

## **Description**

### **1. Base machine HRG 350**

Electro-welded steel base structure  
Horizontal workpiece axis  
Linear guideways with high precision roll cages  
Linear motors for radial and axial axes  
Relieving grinding group managed by linear motor  
CNC dressing group  
Pneumatic tailstock, setting of clamping force via CNC  
CNC control SINUMERIK 840 D Solution Line,  
Remote troubleshooting via modem or VPN  
Samputensili operator dialogue software  
Incremental measuring systems  
Electro-mechanical interlock of machine doors  
Work area lighting  
Illumination and air conditioning of control cabinet  
Pneumatic equipment, cooling equipment and  
centralised lubrication  
Flushing pistol  
Recovery pump for dirty oil  
Refrigerator for direct drives  
Electrical equipment  
Electric cabinet conditioner  
Standard painting  
Standard accessories:  
- Levelling wedges  
- 1 set of documentation on paper

### **2. Optional equipment**

Retractable probe for timing and measurement  
Profiling spindle

### **3. Workpiece clamping fixtures**

Base fixture - spindle side  
Base fixture - tailstock side

### **4. Software**

Software to manage electronic cam  
Software to dress the form wheel for solid hobs with  
standard profiles  
Software to grind solid hobs for worm gears  
Software to grind solid annular hobs (milling type)  
Special software to grind cylindrical solid hobs  
with special profile

## Technical data

Hob diameter max. mm 300

Module range (option) mn 0.6 - 10 (25)

Helix angle, max. deg +/- 45

Distance between centers, max. mm 870

Length to be ground, max. mm 450

Grinding wheel diameter range mm 35 - 100  
(relief and profile)

Grinding wheel diameter (threads) mm 200

Grinding spindle speed range m/s 0 - 45

Work spindle speed, max. rev/min 100

Stroke speed, max. str/min 300

Connected power, max kVA 83

Overall machine dimensions m 5.28 x 3.28 x 2.89  
(without filter unit)

## Descrição

### 1. Máquina base HRG 350

Estrutura de base em aço eletrossoldado  
Eixo horizontal da peça  
Guias lineares com gaiolas de proteção de alta precisão  
Motores lineares para eixos radiais e axiais  
Grupo de retificação de alívio gerenciado por motor linear  
Grupo de retificação CNC  
Ponteira móvel pneumática, ajuste da força de fixação via CNC  
Controle CNC SINUMERIK 840 D Solution Line  
Resolução remota de problemas via modem ou VPN  
Software de diálogo com o operador Samputensili  
Sistemas de medição incrementais  
Intertravamento eletromecânico das portas da máquina  
Iluminação da área de trabalho Iluminação e ar condicionado do painel de controle  
Equipamentos pneumáticos, equipamentos de refrigeração e lubrificação centralizada  
Pistola de lavagem  
Bomba de recuperação de óleo sujo  
Refrigerador para acionamentos diretos  
Equipamento elétrico  
Condicionador de painel elétrico  
Pintura padrão  
Acessórios padrão:  
- Cunhas de nivelamento  
- 1 conjunto de documentação em papel

### 2. Equipamentos opcionais:

Apalpador retrátil para temporização e medição  
Fuso de perfilagem

### 3. Dispositivos de fixação da peça

Fixação base - lado do fuso  
Fixação base - lado do cabeçote móvel

### 4. Software

Software para gerenciar came eletrônico  
Software para dressar a roda de conformação para fresas maciças com perfis padrão  
Software para retificar fresas maciças para engrenagens helicoidais  
Software para retificar fresas anulares maciças (tipo fresamento)  
Software especial para retificar fresas maciças cilíndricas com perfil especial

## Dados técnicos

Diametro max. fresa caracol 300 mm

Range de Modulo (opcional) Mn 0.6 - 10 (25)

Angulo de Hélice, max. +/- 45 graus

Distancia entre centros, max. 870 mm

Comprimento retificável, max. 450 mm

Range de diametro do rebolo retificador 35 – 100 mm (saída e perfil)

