

Technical Data

1. Ratings

Designation of the machine Heavy-duty Spinning Machine
Machine model..... PNC 106
Order-No..... 10.7402.00
Year built 2001

Customer / Purchaser **PELCO**

Weight of the machine approx. 7,000 kg

Layout plan No.. 50 393 740 20 01-2
Spare parts list No..... E-393-7402-E

2. Workpiece dimensions

Outside diameter max. 700 mm

3. Machine data

Distance between centres..... 800 mm
Bed length 3,550 mm

Longitudinal slide travel, axis Z 400 mm
Transverse slide travel, axis X 250 mm
Feed power, axis Z 15 kN
Feed power, axis X 15 kN
Working feedrate, max..... 10.0 m/min

Technical Data (cont'd)

3. Machine data (cont'd)

Ejector stroke	200 mm
Advance feed rates	12.0 m/min
Return feed rates	13.0 m/min
Ejector stroke	10 kN
Tailstock, sleeve stroke	400 mm
Advance feed rates	13.0 m/min
Return feed rates	22.0 m/min
Tailstock clamping power	10 kN
Spindle speeds	300 - 3,800 rpm
Tool mounting at main spindle acc. to DIN 55027	size 6

4. Machine control

Playback control	PNC/CNC E470.3
Monitor	12.1" / colour
Floppy disk drive	3.5" HD / 1.44 MB
Flash-disk	110 MB
Programmable logic controler PLC	SIMATIC S7-300
Motor control	SIMODRIVE 611

Operating conditions

Ambient temperature max	+40 °C
Ambient temperature min	+10 °C
Hunidity max.	90 %

Technical Data (cont'd)

5. Electrical ratings

Operating voltage, 3-phase	480 VAC ± 5 %
PNC/CNC voltage.....	230 VAC ± 3 %
Control voltage 1.....	115 VAC
Control voltage 2.....	24 VDC
Frequency.....	60 Hz
Main drive, AC-motor regulable.....	11.0 kW
Hydraulic drive, AC-motor.....	9.0 kW
Feed drive (axis Z), AC-Motor regulable	3.7 kW
Drive of the oil-air cooler.....	0.21 kW
Connected load, normal load approx.	30 kVA
Connected load, peak load approx.	40 kVA
Cross-section of copper wires between transformer and machine resp. to main switch.....	3 x 25 mm ²
Protective wire	1 x 16 mm ²
Fuse protection in the supply conductor	3 x 80 A

6. Utilities

Hydraulic station

Necessary water quantity	Q_{nec}	m ³ / h
Water pressure max.....	P_{max}	10 bar
Water temperature max.....	T_{max}	2_ °C (29_ K)
Necessary difference pressure " inflow - outflow "	p_{dif}	_ bar

Technical Data (cont'd)

6. Utilities (cont'd)

Lubrication spraying device

Necessary air quantity Q_{nec} 3.0 Nm³/h

Necessary air pressure P_{max} 6.0 bar

7. Applications and intended use



The machine may be used exclusively for the production of rotationally symmetrical hollow parts by spinning, flow turning and necking-in.

Any use exceeding this application shall represent non-intended use. For any damage resulting, the manufacturer shall not be liable, the risk lies solely with the user.

8. Max. tightening torques for screws

Dimension Set screw	Torque in Nm ($\mu = 0.125$)		
	8.8 ^{a)}	10.9 ^{a)}	12.9 ^{a)}
M 4	2.7	3.8	4.6
M 5	5.5	8	9.5
M 6	9.5	13	16
M 8	23	32	39
M10	46	64	77
M12	80	110	135
M14	125	180	215
M16	195	275	330
M18	270	390	455
M20	385	540	650
M22	510	720	870
M24	660	930	1,100
M27	980	1,400	1,650
M30	1,350	1,850	2,250

^{a)} Classes of strength acc. to DIN 267 section 3

9. Tensile properties for screws

Designation				
		8.8	10.9	12.9
Tensile strength (N/mm ²)	min.	800	1 000	1 200
	max.	1 000	1 200	1 400
Tensile yield strength (N/mm ²)	min.	640	900	1 080