



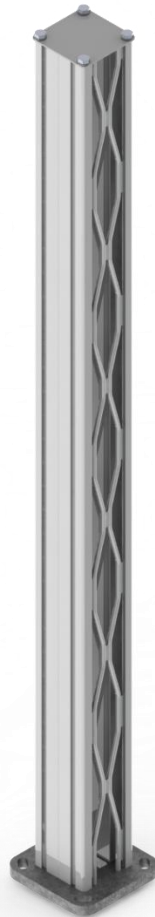
Lattix® - Strong, light and safe

## Declaration of Performance

### Lattix® 4412

Lattix 4412, Lattix 4412Steel, Lattix 4412FR

*Passive safety mast  
No. 0402 – CPR – SC0444-12*



#### Lattix Production AB

**Production**

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Lattix® 4412

No. 0402 – CPR – SC0444-12



## Product name

Lattix® 4412 (Variants: Lattix 4412Steel and Lattix 4412FR)

## Product specifications

The Lattix® 4412 mast system can be used as mast for sign support, other information and surveillance equipment or other applications. The mast is delivered as a complete assembly including mast, base plate and top plate.

The mast is tested and approved according to:

- EN 12899-1, Fixed, vertical road traffic signs
- EN 12767, Passive Safety of support of structures for road equipment

Full-scale impact crash tests and simulations have been performed according to EN 12767 at a speed of 35 km/h and 100 km/h with 6,3 m mast length. Simulations show that the mast will have equal performance up to 6,94 m length. Consequently, the mast is approved for maximum 6,94 m length and at least 1,5 m from the ground to bottom of sign.

Referring to EN 12767 the untested reduced minimum height of the lower edge of the sign should not be lower than 2,0 m due to the risk of the penetration of the windscreen of an impacting car, but lower installations may be used when evaluated.

The Lattix® 4412 mast system is approved both as single and multi-legged support. For multi-legged supports the distance between the inside of each of the legs must not be less than 1,6 m. All performance presumes sufficient foundation.

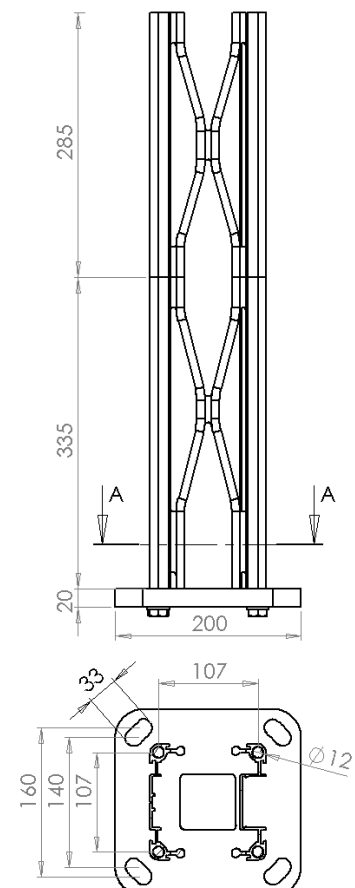
| Performance under vehicle impact (passive safety) according to EN 12767:2000 | Value                     |
|--|---------------------------|
| Performed speed class tests and simulations                                  | 35 km/h and 100 km/h      |
| Approved speed class   | 100                       |
| Approved function class  | NE (non energy absorbing) |
| Approved safety class  | 2                         |

| Durability              | Value                 |
|-------------------------|-----------------------|
| Resistance to corrosion | Aluminium, class SP 2 |

The Lattix® 4412 mast system is produced in many standard lengths, but can also be produced in customized length if desired.

