



DING-KOAN MACHINERY CO.,LTD

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<http://www.dk-machinery.com.tw>



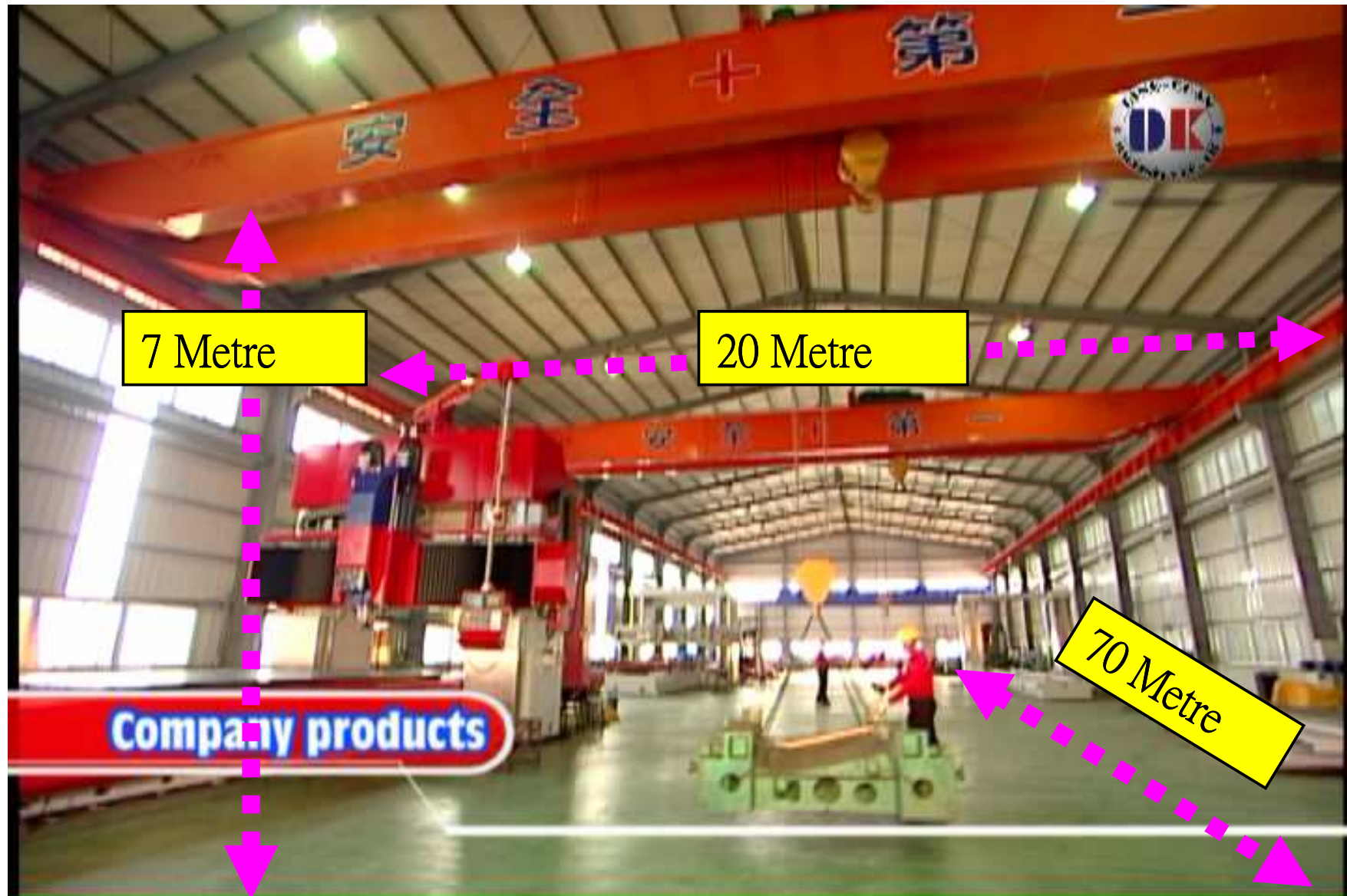
ABOUT US

- Covered with massive source of R&D, for the purpose to create the mutual benefit. DING-KOAN MACHINERY CO.,LTD was established in Dec 2004. We adhere to the philosophy of “Technology innovation”, “Better and better”, “Brave but cautious”, “Incomparable commercial opportunity”. We are specialized in CNC Housing type machining center, horizontal milling machine, Housing type grinding machine and Housing type milling machine. By following the operation policy of company, we are keeping developing the processing machinery with high quality and high precision, automation and multi-function. Improve the function of product, prolong the life of usage, make the parts are usable in common, in order to providing the prompt and most satisfied service for customer all over the world.

High Quality Designed Team



Introduction to the factory -1



RENISHAW

The laser examining equipment



All mechanical body castings



HARDNESS TESTING REPORT

- CNS 2113 Z 8002 Hardness Testing Rule
- NO. 1
- Hardness value : 1.HB 217
- 2. 200
- 3. 205
- 4. 210
- 5. 200
- Average : HB 203

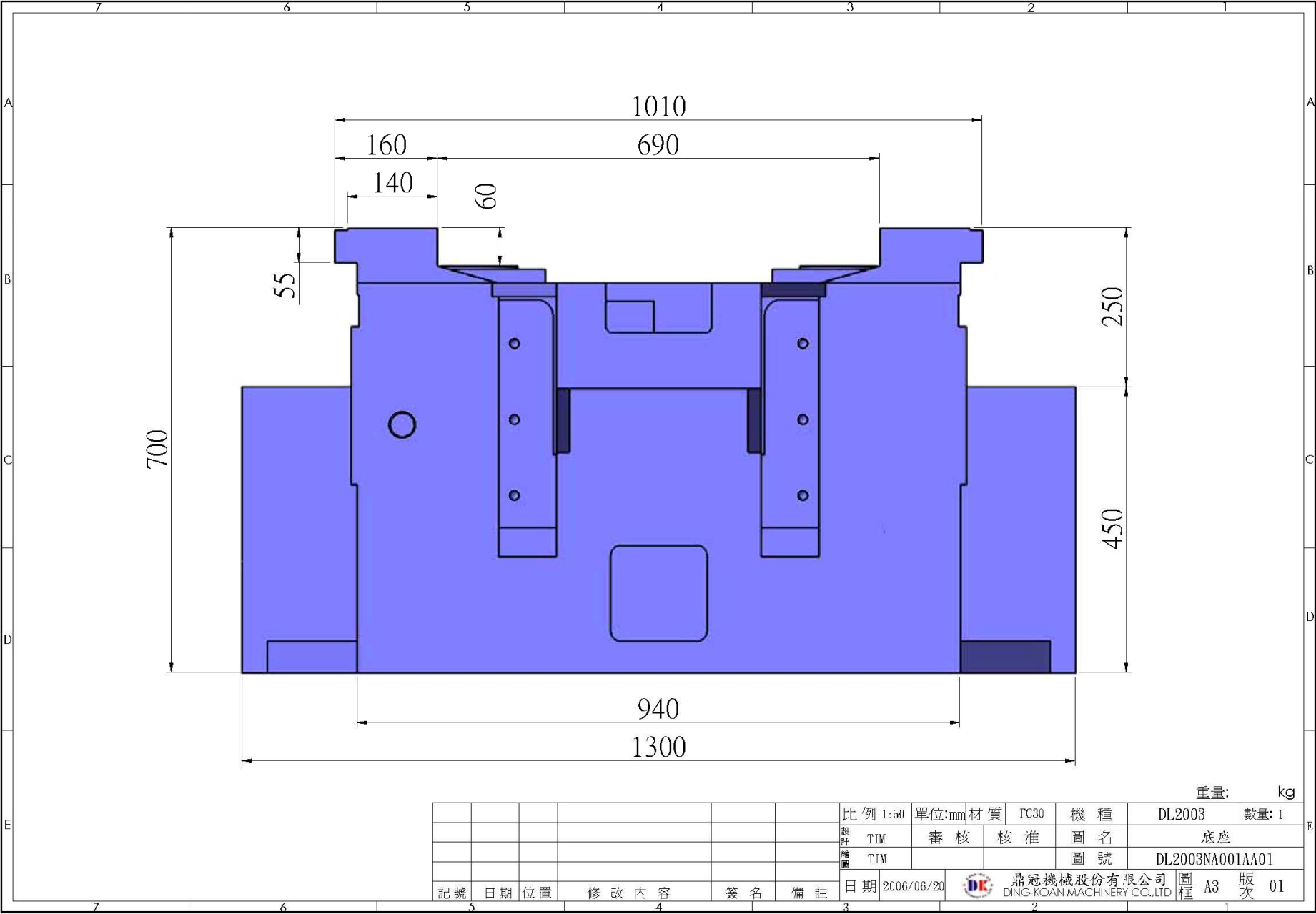
TESTING REPORT

- Tensile strength
- Sample name: Casting iron test bar
- Test project: Tensile strength
- Basis : Base on CNS 2472 G3038
- Test diameter of hair embryo : 30mm
- Use : SHIMADZU
- Result :
- Number : Parallel diameter Tensile strength
- mm
- kgf/mm²
- 2 20 28

