are manufactured using the latest state of the art CNC machines. The hub is the heart of any gear coupling and a superior design and tooth profile of the hub enables the gear coupling to operate satisfactorily under all operating conditions with increased reliability and durability.

The multi crowned teeth also reduce the alignment adjustment and improve the load carrying capacity of the teeth. The backlash between the teeth is minimal due to the multi-crown tooth design a key feature for the Elign coupling range.

The ELIGN gear coupling is a simple, compact and light unit for transmitting the same power when compered to the couplings of similar capacity available in the market. It is manufactured out of tested quality forged carbon steel and passes through a number of quality checks. Each half of the ELIGN gear coupling is interchangeable with any of other half, of the same size of coupling.

SELECTION INFORMATION

SELECTION

- 1. Obtain Shaft Sizes, compare shaft sizes of driving and driven equipment with listed maximum bores of desired series or type of coupling to determine "tentative" coupling size.
- 2. Compute effective kW/rpm or torque to be transmitted and select a service factor from the following tables.

Determine kW/rpm (effective) = <u>kW TRANSMITTED X SERVICE FACTOR</u>

rpm

or determine Torque daNm

Torque (effective) daNm = 955 X kW TRANSMITTED X SERVICE FACTOR

rpm

Confirm "Tentative" Coupling size or increase to a size which has a kW/rpm torque rating equal to or greater than the value created above.

- 3. Check the maximum speed of the application and refer to maximum speed ratings. These speeds are given only as a guide since the maximum speed depends on the application characteristics.
- 4. Check space limitations and the dimensions of the selected coupling should be compared with the space provided in the application to ensure proper clearances. Shaft extensions, separation, and clearances to align coupling should be checked.

Lifting Hole

The hubs of the couplings from size ED1600 upwards are supplied with lifting holes to allow for easy lifting of the coupling.

Lubrication

Each coupling half is provided with grease nipple/plug on the housing from where grease can be filled directly.

The couplings are supplied with some quality of grease to facilitate assembly. It is recommended to fill the required quality and quantity of grease before putting the coupling in operation.

Special Protection

All the components of the ELIGN gear couplings have a special rust preventative oil coating, in addition to all the nuts and bolts which are zinc/cadmium plated to further protect against rust & corrosion.

MECHANICAL RATINGS AND SERVICE FACTOR FM

Mechanical ratings measure capacity in terms of life and/or strength, assuming 10 hr/day continuous running under uniform load conditions.

Catalogue ratings allow 100% overload at starting, braking or momentarily during operation up to 10 hours per day.

The unit selected must therefore have a catalogue rating at least equal to half maximum overload.

Mechanical Service Factor Fm (Table 1) is used to modify the actual load according to daily operating time, and type of loading.

Load characteristics for a wide range of applications are detailed in Table 2 opposite, which are used in deciding the appropriate Service Factor Fm from Table 1.

If overloads can be calculated, or accurately assessed, actual loads should be used instead of Fm.

	Duration of	Load c	lassification-driven m	achine
Prime mover	service hrs per day	Uniform mass acceleration factor < 0.2	Moderate mass acceleration factor < 3	Heavy mass acceleration factor < 10
Electric motor,	Under 3	0.80	1.00	1.50
steam turbine or	3 to 10	1.00	1.25	1.75
hydraulic motor	Over 10	1.25	1.50	2.00
Multi-cylinder	Under 3	1.00	1.25	1.75
internal combustion	3 to 10	1.25	1.50	2.00
engine	Over 10	1.50	1.75	2.25
Single cylinder	Under 3	1.25	1.50	2.00
internal combustion	3 to 10	1.50	1.75	2.25
engine	Over 10	1.75	2.00	2.50

SELECTION INFORMATION

SELECTION

- 1. Obtain Shaft Sizes, compare shaft sizes of driving and driven equipment with listed maximum bores of desired series or type of coupling to determine "tentative" coupling size.
- 2. Compute effective kW/rpm or torque to be transmitted and select a service factor from the following tables.

Determine kW/rpm (effective) = <u>kW TRANSMITTED X SERVICE FACTOR</u>

rpm

or determine Torque daNm

Torque (effective) daNm = 955 X kW TRANSMITTED X SERVICE FACTOR

rpm

Confirm "Tentative" Coupling size or increase to a size which has a kW/rpm torque rating equal to or greater than the value created above.

- 3. Check the maximum speed of the application and refer to maximum speed ratings. These speeds are given only as a guide since the maximum speed depends on the application characteristics.
- 4. Check space limitations and the dimensions of the selected coupling should be compared with the space provided in the application to ensure proper clearances. Shaft extensions, separation, and clearances to align coupling should be checked.

Lifting Hole

The hubs of the couplings from size ED1600 upwards are supplied with lifting holes to allow for easy lifting of the coupling.

Lubrication

Each coupling half is provided with grease nipple/plug on the housing from where grease can be filled directly.

The couplings are supplied with some quality of grease to facilitate assembly. It is recommended to fill the required quality and quantity of grease before putting the coupling in operation.

