

Doppelspindel 4 Achs Drehmaschine DOOSAN H310TM



Fabrikat	DOOSAN
Modell	H310TM
Baujahr	2003
Maschinennummer	LTH 1008
Steuerung	FANUC 18iTB
Drehdurchmesser	310 mm

INHALTSVERZEICHNIS

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AUSSTATTUNG

1x hydraulisches Dreibackenfutter Fabrikat FORKHARDT Ø 200 mm

1 x hydraulisches Dreibackenfutter Fabrikat KITAGAWA Ø 250 mm

Späneförderer

Betriebsanleitung / Dokumentation

Ohne Werkzeuge und Aufnahmen

Alle weiteren auf den Fotos und Video ersichtlichen Zubehörteile gehören nicht zum Lieferumfang, somit kein Bestandteil für diesen Verkauf. Der Lieferumfang umfasst nur die Zubehörteile, welche hier, im Angebot, Auftragsbestätigung und Rechnung ausdrücklich aufgeführt sind.

TECHNISCHE DATEN

2.1 Machine standard specifications

DESCRIPTIONS		UNIT	SPECIFICATIONS	REMARK
C A P A C I T Y	Distance between both centers	mm (inch)	500 (19.69)	
	Max. turning diameter	mm (inch)	Φ 310 (12.20)	
	Max. turning length	mm (inch)	230 (9.06)	
	Spindle center height	mm (inch)	1200 (47.24)	
S P I N D L E	Nose type		ASA A2-8	
	Taper of hole		MT No.7	
	Front bearing diameter	mm (inch)	Φ 120 (4.72)	
	Hole diameter	mm (inch)	Φ 77 (3.03)	
	Support		Roller/Angular Thrust Bearings	
S P I N D L E	Spindle motor (Cont./30min.)	kW	15/18.5	
	Step no. of spindle	-	Stepless	
	Spindle speed	rpm	35 - 3,500	
	Spindle speed override	%	50 - 150	
T U R R E T	Type		V10 + V10	
	Max. number of tools		10 + 10	
	Standard tool size	mm	□25, Φ40	
	Max. boring diameter	mm	Φ50	Option

DESCRIPTIONS		UNIT	SPECIFICATIONS	REMARK	
F E E D A X I S	Travel	X-axis	mm(inch)	210(8.27)	
		Z-axis		230(9.06)	
	Rapid traverse speed	X-axis	m/min(ipm)	24(945)	
		Z-axis		24(945)	
	Cutting traverse speed		mm/rev	$F = 0.001 \sim 500$ $Max.F = \frac{15000}{R} \times \frac{100}{\alpha}$	R: Spindle Speed (rpm) α: Feed Override (%)
	Feedrate override		%	0~200	(10% steps)
E L E C T R I C E Q U I P M E N T	NC unit type		-	FANUC 18iTB	
	Spindle motor (Cont./30min.)		kW	AC 15/18.5	
	Feed motor (X/Z-axis)		kW	AC 3.0 / AC 3.0	
	Hydraulic pump motor		kW	AC 1.5 - 4Px2	
	Way lubricating pump motor		W	AC 0.53 - 4P	
	Coolant pump motor		W	AC 250 - 2Px2	
	Fluorescent lamp for lighting		W	AC 20x2	
	Total power consumption		kVA	60	
S I Z E	Floor space required		mm(inch)	2840x2125 (111.81x83.66)	
	Overall machine height		mm(inch)	2383(93.82)	
	Machine weight		kg	7800	

2.2 Accessories and equipment

NO.	Name	Contents	Q'ty
1	Numerical control system	FANUC-18iTB System	1 set
2	Hydraulic power unit	DOOSAN standard type (Tank capacity : 11 liter)	2 set
3	Hydraulic chuck	10" Hollow	2 set
4	Coolant equipment	Tool supply type (1 bar)	2 set
5	Coolant tank (Chip pan)	270 liter	1 set
6	Machine light	AC 220V-20W	2 set
7	Door & Cover	Manually sliding door	2 set
8	Leveling block & bolt	DOOSAN standard	8 set
9	Service tools and tools box		1 set
10	Cycle finish buzzer	Electronic buzzer	1 set
11	Hydraulic chuck direction switch	Key switch type	2 set
12	Chuck close/open switch	Foot switch R/L	2 set
13	Oil jug	Capacity 2 liter	1 set
14	Brush		1 set
15	Paint	Blue, White	1 set
16	Silicone bond	100 g	1 set
17	Electrical spare parts	Refer to the electric circuit diagram	1 set
18	Operation manual & Parts list		2 set
19	Electric circuit diagram		1 set

