



## Tyreflex Flexible Coupling

[Brochure](#)

**RENOLD** | Couplings

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## Innovation Everyday

Renold have been driving industry forward through innovation since 1879. Renold Couplings drives industry the world over, from marine, cranes and hoists to manufacture, mass transportation and the pulp and paper industry. Our couplings connect machines to machines through stock solutions and bespoke-crafted connections, all manufactured in our high-tech engineering factories.

### Engineering capability

A team of in-house design engineers work to continuously improve the existing product range, introduce new products and deliver innovative new solutions to our customers challenges.

### British manufacturer

Since 1946 Renold Couplings have manufactured a full range of couplings and clutches.

Based in Cardiff, UK, we control the full design and manufacture process, bringing class leading quality and complete customer peace of mind.

### Worldwide support

With manufacturing facilities in 4 continents and support offices in over 30 countries Renold Couplings can offer service that understands the requirements and challenges of your particular market.

### Availability

Renold Couplings holds significant stock of standard items and component parts both in our UK facility and with our partners around the world.

Controlling the full manufacturing process, Renold Couplings can deliver responsive lead times for manufactured parts.



## Tyreflex Flexible Coupling

A range of highly flexible couplings offering excellent misalignment capacity and suitable to absorb both shock loads and vibrations.

### Coupling capacity

- Maximum torque 6270 Nm
- Maximum power at 100rpm: 65.8 kW

### Applications

- Compressors
- Generator sets
- Pumps



### Range options

- Shaft to shaft
- Pump spacer type

### Construction details

- Steel or S.G. Iron half bodies  
rubber tyres:  
Temp range -50°C to +50°C  
chloroprene tyres:  
Temp range -15°C to +70°C

### Features and benefits

- High misalignment capabilities - high flexibility
- Shock absorbing - extending machine life
- Maintenance free - minimum number of wearing parts
- Fire retardant, anti-static elements available for use in a flameproof environment
- Interchangeability for ease of supply and customer peace of mind
- Pump spacer option for easy pump maintenance
- Taper bush bores available for ease of replacement
- Tyre element replacement requires no axial movement of hubs on driven or driving shafts

# Keyway dimensions

## Metric (mm)

Keyways comply with BS4235: Part 1: 1972

Shaft dia.		Keyway		
Over	Incl.	J	K	L
6	8	2	2	1.0
8	10	3	3	1.4
10	12	4	4	1.8
12	17	5	5	2.3
17	22	6	6	2.8
22	30	8	7	3.3
30	38	10	8	3.3
38	44	12	8	3.3
44	50	14	9	3.8
50	58	16	10	4.3
58	65	18	11	4.4
65	75	20	12	4.9
75	85	22	14	5.4
85	95	25	14	5.4
95	110	28	16	6.4
110	130	32	18	7.4
130	150	36	20	8.4
150	170	40	22	9.4
170	200	45	25	10.4
200	230	50	28	11.4

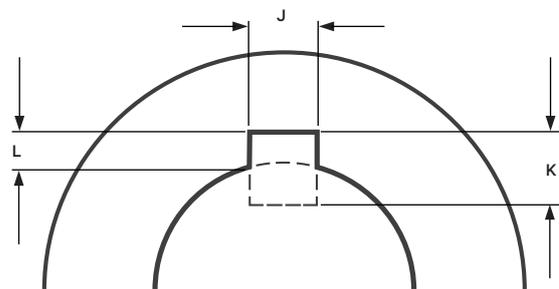
## Imperial (inches)

Keyways comply with BS46: Part 1: 1958

Shaft dia.		Keyway		
Over	Incl.	J	K	L
0.25	0.05	0.125	0.125	0.060
0.50	0.75	0.187	0.187	0.088
0.75	1.00	0.250	0.250	0.115
1.00	1.25	0.312	0.250	0.090
1.25	1.50	0.375	0.250	0.085
1.50	1.75	0.437	0.312	0.112
1.75	2.00	0.500	0.312	0.108
2.00	2.50	0.625	0.437	0.162
2.50	3.00	0.750	0.500	0.185
3.00	3.50	0.875	0.625	0.245
3.50	4.00	1.000	0.750	0.293
4.00	5.00	1.250	0.875	0.340
5.00	6.00	1.500	1.000	0.384

