

Lyra

- Design
- Transport System
- Heating System
- Heat Transfer
- Residue-Management
- Cooling System
- Engineering
- Overview Lyra

Lyra Reflow System



Stabile Process

Optimal heat transfer

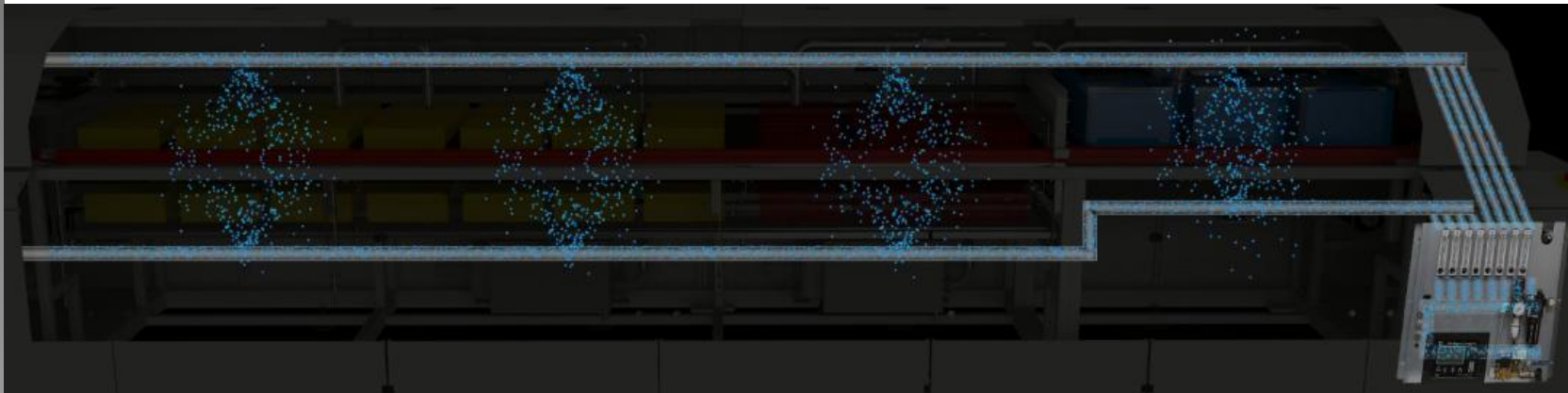
User-friendly software

Short downtimes

