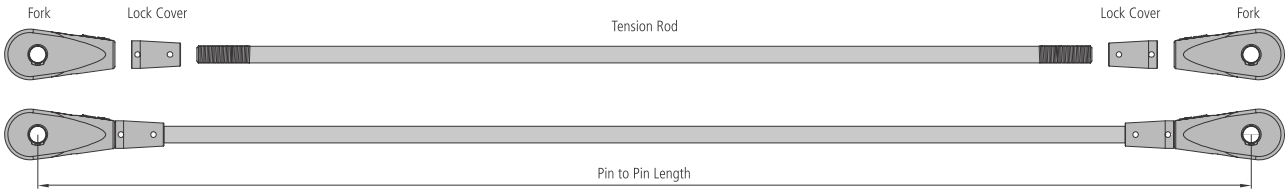
HMR 750 Tension Rod System

The HMR 750 tension rod system offers modern architecture, an innovative and elegant design, improved corrosion protection, higher capacity loads and improved safety during installation.



Mechanical Properties

Table 1

Thread size	Unit	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64	M76	M85	M90	M100
Minimum Yield Stress	N/mm^2	540						540							
Minimum Breaking Stress	N/mm^2	720						750							
Min. Elongation	%	17						17							

Capacity Loads

Table 2

Thread size		M12	M16	M20	M24	M30	M36	M42	M48	M56	M64	M76	M85	M90	M100
	mm	1/2"	5/8"	3/4"	1"	1 1/4"	1 3/8"	1 5/8"	2"	2 1/4"	2 1/2"	3"	3 3/8"	3 1/2"	4"
Rod diameter	mm	12	15	19	23	28	34	40	45	54	62	75	83	88	100
	inch	0.47	0.59	0.75	0.91	1.1	1.34	1.58	1.77	2.13	2.44	2.91	3.27	3.47	3.94
Min. yield load	kN	58.80	91.87	147.41	216.01	320.13	472.03	678.46	858.67	1236.49	1629.99	2322.02	2921.18	3283.73	4240.35
	KIP	13.22	20.65	33.14	48.56	71.97	106.12	152.52	193.04	277.97	366.44	522.01	656.71	738.21	953.27
Min. break load	kN	60.67	112.80	176.25	253.80	403.62	588.04	840.68	1104.86	1607.97	2138.09	3074.64	3888.38	4381.70	5456.68
	KIP	13.67	25.36	39.62	57.06	90.74	132.02	188.99	248.38	361.49	480.66	691.21	874.14	985.05	1226.71
Rod weight	kg/m	0.89	1.39	2.23	3.26	4.83	7.13	9.87	12.49	17.98	23.70	33.76	42.47	47.75	61.65
	lb/ft	0.6	0.9	1.5	2.2	3.2	4.8	6.6	8.4	12.1	15.9	22.7	28.5	32.1	31.4
Rod length	mm	7850	8850	11800											
	ft/in	25'9	29'0"	38'8"											

All measurements in this table are based on the metric system. Imperial measurements are to be seen as soft conversions.
The tendon capacity table provides unfactored loads. To determine the allowable load apply applicable safety factors to the unfactored yield and break loads shown in the above table. The break loads are derived from the thread stress area, not the nominal rod area.

Length Adjustments / Minimum thread engagement

Table 3

Thread size	Unit	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64	M76	M85	M90	M100
System with two fork connectors	mm	± 12	± 16	± 20	± 24	± 30	± 36	± 42	± 48	± 56	± 61	± 71	± 78	± 80	± 85
Turnbuckle	mm	± 20	± 25	± 25	± 30	± 30	± 40	± 40	± 40	± 50	± 50	± 50	± 50	± 60	± 60
Cross Coupler	mm	±11	±15	±16	±19	±22	±27	±32	±35	±42	±48	±57	±62	±67	±74

The pin to pin length is the distance between the centre of each pin. Once installed the tendons can be adjusted by rotating the rod.

Further adjustment can be achieved by using a turnbuckle.

Corrosion Protection

HMR tension rod systems are available in the following surface finishes:

- **Carbon steel**
- **Hot dip galvanised**
- **Powder coated**
- **Painted**
- **Duplex coated**

** All fittings are supplied in a hot dip galvanised finish to EN 1461.*