

**C I M M**

**西姆五礦集團**

*Proven Technology + Cost Effective + Perfect Service*

*A Lifetime Partner in Engineering, Procurement, Construction, Operation, Maintenance and Project Management*

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# About CIMM Group

*CIMM Group* is established in the middle of 1990s, which is one of the international companies focusing on overseas market with government support. By optimizing capital composition, corporate structure, our scope of business extended greatly in the late 1990s. At the beginning of 21st century, it became an international EPC company specializing in project engineering, procurement, construction, operation, maintenance, project management and global marketing in the metallurgical industry.

# World Leading Engineering and Design

***CIMM Group*** is the world top professional torch cutting machine engineering and design solutions provider with own technology know-how and rich experiences. By the continuous research and innovation in the last decade, ***CIMM Group*** play an leading role in the domestic and overseas markets and dedicate to provide the best solutions fully meeting the requirements of clients all over the world.



# Introduction of Products

- *Automatic Torch Cutting Machine for Billets*
- *Automatic Torch Cutting Machine for Slabs*
- *CNC Torch Cutting Machine*
- *Spare Parts for Torch Cutting Machine*

# Automatic Torch Cutting Machine for Billets

Automatic torch cutting machine for billets, divided into FG (for square billets) and YG (for round billets) two major series, with dozens of products. We have got high reputation from clients all over the world with our cost-effective and reliable products.



# Automatic Torch Cutting Machine for Billets

The automatic torch cutting machine for square/round billets adopt machinery and electrical system linkage method for cut-to-length process. The optimal design of the energy control system and cutting nozzle make the cutting flame secure and stable with straight slot and first-class cutting quality. The framework, cutting gun and clamping axis are all designed with water-cooling system to prevent heat distortion so as to extend service life.

Item	Parameters
Cutting car stroke (mm)	1700 – 4000
Cutting speed (mm/min)	100 – 500
Casting billet speed during cutting (m/min)	0.8 – 3.5
Cutting width (mm)	120 – 500
Cutting thickness (mm)	120 – 400
Cutting diameter (mm)	Φ 130 – Φ 800

# Automatic Torch Cutting Machine for Slabs

The automatic cutting machine for slabs designed and supplied by *CIMM Group* had replaced the imported products in the last decade and have more than **80%** marketshare in domestic market nowadays. Our products have been recognized by the main steel producers in China and the world top steel producers gradually.



# Automatic Torch Cutting Machine for Slabs

The automatic torch cutting machine for slabs are applied to hot and cold slab cut-to-length and the cutting steel grades cover carbon steel, alloy steel and special steel (such as stainless steel). All the major components are designed with water-cooling system and installed with insulation plate to prevent heat distortion so as to extend service life.

	Item	Parameters
Cutting vehicle	Rail distance (mm)	3000 - 6000
	Distance of travel (mm)	6000 - 12000
	Moving speed (m/min)	23.4
Cutting gun	Cutting speed (mm/min)	100 - 500
	Approach and return speed (mm/min)	3000
	Cutting stroke (mm)	Slab width + 300
Cutting width (mm)		400 - 3250
Cutting thickness (mm)		130 - 360
Distance between main gun and auxiliary gun (mm)		70 - 400

## Comparison Between CIMM TCM and GEGA TCM

<i>Item</i>	<b>CIMM</b>	<i>GEGA (Germany)</i>
<b>Overall Performance</b>	<ul style="list-style-type: none"> <li>● <i>Simple structure, easy to maintain</i></li> <li>● <i>Large customer base, common wearing parts, short delivery time.</i></li> <li>● <i>Price of overall equipment and spare parts cost is only 1/3 as much as others'</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Complicate overall structure, high maintaining cost.</i></li> <li>● <i>Small customer base, un-common wearing parts, long time delivery of spare parts</i></li> <li>● <i>High price of equipment and spare parts</i></li> </ul>
<b>Synchronous part</b>	<ul style="list-style-type: none"> <li>● <i>Dual-way cylinder pressing, simple structure, low fault rate</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Mechanical lifting or skin-bag type cylinder pressing, complicate structure, hard to maintain</i></li> </ul>
<b>Heat resistant system</b>	<ul style="list-style-type: none"> <li>● <i>Monolithic water-cooling car body, good heat resistant quality.</i></li> <li>● <i>Hand touchable when operating—temperature of car body is lower than that of human</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Modular water-cool plate system.</i></li> <li>● <i>Water cooled plate structure, car body is not water cooled. High requirement for cooling water loop.</i></li> </ul>
<b>Length measuring system</b>	<ul style="list-style-type: none"> <li>● <i>TV vedio length measuring part ,option to installed, is noncontact measuring tech.</i></li> <li>● <i>High precision, comparably high price without spare part cost</i></li> </ul>	<ul style="list-style-type: none"> <li>● <i>Length measurement roller, is contact measuring tech.</i></li> <li>● <i>Abrasion cause accumulated error, need change at regular intervals.</i></li> <li>● <i>Low one time investment, but high continuous spare part cost</i></li> </ul>
<b>Supporting parts&amp; components selection</b>	<p><i>Mainly equipped with components of internation famous brand with favourable price and promptly supply.</i></p>	<p><i>Long delivery time, high price</i></p>

# CNC Torch Cutting Machine

The intelligent CNC automatic torch cutting machines are applied to slab cutting for finished products after rolling. The equipments possess automatic slab scanning, sampling, nesting and cutting with high accuracy, high efficiency, small cutting slot and the quality of cutting section reaches world-class standard.

