



Gear manufacturing technology

# Machines

## Hobbing S Chamfering & deburring



**H 100 / 130**  
 $\varnothing$  100 / 130 mm  
 $m_n$  3.5  
 Axial travel 200 / 350 mm



**H 80 / 140 / 200**  
 $\varnothing$  80 / 140 / 200 mm  
 $m_n$  3.5 / 5.0 mm  
 Axial travel 200/350 mm



**NEW**

**H 200 T**  
 $\varnothing$  200 mm  
 $m_n$  3.5 / 5.0 mm  
 Axial travel 200/350 mm  
 Integrated turning



**CD Unit**  
 $\varnothing$  200 mm  
 $m_n$  5.0 mm  
 For flexible process integration

## Hobbing M Chamfering & deburring



**H 250 / 300 / 400**  
 $\varnothing$  250 / 300 / 400 mm  
 $m_n$  6.0 / 8.0 mm  
 Axial travel 400 / 600 mm  
 Torque worktable option



**H 250 CD**  
 $\varnothing$  250 mm  
 $m_n$  6.0 mm  
 Axial travel 400 / 600 mm  
 Chamfering/deburring  
 1 vertical tool spindle



**NEW**

**H 250 / 300 / 400 CD Twin**  
 $\varnothing$  250 / 300 / 400 mm  
 $m_n$  6.0 / 8.0 mm  
 Axial travel 400 / 600 mm  
 Chamfering/deburring  
 2 vertical tool groups



**H 250 CDM**  
 $\varnothing$  250 mm  
 $m_n$  6.0 mm  
 Axial travel 400 / 600 mm  
 Chamfering/deburring  
 2 horizontal tool spindles

## Chamfering & deburring



**CD 250**  
 $\varnothing$  250 mm  
 Face width 150 mm  
 Wp length 400 mm



**CDA 250**  
 $\varnothing$  250 mm  
 Face width 150 mm  
 Wp length 400 mm



**CDX 250**  
 $\varnothing$  250 mm,  $m_n$  8.0 mm  
 Face width 50 mm  
 Wp length 400 mm  
 Axial travel 400 mm

## Hobbing L-XL Hobbing & gear milling



**H 600 / 800**  
 $\varnothing$  600 / 800 mm  
 $m_n$  12.0 / 14.0 (gear milling) mm  
 Axial travel 450 / 800 mm



**H 600 R**  
 Rotor hobbing/milling  
 $\varnothing$  400 mm  
 $m_n$  18.0 / 22.0 (gear milling) mm, profile depth 40 mm  
 Axial travel 750 mm

## Hobbing XL Hobbing & gear milling



**H 900**  
 $\varnothing$  900 mm  
 $m_n$  24.0/28.0 (gear milling) mm  
 Axial travel 1,000/1,400 mm



**H 1500**  
 $\varnothing$  1,500 mm  
 $m_n$  24.0/28.0 (gear milling) mm  
 Axial travel 1,000/1,400 mm



**H 2300**  
 $\varnothing$  2,300 mm  
 $m_n$  24.0/28.0 (gear milling) mm  
 Axial travel 1,000/1,400 mm



$\varnothing$  1,500 / 750 mm  
 $m_n$  16.0 / 18.0 (gear milling) mm  
 Face width 400 / 600 mm

