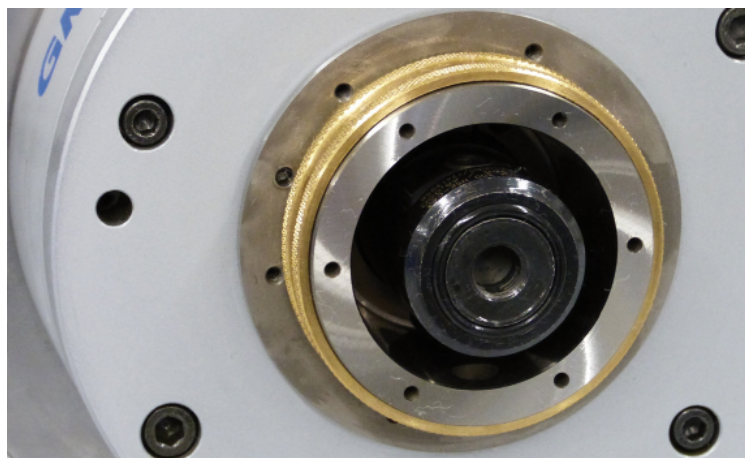
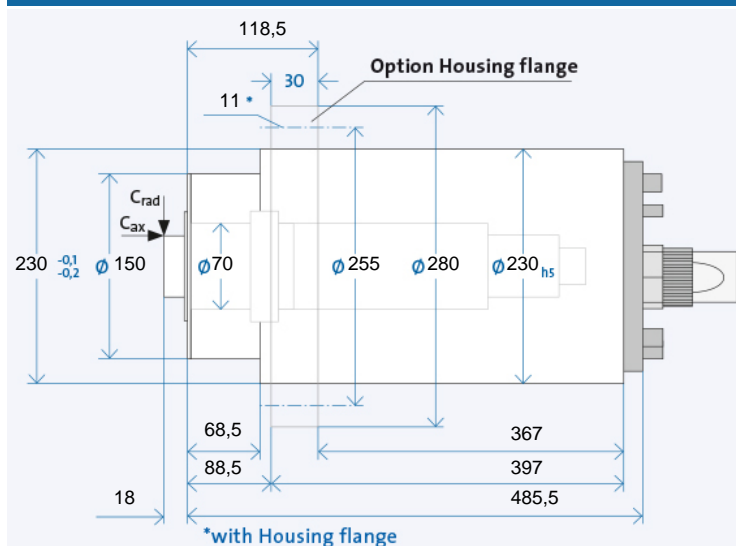


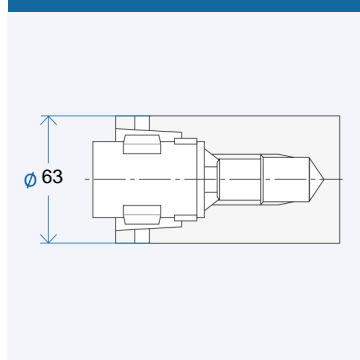
# HSP 230 - 18000/45



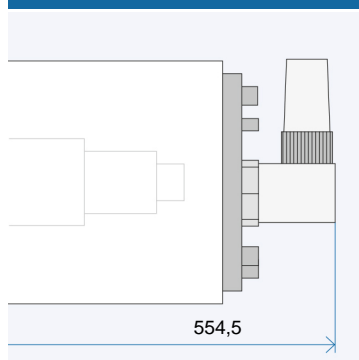
## TECHNICAL DATA



### TAPER HOLLOW SHAFT WITH A FLAT



### ANGLED PLUG OPTION



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

## Technical data

Spindle housing-ø	A	[mm]
Speed max.	$n_{max}$	[min <sup>-1</sup> ]
Bearing; front	W <sub>1</sub>	[mm]
Tool interface		
Flat layout-ø	W	[mm]
Static rigidity		
axial	C <sub>ax</sub>	[N/μm]
radial	C <sub>rad</sub>	[N/μm]
Motor realization		
Frequency max.	f <sub>max</sub>	[Hz]
Converter voltage <sup>1)</sup>		[V]
Power	P <sub>S1</sub>	[kW]
Torque	M <sub>S1</sub>	[Nm]
... at speed	n	[min <sup>-1</sup> ]
Current	I <sub>S1</sub>	[A]
Power	P <sub>S6-60%</sub>	[kW]
Torque	M <sub>S6-60%</sub>	[Nm]
... at speed	n	[min <sup>-1</sup> ]
Current	I <sub>S6-60%</sub>	[A]

## Electrical connection

Plug type	
Straight plug connection	
Coil plug connector	
Fixed cable XXm	

## Coolant feed through the shaft

Low pressure (du)	
High-pressure (dh)	

## Sensors

Rotary encoder	
Speed sensor	

## Housing

Cylindrical housing	
Cylindrical housing with flange	
Block housing	
Air-tight seal	

<sup>1)</sup> Minimum required starting voltage for the frequency converter.

+ Standard  
o Optional  
x Upon request

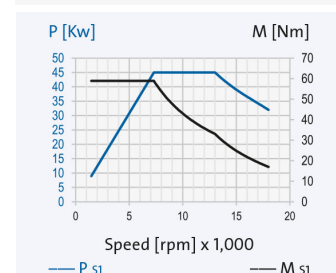
## Ordering information:

+ HSP 230 - 18000/45  
R is for clockwise, L for counter-clockwise  
+ Desired options

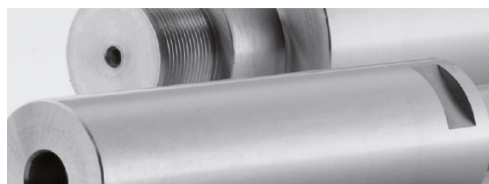
## HSP 230 - 18000/45

230		
18000		
70		
HSK-C63		
63		
196		
375		
200V	350V	-
600		
200V	350V	-
45		
58,9		
7300		
172	98	-
50		
65,4		
7300		
189	108	-

-	D350	-
-	+	-
-	o	-
+	o	-
-	-	-
-	x	-
-	-	-
-	x	-
-	+	-
-	-	-
-	+	-
-	o	-
-	-	-
-	x	-
-	+	-



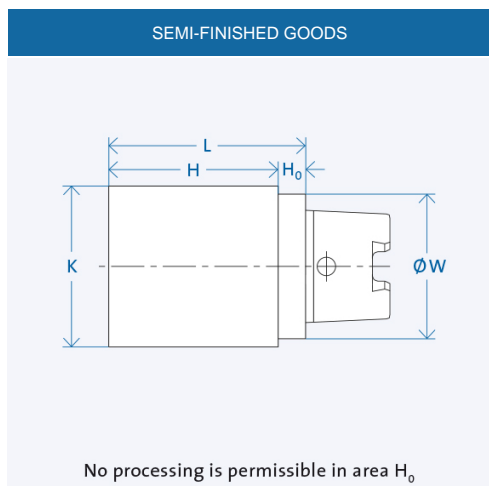
# HSP 230 - 18000/45



## Grinding quills

### Semi-finished goods

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



Interface	W [mm]	K [mm]	H [mm]	L [mm]	H <sub>0</sub> [mm]	Wgt.[kg]
HSK-C25	25	30	90	100	10	1
HSK-C32	32	41	139	150	11	1,50
HSK-C40	40	51	169	180	11	2,81
HSK-C50	50	64	186	200	14	4,92
HSK-C50	50	64	76	90	14	2,15
HSK-C63	63	81	186	200	14	7,90
HSK-C63	63	81	86	100	14	3,89
HSK-C80	80	101	193	210	17	12,90
HSK-C100	100	124	208	225	17	21,70

Ordering information "Semi-finished Product" [mandrel Ø K] x [mandrel length H] [interface]

Example: Semi-finished goods 81 x 186 HSK-C63

The various shapes differ with respect to pusher dog recess and collar. Taper hollow shafts (HSK) with flat contact faces are standardized per DIN 69893. Spindles in type series HSP/HV-P can accept tools with taper hollow shafts of form A and C. Form C has been especially developed for use with manual tool change systems. In contrast, form A is equipped with a gripper groove for automatic tool change systems. This means, form A can also be used with manual tool change system provided in the HSP- and HV-P style spindles. As a result, it is often possible to limit the range of tools when there are other automatic tool change systems in use. Tools according to Form B, D, E and F cannot be used in the HSP/HV-P spindles. They are designed for different applications. The HSK interface allows these spindles to be operated in both directions of rotation.



## 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.