Selection

The TransDrive Jaw Coupling is recognised across a large range of industries. The Jaw Coupling is highly resilient, it does not require any lubrication and can work in environments contaminated with oil, dirt, sand, moisture and grease.

The rubber insert is designed to absorb shock loading and does not allow for any metal contact. TransDrive stocks both the Spider Elements (rubber and polyurethane) as well as the Wrap Element Kits.

TransDrive stocks a range of Jaw Couplings in a variety of pre-bored and keyed sizes.

Wrap Element Kit Features

- The Wrap Element Kit allows inspection and replacement within minutes.
- Modular hub design allow the same hubs to be used for different models.
- Hubs are fully machined which guarantees a smooth contact surface, ease of alignment and excellent balance.
- Hubs come pre-bored and keyed to standard IEC motor shaft sizes.
- Taper Fit hubs are also available to accommodate to non-standard shaft sizes.
- Spacer couplings are available for pump applications.
- Water, dust, oil and greases do not affect performance.

Service Factor	Determine appropriate service factor from the Table below
Design Power	Multiply running power of driven machinery by the Service Factor. This gives Design Power which is used as a basis for coupling selection
Coupling Size	Refer to respective table for your required coupling type and read from the appropriate speed column until a power equal to or greater than the design power is found, page 11
Bore Size	Refer respective coupling dimensional table to check that the required bores can be accommodated, page 11 & 12.

Service Factors

Special Class$_1$	Type of Driving Unit					
	Electric Motors / Steam Turbines			Internal Combustion Engines / Steam Engines / Water Turbines		
	Hours Per Day Duty			Hours Per Day Duty		
Driven Machine Class$_2$	8 and under	Over 8 to 16 inclusive	Over 16	8 and under	Over 8 to 16 inclusive	Over 16
Uniform	1.00	1.12	1.25	1.25	1.40	1.60
Moderate Shock$_3$ *	1.60	1.80	2.00	2.00	2.24	2.50
Heavy Shock$_4$ **	2.50	2.80	3.12	3.12	3.55	4.00

* It is recommended that top clearance keys are fitted for applications where load fluctuation is expected.

** For Centrifugal Compressor multiply Service Factor by an additional 1.15.

1 For applications where substantial shock, vibration and torque fluctuation occur, and for reciprocating machines, e.g. internal combustion engines, piston type pumps and compressors, refer to Power Transmission with full machine details for torsional analysis.

2 Agitators, Brewing Machinery, Centrifugal Compressors**, Conveyors, Centrifugal Fans and pumps, Generators, Sewage Disposal Equipment.

3 Clay working machinery, Crane Hoists, Laundry machinery, Wood working machinery, Machine Tools, Rotary Mills, Paper Mill machinery, Textile machinery.

4 Reciprocating conveyors, Crushers, Shakers, Metal Mills, Rubber machinery. (Banbury Mixers and Mills, Reciprocating Compressors.)

