

CHAPTER2: Description of whole machine

2-1 Application

Safety Glass Processing Machine uses:glass tempering

In order to achieve optimal operation, detailed instructions please visit Chapter 5

2-2 Machine's purpose and service life

This machine can toughen different type flat glass, especially for Coated Glass (Reflecting Glass) (Low-E Glass) have greatest function, and under normal operation and maintenance, it can be used for more than 10 years.

Note: This machine do not engage in product processing other than glass or beyond this machine outside the specified size glass products

2-3 Types

Review coding principles of tempered furnace machine

2-4 Overall Dimension

- 2-4-1. In principle, it should apply the similar types of machine regardless of TCF-GTHB-F, AN or AAN. Except blower, the appearance sizes of above machines should be the same (except negotiation is made for special requirements proposed by customers)
- 2-4-2. Blower size depends on machine type and thinnest thickness of glasses produced.
- 2-4-3. Please refer to overall assembly diagram in machinery drawings.

2-5 Blower Installation

The blower install position will be limited by the client area, also the machine dimension will be changed. Refer to machinery drawings.

2-6 Specification

Refer to machine specification: machinery drawings& electronic drawings.

2-7 Machine lay out

2-7-1. Machine dimension refers to overall assembly diagram in machinery drawings.

2-7-2. Phneumatic drawing refers to that in machinery drawigns.

2-7-3. Electrical circuit drawing refers to electrical drawing.

2-8-1. Operation position

Please check attachment 00000 for the actual layout.

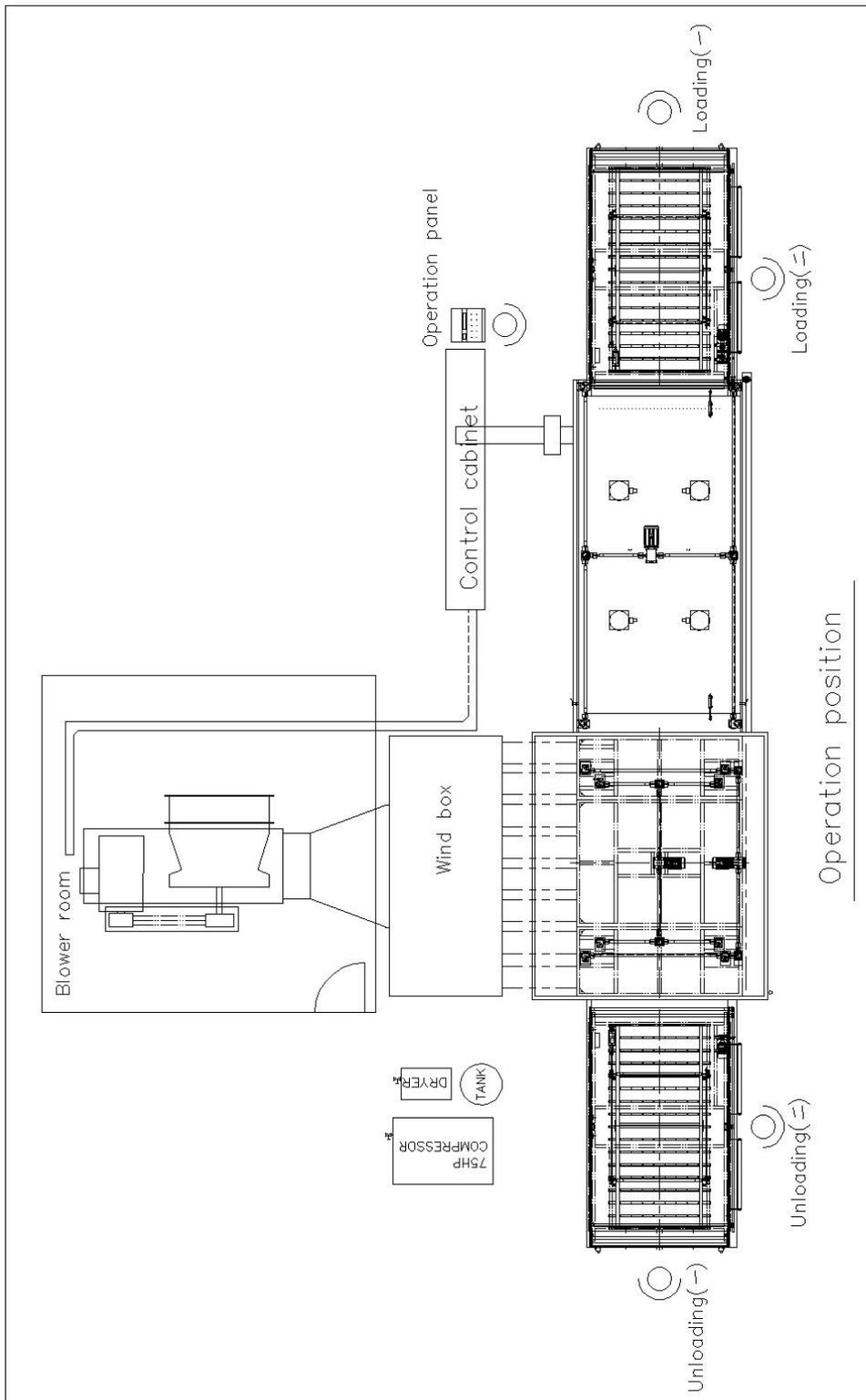


Figure 2-1 Working Position of operator

2-8-2 Noise measurement

The noise measurement has to be approximate 80~90 db (the measurement point must be above of ground 1600mm)

Measurement condition: Bolower operating under max. speed

Sound proof facilities are disposed by TCME or entrusted by customers.

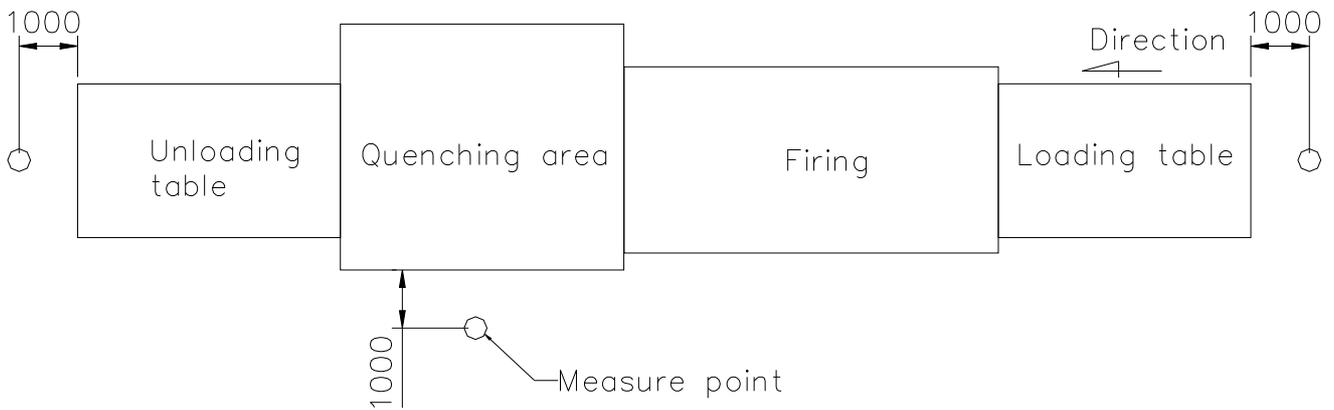


Figure 2-2 Noise Measurement Diagram

2-9 The sign description and position. (Including warning sign, CE sign, label and other sign etc.)

