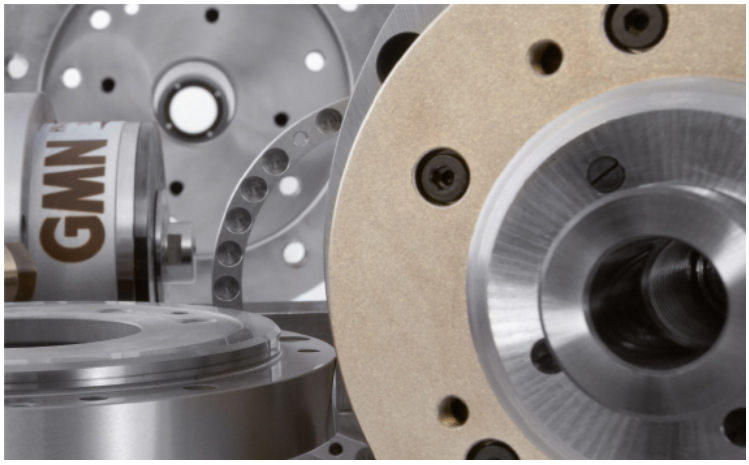
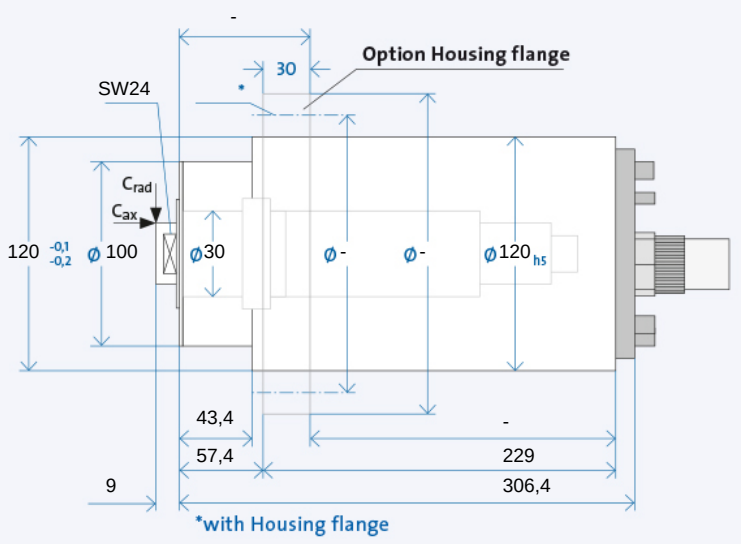
GMN
High-speed tool spindles for manual tool change

www.gmn.de

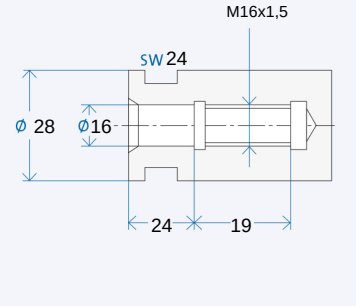
HSX 120 - 51000/12



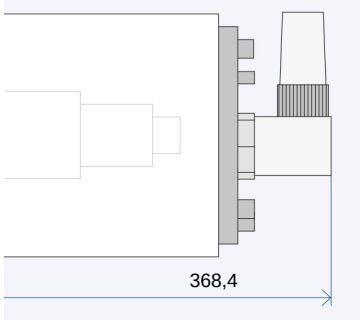
TECHNICAL DATA



FIT HOLES WITH FLAT LAYOUT



ANGLED PLUG OPTION



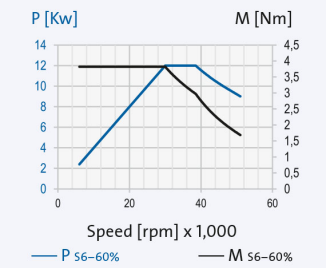
The data currently provided on the internet apply. Further and detailed information is provided in the GMN 2508 catalogue.

