

Specifications	
Module (m) : 5	Hub thickness of pinion (L1) : 42 mm
Number of teeth of pinion (z1) : 14	Hub thickness of gear (L2) : 50 mm
Rotational speed of pinion (N1) : 1200 rpm	Keyway of pinion : 2 x 2 mm
Rotational speed of gear (N2) : 400 rpm	Face width (b) : 32 mm
Shaft diameter of pinion (d1) : 22 mm	Hole diameter (d) : 20 mm
Shaft diameter of gear (d2) : 28 mm	Center distance of holes (D) : 120 mm
Hub diameter of pinion (D1) : 30 mm	Web thickness (e) : 12 mm
Hub diameter of gear (D2) : 38 mm	Web length (n) : 10 mm

Formulations
Pitch Diameter : $D_p = m \cdot z$
Outside Diameter : $D_o = D_p + 2m$
Root Diameter : $D_r = D_o - 2h$
$h = b + a = 2,166m$
$b = 1,166m$
$a = m$
Gear Ratio = $n_1/n_2 = z_2/z_1$

