

# HWACOTUBE BS EN 10312:2002 for portable water conveyance

HWACOTUBES are also manufactured in compliance with AS/NZS 4020:1999.

HWACOTUBES are tested and approved by WRAS (Water Regulations Advisory Scheme).

## **Physical and Mechanical Properties**

|                                       |   |
|---------------------------------------|---|
| Specific Gravity                      | 7.91  |
| Thermal Conductivity<br>(c.g.s units) | at 20°C 0.035<br>at 100°C 0.038   |
| Coefficient of<br>Thermal Expansion   | at 20°C $16.3 \times 10^{-6}$ per °C<br>at 100°C $17.7 \times 10^{-6}$ per °C |
| Tensile Strength (min)                | 510 N/mm <sup>2</sup>   |
| Elongation on 50m (min)               | 30%   |
| Young's modulus of<br>Elasticity      | at 20°C 200KN/mm <sup>2</sup><br>at 100°C 192.5 KN/mm <sup>2</sup>            |

HWACOTUBES are available in SUS 316/316L and SUS 304/304L stainless steel.

## **Dimensions of Light Gauge Stainless Steel Tubes (Series 1)**

| Outside Diameter (mm) | Specified Wall Thickness (mm) | Outside Diameter (mm) |          | Weight (kg/m) | Weight (kg/m) | Volume (l/m) |
|-----------------------|-------------------------------|-----------------------|----------|---------------|---------------|--------------|
|                       |                               | max (mm)              | min (mm) | 304/304L      | 316/316L      |              |
| 15                    | 0.6                           | 15.04                 | 14.94    | 0.215         | 0.217         | 0.149        |
| 22                    | 0.7                           | 22.05                 | 21.95    | 0.371         | 0.374         | 0.333        |
| 28                    | 0.8                           | 28.05                 | 27.95    | 0.542         | 0.545         | 0.547        |
| 35                    | 1.0                           | 35.07                 | 34.97    | 0.847         | 0.852         | 0.855        |
| 42                    | 1.1                           | 42.07                 | 41.97    | 1.121         | 1.128         | 1.243        |
| 54                    | 1.2                           | 54.07                 | 53.84    | 1.578         | 1.588         | 2.090        |
| 76.1                  | 1.5                           | 76.30                 | 75.54    | 2.787         | 2.805         | 4.195        |

## **Dimensions of Light Gauge Stainless Steel Tubes (Series 2)**

| Outside Diameter (mm) | Specified Wall Thickness (mm) | Outside Diameter (mm) |          | Weight (kg/m) | Weight (kg/m) | Volume (l/m) |
|-----------------------|-------------------------------|-----------------------|----------|---------------|---------------|--------------|
|                       |                               | max (mm)              | min (mm) | 304/304L      | 316/316L      |              |
| 15                    | 1.0                           | 15.10                 | 14.90    | 0.349         | 0.351         | 0.133        |
| 22                    | 1.2                           | 22.11                 | 21.95    | 0.622         | 0.626         | 0.302        |
| 28                    | 1.2                           | 28.14                 | 27.86    | 0.801         | 0.806         | 0.515        |
| 35                    | 1.5                           | 35.18                 | 34.82    | 1.252         | 1.260         | 0.804        |
| 42                    | 1.5                           | 42.21                 | 41.79    | 1.513         | 1.523         | 1.195        |
| 54                    | 1.5                           | 54.27                 | 53.73    | 1.962         | 1.974         | 2.043        |
| 76.1                  | 2.0                           | 76.38                 | 75.72    | 3.691         | 3.715         | 4.083        |