Design

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Standard Nitrogen Machine



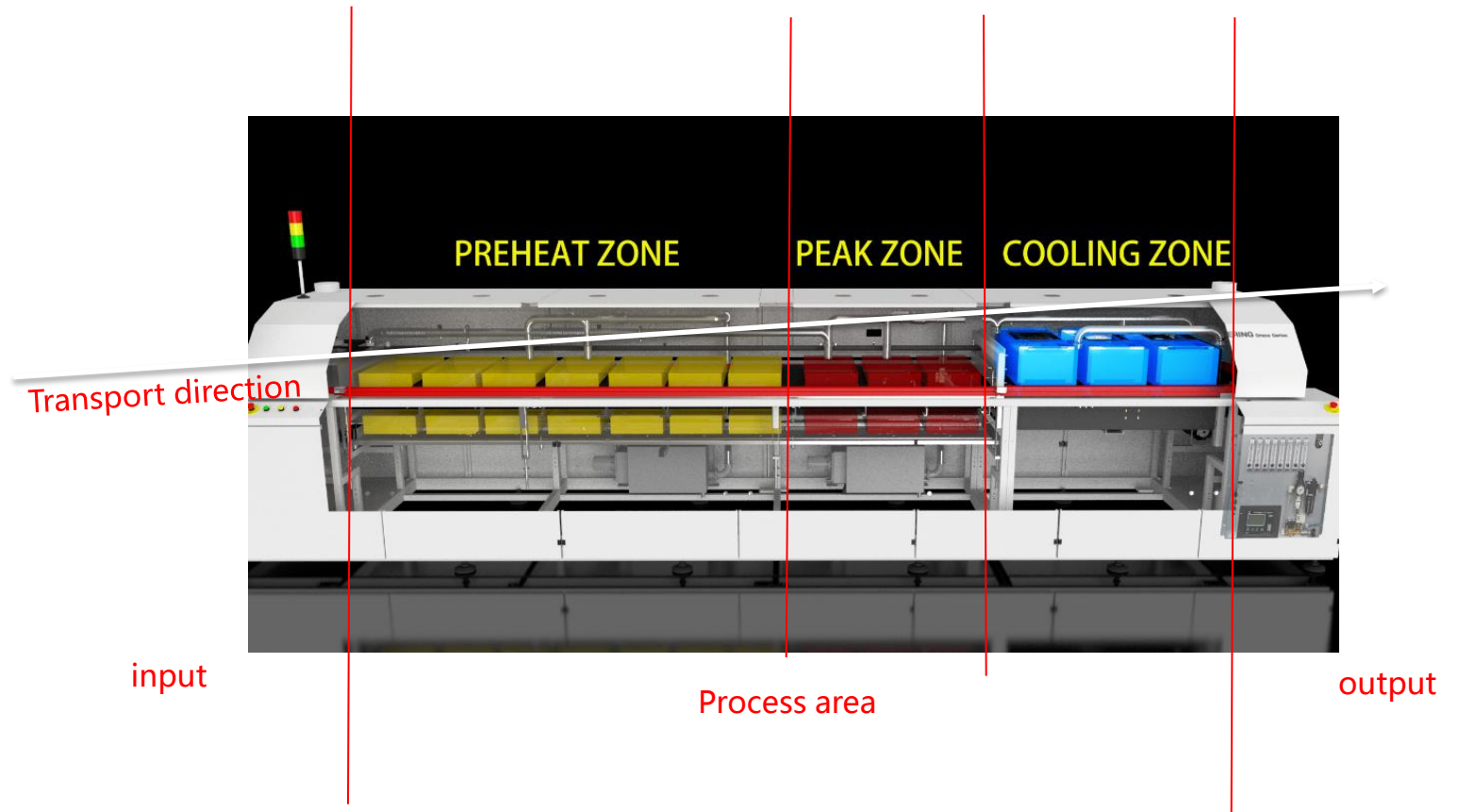
Each I.C.T Lyra is made with Nitrogen Standard. Customer can add nitrogen at any time in future, but machine from other company can not do it.