Special Protection

All the components of the ELIGN gear couplings have a special rust preventative oil coating, in addition to all the nuts and bolts which are zinc/cadmium plated to further protect against rust & corrosion.

MECHANICAL RATINGS AND SERVICE FACTOR FM

Mechanical ratings measure capacity in terms of life and/or strength, assuming 10 hr/day continuous running under uniform load conditions.

Catalogue ratings allow 100% overload at starting, braking or momentarily during operation up to 10 hours per day.

The unit selected must therefore have a catalogue rating at least equal to half maximum overload.

Mechanical Service Factor Fm (Table 1) is used to modify the actual load according to daily operating time, and type of loading.

Load characteristics for a wide range of applications are detailed in Table 2 opposite, which are used in deciding the appropriate Service Factor Fm from Table 1.

If overloads can be calculated, or accurately assessed, actual loads should be used instead of Fm.

	Duration of	Load c	lassification-driven m	achine
Prime mover	service hrs per day	Uniform mass acceleration factor < 0.2	Moderate mass acceleration factor < 3	Heavy mass acceleration factor < 10
Electric motor,	Under 3	0.80	1.00	1.50
steam turbine or	3 to 10	1.00	1.25	1.75
hydraulic motor	Over 10	1.25	1.50	2.00
Multi-cylinder	Under 3	1.00	1.25	1.75
internal combustion	3 to 10	1.25	1.50	2.00
engine	Over 10	1.50	1.75	2.25
Single cylinder	Under 3	1.25	1.50	2.00
internal combustion	3 to 10	1.50	1.75	2.25
engine	Over 10	1.75	2.00	2.50

SERVICE FACTORS

Table 2

U = Uniform load

M = Moderate shock load

H = Heavy shock load

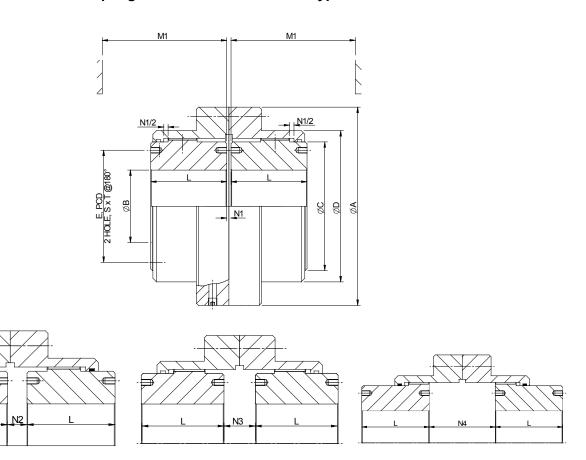
+ = Refer to Application Engineering

Driven Machine	type of load
Agitators pure liquids liquids and solids liquids-variable density	U M M
Blowers centrifugal lobe vane	U M U
Brewing and distilling bottling machinery brew kettles-continuous	М
duty cookers-continuous duty mash tubs-continuous duty	M M
scale hopper-frequent starts	M
Can filling machines	М
Cane knifes	М
Car dumpers	Н
Car pullers	M
Clarifiers	U
Classifiers	М
Clay working machinery brick press briquette machine clay working machinery pug mill	H H M M
Compressors centrifugal lobe reciprocating multi-cylinder single cylinder	U M M H
Conveyors-uniformly loaded or fed apron assembly belt bucket chain flight oven screw	
Conveyors-heavy duty not uniformly fed apron assembly belt bucket chain flight live roll oven reciprocating screw shaker	M M M M M M H H

