

GEMINIS



Railways

GEMINIS

Behind Geminis you will find a team of more than 100 people developing machining solutions.

Our technology and experience allow us to work in the most challenging sectors and projects.

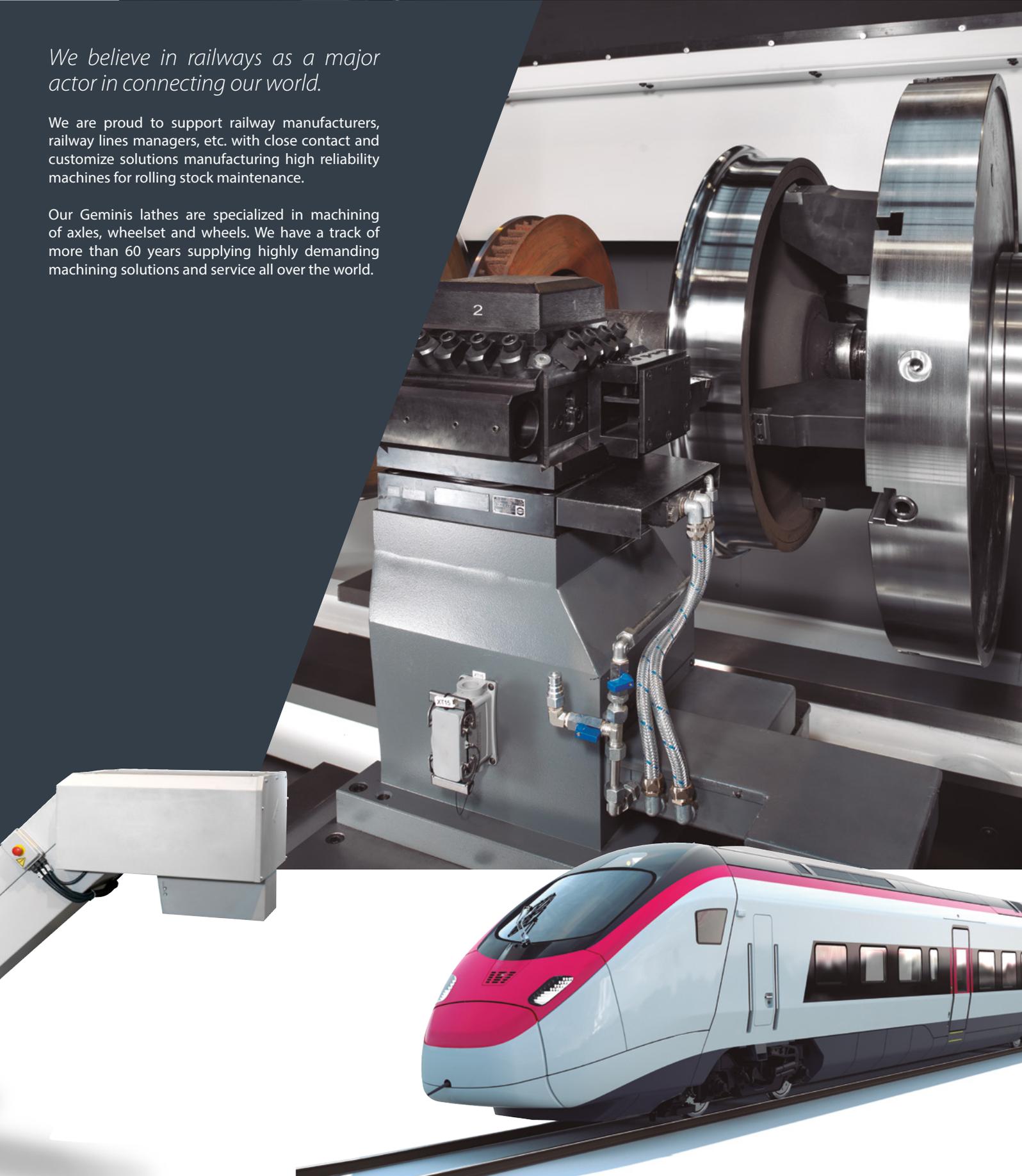
Besides railways we are reference in Iron & Steel, Oil&Gas, Power generation, Wind energy, Shipyard or Cranes.



We believe in railways as a major actor in connecting our world.

We are proud to support railway manufacturers, railway lines managers, etc. with close contact and customize solutions manufacturing high reliability machines for rolling stock maintenance.