Diametro do rebolo (roscas) 200 mm

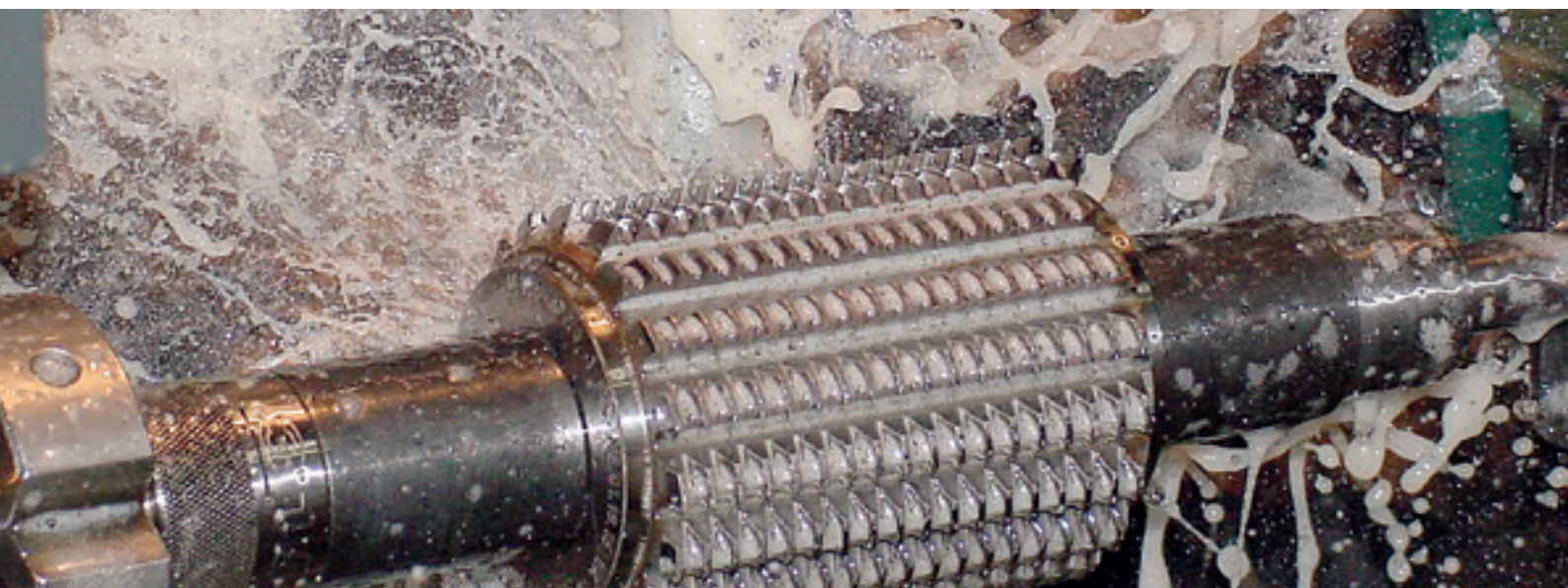
Range de velocidade do fuso retificador 0 – 45 m/s

Velocidade do fuso de trabalho, max. 100 rpm

Velocidade de detalonamento, max. 300 det/min

Potencia conectada, max 83 kVA

Dimensões gerais da máquina 5.28 x 3.28 x 2.89 m (sem unidade de refrigeração)



**HRG 350**

Profile grinding machine for hobs

# Profile grinding machine for hobs HRG 350

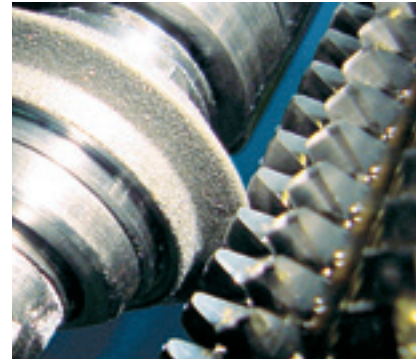
The EMAG SU HRG 350 profile grinding machine for hobs is especially suited for the manufacturing of all kinds of different hob types including helical hobs and threads.

