



Zenith Flexible Coupling

Brochure

RENOLD | Couplings

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Innovation Everyday

Renold has been driving industry forward through innovation since 1879. That engineering heritage shapes every coupling we design today for customers in defence, power generation, marine and heavy industry worldwide.

Designed in Britain

Every coupling is engineered in Cardiff, home to Renold Couplings since 1946, with production carried out in the UK and by trusted partners worldwide.

Engineering Capability

Our design engineers continuously develop our coupling range and create bespoke solutions for applications with unique demands.

Worldwide Support

Renold Couplings operates manufacturing facilities on four continents and sales offices in more than thirty countries worldwide.

Dependability

Renold has supplied industry for over 140 years and supports couplings made decades ago, with stock held ready and a customer service team on call.

Zenith Flexible Coupling

The Zenith is a heavy-duty, failsafe coupling built for the toughest drivelines, from marine and naval propulsion to rail, power generation and industrial drives. It tunes out torsional vibration, handles high torque, and keeps running reliably under demanding conditions.



Failsafe Drive

In the unlikely event the rubber blocks are damaged, the coupling will still run and maintain drive.

Vibration Control

The rubber blocks tune out torsional vibration, protecting critical components and extending driveline life.

Shock Protection

Built to absorb repeated shock loads without breaking down, protecting the driveline from catastrophic failure.

Easy to Maintain

Worn rubber blocks can be quickly maintained and replaced in situ, with no need to disconnect the driveline.



Typical Applications

Marine and Naval Propulsion



Power Generation



Rail Traction



Pumps



Compressors



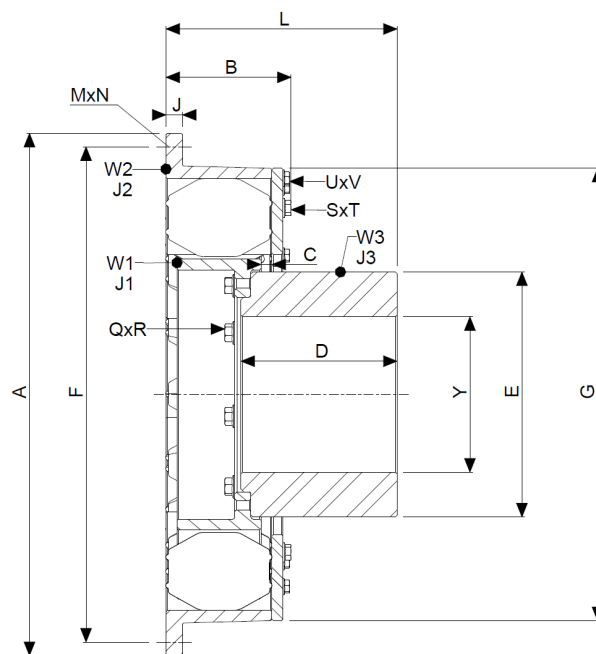
Construction and Mobile Machinery



Technical Data

Coupling Size		ZN10
		SAE18
Torque	Nominal torque T_{KN} (kNm)	10
	Maximum torque T_{Kmax} (kNm)	30
	Vibratory torque T_{KW} (kNm) ¹	3.3
Dimensions (mm)	A	571.5
	B ²	137
	C	12
	D	171
	E	268
	F	542.92
	G	494.8
	J	18
	L ³	200.6 - 253
	M ⁴	12
	N	17
	Q	8
	R	M12
	S	8
	T	M10
	U	16
	V	M8
	Y (max)	60
	Y (min)	170
Rubber blocks	Per cavity	1
	Per coupling	16
Maximum speed ⁵		2500
Weight (kg)	W1	19.26
	W2	47.27
	W3 ⁶	42.65-68.94
Inertia (kg m ²)	J1	0.52
	J2	2.48
	J3 ⁶	0.54-0.64

Setting Alignment Tolerance					
Radial (mm)	0.5				
Axial (mm)	1				
Allowable Transient Misalignment					
Angle (degrees)	0	0.5	1	1.5	2
Radial (mm)	5.95	5.57	5.21	4.86	4.54
Axial (mm)	9.50	7.53	5.56	3.60	1.64

