



## Cold Drawn Seamless Chrome Plated Steel Tubes

OUTSIDE DIAMETER 12 - 120 mm , INSIDE DIAMETER 8 - 100 mm

### STEEL GRADES

| Steel Grade | DIN   | B.S  | UNI  | JIS   | GOST      | ASI/SAE/ASTM | Werkstoff |
|-------------|-------|------|------|-------|-----------|--------------|-----------|
| E355        | 1,058 | ST52 | CFS5 | Fe510 | 1524/1024 | 1045         | 1,1191    |

### CHEMICAL COMPOSITION - IN % BY WEIGHT

| Steel Grade | C         | Si        | Mn        | P     | S     | Cr | Mo | Ni | Cu | V | N |
|-------------|-----------|-----------|-----------|-------|-------|----|----|----|----|---|---|
| E355        | Max. 0.22 | Max. 0.55 | Max. 1.60 | 0,025 | 0,025 | -  | -  | -  | -  | - | - |

### MECHANICAL PROPERTIES

| Steel Grade | Tensile Strength<br>N/mm <sup>2</sup> | Yield Strength<br>N/mm <sup>2</sup> | Elongation<br>A% | Hardness<br>Brinell<br>N/mm <sup>2</sup> | Norm       | Tristar Steel<br>Product Code |
|-------------|---------------------------------------|-------------------------------------|------------------|--|------------|-------------------------------|
| E355+SR     | Min. 620                              | Min. 520                            | Min. 15          | Min. 175                                 | EN 10305-1 | STAR - CTS                    |

#### STRAIGHTNESS

Max. 0.30 mm/1000 mm

#### ROUNDNESS

Max. ½ from Dia. Tolerance

#### CHROME LAYER THICKNESS

Ø < 20 mm: min. 15 µm  
Ø ≥ 20 mm: min. 20 µm

#### STANDARD LENGTH

5800 - 7500 mm  
(Available on request)

#### SURFACE ROUGHNESS

Ra: max. 0.15 µm

#### CHROME LAYER MICROHARDNESS

900 HV0.1

#### ECCENTRICITY

±7.5%

#### OD TOLERANCE

f7, other on request

#### CORROSION RESISTANCE

Neutral salt spray test according to ISO 9227 -  
Evaluation according to ISO 10289 :

#### RATING 10 (NO RUST)

OD<20 mm: 144 hours min.  
OD≥20mm: 200 hours min.