2-9-1 Meaning of the sign



Figure 2-3 Beware high temperature



Figure 2-4 Beware gear movement



Figure 2-5 Electrical danger sign



Figure 2-6 Keep away from high voltage



Figure 2-7 Beware extrude



Figure 2-8 Beware chain movement



Figure 2-9 Beware belt movement



Figure 2-10 Do not risk approaching



Figure 2-11 Do not risk approaching



Figure 2-12 Greasing holes



Figure 2-13 Oil draining hole



Figure 2-14 Beware burst



Figure 2-15 Safety shoes required



Figure 2-16 Safety anti-slip glove required



Figure 2-17 Transport point for fork vehicle.



Figure 2-18 Ear protection required



Figure 2-19 Eye protection must be worn when enter the quench section for cleaning

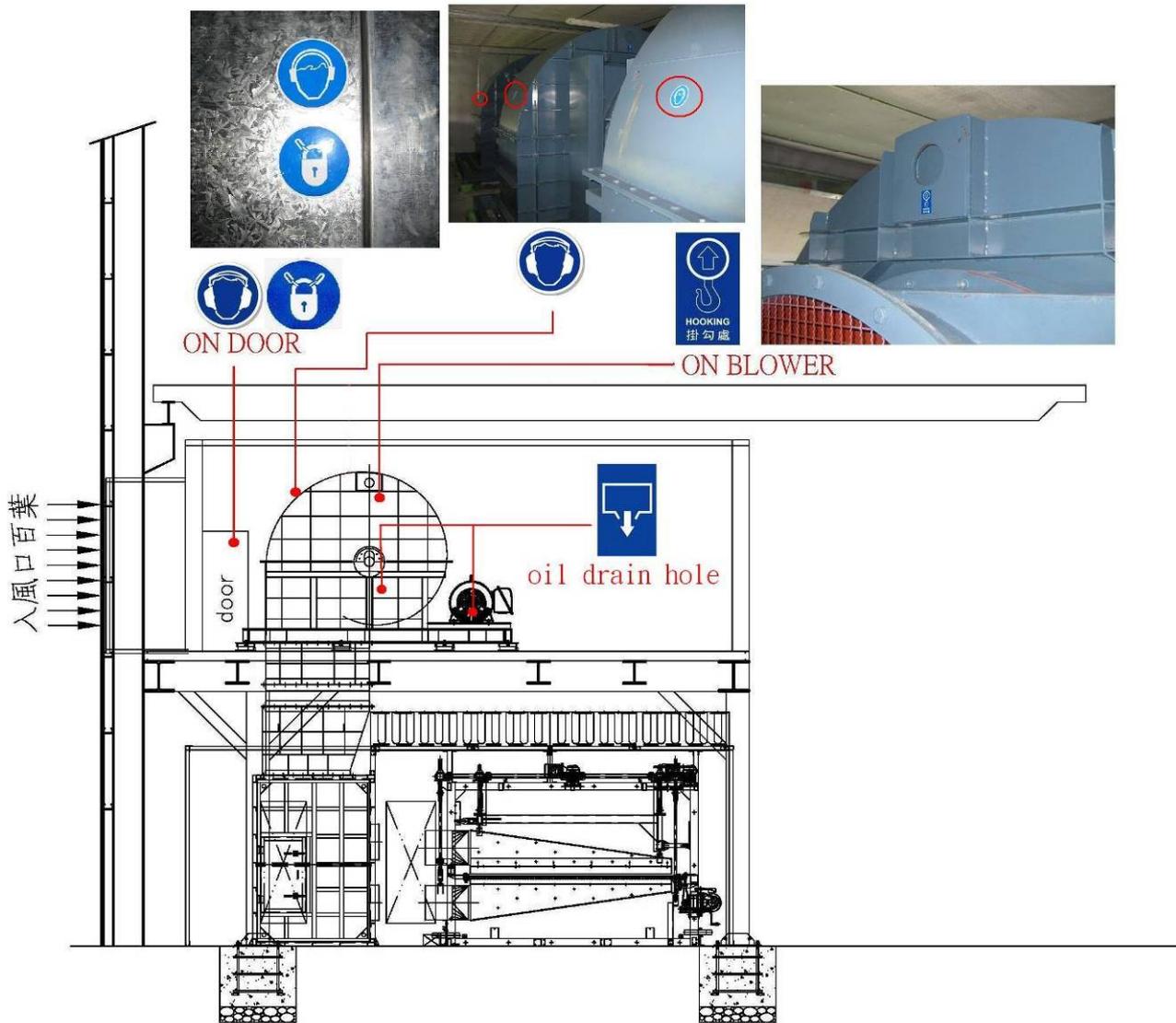


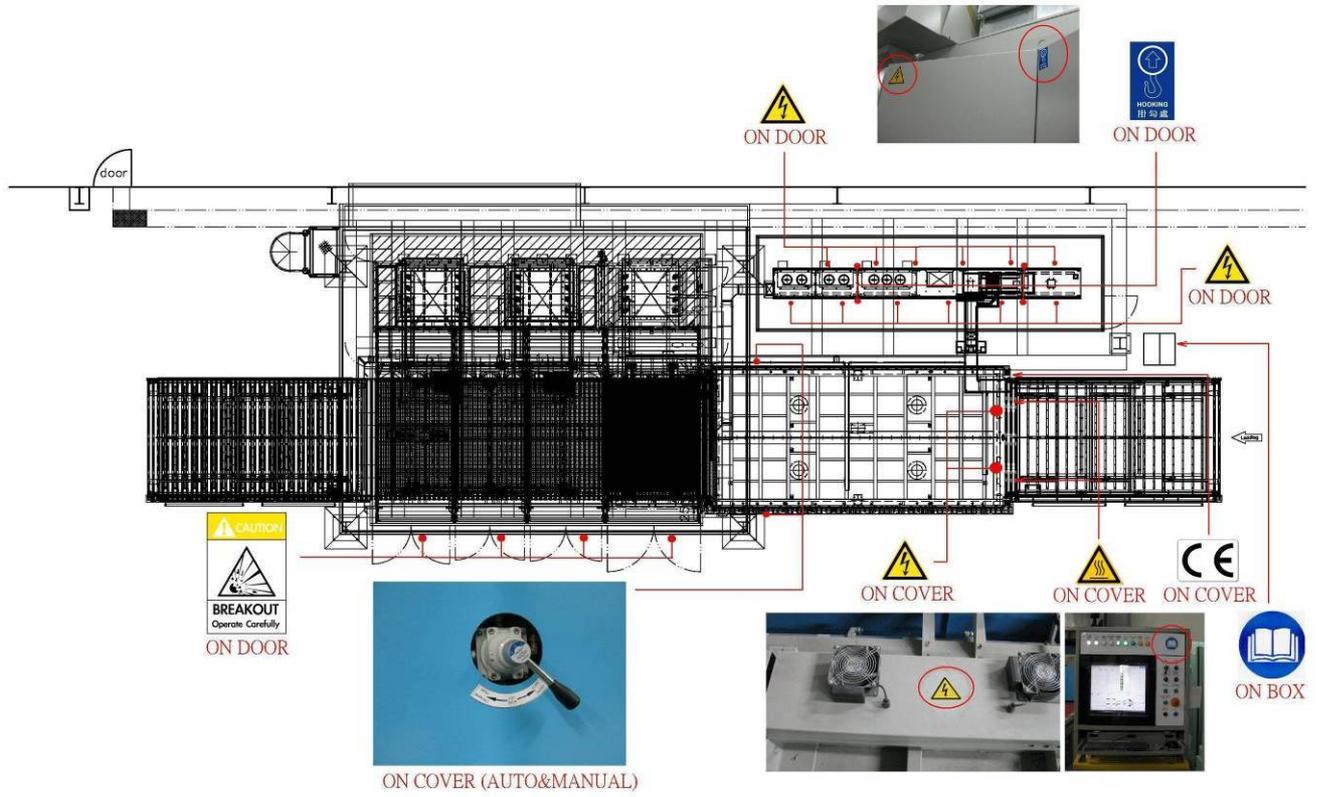
Figure 2-20 Read Manual



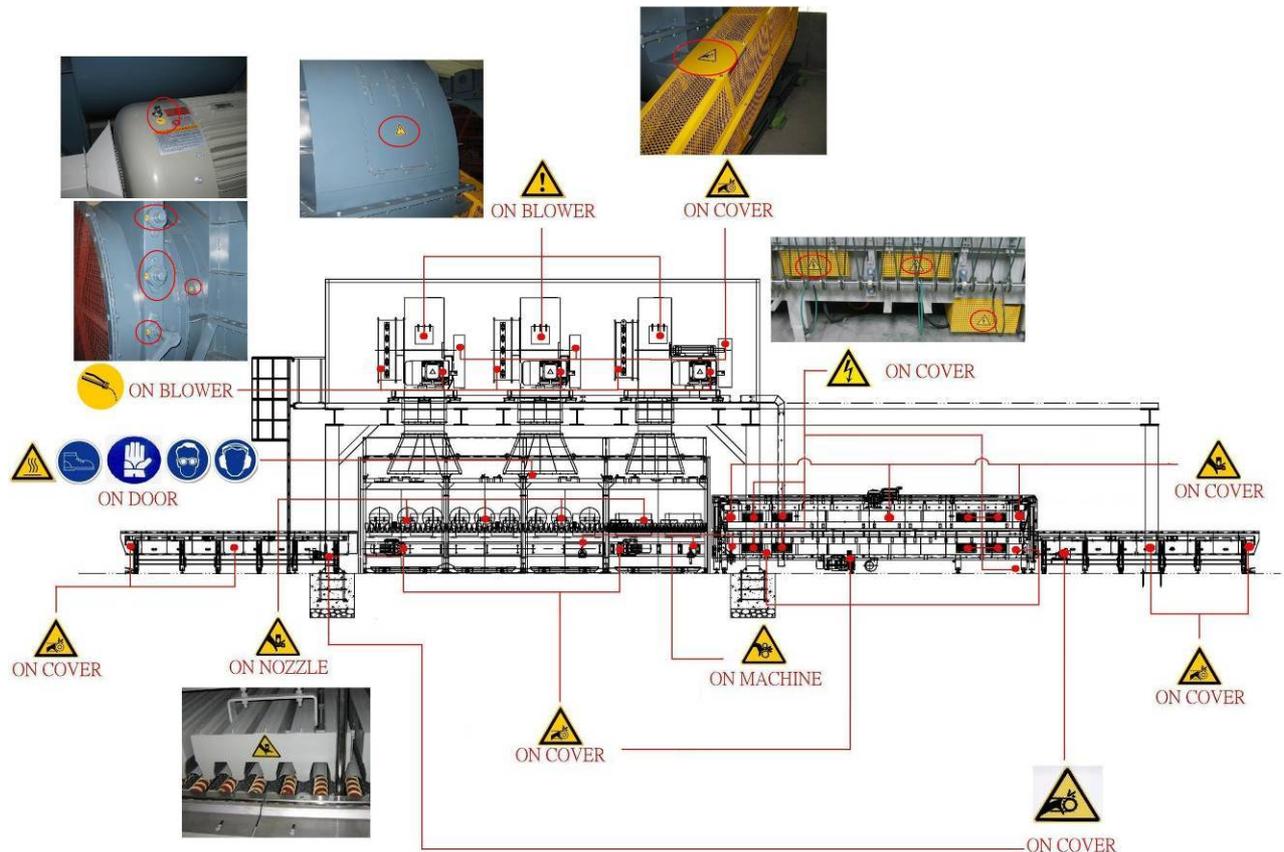
Figure 2-21 Lock the blower room, besides maintenance.

2-9-1-1 Sign position diagram(Figure 2-22a)





(Figure 2-22b Upper) (Figure 2-22C bottom)



