



TECHNICAL GUIDE - INSERT SEAT ANGLE COMPARISON

As illustrated below, negative (2-sided) inserts have flank faces that are perpendicular to the cutting edge faces. Therefore, the insert pocket on the tool holder must provide compound (radial and axial) inclination to the insert for cutting clearance to 2 flank faces. Positive (single-sided) inserts have built-in flank clearance, so the insert pocket has 0° axial angle and typically either 0° to $< 8^\circ$ radial angle.

- Negative rake inserts have more cutting edges and greater strength, but generate higher cutting forces.
- Positive rake inserts are freer cutting and are superior for profiling and undercutting.
- Positive rake inserts can often cut on both sides of the nose radius due to integral flank clearance and 0° axial seat angle.