	Driven Machine	type of load	Driven Machine	type of load	Driven Machine	type of load
	Cranes		log haul-incline	н	log haul	Н
	main hoists	†	log haul-well type	Н	presses	M
	bridge travel	† †	log turning device	H	pulp machine reel stock chest	M M
	trolley travel	ļ	main log conveyor off bearing rolls	M	suction roll	M
	Crusher		planer feed chains	М	washers and thickeners	M
	ore	H	planer floor chains	M M	winders	М
	stone sugar	H	planer tilting hoist re-saw merry-go-round	IVI	Printing presses	+
			conveyor	M		,
	Dredges cable reels	М	roll cases slab conveyor	H	Pullers barge haul	Н
	conveyors	M	small waste		barge ridai	
	cutter head drives	H	conveyor-belt	U	Pumps	
	jig drives manoeuvring winches	H M	small waste conveyor-chain	М	centrifugal proportioning	U M
	pumps	M	sorting table	M	reciprocating	
	screen drive	H	tipple hoist conveyor	M	single acting; 3 or	N.4
	stackers utility winches	M M	tipple hoist drive transfer conveyors	M M	more cylinders double acting; 2 or	М
_	duity Whones		transfer rolls	М	more cylinders	M
of	Dry dock cranes	†	tray drive	M M	single acting; 1 or 2 cylinders	+
ı	main hoist auxiliary hoist	†	trimmer feed waste conveyor	M	double acting; single	ı
	boom, luffing	<u>†</u>			cylinder	+
	rotating, swing or slew	† †	Machine tools	м	rotary	U
	tracking, drive wheels	'	bending roll punch press-gear driven	H	gear type lobe, vane	Ü
	Elevators		notching press- belt			-
	bucket-uniform load bucket-heavy load	U M	driven plate planers	† H	Rubber and plastics industries	
	bucket-continuous	Ü	tapping machine	Η̈́	crackers	Н
	centrifugal discharge	Ü	other machine tools		laboratory equipment	М
	escalators freight	U M	main drives auxiliary drives	M U	mixed mills refiners	H M
	gravity discharge	U	adxiiidi y arivoo	ĭ	rubber calenders	M
	man lifts	†	Metal mills		rubber mill-2 on line	M
	passenger	1	draw bench carriage and main drive	м	rubber mill-3 on line sheeter	M M
	Fans		pinch, dryer and		tire building machines	Ŧ
	centrifugal	U	scrubber rolls-reversing slitters	† M	tire and tube press openers	+
	cooling towers induced draft	+	table conveyors	IVI	tubers and strainers	M
	forced draft	†	non-reversing		warming mills	M
	induced draft large, mine, etc	M M	group drives individual drives	M H	Sand muller	М
	large, industrial	M	reversing		Curia munci	
	light, small diameter	U	wire drawing and		Sewage disposal	
	Feeders		flattening machine wire winding machine	M M	equipment bar screens	U
	apron	М			chemical feeders	U
	belt disc	M U	Mill-rotary type ball	н	collectors	U M
	reciprocating	йI	cement kilns	Η̈́	dewatering screws scum breakers	M
	screw	М	dryers and coolers	H	slow or rapid mixers	M
	Food industry		kilns, other than cement pebble	H	thickeners vacuum filters	M M
	beef slicer	М	rod		vadaan more	
	cereal cooker	U	plain	HH	Screens	U
	dough mixer meat grinders	M M	wedge bar tumbling barrels	H I	air washing rotary-stone or gravel	M
	_		· ·		travelling water intake	Ü
	Generators-not welding	U	Mixers concrete mixers		Slab pushers	М
	weiding	· ·	-continuous	М	Slab pusiters	IVI
	Hammer mills	Н	concrete mixers		Steering gear	
	Hoists		-intermittent constant density	M U	Stokers	U
	heavy duty	н	variable density	М		_
	medium duty	M	Oil industry		Sugar industry cane knives	М
	skip hoist	М	chillers	М	crushers	M
	Laundry washers		oil well pumping		mills	M
	reversing	М	paraffin filter press rotary kilns	M M	Textile industry	
	Laundry tumblers	М	•	171	batchers	М
	•		Paper mills	N. A.	calenders	M
	Line shafts driving processing		agitators, (mixers) barker-auxiliaries-	М	cards dry cans	M M
	equipment	М	hydraulic	М	dryers	M
	light other line shafts	U	barker-mechanical barking drum	HH	dyeing machinery knitting machines	М
	outer into straits	٦	beater and pulper	М	looms	М
	Lumber industry		bleacher	U	mangles	M
	barkers-hydraulic- mechanical	М	calenders calenders-super	M H	nappers pads	M M
	burner conveyor	М	converting machine,		range drives	
	chain saw and drag saw	H	except cutters, platers	M U	slashers	M M
	chain transfer craneway transfer	H	conveyors couch	M	soapers spinners	M
	de-barking drum	Ĥ	cutters-plates	Н	tenter frames	M
	edger feed gang feed	M M	cylinders dryers	M M	washers winders	M M
	green chain	M	felt stretcher	M		141
	live rolls	H	felt whipper	H	Windlass	
	log deck	н	jordans	М		

