

GEAR GRINDING



Gear Grinding

Gear Grinding is very high precision finishing operation constitutes removal of considerable amount of excess material from Gear Teeth Flank. Gear Grinding process is generally executed on Gear Teeth after Heat Treatment process to achieve desired Quality Parameters within permissible dimensional tolerances, i.e; surface finish as well as surface texture, accuracy in form & profile.

CUMI's Gear Grinding Products are manufactured through in-house state-of-art facility. As per recent advances in Gear Grinding Process. CUMI has emerged with next generation High Performance Bond as well as special abrasives. Through special Krystal Bond (V500 & V736) and Micro-crystalline Abrasive (MSB & 83R), we are very much capable to customize our products to fulfil customer expectations on Cost & Quality.

SINGLE RIB GEAR GRINDING

Product Features

- Reduction in dressing depth as well as increase in dressing frequency; result into higher wheel life
- Higher dresser life due to less wear-out
- Save more in grinding cycle time
- Excellent profile retention of grinding wheel face



Machine Model	Gear Module	Grading Recommendation (As Per Stock Removal)		
		Upto 5Q'W	6Q' To 8Q'W	Above 8Q'W
Conventional M/c - (Niles, Hofler, Maag)	upto 8 M	RAA60 H10 V21736	1MSB601G12 VCA2	1MSB601 G15 VCA2
	Above 8 M	1MSB601 G12 VCA2	1MSB601 G15 VCA2	1MSB601 G18 VCA2
	upto 5 M	1MSB601 G12 VCA2/45	3MSB601 G13 VCA2/45	3MSB601 G13 VCA2/45
	upto 6-10 M	3MSB601 G13 VCA2/45	3MSB601 G15 VCA2/45	3MSB601 G18 VCA2/45
	Above 10 M	3MSB601 G15 VCA2/45	3MSB601 G18 VCA2/45	
CNC m/c - (Gleason-Pfauter, Samputensili, Hofler, Niles)	upto 5 M	1MSB601 G12 VCA2/45	3MSB601 G13 VCA2/45	3MSB601 G13 VCA2/45
	upto 6-10 M	3MSB601 G13 VCA2/45	3MSB601 G15 VCA2/45	3MSB601 G18 VCA2/45
	Above 10 M	3MSB601 G15 VCA2/45	3MSB601 G18 VCA2/45	

CUMI Product Size		
OD (mm)	Width (mm)	Bore (mm)
80 - 508	10 - 125	20 to 304.8



MULTI- RIB GEAR GRINDING

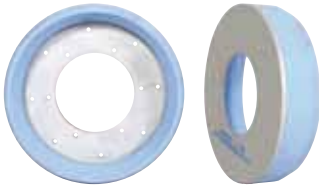
Product Features

- Superior accuracy on gear teeth Profile & Lead
- Controlled stock removal on gear teeth flank; Save more on cycle time save more in grinding cycle time
- Save more on dressing cycle time; Result more on dresser life