Technical data			HSX 120 - 51000/12		
ø Spindle housing	A	[mm]	120		
Speed max.	n_{max}	[min^{-1}]	51000		
Bearing; front	W_1	[mm]	30		
Tool interface			D 16/28		
ø Flat layout	W	[mm]	28		
Static rigidity					
axial	C_{ax}	[N/µm]	70		
radial	C_{rad}	[N/µm]	102		
Motor realization			200 V	350 V	460 V
Frequency max.	f_{max}	[Hz]	1700		
Converter voltage[1)]		[V]	200	350	460
Power	P_{S1}	[kW]	11		
Torque	M_{S1}	[Nm]	3,5		
... at speed	n	[min^{-1}]	30000		
Current	I_{S1}	[A]	63	36	27
Power	$P_{S6\text{-}60\%}$	[kW]	12		
Torque	$M_{S6\text{-}60\%}$	[Nm]	3,82		
... at speed	n	[min^{-1}]	30000		
Current	$I_{S6\text{-}60\%}$	[A]	67	38	29

Electrical connection			
Plug type	MAC	GA	GA
Straight plug connection	+	+	+
Coil plug connector	o	o	o
Fixed cable XXm	o	o	o
Coolant feed through the shaft			
Low pressure (du)	o		
High-pressure (dh)	-		
Sensors			
Rotary encoder	x		
Speed sensor	+		
Housing			
Cylindrical housing	+		
Cylindrical housing with flange	o		
Block housing	x		
Air-tight seal	o		

[1)] Minimum required starting voltage for the frequency converter.

+ Standard
o Optional
x Upon request



Ordering information:
HSX 120 - 51000/12
R is for clockwise, L for counter-clockwise
+ Desired options

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HSX 120 - 51000/12

Grinding quills

GMN produces grinding quills with high round and flat face accuracy for all available GMN grinding mandrel receivers.

FIG. 1: CEMENTED (KI)

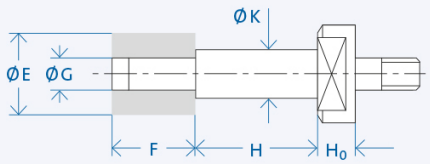


FIG. 2: WITH ADJUSTMENT SCREW (PS)

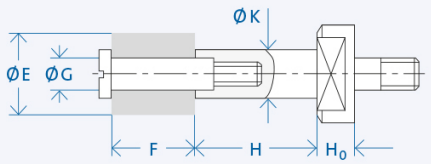
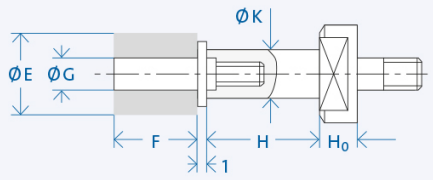
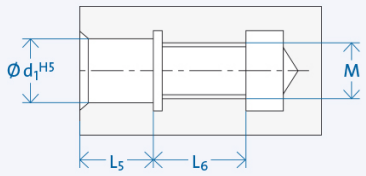


FIG. 3: FOR GRINDING WHEELS ON THREADED PIN (PL)*



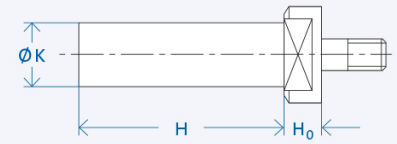
FITTING HOLE FOR FIG. 2 AND 3



d_1	M	L_5	L_6
4	M3	5	8
6	M5	7	11
8	M6	9	12
10	M8	12	14
13	M12	13	17

Interface	K [mm]	H [mm]	Wheel E x F [mm]	G [mm]	Grinding wheel attachment	H_O [mm]
D 16/28	10	25	16 x 16	6	PS/PL	10
	13	32	20 x 20	8	PS/PL	
	16	40	25 x 25	10	PS/PL	

Ordering information:
[Mandrel ø K] x [Mandrel length H] - [Grinding wheels ø G] x [Grinding wheel width F] [Interface] [Mandrel fixation]
Example: Grinding quill 16 x 40 - 10 x 25 D16/28 PS



No processing is permissible in area H_0

Semi-finished goods

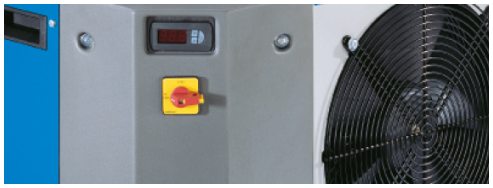
GMN semi-finished products allow the individual adaptation of the tool interface for any connections.

d_1	K [mm]	H [mm]
D 16/28	28	229

Ordering information: »Semi-finished goods« [Shaft Ø K] x [Shaft length H] [Interface]
Example: Semi-finished goods 34 x 180 D16/33

Lubrication system

The electronically controlled PRELUB lubrication unit is optimally adapted to the oil-air lubricated GMN spindles and guarantees a long service life.



Cooling system

GMN cooling units ensure precisely adjustable temperature and quantity delivery of the coolant and achieve consistently low operating temperatures.

Cable and plug

Ready-made cables with B048, B049, GA, MAC, D500 and STK plugs are available on request. For the spindle/converter connection, GMN supplies UL/CSA approved electrical cables suitable for use in drag chains.