

1. Scope

- 1.1. This specification is a technical document providing generic drawing information. Standard terms, legal and export compliance requirements may also apply but are not within the scope of this document.
- 1.2. It only applies to drawings that reference it on the drawing frame or in the drawing notes.
- 1.3. **If there is a contradiction between the requirements of this specification and those on the drawing, the drawing requirements take precedence.**

2. General

- 2.1. It is the responsibility of the supplier to ensure they are in possession of the correct drawing and that its revision matches that of the purchase order.

3. Drawings

- 3.1. Drawings are generally in accordance with BS8888
- 3.2. Geometric tolerances
 - 3.2.1. Concentricity on turned parts to be $\text{◎} \text{ } \emptyset 0,05$
 - 3.2.2. Concentricity on milled or moulded diameters on the same axis to be $\text{◎} \text{ } \emptyset 0,10$
 - 3.2.3. Features that are drawn symmetrical are $\text{≡} \text{ } 0,15$
 - 3.2.4. Hole pattern positional tolerance to be $\text{⊕} \text{ } \emptyset 0,10$
 - 3.2.5. Flatness $\text{▭} \text{ } 0,20$ up to 100mm and 0.5% for lengths greater than 100mm
 - 3.2.6. Straightness $\text{—} \text{ } 0,20$ up to 100mm and 0.5% for lengths greater than 100mm
 - 3.2.7. Features drawn perpendicular to be $\text{⊥} \text{ } 0,20$
- 3.3. Symbols used on drawings
 - 3.3.1. Critical dimensions which must receive 100% inspection are denoted by the dimension encapsulated in an oval frame

 - 3.3.2. Dimensions which reference to a part of the notes have a triangle symbol next to the dimension.

 - 3.3.3. All changes for the immediate past revision on the drawing are denoted by a hexagon.

- 3.4. Dimensional limits apply prior to plating, where applicable unless otherwise specified

4. Workmanship

- 4.1. All parts are to be free of burrs, sharp edges and flash.
- 4.2. Maximum blend or chamfer 0.10mm.
- 4.3. All parts are to be free of breakouts, cracks and surface scratches.

- 4.4. All parts are to be free of contaminants such as machining fluids, material chips, oils, etc. In the instance of holes, they especially need to be completely free of any type of foreign material or debris.
- 4.5. Surface finish to be 0.8 RA or better.
- 4.6. Threads:
 - 4.6.1. Metric Screw Threads (Coarse Pitch - M Profile)
 - 4.6.1.1. External Threads - 6g Classification
 - 4.6.1.2. Internal Threads - 6H Classification
 - 4.6.2. Unified screw threads
 - 4.6.2.1. External threads –2A
 - 4.6.2.2. Internal threads – 2B
 - 4.6.3. Thread entry countersink (female) or chamfer (male) to be within thread major or minor diameter respectively.
 - 4.6.4. Standard nuts, bolts and screws to be produced by standard fastener manufacturing methods. Machined fasteners only to be used with approval of Smiths Connectors.

5. Heat Treatment

- 5.1. Heat treatment is defined on the drawing.
- 5.2. Refer to latest issue of specification HYP-PLATE-1000 for definition of heat treatment codes.

6. Materials

- 6.1. Component material is specified on the drawing and any deviation from this material or use of alternative materials is prohibited without the written consent of Smiths Connectors.
- 6.2. Moulded Parts
 - 6.2.1. No recycled or reground materials allowed.
 - 6.2.2. Parts shall be free of all sprues and runners.
 - 6.2.3. Parts shall be free of porosity.
 - 6.2.4. Parts shall be clean and free of all burrs, fines, and sharp edges.
 - 6.2.5. Location of ejector pins, parting line, gate, cavity identification, flash location and draft shall be at the supplier's discretion with prior approval of design engineering. The supplier shall prepare a drawing or sketch defining these locations and submit to Smiths Connectors design engineering for approval upon quotation.
 - 6.2.6. Ejector pin marks and gate vestige shall be flush to 0.2mm below surface.
 - 6.2.7. Draft angle to be controlled within the designed feature tolerance.
 - 6.2.8. Multi cavity tools: part shall be identified by a cavity number preceded with the letters "SC" (eg. SC2)
 - 6.2.9. Smiths Connectors logo to be moulded per solid model.
 - 6.2.10. Parts to be free of flash.

7. Plating

- 7.1. Plating is defined on the drawing.
- 7.2. Refer to latest issue of specification HYP-PLATE-1000 for definition of plating codes.

8. Part Marking

- 8.1. Marking of any form shall be appropriate with approximate height, location, and depth as shown on drawing.
- 8.2. Part Marking will be in accordance with Connectors product marking guidelines 2014 10 30 14_FINAL

9. Packaging

- 9.1. All parts are to be packaged appropriately to avoid damage in transit or when placing in or taking out of packaging.

10. Quality Acceptance

- 10.1. All work must comply with Smiths Connectors quality standards and requirements

11. Questions

- 11.1. All queries should be made to:

Smiths Connectors Research, Design and Development Centre
Unit 130 Centennial Park,
Centennial Avenue,
Elstree,
Hertfordshire,
WD6 3SE,
UK
Telephone: 0208 236 2400

12. History

Version Number	Modification	Modified by	Date
1.0	First release	SHYLIPARRY	14/01/2016
2.0	Updated clause 6.2.1, see change note 6139	SHYLIPARRY	16/05/2016