

Lattice Wind Mast

84 m, 105 m, 125 m and 140 m

Delivery, installation and maintenance

These lattice constructions are capable of withstanding extreme weather conditions and loads and are suitable for wind resource monitoring in a variety of climate conditions. The mast is assembled on the ground and no work at heights is required. All sensors and related equipment are tested on the ground before beginning of the lift. Boom sensor installation as well as all other components of the mast structure comply with International Standard IEC 61400-12-1. The stability of the structure allows maintenance in upright position using standard safety equipment for work at height. Retractable booms provide for easy replacement of sensors.



delivery



installation



maintenance

TECHNICAL SPECIFICATIONS

WIND IMPACT AND ICING

Wind speed limit at 84 m – 240 km/h (66.7 m/s)
 Wind speed limit at 105 m – 254 km/h (70.3 m/s)
 Wind speed limit at 125 m – 258 km/h (71.7 m/s)
 Wind speed limit at 140 m – 286 km/h (79.4 m/s)
 Icing 12 mm at max wind speed. (Claze Ice - class ICG1 according to ISO 12494)
 Reliability class 1 and Load combinations (according to EN 1993-3-1)

ASSEMBLY

| | 84 m | 105 m | 125 m | 140 m |
|----------------------------|---|---|---|---|
| Guy-wires | 4 levels of single guy-wires and 4 levels of double guy wires | 6 levels of single guy-wires and 5 levels of double guy-wires | 6 levels of single guy-wires and 5 levels of double guy wires | 6 levels of single guy-wires and 5 levels of double guy wires |
| Material | S235JR steel, according to EN 10025 | S235JR steel, according to EN 10025 | S235JR steel, according to EN 10025 | S355JR steel, according to EN 10025 |
| Number of sections | 27 | 34 | 41 | 45 |
| Overall mast weight | 2,484 kg | 3,376 kg | 5,339 kg | 6,008 kg |

LOADS OF THE SUPPORTING ANCHORS

| | 84 m | 105 m | 125 m | 140 m |
|-------------------------------|-----------|---|--|--|
| Mast base | 24,500 kg | 37,000 kg | 49,200 kg | 71,500 kg |
| Anchors at 25 m radius | 3,600 kg | - | - | - |
| Anchors at 30 m radius | 4,250 kg | 1,350 kg | - | - |
| Anchors at 35 m radius | - | 3,750 kg | - | - |
| Anchors at 40 m radius | 71,500 kg | - | - | 2,800 kg |
| Anchors at 45 m radius | - | - | - | 2,550 kg |
| Anchors at 50 m radius | - | (double) 10,750 kg (single) 7,600 kg | (double) 6,800 kg (single) 2,950 kg | - |
| Anchors at 58 m radius | - | - | - | 8,000 kg |
| Anchors at 60 m radius | - | - | (double) 10,550 kg (single) 11,750 kg | 7,250 kg |
| Anchors at 70 m radius | - | - | - | (double) 15,400 kg (single) 10,850 kg |

EUROPEAN STANDARDS

| | |
|-----------------|---|
| STANDARD | EN 1990 EN 1991 EN 1993-1 EN 1993-3-1 EN 1997 EN 1998 ISO 12494 |
| COATING | EN 1461:1999 (Hot-dip Galvanising) |
| PAINTING | optional daylight marking according to specification of the client |

SECTION DIMENSIONS 84 M

| | |
|------------------|--|
| LENGTH | 3,000 mm |
| WIDTH | 625 mm |
| WEIGHT | 75 kg |
| DIAMETERS | vertical bars 42 mm; diagonal bars 27 mm |

SECTION DIMENSIONS 105 M

| | |
|------------------|--|
| LENGTH | 3,000 mm |
| WIDTH | 750 mm |
| WEIGHT | 77 kg & 84 kg |
| DIAMETERS | vertical bars 50 mm & 42 mm; diagonal bars 27 mm |

SECTION DIMENSIONS 125 M

| | |
|------------------|--|
| LENGTH | 3,000 mm |
| WIDTH | 750 mm |
| WEIGHT | 111 kg & 115 kg |
| DIAMETERS | vertical bars 60 mm; diagonal bars 27 mm |





| ITEM # | MAST MODELS & DIMENSIONS | | | Side Booms | | |
|--------|--------------------------|--|--|------------|-------|--------|
| | TOWERS | | | LENGTH (m) | Ct | Ud (%) |
| 2900 | 60 | Lattice Mast 60m - ICG2, hot dip galvanized, not painted, A=3000mm/ B=625mm/C: $\phi 42 \times 4 / S235$ | | 3,50 | 0,323 | 99,74 |
| 2901 | | Lattice Mast 60m - ICG3, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 50 \times 4 / S235$ | | 3,75 | 0,352 | 99,63 |
| 2902 | | Lattice Mast 60m - ICG4, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S235$ | | 3,75 | 0,405 | 99,56 |
| 2903 | | Lattice Mast 60m - ICG5, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S355$ | | 3,75 | 0,405 | 99,56 |
| 3000 | 84 | Lattice Mast 84m - ICG1, hot dip galvanized, not painted, A=3000mm/B=625mm/C: $\phi 42 \times 4 / S235$ | | 3,50 | 0,323 | 99,74 |
| 3001 | | Lattice Mast 84m - ICG2, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 50 \times 4 / S235$ | | 3,75 | 0,352 | 99,63 |
| 3002 | | Lattice Mast 84m - ICG3, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S235$ | | 3,75 | 0,405 | 99,56 |
| 3003 | | Lattice Mast 84m - ICG5, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S355$ | | 3,75 | 0,405 | 99,56 |
| 4000 | 105 | Lattice Mast 105m - ICG1, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 50 \times 4 / S235$ | | 3,75 | 0,352 | 99,63 |
| 4001 | | Lattice Mast 105m - ICG2, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S235$ | | 3,75 | 0,405 | 99,56 |
| 4002 | | Lattice Mast 105m - ICG3, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S355$ | | 3,75 | 0,405 | 99,56 |
| 7000 | 125 | Lattice Mast 125m - ICG1, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S235$ | | 3,75 | 0,405 | 99,56 |
| 7001 | | Lattice Mast 125m - ICG2, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S355$ | | 3,75 | 0,405 | 99,56 |
| 1202 | 140 | Lattice Mast 140m - ICG2, hot dip galvanized, not painted, A=3000mm/B=750mm/C: $\phi 60 \times 5 / S355$ | | 3,75 | 0,405 | 99,56 |