Lyra

Modular Machine Concept

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Lyra

Machine lengths

Design

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Lyra nitro 933/934

Length: 7000mm

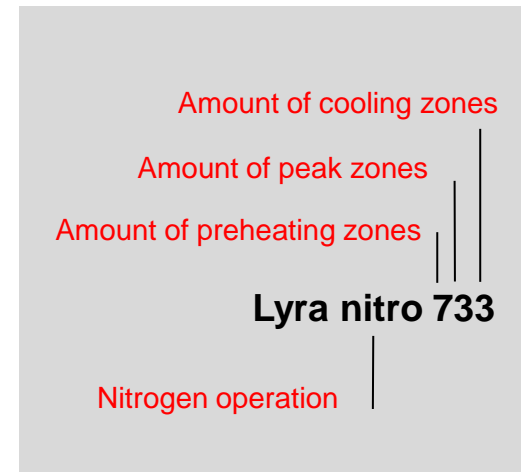
Lyra nitro 733

Length: 6250mm

Lyra nitro 622

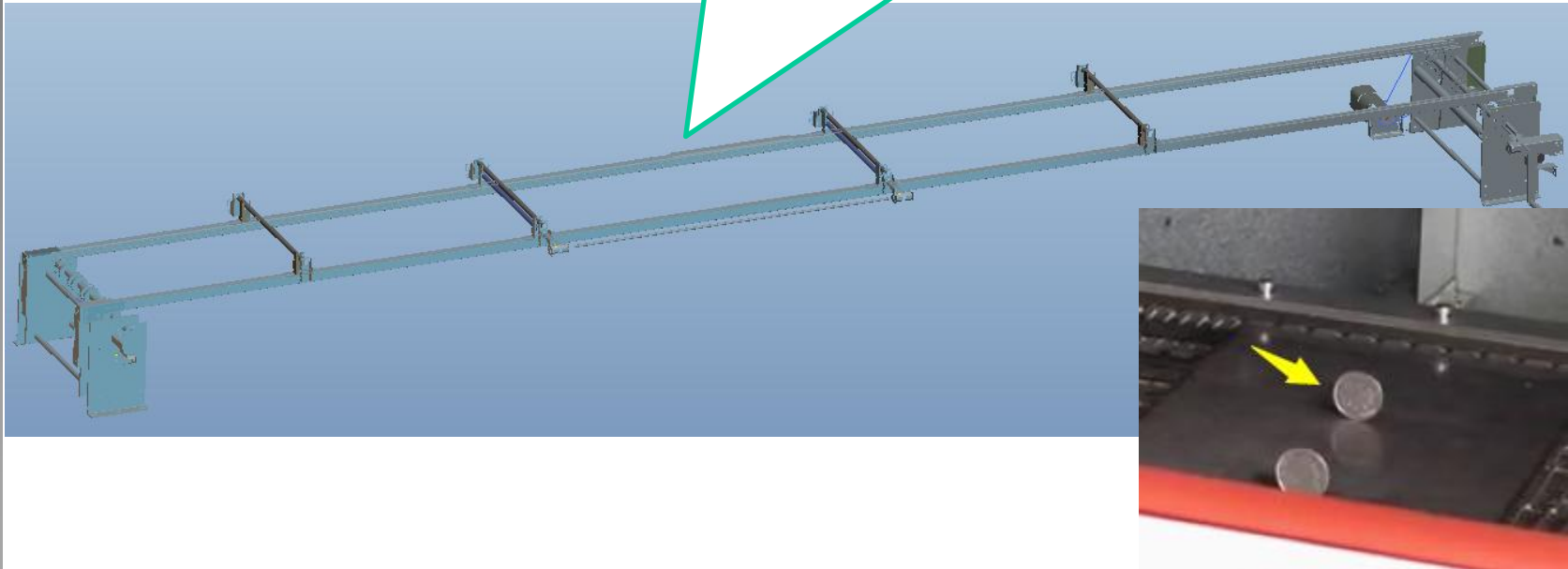
Length: 5400mm

Type	Total number of zones	Pre-heating	Peak	Cooling	Zone length
622	10	6	2	2	3030
733	13	7	3	3	3730
933	15	9	3	3	4460
934	16	9	3	4	4460



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The inlet end of transport rail is fixed, the outlet end extends freely; Four guide rails are equipped as standard for easy width adjustment and extension to ensure rails are free of deformation.



Guide Rail will not deformed!!!

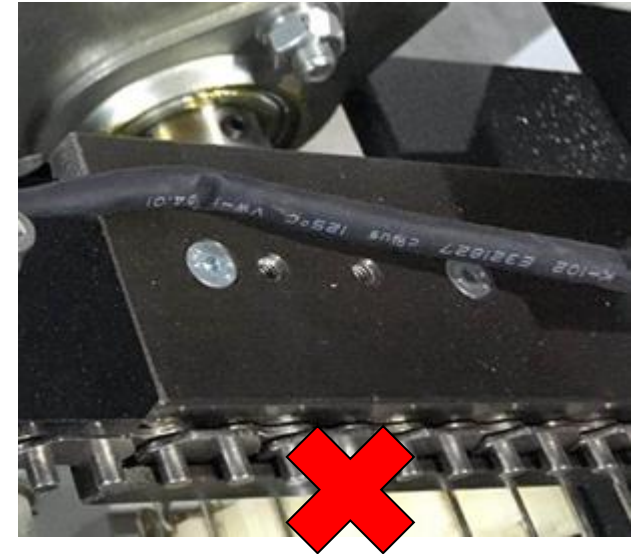
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Special design of guide rail, small static deformation, special surface treatment, durable and wear-resistant.