Machine Model	M/c Models	Gear Module	Value for Money	Premium Products
Conventional m/c	- Reishauer (ZB/OZA/AZA/NZA) - Kapp/Csepel	upto 1.5 M	RA 280 TDV547/45	
	- Reishauer (ZB/OZA/AZA/NZA) - Kapp/Csepel	1.75 M - 2.25 M	SA 100 i7 V677/45	3MSB 80 i12 V736 /45
	- Reishauer (ZB/OZA/AZA/NZA) - Kapp/Csepel	2.5 M - 4 M	SA 80 K5 V677/45	3MSB 80 i12 V736 /45
	- Reishauer (ZB/OZA/AZA/NZA) - Kapp/Csepel	Above 4.25 M	SA 60 K5 V677/45	3MSB 60 J12 V736 /45
CNC m/c - (Gleason-Pfauter, Samputensili, Hofler, Niles)	- Reishauer Rz301S, Rz361S, Rz362A - Liebherr (LCS200 / LC280) - Kapp - Gleason - Pfauter - Samputensili	upto 1.5 M	24R 120 J 12 V736 /45	83R120 i12 V736/45 3MSB 120 J 12 V 736 /45
	- Reishauer Rz301S, Rz361S, Rz362A - Liebherr (LCS200 / LC280) - Kapp - Gleason - Pfauter - Samputensili	1.75 M - 2.25 M	24R 100 J 12 V736 /45	83R100 i12 V736/45 3MSB 100 J 12 V 736 /45
	- Reishauer Rz301S, Rz361S, Rz362A - Liebherr (LCS200 / LC280) - Kapp - Gleason - Pfauter - Samputensili	2.5 M - 4 M	24R 80 J12 V 736/45	83R80 i12 V736/45 3MSB 80 J12 V 736/45
	- Reishauer Rz301S, Rz361S, Rz362A - Liebherr (LCS200 / LC280) - Kapp - Gleason - Pfauter - Samputensili	Above 4.25 M	24R 60 K12 V736 /45	83R60 J12 V736/45 3MSB 60 K 12 V 736 /45
CNC (Creepfeed Type) - 60 mps	- Reishauer Rz400, Rz150, Rz1000 - Leibherr (LCS200/LC280)	upto 1.5 M	3MSB 120 i12 V736/60	83R 120 i12 V736/60
	- Reishauer Rz400, Rz150, Rz1000 - Leibherr (LCS200/LC280)	1.75 M - 2.25 M	3MSB 100 i12 V736/60	83R 100 i12 V736/60
	- Reishauer Rz400, Rz150, Rz1000 - Leibherr (LCS200/LC280)	2.5 M - 4 M	3MSB 80 J12 V736/60	83R 80 i12 V736/60



OD (mm)	CUMI Product Size		Machine Type
	Width (mm)	Bore (mm)	
350	62/84/104	160	- Reishauer OZA/AZA/NZA/Rz362
275/300	125	160	- Reishauer RZ400/RZ150/RZ820/RZBASIC
400/450	84/104	160	- Csepel, Reishauer RZ800
195/240	200/230	90/120	- Liebherr LCS200/LCS280
200/220	84/104/150	90/120/76.2	- Samputensili S400GT



BEVEL GEAR GRINDING (SPIRAL BEVEL GEARS)

Product Description

Spiral Bevel Gear Set consists of spiral ring Crown Gear and Spiral Pinion Bevel Gear. This process is Generation method of Gear Grinding; and performed by using wheel in CUP Shape. These CUP wheels can also be customized into Pre-Profiled Shape.



HOB RE-SHARPENING

Regular Grade	Premium Grade	CUMI Product Sizes		
		OD (mm)	Thickness (mm)	Bore (mm)
RAA 60 H10 V736/45	3MSB 80 J6 V500/45	80-508	10 - 50	20 to 76.2
RAA 60 H10 V736/45	83R 60 G10 V736/45	80-508	10 - 50	20 to 76.2



SHAVING CUTTER

Machine Type	Premium Grade	CUMI Product Sizes		
		OD (mm)	Thickness (mm)	Bore (mm)
Hurth m/c	AA 100 I18 VMPA	750-800	20-50	304.8, 406.4, 508
Hurth m/c	RA 120 H20 VMPA	750-800	20-50	304.8, 406.4, 508
Hurth m/c	RA 120 G6 TDV155/45	750-800	20-50	304.8, 406.4, 508

GEAR HONING

Product Description

Gear Honing Process Takes place by rolling off the work-piece on Cross-axis against Honing Ring. Honing Profile can lead to significant reduction of noise. Power Honing leads to stock removal with sufficient rate which makes Pre Grinding process unnecessary or obsolete.

HONING RING (VITRIFIED BOND)

Product Description

Cumi's High Performance vitrified bonds achieve controlled stock removal rate upto 0.1 mm per flank.

Specification	Grain Type	Machine Model
CUMISOL 220 V894	Sintered Al. Oxide	Prawema Syncro Fine, Gleason-Hurth, Fassler, Seiwa, EMAG, Kapp, Kanzaki Power

HONING RING (EPOXY RESIN BOND)

Product Description

Cumi's Epoxy resin bond along with a special treated Aluminium Oxide grain results into controlled as well as high stock removal rate.

Specification	Grain Type	Machine Model
CUMISOL 180E895	Sintered Al. Oxide	Gleason-Hurth, EMAG, Fassler, Seiwa, Kapp, Kanzaki Power

