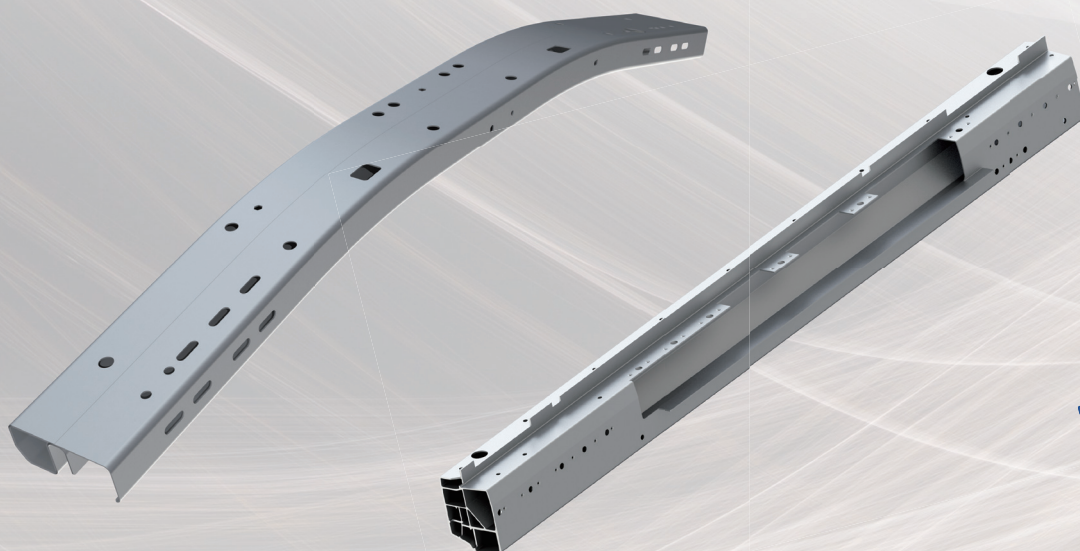
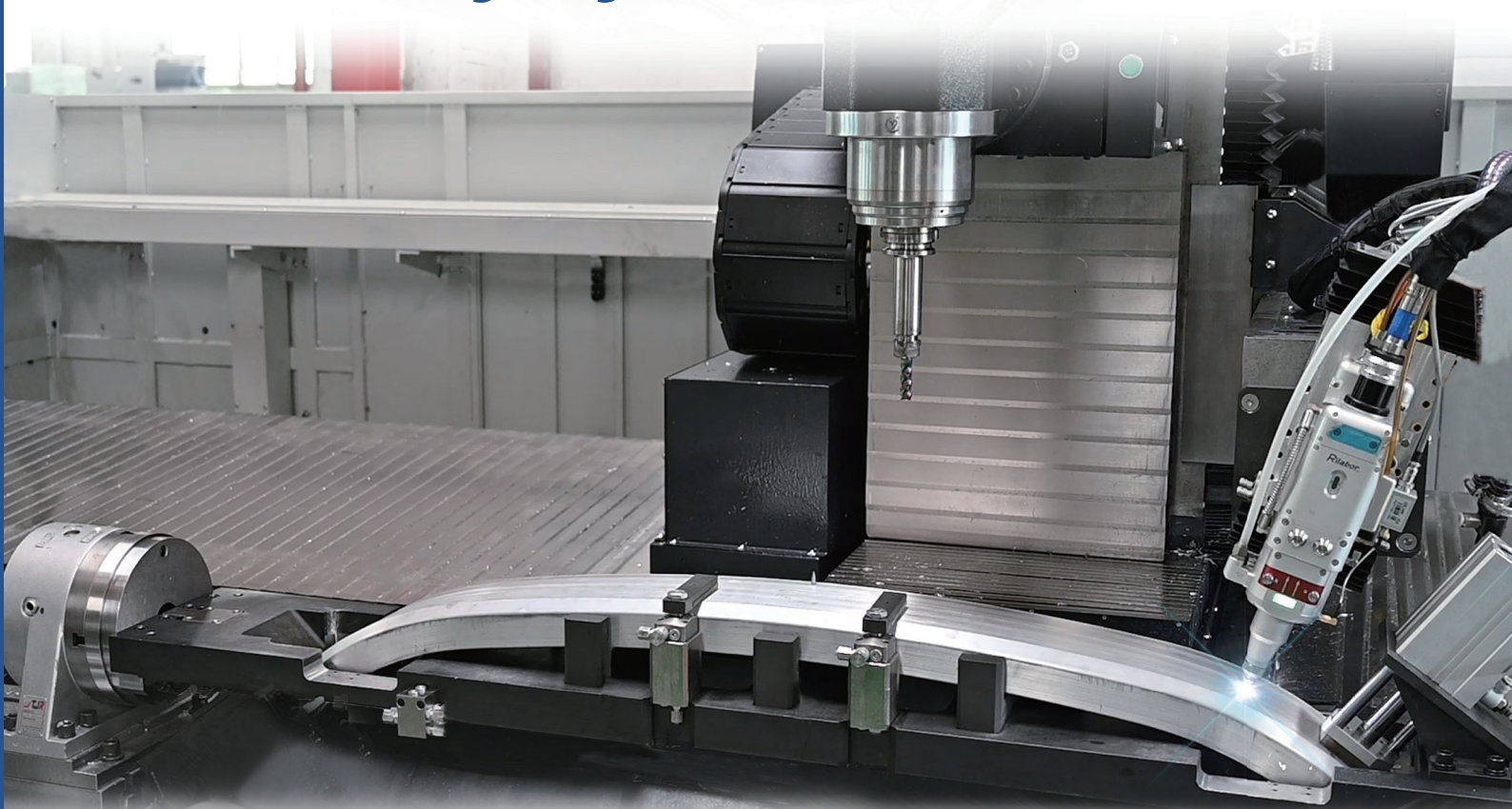




