

TECHNICAL DATASHEET CNC – Turning- Milling Machine

Manufacturer	MAG FMS Drehtechnik Schaffhausen AG
Type	NDM 450-4-300
Built	2008
Control	SINUMERIK 840 D – power line



Working Area

swing diameter over bed	700 mm
swing diameter over X-carriage	600 mm
turning diameter	450 mm
turning length	3.000 mm

Main spindle

integrated spindle motor with C-axis	
positioning accuracy of C-Axis	0,01°
spindle nose DIN 55026 Typ A	Size 8
spindle bore	100 mm
spindle diameter in front bearing	150 mm
clamping chuck	FORKARDT 3 QLC/K315
drive power (40 % ED)	95 kW
torque, max. (40 % ED)	800 Nm
spindle speed, max.	3.100 min-1

Counter Spindle

integrated spindle motor with C-axis

assembled at lower NC-carriage

positioning accuracy of C-axis 0,01°

spindle nose DIN 55026 Typ A Size 8

spindle bore 100 mm

spindle diameter in front bearing 150 mm

clamping chuck FORKARDT 3 QLC/K315

drive power (40% ED) 95 kW

torque, max. (40% ED) 800 Nm

spindle speed, max. 3.100 min-1

longitudinal travel 3.100 mm

feed max. 30 m/min

turn-mill spindle carrier at upper left carriage

with integrated Y-axis

cross travel (X1) 455 mm

vertical travel (Y1) +/- 75 mm

longitudinal travel (Z1) 2.600 mm

rapid feed X-Y-Z 30 m/min

working feed X-Y-Z 15.000 mm/min

B-axis on that upper left carriage with integrated motor-spindle (indexable)

tool taper HSKA63

spindle speed max. 7.000 min-1

drive power max. (40 % ED) 48 kW

torque max. (40% ED) 128 Nm

swivel range +/- 105°

Tool magazine

number of tools 40

tool length max. 350 mm

tool diameter max. 100 mm

Longitudinal and cross slide at upper right carriage with 12-fold tool turret with driven tools

cross travel (X2)	265	mm
longitudinal travel (Z2)	3.050	mm
rapid feed Z-Axis	30	m/min
rapid feed X-Axis	15	m/min
max. feed power 100/25%	10/18	kN
tool taper	VDI 50	
max. speed of driven tools	3.200	min-1
max. power of driven tools 25%	10	kW
max. torque of driven tools 25%	100	Nm

NC-carriage lower left

equipped with self-centering steady	SMW SLU5	
clamping range	50-310	mm
rapid feed	15	m/min

CNC-Control

SIEMENS, SINUMERIK 840 D power line

Equipment, Accessories

- all drives in digital-servo-technology
- coolant system with coolant tank 450 liter, feed pump 5 bar/50l/min, high pressure pump 50 bar, band filter
- 2 chip-conveyor
- dust exhausting
- automatic doors