

**PIPING SYSTEM PTE LTD**

Pipeline Material and Equipment Experts

DRAWING NO.:

TUBE-½-2.11-SS-ASTM A312 GRADE TP316/316L-20260303

DRAWING DATE:

03-Mar-2026

|              |          |             |                                                                                                           |      |      |
|--------------|----------|-------------|-----------------------------------------------------------------------------------------------------------|------|------|
| INQUIRY NO.: | OR999999 | Description | PIPE-½INCHES-SCH10S(2.11MM) WALL THICKNESS-SMLS-SS-ASTM A312 GRADE TP316/316L-PE-ASME B36.19M-NACE MR0175 | QTY  | UNIT |
| ITEM NO.:    | 23       |             |                                                                                                           | 1000 | M    |

**PIPE&TUBE DRAWING AND DIMENSIONS DATA**

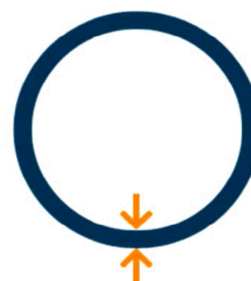
Nominal Pipe Size



Outside Diameter



Inside Diameter



Wall Thickness

| STANDARD |          | ASTM A312 GRADE TP316/316L |             |       |       | kg   |              | kg           |         | m <sup>3</sup> |     | (in mm) |          |                   |
|----------|----------|----------------------------|-------------|-------|-------|------|--------------|--------------|---------|----------------|-----|---------|----------|-------------------|
| NAME     | MATERIAL | NPS                        | OD INCH(ES) | OD    | ID    | WT   | METER WEIGHT | TOTAL WEIGHT | PROCESS | TOTAL VOLUME   | HIC | IGC     | MTC TYPE | REFERENCE HS CODE |
| TUBE     | SS       | 15                         | ½           | 21.30 | 17.08 | 2.11 | 1.00         | 1000.00      | SMLS    | 0.45           | N/A | IGC     | MTC3.1   | 7304 1130.00      |

MATERIAL STANDARD: ASTM A312 GRADE TP316/316L Chemical element composition content (%)

| COMPONENT | C     | Si | Mn | P     | S    | Cr | Ni | Mo |
|-----------|-------|----|----|-------|------|----|----|----|
| Max       | -     | -  | -  | -     | -    | 16 | 10 | 2  |
| Min       | 0.035 | 1  | 2  | 0.045 | 0.03 | 18 | 14 | 3  |

ASTM A312 GRADE TP316/316L Mechanical Properties

| Tensile Strength | Yield Point |
|------------------|-------------|
| $\sigma_b$       | $\sigma_s$  |
| Mpa              | Mpa         |
| ≥485             | ≥170        |

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BASED IN SINGAPORE, PIPING THE WORLD

DRAWING

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