

# **CMH Tools Limited**

(An ISO 9001 : 2008 Company)

### PRECISION GEARING SOLUTIONS





CMH Tools Limited is a professionally managed public limited company located in Hyderabad, Andhra Pradesh. It started production in the year 1977. The Company is manufacturing all types of Gear Cutting Tools like Hobs, Shaving Cutters, Shaper Cutters, Spline / Rack Milling Cutters, Serration Cutters, Worm Wheel hobs, Taper Hobs and Master Gears used on Gear Roll Testers.

The Tools manufactured by the company are supplied to many leading Automobile manufacturers of Commercial Vehicles, Cars, Tractors, Two Wheelers etc., The company is fully equipped to design and manufacture all types of quality Gear Cutting Tools and got all the facilities for in-house manufacturing, quality control and Heat Treatment.

Since October 2012, CMH Tools is a joint venture company of Gebr. Saacke GmbH & Co. Germany. Saacke is headquartered in Pforzheim near Stuttgart and was established in 1892 and has been producing Precision Tools and Tool & Cutter grinding machines for over 100 years. Saacke tools are renowned for their excellent quality and precision and have set new benchmarks in the industry.

CMH have also commissioned state of the art Saacke CNC hob profile grinding machine and can now offer customers full range of Hobs in HSS and PM material upto AAA class accuracy and in addition also supply the following tools from Saacke portfolio.

Gear Hobs - Module 0.5 to 42			
Heavy duty Roughing	Hobs - Module 5 to 30		
Worm wheel Hobs	- Module 0.3 to 30 (Tangential/Radial or high performance radial types) and worm cutters		
Shaper cutters	- Module 0.7 to 12		
Deburring tools, Form	milling cutters etc.		



## Our Product Range ...

### **Hob Cutters**



Our Hob Cutters range includes Gear Hobs, Spline Hobs, Serration Hobs, Sprocket Hobs, Timing Belt Pulley Hobs, Ratchet Hobs and Worm Wheel Hobs of all profiles. We supply both bore and shank type Hobs in single & multi starts with straight and helical flute with or without coating.

#### Our Range

Module	0.2M to 20M					
Diameter	24mm to 260mm					
Quality Class	A A A , A A , A & B					
Standard	DIN, AGMA, BS, GOST etc					
Material	ASP-2030, ASP-2052					
	S-590, S-390 & S-290					
	M-35 etc.					

1M to 8M

80mm to 150mm

80mm to 400mm

Class "AA", & "A"

### Shank Type Hobs

### Our Range





## Rack Milling Cutters



We manufacture various types of Rack Milling Cutters to cut Racks for various applications.

### Our Range

Module	1M to 8M					
Diameter	80mm to 200mm					
Length	80mm to 250mm					
Quality	Class A & AA					
Material	M-35, ASP-2030, ASP-2052, S-590 & S-390					

### Fine Module Hobs



### Our Range

Module	0.2M to 0.9M				
Diameter	24mm to 40mm				
Bore	8mm, 13mm & 16mm				
Quality	Class "AA", & "A"				
Standards	DIN, AGMA, BS, GOST etc				
Material	ASP-2052, ASP-2030, S-590, S-390 & M-35				



## **Shaving Cutters**



We manufacture all type of Shaving Cutters -Conventional, Diagonal, Underpass & Plunge cut with profile modification such as lead and involute crowning. The Shaving Cutters can be supplied with or without coating as per client's requirements.

#### Our Range

Module	1.25M to 8M				
PCD Up to 275mm					
Standard	BS2007-1975				
Material	M2 (F) M3-II & ASP-2023				

### **Master Gears**



We Supply Spur & Helical Master Gears. The Master Gears can be supplied with profile modifications and Tin coating.

#### Our Range

Module	1M to 8M		
PCD	Up to 150mm		
Width	Face width up to 60mm		
Quality	DIN - 3 & DIN - 4 as per DIN 3962		
Material	M2, M-35, ASP-2030		



### Gear Shaping Cutters



Gear Shaping Cutters both Disc type, Hub type can be made to qualify all standards. We can supply Shaper Cutters with coating.

#### Our Range

Module	1M to 8M				
PCD	Up to 150mm				
Width	Face width as per requirement				
Quality	Class "A", & "B"				
Standard	DIN 1829 - 1973 / 1977				
Material	M-35, ASP-2030				

## Spline Milling Cutter

Single lip and Double lip spline miling cutters are Manufactured to be used on Milling Machine.

#### Our Range

Involute Spline
Parallel Spline





## Ordering Information

Compone	nt Drg. No.		Cust	omer T	ool No.			
No. of teeth			Shoulder details			Semitopping details		
Module/DP/	СР							
Normal Pressure angie								
Helix angle/Hand								
Outside dia with tolerance			<del></del>					
Root dia with tolerance								
Fillet radius				===				
At hobbing/ Shaping	Span value /No. of teeeth							
	Over pin value/ pin dia							
At shaving/ grinding	Span value /No. of teeeth							
	Over pin value/ pin dia					/	/	
Start of activ (SAP/TIF)(FIN				//				
Width of Gea	r							
Material								
At hobbing/s Hardness (Bh	Shaping stage in)							
ŀ	Hob		Shaving Cutter		Master Gear		Shaper Cutter	
Outside dia			Conventional/Under		Outside dia		Pitch circle dia	
Length			pass/Diagonal/Plunge		Width		Width	
Bore Dia			Outside dia		Bore		Bore	
Keyway size			Face width		Quality	DIN 3/4	Quality as per DIN 1829	
No.of flues(s	traight/helical)		Bore		Mating gear OD		Semi-topping	Yes/No
Hand of thread		Keyway size		Mating gear S.T. value		Protuberance	Yes/No	
No. of starts			No. of teeth		Centre distance		Preshaving	Yes/No
Accuracy as	per DIN 3968		Helix angle at PCD		Material		Pregrinding	Yes/No
Semi toppin	g	Yes/No	Quality	BS : 2007	Surface coating		Finishing	Yes/No
Protuberanc	e	Yes/No	Material				Material	
Preshaving		Yes/No	Surface coating				Surface coating	
Pregrinding		Yes/No					Туре	Disc/
Finishing		Yes/No						Hub/ Shank
Material								
Surface coat	ing							

Special requirements, if any

<sup>(\*)</sup> If not known give mating gear OD, chamfer & centre distance







#### **CMH Tools Limited**

(A Joint Venture Company of M/s Saacke - Germany)

Regd. Office & Factory

26 / A, IDA. Patancheru - 502 319 Hyderabad, A.P., India

+91 8455 240096 / 240305

Fax: +91 8455 240508

Email: info@cmhtools.com
Web: www.cmhtools.com



# Saacke Machines & Tools Pvt. Ltd.

204, Chandra Bhawan 67-68, Nehru Place, New Delhi 110019 +91 11 46521430, 9311017698

Fax: +91 11 46517040

Email: info@saacke-india.com Web: www.saacke-india.com