Jaw Couplings

TRANSDRIVE® DRIVE PERFORMANCE

	L050	L070	L075	L095	L100	L110	L150	L190	L225
Spider	•	•	•	•	•	•	•	•	•
Wrap				•	•	•	•	•	•
Kit				•	•	•	•	•	•
Pilot Bore Hub	•	•	•	•	•	•	•	•	•
Hytrel Spider	•	•	•	•	•	•	•	•	
PU Spider	•	•	•	•	•	•	•	•	
Imperial (Inch)									
3/8	•	•							
7/16				•					
1/2	•	•	•	•	•				
9/16				•					
5/8	•	•	•	•	•				
3/4		•	•	•	•	•			
7/8			•	•	•	•			
1			•	•	•	•	•		
1-1/8				•	•	•	•		
1-1/4					•	•	•	•	
1-3/8						•	•	•	
1-1/2						•	•	•	
1-5/8								•	
2								•	
Metric (mm)									
10	•	•							
12	•	•	•						
14	•	•	•	•					
16		•	•	•					
18		•	•	•	•				
19		•	•	•	•				
20			•	•	•	•			
22			•	•	•	•			
24				•	•	•	•		
25				•	•	•	•	•	
28				•	•	•	•	•	
30					•	•	•	•	
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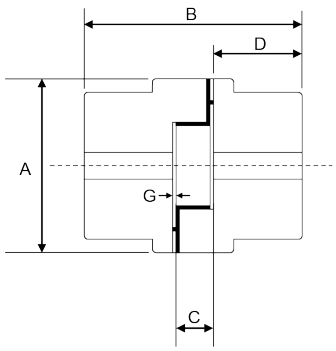
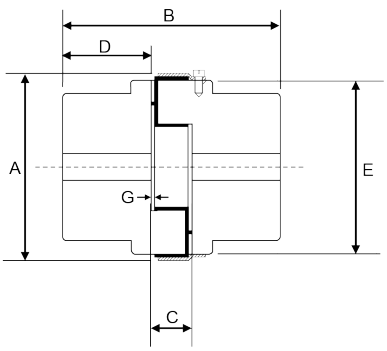
35					•	•	•	•	
38					•	•	•	•	
40						•	•	•	
45							•	•	
48							•	•	
55								•	•
60								•	•

Dimensions

TYPE 1



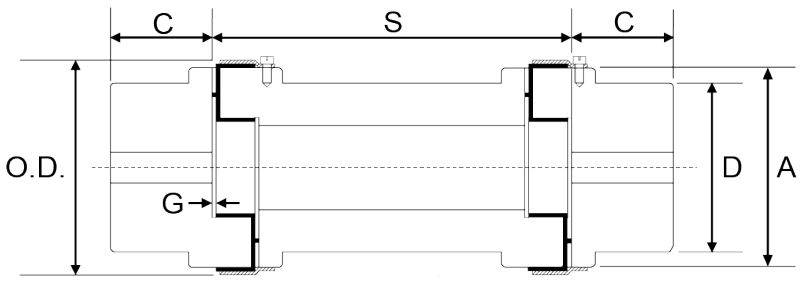
TYPE 2



Coupling	Type	A	B	C	D	E	G	Stock Bore	Weight (kg)		Max Bore (mm)
									Stock Bore	Max Bore	
L050PB	1	27.4	43.4	12.2	15.7	-	1	6	-	-	15
L070PB	1	35	53	13	19	-	2	6	0.26	0.24	19
L075PB	1	44.5	53	13	19	-	2	6	0.45	0.39	22
L095PB	1 & 2	54	65	13	25	54	2	11	0.79	0.69	29
L100PB	1 & 2	65	86	19	35	65	2	11	1.55	1.32	35
L110PB	1 & 2	84	110	24	43	84	3	16	2.93	2.55	42
L150PB	1 & 2	96	113	25	45	96	3	16	4.06	3.51	48
L190PB	1 & 2	115	133	25	50	102	3	18	-	-	55
L225PB	1 & 2	127	155	25	55	108	3	18	-	-	65

All dimensions are in mm.