## Hobbing H

horizontal workplace axis



**100 H**  
 Ø 125 mm  
 $m_n$  2.5 mm  
 Axial travel 675 mm



**200 H**  
 Ø 200 mm  
 $m_n$  6.4 mm  
 Axial travel 1,321 mm



**400 H**  
 Ø 400 mm  
 $m_n$  6.4 mm  
 Axial travel 1,321 mm



**600 H**  
 Ø 600 mm  
 $m_n$  6.8 mm  
 Axial travel 2,540 mm

## Shaping

mechanical stroke



**10-4**  
 Ø 254 mm  
 $m_n$  6.35 mm  
 Face width 102 mm



**20-4**  
 Ø 508 mm  
 $m_n$  6.35 mm  
 Face width 102 mm



**MS 450-125**  
 Ø 450 mm  
 $m_n$  8.47 mm  
 Face width 125 mm



**MS 650-125**  
 Ø 650 mm  
 $m_n$  8.47 mm  
 Face width 125 mm

## Shaping

hydrostroke™



**HS 650-200**  
 Ø 650 mm  
 $m_n$  12.7 mm  
 Face width 200 mm



**HS 1280-300**  
 Ø 1,270 mm  
 $m_n$  12.7 mm  
 Face width 300 mm



**HS 2550**  
 Ø 2,550 mm  
 $m_n$  12.7 mm  
 Face width 300 mm



**1000 VBS**  
 Ø 1,000 mm  
 $m_n$  8.5 mm  
 Face width 200 mm

## Tool sharpening

gear tools, broaches, slab mills,  
 rack cutters and step tools



**NTG**  
 Ø 100 mm  
 Wp length 200 mm  
 Axial travel 800 mm



**PTG 1 / PTG 4/6**  
 Ø 200 / 170 mm  
 Wp length 250/610 / 520 mm  
 Axial travel +/- 200 / 300 mm



**UTG 600 / 1200**  
 Ø 254 mm  
 Wp length 3,360 / 4,370 mm  
 Axial travel 800 / 1,480 mm



**UTG 1800 / 2000**  
 Ø 254 mm  
 Wp length 4,980 / 5,590 mm  
 Axial travel 2,080 / 2,680 mm



**GS 400**  
 for shaving cutters  
 and master gears  
 Ø 400 mm  
 $m_n$  15.0 mm

## Grinding M

Vertical workpiece axis



**G 400**  
 Ø 380 mm  
 $m_n$  8.0 mm  
 Axial travel 400 mm



**GT 500 H**  
 Ø 400 mm  
 Profile depth 20 / 25\* mm  
 Wp length 950 mm



**G 250**  
 OD 250 mm  
 Axial travel 400 mm  
 $m_n$  4.5 mm



## Grinding M

Horizontal workpiece axis



**G 500 H**  
 Ø 500 mm  
 Profile depth 52 mm  
 Wp length 1,250 mm



**GP 500 H**  
 Ø 500 mm  
 Profile depth 29 mm  
 Wp length 1,250 mm



**GT 500 H**  
 Ø 400 mm  
 Profile depth 20 / 25\* mm  
 Wp length 950 mm

## Grinding

Rotors and screws



**GR 500 H**  
 Ø 400 mm  
 Profile depth 52 / 80\* mm  
 Wp length 1,250 mm



**GRX 500 H**  
 Ø 400 mm  
 Profile depth 80 mm  
 Wp length 1,600 mm



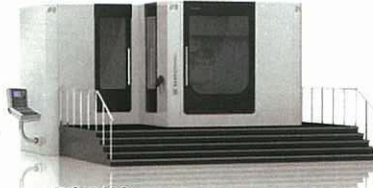
**GW 3600 H**  
 Ø 250 mm  
 Profile depth 40 mm  
 Wp length 3,600 mm

## Gear centres XL

Turn-milling, milling, hobbing, generating & profile grinding



**HG 1200 / HG 1600**  
 Ø 1,200 mm / Ø 1,600 mm  
 $m_n$  35.0 / 40.0\*\* mm  
 Axial travel 950 mm / without counter column



**HG 2400**  
 Ø 2,400 mm  
 $m_n$  35.0 / 40.0\*\* mm  
 Axial travel 950 mm



**HG 1200 invento**  
 Ø 1,200 mm  
 $m_n$  35.0 / 40.0\*\* mm  
 Axial travel 950 mm

\*) with CBN tools \*\*) with single indexing tools  
 Technical data subject to change, max. values depending on application