2.4 Hydraulic chuck

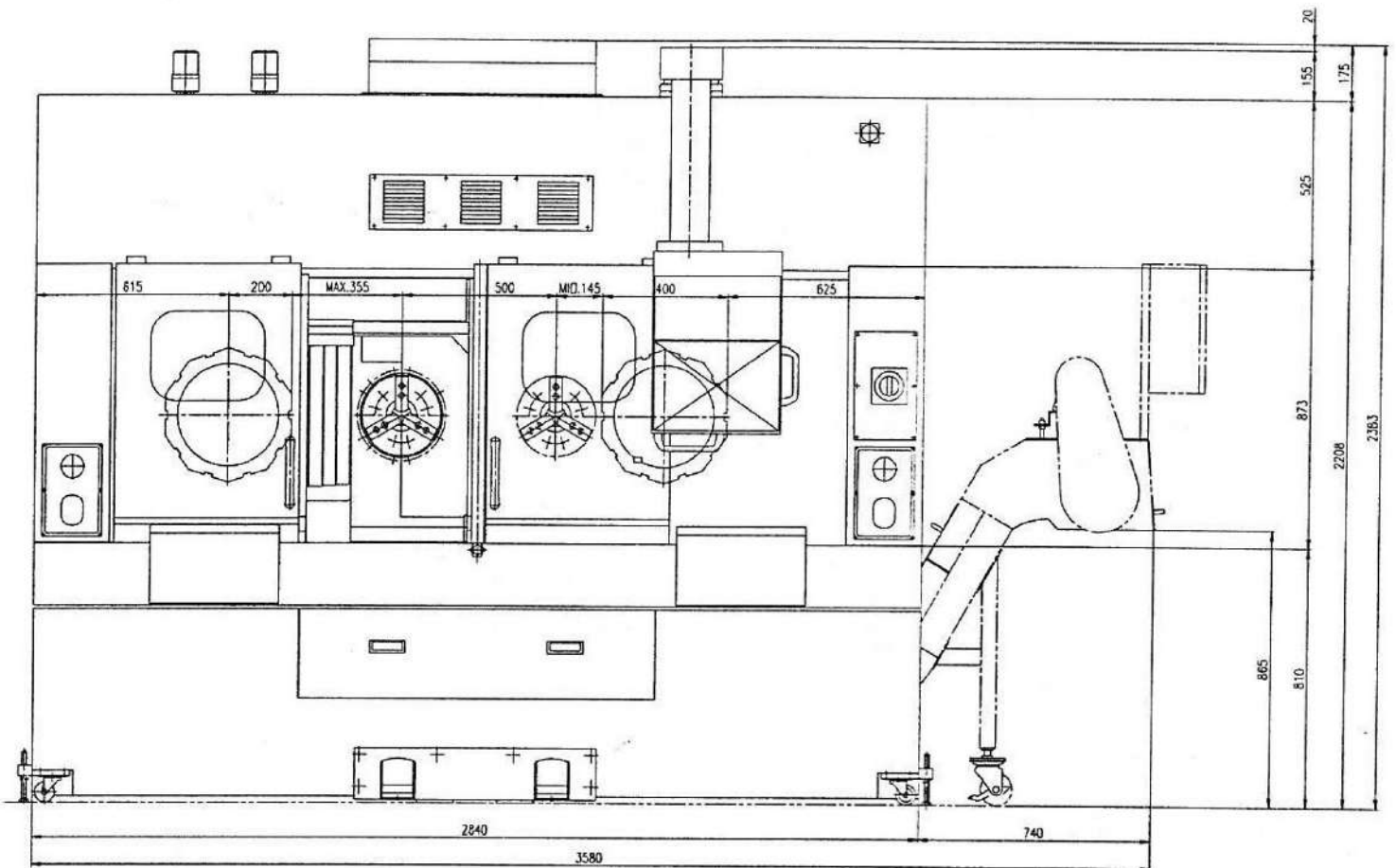
Item	3 Jaw Hollow		3 Jaw Solid	
	10 inch	12 inch	10 inch	12 inch
Type of chuck	HCH-10	HCH-12	HC-10	HC-12
Type of cylinder	HYH-1768	HYH-2078	Y-1225R	Y-1530R
Max. speed (rpm)	3500	3000	4010	3380
Max. pressure(kgf/cm ²)	23.5	23.5	28.6	27.5
Gripping force(kgf/jaw)	3365	4385	3671	5302
Jaw stroke(Dia, mm)	8.8	10.6	8.8	10.5
Max. gripping dia (mm)	254	304	254	304
Min. gripping dia (mm)	25	19	24	26