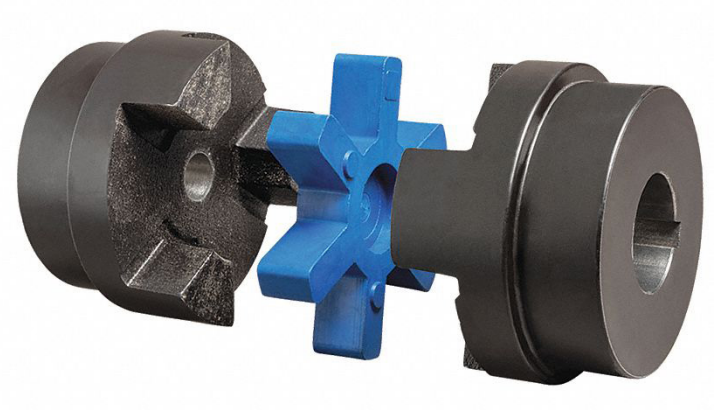
SPACER

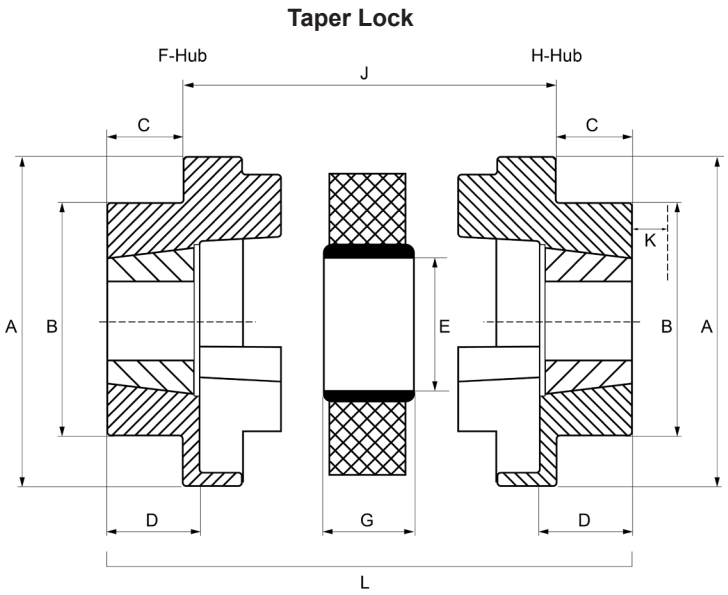


Part No.	Bore (mm)		A	C	D	O.D.	G	Spacer Length (mm)
	Min.	Max.						
L100	10	35	65	35	57	78	2	100/140
L110	15	42	85	43	76	96	3	100/140
L150	15	48	96	45	80	111	3	100/140/180
L190	20	60	115	54	102	130	3	100/140/180
	20	65	127	64	111	142	3	100/140/180

All dimensions are in mm.

Dimensions





Size TF/TWNS	Bush			A		B	E	J	G	C	D	K	T
	Size	Max. Bore											
		mm	Inch	Taper Lock	T - Type 1								
L100	1108	28	1 1/8	65	78	65	27	44	18	10.5	23.5	29	65
L110	1210	32	1 1/4	84	96	84	35	48	22	13.5	26.5	38	75
L150	1210	32	1 1/4	96	111	96	35	55	25	11.5	26.5	38	78
L190	1610	42	1 5/8	115	129	102	45	63	25	7.5	26.5	38	78
L225	2012	50	2	127	142	108	45	63	25	14.5	33.5	42	92

All measurements are in mm unless otherwise stated.

K is the wrench clearance required for tightening and loosening the bush on the shaft. The use of shortened key will allow this dimension to be reduced. Couplings can be supplied with F/F or H/H or F/H flange as required.

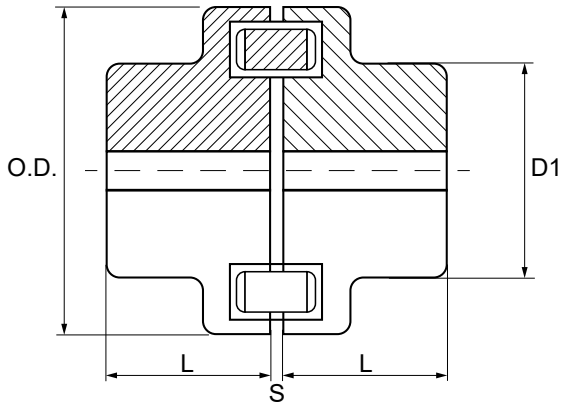
Weight is for flange without Bore.

