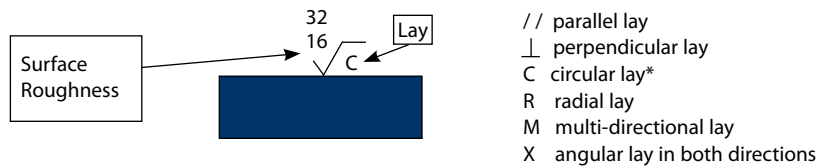


Surface Finish

The leak rate of any joint is largely influenced by the condition of the surfaces in the joint. Leak paths are inherent in any sealing surface. Both the surface roughness of the seal and the surface roughness of the mating flange surfaces will affect sealing performance.

Surface roughness, also called surface texture or finish, is a trait of any surface. The design engineer usually specifies the required surface roughness of a flange sealing surface to ensure proper function of the flange in the joint.

Surface roughness is usually specified with a “check mark” symbol on a drawing as shown in the figure below. Surface roughness is typically indicated in RMS or microinches (μin) and is located on the left side of the symbol above the check mark. In the example below the roughness value is 32 RMS maximum and 16 RMS minimum. If a single value is specified, this value is interpreted as a maximum value.



* Most metal seal applications require a circular or circumferential lay

The directional lay of a finished surface refers to the direction of the machining or polishing marks. The lay of a sealing surface is specified under the surface roughness symbol as shown in the figure above.

