

Technical Data

Manufacturer's data

Machine designation:	Underfloor Wheel Lathe
Type:	U2000
Machine No.:	101 280
Year of manufacture:	2003
Manufacturer:	Hegenscheidt-MFD GmbH & Co. KG, Erkelenz
Client:	Tram S.A. Athen

Machine data

Weight:	Complete weight of the machine 17.000 kg
Dimensions / required space:	Machine arrangement plan (Hegenscheidt Dwg. No. 1009544-0..1)
	Floor anchoring yes
	Number of anchor bolts 4 pieces

Noise emissions

Sound power level L_{WA} :	102	dB(A)
Sound excess pressure level L_{PA} :	81	dB(A)
Max. value of sound pressure level $L_{PC \text{ peak}}$:	99,9	dB(C)

The above mentioned values were measured in accordance with DIN 45635 during official acceptance at the manufacturing plant.

The values measured at the place of installation might be divergent.

Connections/Consumption

Hydraulic unit:

Filling volume	250	Litres
Operating pressure	8 / 26	MPa
Oil type.....	HLP 46, ISO VG 46	

Gears:

Filling volume	4 x 5	Litres
Oil type.....	PG 460, (synthetic)	

Speeds

Motors:

Drive motor (rev. _{max})	6500	min ⁻¹
Feed motor	3000	min ⁻¹
Hydraulic motor.....	1500	min ⁻¹

Machine data

Track gauge 1435 mm

Distance between inside surfaces of tyres
(Ar) 1382^{+1,5}/_{-0,5} mm

Maximum axle length 2289 mm

Maximum tread diameter
to be machined 660 mmMinimum tread diameter
to be machined 610 mm

Tyre width..... 84 mm

Maximum axle load 300 kN

Cutting speed
(profile machining) 40-80 m/minCutting speed at measuring circle level
(brake disk machining) max. 305 m/min

Feed 0-2,5 mm/rev

Electrics

Mains connection:

Rated power.....	96	kVA
Rated voltage.....	400	V
Mains voltage tolerance	-10/+6	%
Mains frequency.....	50	Hz

Miscellaneous voltages and frequencies:

Control voltage.....	230	V / 50 Hz
Voltage solenoid valves.....	24	V / =
Voltage inputs/outputs.....	24	V / =

Motor power ratings:

Main Drive	2 x 30	kW
Hydraulic pump	7,5	kW

Machine control system:

SIEMENS Sinumerik 840 DE

**Serial port
(if existing):**

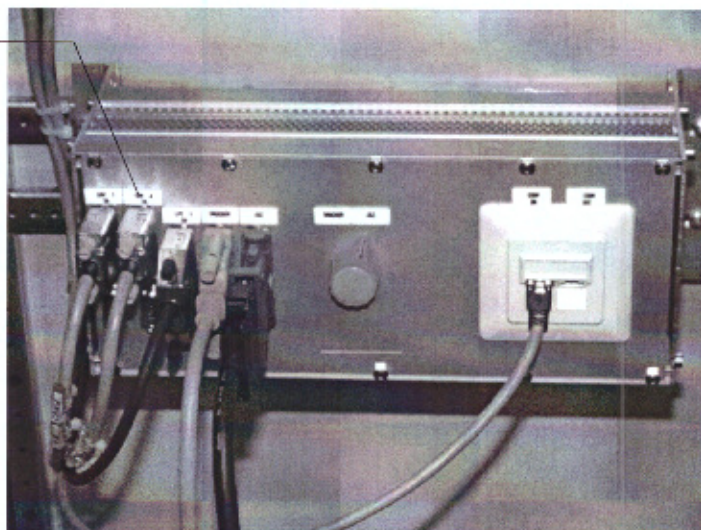
Pin arrangement

At the CNC control the port COM2 for serial data transfer is used.

This port is named X7 and is located on the MMC-CPU of the SINUMERIK 840D/DE (back side of system monitor).

This as well as other interfaces of the MMC CPU have been transferred to the electrical cabinet for better accessibility. The line for "serial data transfer" must be plugged into the COM2 port in the electrical cabinet.


COM2



.pcx jaz_sch1

The allocation of signals on the 9-pole D Sub plug on the MMC or, respectively, on the interface box in the electrical cabinet is as follows:


Pin	1	DCD	Data Carrier Defect
	2	RxD	Receive Data
	3	TxD	Transmit Data
	4	DTR	Data Terminal Ready
	5	M _{ext}	
	6	DSR	Data Set Ready
	7	RTS	Request To Send
	8	CTS	Clear To Send
	9	RI	Ring Indicator

 The cable connection should include all above listed signals.

Port configuration

The used port COM2 is to be configured by the operating system as followed:

Baudrate	2400
Datenbits	8
Startbit	1
Stopbits	1
Protocol	Hardware
Parity	None

 The same configuration has to be set to the external computer.