Our Geminis lathes are specialized in machining of axles, wheelset and wheels. We have a track of more than 60 years supplying highly demanding machining solutions and service all over the world.



GR5-A

for axle machining

Horizontal lathe for high precision finishing.

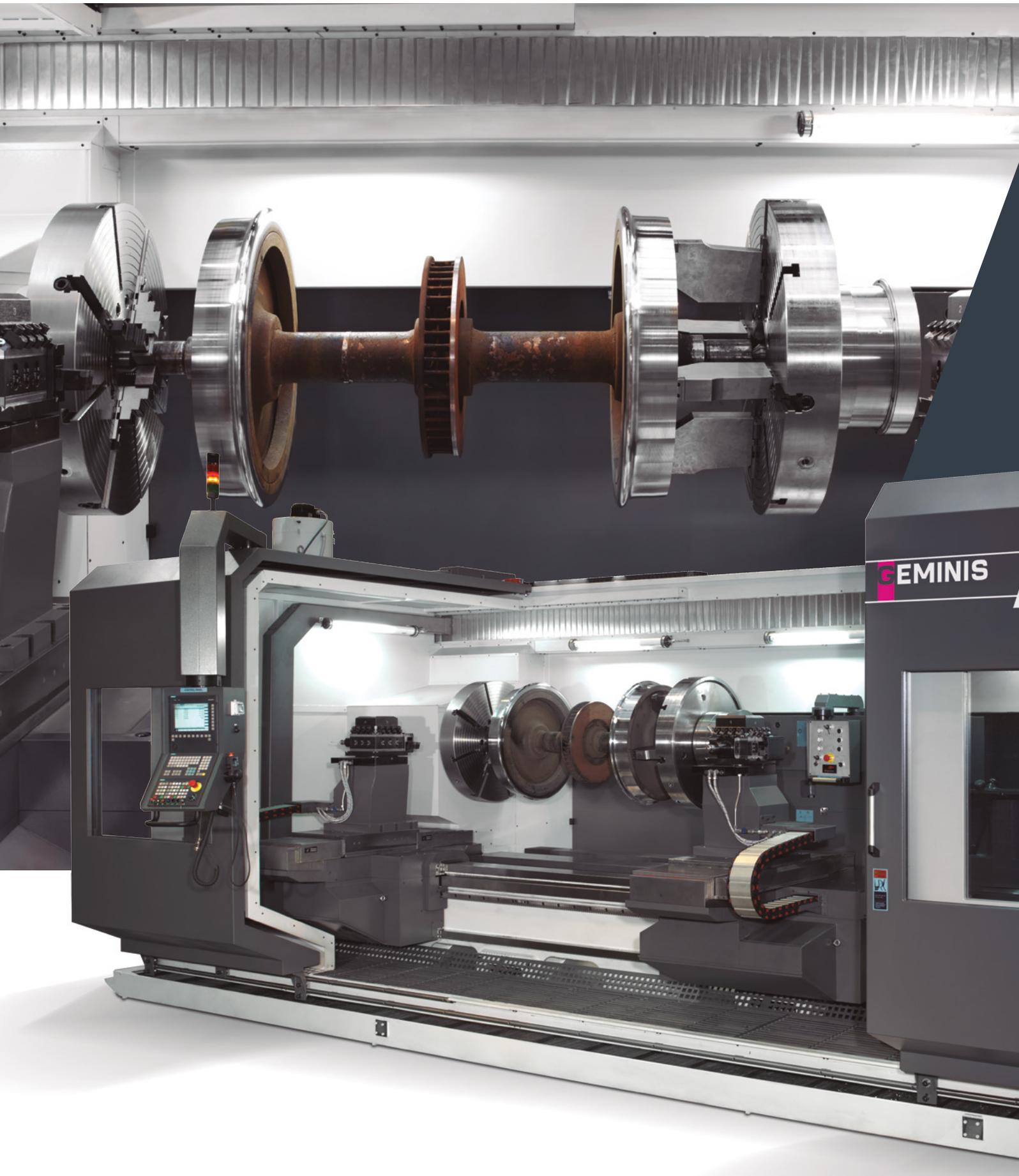
TECHNICAL CHARACTERISTICS

Swing over bed	mm	1,000 - 1,200*
Swing over cross slide	mm	600 – 800*
Max. Axle length	mm	3,000 – 4,000*
Max. Axle weight	kg	5,000
Spindle nose		DIN 55026-11
Spindle range	r.p.m.	0 ... 1,400
Main motor power	kW	28 – 37*
Rapid traverse	m/min	8
Quill diameter	mm	160
Machine dimensions	mm	3,100 x 2,600 x 8,900
Machine weight	Kg	16,000

