Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings
This MSS Standard Practice was developed under the consensus of the MSS Technical Committees 102, 110, 201, and the MSS Coordinating Committee. The content of this Standard Practice is the result of the efforts of competent and concerned volunteers to provide an effective, clear, and non-exclusive specification that will benefit the industry as a whole. This MSS Standard Practice is intended as a basis for common practice by the manufacturer, the user, and the general public. The existence of an MSS Standard Practice does not in itself preclude the manufacture, sale, or use of products not conforming to the Standard Practice. Mandatory conformance is established only by reference in a code, specification, sales contract, or public law, as applicable.

Unless otherwise specifically noted in this MSS SP, any standard referred to herein is identified by the date of issue that was applicable to the referenced standard(s) at the date of issue of this MSS SP. (See Annex A.)

U.S. customary units in this SP are the standard; the metric (SI) units are for reference only.

In this Standard Practice all notes, annexes, tables, and figures are construed to be essential to the understanding of the message of the standard, and are considered part of the text unless noted as "supplemental". All appendices appearing in this document are construed as "supplemental". Supplemental" information does not include mandatory requirements.

Substantive changes in this 2007 edition are “flagged” by parallel bars as shown on the margins of this paragraph. The specific detail of the change may be determined by comparing the material flagged with that in the previous edition.

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1. **SCOPE**

1.1 This Standard Practice pertains to the finish of gasket contact faces of pipe flanges and end flanges of valves and fittings.

1.2 This Standard Practice is intended for applications to products for which ASME B16 Standards do not contain complete facing finish requirements or for which there are no such Standards.

2. **DEFINITIONS**

2.1 *Roughness Average* The term Ra (Roughness average) is expressed in micro-inches (μin) [micro-meters (μm)].

2.2 *Flange Facing Finish* The surface finish on the flange contact face, see Figure 1, that comes in contact with a gasket upon flange assembly.

3. **REQUIREMENTS**

3.1 Flange facing finish shall be judged by visual comparison with Ra standards (see ASME B46.1) and not by instruments having stylus tracers and electronic amplification. The finishes required are given in Table 1. Other finishes may be furnished by agreement between purchaser and manufacturer.

3.2 Dimensions shown (in Table 1) shall not be cause for rejection by depth gage measurement or precision instrument measurements.

4. **LIMITATIONS**

4.1 Surface finishes listed are not necessarily optimum for all gasket types of materials.

4.2 On flat faces, serrations need not extend beyond corresponding raised face diameter.

**FIGURE 1** Types of Contact Faces for Flanges