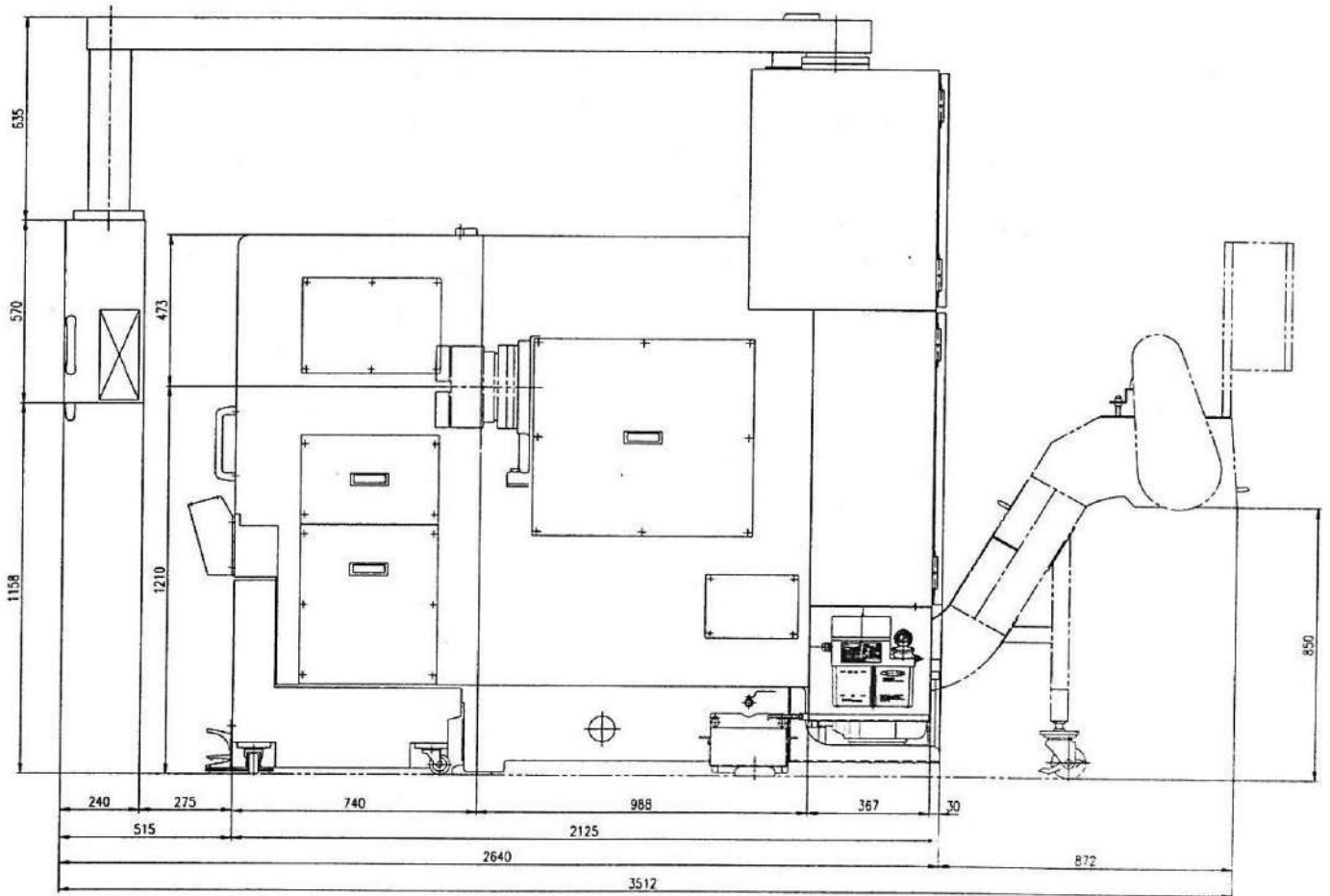
2.6 NC unit specifications (FANUC-18iTb)

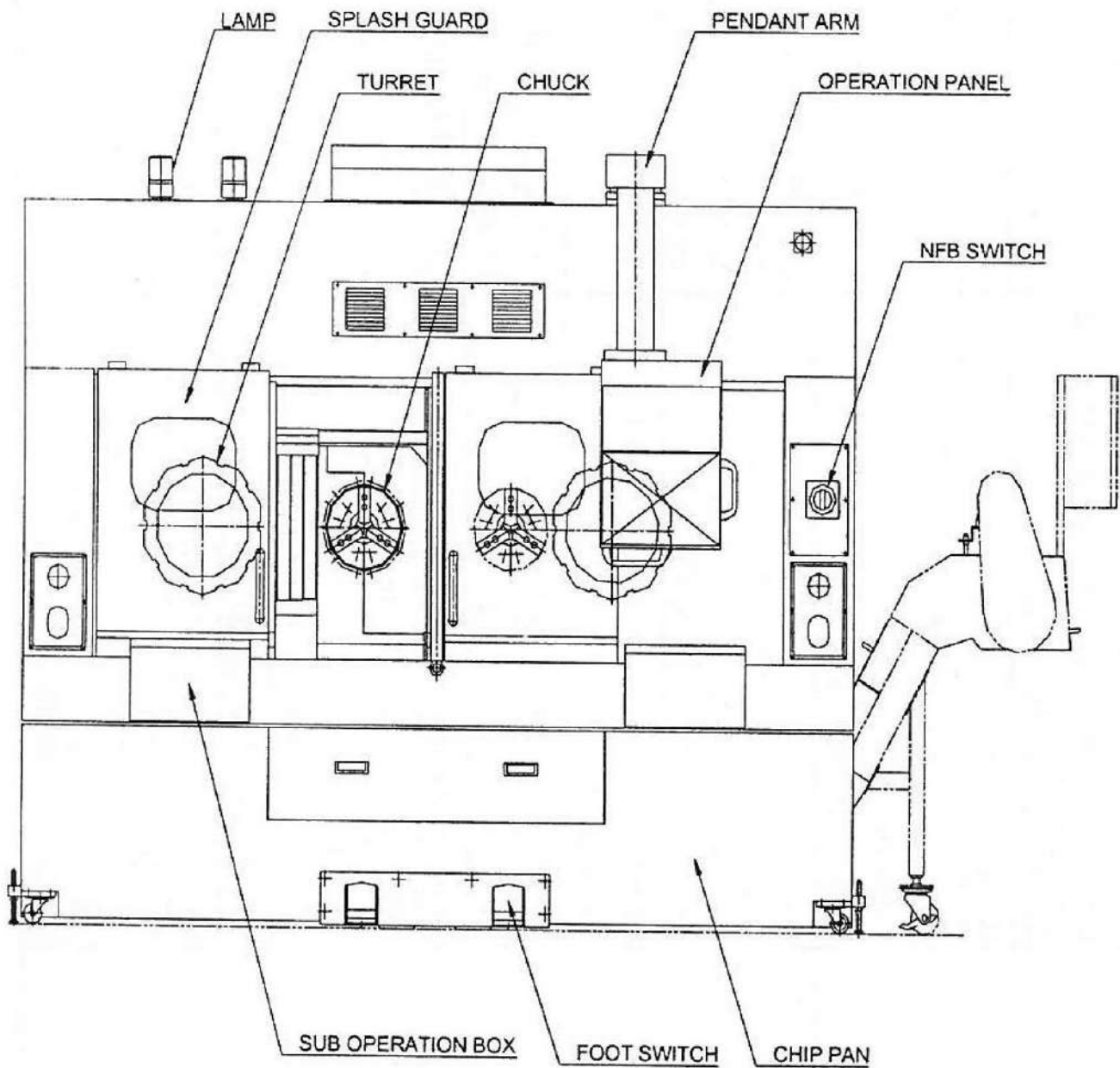
ITEMS		SPECIFICATION	
STANDARD	CNC CONTROL	FANUC 18-iTB	
	Axes Control	Controlled Axes	2 Axes : X,Z-axis
		Simultaneous Controlled Axes	Simultaneous 2 axes(Positioning, linear, Circular Interpolation)
		Least Input Increment	0.001 mm (0.0001")
		Least Command unit	0.001 mm (0.0001")
		HRV control	Servo HRV control
		Interlock	All axes
		Machine Lock	All axes
		Emergency stop	Push button switch
		Overtravel	Hardware overtravel signal
		Stored stroke check 1	Software overtravel signal by parameters
		Stroke limit check before travel	
		Follow up	
		Servo-off	
	Spindle Function	Backlash Compensation	Rapid traverse / Cutting feed
		Spindle Speed function	S4-digit, binary output
		Spindle Override	50% ~ 150% (10% step)
		Spindle Serial Output	
		Constant Speed Control for Spindle	G96
	Tool Function	Spindle Orientation	1 Position
		Tool Number Command	T2/T4 digits
		Tool Offset Values	Offset Value ± 6 Digits 64 Pairs
	Program Function	Tool Geometry/Wear Offset	
		Multiple Repetitive Canned Cycle	G70~G76
		Canned Cycle	G90, G92, G94
		Canned Cycle for Drilling	G80~G89
		Inch/Metric Conversion	G20/G21
		Back-Ground Editing	
		Sub-Program Call	4 levels of nesting
		Program end & Rewind	M02, M30
		Program stop	M00
		Optional stop	M01
		Optional Block Skip	1 block(/)
		Program Number Input	04-digits
		Sequence Number Input	N5-digits
		Maximum Program value	$\pm 99999.999\text{mm}$ ($\pm 9999.9999''$)
Program Protect		controlled by key switch	
M function		M3-digits	
Manual Absolute On/Off			
Custom Macro B			
Chamfering/Corner Rounding			
Programmable Data Input		G10	
Direct Drawing Dimensions Programming			
Radius Programming on Arc			
Diameter/Radius Programming(X-axis)			
Extended Part Program Editing			