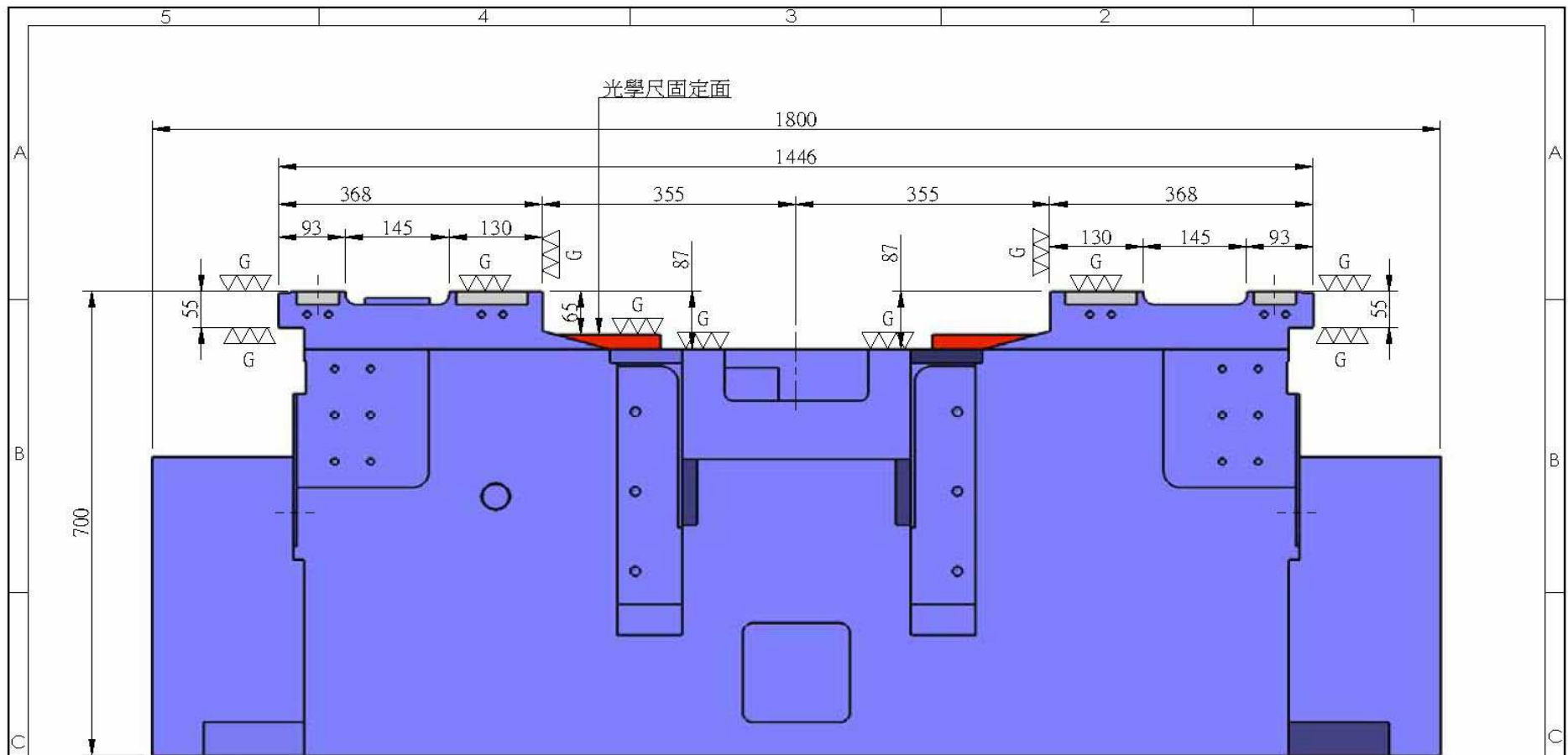
DS-Mahining Center Crossrail Fixed Type



DS-2000 Base



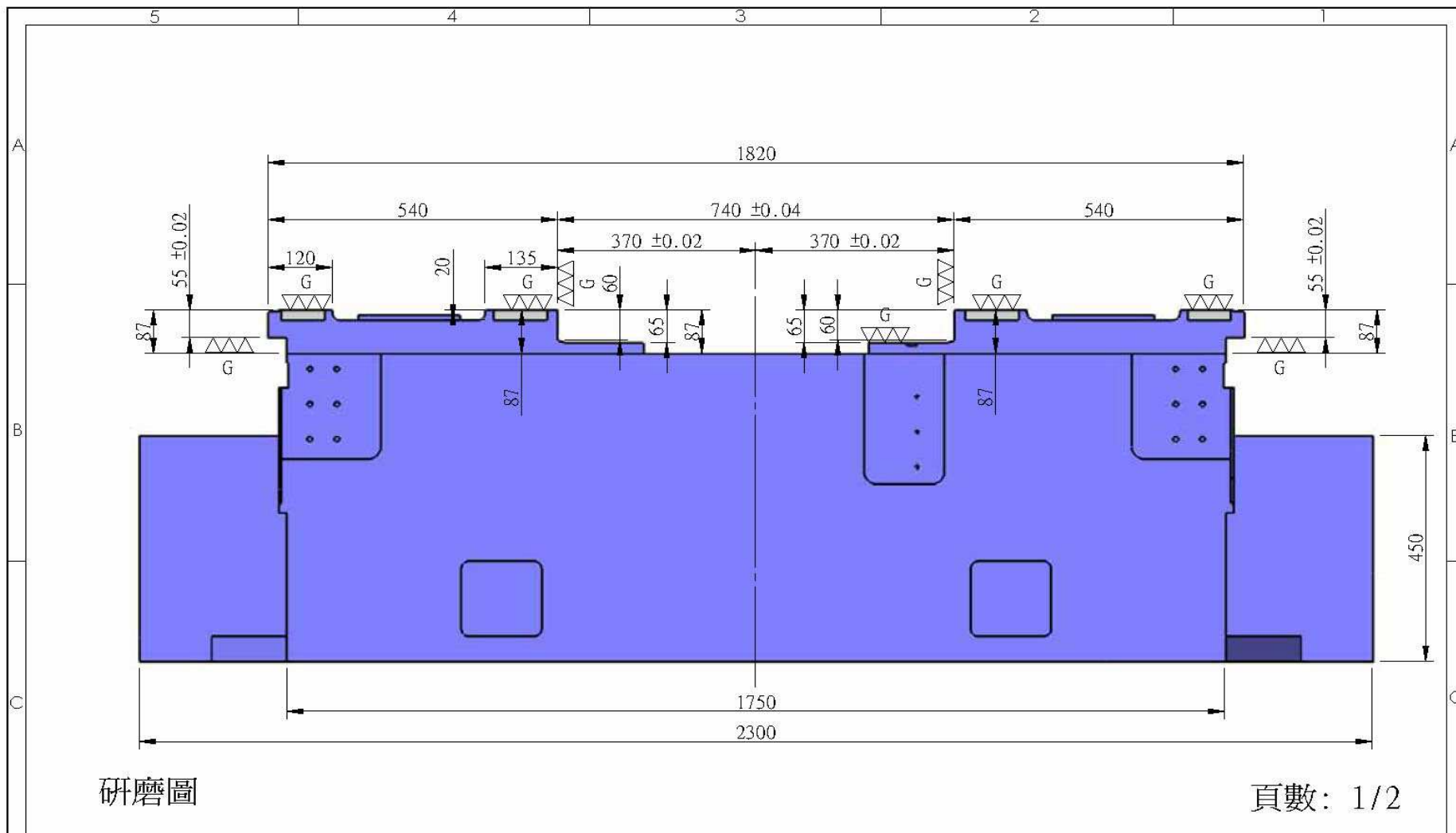
DK-DS-2500 Base



重量: kg

比例 1:8	單位 mm	材質: FC30	機種 DS2505	數量: 1
設計 TIM	審核	核準	圖名 底座	
繪圖 TIM			圖號 DS2505NA001A	
日期 2007/03/23	鼎冠機械股份有限公司 DING-KOAN MACHINERY CO.,LTD		圖框 A4	版次 01
記號	日期	位置	修改內容	簽名 備註

DK-DS-3000 Base



						比例 1:10	單位 mm	材質: FC25	機 種	DK3004	數量: 2
						設計 TIM	審 核	核 準	圖 名	底座	
						繪圖 TIM			圖 號	DK3004NA001AA01	
記號	日期	位置	修 改 內 容	簽 名	備 註	日期	2007/08/10	 鼎冠機械股份有限公司 DING-KOAN MACHINERY CO.,LTD	圖 框 A4	版 次 01	

CE

SGS

No: EZ/2008/80020C

VERIFICATION OF COMPLIANCE

Verification Report No. : EZ/2008/80020C

Model No. : DK-2500, DK-3000, DK-3500, DL-2500, DL-3000,
DL-3500, DS-2000, DS-2500, DS-3000

Product Name : Machine Center

Applicant : DING-KOAN MACHINERY CO., LTD.

Address of Applicant : 1F, No. 1, Alley 9, Lane 251, Dong Yang Rd., Fengyuan, Taichung County,
Taiwan

TCF No. : DK-2008-A1

Date of Issue : January 13, 2009

Applicable Standards : EN 12417:2001, EN ISO 12100-1:2003, EN ISO 12100-2:2003,
EN 60204-1:2006

Conclusion

Based upon a review of the Technical Construction File, the apparatus is in compliance with the below requirements of:

Machinery Directive 98/37/EC
Low Voltage Directive 2006/95/EC

Authorized Signatory:

Jason Lin

SGS TAIWAN LTD.
Jason Lin
Technical Manager

CE

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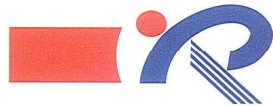
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Medium Enterprises Innovation Award



Taiwan Small & Medium Enterprises Innovation Award

中小企業創新研究獎證書

鼎冠機械股份有限公司

長期從事創新研究，以

具有中繼換刀機構之龍門型動樑綜合加工機

申請第15屆中小企業創新研究獎，經評審通過，特頒此證，以資鼓勵。

經濟部中小企業處處長

賴新雄

中華民國 97 年 11 月 28 日

CERTIFICATE OF TAIWAN SMALL & MEDIUM ENTERPRISES INNOVATION AWARD

This is to certify that

DING-KOAN MACHINERY CO., LTD.