TYPE ED

Multi Crowned Toothed Couplings For Shaft Connections Type ED

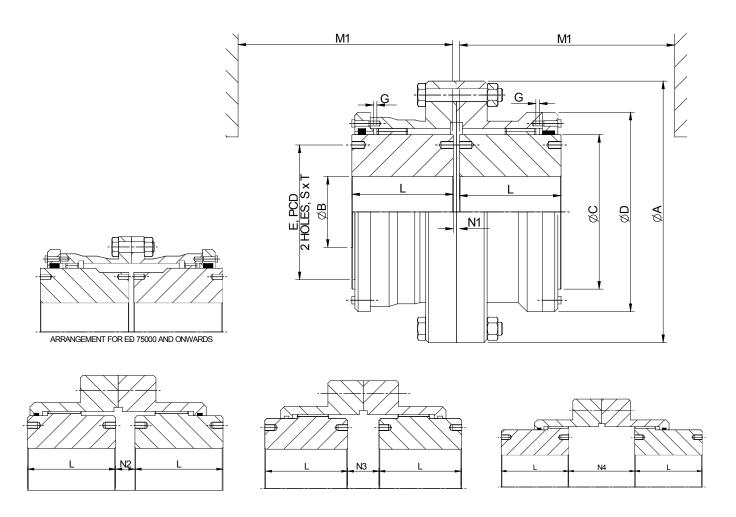


					Diar	 neter					Ler	ath.			Ta	pping	Misalig	nmont			
Size TkN Continuous	Tk max shock	PkN n conti.	Α	pilot	B min.		С	D	L	M1	N1	N2	N3	N4	E	SxT			Weight	Moments of Inertia	Maximum ADM Speed
daNm	daNm	kW/rpm			m	ım					m	m				mm	Degree	± mm	kg	(kgm2)	1/min
ED130	260	0.136	111	10	15	45	67	80	43	74	3	12	21	43	-	-	2x0.75	0.35	4	0.005	7000
ED280	560	0.293	141	15	20	60	87	103.5	50	84	3	9	15	45	-	-	2x0.75	0.4	7	0.015	6200
ED500	1000	0.524	171	25	30	75	106	129.5	62	105	3	17	31	63	-	-	2x0.75	0.5	14	0.039	5650
ED1000	2000	1.047	210	30	35	95	130	156	76	123	5	17	29	74	-	-	2x0.75	0.6	25	0.101	5100
ED1600	3200	1.675	234	35	40	110	151	181	90	148	5	19	33	86	130	M8x12	2x0.75	0.7	37	0.188	4700
ED2200	4400	2.304	274	50	55	130	178	209	105	172	6	23	40	103	155	M8x12	2x0.75	0.9	60	0.431	4350
ED3200	6400	3.351	312	60	65	155	213	247	120	193	6	24	42	116	185	M10x15	2x0.75	1	90	0.845	4000
ED4500	9000	4.712	337	75	80	175	235	273	135	215	8	29	50	130	205	M12x18	2x0.75	1.1	118	1.322	3800
ED6200	12400	6.492	380	85	90	195	263	307	150	241	8	32	56	144	226	M16x24	2x0.75	1.2	169	2.45	3600
ED8400	16800	8.796	405	95	100	215	286	338	175	279	8	39	70	170	250	M16x24	2x0.75	1.4	224	3.72	3450
ED11500	23000	12.042	444	115	120	240	316	368	190	304	8	46	84	188	276	M16x24	2x0.75	1.5	277	5.39	3300
ED17400	34800	18.221	506	145	150	275	372	426	220	339	10	42	74	204	330	M20x30	2x0.75	1.7	414	10.88	3050

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE ED (SUPER SERIES)

Multi Crowned Toothed Couplings For Shaft Connections Type ED (SUPER SERIES)

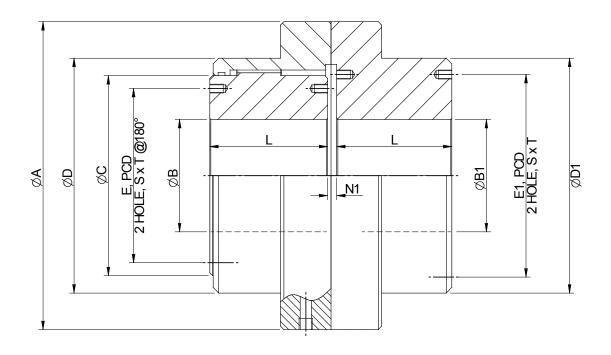


		DIAL			Dian	neter					Ler	ngth			Та	apping	Misalig	nment		Mamanta	Maximum
Size TkN Continuous	Tk max shock	PkN n conti.	А	pilot	B min.	Maxi	С	D	L	M1	N1	N2	N3	N4	E	SxT	~ <u>~</u> ~	<u>_</u>	Weight kg	Moments of Inertia (kgm2)	ADM Speed 1/min
daNm	daNm	kW/rpm			m	m					m	m					degree	± mm	kg	(kgm2)	1/min
ED 25200	50400	26.39	632	155	160	310	422	550	280	10	15	119	223	346	360	M20x30	2x0.75	1.8	670	26.75	1830
ED 29000	58000	30.366	640	195	200	320	432	518	292	6.5	13	33	53	255	380	M20x30	2x0.75	2.1	760	31	1800
ED 37000	74000	38.746	715	205	210	355	472	616	310	12	20	133	246	383	410	M24x40	2x0.75	2.2	930	48	1460
ED 45000	90000	47.123	750	225	230	370	502	648	330	11.5	20	144	268	408	435	M24x40	2x0.75	2.2	1110	65.8	1395
ED 56000	112000	58.639	804	275	280	450	594	682	350	6.5	13	61	109	335	544	M24x40	2x0.75	2.7	1532	105	1300
ED 75000	150000	78.539	910	285	290	480	620	812	410	10.5	25	121	217	*	550	M36x55	2x0.75	3	2180	198	1000
ED 90000	180000	94.247	980	315	320	515	670	860	430	15.5	25	102	179	*	585	M36x55	2x0.75	3	2520	265	940
ED 110000	220000	115.19	1020	325	330	540	700	908	450	16	25	97	169	*	615	M36x55	2x0.75	4	2910	333	900