Boost profile processing efficiency by 50%!+



高谱®

A New Era in Profile Processing!

Not a replacement, but an extension of existing CNC technology
Exclusively designed for profiles, delivering professional-grade
precision in CNC machine.

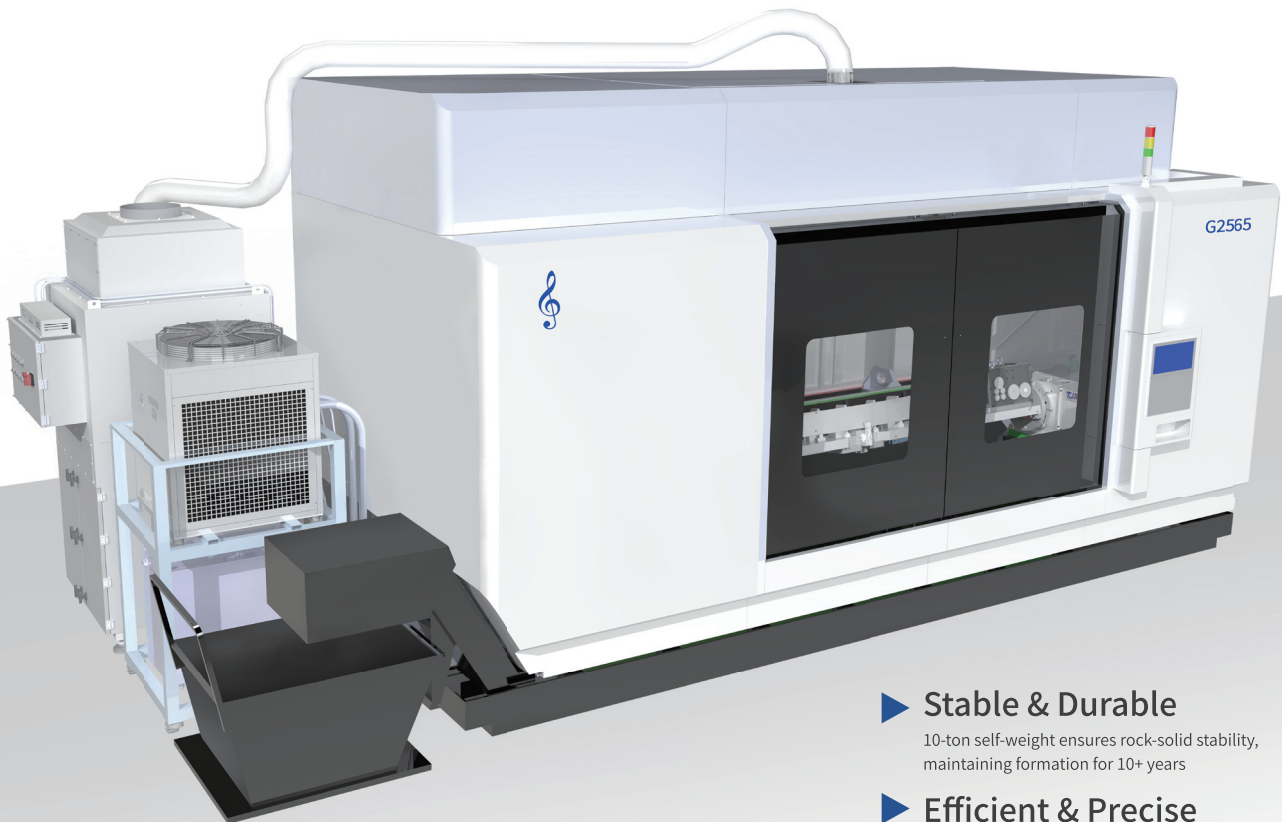
5-axis composite machining center integrating laser cutting, drilling and milling

Equipped with:

- A-axis rotary fixture
- B-axis $\pm 90^\circ$ tilting high-speed electric spindle

Primary Applications:

Automotive bumper beams, crash boxes, sill beams, railway, and aerospace