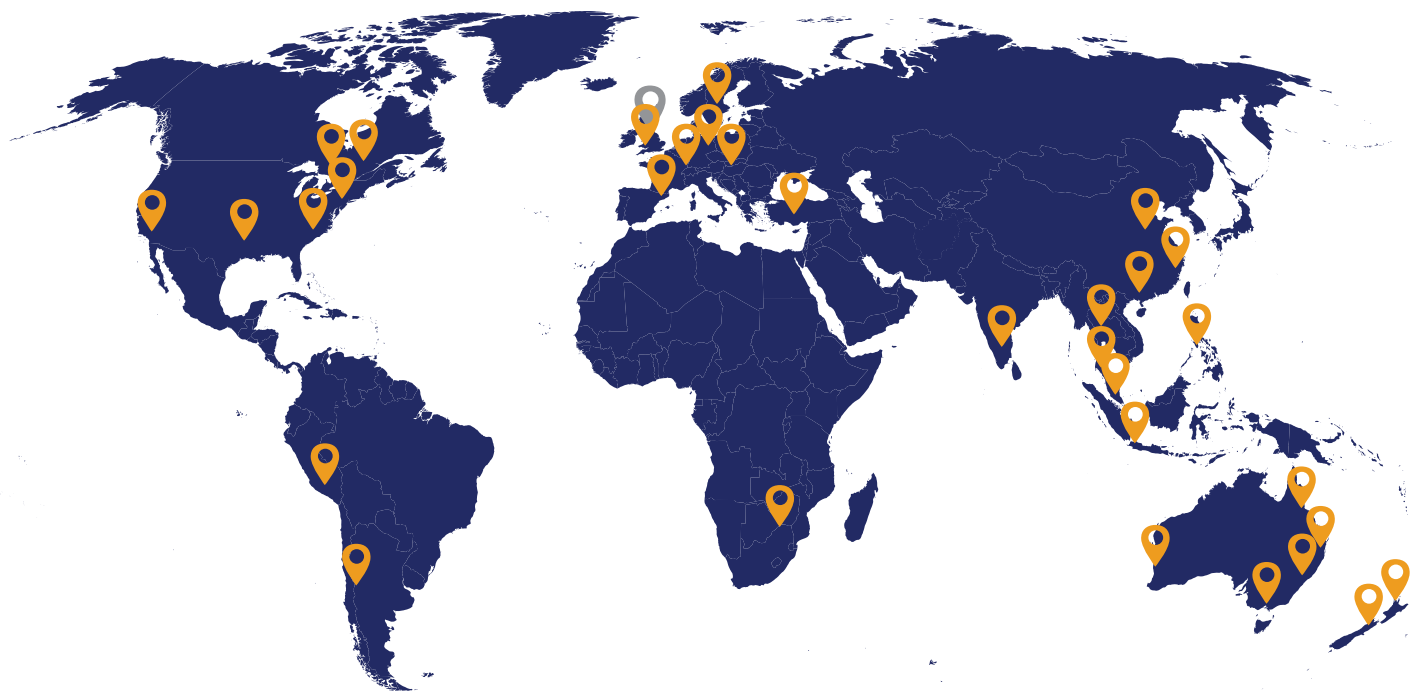


	Compound	Dynamic Torsional Stiffness CTdyn (kNm/rad)	Magnifier
10% nominal torque T_{KN}	LS	95.35	5.07
	MS	133.89	4.22
	HS	441.49	4.08
25% nominal torque T_{KN}	LS	162.75	5.08
	MS	201.04	4.20
	HS	465.62	3.48
50% nominal torque T_{KN}	LS	315.41	5.13
	MS	390.90	4.08
	HS	547.11	3.39
75% nominal torque T_{KN}	LS	472.32	5.18
	MS	588.27	4.00
	HS	744.88	3.58
100% nominal torque T_{KN}	LS	639.55	5.26
	MS	792.63	3.93
	HS	1077.39	3.83
Allowable heat loading at 30°C ambient P_{KW} (W)	LS	506.94	
	MS	603.39	
	HS	582.00	

Notes

- Vibratory torque at 30°C
- This does not include adaptor plate which is required when interfacing with hollow flywheels
- The coupling has two standard lengths, depending on the configuration of the inner member
- The standard for SAE 18 is 6 but 12 are used for application that require a max torque = 6 X nominal torque
- For 3X T_{KN} , if 6X T_{KN} is required then the material will be upgraded
- Dependent on bore size

Global services



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



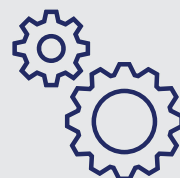
Internal support

Sales team embedded in the manufacturing site with unrivalled product knowledge



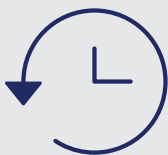
Large engineering team

Our team can design a quality coupling to match your exact requirements



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



Record investment

Heavy investment in our business; spending millions of pounds upgrading CNC equipment, metrology arms and the newest software and test rigs

Get in touch

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