- 1. SPACE REQUIRED TO CHANGE THE SEAL
- 2. KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3. MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4. WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5. CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6. FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.
- 7. FOR MARKED DIMENSIONS, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE ER

Multi Crowned Toothed Couplings For Shaft Connections Type ER

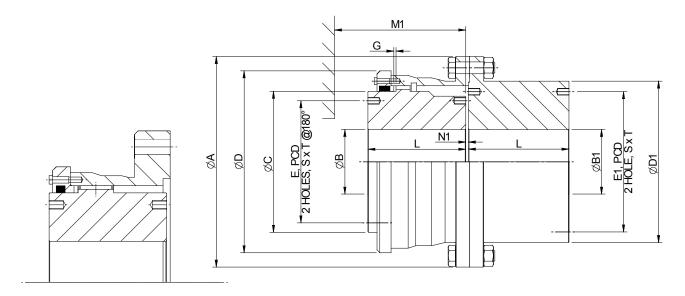


		DIAN					Dia	meter						Len	igth			Тарр	ing			Moments	Maximum
Size TkN Continuous	Tk max shock	PkN n conti.	Α		В			В1		С	D	D1	_	L1	M1	N1	Е	E1	SxT	I I / '	Weight		ADM Speed
		COIIII.	^	pilot	min.	Maxi	pilot	min.	Maxi		D	וט	_	L	IVII	INI	ı		3.1	<u> </u>		Шенца	Speed
daNm	daNm	kW/rpm					n	nm						m	m			mr	n	degree	Kg	j (kgm2)	1/min
ER 130	260	0.136	111	10	15	45	10	15	55	67	80	80	43	40	74	5	ı	-	1	0.75	4	0.005	7000
ER 280	560	0.293	141	15	20	60	15	20	75	87	103.5	103.5	50	47	84	5	ı	-	1	0.75	8	0.015	6200
ER 500	1000	0.524	171	25	30	75	25	30	95	106	129.5	126	62	58	105	5	ı	-	1	0.75	14	0.039	5650
ER 1000	2000	1.047	210	30	35	95	30	35	110	130	156	152	76	74	123	6	1	-	-	0.75	26	0.102	5100
ER 1600	3200	1.675	234	35	40	110	35	40	130	151	181	178	90	87	148	6	130	155	M8x12	0.75	38	0.196	4700
ER 2200	4400	2.304	274	50	55	130	50	55	155	178	209	208	105	101	172	6.5	155	180	M8x12	0.75	61	0.45	4350
ER 3200	6400	3.351	312	60	65	155	60	65	180	213	247	245	120	113	193	6.5	185	210	M10x15	0.75	91	0.871	4000
ER 4500	9000	4.712	337	75	80	175	75	80	200	235	273	270	135	129	215	8	205	235	M12x18	0.75	120	1.368	3800
ER 6200	12400	6.492	380	85	90	195	85	90	230	263	307	305	150	150	241	8	226	265	M16x24	0.75	175	2.586	3600
ER 8400	16800	8.796	405	95	100	215	95	100	250	286	338	330	175	175	279	8	250	290	M16x24	0.75	232	3.91	3450
ER 11500	23000	12.042	444	115	120	240	115	120	280	316	368	362	190	190	304	10	276	320	M16x24	0.75	287	5.655	3300
ER 17400	34800	18.221	506	145	150	275	145	150	330	372	426	416	220	220	339	13	330	370	M20x30	0.75	430	11.5	3050

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT 0.75
- 4 WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING..

TYPE ER (SUPER SERIES)

Multi Crowned Toothed Couplings For Shaft Connections Type ER (SUPER SERIES)



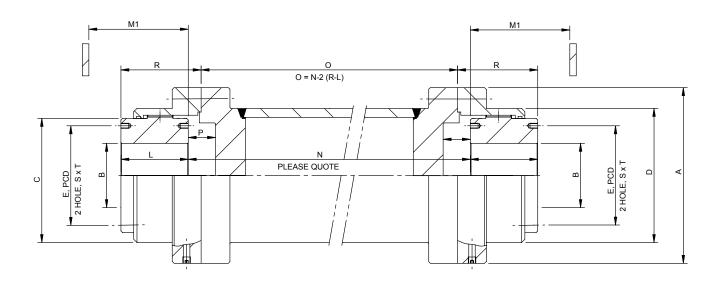
SHAPE OF GEAR HALF FOR COUPLING SIZE 290000

	т.	DIAL					Diam	eter						L	eng	th			Тарі	ping				N 4 i
Size TkN Continuous	Tk max shock	PkN n conti.	А	pilot	B min.	Maxi	pilot	B1 min.	Maxi	С	D	D1	L	G	L1	M1	N1	Е	E1	SxT		Weight	Moments of Inertia	Maximum ADM Speed
daNm	daNm	kW/ rpm					mn	n							mm				m	m	Degree	kg	(kgm2)	1/min
ER 25200	50400	26.39	632	155	160	310	155	160	340	422	550	470	280	10	280	335	12	360	395	M20x30	0.75	706	26.17	1830
ER 29000	58000	30.366	640	195	200	320	195	200	365	432	518	512	292	6.5	292	324	14.5	380	455	M20x30	0.75	820	33.53	1880
ER 37000	74000	38.746	715	205	210	355	205	210	380	472	616	535	310	12	310	370	16.5	410	445	M24x40	0.75	984	48.26	1460
ER 45000	90000	47.123	750	225	230	370	225	230	410	502	648	570	330	11.5	330	395	16.5	435	480	M24x40	0.75	1170	64.04	1395