Power Ratings (kW)

Coupling	Max. RPM	Torque (Nm)	Speed RPM					
			100	720	960	1440	2880	3600
L050PB	18000	3.51	0.037	0.26	0.35	0.53	1.73	2.17
L070PB	14000	5.77	0.06	0.43	0.58	0.87	3.61	4.51
L075PB	11000	11.9	0.12	0.9	1.2	1.8	5.78	7.22
L095PB	9000	25.8	0.27	1.95	2.59	3.89	16.73	20.91
L100PB	7000	55.4	0.58	4.18	5.58	8.36	31.77	39.71
L1100PB	5000	105	1.10	7.95	10.59	15.88	44.93	56.16
L150PB	4000	150	1.56	11.23	14.98	22.46	60.28	75.35
L190PB	3600	200	2.09	15.07	20.09	30.14	84.4	105.5
L225PB	3600	280	2.93	21.09	28.13	42.2	84.4	105.5

Flexible NM Series Jaw Couplings

Dimensions



Size	Bore (mm)		OD	D1	L	S	Max. Speed (rpm)	Torque (Nm)		Power Rating kW / rpm	Weight (kg) / set
	Min	Max						Nominal	Max.		
NM-30	7	19	50	33	25	2.0±0.5	13500	12.74	22.54	1.33	0.52
NM-67	9	28	67	46	30	2.5±0.5	10000	21.56	39.2	2.26	0.93
NM-82	10	32	82	53	40	3.0±0.5	8000	49	88.2	5.13	1.78
NM-97	12	42	97	69	50	3.0±0.5	7000	102.9	186.2	10.78	3.46
NM-112	14	48	112	79	60	3.5±0.5	6000	163.66	294	17.14	5
NM-128	18	55	128	90	70	3.5±0.5	5000	261.66	470	27.40	7.9

All dimensions are in mm.

Selection

- GE Coupling Model Selection — Refer to the Power Rating tables as shown on pages 16 and 17. Select the "Yellow 92 Shore", "Red 98 Shore", or heavy-duty "Green 64 Shore". Read down the left column to the required speed then read across horizontally until the design power is exceeded to select the coupling model. If the exact speed is not shown calculate based on power rating per/100 RPM shown in the first column.
- Bore Dimensions — Check maximum bore dimensions and select from Pilot Bore model to be machined to required bore and key or Taper Bore option in available metric and imperial bore sizes.

Selection via Tore Calculation Method

- **Torque** — Calculate tore applied to the coupling by using the formula below

$$\text{Torque (Nm)} = \frac{9550 \times \text{Power kW}}{\text{Speed (RPM)}}$$

- **Service Factor** — Apply the service factor to the torque figure in Nm, this is the deign torque rating
- **Coupling Torque Ratings** — Check the torque ratings for the Yellow 92 Shore, Red 98 shore or heavy duty Green 64 Shore as shown in the dimensions tables on the previous pages. Select a suitable coupling that exceeds the design torque rating.
- **Bore Dimensions** — Check maximum bore dimensions and select from pilot bore model to be machined to required bore and key or taper fit option in available metric and imperial bore sizes.

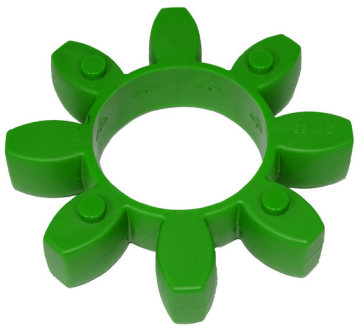
Features & Benefits

- High Torque capacity for size
- Compact design
- Low weight for reduced intertia
- Machined surfaces for extended life
- Absorbs shock loads
- Vibration dampening