| Lattix® 4412 mast system |          |                      |          |
|--------------------------|----------|----------------------|----------|
| Standard length [mm]     | Art. Nr. | Standard length [mm] | Art. Nr. |
| 620                      | JU201721 | 4090                 | JU201705 |
| 905                      | JU201722 | 4375                 | JU201712 |
| 1190                     | JU201723 | 4660                 | JU201706 |
| 1475                     | JU201724 | 4945                 | JU201713 |
| 1760                     | JU201725 | 5230                 | JU201714 |
| 2045                     | JU201701 | 5515                 | JU201715 |
| 2330                     | JU201702 | 5800                 | JU201716 |
| 2615                     | JU201709 | 6085                 | JU201717 |
| 2950                     | JU201703 | 6370                 | JU201718 |
| 3235                     | JU201710 | 6655                 | JU201719 |
| 3520                     | JU201704 | 6940                 | JU201720 |
| 3805                     | JU201711 |                      |          |

Maximum length is 6940 mm. Length tolerances according to EN 755-9



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## Material / Surface treatment

Mast: EN-AW 6063 T66

Base plate: Lattix 4412, Lattix 4412FR: S355J2+N, Hot dip galvanized steel according to EN ISO 1461

Bolts: BUMAX 109

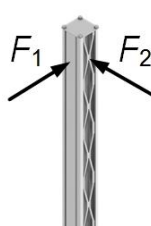
The Lattix® 4412 mast system can be powder-coated, anodized and chromed.

All classes of corrosion resistance can be provided by various surface treatment.

## Data / Weight

| Product          | Mast side length [mm] | Section shape [mm], (square-cut) | Mast weight [kg/m] | Base plate weight [kg] | Bolt pattern, foundation [mm] | Foundation thread /nuts |
|------------------|-----------------------|----------------------------------|--------------------|------------------------|-------------------------------|-------------------------|
| Lattix 4412      | 125                   | 125 x 125                        | 4,8                | Ca. 3,9                | 150 x 150                     | M16                     |
| Lattix 4412Steel |                       |                                  |                    | Ca. 3,9                | 150 x 150                     |                         |
| Lattix 4412FR    |                       |                                  |                    | Ca. 13,3               | 200 x 200                     |                         |

## Capacity

| Product<br>Lattix® 4412,<br>Lattix 4412Steel,<br>Lattix 4412FR<br><i>(The properties are dependent on the load application side, see sketch to the right)</i> |  | Maximum bending moment, $M_u$ [kNm] *) | Stiffness for bending, $EI$ [kNm <sup>2</sup> ] | Shear capacity, $F_u$ [kN] | Maximum torsion moment, $T_u$ [kNm] *) | Stiffness for torsion, $Gk$ [kNm <sup>2</sup> ] | Stiffness for torsion, $Gk$ [kNm/(deg/m)] |
|---|--|--|---|----------------------------|--|---|---|
| Load applied to massive walls, $F_1$  |  | 16                                     | 251   | 7,82                       | 1,4                                    | 18  | 0,32                                      |
| Load applied to lattice walls, $F_2$  |  | 13                                     | 208   | 6,34                       | 1,4                                    | 18  | 0,32                                      |

\*) The moments do not take into account the partial material factor  $\gamma_m$ . EN 12899-1 gives a  $\gamma_m$  for aluminium of 1,15.

## Assembly and accessories

The Lattix® 4412 mast is delivered fully-assembled with top plate and accordant base plate if not specified differently.

Lattix® Element Masts can be delivered with accessories kits:

- top plates
- base plates
- foundations
- sign clamps
- cable covers
- etc.

For assembly information, please ask for the assembly guide.

## Maintenance

No maintenance required.

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## CE marking and system of assessment and verification of constancy of performance

CE marked according to EN 12899-1:2007 in compliance with Regulation 305/2011/EU.

Notified body no. 0402.

See attached certificate.

The CE label gives all important information on data and capacity. Within the production process the masts are marked for traceability.



## Referrals

- Data sheet
- Installation guide
- EC Certificate of conformity No. 0402 – CPR – SC0444-12

## Approval by the manufacturer

Gunnar Bendigtsen  
*Managing Director*

Tore Tøndevold  
*Technical Manager*

19.11.2018



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