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.
- 7 FOR MARKED DIMENSIONS, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE ET

Multi Crowned Toothed Couplings For Shaft Connections Type ET

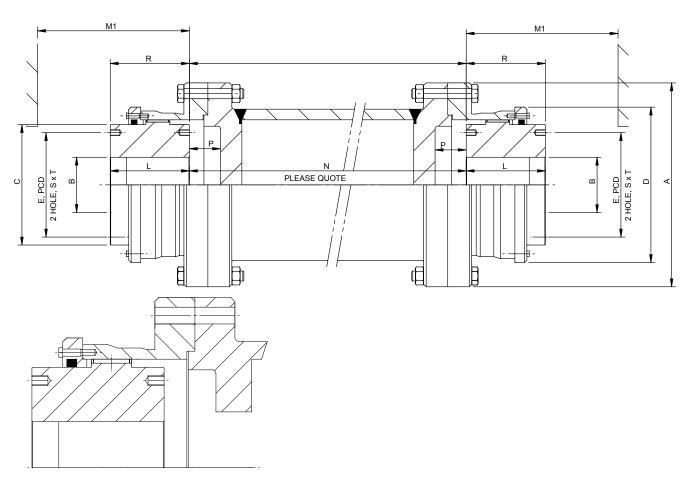


					Dian	neter				Ler	igth		Та	pping	Misalig	nment			
Size TkN Continuous daNm	Tk max shock daNm	PkN n conti.	Α	pilot	B min.	Maxi	С	D	L	M1	Р	R	Е	SxT	<u>~</u> \ <u>~</u>	t	Weight	Moments of Inertia	Maximum ADM Speed
daNm	daNm	kW/ rpm		1	m	m	l			m	m			mm	degree		kg	(kgm2)	1/min
ET 130	260	0.136	111	10	15	45	67	80	43	74	16	53.5	-	-	0.75	1.5	4	0.005	_ >
ET 280	560	0.293	141	15	20	60	87	103.5	50	84	13	57.5	-	-	0.75	1.5	8	0.0015	ED AND HOLLOW
ET 500	1000	0.524	171	25	30	75	106	129.5	62	104	20	77.5	-	-	0.75	1.5	14	0.039	
ET 1000	2000	1.047	210	30	35	95	130	156	76	123	20	90.5	-	-	0.75	2.5	25	0.101	SPEE
ET 1600	3200	1.675	234	35	40	110	151	181	90	148	22	106.5	130	M8x12	0.75	2.5	37	0.188	TMEC
ET 2200	4400	2.304	274	50	55	130	178	209	105	172	25	125	155	M8x12	0.75	3	60	0.431	E CRITICAL SINTERMEDIA
ET 3200	6400	3.351	312	60	65	155	213	247	120	192	26	141	185	M10x15	0.75	3	90	0.845	HHE S
ET 4500	9000	4.712	337	75	80	175	235	273	135	216	31	160	205	M12x18	0.75	4	118	1.322	BY T F TH
ET 6200	12400	6.492	380	85	90	195	263	307	150	241	33	178	226	M16x24	0.75	4	168	2.45	
ET 8400	16800	8.796	405	95	100	215	286	338	175	279	40	210	250	M16x24	0.75	4	224	3.72	LIMITE
ET 11500	23000	12.042	444	115	120	240	316	368	190	304	47	232	276	M16x24	0.75	4	277	5.39	_ \&

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA WITHOUT INTERMEDIATE HOLLOW SHAFT.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE ET (SUPER SERIES)

Multi Crowned Toothed Couplings For Shaft Connections Type ET (SUPER SERIES)



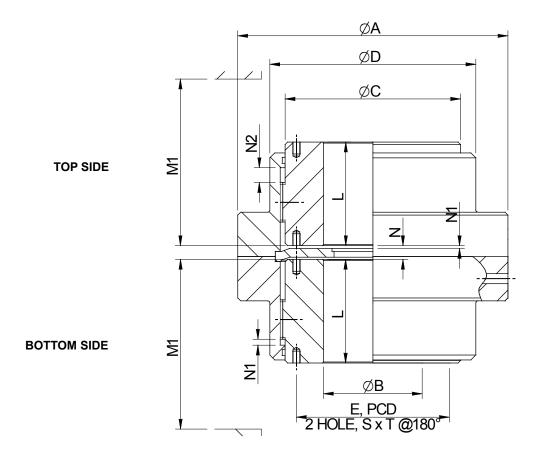
SHAPE OF COUPLING FOR SIZE 29000 & 56000