Elements

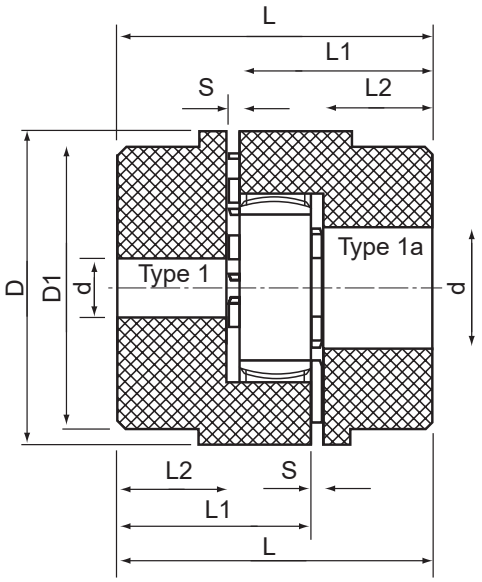
Curved Jaw (Rotex) Element - Polyurethane Red 98

Curved Jaw (Rotex) Element - Yellow 92 Shore Hardness



Curved Jaw (Rotex) Element - High Torque Green 64

Dimensions



Pilot Bored														
TYPE	Hub Type	Max Speed RPM	Rated Torque (Nm)			D	D1	d-min	d-max	S	L1	L2	L	Mass kg/ hub
			92 Sh A YELLOW	98 Sh A RED	64 Sh D GREEN									
GE14	1	17000	7.5	12.5	16	30	22	6	16	1	32	20	51	0.12
	1a							19	24					
GE19	1	19000	10	17	21	40	32	6	19	1	39	25	65	0.19
	1a							19	24					
GE24	1	14000	35	60	75	56	40	9	24	1	46	30	77	0.38
	1a							22	28					
GE28	1	11800	95	160	200	65	48	10	28	1.5	52.5	35	89	0.62
	1a							28	38					
GE38	1	9500	190	325	405	80	66	12	38	1	66	45	112	1.36
	1a							38	45					
GE42	1	8000	265	450	560	95	75	14	42	1	73	50	124	2.03
	1a							42	55					
GE48	1	7100	310	525	655	105	85	15	48	1.5	80.5	56	138	2.85
	1a							48	60					
GE55	1	6300	410	685	825	120	98	20	55	2	91	65	158	4.32
	1a							55	70					
GE65	1	5600	625	940	1175	135	115	22	65	1.5	105.5	75	182	6.66
	1a							22	65					
GE75	1	4750	1280	1920	2400	160	135	30	75	1	120	85	206	10.48
	1a							30	75					
GE90	1	3750	2400	3600	4500	200	160	40	90	1.5	139.5	100	241	17.89
	1a						180	40	90					

Measurements are in mm

Hub Types: 1 = Stepped Hub 1a = Full Hub

Selection

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Moderate Shock$_3$ *	1.60	1.80	2.00	2.00	2.24	2.50
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* It is recommended that top clearance keys are fitted for applications where load fluctuation is expected.

** For Centrifugal Compressor multiply Service Factor by an additional 1.15.

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Jaw Couplings

TRANSDRIVE® DRIVE PERFORMANCE

	L050	L070	L075	L095	L100	L110	L150	L190	L225
Spider	•	•	•	•	•	•	•	•	•
Wrap				•	•	•	•	•	•
Kit				•	•	•	•	•	•
Pilot Bore Hub	•	•	•	•	•	•	•	•	•
Hytrel Spider	•	•	•	•	•	•	•	•	
PU Spider	•	•	•	•	•	•	•	•	
Imperial (Inch)									
3/8	•	•							
7/16				•					
1/2	•	•	•	•	•				
9/16				•					
5/8	•	•	•	•	•				
3/4		•	•	•	•	•			
7/8			•	•	•	•			
1			•	•	•	•	•		
1-1/8				•	•	•	•		
1-1/4					•	•	•	•	
1-3/8						•	•	•	
1-1/2						•	•	•	
1-5/8								•	
2								•	
Metric (mm)									
10	•	•							
12	•	•	•						
14	•	•	•	•					
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18		•	•	•	•				
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