

Enter class, # of teeth, module, spline length, es, Press And Hold F9 Until results stop

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"es" values change letter fit. 0 for H

	INPUT:	
Class	6	
N(Z)	36	
Module	3	
Term	Symbol	Result
Spline Length	<i>g</i>	90.000
Pitch Diameter	<i>D</i>	108.0000
Base Diameter	<i>D_b</i>	93.5307
Circular Pitch	<i>p</i>	9.4248
Tooth Thickness mod See table	<i>es</i>	0.0000
Min.Major Diameter, Internal	<i>DEI min</i>	112.5000
Max.Major Diameter, Internal	<i>DEI max</i>	112.8663
Form Dia. Internal	<i>DFI</i>	111.6000
Min.Minor Diameter, Internal	<i>DII min</i>	105.1860
Max. Minor Diameter, Internal	<i>DII max</i>	105.5960
Max.Major Diameter, External	<i>DEE max</i>	111.0000
Min.Major Diameter, External	<i>DEE min</i>	110.5900
Form Dia. External	<i>DFE</i>	104.5860
Max.Minor Diameter, External	<i>DIE max</i>	103.5000
Min.Minor Diameter, External	<i>DIE min</i>	103.1337
Cir tooth thickness	<i>S_v max</i>	4.7124
Min actual	<i>S min</i>	4.5802
Max actual	<i>S max</i>	4.6825
Min eff	<i>S_v min</i>	4.610
Cir space width	<i>E_bsc</i>	4.7124
Min eff	<i>E_v min</i>	4.7124
Max actual	<i>E_{max}</i>	4.8446
Min actual	<i>E_{min}</i>	4.7423
Max eff	<i>E_v max</i>	4.8146
Max Measurement over pin ext	6.0000	117.6157
Min Measurement over pin ext		117.4532
Min Measurement over pin int	5.6	99.4644
Max Measurement over pin int		99.2693

RPM	Torque in-lbs, Nm	Bore in shaft(in)	EFF SPLINE LENGTH	Crowned spline radii
107	77447.34	3.15	90	r1
	8750			453.0404454
				r2

a

Allowable Shear Stress (psi)**	Allowable Compressive tooth stress(psi)**	Allowable Tensile Stress(psi)**
50000.00	5000.00	50000.00
Shear Stress Under roots Solid shaft(psi)	Compressive stress On side of spline teeth	Radial Tensile load
22095.70	1119.42	1199.78
Shear Stress Under roots Hollow shaft	Safety factor in compression	Centrifugal Tensile Stress
34644.83	4.47	0.59
Shear Stress @ Pitch Dia(psi)	Allowable Compressive tooth stress(psi)**	Beam Loading Tensile stress
11618.67	12000	3223.94
Safety factor in shear	Crowned Spline	Total Tensile Stress
1.44	7976.16	12561.24
	Safety factor in compression	Safety factor tensile
	1.50	3.98

784.69

0.002