# Tools and services

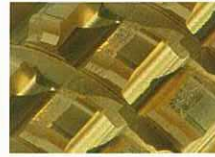
## Hobs Milling cutters



**Shank-type**  
 $m_n$  0.45 - 7.0 mm  
 $\varnothing$  30 - 200 mm



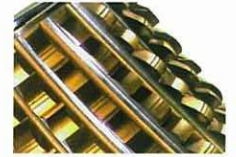
**Bore-type**  
 $m_n$  0.45 - 17.0 mm  
 $\varnothing$  30 - 210 mm  
 tooth depth 34 mm,  
 limited by  $m_n$



**Special profile**  
 for sprockets gears,  
 splines, timing belt gears  
 and rotors



**XP® hobs**  
 Express delivery within  
 predetermined range  
 $m_n$  1.0 - 3.0 mm  
 $\varnothing$  70 - 115 mm



**Milling cutters**  
 for band saws and  
 special profiles

## Shaper cutters



**Shank-type**  
 $m_n$  0.5 - 8.0 mm  
 $\varnothing$  12 - 300 mm



**Disk-type**  
 $m_n$  0.5 - 8.0\* mm  
 $\varnothing$  300 mm  
 \*larger  $m_n$  on request



**Deep counterbore-type**  
 $m_n$  0.7 - 8.0 mm  
 $\varnothing$  300 mm



**Special/modified profile**  
 for sprocket gears,  
 splines, cams, timing  
 belt gears



**XP® shaper cutters**  
 $m_n$  1.0 - 8.0 mm  
 $\varnothing$  250 mm  
 tooth height 19 mm

## Chamf./deb. Shave cutters



**Chamfering/deburring  
tools**  
 Special finish for long life  
 Special tooth forms  
 XP® tools available



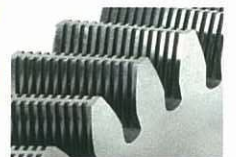
**Rolling tools**  
 to remove secondary  
 burrs and smoothen tooth  
 flanks  
 XP® tools available