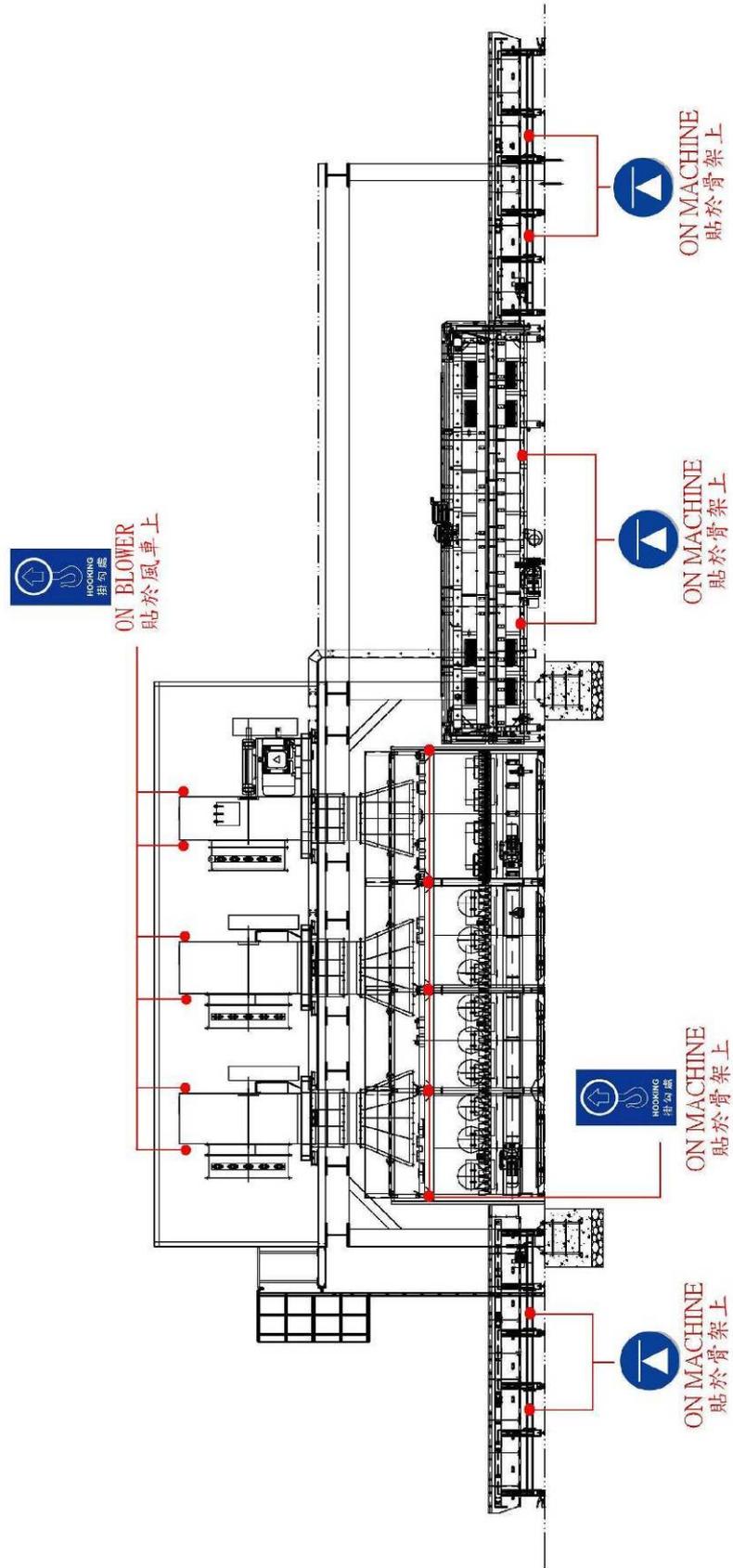


Figure 2-22d

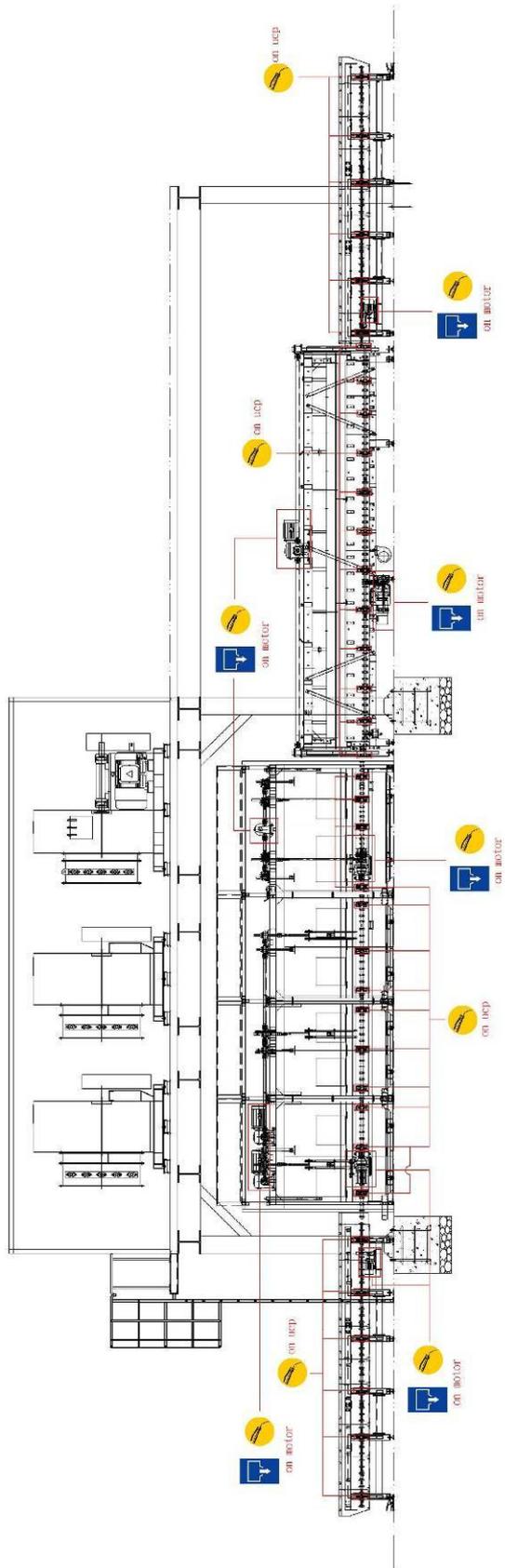
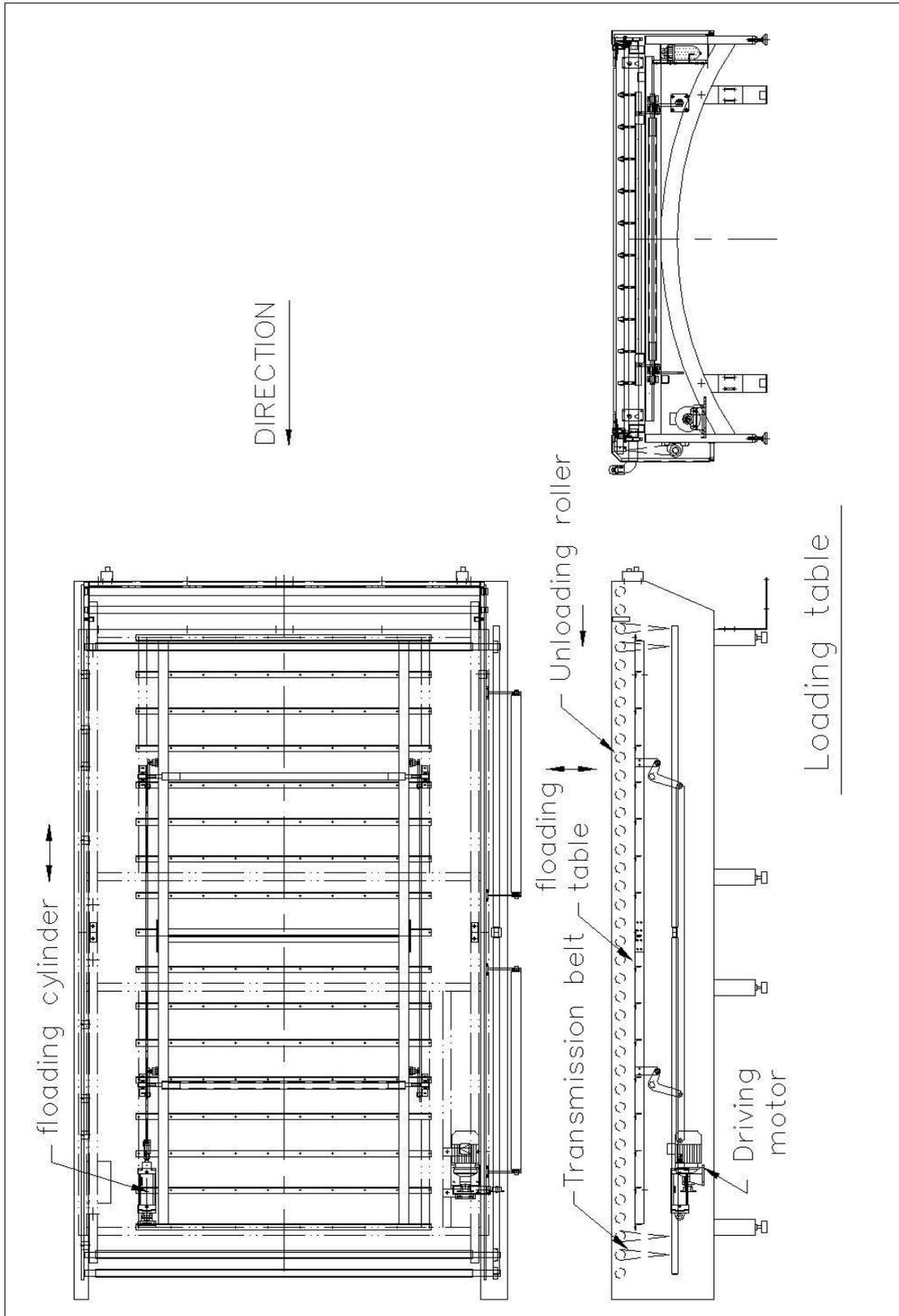


