

Involute Spline Connection (Version: 2013 SP2 (Build 170200200, 200))

3/17/2020

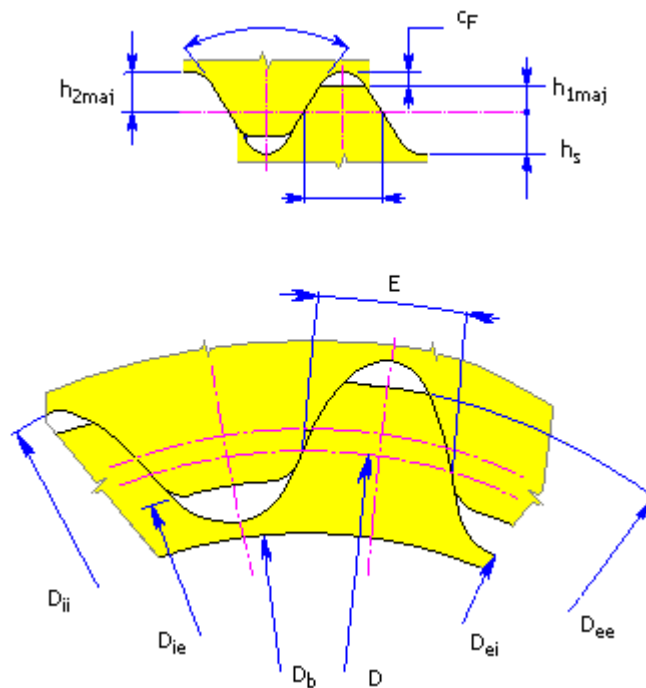
Project Info

Dimensions

Spline Designation	ISO 4156 - 45 deg, Fillet root, Side fit - INT/EXT 19z x 0.25m x 45.0R x 5H/5h	
Hollow Shaft Inner Diameter	d_h	0.000 mm
Outside Diameter of Spline Sleeve	D_{oi}	30.000 mm
Length	l	10.000 mm

Spline Dimensions

Internal Spline ISO 4156			External Spline ISO 4156		
Designation	INT 19z x m0.25 x 45.0R x 5H		Designation	EXT 19z x m0.25 x 45.0R x 5h	
Number of Teeth	z	19.000 ul	Number of Teeth	z	19.000 ul
Module	m	0.250 mm	Module	m	0.250 mm
Pressure Angle	α	45.00 deg	Pressure Angle	α	45.00 deg
Pitch Diameter	D	4.750 mm	Pitch Diameter	D	4.750 mm
Base Diameter	D_b	3.359 mm	Base Diameter	D_b	3.359 mm
Max Major Diameter, Internal	D_{eimax}	5.133 mm	Max Major Diameter, External	D_{eemax}	4.950 mm
Min Form Diameter, Internal	D_{fimin}	0.313 mm	Max Form Diameter, External	D_{femax}	4.483 mm
Max Minor Diameter, Internal	D_{iimax}	4.581 mm	Min Minor Diameter, External	D_{iemin}	4.367 mm
Hub Space Width			Shaft Tooth Thickness		
Max Actual Circular Space Width	E_{max}	0.426 mm	Max Effective Tooth Width	S_{Vmax}	0.393 mm
Max Effective Circular Space Width	E_{Vmax}	0.410 mm	Max Actual Tooth Width	S_{max}	0.377 mm
Min Actual Circular Space Width	E_{min}	0.408 mm	Min Effective Tooth Width	S_{Vmin}	0.375 mm
Min Effective Circular Space Width	E_{Vmin}	0.393 mm	Min Actual Tooth width	S_{min}	0.359 mm
Max Measurement over Two Balls or Pins, Internal	M_{Rimax}	5.639 mm	Max Measurement over Two Balls or Pins, External	M_{Remax}	5.825 mm
Min Measurement over Two	M_{Rimin}	5.623 mm	Min Measurement over Two Balls or Pins, External	M_{Remin}	5.809 mm
			Diameter of Ball or Pin for External Spline	D_{Re}	0.630 mm



Balls or Pins, Internal			Fillet Radius of the Basic Rack, External	ρ_{fe}	0.063 mm
Diameter of Ball or Pin for Internal Spline	D_{Ri}	0.530 mm			
Fillet Radius of the Basic Rack, Internal	ρ_{fi}	0.063 mm			