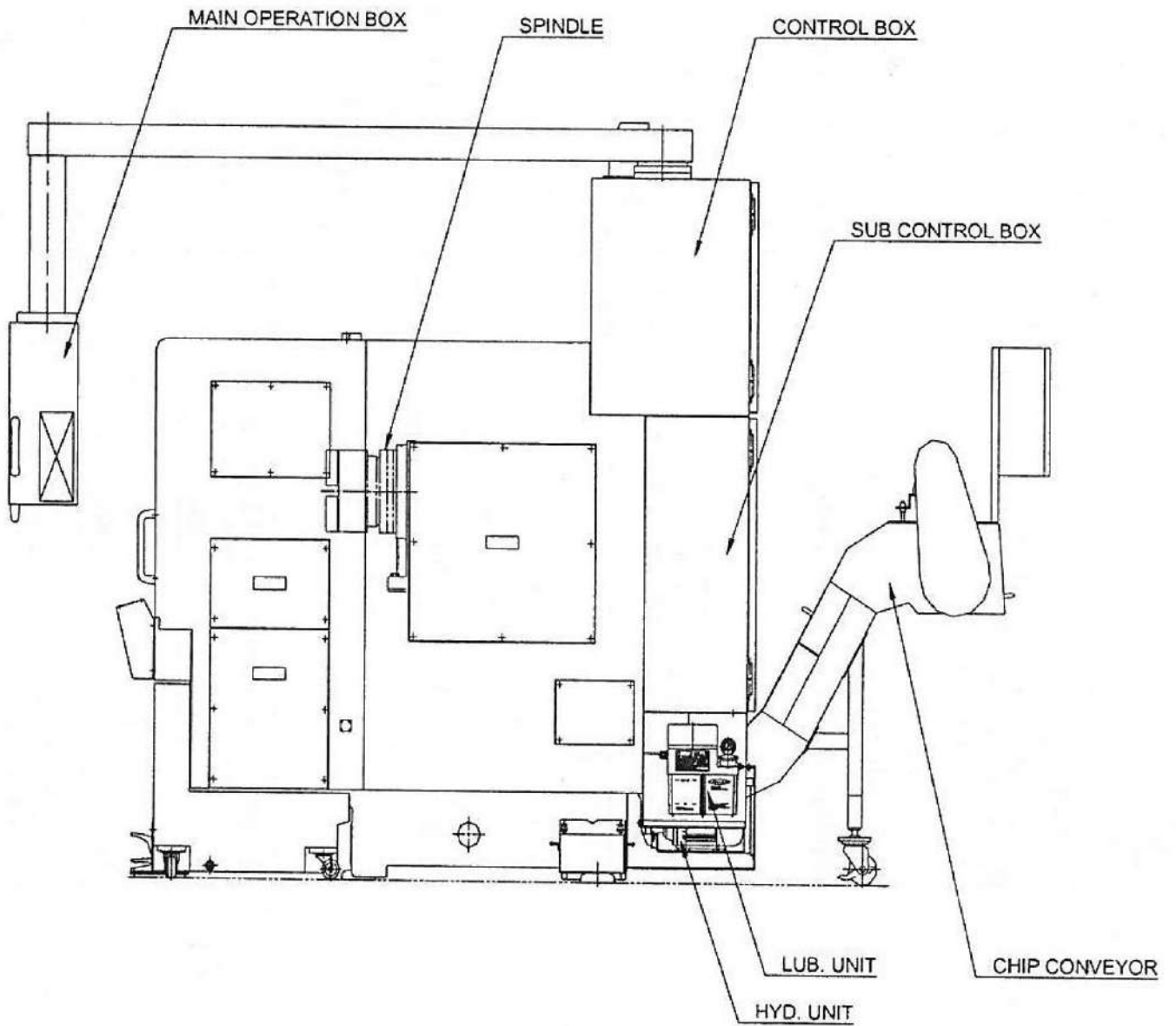
ITEMS		SPECIFICATION	
STANDARD	Feed Function & Interpolation	Feedrate Override	0 ~ 200% (10% step)
		Override Cancel	
		Dwell	G04
		Positioning	G00
		Linear Interpolation	G01
		Circular Interpolation	G02, G03
		Skip Function	G31 (only Software)
		Reference Point Return	G27, G28, G29
		2nd Reference Point Return	G30
		Manual Pulse Handle Feed (1 unit)	M.P.G 0.001, 0.01, 0.1mm/pulse (0.0001", 0.001", 0.01"/pulse)
		Dry run	Jog feedrate
		Rapid Traverse Override	0-100% (10% step)
		TAPE Function & Editing	Tape Input Code
	I/O Interface		RS232C
	Part Program Storage		160M (64Kbyte)
	Registered Program Quantities		63
	Others	Display Unit/Key Panel	7.2" LCD(Monochrome)/MDI(Small)
		Operation	Memory/MDI/Manual
		Search	Program Number, Sequence Number
		Single Block	
		Manual Reference position return	
		Self-Diagnosis function	
		Clock function	
		Run time and Parts number display	
		Help function	
		Alarm display	CNC alarm and Machine alarm
		Alarm history display	CNC alarm and Machine alarm
		Display of actual spindle speed and T code	
		Screen clear function	
		Memory card interface	
		Maintenance Information display	
		Embedded Ethernet	
	Tool life management		
Option	Special Function (OPTION)	Display unit	8.4"/10.4" Color LCD
		Graphic Display	Only Tool Path (Monochrome or Color)
		Dynamic Graphic Display	Tool Path and Machining profile drawing
		Addition of tool pairs for tool life management	512 group
		Number of tool offsets	99/400/999 PAIRS
		Part program storage	320m/640m/1280m/2560m
		Registered Programs	125/200/400/1000 pcs
		External program number search	
		Stored Stroke Limit Check 2/3	
		3rd/4th Reference Point Return	G30
		Machining time stamp function	
		Multiple Repetitive Cycle II	for Pocket type
		Absolute Pulse coder	for servo motors
		Super Cap i T	
		Manual Guidance i	

