1. DESCRIPTION.
Lattice Girder type TOP made from cold rolled rib steel wire according to D.M. 17.01.2018 grade B450A.

2. CHEMICAL COMPOSITION ON PRODUCT (%).

<table>
<thead>
<tr>
<th></th>
<th>Limits</th>
<th>C %</th>
<th>P %</th>
<th>S %</th>
<th>Cu %</th>
<th>N %</th>
<th>(C_{eq}) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PITTINI</td>
<td>max</td>
<td>0.24</td>
<td>0.055</td>
<td>0.055</td>
<td>0.85</td>
<td>0.014</td>
<td>0.52</td>
</tr>
<tr>
<td>D.M. 2018</td>
<td>max</td>
<td>0.24</td>
<td>0.055</td>
<td>0.055</td>
<td>0.85</td>
<td>0.014</td>
<td>0.52</td>
</tr>
</tbody>
</table>

3. MECHANICAL PROPERTIES.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Steel grade</th>
<th>(\varnothing) (mm)</th>
<th>Weight tol %</th>
<th>(f_y) min MPa</th>
<th>(f_y) max MPa</th>
<th>(f_t) min MPa</th>
<th>(f_t/f_y) min</th>
<th>Agt min %</th>
<th>Rt min %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PITTINI</td>
<td>B450A</td>
<td>5 ÷ 8</td>
<td>nota</td>
<td>450c</td>
<td>563c</td>
<td>540c</td>
<td>1.05c</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>D.M. 2018</td>
<td>B450A</td>
<td>5 ÷ 10</td>
<td>nota</td>
<td>450c</td>
<td>563c</td>
<td>540c</td>
<td>1.05c</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

NOTES: c - characteristic values; test after artificial ageing to 100°C for 1h.
for diameters \(\varnothing \leq 8\) mm the permissible deviation is \(\pm 6\)%,
for diameters \(\varnothing > 8\) mm the permissible deviation is \(\pm 4.5\)%.

Diameter ratio \(\varnothing_{min}/\varnothing_{max} \geq 0.60\)

4. STANDARD PACKAGING.
bundle length: 6m up to 12m, on multiple lengths of 0.20m
n° piece for bundle = 66 – 90 – 120 – 140
n° stirrups for bundle = 2

5. STANDARD IDENTIFICATION.
Each bundle with label reporting:
FERRIERE NORD S.p.A.
I - 33010 OSOPPO (UD) ITALIA
Production plant
D.M. 17/01/18 – B450A
TRALICCIO PITTINI
Type/Lenght
Lot number

6. STANDARD CERTIFICATION.
Document according to EN 10204 3.1.
Product qualified by Ministero Infrastrutture e Trasporti

7. IDENTIFICATION MARK.
Mark 4-7
8. GIRDER DIMENSIONS

List of TOP standard Lattice Girders (length: 12m)

<table>
<thead>
<tr>
<th>TOP</th>
<th>L (m)</th>
<th>Øi (mm)</th>
<th>Øs (mm)</th>
<th>ds (mm)</th>
<th>ht (cm)</th>
<th>b (Mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/7/5 h=7</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>7.0</td>
<td>85</td>
</tr>
<tr>
<td>5/7/5 h=9.5</td>
<td>6 – 12</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>9.5</td>
<td>100</td>
</tr>
<tr>
<td>5/7/5 h=12.5</td>
<td>6 – 12</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>12.5</td>
<td>100</td>
</tr>
<tr>
<td>5/7/5 h=14.5</td>
<td>6 – 12</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>14.5</td>
<td>100</td>
</tr>
<tr>
<td>6/7/5 h=12.5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>12.5</td>
<td>100</td>
</tr>
<tr>
<td>5/7/5 h=16.5</td>
<td>6 – 12</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>16.5</td>
<td>100</td>
</tr>
<tr>
<td>5/8/5 h=20.5</td>
<td>6 – 12</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>20.5</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes: TOP Lattice Girders can be provided on demand in length from 2m up to 12m, on multiple lengths of 0.20m

9. NON STANDARD LATTICE GIRDERS
Non standard lattice girders can be provided on demand and after feasibility evaluation in accordance with the following configurations:
- Length L: 2m up to 12m, on multiple lengths of 0.20m
- Possible multiple lengths of 0.10m (cut on the upper welded joint)
- Height between 70 and 205mm, with upper chord diameter between 7 and 8mm, lower chord diameter between 5 and 6mm, stirrup diameter between 5 and 6mm
- Base b as a function of the height of the lattice girder:
  - if ht = 70mm → b = 85mm, if ht > 70mm → b = 100mm

10. DIMENSIONAL TOLERANCES
The following tolerances are valid for both standard and non standard lattice girders:
- Height: +1/-3 mm;
- Width: +3/-3mm;
- Length: +5/-40 mm;
- Stirrup pitch: ± 2.5 mm
- Upper overhang: max 4 mm
- Lower overhang: max 4 mm
- Maximum rising from the flat of lower chords (stirrups excluded):
  - 10mm if L ≤ 8m;
  - 15mm if L > 8m
- Sabre: max 15mm