

## LGZS25012/LGZS25008

四轴数控龙门加工中心  
4-axis CNC Gantry Machining Center

通过优化的结构设计实现革新性的超长加工范围，有效加工长度可达 25 米。  
Max processing length reach to 25m.

主要加工精度  
重复定位精度: ±0.03 mm 定位精度: ±0.1 mm  
表面粗糙度: Ra3.2 μm 钻铣垂直度: 0.1/100mm  
垂直度: 0.1/100mm  
Main machining accuracy  
Repeat positioning accuracy: ±0.03 mm positioning accuracy: ±0.1 mm  
Surface finish: Ra3.2 μm Verticality: 0.1/100mm

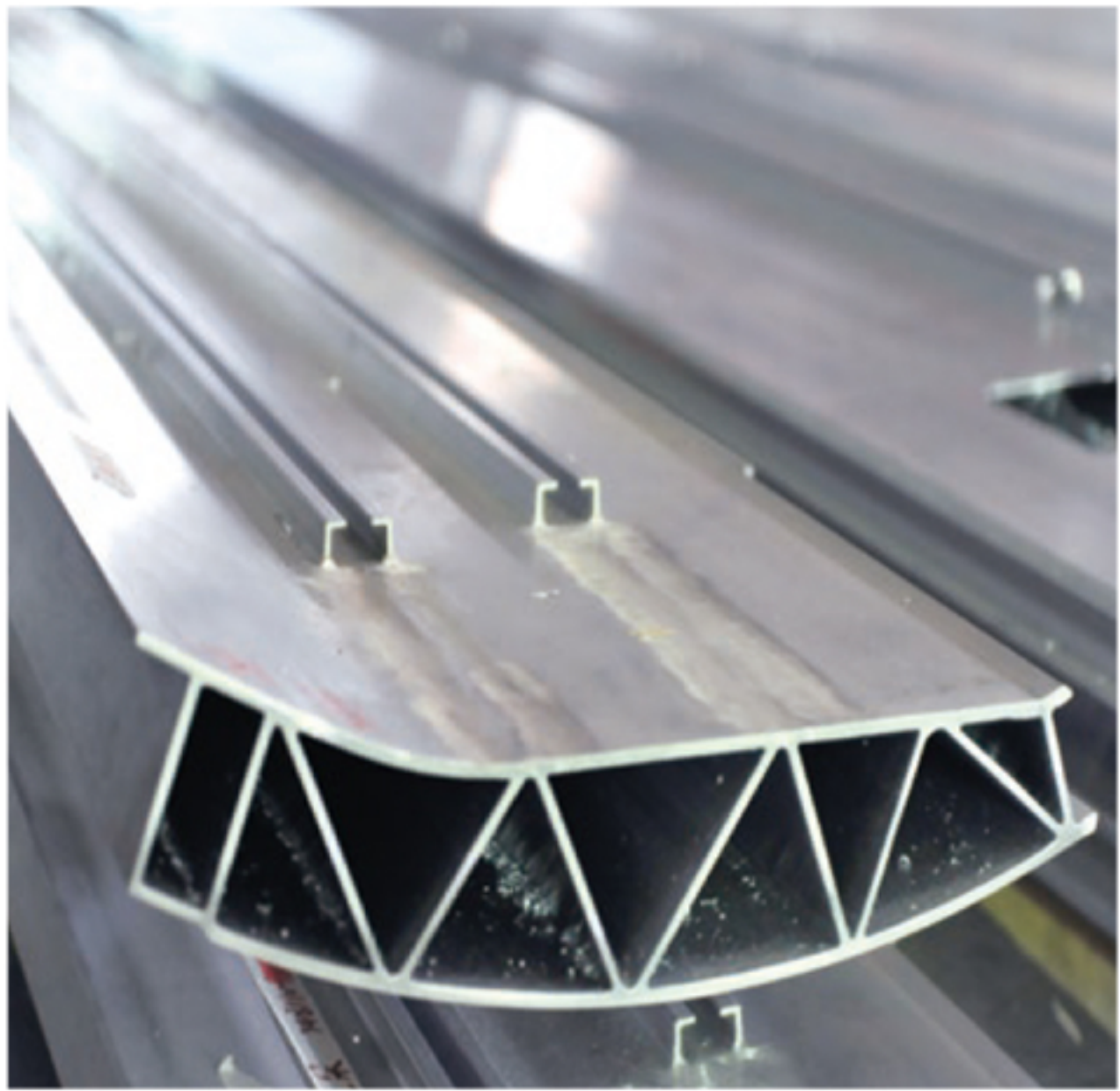