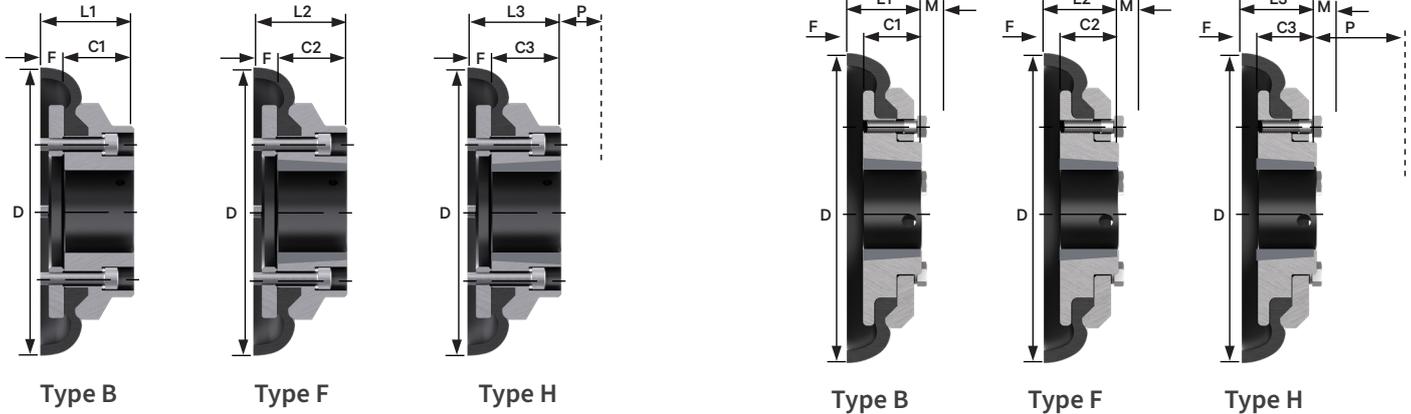
## Keyway dimensions

Parallel keyways are supplied unless customer states otherwise.



## TY40-TY60

## TY70-TY180



Coupling size	Power /100rpm kW	Torque nominal Nm	Speed max rpm	Type B		Type F			Max misalignment		End float mm	Torsional stiffness Nm at 20°C
				Bore		Bush size	Bore		Offset mm	Angular deg		
				Max	Min		Max	Min				
TY40 ##	0.26	25	4500	30	12	TB1008	25	9	1.1	4	1.3	6
TY50 ##	0.69	66	4500	38	15	TB1210	32	11	1.3	4	1.7	12.5
TY60 ##	1.33	127	4000	45	18	TB1610	42	14	1.6	4	2.0	32
TY70 ##	2.62	250	3600	50	22	TB1610	42	14	1.9	4	2.3	60
TY80 ##	3.93	375	3100	60	25	TB2012	50	14	2.1	4	2.6	63
TY90 ##	5.24	500	3000	70	28	TB2517	60	16	2.4	4	3.0	91
TY100 ##	7.07	675	2600	80	32	TB2517	60	16	2.6	4	3.3	126
TY110 ##	9.2	875	2300	95	30	TB3020	75	25	2.9	4	3.7	178
TY120 ##	13.9	1300	2050	110	38	TB3020	75	25	3.2	4	4.0	296
TY140 ##	24.3	2320	1800	130	75	TB3525	100	35	3.7	4	4.6	470
TY160 ##	39.4	3770	1600	140	85	TB4030	100	40	4.2	4	5.3	776
TY180 ##	65.8	6270	1500	150	85	TB4535	125	55	4.8	4	6.0	1370

