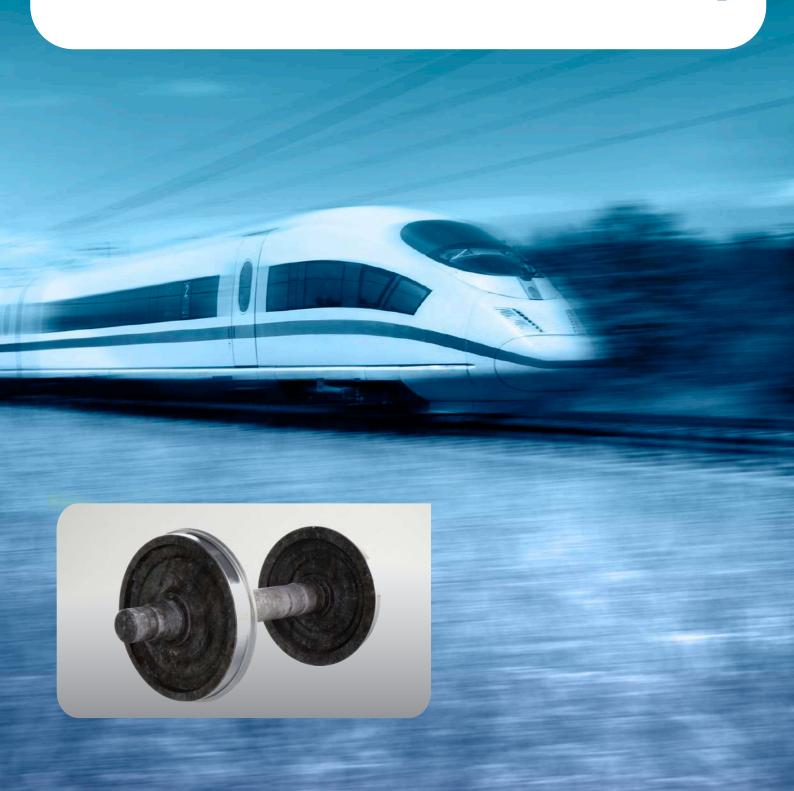
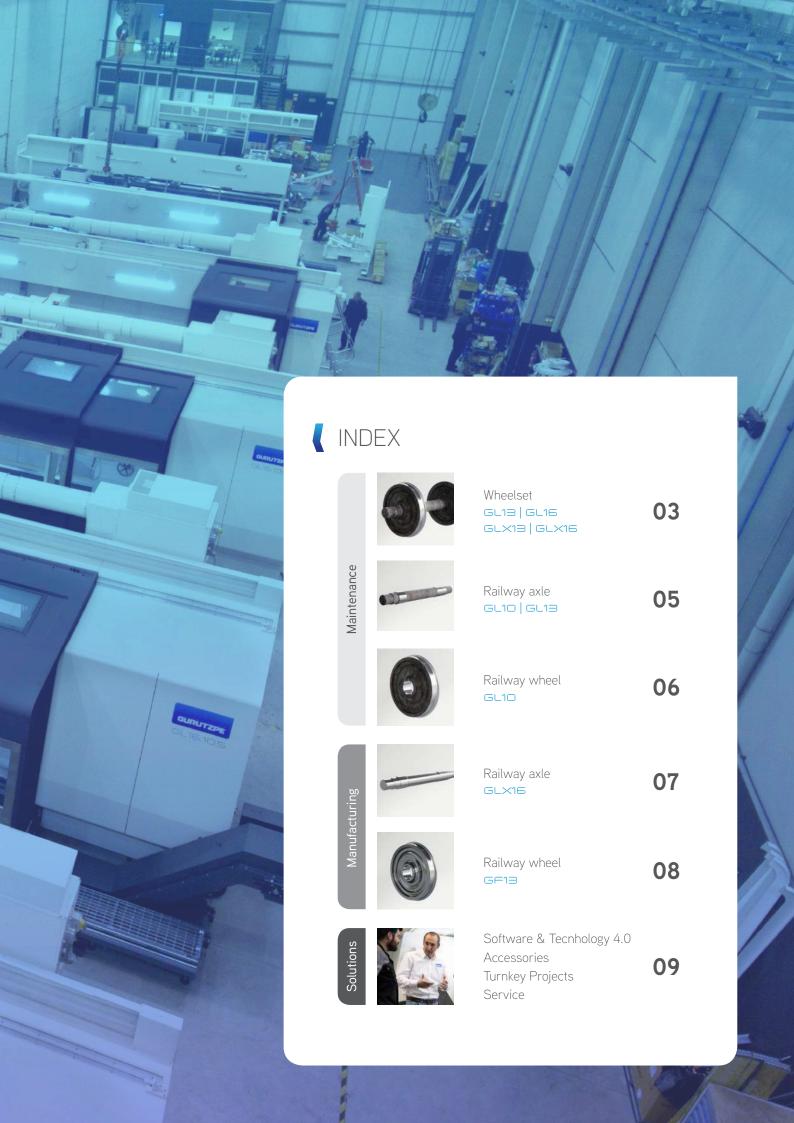