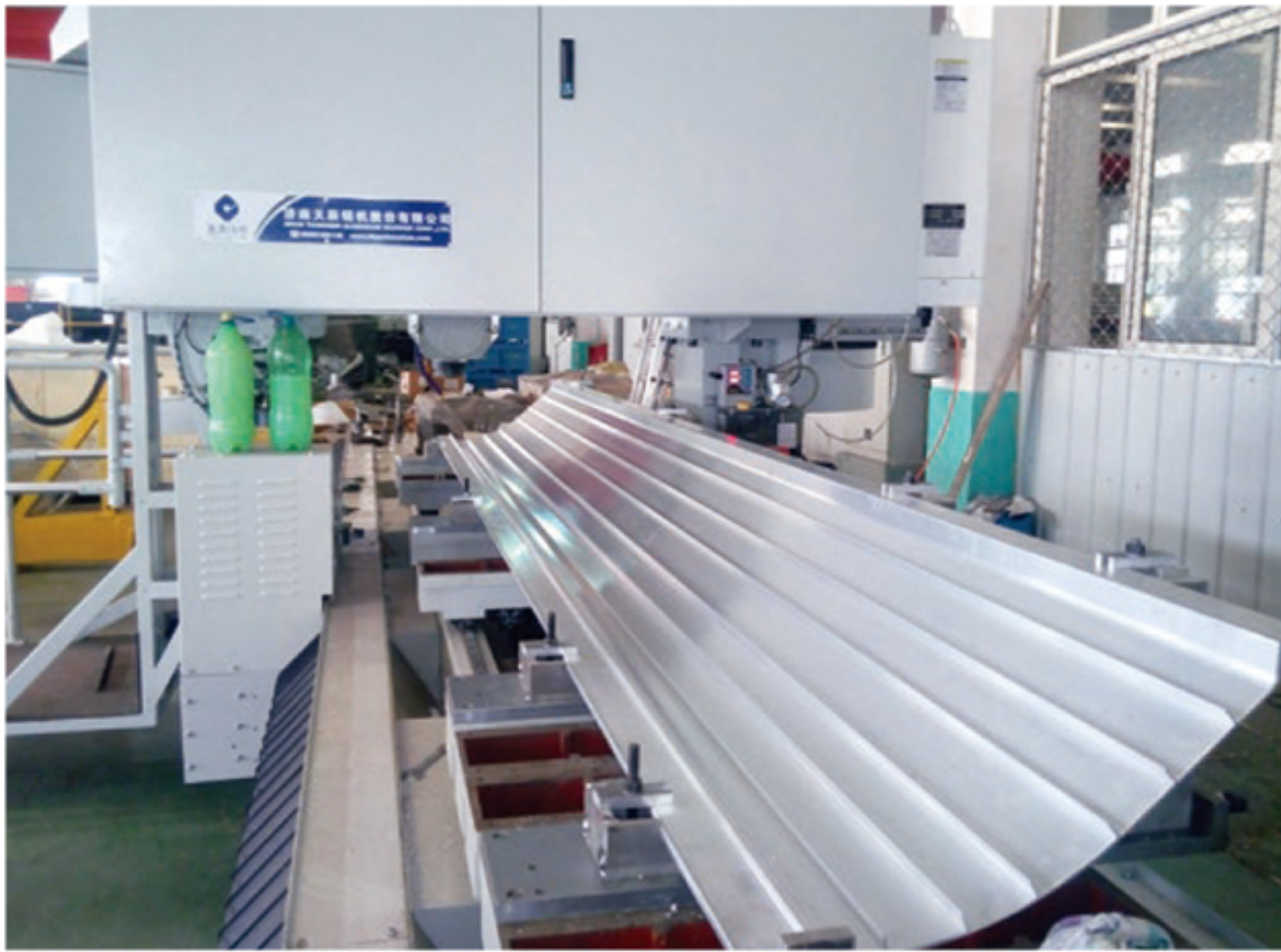
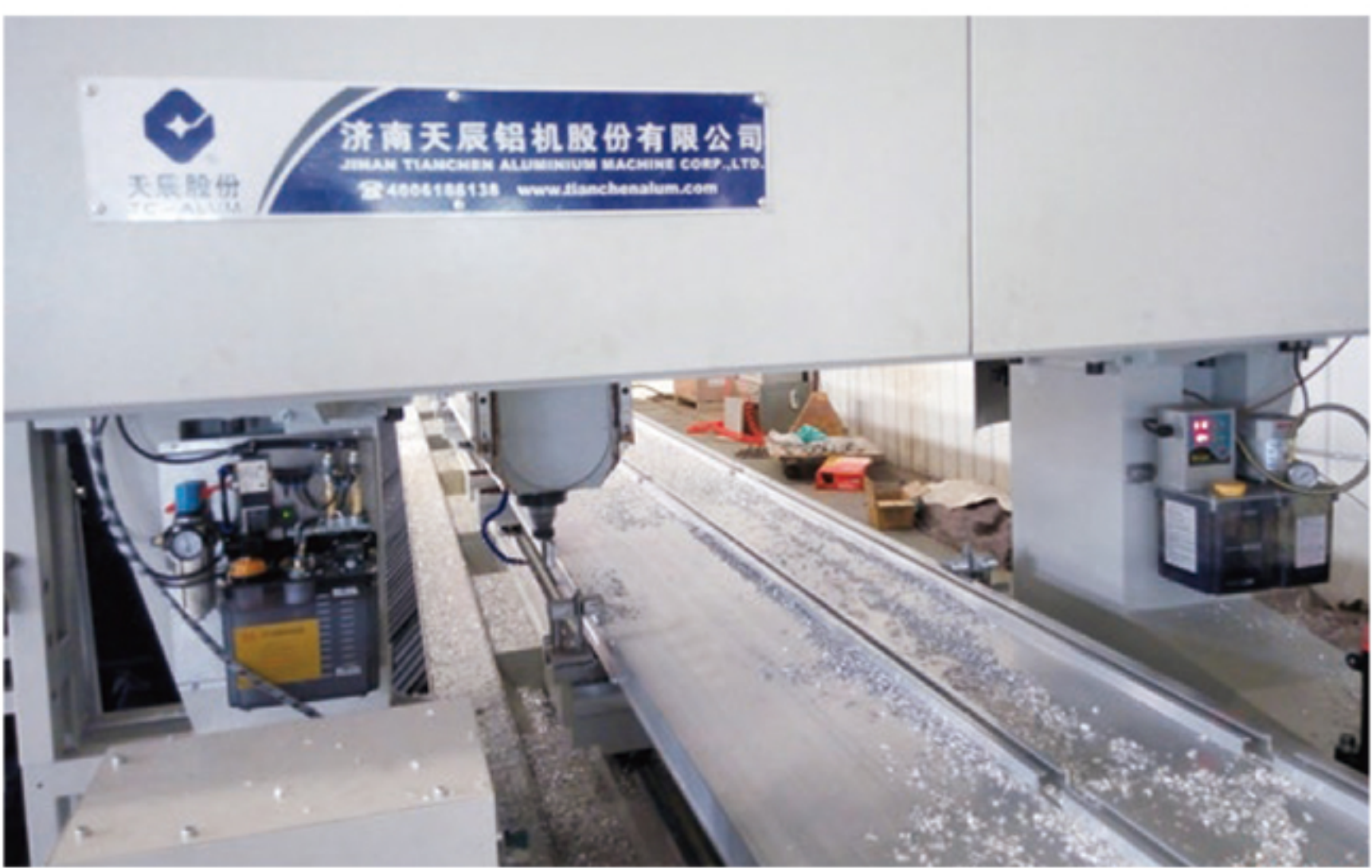
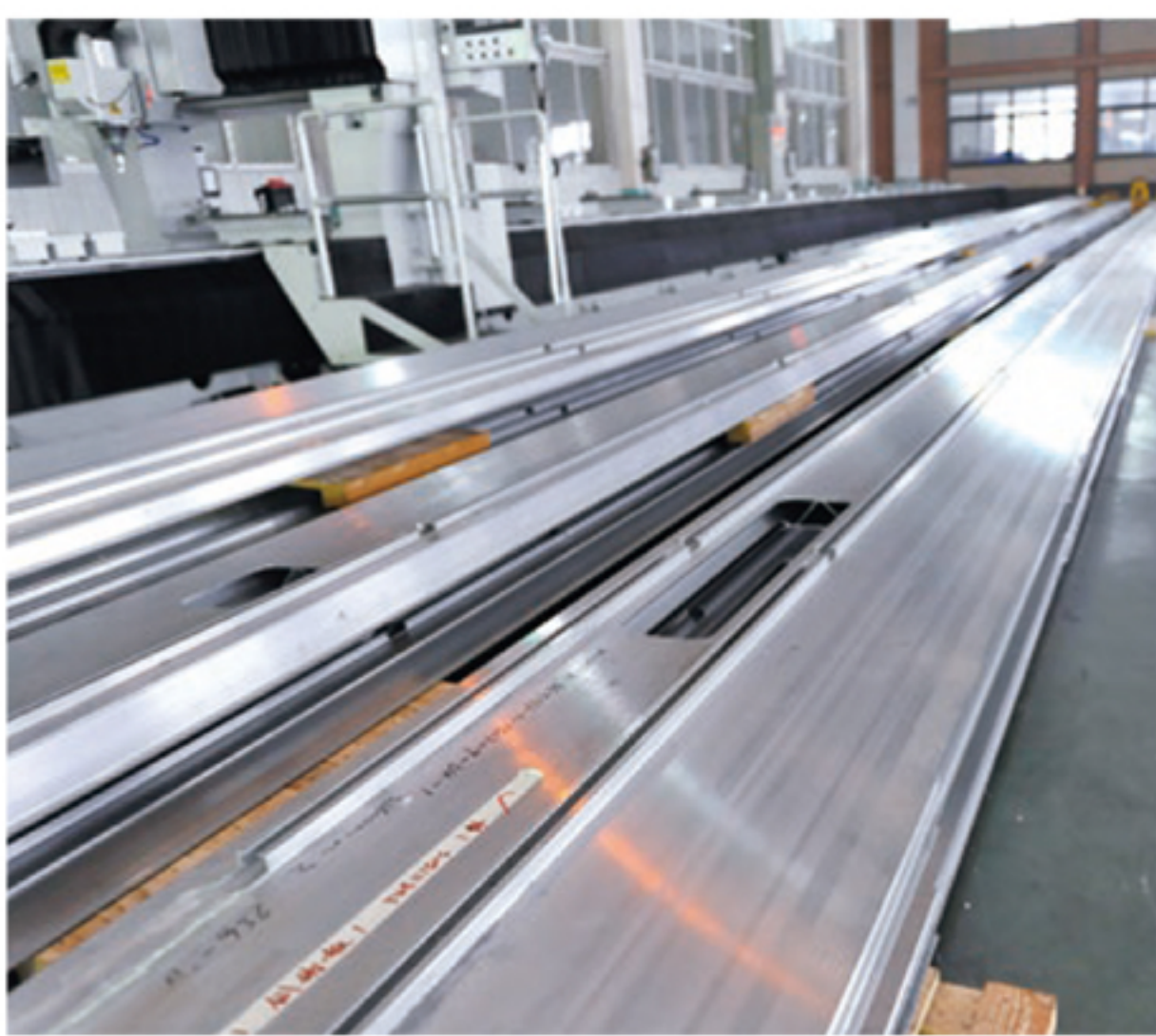