## Key technologies

- ◆ Continuous cutting in high-temperature environment
- ◆ Slab outline automatic scanning
- ◆ Duplex cutting and multi-axis control
- ◆ Simultaneous longitudinal and scrap edge cutting
- ◆ Automatic nesting and cutting optimization
- ◆ Temperature compensation
- ◆ Automatic altitude adjustment of cutting gun



# CNC Torch Cutting Machine

Cutting width	Max single row 5500 mm Max double row 3900 mm
Max cutting thickness	50 – 300 mm
Max cutting length	Generally less than 60m, can be designed according to customers' requirement
Cutting speed	0 – 800 mm/min
Slab position (outline) detection accuracy	Longitudinal: 2/1000 Transverse: 2/10000
Position accuracy	$\pm 0.5$ mm
Repeat accuracy	$\pm 0.3$ mm
Cutting accuracy	Longitudinal: 0 – 5 m : + 4 mm 5 – 20 m : + 5 mm 20 – 40 m : + 6 mm Transverse: 0.9 – 5.3 m : + 2 mm
Slab temperature	< 300 °C

# Spare Parts for Torch Cutting Machine



**torch nozzles**



**torch guns**

# Spare Parts for Torch Cutting Machine



**relief valves**



**check valves**

# World Class Manufacturing Capability

**CIMM Group** have world class manufacturing base with world leading process equipments and complete quality assurance system to ensure we can deliver the best quality products to our clients all over the world.

Total area of manufacturing workshop (m <sup>2</sup> )	150,000
Area of heavy machinery workshop (m <sup>2</sup> )	48,000
Area of metal construction workshop (m <sup>2</sup> )	30,000
Area of final assembly workshop (m <sup>2</sup> )	35,000
Max lifting capacity (ton)	320
Annual manufacturing and machining equipments and spare parts capacity (ton)	60,000



# Worldwide Full-time Service

We provide our clients integrated service packages for the entire lifetime of our products. Our service packages are tailored to individual customers' specific requirements and range from the provision of spare and replacement parts and maintenance contracts to the analysis and upgrading of existing machines.

Our worldwide sales and service network can ensure our expert service team is available to provide the perfect service with rapid assistance at any time.



# Typical Reference List – TCM for rectangular/square billets

No.	Clients	Quantity	Section (mm)
1	CERI (Yingkou) Equipment Co., Ltd.	4	400X500
2	Pangang Group Company Ltd.	4	360X450
3	Angang Steel Company Limited – No.1 Steel Plant	5	320X410
4	Jiangyin Xingcheng Special Steel Works Co., Ltd.	5	300X300
5	Shandong Iron and Steel Group – Laiwu Iron and Steel Co., Ltd.	3	275X380
6	Laiwu Iron and Steel Co., Ltd. – Special Steel Plant	3	260X300
7	Hebei Iron and Steel Group – Handan Iron and Steel Co., Ltd.	4	250X420
8	Wuhan Iron and Steel (Group) Corporation – No.1 Steel Plant	10	250X280

# Typical Reference List – TCM for round billets

No.	Clients	Quantity	Section (mm)	Delivery
1	Jiangyin Xingcheng Special Steel Works Co., Ltd.	1	Φ 800	06/2009
2	Hengyang Valin Steel Tube Co. Ltd.	1	Φ 800	07/2010
3	CERI (Yingkou) Equipment Co., Ltd.	4	Φ 600	01/2009
4	Pangang Group Company Ltd.	3	Φ 450	11/2007
5	Baosteel Group - Nantong Iron and Steel Co., Ltd.	4	Φ 430	05/2010
6	Tianjin Iron and Steel Group Co., Ltd.	6	Φ 350	08/2009
7	Pangang Group Company Ltd.	4	Φ 350	11/2006
8	Shagang Group – Jiangsu Huaigang Special Steel Co., Ltd.	4	Φ 330	01/2008

# Typical Reference List – TCM for slabs

No.	Clients	Section (mm)	Delivery
1	Xinyu Iron and Steel Group Co., Ltd.	420X2400	06/2010
2	Nanyang Hanye Special Steel Co., Ltd.	400X2700	04/2010
3	Baosteel Group – Pudong Iron and Steel Co., Ltd.	400X2300	04/2007
4	Jiangyin Xingcheng Special Steel Works Co., Ltd.	350X2600	02/2009
5	Shagang Group – Zhangjiagang Shajing Wide and Heavy Plate Co., Ltd.	320X2720	09/2008
6	Wuhan Iron and Steel (Group) Corporation – Echeng Iron and Steel Co., Ltd.	300X2500	04/2009
7	Shandong Iron and Steel Group – Laiwu Iron and Steel Co., Ltd.	300X2500	12/2007
8	Angang Steel Company Limited – Bayuquan Iron and Steel Co., Ltd.	300X2300	06/2008

**FOR FURTHER INFORMATION , PLEASE LOG ON  
CIMM WEBSITE**

***<http://www.cimmuk.com>***

H.O.: 17F Chengda Mansion, No. 71 Renmin Road, Zhongshan District,  
Dalian -116001, China.

Tel: 0086-411-82511023/25

Fax: 0086-411-82511022

E-mail: [cola@cimmuk.com](mailto:cola@cimmuk.com) / [vicky@cimmuk.com](mailto:vicky@cimmuk.com) / [kelly@cimmuk.com](mailto:kelly@cimmuk.com)