has won the 15th Small and Medium Enterprises Innovation Award for its MACHINING

CENTER WITH A RELAY TOOL

EXCHANGE DEVICE

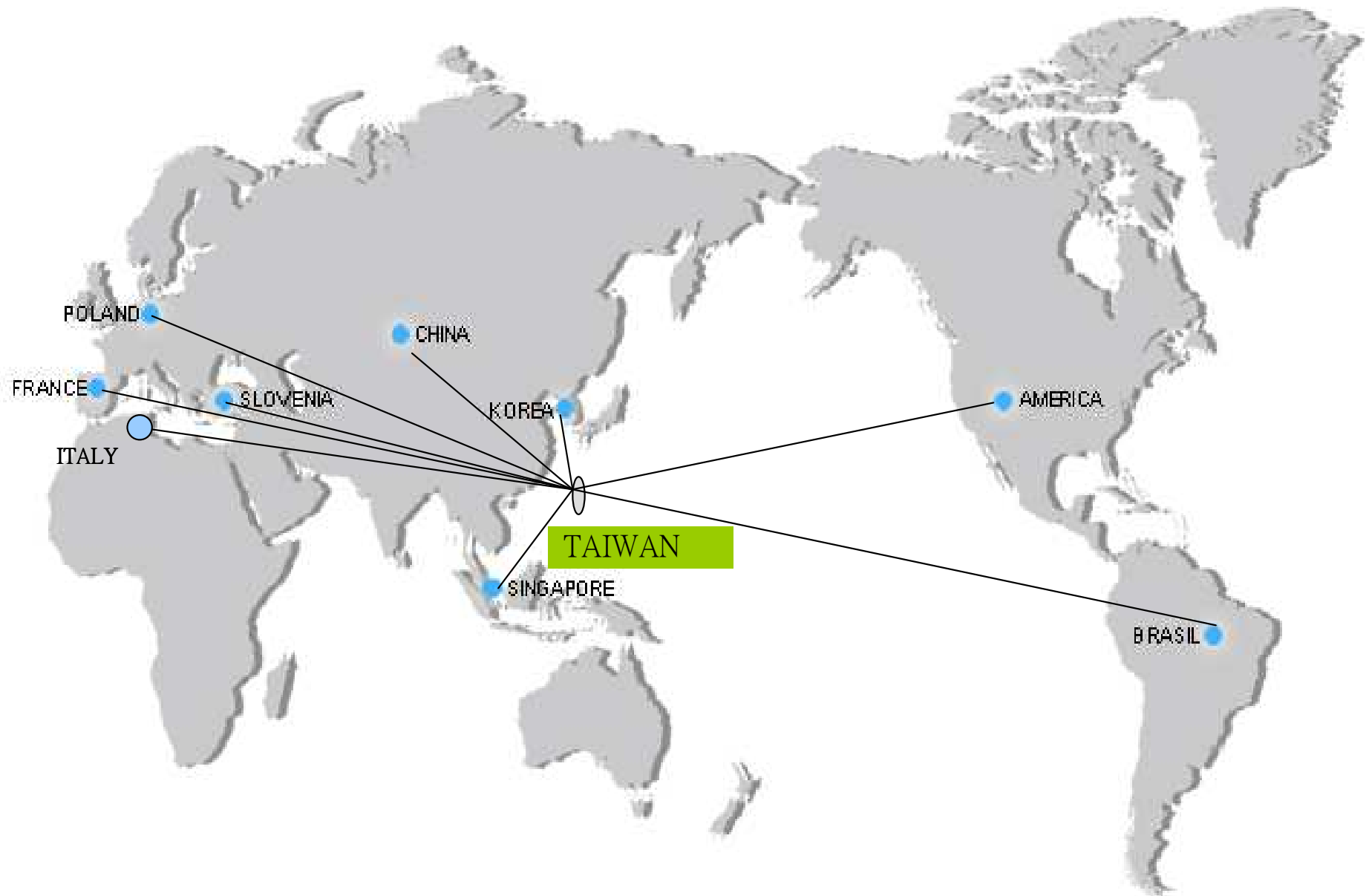
Director General

Lai, Sun-Quae

Small and Medium Enterprise Administration, MOEA

2008.11.28

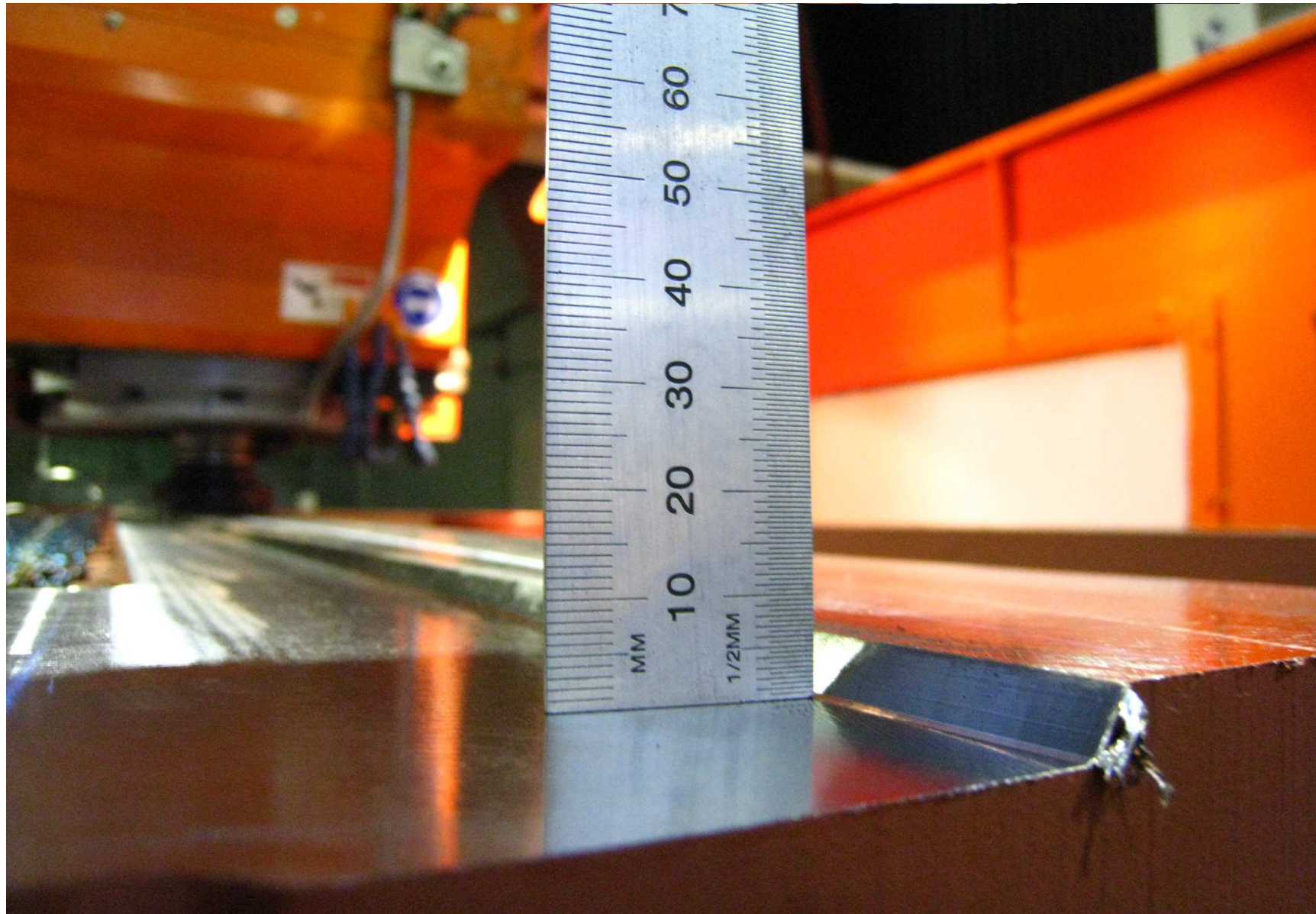
Distribution of region



Actual Enhancement



Actual Enhancement



Actual Enhancement



Center Crossrail Fixed Type

Stabilized structure

Fixed type cross-rail with strong structure, keeping the excellent verticality and parallelism even though long period operation.

Active design

Lower position of center of gravity plus stabilized structure columns avoid the vibration when spindle moving with high speed

Simplified maintenance

High rigidity and stabilized structure keep machine's accuracy for longest period, and simplified the maintenance

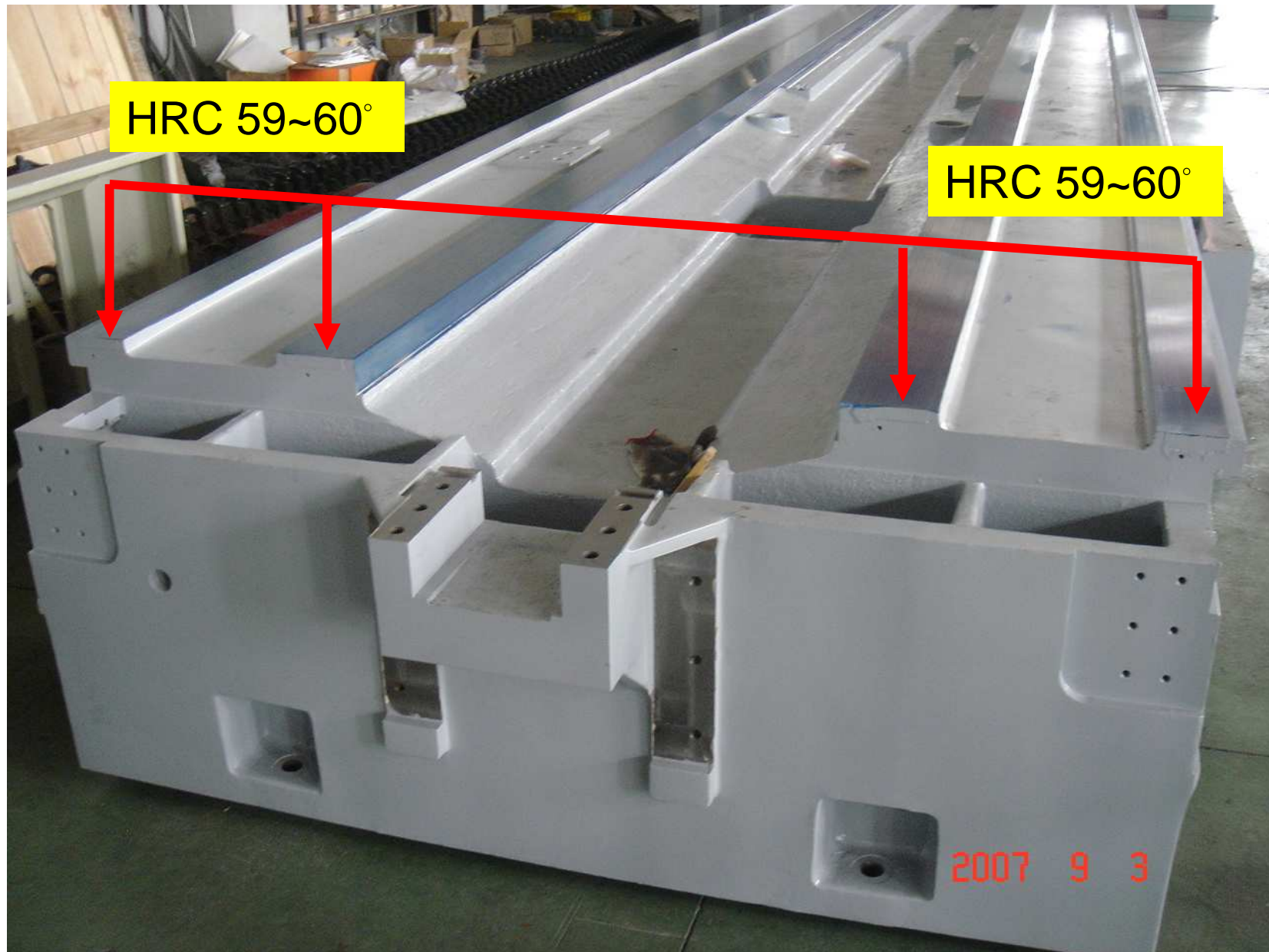
Stabilized Cross-rail

Stabilized cross-rail offers the best parallel stabilization to support the weight of spindle and headstock