Let Lasers Do the Walking, Cut Milling Some Slack

Laser empowered, perfection inspired

▶ Stable & Durable

10-ton self-weight ensures rock-solid stability,
maintaining formation for 10+ years

▶ Efficient & Precise

High-speed milling with consistent cycle times
for unwavering accuracy

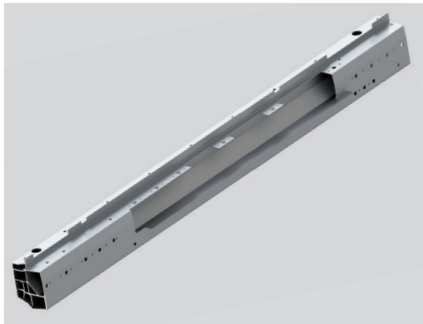
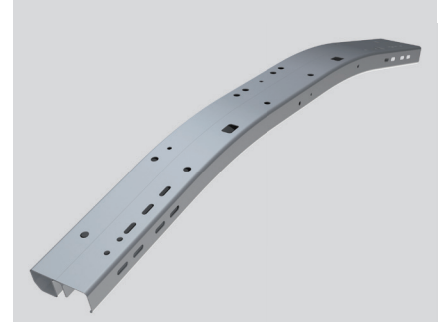
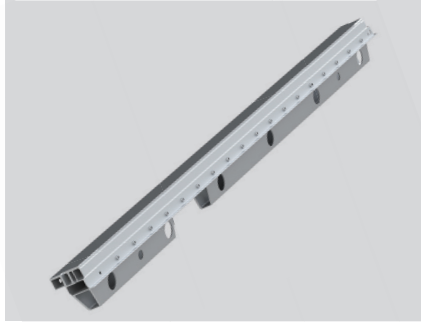
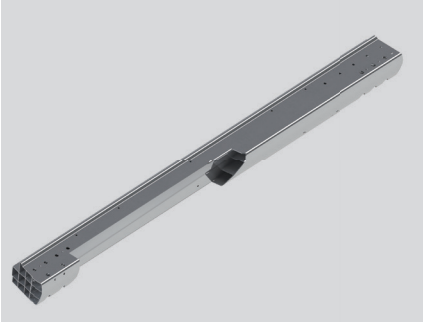
▶ Automated Production

Sloped chip conveyor enables 24/7 operation
with no manual cleaning needed.