Size TkN	Tk max	PkN			Dian	neter				Ler	ngth		Та	pping	Misalig	nment		Moments	Maximum
Continuous daNm	shock daNm	n conti.	Α	pilot	B min.	Maxi	С	D	L	M1	Р	R	E	SxT	~\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u>1</u>	Weight kg	of Inertia (kgm2)	ADM Speed 1/min
daNm	daNm	kW/rpm		mm 155 160 310 422 550						m	m		ı	mm	Degree		kg	(kgm2)	1/min
ET 25200	50400	26.39	632	155	160	310	422	550	280	335	119	391.5	360	M20x30	0.75	10	670	26.75	.u.F.
ET 29000	58000	30.366	640	195	200	320	432	518	292	324	33	318.5	380	M20x30	0.75	6.5	760	31	ICAL F THE ' SHAF
ET 37000	74000	38.746	715	205	210	355	472	616	310	370	133	433	410	M24x40	0.75	12	930	48	CRITIC, HT OF 1 LOW SI
ET 45000	90000	47.123	750	225	230	370	502	648	330	395	144	464	435	M24x40	0.75	11.5	1110	65.8	HEGE HEGE
ET 56000	112000	58.639	804	275	280	450	594	682	350	379	61	404.5	544	M24x40	0.75	6.5	1532	105	I ∵≥… I
ET 75000	150000	78.539	910	285	290	480	620	812	410	485	121	521.5	550	M36x55	0.75	10.5	2180	198	TED BY S AND EDIATE
ET 90000	180000	94.247	980	315	320	515	670	860	430	510	102	523.5	585	M36x55	0.75	15.5	2520	265	LIMITEI PEED A TERMED
ET 110000	220000	115.19	1020	325	330	540	700	908	450	530	97	539.5	615	M36x55	0.75	16	2910	333	J SE

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA WITHOUT INTERMEDIATE HOLLOW SHAFT.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE EV

Multi Crowned Toothed Couplings For Shaft Connections Type EV

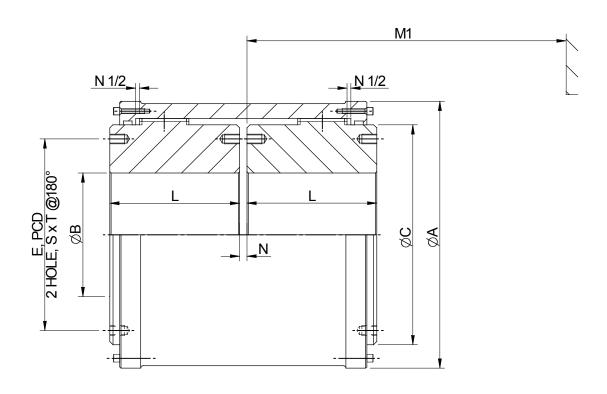


		PkN			Diar	neter				L	ength			Та	pping	Misalig	nment			Maximum
Size TkN Continuous	Tk max shock	n conti.	Α		В		С	D		M1	Ν	N1	N2	Е	SxT	۳< ک ^۳	1	Weight	Moments of Inertia	ADM Speed
		COITU.	Α,	pilot	min.	Maxi			-	1011		141	142	_	OXI	₹				Оресси
daNm	daNm	kW/rpm			m	nm					mm			I	mm			kg	(kgm2)	1/min
EV 130	260	0.136	111	10	15	45	67	80	43	74	8	1.5	5.5	-	-	2x0.75	0.35	4.5	0.0057	5000
EV 280	560	0.293	141	15	20	60	87	103.5	50	84	5	1.5	5.5	-	-	2X0.75	0.4	8.5	0.017	4400
EV 500	1000	0.524	171	25	30	75	106	129.5	62	105	12.5	1.5	6	-	-	2X0.75	0.5	15	0.043	4000
EV 1000	2000	1.047	210	30	35	95	130	156	76	123	11	2.5	8.5	-	-	2X0.75	0.6	26	0.11	3600
EV 1600	3200	1.675	234	35	40	110	151	181	90	148	13	2.5	8.5	130	M8X12	2X0.75	0.7	39	0.206	3350
EV 2200	4400	2.304	274	50	55	130	178	209	105	172	14	3	12	155	M8X12	2X0.75	0.9	61	0.461	3100
EV 3200	6400	3.351	312	60	65	155	213	247	120	193	15	3	12	185	M10X15	2X0.75	1	93	0.935	2800
EV 4500	9000	4.712	337	75	80	175	235	273	135	215	17	4	16	205	M12X18	2X0.75	1.1	122	1.454	2700
EV 6200	12400	6.492	380	85	90	195	263	307	150	241	20	4	16	226	M16X24	2X0.75	1.2	175	2.71	2550
EV 8400	16800	8.796	405	95	100	215	286	338	175	279	27	4	16	250	M16X24	2X0.5*	0.9	236	4.32	2450
EV 11500	23000	12.042	444	115	120	240	316	368	190	304	34	4	16	276	M16X24	2X0.5*	1	295	6.48	2300
EV 17400	34800	18.221	506	145	150	275	372	426	220	339	28	5	20	330	M20X30	2X0.5*	1.1	430	11	2150

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- * MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.5
- 6 FOR A HIGHER SIZE REQUIREMENT, PLEASE CONTACT APPLICATION ENGINEERING.