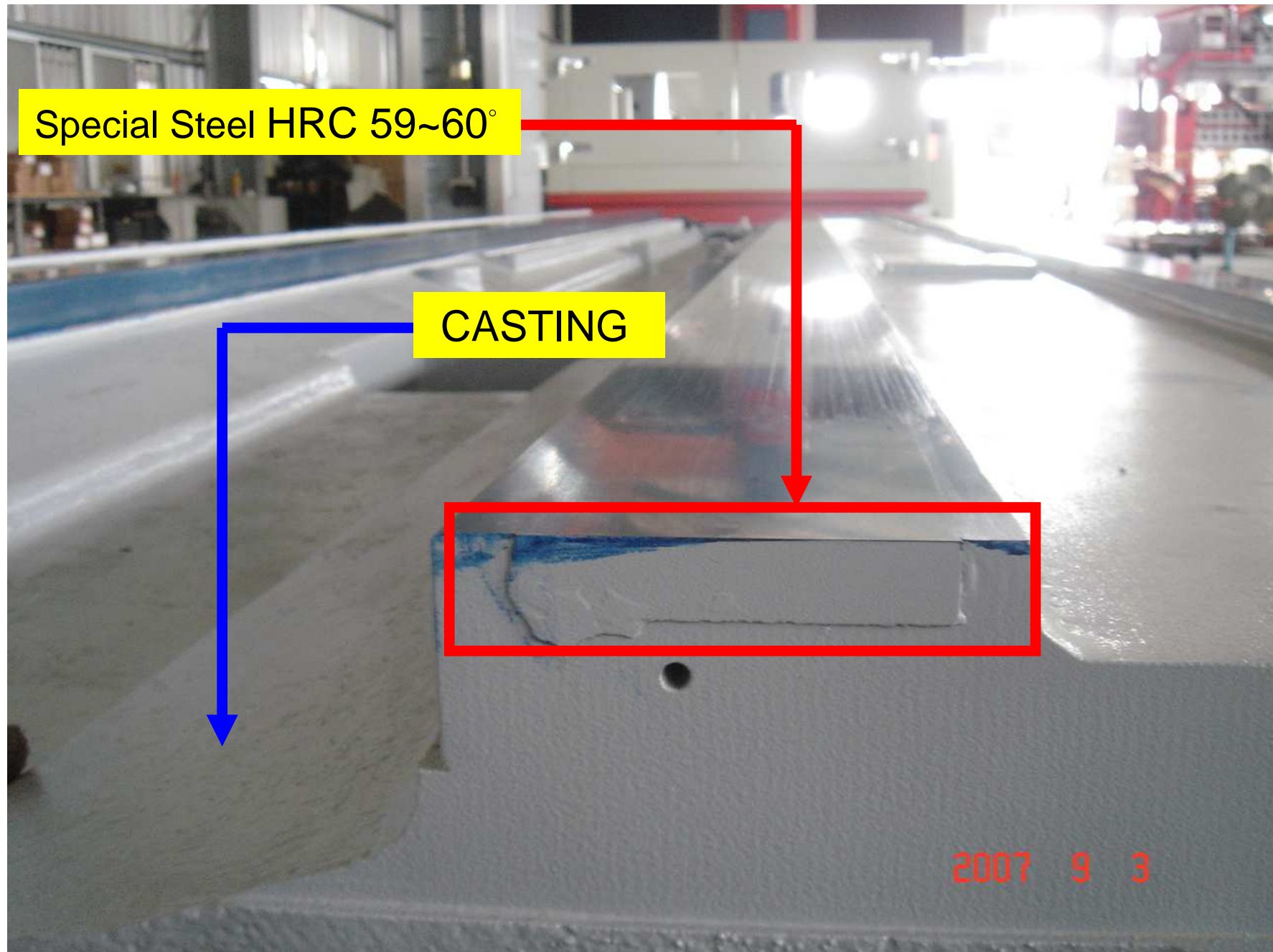
Base



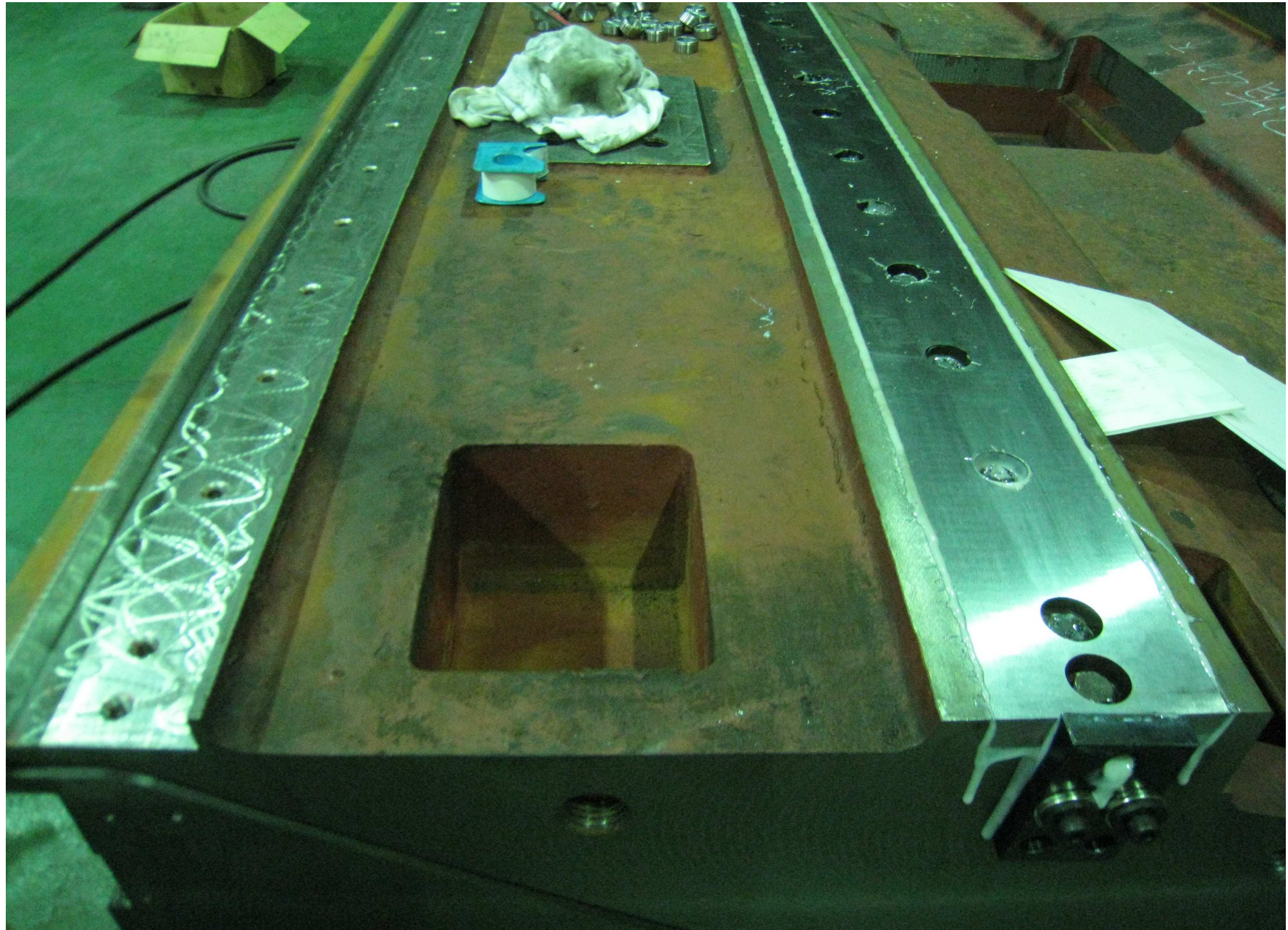
X axis Special Steel Box Way (Standard)



Steel Box Way

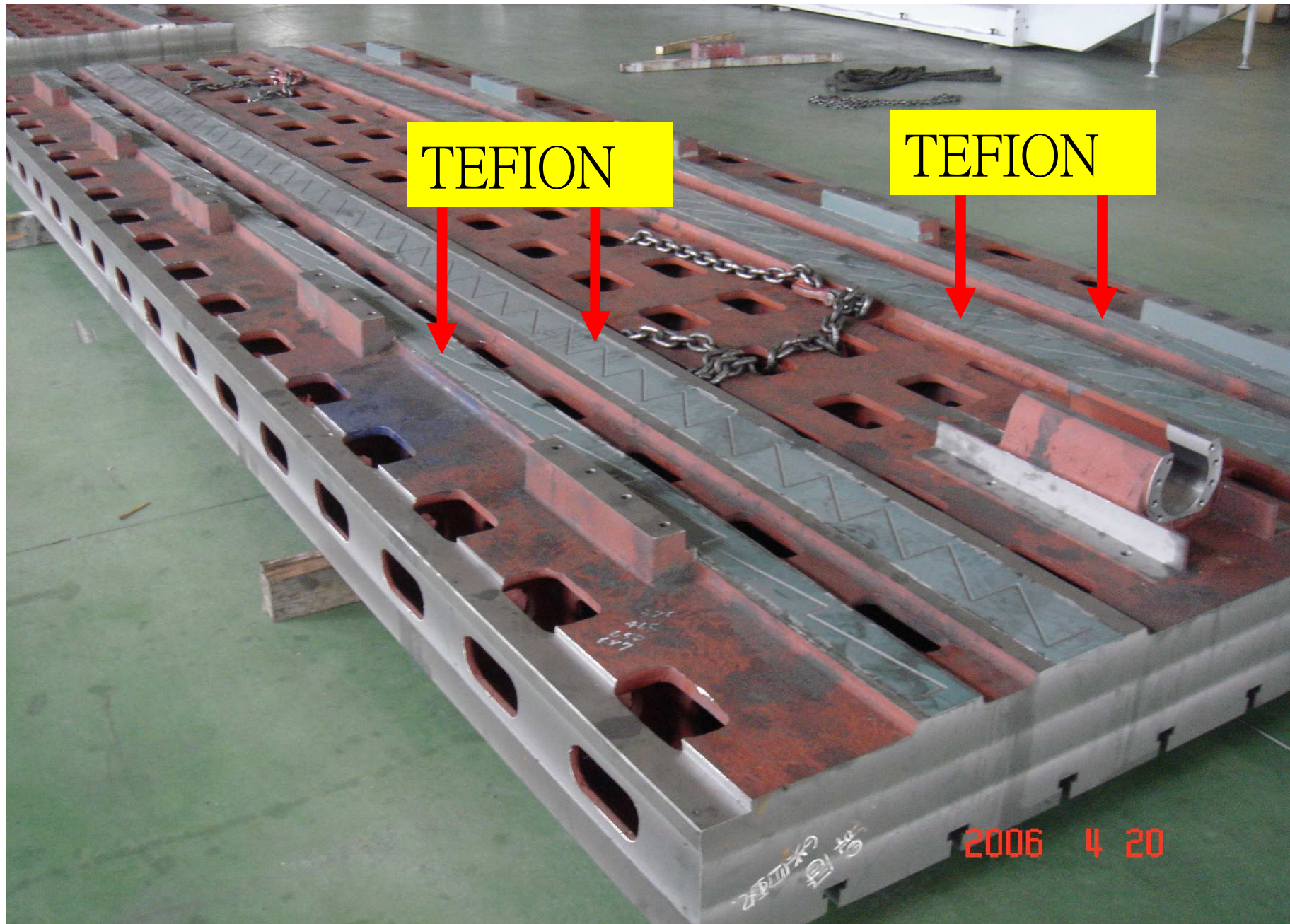


Special Steel Way Installation



Table

(Standard)

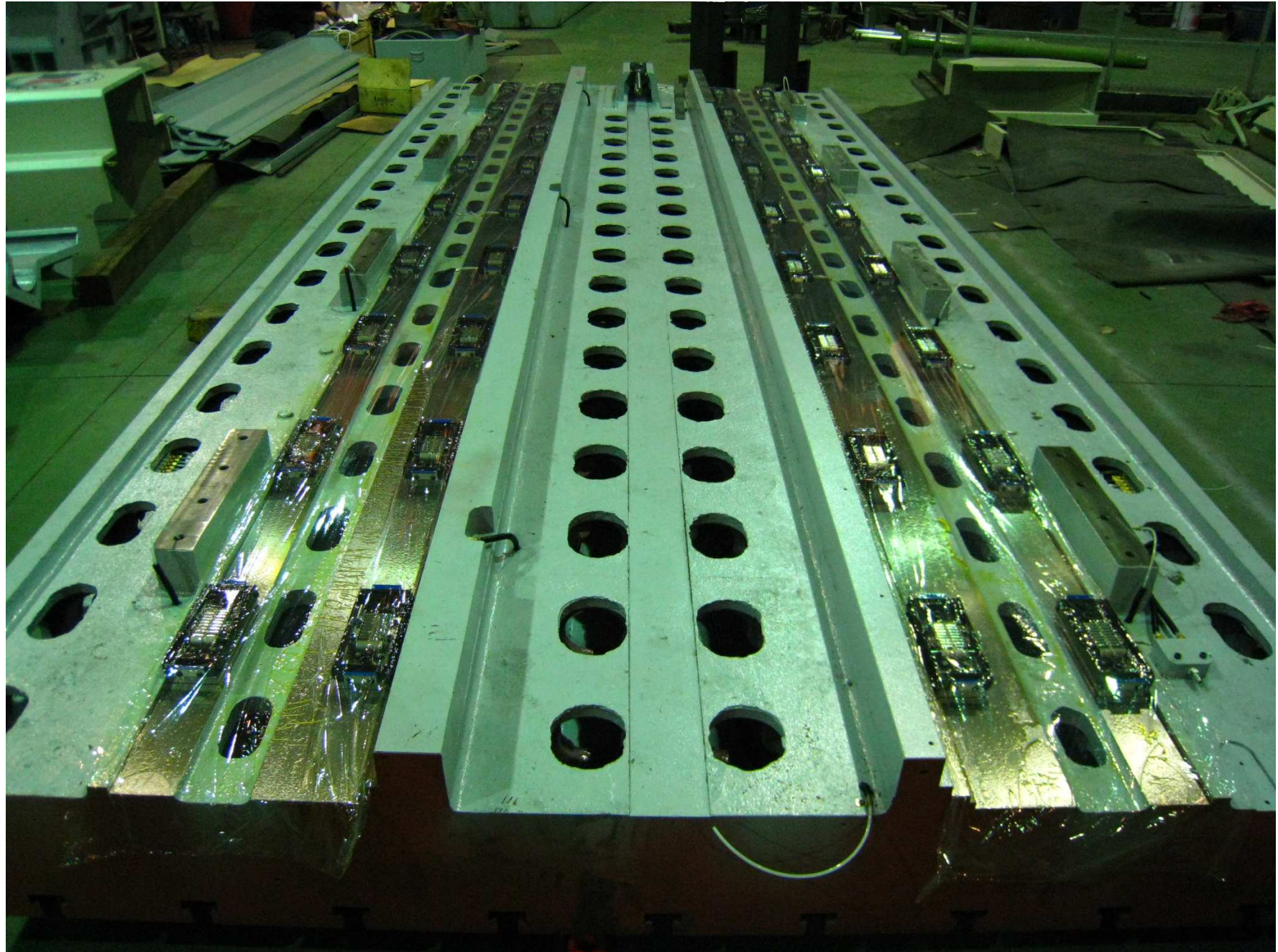


X axis Roller Way Sliding (Optional)

A-X axis with 4 rails with steel and linear block, have the best durability and accuracy, it can reduce over 35~40 % friction make rails more smoothly, especially create more precisely 3 axis worked at the same time when running 3D graph.

B-There is no difference between table with loading working piece or not.