ABMESSUNGEN

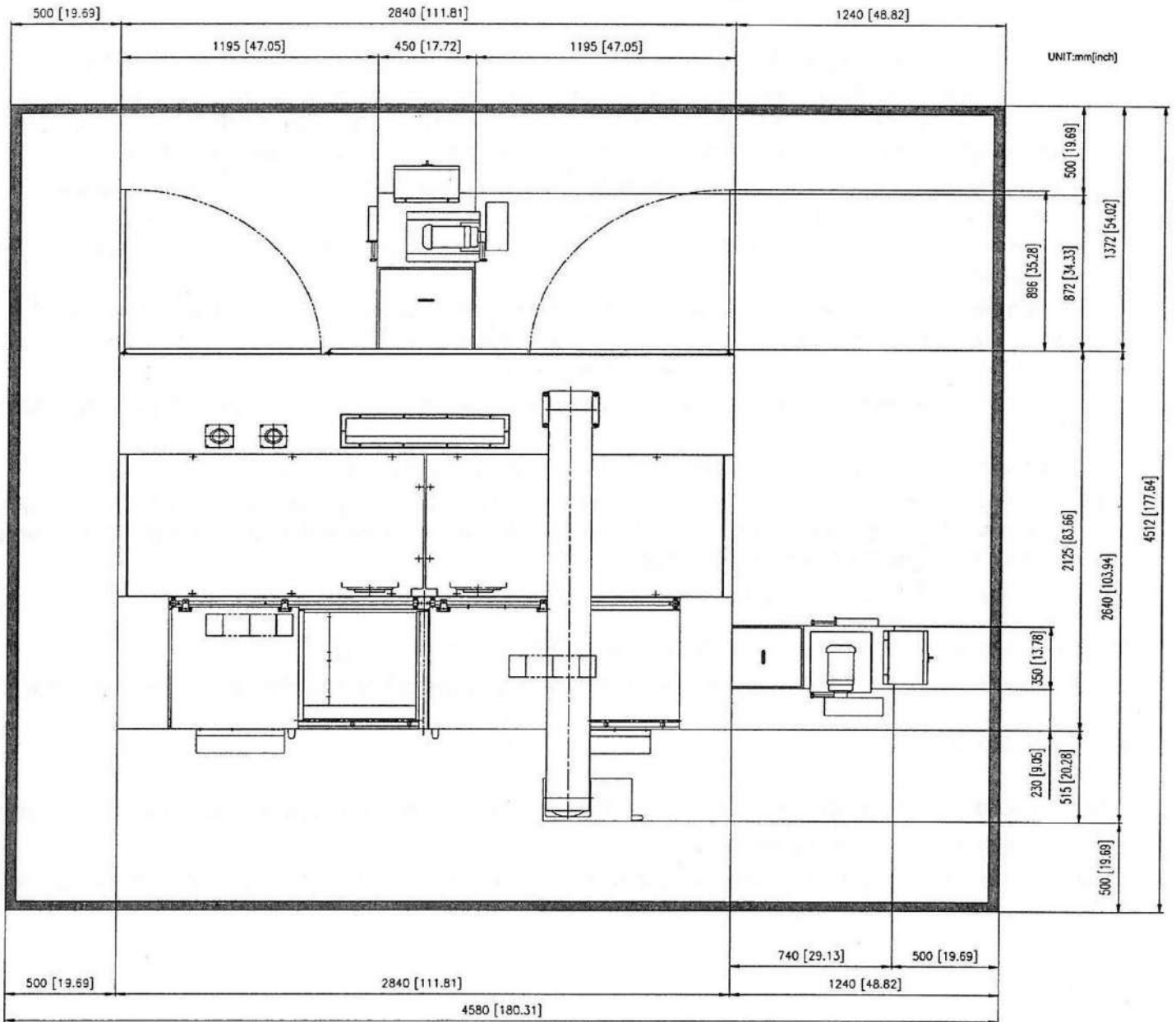




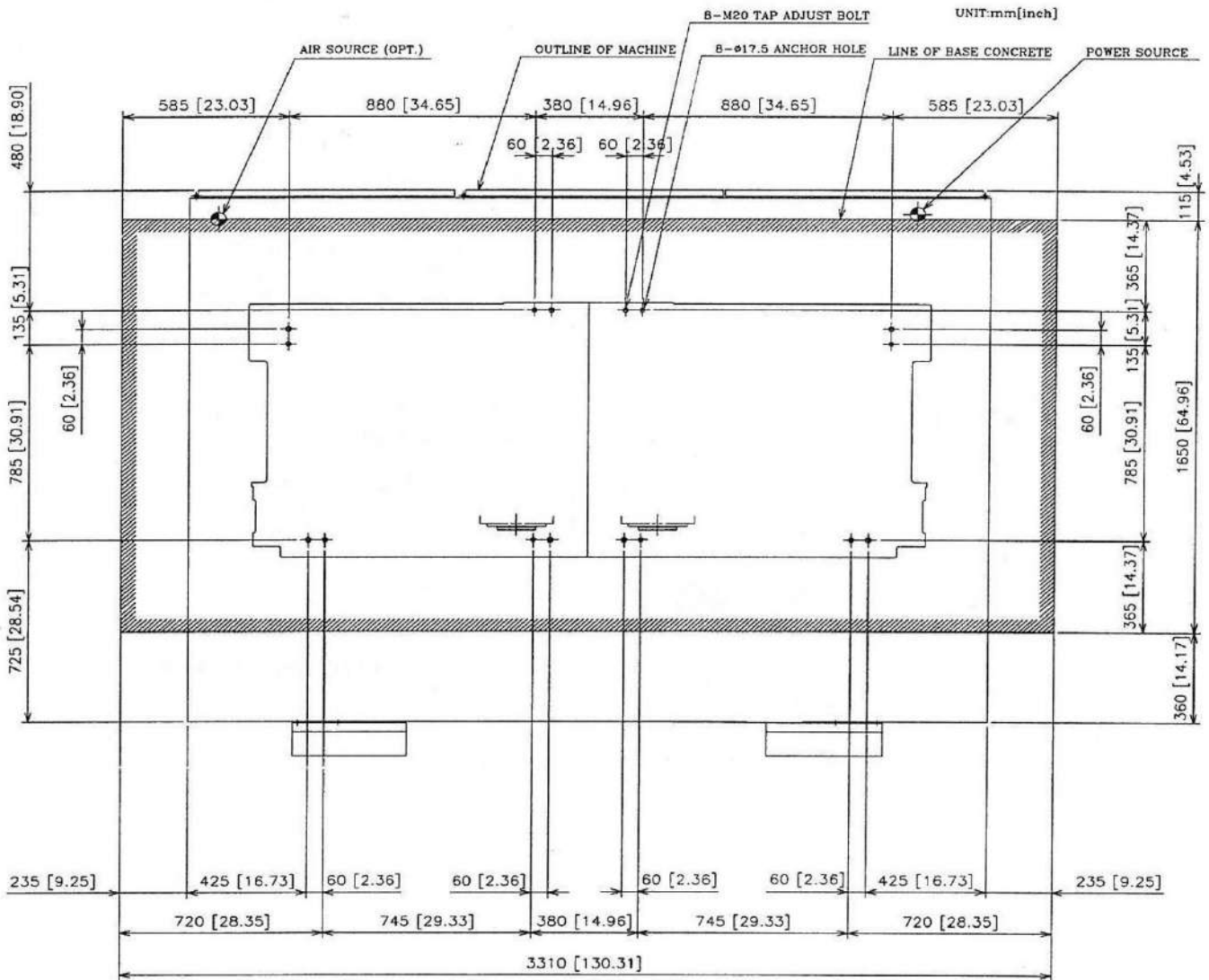




Aufstellplan



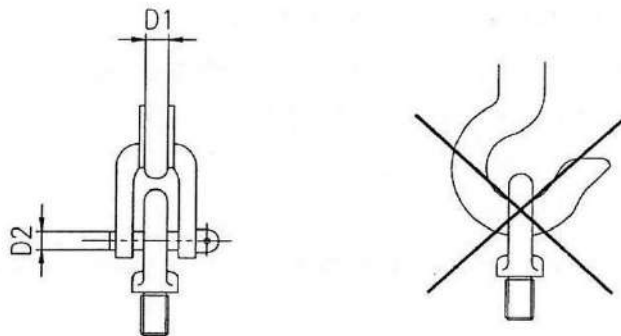
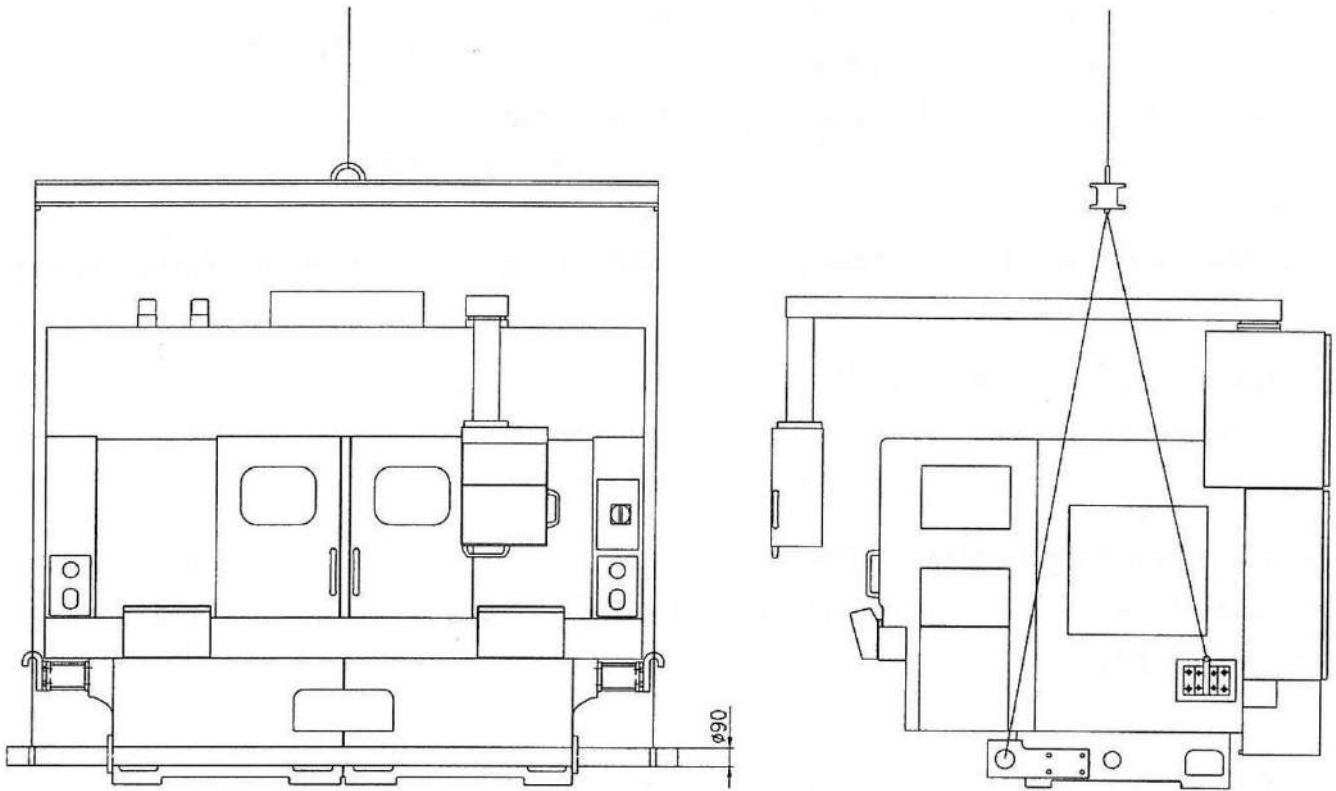
Fundamentplan



Weight and estimated value of surface pressure	
Machine weight	7800 kg
Foundation concrete weight	5300 kg
Average pressure at the bottom side of foundation concrete	2.4 ton/m ²
Required ground durability	3.6 ton/m ²

The machine weight includes the chuck, tool holder, chip conveyor and other pieces of standard equipment.

TRANSPORT



	MACHINE WEIGHT	WIRE ROPE D1	SHACKLE D2
H310T	7800kgf	Over $\phi 20\text{mm}$	Over $\phi 30\text{mm}$

3.3.1 Preparation

Prepare for transportation of the machine in the following sequence.

- 1) Fasten the base-R & L with M24 hex. bolts(3EA).
- 2) Fasten joint plates(3EA) to bases. (front(1), rear(2)of base)
- 3) Put in the saddle and toolpost to the clamp position.
- 4) Fix X, Z-slide plates with locking plate.
- 5) Drain the hydraulic oil, lubricant and coolant.
- 6) Fix the splash guard so that it does not move during transportation.
- 7) Disconnect the power cables.