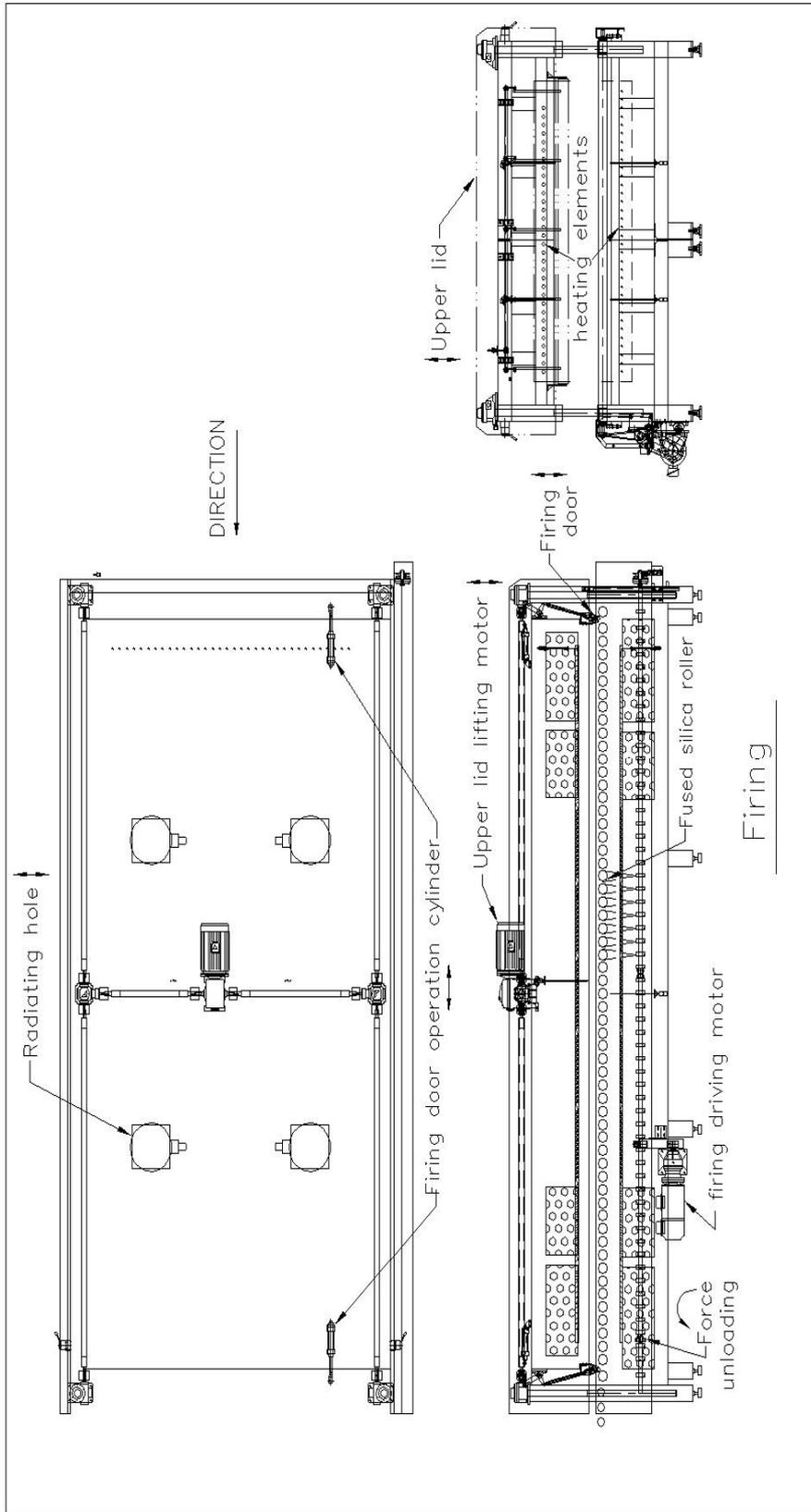
Figure 2-22e

2-9-2 Moving elements

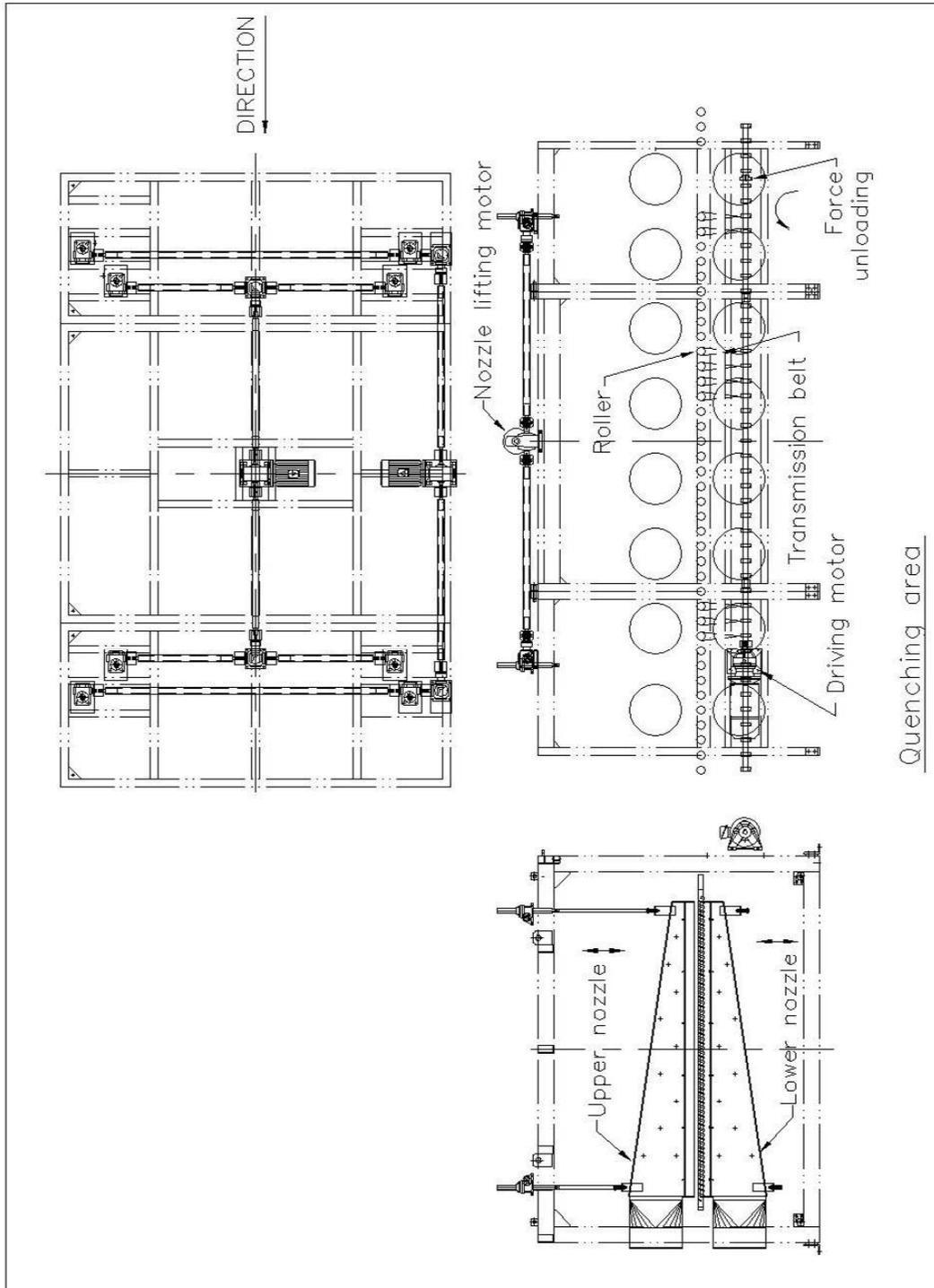