Coupling size	Dimensions										Type B mass* kg	Type F mass* kg	Type H mass* kg
	C1 mm	C2 mm	C3 mm	D mm	F mm	L1 mm	L2 mm	L3 mm	M mm	P mm			
TY40 ##	22	22	22	104	11	33.5	33.5	33.5	N/A	29	1.05	1.05	1.05
TY50 ##	32	25	25	133	12.5	45	38	38	N/A	38	1.5	1.5	1.5
TY60 ##	38	25	25	165	16.5	55	42	42	N/A	38	2.35	2.35	2.35
TY70 ##	35	32	25	187	11.5	47	44	42	13	38	3.45	3.45	3.45
TY80 ##	42	45	32	211	12.5	55	58	45	16	42	5	5	5
TY90 ##	49	45	45	235	13.5	63	59	59	16	48	7.25	7.25	7.25
TY100 ##	56	51	45	254	13.5	70	65	59	16	48	10	10	10
TY110 ##	63	51	51	279	12.5	76	63.5	63.5	16	55	12.5	11.7	11.7
TY120 ##	70	65	51	314	14.5	84.5	78.5	65.5	16	67	16.9	16.5	15.9
TY140 ##	94	65	65	359	16	110.5	81	81	17	67	22.2	22.3	22.3
TY160 ##	102	77	77	402	15	117	92	92	19	80	35.8	33.5	32.5
TY180 ##	114	89	89	470	23	137	112	112	19	89	49.1	42.2	42.2

NOTE: M is distance by which clamping screws need to be withdrawn to release tyres.

P is wrench clearance for taper bush screws when large end is outboard Type H.

\*Mass is for single hub assembly and half tyre



# Tyreflex

## TY40-TY60



The TY40-TY60 feature smaller clamping rings installed on the inside of the tyre element. The bored/keyed halfbodies are installed on the outside of the tyre element.

## TY70-TY180

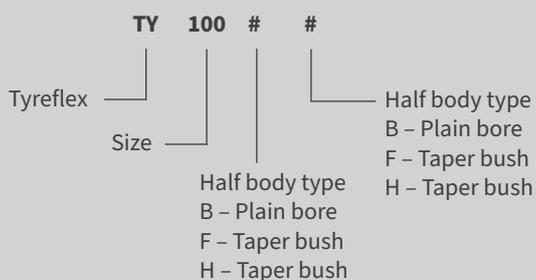


The TY70-TY180 feature larger clamping rings installed on the outside of the tyre element. The bored/keyed halfbodies are installed on the inside of the tyre element.