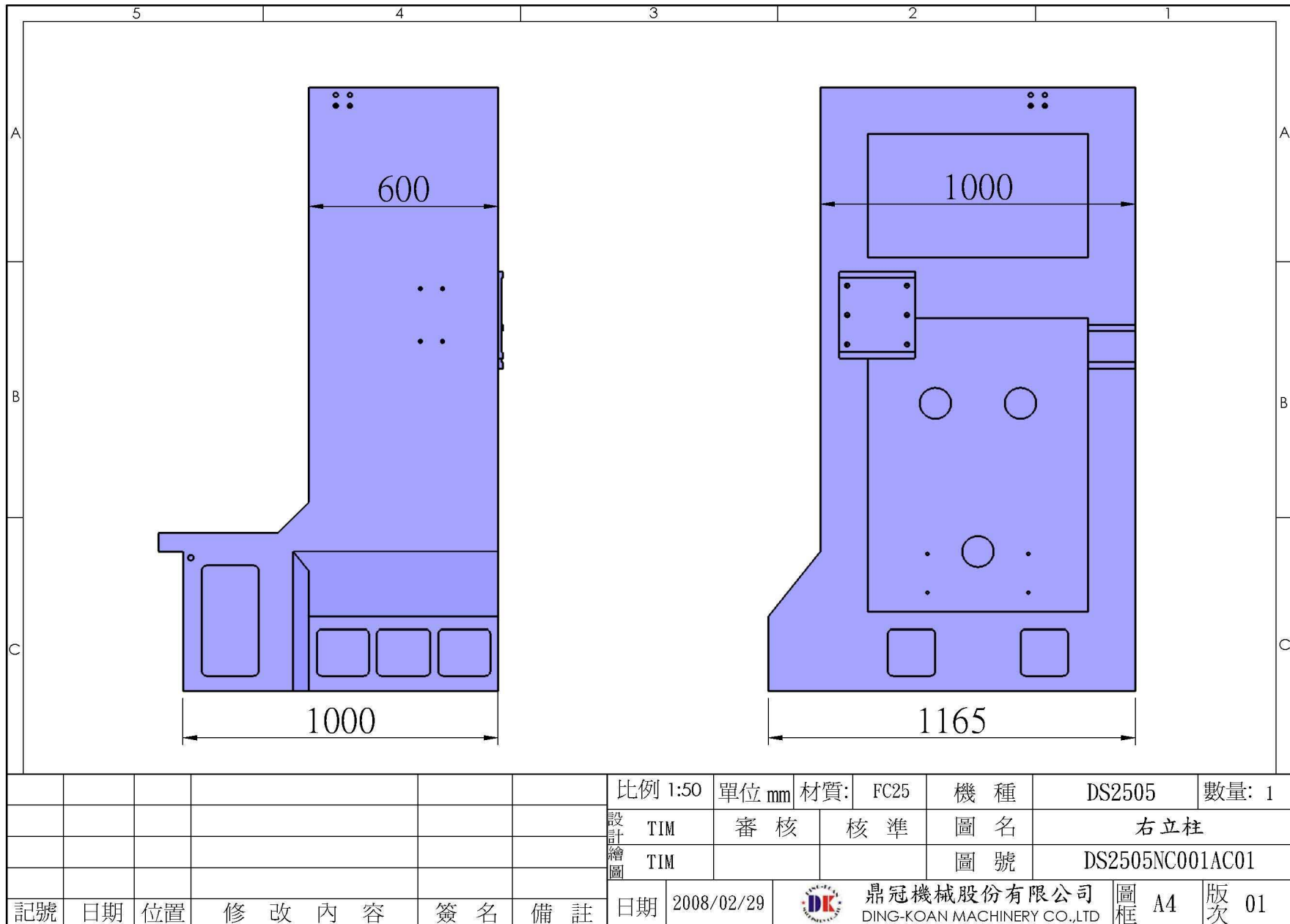
X axis Steel Roller Way (Optional)



X axis Steel Roller Way (Optional)



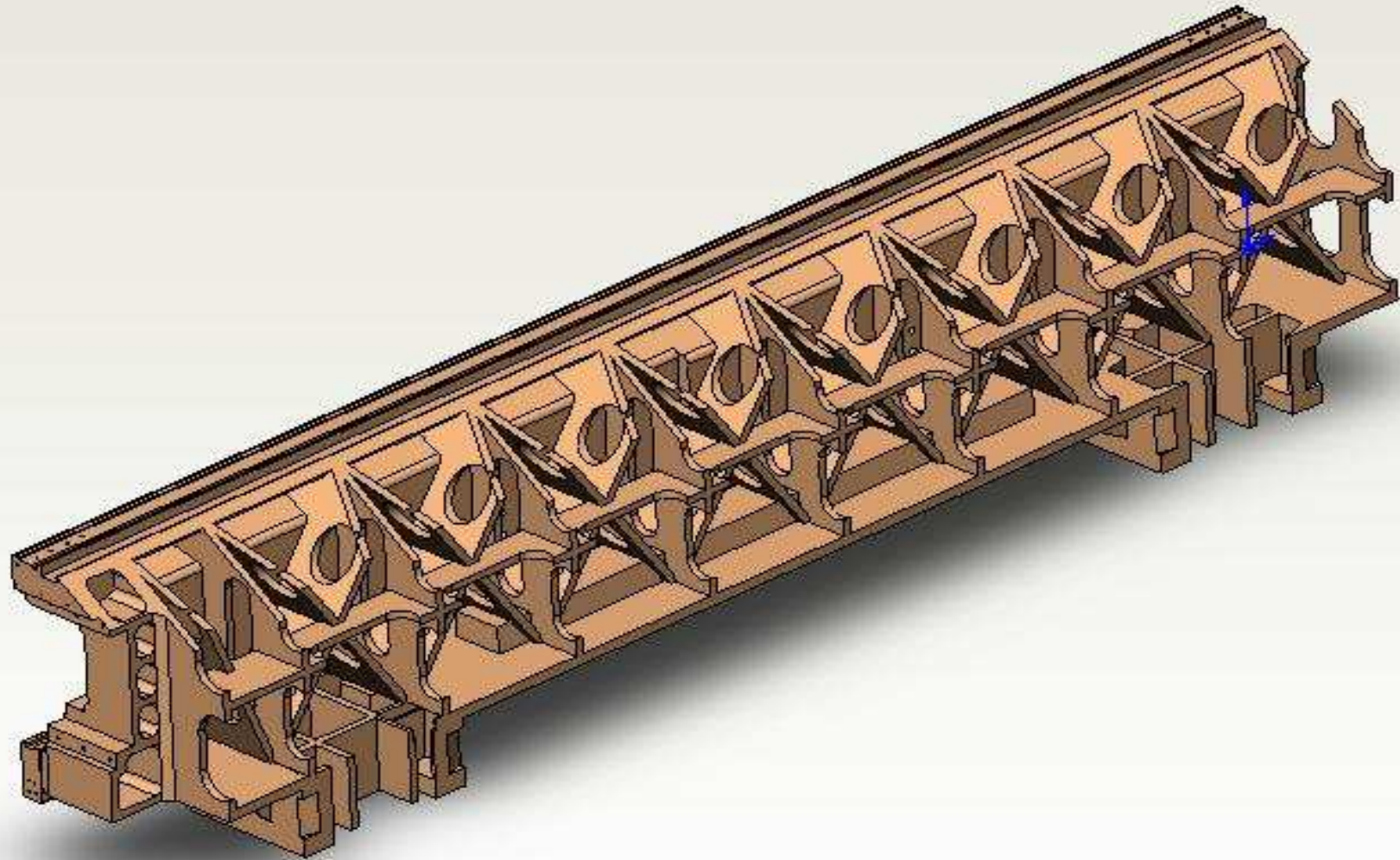
Column



Cross rail

- One-piece Cross rail, high rigidity structure design – Crossing Rib design for front part and Box type design for rear part. Accompanying bridge type outline, it could support the vertical force of gravity and horizontal resistance, to make sure the best rigidity in machining process

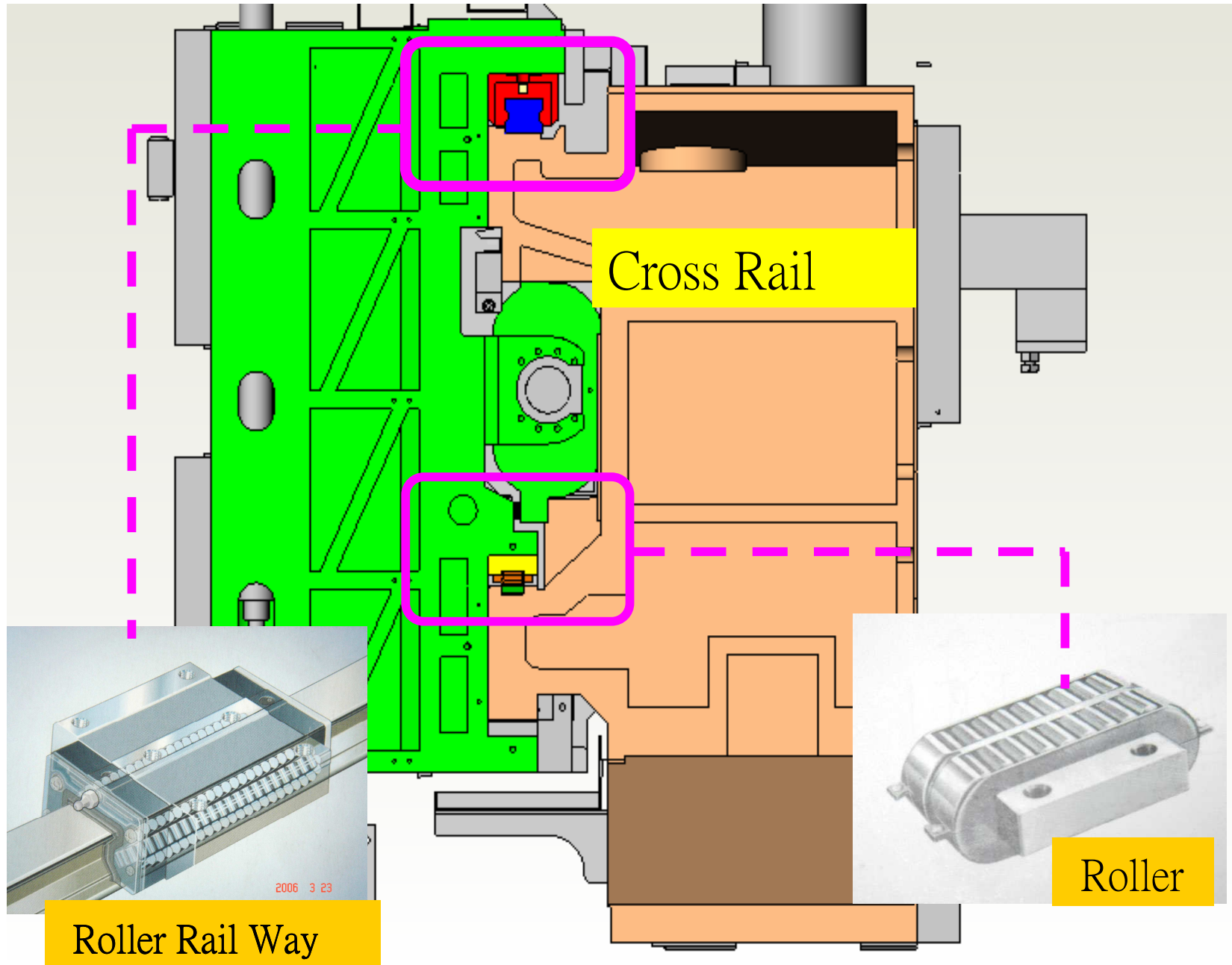
Cross Rail



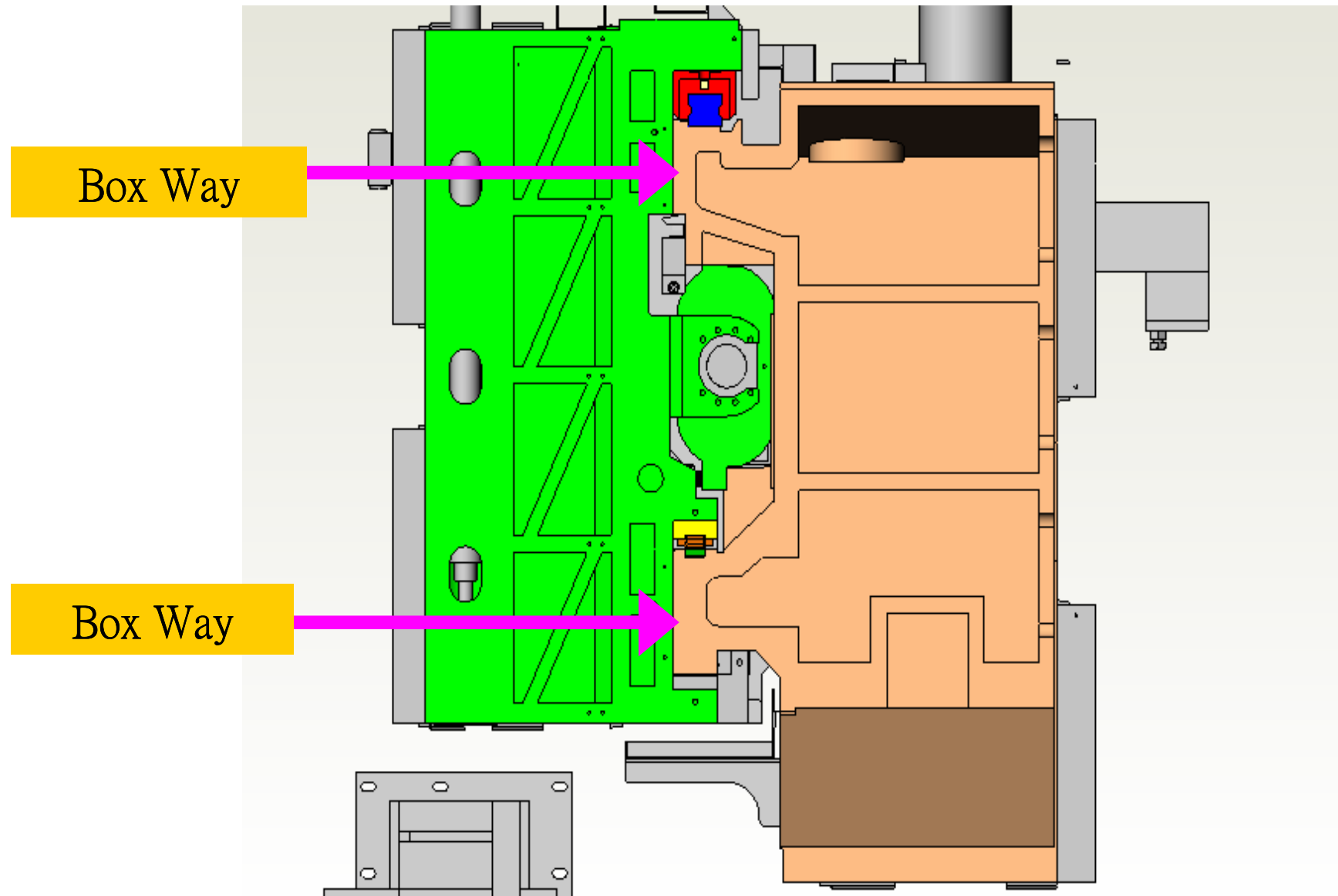
Y axis way design

- Parallel slide ways design for Y axis, accompanying with both Roller and Flat type tracker. The linear guide ways keep the sensibility of high-speed moving, and flat type tracker offers higher loading capacity.