# TURNING SOLUTIONS FOR RAILWAY SECTOR MAINTENANCE AND MANUFACTURING







### WHEELSET MAINTENANCE

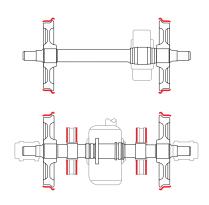
Horizontal lathe for the maintenance of wheelsets with gearboxes, axle boxes, and integrated brake discs.

# GLX13 GLX16



Technical characteristic	cs	GLX 13	GLX 16
Maximum tread diameter	mm	850	1.150
Axle length	mm	3.000	3.000
Maximum workpiece weight	t	6	10
Motor power S1/S6	kw	39/51*	51/71*
Length x Width x Height (3m)	m	8,4 x 2,9 x 2,6	8,8 x 3,3 x 2,9
Radial runout	mm	<0,10	<0,10



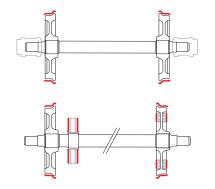


- Large chip section to avoid chip build-up.
- Tooling to support the transmission.
- Mechanisation of brake discs (allows machining with brake discs still installed) (GLX range).
- Measuring probe and specific software.
- Option for double carriages with 2 turrets, and/or double headstocks (machines are customised to customer requirements).
- Option for full enclosure, with fume/mist extraction, soundproofing, and double chip conveyor.
- Option for automatic workpiece loading/unloading system.





Technical characteristic	CS	GL 13	GL 16
Maximum tread diameter	mm	900	1.200
Axle length	mm	3.000	3.000
Maximum workpiece weight	t	6	10
Motor power S1/S6	kw	39/51*	51/71*
Length x Width x Height (3m)	m	8,6 x 2,8 x 2,6	9 x 3 x 2,8
Radial runout	mm	<0,10	<0,10







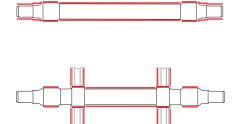


High precision horizontal lathe for railway axle maintenance.





Technical characteristic	S	GL 10	GL 13
Swing over carriage	mm	700	1.000
Swing over bed	mm	1.000	1.300
Axle length	mm	3.000	3.000
Maximum axle weight	t	4	6
Main spindle nose adapter chuck		DIN 55026-A11	DIN 55026-A11
Motor power S1/S6	kw	28	39
Feed speed "X"/"Z"	m/min	8/6	8/6
Length x Width x Height (3m)	m	7,9 x 2,5 x 2	8,6 x 2,8 x 2,6



- Tooling to support the transmission.
- Mechanisation of brake discs (allows machining with brake discs installed.
- Measuring probe with specific software.
- End working solutions. Option for grinding or burnishing the seats.
- Option for automatic workpiece loading/unloading system.



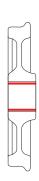
# WHEEL MAINTENANCE



High precision horizontal lathe for railway wheel maintenance.



