

SURFACE FINISH DESIGNATOR

TABLE 4: FITTINGS AND TUBING, FINISH DESIGNATOR CODES, AND ACCEPTANCE STANDARDS

BPE SURFACE FINISH CODE	CSI SURFACE FINISH CODE	PROCESS CONTACT SURFACE		NON-PROCESS CONTACT SURFACE		DIMENSIONS & TOLERANCES (BPE) OR (CSI)
		MAXIMUM RA (ID)	FINISH CONDITION	MAXIMUM RA (OD)	FINISH CONDITION	
N/A	PU	N/A	Unpolished (Mill)	N/A	Unpolished (Mill)	CSI
N/A	7	32 µin (0.81 µm)	Polished or Drawn	32 µin (0.81 µm)	Mechanical Polished	CSI
SF1	PL	20 µin (0.51 µm)	Polished or Drawn	32 µin (0.81 µm)	Mechanical Polished	BPE
SF5	PO	20 µin (0.51 µm)	Electropolished	32 µin (0.81 µm)	Mechanical Polished	BPE
SF6	P25	25 µin (0.64 µm)	Electropolished	32 µin (0.81 µm)	Mechanical Polished	BPE

This catalog does not intend to address all acceptance criterion in the ASME BPE standard. The items offered within this catalog identified as “BPE” Dimensions and Tolerances are in accordance with ASME BPE. Items identified as “CSI” Dimension and Tolerances are made to CSI standards.

ID FINISH PROCESS

PU — UNPOLISHED

The internal surface of the tubing shall be a bright annealed as welded or as drawn finish that is unpolished.

7 — POLISHED OR DRAWN

The internal surface of the tubing shall be polished with abrasives, honed, or “as drawn” to a 32Ra µin (0.81 µm) max.

PL — POLISHED OR DRAWN

The internal surface of the tubing shall be polished with abrasives, honed, or “as drawn” to a 20Ra µin (0.51 µm) max. and meet the acceptance criteria of ASME BPE for surface finish designation SF1.

PO — ELECTROPOLISHED

The internal surface of the electropolished tubing shall be polished with abrasives, honed, or “as drawn” to a 20Ra µin (0.51 µm) max. and then electropolished to meet the acceptance criteria for ASME BPE designation SF5.

P25 — ELECTROPOLISHED

The internal surface of the electropolished tubing shall be polished with abrasives, honed, or “as drawn” to a 25Ra µin (0.65 µm) max. and then electropolished to meet the acceptance criteria for ASME BPE designation SF6.

OD FINISH PROCESS

MECHANICAL POLISHED

The external surfaces of the tubing shall be polished with abrasives to less than 32Ra µin (0.81 µm).

UNPOLISHED

The external surfaces of the tubing shall be a bright annealed as welded or as drawn finish that is unpolished.