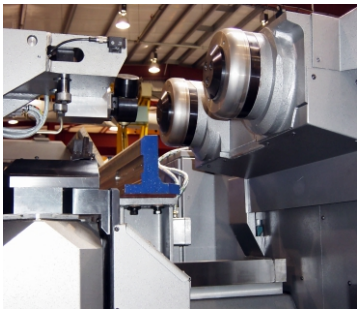
TF 2000

TF 2000 TM



TF 2000 - Single lathe
TF 2000 TM - Tandem lathe

Underfloor wheel lathe: for Metro & Tramway (LRT)

TF 2000 was simultaneously engineered between SCULFORT and Metro or Tram Operators. This machine is specifically dedicated to urban vehicles with a maximum axle load less than 20t.

Operation principle:

Single lathe achieves profiling two wheels in 30 minutes.
Tandem lathe achieves profiling four wheels in 40 minutes.
The lathe is CNC controlled and will master the 5 cycles:

- Vehicle positioning
- Profile measuring
- Wheel profiling and break discs machining
- Profile measuring
- Vehicle removal

For each type of wheel, several profiles are available: standard or economy. Once the measurement process achieved, the CNC will calculate the new wheel dimensions with minimum machining. The operator has the choice between validating and modifying the CNC proposal.

Information and services:

The machine is delivered completely assembled and inspected. As the electrical and hydraulic cabinets are mounted directly on the machine frame, civil works are easy to do and installation time is short.
The lathe is equipped with an Autodiagnostic and Telemaintenance system. At the end of the machining cycle, the CNC releases a profiling report that includes all useful information. This information can be exported to a Wheelset Management Database.
In the event of a failure, the CNC will display a message showing the faulty element. The telemaintenance system enables SCULFORT Service Department to connect to the lathe and help the operator to find the fault. This will avoid diagnostic mistakes and maximize lathe availability.

Product:

In order to ensure the operator perfect ergonomics, the lathe comprises:

- A control panel facing the working area
- An Autodiagnostic and Telemaintenance system
- An optional positioning shunting device
- A chip disposal device (accessory)
- A fume extractor (optional)

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TF 2000
TF 2000 TM
Specification

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UNDERFLOOR WHEEL LATHE CHARACTERISTICS		
Type	Underfloor wheel lathe	TF2000
Track	Track gauge	1000 - 1435 - 1676mm
Axles	Maximum axle load	200 kN
Wheels	Wheel diameter on tread	500 to 1400 mm
	Wheel width	80 to 160 mm
Brake discs	External diameter	650 mm
	Internal diameter	300 mm
Driving rollers	Roller diameter	180 mm
	Centerline between driving rollers	400 mm
Tool saddles	Quantity	2
	Vertical stroke (per saddle)	200 mm
	Horizontal stroke (per saddle)	420 mm
	Feed speed range	0 to 3 mm/r
	Fast feed speed	10 m/min
	Maximum cutting effort	1700 daN
	Minimun cutting depth	0.2 mm
	Maximum cutting depth	10 mm
	Cutting speed	0 to 200 m/min
Hold down devices	Hold down force (total on wheelset)	Max. 5000 daN
CNC	Model CNC	SIEMENS 840D
	Measure increment	1 µm
	Software increment	1, 10, 100... µm
	Measure display	1 µm
	Quantity of programmed profile data	according to option
	Capacity of stored profile data	100
	Program language	SIEMENS Step7 (Ladder)
Lubricant volumes	Hydraulic oil	160 L
	Recommended hydraulic oil	norm ISO HM46
	Greasing pump	2L
	Recommended lubracating oil	norm ISO G68
Overall dimensions	Length	5200 mm
	Width	2200 mm
	Distance between pit floor and rail top	2000 mm
	Height (without hold down device)	2200 mm
Weight of the UWL	Approximate total weight	18 000 kg
Installed power	Total installed power	90 Kw
Service requirement	Power supply	AC 400V - 3ph - 50Hz
	Compressed air (dry / clean)	1 m3/h – 6 bars

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