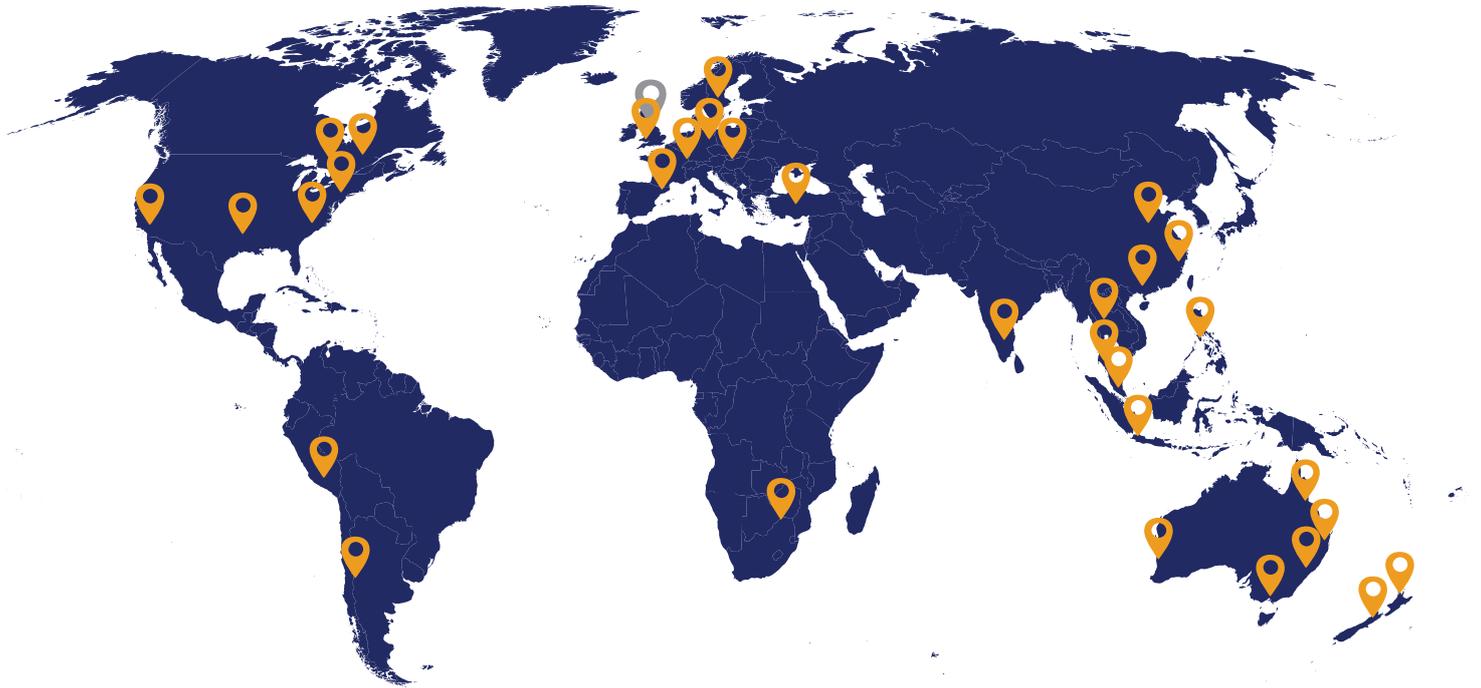
## Component spares

Coupling size	Tyre flexible element		Half body unbored Type B		Half body bored Type F		Half body taper bored Type H	
	Catalogue no	Product no	Catalogue no	Product no	Catalogue no	Product no	Catalogue no	Product no
TY40 # #	TY40	7131104/1	TY40 B	7131104/HB02	TY40 F	7131104/HB77	TY40 H	7131104/HB88
TY50 # #	TY50	7131105/1	TY50 B	7131105/HB02	TY50 F	7131105/HB77	TY50 H	7131105/HB88
TY60 # #	TY60	7131106/1	TY60 B	7131106/HB02	TY60 F	7131106/HB77	TY60 H	7131106/HB88
TY70 # #	TY70	7132107/1	TY70 B	7132107/HB02	TY70 F	713107/HB77	TY70 H	7132107/HB88
TY80 # #	TY80	7132108/1	TY80 B	7132108/HB02	TY80 F	7132108/HB77	TY80 H	7132108/HB88
TY90 # #	TY90	7132109/1	TY90 B	7132109/HB02	TY90 F	7132109/HB77	TY90 H	7132109/HB88
TY100 # #	TY100	7132110/1	TY100 B	7132110/HB02	TY100 F	7132110/HB77	TY100 H	7132110/HB88
TY110 # #	TY110	7132111/1	TY110 B	7132111/HB02	TY110 F	7132111/HB77	TY110 H	7132111/HB88
TY120 # #	TY120	7132112/1	TY120 B	7132112/HB02	TY120 F	7132112/HB77	TY120 H	7132112/HB88
TY140 # #	TY140	7132114/1	TY140 B	7132114/HB02	TY140 F	7132114/HB77	TY140 H	7132114/HB88
TY160 # #	TY160	7132116/1	TY160 B	7132116/HB02	TY160 F	7132116/HB77	TY160 H	7132116/HB88
TY180 # #	TY180	7132118/1	TY180 B	7132118/HB02	TY180 F	7132118/HB77	TY180 H	7132118/HB88

## Ordering code



# Global services



 **Head office**    **Renold locations**



### Internal support

Sales team embedded in the manufacturing site with unrivalled product knowledge



### Worldwide Manufacture

Renold can utilise its fully owned factories across the world to ensure quality controlled, cost competitive products



### Manufacturing facility

Designed and manufactured in house by Renold; giving ultimate control on our solutions



### History and Longevity

Manufacturing in the UK for over 100 years and commitment in our facilities for the long term, we are here to stay



### Excellent Communication

From an accessible sales team, weekly order updates and a global sales network we make it easy to communicate



### Large Stock Holding

Renold holds a large stock of Industrial couplings in the UK and with our worldwide distribution network

## Get in touch

For your local Renold  
sales and service location

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