2-9-2-1 Loading table moving elements(Figure 2-23)



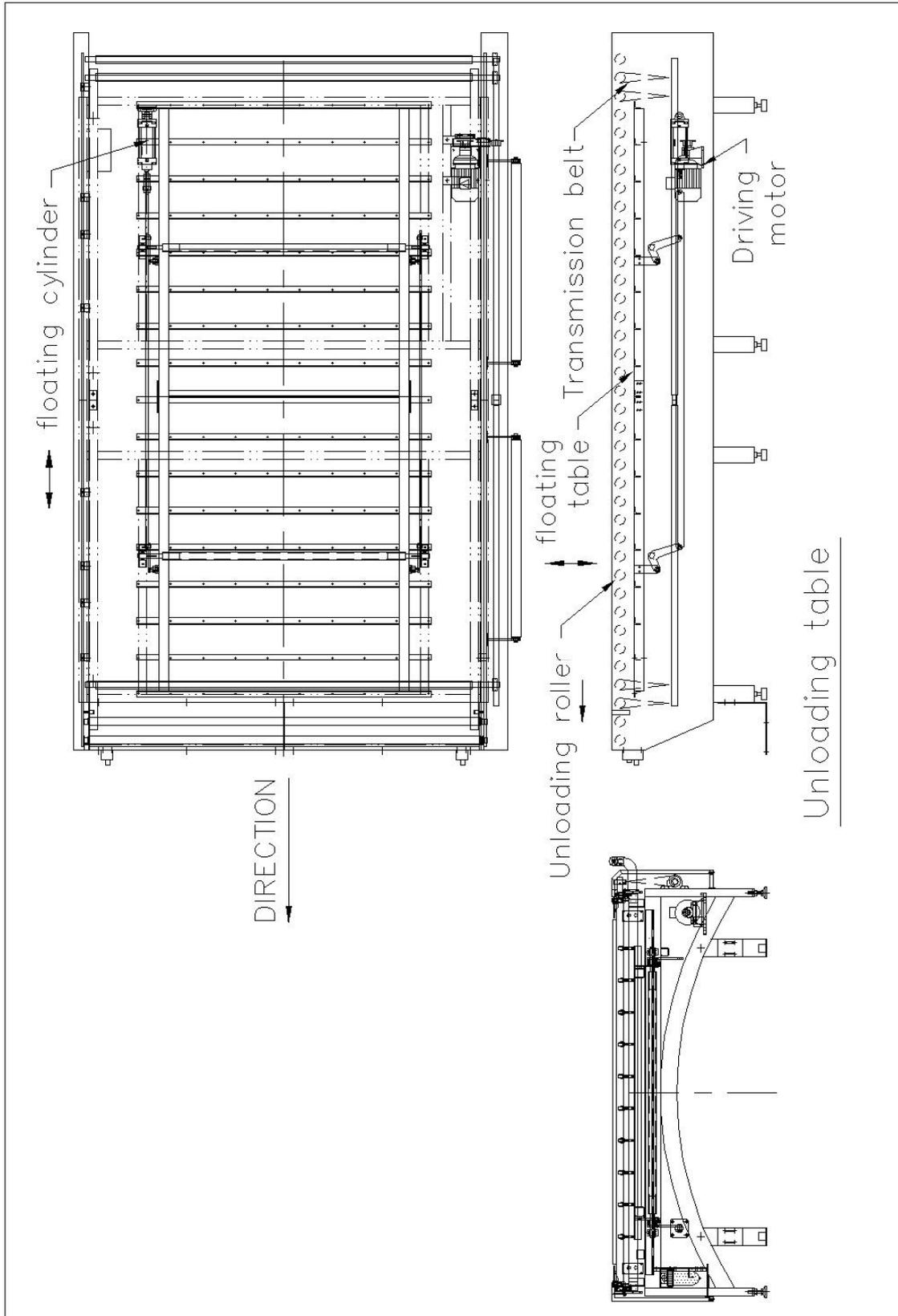
2-9-2-2.Furnace moving elements(Figure 2-24)