TYPE ES

Multi Crowned Toothed Couplings For Shaft Connections Type ES



	Tk	DIAN		D	iamete	er			Length		Та	pping	Misalig	nment		Mamanta	Maximum ADM
Size TkN Continuous	may	PkN n conti.	Α		В		С		M1	N	Е	SxT	<u>بر ک</u> ر		Weight kg	of Inertia (kgm2)	ADM Speed
	SHOCK	COIII.	^	pilot	min.	Maxi)	_	IVI I	IN	_	3.1	₹ ~;			(kgiliz)	1/min
daNm	daNm	kW/ rpm			mm				mm			mm	Degree		kg	(kgm2)	1/min
ES 1600	3200	1.675	186	35	40	110	151	90	218	5	130	M8x12	2x0.75	0.7	34	0.158	4700
ES 2200	4400	2.304	216	50	55	130	178	105	257	6	155	M8x12	2x0.75	0.9	52	0.332	4350
ES 3200	6400	3.351	254	60	65	155	213	120	289	6	185	M10X15	2X0.75	1	82	0.738	4000
ES 4500	9000	4.712	282	75	80	175	235	135	325	8	205	M12X18	2X0.75	1.1	112	1.255	3800
ES 6200	12400	6.492	317	85	90	195	263	150	358	8	226	M16X24	2X0.75	1.2	154	2.197	3600
ES 8400	16800	8.796	346	95	100	215	286	175	419	8	250	M16X24	2X0.75	1.4	209	3.51	3450
ES 11500	23000	12.042	376	115	120	240	316	190	459	8	276	M16X24	2X0.75	1.5	264	5.352	3300
ES 17400	34800	18.221	436	145	150	275	372	220	513	10	330	M20X30	2X0.75	1.7	398	11	3050

- 1 SPACE REQUIRED TO CHANGE THE SEAL
- 2 KEYWAYS ACCORDING TO DIN:6885 PART-1
- 3 MAXIMUM ANGULAR MISALIGNMENT PER COUPLING HALF 0.75
- 4 WEIGHT & MOMENT OF INERTIA BASED ON PILOT BORE CONDITION.
- 5 CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.
- 6 FOR HIGHER SIZE REQUIREMENT PLEASE CONTACT US.

CONTACT US

AUSTRALIA

Radicon Transmission (Australia) PTY Ltd

Australia

Tel: +61 488 054 028

EUROPE

Benzler TBA BV

Jachthavenweg 2 NL-5928 NT Venlo

Austria

Tel: +43 7 229 618 91 Fax: +43 7 229 618 84

Tel: +33 687 718 711 Fax: +31 77 324 59 01

Germany

Tel: 0800 350 40 00 Fax: 0800 350 40 01

Italy

Tel: +39 02 824 3511

Netherlands & the rest of Europe Tel: +91 2692 23651

Tel: +31 77 324 59 00 Fax: +31 77 324 59 01

DENMARK

Benzler Transmission A/S

Fuglebævej 3D DK-2770 Kastrup, Denmark

Tel: +45 36 34 03 00 Fax: +45 36 77 02 42

FINLAND

Oy Benzler AB

Vanha Talvitie 3C FI-00580 Helsingfors,

Finland

Tel: +358 9 340 1716 Fax: +358 10 296 2072

Elecon. Engineering Company Ltd.

Anand Sojitra Road Vallabh Vidyanagar 388120 Gujarat

India

Fax: +91 2692 227484

SWEDEN & NORWAY

AB Benzlers Box 922 (Landskronavägen 1)

251 09 Helsingborg

Sweden

Tel: +46 42 18 68 00 Fax: +46 42 21 88 03

THAILAND

Radicon Transmission (Thailand) Ltd

700/43 Moo 6

Amata Nakorn Industrial Estate Tumbol Klongtumru

Muang, Chonburi 20000 Thailand

Tel: +66 3845 9044 Fax: +66 3821 3655

UNITED KINGDOM

Radicon Transmission UK Ltd

Unit J3

Lowfields Business Park, Lowfields Way, Elland West Yorkshire, HX5 9DA

+44 (0) 1484 465 800 Fax: +44 (0) 1484 465 801

USA

Radicon USA Transmission Ltd

1599 Lunt Avenue Elk Grove Village Chicago Illinois 60007 USA

Tel: +1 847 593 9910 Fax: +1 847 593 9950

























benzlers* radicon*

Benzlers

Denmark +45 36 34 03 00 Finland +358 9 340 1716 Germany +49 800-350 4000 Sweden +46 42 186800 The Netherlands +31 77 324 59 00 www.benzlers.com

Radicon

Thailand +66 3845 9044 United Kingdom +44 (0) 1484 465 800 USA +1 847 593 9910

www.radicon.com