### 设备简介

LGZS25012/LGZS25008 四轴数控龙门加工中心是我公司为适应轨道交通铝型材和各种工业铝材的加工，专门开发设计的一款高档机、电、气一体化设备。该加工中心刚性足、速度快，主轴兼顾转速高和低速大扭矩的特点，具有很高的加工效率，并且根据轨道交通铝型材长度大的特点做了适应性的特殊设计，使得该设备可满足最长 25 米工件的高效加工。可以配置直角工具头，使该类零件的加工可以一次成形。

### Introduction

LGZS25012/LGZS25008 Four-axis CNC gantry machining center is a special mechatronics equipment to meet rail transit aluminum profile and all kinds of industrial aluminum processing. It has features with rigid enough, high work speed, spindle high speed and low speed with large torque. It made a special design according to the characteristics of large length of rail transportation aluminum profile. Max processing length reach to 25m. And also it can be equipped cutting unit or right angle cutting tool head to finish product at one time.



## LGZS25012/LGZS25008

四轴数控龙门加工中心  
4-axis CNC Gantry Machining Center



采用意大利原装进口高速电主轴。该型设备具有四个伺服控制轴，可以完成较为复杂的四轴联动加工。

It adopts high-speed electric principal axis, which is imported from Italy. It equipped with four servo control axis to complete more complex four linkage processing.



采用龙门移动式结构布局，减小占地面积增加整机的灵活性和结构刚性。配置 12 刀位旋转刀具库，可以完成自动换刀。

It adopts movable gantry structure layout, reduce area and increase alert activity and structure rigidity. The cutter storage supply 12 cutter positions, the cutter can change quickly and automatically.



采用先进的德国西门子（或日本发那科）数控系统、伺服电机，配以高品质滚珠丝杠、精密齿条、直线导轨，确保设备具有较高的加工精度和可靠性。

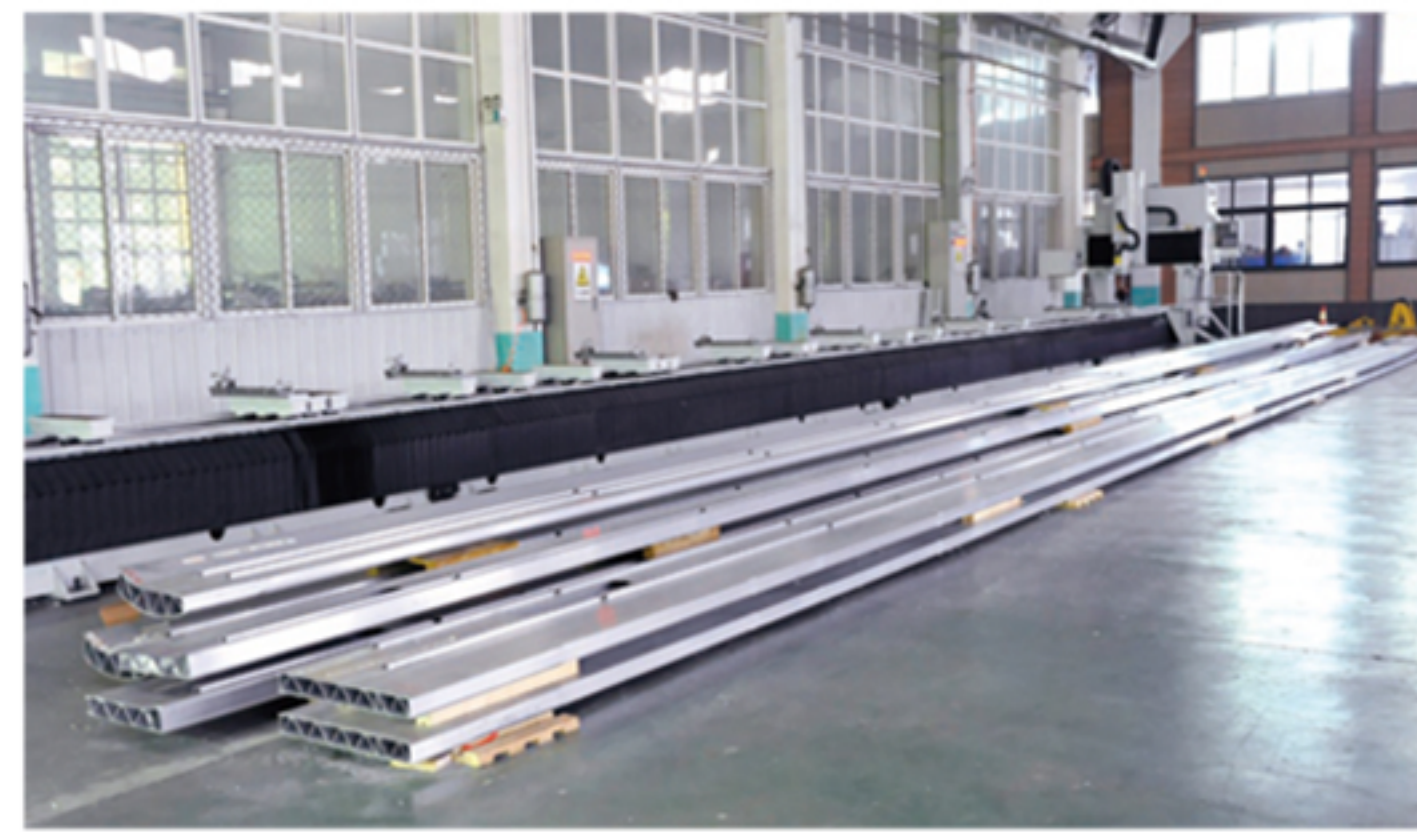
It adopts Siemens (or FANUC) CNC system, servo motor with high quality ball screw, precision rack and linear guide rail to ensure machining accuracy and reliability.