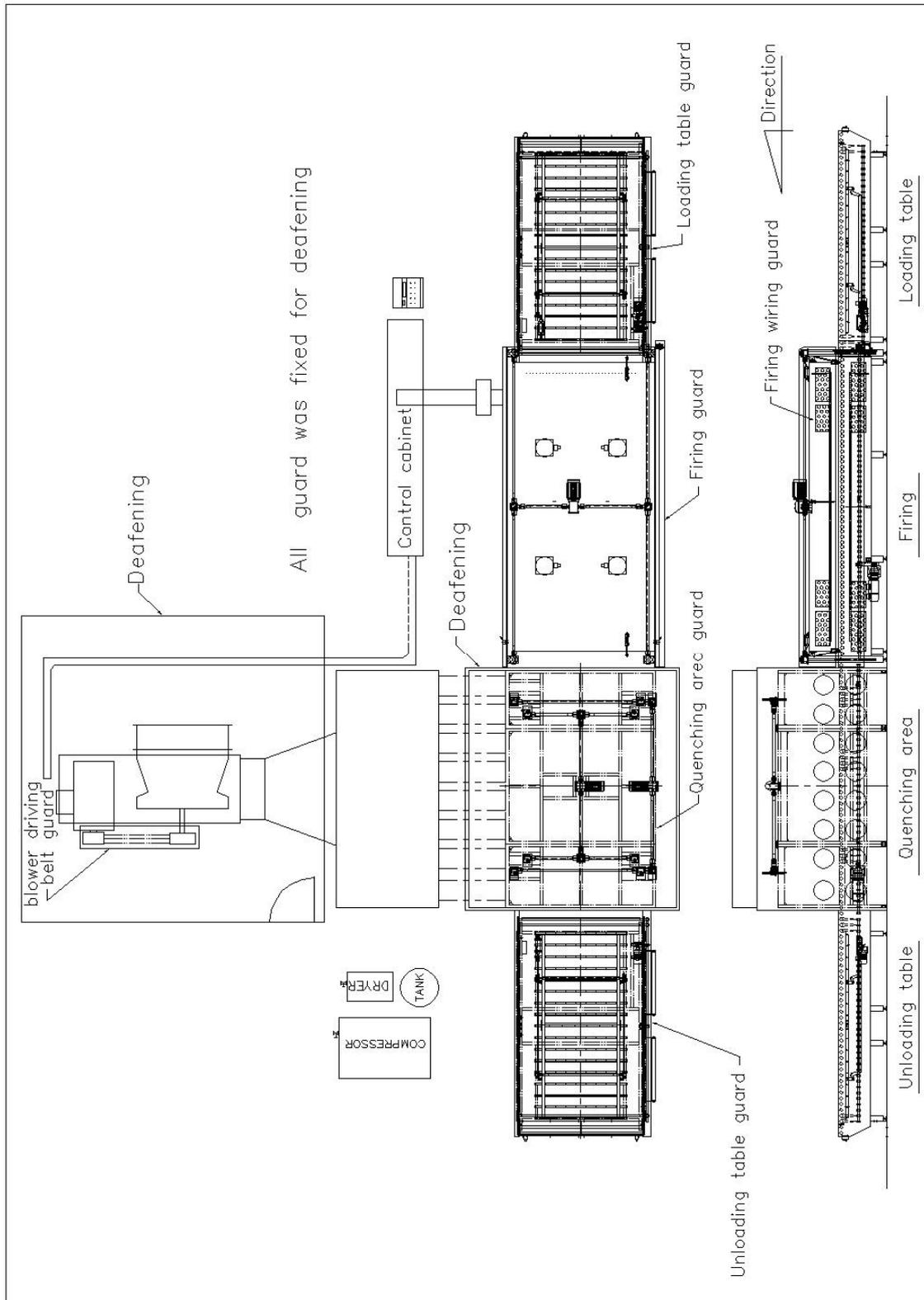
2-9-2-3.Quenching area moving elements(Figure 2-25)



2-9-2-4.Unloading table moving elements (Figure 2-26)



2-9-4.Guard mounting (Figure 2-28)



2-9-5 Nameplate Diagram of Machine

2-9-5-1 Electrical Nameplate Diagram (Figure 2-29)

COOLTEMPER Industrial Control Panel For Industrial Machinery

Equipment Number	TCF-GTHE-108165AANF2S	Manufacture Serial	Q-F 24
Manufacture Date	2015 / 10	Drawing Number	QF24-AE120
Power Source	3Phase + PE + FG WIRE	480 V	50 HZ
		1030 KW	1280 A

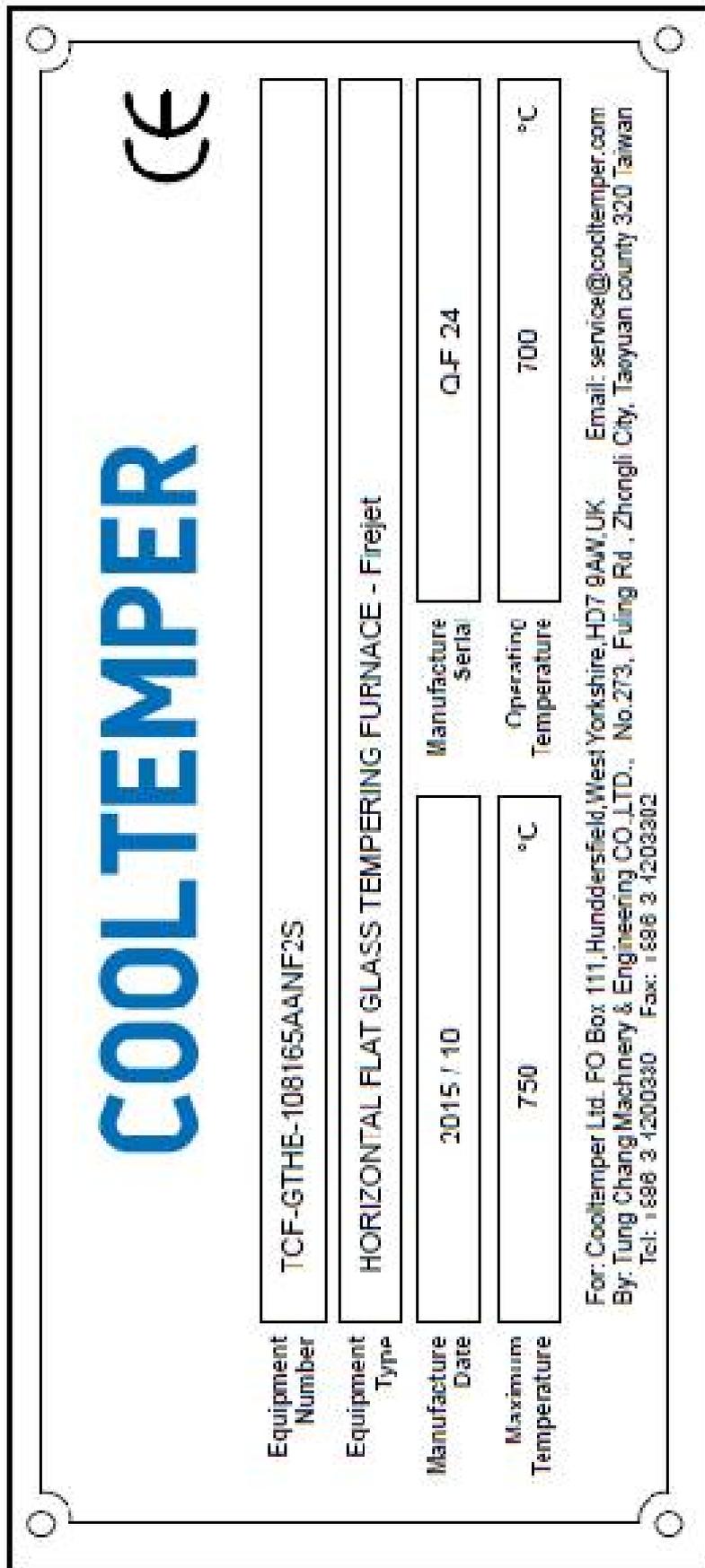
External Over-Current Protection Required

