

# Lowering headframe mast structure

Once you've chosen a headframe and central assembly configuration, use the table below to find the appropriate mast.

The mast's structure is determined by your chosen headframe's useable

headload area (detailed on the previous pages) and the governing wind speed on your specific site. The mast is supplied as standard with the integral winch. It is also available as an option without.

The table below gives the principal structures and loadings for most requirements. If you need more information on mast structures for particularly high wind loads or speeds, please contact our sales office.

## Mast structure

Height (m)	Winch capacity Kg	Product code	Basic site wind speed (m/s) **/ Hourly mean wind speed (m/s) ***/ Max 3 second gust (m/s) ****	Headload capacity (m <sup>2</sup> )	Useable head weight (Kg)	Mast design information			
						Top/base/flange Ø (mm)	Bolt assembly code and PCD*	O.T.M (kNm) and shear (kN)	Foundation refs.†
15	275	RLW-15M275S-I1	26	3.466	190	140/438/700	FA30/8/1220/600	104kNm, 8.3kN	150M150, 150P150
			28.25						
			48						
20	275	RLW-20M275S-E1	26	2.566	185	140/457.2/700	FA30/8/1220/600	130kNm, 8.7kN	150M150, 150P150
			28.25						
			48						
20	550	RLW-20M550S-M1	26	4.181	460	140/614/900	FA30/8/1220/800	190kNm, 12.5kN	200M150, 200P150
			28.25						
			48						
25	275	RLW-25M275S-C2	26	2.000	180	140/478.8/750	FA30/8/1220/650	164kNm, 9.7kN	200M150, 200P150
			28.25						
			48						
		RLW-25M275S-C3	26	2.264	180	140/476.8/750	FA30/8/1220/650	176kNm, 10.0kN	200M150, 200P150
			28.25						
			48						
25	550	RLW-25M550S-I1	26	3.025	455	140/626/900	FA30/8/1220/800	222kNm, 13.1kN	300M150, 300P150
			28.25						
			48						
		RLW-25M550S-I2	26	4.483	455	140/624/900	FA30/8/1220/800	284kNm, 15.4kN	300M150, 300P150
			28.25						
			48						
30	275	RLW-30M275S-A3	26	1.513	170	140/488.4/750	FA30/8/1220/650	200kNm, 10.6kN	200M150, 200P150
			28.25						
			48						
		RLW-30M275S-A5	26	2.295	170	140/484.4/750	FA30/8/1220/650	242kNm, 11.8kN	300M150, 300P150
			28.25						
			48						
30	550	RLW-30M550S-F2	26	3.098	445	140/634/900	FA30/8/1220/800	307kNm, 15.5kN	400M150, 400P150
			28.25						
			48						
		RLW-30M550S-F4	26	4.442	445	140/630/900	FA30/18/1220/800	377kNm, 17.6kN	400M150, 400P150
			28.25						
			48						
35	275	RLW-35M275S-C1	26	1.656	165	140/610.8/850	FA30/8/1220/750	290kNm, 14.5kN	300M150, 300P150
			28.25						
			48						
		RLW-35M275S-C3	26	2.25	165	140/606.8/850	FA30/18/1220/750	326kNm, 15.4kN	400M150, 400P150
			28.25						
			48						
35	550	RLW-35M550S-D3	26	2.860	440	140/637/900	FA30/18/1220/800	384kNm, 17.3kN	400M150, 400P150
			28.25						
			48						
		RLW-35M550S-D7	26	4.330	440	140/631/900	FA30/18/1220/800	474kNm, 19.6kN	500M150, 500P150
			28.25						
			48						
40	275	RLW-40M275S-C1	26	1.842	160	140/678.8/950	FA30/18/1220/850	396kNm, 18.1kN	400M150, 400P150
			28.25						
			48						
		RLW-40M275S-C2	26	2.177	160	140/676.8/950	FA30/18/1220/850	422kNm, 18.6kN	500M150, 500P150
			28.25						
			48						
40	550	RLW-40M550S-C6	26	3.047	435	140/668/950	FA30/18/1220/850	503kNm, 20.3kN	750M150, 750P150
			28.25						
			48						
		RLW-40M550S-E5	26	4.059	435	140/748/1000	FA30/18/1220/900	586kNm, 23.6kN	750M150, 750P150
			28.25						
			48						

### Footnotes:

\* All masts employ the same M30, 1220mm length foundation bolt, hot spun galvanised, Grade 8.8.

\*\* Site wind speed: this figure is based on an assumption that site is 1km from the sea at an altitude of 0m.

\*\*\* Hourly mean is the UK standard for wind loadings. Many continental European countries specify "10-minute mean" wind speed, which varies slightly. Contact UK sales office for more information.

\*\*\*\* 3 second gust is the wind load design velocity used in many countries.

† For complete foundation details, refer to pages 50-55; the overturning moments (OTM) and shear forces are rounded up to the next level to calculate the suitable foundations for the mast. There is a choice of either passive or non-passive foundations, both of which are non-reinforced. For a reinforced foundation design, use the same code but with 'M' replacing the 'P' and 'P' will fulfill the requirement.