ondrives Precision Gears **Gear Calculator**

Normal module	m_n	2.0000		mm
Normal pressure angle	α_n	20.0000		°
Helix angle	β	15.0000		°
Number of teeth	z_1	30		
Profile shift coefficient	x_1	0.5000		
Normal tooth tolerance DIN 3867		cd	25	
Diameter of measurement ball (input)	D_M	0.0000		mm
Spanned teeth for measurement (input)	k	0		
Number of teeth of mating gear	z_2	71		
Profile shift coefficient of mating gear	x_2	-0.2783		
Face width	b	60.0000		
Gear Reference Profile		DIN 867		
Dedendum coefficient	h_{fP}	1.2500		
Root radius factor	ρ_{fP}	0.2000		
Addendum coefficient	h_{aP}	1.0000		
Tip alteration	$k*m_n$	0.0000		mm
Transverse module	m_t	2.0706		mm
Transverse pressure angle	α_t	20.6469		°
Base helix angle	β_b	14.0761		°
Base diameter	d_b	58.1269		mm
Reference diameter	d	62.1166		mm
Tip diameter	d_a	68.1166		mm
Root diameter	d_f	58.8143	58.9242	mm
Root form diameter	d_{Ff}	59.7962	59.8701	mm
Normal tooth allowance	A_{sn}	-0.1100	-0.0700	mm
Normal tooth thickness at reference diameter	s_n	3.7595	3.7995	mm
Normal tooth thickness at tip diameter	s_{an}	1.0846	1.1281	mm
Generating profile shift coefficient	x_E	0.4244	0.4519	
Generating profile shift coefficient at undercut limit	x_{Emin}	-0.8124		
Measuring pin / ball diameter	D_M	3.7000		mm
Radial single ball distance	M_{rK}	34.5787	34.6207	mm
Distance over two balls	M_{dK}	69.1574	69.2415	mm
Distance over two pins	M_{dR}	69.1574	69.2415	mm
Diameter of pin / ball contact	d_M	63.8867	63.9626	mm
Number of teeth for span measurement	k	4		
Base tangent length (Span)	W_k	22.1733	22.2108	mm
Diameter of span contact	d_{MWk}	61.9783	61.9909	mm
Permissible torque	T_2	341.65		Nm
Center distance	a	104.9999		mm
(No Warnings)				

Ondrives Ltd., Foxwood Industrial Park, Chesterfield, Derbyshire, S41 9RN, UK
Tel: +44 (0) 1246 455500
sales@ondrives.com www.ondrives.com

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The method and sign convention is as by ISO 21771 using a none topping DIN 867 1.25 / 0.20 / 1.00 reference profile.

Calculation is valid for a value of 1 mn(Normal Module) and above. Reference diameter 10mm and upto and including 10000mm.

Helix angle is always entered as a positive value. Results are the same for left and right helix.

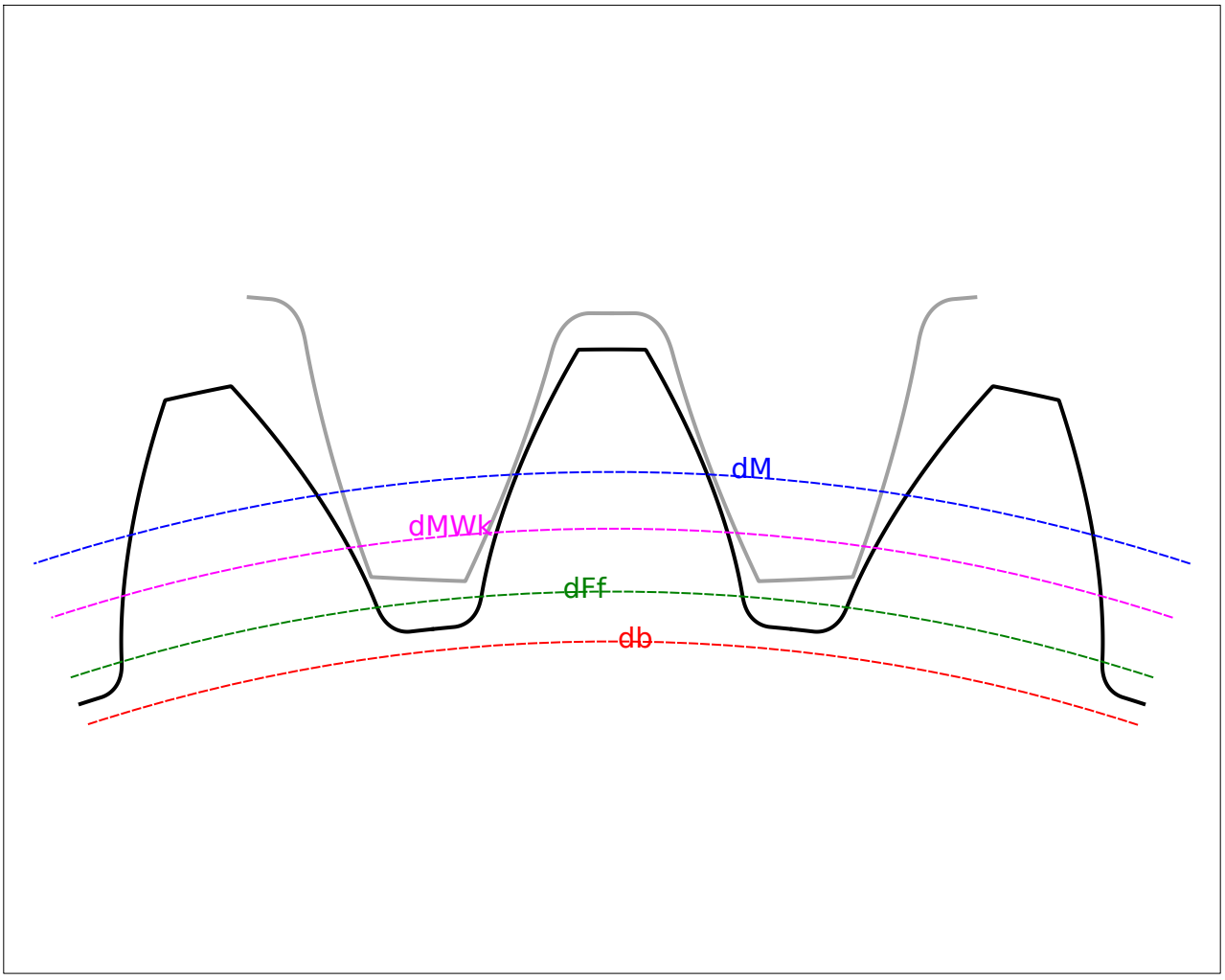
If ball (input) DMand spanned teeth (input) k are left blank, default values are calculated. Distance over two pins per DIN 3960.

z1Gear dimensions are returned only. a is the working center distance of gear pair z1and z2.

ISO 6336 is used for T2permissible output torque using our own assumptions, so results are a guide only in selection of Ondrive Gears.

This calculation is provided free of charge by Ondrives Ltd UK (GB). ondrives.com
The software is tested and no errors are known, but there is no warranty for the correctness of the results and for availability of the calculation.
The usage is at own risk.

Transverse Gear Profile



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