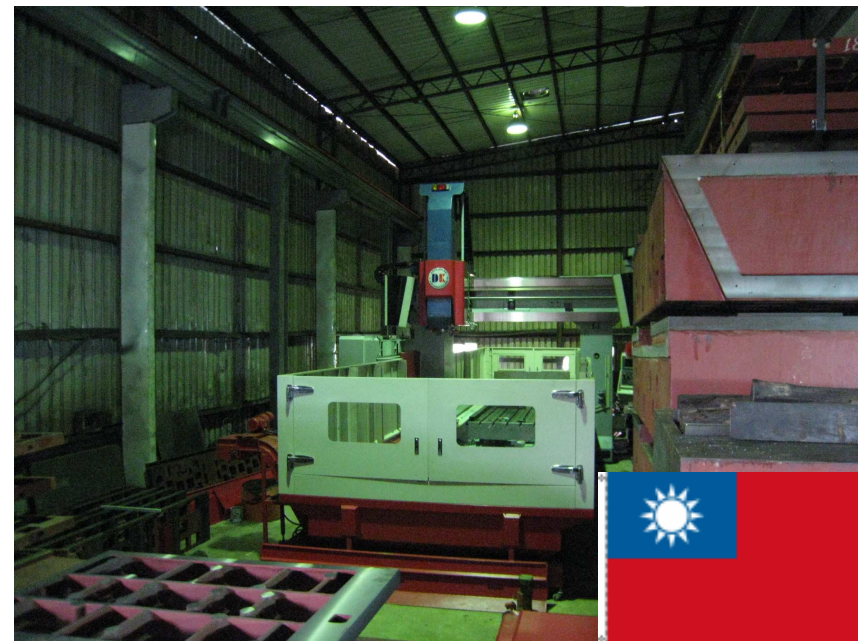
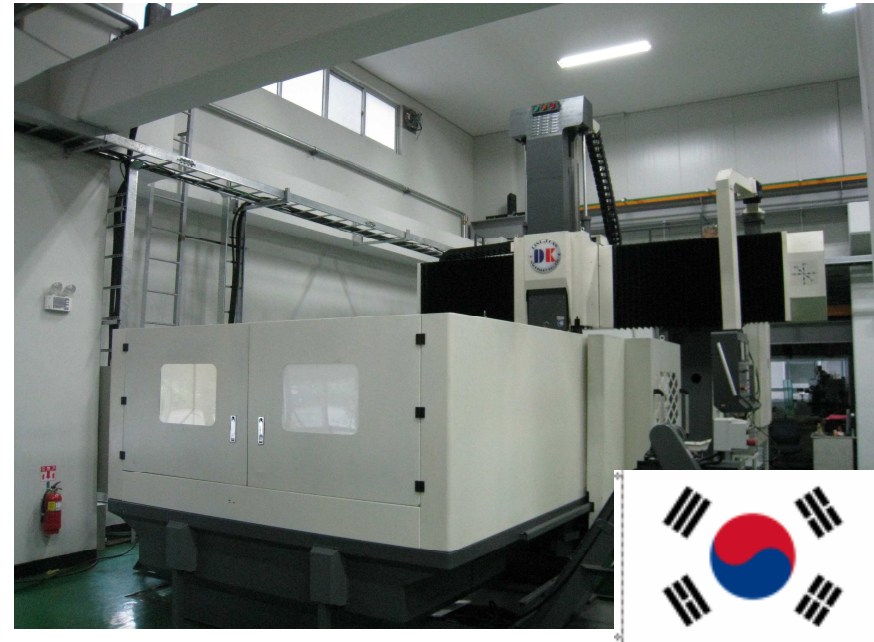
Combination system of Y axis sliding



Combination system of Y axis sliding



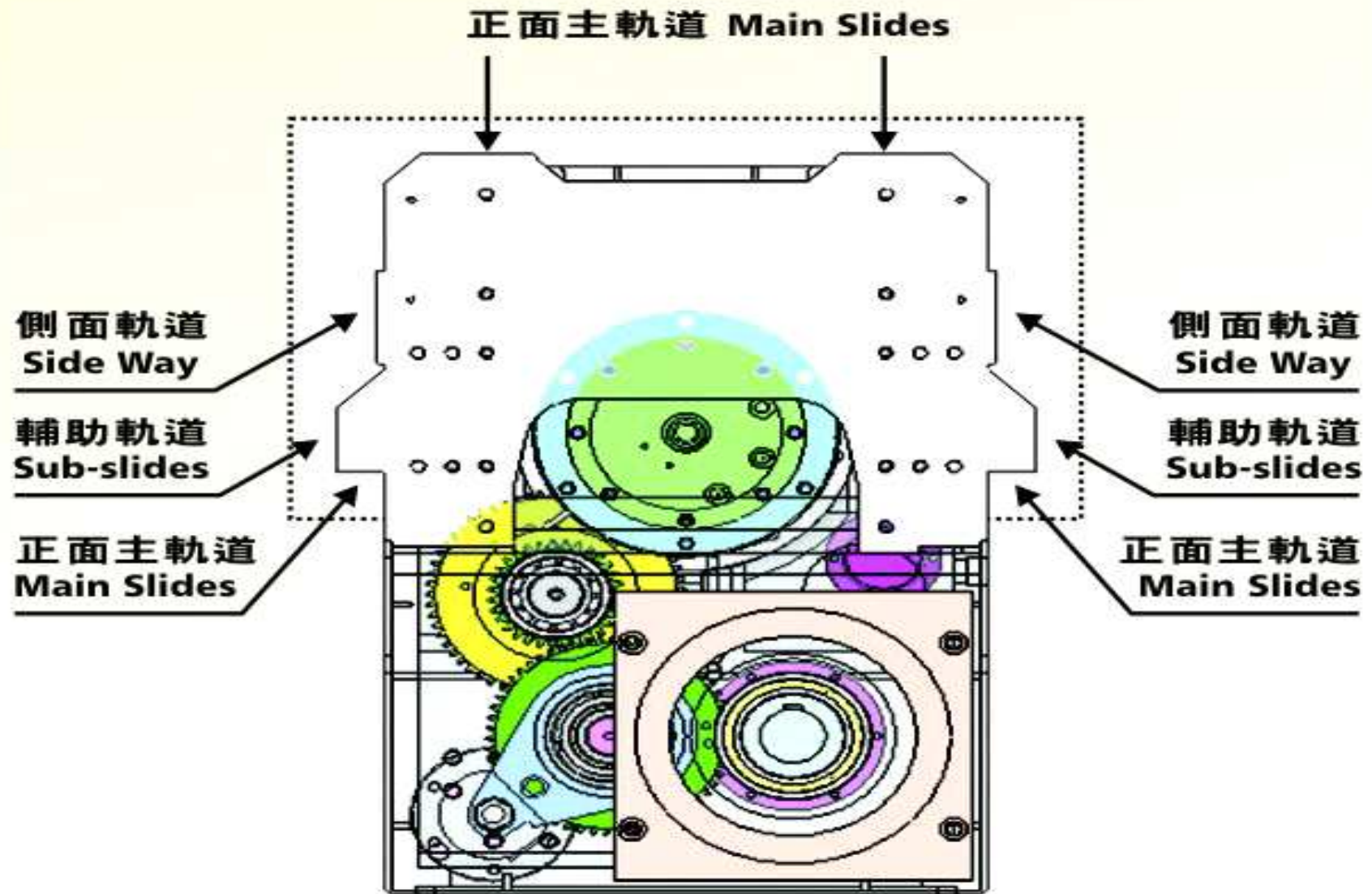
Actual Enhancement



Z axis way

- Full-covered sliding, supporting the excellent cutting performance and best rigidity when machining, and increasing the stabilization.