3.3.2 Disassembly

Remove the following parts from the machine

- 1) Chip Pan
- 2) Chip conveyor (option)
- 3) Bar feeder (option)
- 4) Other unfixed unit

3.3.3 Transportation

It is recommended that this machine be transported with a Crane and attention be paid for the followings.

<Machine transportation with Crane>

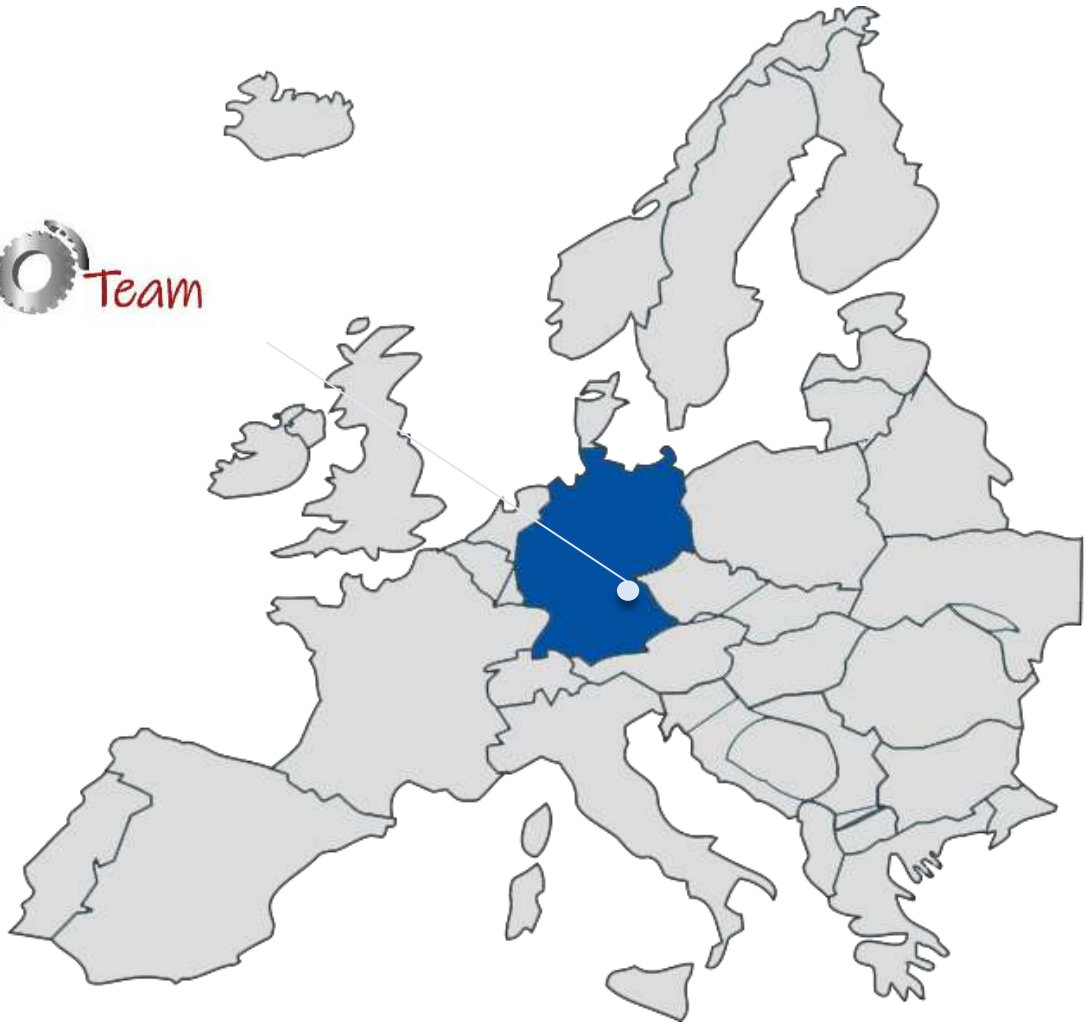
- 1) Hoisting work with a Crane should be done by the person who has a driver's license for Crane.
- 2) To hoist up the machine, use the jigs such as wire rope, shackles and lifting jigs, which can endure the weight enough, according to the specified method.
- 3) Confirm that each part of the machine is fixed before it is lifted up.
- 4) Confirm that there are any needless things like tools or wedges in the machine.
- 5) Confirm the balance of front/rear and right/left with the machine lifted up a little.
- 6) When more than 2 persons work together, be sure to tune the signals one another.
- 7) Refer to the drawing of lifting up for the weight of machine body and the wire rope.
- 8) To lift up the machine, use a lifting jig.
- 9) Use a pad or a block of wood so that the wire rope might not contact directly with the machine.
- 10) Be sure that the angle between the lifting hook and the wire rope is not too high.
- 11) Be sure that the machine is not inclined while hoisting it up.
- 12) Hoist up the machine slowly and stop it when the rope is tightly pulled. And then confirm the fixed status of the rope and lift it up to the required height.
- 13) Hoisting down should also be done slowly, and stop before it contacts on the ground. Then, confirm the position and get it down.

MASCHINENBILDER



Vielen Dank für Ihr Interesse

maschinen  Team



Diese Unterlagen legen keinen Anspruch auf Vollständigkeit und Richtigkeit. Eigenschaftszusicherungen werden mit den hier enthaltenen Angaben ausdrücklich nicht übernommen. Es handelt sich um eine Gebrauchsmaschine.