*Optional







GR5-S / GR7-S for wheels set machining

Horizontal lathe for high power cutting

TECHNICAL CHARACTERISTICS		GR5-S	GR7-S
Max. Wheel tread diameter	mm	840	1,250
Track gauge	mm	1,435	1,435
Max. wheelset weight	kg	5,000	8,000
Max. Axle length	mm	3,000 – 4,000	3,000 – 4,000
Main motor power	kW	30 / 51*	51 / 71*
Machine dimensions	mm	3,600 x 3,000 x 8,900	4,100 x 3,300 x 9,300
Machine weight	Kg	18,500	25,000
Radial run out	mm		<0.10
Accuracy of profile	mm		<0.15
Difference in diameters between wheels	mm		<0.10
Roughness of surface	mm		<0.012

*Optional

Machine also capable of machining axles and loose wheels.



GR3-W

for wheel hub boring

Vertical machine for boring applications

TECHNICAL CHARACTERISTICS

Max. Wheel tread diameter	mm	860 ... 1,250*
Min. Wheel tread diameter	mm	580
Chuck diameter	mm	1,200 – 1,500*
Max. Boring diameter	mm	350
Max. Weight over table	kg	3,000
Main motor power	kW	22
Speed range	r.p.m.	0 ... 500
Machine taper		HSK 63A
Automatic tool changer		12 – 20* - 30*
Machine dimensions	mm	4,200 x 5,000 x 3,900
Machine weight	Kg	15,000
Boring accuracy		IT6 – IT7
Roundness	mm	<0.02
Cilindricity	mm	<0.02
Roughness of surface	mm	<1.2

*Optional



GR8-W

for hub machining,
external wheel profile machining
and oil injection hole machining.

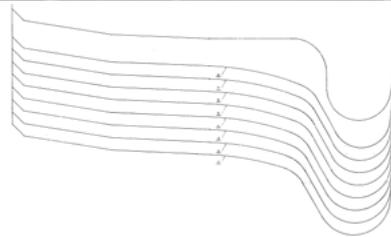
Vertical lathe with drilling and milling capacity.

TECHNICAL CHARACTERISTICS		
Max. Swing diameter	mm	1,600
Chuck diameter	mm	1,500
Max. Weight over chuck	Kg	3,000
Headstock main motor power	kW	28
Speed range	r.p.m.	0 ... 500
Travel X	mm	2,000
Travel Z	mm	500 ... 1,000*
Rapid feeds	mm/min	20,000
Turning & Milling head	Spindle taper	HSK 100 T
	Speed range	r.p.m. 0 ... 3,000
	Main motor power	kW 28
Automatic tool changer		12 / 20* / 30*
Machine dimensions	mm	2,530 x 6,190 x 3,530
Machine weight	Kg	25,000

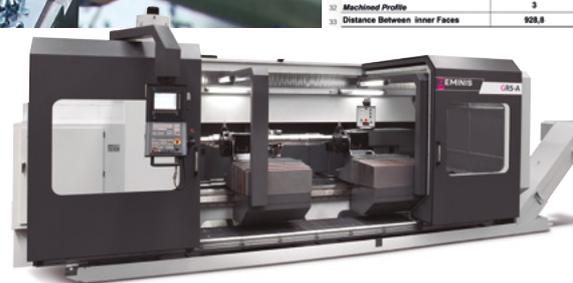
*Optional



- Personalized interfaces
- Automatic measuring systems
- Automatic machining of the optimum profile
- Measuring reports
- Key parameters communication between machines
- Automatic loading / unloading system



GEMINIS		Corona Machine
		Eljibar - Dipu
Machine:	GEMINIS GT7 GA	
Report N°:	24	
Date:	8/10	
Feature	Right Wheel c	Left Wheel d
	Real Value (mm)	Real Value (mm)
12 Axial run out	0,05	0,01
13 Tread diameter measured	776,63	776,68
14 Wear Detected	0,00	0,03
15 Flange Height H	27,88	27,57
16 Flange Width e	33,24	31,61
17 Radial Run Out	0,01	0,02
18 Qr	9,80	9,12
Feature	Set dim	Real Value (mm)
19 Machined Profile	3	
20 Distance Between Inner Faces		929,8





Ansaldo STS
A Hitachi Group Company



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