

Screw Gears

Screw gears, also sometimes called crossed helical gears, are helical gears used in motion transmission between non-intersecting shafts. The helical gears used in parallel shafts have the same helix angle but in the opposite directions. For shaft angles other than parallel, an arbitrary helix angle can be chosen, and, assuming no profile shift, the intersecting angle of the shafts is the sum of the respective helix angles. Helical gears have point contacts and have lower efficiency than parallel or perpendicular shaft gears and cannot transmit heavy loads.

Also, if the same material is used in screw gears, it could lead to friction and galling. Therefore, BK recommends the use of different materials in a pair. Besides, unlike bevel gears, there are no restrictions on the numbers of teeth combinations and the speed transmission ratio becomes the number of teeth of the driving gear divided by the number of teeth of the driven gear. Please consult the “Gear Applications” pages for the actual working of screw gears