Product Name	Spur Gears	Helical Gears	Bevel Gears	Gear Racks	Worm Gears
Usage, Picture					
Efficiency	94–98%	94–98%	93–99%	98–99%	30–90%
Gear Axis	Parallel	Parallel and Intersecting Axis	Intersecting Axis	Non-Intersecting and Non-Parallel Axis	Non-Intersecting and Non-Parallel Axis
Advantages	– Highly reliable, simplest in design and easiest to manufacture – Offer constant velocity ratio and are more efficient than helical gear of same size – Spur gear teeth are parallel to its axis and do not produce axial thrust – Used in efficient power transfer and low speed application (robotics application, machine tools etc.)	– Run more smoothly and quietly than spur gears due to angled teeth desiged – Highly durable and are ideal for high-load applications – Load is distributed over several teeth, resulting in less wear – Used in high-speed, high-power mechanical systems like car gear boxes, machine tools, etc.	– This gear makes it possible to change the operating angle – Can be with straight or spiral teeth – Miter gears are a special type of bevel gear designed to operate in pairs with identical numbers of teeth and diametral pitches, and a 1:1 ratio – Transmission, Bevel Gear Differencial, Printing, Material Handeling	– Cheap – Compact – Robust – Easiest way to convert rotation motion into linear motion – Often used in traveling gantries and columns, pick and place robots etc.	– Worm gear drives operate silently and smoothly – Self-locking and occupy less space – Have high velocity ratio – Used for reducing speed and increasing torque (gear reduction boxes)
Disadvantages	– Gear teeth experience a large amount of stress – Cannot transfer power between non-parallel shafts – Compared to other gears, generate more noise at high speeds	– More expensive than spur gears – Mashed helical gears create axial trust that need adequate support (like trust bearings) – Lower efficiency due to axial trust generating more heat between sliding teeth	– One wheel of bevel gear is designed to work with its complementary wheel and no other – Must be precisely mounted – The shafts' bearings must be capable of supporting significant forces – Noisy at the higher speeds	– Inherent friction causes constant wear and part replacment after certin time	– Worm gear materials are expensive – Worm drives have high power losses – They produce a lot of heat

Gears

#GEAH
Spur Gears – with Pilot Bore

#GEAB
Spur Gears – Pressure Angle 20 Deg., Module 0.5

#GEA1
Spur Gears – Pressure Angle 20 Deg., Module 0.8

★
#GEA2
Spur Gears – Pressure Angle 20 Deg., Module 1.0

#GEA3
Spur Gears – Pressure Angle 20 Deg., Module 1.5

#GEA4
Spur Gears – Pressure Angle 20 Deg., Module 2.0

#GEA5
Spur Gears – Pressure Angle 20 Deg., Module 2.5

#GEA0
Spur Gears – Pressure Angle 20 Deg., Module 3.0

#GEFB
Spur Gears – Tooth Width, Hub Dimension Configurable, Pressure Angle 20 Deg.

#GEA6
Induction Hardened Spur Gears – Pressure Angle 20 Deg.

#GEYH
Bonded Plastic Spur Gears

#GEAM
Plastic Spur Gears – Pressure Angle 20 Deg.

#GEAL
Keyless Spur Gears – Pressure Angle 20 Deg.

★
#KGHS
Bevel Gears – Pressure Angle 20 Deg.

#NEGH
Helix Gears – Pressure Angle 20 Deg., Helix Angle 45 Deg.

#GEAD
Spur Gears – Bearing Built-in

#RGMA
Round Gear Rack – Pressure Angle 20 Deg., Standard L Dimension

#WGEU
Worm Gear

#WGEA
Worm Wheel