Laser machine application
energy absorbing box

Processed product display



Features

1. Processing efficiency improved by 50%+
2. Processed into block-shaped aluminum sheets, automatically collected
3. Minimal tool usage and wear
4. Capable of processing multiple hexagonal holes
5. No chip accumulation, enabling 24/7 robotic production
6. Automatic trajectory generation and processing time calculation

Process

1. Laser cutting and drilling
2. CNC machining and trimming



Laser machine application
— bumper beam

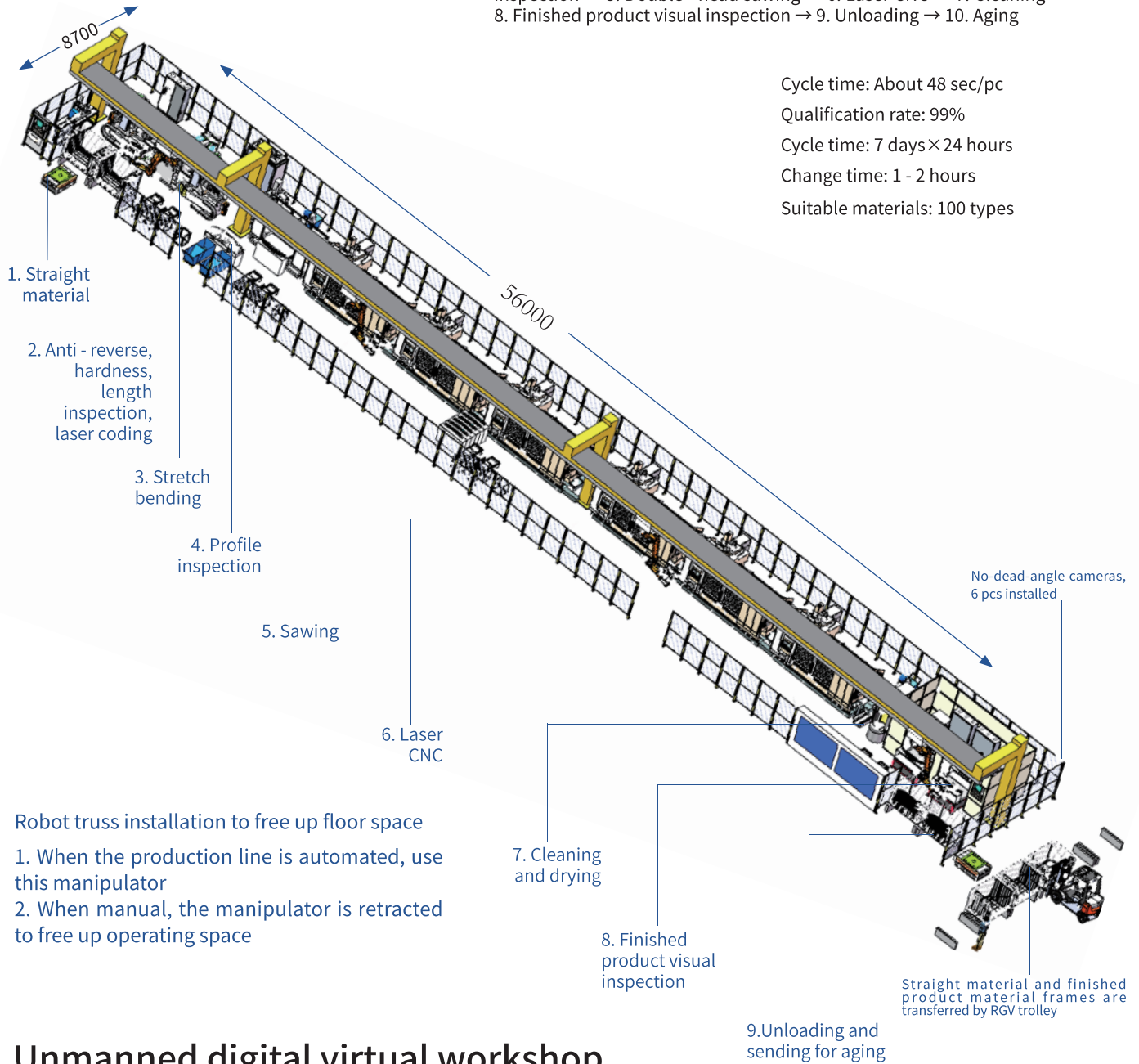
Not only cutting and milling, but also providing comprehensive solutions