**Chamfer-roller tools**  
 for spur/helical gears  
 Patented tool  
 XP® tools available



**Deburring/rolling tools**  
 for sprocket gears



**Shaving cutters**  
 external/internal  
 $m_n$  0.7 - 10.0 mm  
 $\varnothing$  70 - 330 mm  
 face width 65 mm

## Master gears and gauges



**Master gears**  
 $m_n$  0.7 - 6.0 mm  
 $\varnothing$  40 - 300 mm  
 width 4 - 80 mm



**Rolling gears**  
 to check noise and  
 improve surface finish



**Plug gauges**  
 $m_n$  0.5 - 6.0 mm  
 pitch  $\varnothing$  20 - 150 mm



**Ring gauges**  
 $m_n$  0.5 - 7.0\* mm  
 outside  $\varnothing$  20 - 200 mm  
 \*depending on outside  $\varnothing$

## Tool life cycle services



**Sharpening of hobs,  
shaper and shaving  
cutters** in top quality and  
 accuracy with fast turn-  
 around times



**Master gear regrinding**  
 in top quality and accu-  
 racy with fast turnaround  
 times

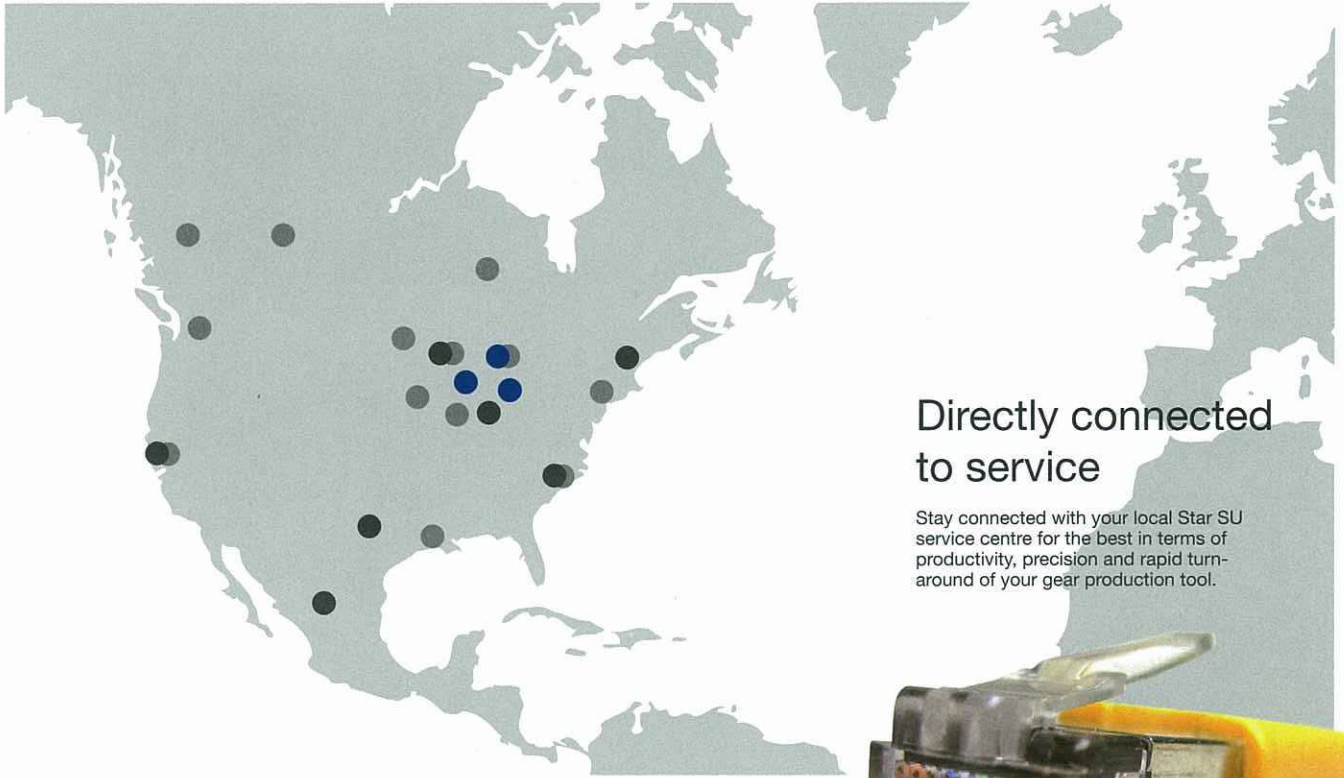


**Stripping, preparation  
and coating of gear  
cutting tools** in inhouse  
 coating centres



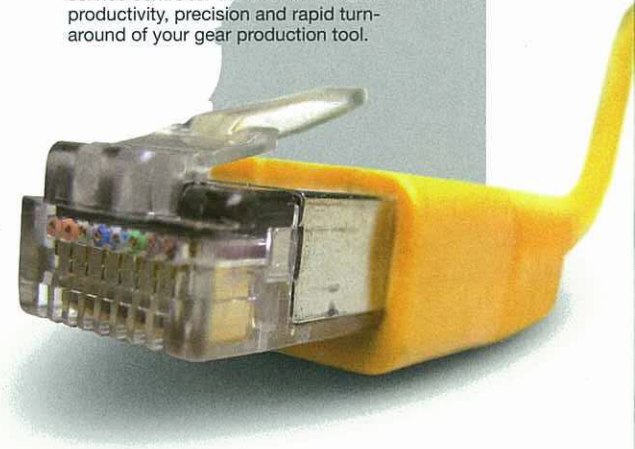
**Pickup and delivery**  
 of reconditioned cut-  
 ting tools directly to  
 the shelf of your  
 tool crib





## Directly connected to service

Stay connected with your local Star SU service centre for the best in terms of productivity, precision and rapid turn-around of your gear production tool.



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