The machine guarantees top quality results with minimum cycle times.

Grinding methods:

- + Profile grinding
- + Creep feed grinding

The HRG 350 can accommodate all grinding wheels currently available on the market.



Grinding of hob profile



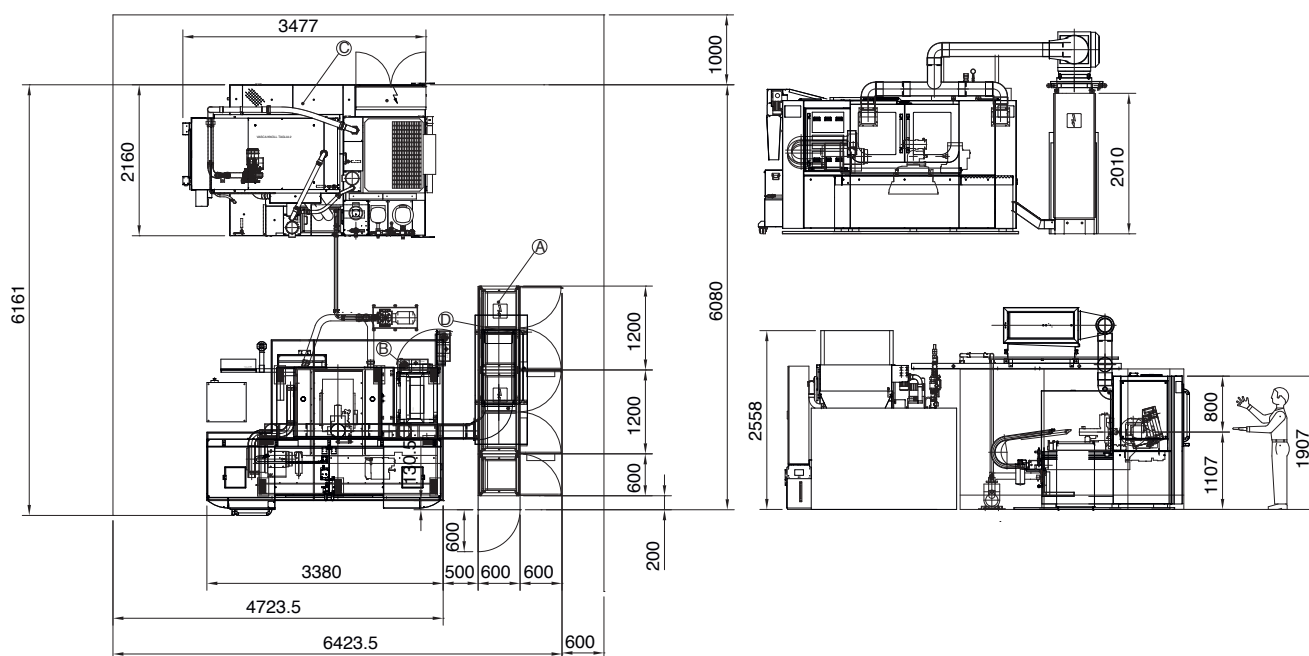
## Technical data

Hob diameter max.	mm	300
Module range (option)	m <sub>n</sub>	0.6 - 10 (25)
Helix angle, max.	deg	+/- 45
Distance between centers, max.	mm	870
Length to be ground, max.	mm	450
Grinding wheel diameter range (relief and profile)	mm	35 - 100
Grinding wheel diameter (threads)	mm	200
Grinding spindle speed range	m/s	0 - 45
Work spindle speed, max.	rev/min	100
Stroke speed, max.	str/min	300
Connected power, max	kVA	83
Overall machine dimensions (without filter unit)	m	5.28 x 3.28 x 2.89

+ Siemens 840D CNC with mobile operator panel, 7 CNC axes, circular, linear interpolation of up to 4 axes. High-level geometric programming for the simple generation of profile and helix angle.

+ EMAG SU dialogue software for the flexible generation of a practically infinite number of different hob profiles.

+ The X and Z axes are directly driven by digital linear motors with flat-prismatic guides. No mechanical transmission or backlash.







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