

SERVING
INDUSTRY for
50
years
SINCE 1969

MILL & KILN GIRTH GEARS to 15m (50ft)



Specialising in the design and manufacture of large mill and kiln girth gears up to 15 meters in diameter. New designs or direct replacements of existing gears can be manufactured. Materials offered include forged fabricated steel, spherical graphite iron (SGI) or cast steel. A range of finish machining options are available including a number of specialised gear tooth cutting machines. Old, worn, existing gears with unknown geometry can be easily replaced with a product improved gear.



GIRTH GEARS

1. SG iron
2. Cast steel
3. Austempered SG iron
4. Forged fabricated
5. Forged fabricated, induction hardened

CAPACITY 15m (50ft)

Size: 2.5m face width x 15m dia.
Hardness: to 52HRC (500BHN).
Quality: AGMA 10 (DIN 7).

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GIRTH GEAR RATING COMPARISON

The effect of different material and heat treatment on hardness and quality.

MATERIAL	SG IRON NORMALISED INDIVIDUAL RISER		CAST STEEL NORMALISED FULL RING RISER		AUSTUF AUSTEMPERED SG IRON		FORGED FABRICATED QUENCH AND TEMPERED		FORGED FABRICATED CONTOUR INDUCTION HARDENED	
	AS 1831-700-2	MAX	AISI 4140	MAX	AS 1831-700-2	MAX	HOFALLOY	MAX	HOFALLOY	MAX
HEAT TREATMENT Hardness	NORMALISED 280 BHN	330 BHN	NORMALISED 280 BHN	360 BHN	AUSTEMPERED 350 BHN	400 BHN	QUENCH & TEMP 330 BHN	380 BHN	INDUCTION HARDENED Core = 280 HRC Case = 50 HRC Depth = 5mm	300 BHN 58 HRC 10mm
QUALITY Machining	AGMA 10 (DIN 7) Hobbed	10	AGMA 10 (DIN 7) Hobbed	10	AGMA 10 (DIN 7) Hobbed	10	AGMA 10 (DIN 7) Hobbed	10	AGMA 10 (DIN 7) Hob/Hardcut	10

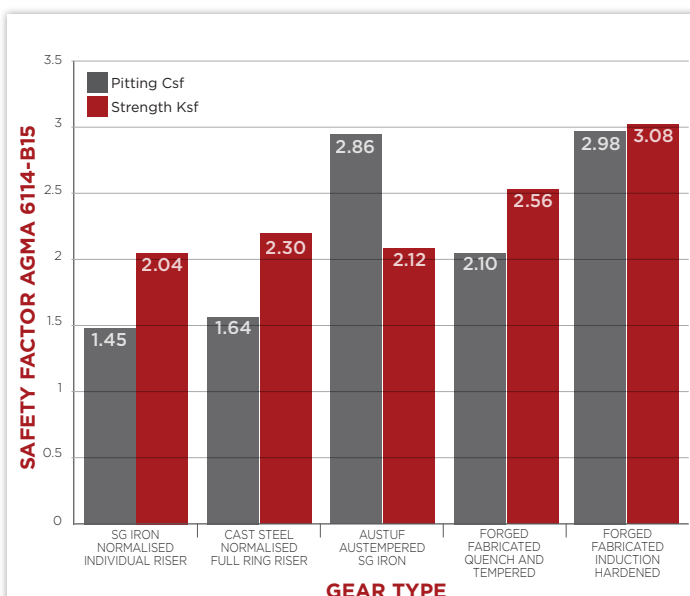
EXAMPLE:
Power Details:
Power (kW) 4000
G Speed (RPM) 14



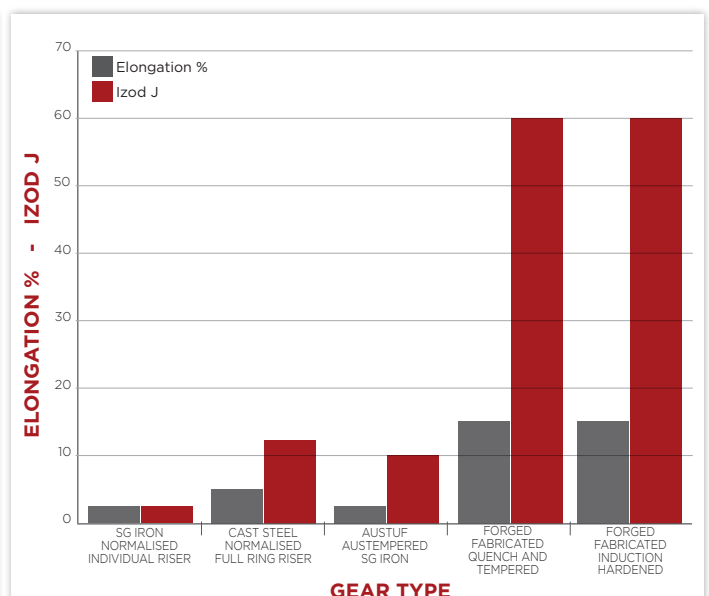
GEOMETRY (Example)	Hofmann Maximum Cap	Hobbing (HSS)		Skiving (Carbide Hob)		Form Milling (Carbide)		Finger Milling + Double Helical	
		External	Internal Gear	External	Internal Gear	External	Internal Gear	External	Internal Gear
Module Mn	25.4	50 Mn	25 Mn	50 Mn	25 Mn	100 Mn	60 Mn	100 Mn	60 Mn
Pressure Ang a	25°	45°	45°	45°	45°	45°	45°	45°	45°
Helix Angle β	5° 30'	45°	45°	45°	45°	45°	45°	45°	45°
Nos Teeth Z	282	700mm	700mm	700mm	700mm	700mm	700mm	700mm	700mm
Face Width F	840	2500mm	500mm	2500mm	500mm	2500mm	600mm	2500mm	600mm
Outside Dia da	7244	14000mm	14000mm	14000mm	14000mm	14000mm	14000mm	14000mm	14000mm
Weight (t) W	50	130t	130t	130t	130t	130t	130t	130t	130t
% PRICE (Example)	100%	115%		135%		120%		140%	
DELIVERY (Example)	36 weeks	36 weeks		34 weeks		16-39 weeks*		20-45 weeks*	
AGMA 6114-B15 Pitting Csf Stength Ks F	1.45 2.04	1.64 2.30		2.86 2.12		2.10 2.56		2.98 3.08	
MECH TESTS Elongation (%) Izod (J)	3 3	6 15		3 10		14 35		14 35	

*Subject to forged steel in-stock availability

LARGE GEAR COMPARISON



MECHANICAL TEST RESULTS



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