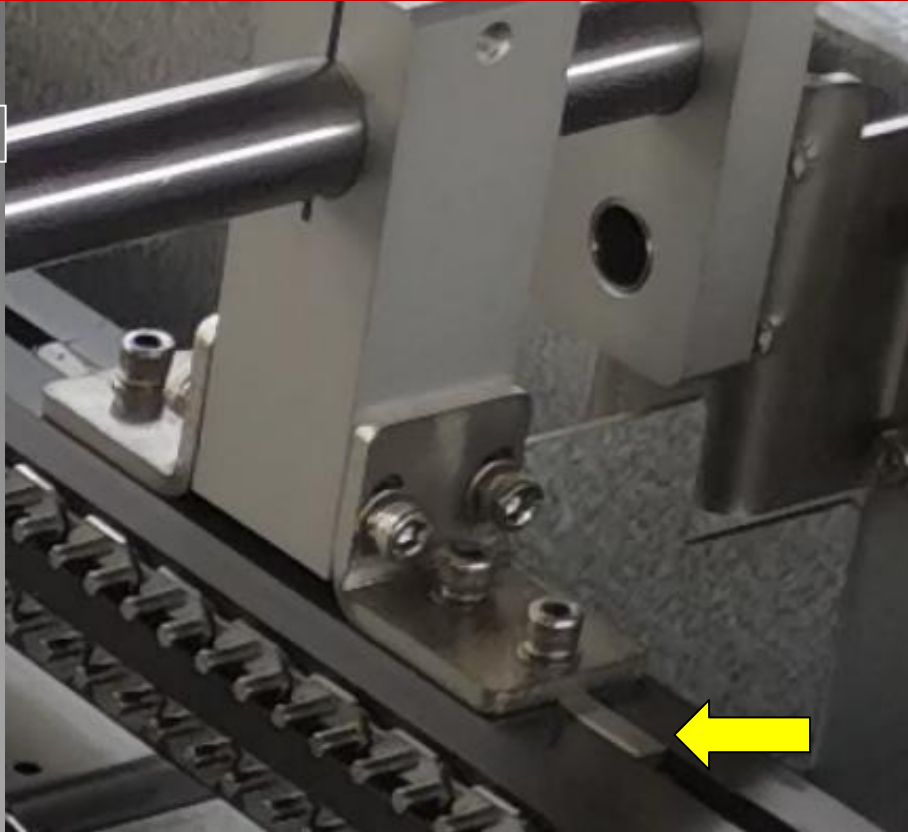


Other company design

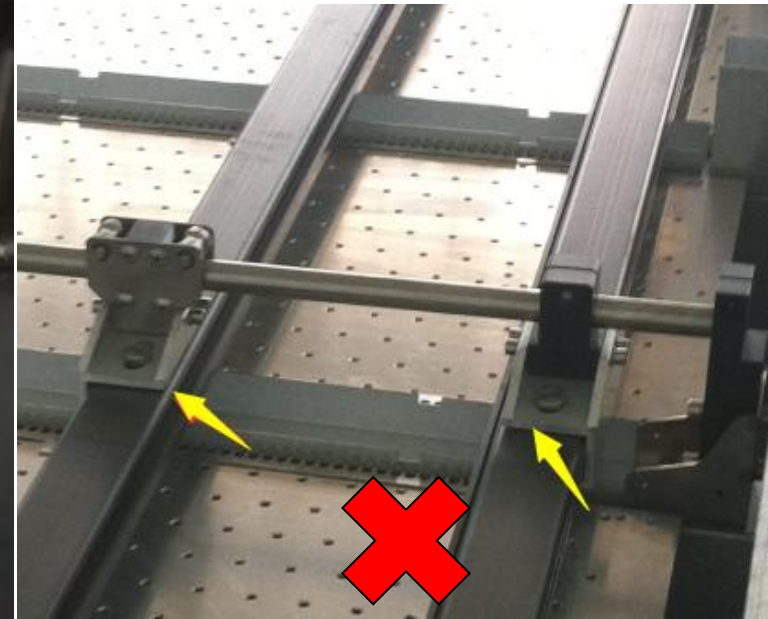
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I.C.T guide rail adopts non-destructive design without damaging the guide rail body, and the link adopts positioning pin. