



# SURFACE VEHICLE STANDARD

J529

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Superseding J529 MAR1985

## Fuel Injection Tubing

### RATIONALE

This standard is being stabilized due to lack of expertise at SAE FCCTC-C5 Metallic Tubing Technical Committee. The committee cannot find users for the technical report.

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**Scope**—This standard covers tubing intended for use as high pressure fuel injection lines on a range of engines requiring tubing no larger than  $\frac{1}{4}$  in (6.35 mm) OD. The material and construction of the tubing shall be cold drawn annealed low carbon seamless steel of a quality suitable for cold swaging, cold upsetting, and cold bending.

**Manufacture**—The tubing shall be cold drawn from steel billets which, after piercing, have had the internal surface conditioned to remove all hot mill fissures or other defects. After forming, the tubing shall be annealed in such a manner as to prevent formation of scale on the inside surface and produce a finished product which will meet all requirements of this standard.

**Dimensions, Tolerances, and Color Code**—The basic outside diameter

and inside diameter tubing sizes with their tolerances and color code are shown in Table 1.

**Quality**—The outside and inside surfaces of finished tubing shall be free from scale, rust, seams, laps, laminations, deep pits, or other injurious defects.

The inside surface of the tubing shall be finished to ensure a smooth bore of accurate size with no fissures, crevices, or other imperfections deeper than 0.005 in (0.13 mm). There shall be no more than five imperfections between 0.003–0.005 in (0.08–0.13 mm) deep per tube cross section.

The examination for ID finish shall be performed at a minimum 50X magnification of the tubing cross section.

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