Maximum Load	Heater	512 KW	620 A
UL Enclosure Type			1
	Industrial Control Panel Short Circuit Current Rating		10 kA
	Short Circuit Current Rating Of The Protective Device		65 kA

UL US LISTED
E472934

For: Cooltemper Ltd. PO Box 111, Huddersfield, West Yorkshire, HD7 9AW, UK Email: service@cooltemper.com
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2-9-5-2Machinery Nameplate Diagram (Figure 2-30)



2-10 NOISE LEVEL

Equivalent A-weighted Sound pressure level according to EN ISO 3746: 85 dB(A)

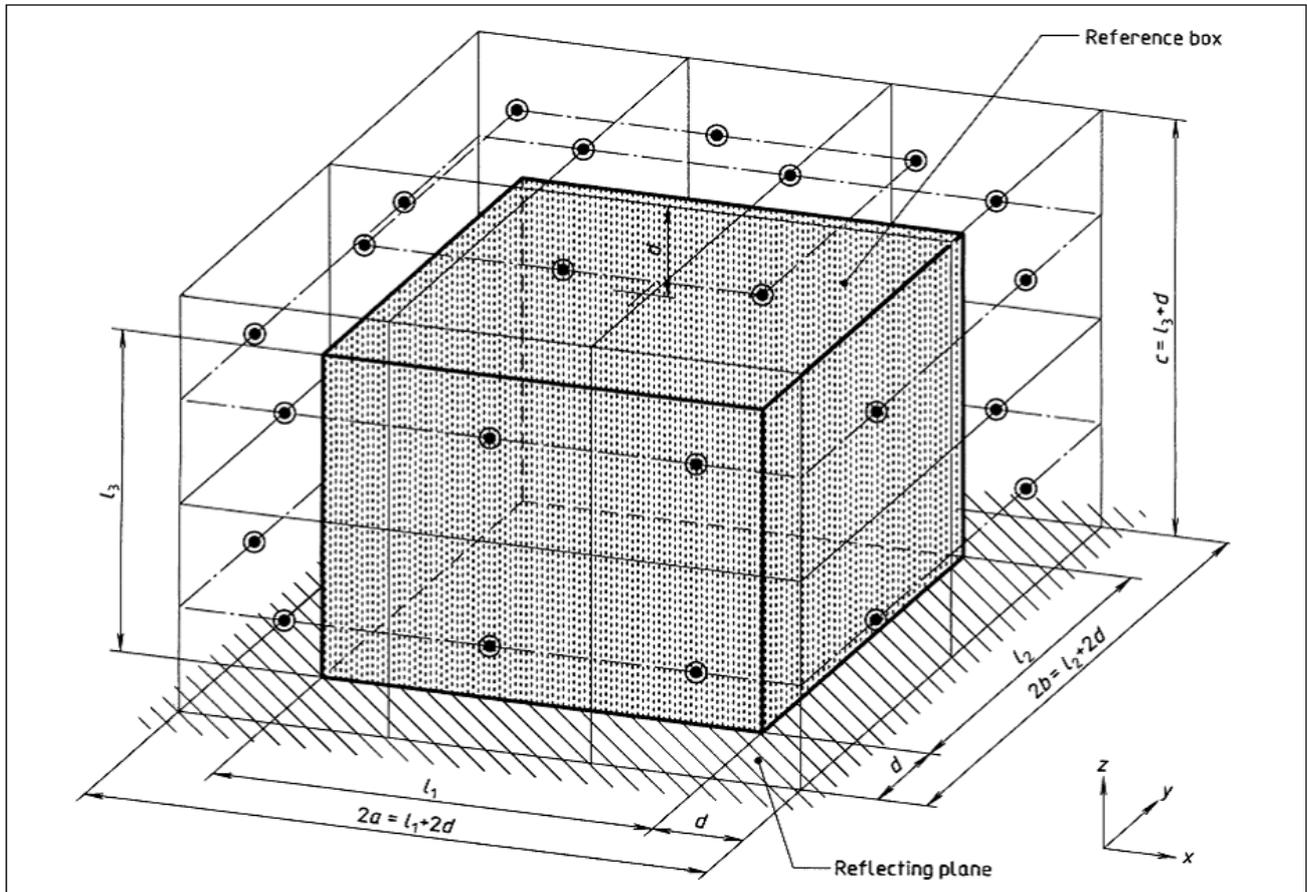


Figure 2-31 Noise Measurement

Uncertainty, K in decibels: 4.0 dB (A) according to EN ISO 4871

The figure quoted is emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country, This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

2-11 Strength of Height Adjustable Leg.

The parts with height adjustable leg : Loading table, Heating Zone and Unloading table.

The height adjustable leg is using M20 screw, Loading support is about 10 TON per leg. Loading table net weight is 2 TON. There are total 12 pcs of height adjustable leg for supporting. Average load is 167KG per leg and 1.67%. Heating zone net weight is 12 TON. There are total 16 pcs of height adjustable leg for supporting. Average load is 750KG per leg and 7.5%.

lable of screw thread	effective cut area(m m ²)	minimum pulling force load(kg)	maximum pulling force load(kg)
M14*2	115	4600	6330
M16*2	157	6300	8640
M18*2.5	192	7700	10600
M20*2.5	245	9800	13500
M22*2.5	303	12100	16700

2-12 Height adjustable leg fixtures instructions

The "leg" fixtures on both sides of the machine are used to prevent the furnace from moving during in earthquake or thermal expansion.



Figure 2-32 Descriptin of Fixing Height Adjustable Feet

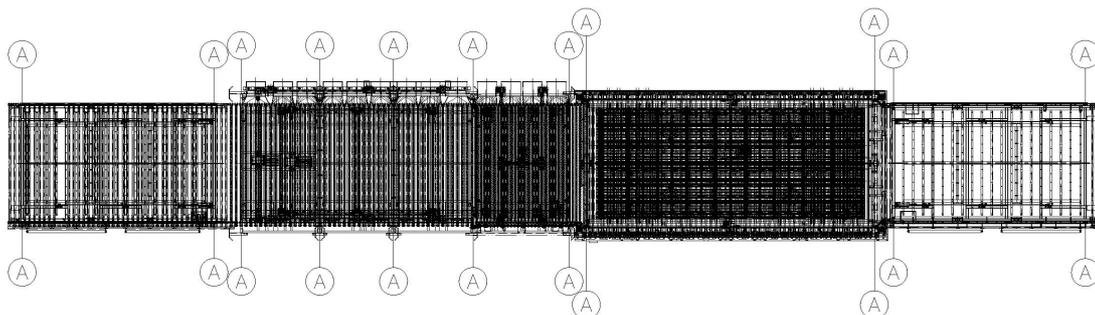


Figure 2-33 A point: fixed leg poiston drawing