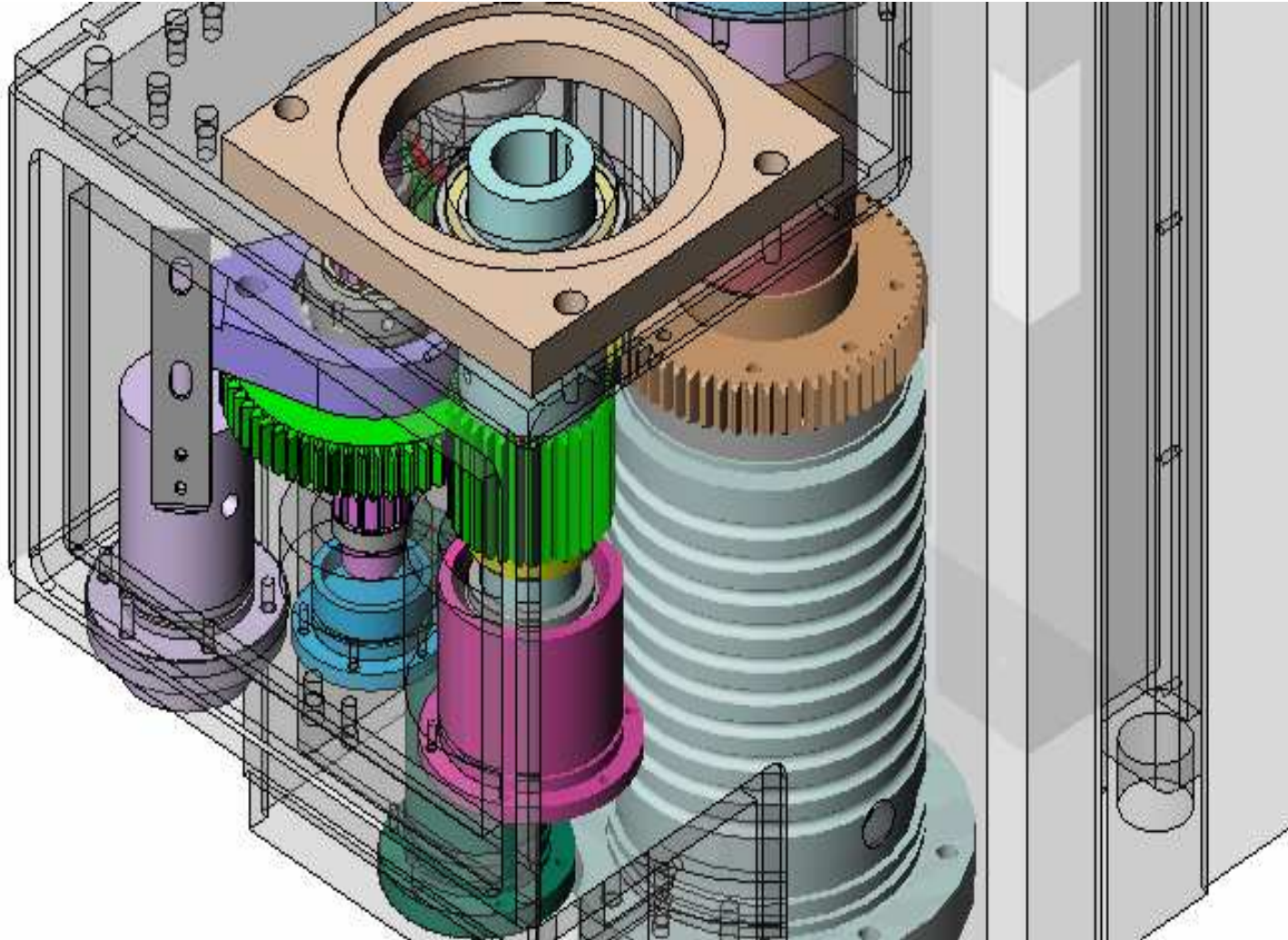
Z axis way design



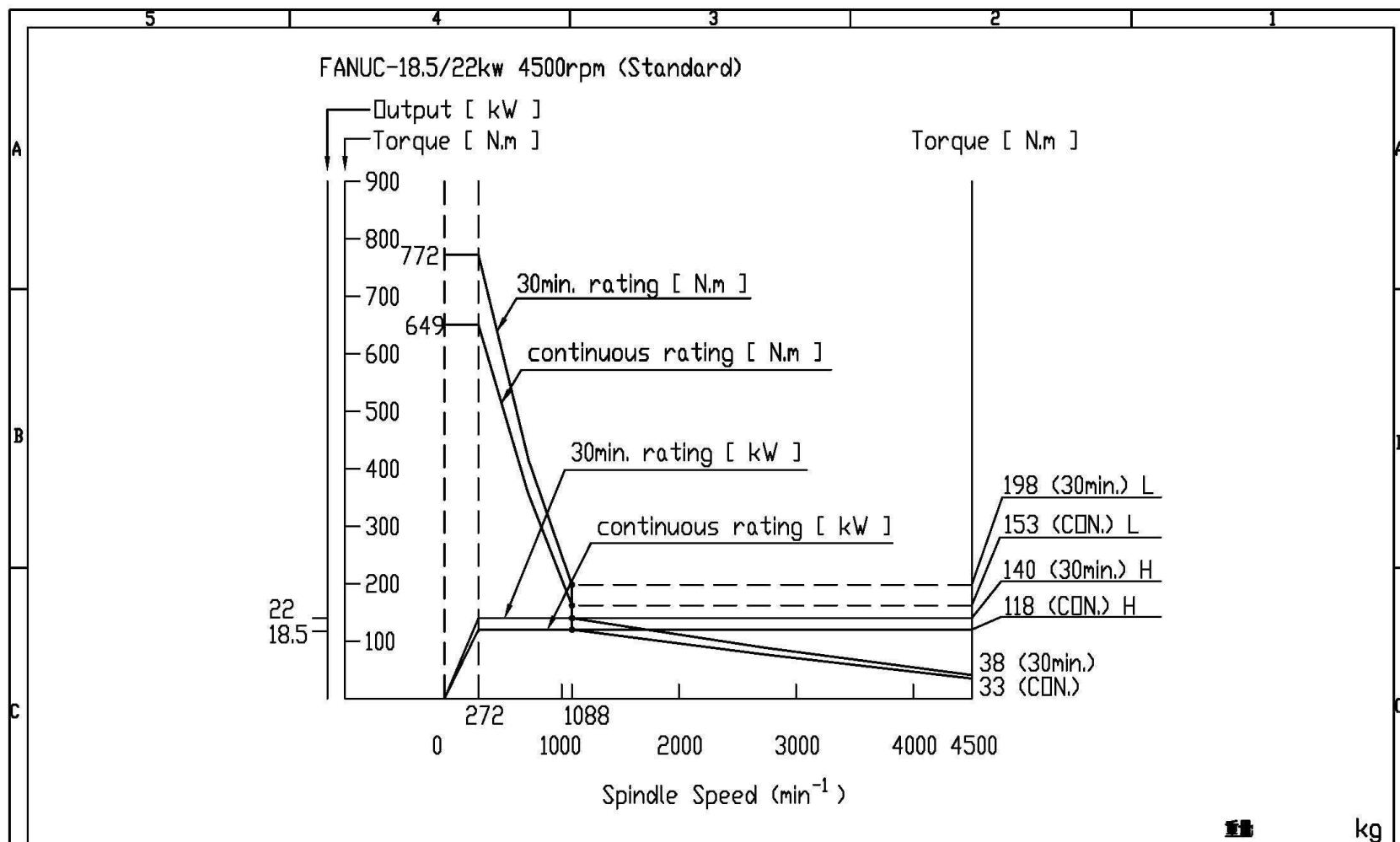
Gear box of spindle

- Square type design, 440 * 440 mm dimension, high rigid structure, minimized the possibility of interference with working piece. Ladder type slide-way make the spindle center most close to the cross rail, increasing the stabilization of machining.
- Gear box and Spindle housing is one-piece die casting, offer the best machining performance and lowest noise.

Gear box of spindle

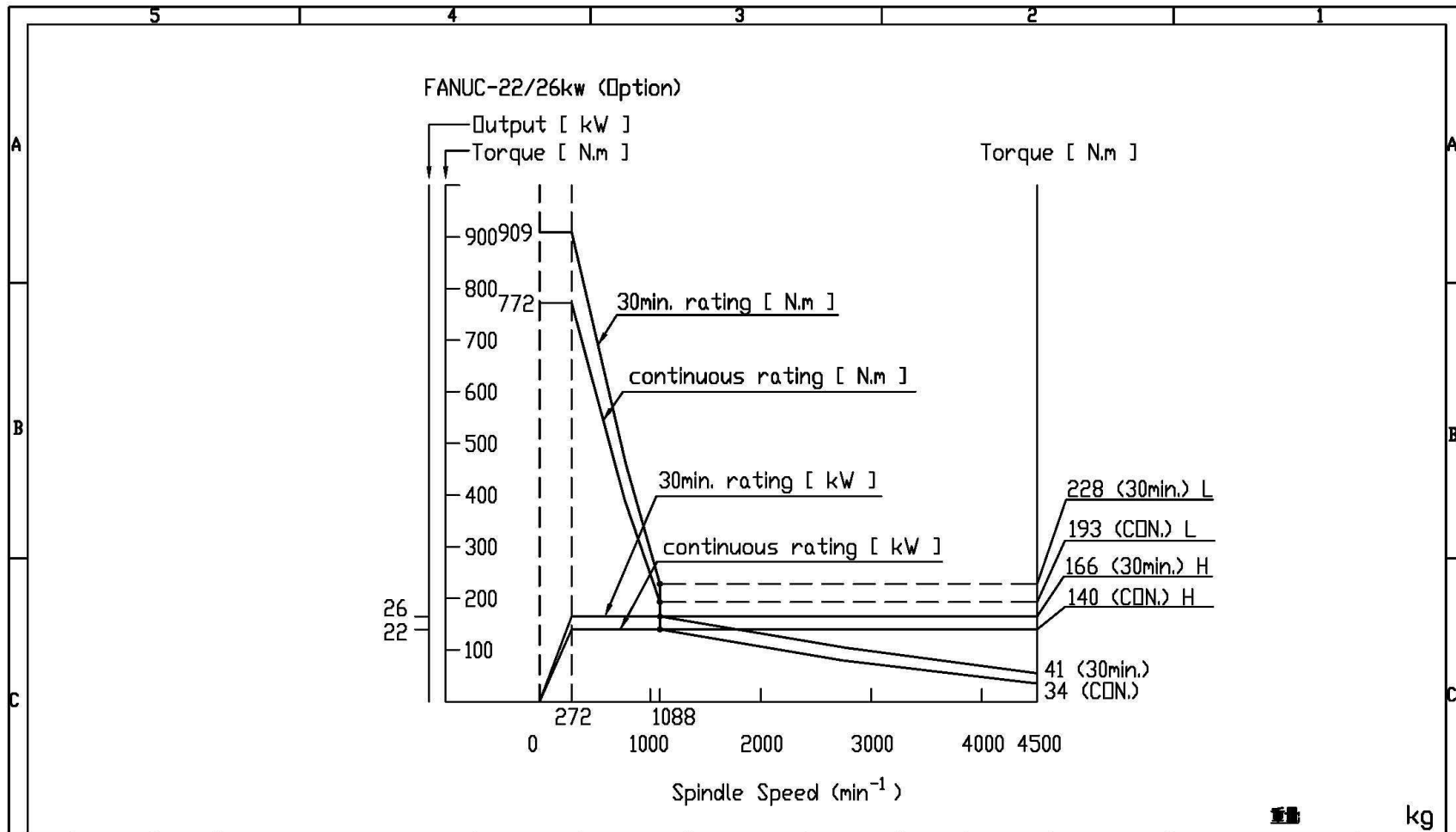


Spindle Torque



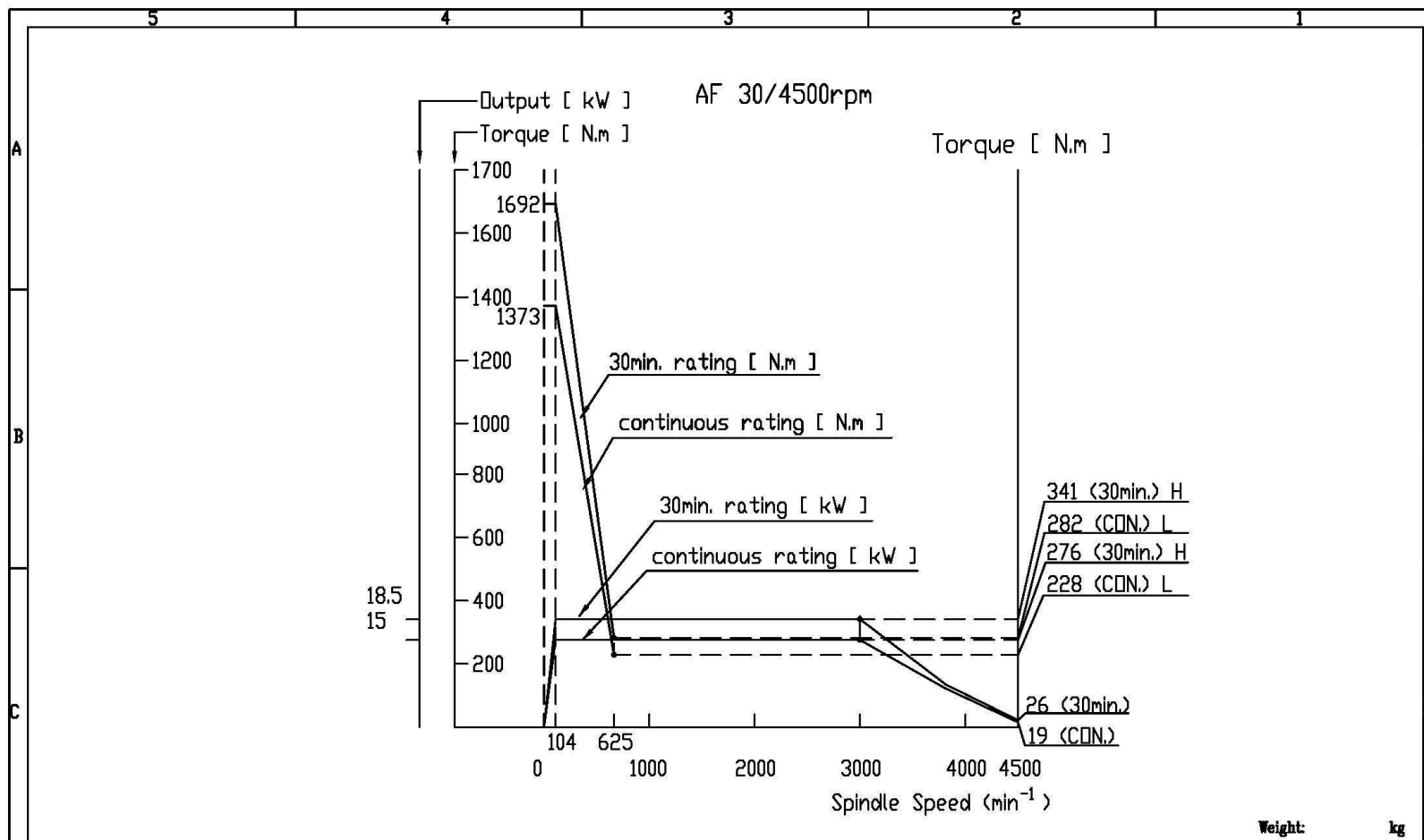
						比例	單位 mm	材質		機 種	DK4500	數量
						設計	審 核	技 術		圖 名	Spindle torque	
						繪圖				圖 號	DK4500AF18	
記號	日期	位置	修 改 內 容	簽 名	備 註	日期			鼎冠機械股份有限公司 DING-KOAN MACHINERY CO.,LTD	圖 框 A4	版 次 01	