Technical characteristics		GL 10
Max. swing	mm	1.000
Max. plate swing	mm	1.250
Maximum weight without steadies	t	3
Main spindle nose adapter chuck		DIN 55026-A11
Motor power S1/S6	kw	28
Feed speed "X"/"Z"	m/min	8/6
Length x Width x Height (1m)	m	5,9 x 2,5 x 2



- Excellent chip removal.
- Complete machining of the hub.
- Specific fastening solutions.
- Measuring probe with specific software.
- Option for automatic workpiece loading/unloading system.





Technical characteristics		GLX 16
Swing over carriage	mm	700
Swing over bed	mm	1.000
Axle length	mm	3.000
Maximum axle weight	t	10
Main spindle nose adapter chuck		DIN 55026-A15
Speed range	rpm	0÷500
Motor power S1/S6	kw	2x71
Feed speed "X"/"Z"	m/min	8/6
Length x Width x Height (3m)	m	9,8 x 3,3 x 2,9



- Double machining carriages, and double headstock (as required).
- Complete machining of the axle in one setup
- Optional hydraulic steady rests to stiffen and increase the degree of automation (drilling / milling / facing operations).
- Specific tooling using mobile points (to prevent tooling collisions)
- Large chip section, with finishing capabilities (roller burnishing o grinding).
- Integration of the machine in automatic production cells
- Option for full enclosure, with fume/mist extraction, soundproofing and double chip extractor.



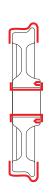
### WHEEL MANUFACTURING



High-throughput horizontal lathe for railway wheel manufacturing.



Technical characteristics		GF 13
Max. swing	mm	1.300
Max. plate swing	mm	1.600
Maximum weight without steadies	t	3
Main spindle nose adapter chuck		DIN 55026-A15
Speed range	rpm	0÷500
Motor power S1/S6	kw	113
Feed speed "X"/"Z"	m/min	8/6
Length x Width x Height (1m)	m	4,8 x 3,5 x 2,5



- Innovative vertical wheel manufacturing system with horizontal
- Excellent chip management, Very high chip removal ratio (kg/h).
- Automatic wheel placement, and mounting system
- Wheel (hub, and profile) measurement, with a verification system.
- One or two machining turrets depending on production
- Complete machining of profile, and hub
- Flexibility to manage different wheel diameters.
- Integration of the machine in automatic production cells (feeders stackers etc.)



## SOFTWARE & INDUSTRY 4.0



- Solutions adapted to the Industry 4.0 model (total machine sensor management).
- Specific software for complete machining of the workpiece (axle, wheel, disc, etc.) using pre-determined cycles for simple and intuitive operation.
- 3D visualisation of the programmes to be run.
- Libraries of programmes.
- Specific information management using bar codes.

# ACCESSORIES



#### **CLAMPING SYSTEM**

GURUTZPE offers specific solutions for the custom clamping of railway parts. Personalised chucks to optimise workpiece loading-unloading, and machining processes. Multi-purpose clamping claws to facilitate set-up between different models of wheelsets, and wheels.



### **TOOLS AND TOOL CARRIERS**

Modularity of tool carriers, and tools. customised designs to fit tools to prevent collisions, optimising the machining process, and increasing productivity. Pre-machining, and Post-machining measurement systems.



### **WORKPIECE LOADING AND UNLOADING SYSTEM**

GURUTZPE offers automated loading, and unloading systems (to improve process times, handling safety, and operational repeatability).



GURUTZPE combines key management experience in both maintenance, and production by designing solutions for the railway industry to provide flexibility, and productivity.

GURUTZPE offers not only custom solutions for machining one or more parts using different levels of automation, but also includes the design and execution of turnkey projects for complete workpiece machining (axle or wheel) from raw products (forge).

# SERVICE



### **TRAINING**

Customers can develop, and enhance specific skills required to carry out certain maintenance tasks that contributes to the upkeep of the machines.



### **TECHNICAL SUPPORT**

Whether providing support remotely, or on site at your facility, our engineering department is always available to help solve any issues.



### MAINTENANCE

Not all machines are the same, nor are all working conditions equal. We design custom maintenance programmes that are adapted to the needs of each customer.





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