### 技术亮点

- 适用于轨道交通铝型材和各种工业铝材的孔、槽及轮廓形状等复杂工序的加工，具备铣削、钻削、锯切和镗孔等功能。
- 设有刀具的冷却喷雾系统，确保机床的可靠运转和精度稳定性。
- 配置 24 组可移动调整式自动夹具单元，重复精度高且安全牢固可靠。
- 配置电气箱空调，提高电器元件的可靠性及使用寿命，确保控制系统的稳定运行。
- 配置有安全防护装置，确保操作者的人身安全。

### Features

- It used to process hole, slot and contour shape on rail transit aluminum profile and all kinds of industrial aluminum profile. It has function of milling, drilling, sawing and boring etc.
- Cutting tool cooling spray system to ensure reliable operation and accuracy of machine tools.
- It equipped with 24 group movable and adjustable auto clamping in order to ensure high repetition accuracy and safety.
- It equipped with electrical box air conditioning to improve reliability and service life of electrical components.
- It equipped with safety device to ensure safety of the operator.



超长车体型材加工 Long train body profile processing

### 技术参数 Technical Parameters

项目	Item	规格 Specification		
		LGZS25012	LGZS25008	
行程 Travel	纵向行程(X轴)	Longitudinal travel (X-axis)	25000mm	
	横向行程(Y轴)	Traverse travel (Y-axis)	1520mm	
	垂直行程(Z轴)	Vertical travel (Z-axis)	700mm	
	A轴行程(主轴摆动轴)	A-axis travel (swing axis)	-90° ~ 0 ~ +90°	
工作台 Worktable	工作台形式	Type	可移动式 Movable	
	工作台数量	QTY	24个	
加工范围 Processing range	X轴	X-axis	25000mm	
	Y轴(主轴垂直状态)	Y-axis(spindle vertical)	1520mm	
	主轴水平(±90°)状态, 主轴中心到工作台面距离	Main axis horizontality(±90°), Distance between main spindle center to worktable	13~713mm	-5~550mm
	主轴水平(±90°)时, 主轴轴端最大间距	Main axis horizontality(±90°), Max distance of spindle tip	1106mm	740mm
	主轴垂直时轴端距工作台面最大距离	Maximum distance of spindle nose to table surface	505mm	430mm
快速移动速度 Move speed	X轴快速速度	X-AXIS	55m/min	
	Y轴快速速度	Y-AXIS	30m/min	
	Z轴快速速度	Z-AXIS	20m/min	
	A轴快速速度	A-AXIS	16.5r/min	
主轴 Spindle	主轴锥孔/刀柄规格	Taper hole/handle spec	HSK63A HSK63F No.	
	主轴电机功率	Motor power	15KW 10KW	
	主轴最大输出扭矩/转速	Max output torque/ rev	19.1/9000N.m 12.3/7000 N.m	
	主轴最高转速	Max rev	20000r/min	
刀库 Tool magazine	X/Y/Z/A轴进给电机扭矩	X/Y/Z/A Feed motor torque	27 × 2/16/16/4.5 20 × 2/11/20/3.5N.m	
	刀库容量	Tool magazine capacity	12把(可完成自动换刀) Automatic tool change	
其它 Other	气源压力	Air pressure	5~6(kg/cm <sup>2</sup> )	
	润滑油箱容量	Lubricating oil tank capacity	3L	
	电器总容量	Total electrical capacity	45KVA 35KVA	
	机床净重	Net weight	28000kg 23000kg	
NC系统 NC system	西门子或发那科数控系统	Siemens or FANUC CNC system		