Spindle Torque (Optional)



						比例	單位 mm	材質		機種	DK4500	數量
						設計	審核	核准		■ 名	Spindle torque	
						繪圖				■ 號	DK4500AF22	
記號	日期	位置	修改內容	簽名	備註	日期	鼎冠機械股份有限公司 DING-KUAN MACHINERY CO.,LTD			■ 框	A4	版次 01

Spindle Torque (Optional)



						Ratio	Unit: mm	Material		Type	DK-4500	Quantity
						Design	Examination	Approbation		Name	Spindle Torque	
						Drafting				Number	DK4500IP30	
Mark	Date	Position	Revised Content	Signature	Information	Date	DING-KOAN MACHINERY CO.,LTD				Frame Size	Edition
											A4	01

Spindle

Model	Spindle nose	Spindle end side	Manufacturer	Free side	Manufacturer
Gear-4500RPM	#50	3020/3018 100ENR	FAG	6017ZZ	NSK
Gear-6000RPM	#50	B7020/B7018 P4*4 SET	NSK	6017Z	NSK

Spindle 4500rpm Gears made by TAIWAN

Spindle 6000rpm Gears made by Japan “HAMADA”

Feed axis ballscrew specification

Description	Diameter x Pitch	Precision class	Manufacture	MODEL
X axis	DIN 100mm x 20mm	0.018	HIWIN / PMI ZUAZO	DS-DK 3006 3506
X axis	DIN 80mm x P20mm	0.018	HIWIN / PMI ZUAZO	DS-DK 2004 2500
X axis	DIN 63mm x P16mm	0.018	HIWIN / PMI ZUAZO	DS 2003
Y axis	DIN 63mm x P16mm	0.008	HIWIN/ PMI ZUAZO	
Z axis	DIN 50mm x P10mm	0.008	HIWIN/ PMI ZUAZO	

Feed axis bearing specification

Description	Motor side	Manufacture	Free side	Manufacture	MODEL
X axis	50BS100PN7B 4 SET	NSK	50BS100PN7B 4 SET	NSK-TAC	DS 2003
X axis	60BS120PN7B 4 SET	NSK	60BS120PN7B 4 SET	NSK-TAC	DS-DK 2004 2500
X axis	80BS125PN7B 4 SET	NSK	80BS125PN7B 4 SET	NSK-TAC	DS-DK 3006 3506

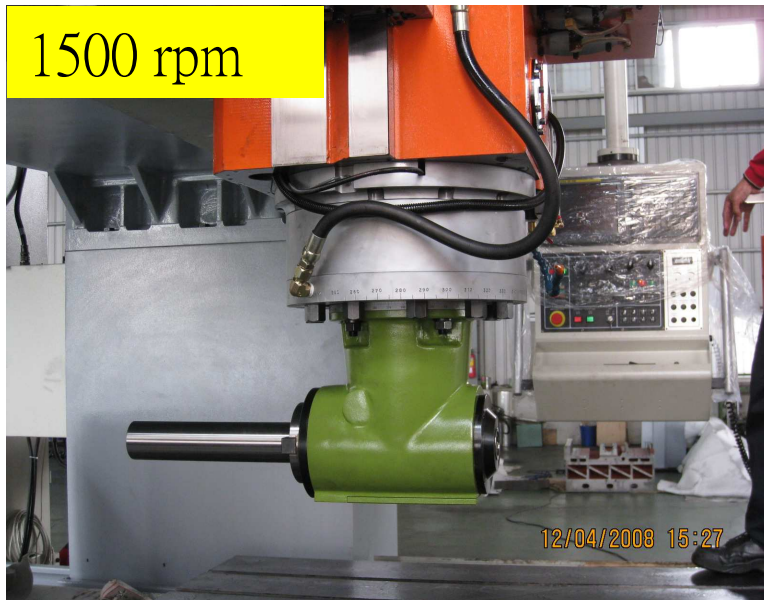
Feed axis bearing specification

Description	Motor side	Manufacture	Free side	Manufacture	MODEL
Y axis	50BS100PN7B* 4 SET	NSK	50BS100PN7B 4 SET	NSK-TAC	DK-DS
Z axis	40BS072PN7B* 3 SET	NSK	40BS072PN7B 3 SET	NSK-TAC	DK-DS

Control system

Brand	MODEL Standard	Optional	Manufacture
FANUC	0 i-MD	31i-M	Japan
MITSUBISHI	M 70		Japan
SIEMENS		828 D 840 D	Germany
HEIDENHAIN		i TNC 530	Germany

Manuel type Angular head



Extension Angular head

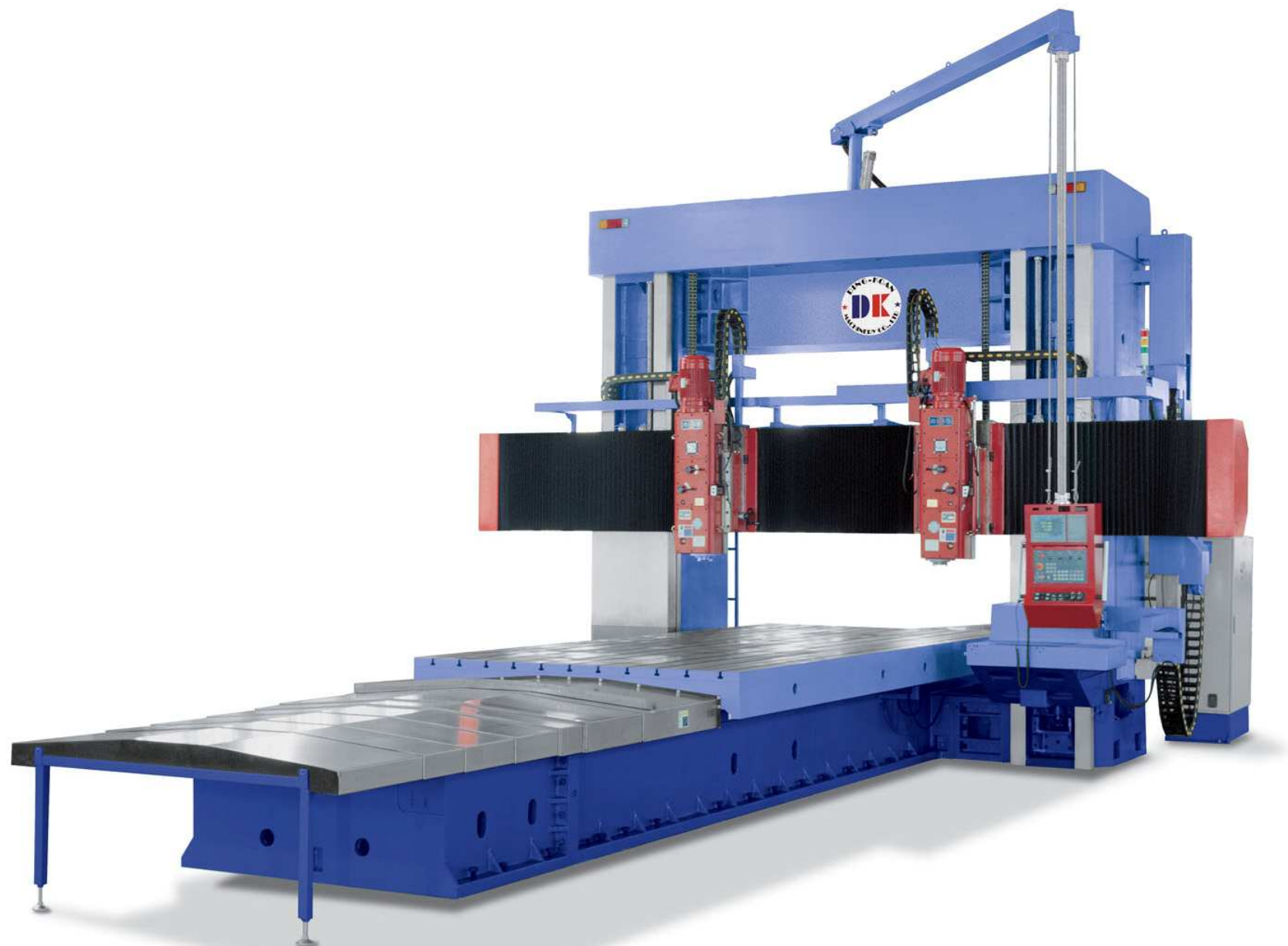


Extension head

universal head



DL-NC TYPE



DL-3008-NC POLAND



DL-3008-NC POLAND



DL-3008-NC TEST



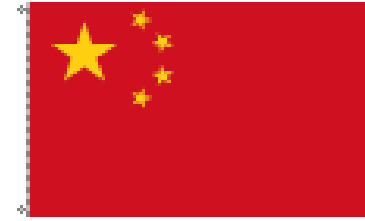
DL-3008-NC TAIWAN



Actual Enhancement & Finishing



DL-3006-NC CHINA



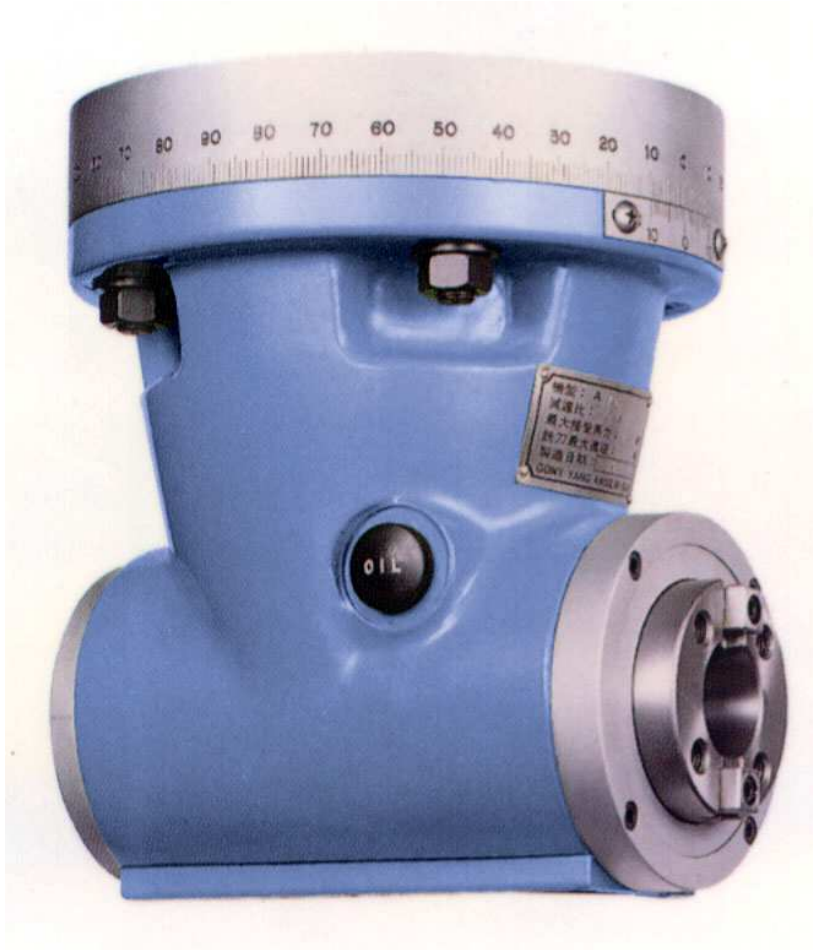
DL-3006-NC TEST



Actual Enhancement & Finishing



Angular head



800 rpm



800 rpm