Bumper beam automated production line

Process:

1. Straight material → 2. Inspection → 3. Stretch bending → 4. Profile inspection → 5. Double - head sawing → 6. Laser CNC → 7. Cleaning → 8. Finished product visual inspection → 9. Unloading → 10. Aging

Cycle time: About 48 sec/pc
 Qualification rate: 99%
 Cycle time: 7 days × 24 hours
 Change time: 1 - 2 hours
 Suitable materials: 100 types



Robot truss installation to free up floor space

1. When the production line is automated, use this manipulator
2. When manual, the manipulator is retracted to free up operating space

Unmanned digital virtual workshop

Process quant	Higher	Less	Less	Minmum	Fastest	Fastest	Lower	Shorter
Data-driven	Efficiency	Switch time	Space	Labor	Input - output	Decision-making	Management cost	Communication distance



Laser Machine Application
— Bumper beam

Technical Parameter

Project		Unit	Parameter				
Stroke	X stroke	mm	2500				
	Y stroke	mm	600				
	Z1、Z2 stroke	mm	500 (spindle and laser head)				
	A stroke	deg.	±360°				
	B1、B2 stroke	deg.	±90° (spindle and laser head)				
Rotary worktable	Dimension(L*W)	mm	3000x350				
	Maximum worktable load	Kg/ m ²	1000				
Electric spindle	Maximum rotary speed	rpm	20000				
	Power(S1/S6)	KW	15				
	Torque(S1/S6)	N.m	38				
	Tool holder specification		BT40				
Laser	Power	KW	12				
	Cutting thickness	mm	≤ 10				
	Kerf width	mm	≤ 0.5				
Feed	Five axes	m/min	X	Y	Z1/Z2	A1	B1/B2
	Rapid traverse speed	m/min	42	36	36	12rpm	12rpm
	Cutting feed	mm	1~15	1~15	1~15	5rpm	5rpm
	Positioning accuracy/500	mm	±0.01	±0.01	±0.01	4arc.	4arc.
Environmental requirements for machine tool operation	Power system	50KW, 3Φ380V+10V, 50HZ					
	Compressed air	P =1.3-1.6 MPa; 70m ³ /yh					
	Operating environment temperature	5-45°C					
	Maximum relative humidity	90%					
	Foundation bearing capacity	2.2T/ m ²					
	L*W*H	5300×2640×2700mm					
	Grounding resistance	Less than 10 ohms (individual grounding, not series grounding)					





Company Profile

Founded: Established in 2012, with a total of 200 employees by 2025, including 60 R&D personnel

Products: Laser CNC, roll bender, stretch bender, tube bender, free bender

Applications: Electric vehicles, aerospace, military, and other fields

After five years of dedicated R&D, the laser machine has improved profile processing efficiency by 50%+

G Clef, with an attitude toward crafting art, strives to perfect its products.

▶ Main Customer List

Guangzhou G Clef Machinery Technology Co., Ltd.

T:400 931 8848
E:info@g-cnc.com
W:www.g-cnc.com

