

High speed spindles HFS 60, HFS 80, HFS 100



Applications



HFS 60 mounted on a CNC-axis and vertical adjustable cross table for horizontal application in a transfer machine

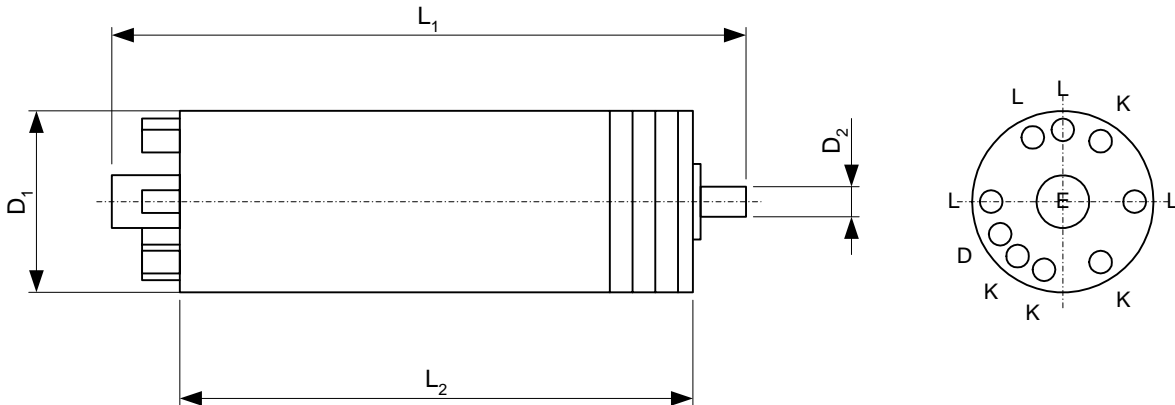


Special spindle
Speed: 3.000 – 72.000 rpm
Speed accuracy: ± 60 rpm

Technical data

Dimension	HFS 60	HFS 80	HFS 100
D ₁	60	80	100
D ₂	18	19	19
L ₁	238	295	335
L ₂	195	240	285

Designation	Connections
E	Electrical connection, 6 poles
L	Air for bearings Ø 4 mm
K	Coolant Ø 4 mm
D	Air outlet Ø 4 mm

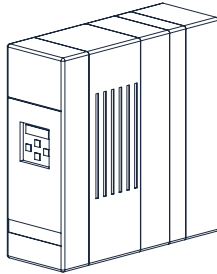


	HFS 60	HFS 80	HFS 100
Speed	20.000 – 96.000 rpm	12.000 – 60.000 rpm	8.000 – 30.000 rpm
Frequency	330 – 1.600 Hz	200 – 1.000 Hz	133 - 500 Hz
Voltage range	50 - 230 V	60 - 280 V	30 - 110 V
Power output at n _{max}	0,7 kW	1,4 kW	0,9 kW
Drive	Asynchronos motor, 3 phases		
Bearings	Air bearings, maintenance-free		
Air consumption	0,41 m ³ /h	0,52 m ³ /h	0,61 m ³ /h
Pressure	min. 5 bar		
Bearing load	axial radial	100 N 40 N	280 N 60 N
Bearing stiffness	axial radial	4 N/μm 10 N/μm distance 10 mm ¹⁾	5 N/μm 7 N/μm distance 10 mm ¹⁾
Weight	3,8 kg	8,4 kg	15,4 kg
Electrical connection	Axial plug connector		
Control	Frequency converter type LFU-4 as wall model, rack or in a 19" 4 HE desk top unit		
Cooling and air connection	Axial plug connectors Ø 4 mm		
Cooling	Motor and bearings cooled by water circulation		
Temperature monitoring	PTC-resistor		
Tool change	manually operated		
Toolholder	Collet chuck ER 8 or others	Collet chuck ER 16 or others	
Radial run-out of toolholder	< 0,001 mm		
Air quality	Particle size < 0,001 mm, dried -40° C		

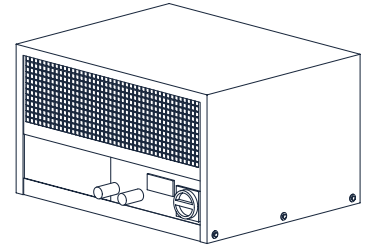
1) Distance between check point and cap of the spindle

Accessories for high speed spindles HFS 60, HFS 80, HFS 100

**Frequency converter
LFU 4**



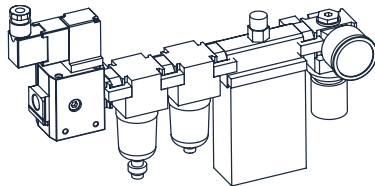
**Water cooler
LRK 21/1**



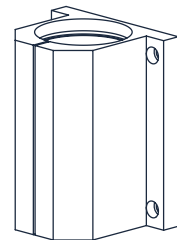
High speed spindle



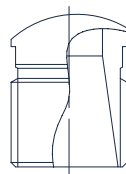
**Air treatment
LMT 50**



**Spindle holder
LSH**



**Different toolholders
e.g. ER 16**



Subject to modifications

PR0007_00

GERMANY

Lehmann Präzision GmbH
Weilerstraße 27, D-78739 Hardt
Tel.: 0 7422 / 95 80 -0, Fax: 0 7422 / 95 80 20
vertrieb@lehmann-praezision.de
www.lehmann-praezision.de

SWITZERLAND

Lehmann Präzisionstechnik GmbH
Hauptstraße 5, CH-8598 Bottighofen
Tel.: 071 688 82 55, Fax: 071 688 82 56
verkauf@lehmann-praezision.ch
www.lehmann-praezision.ch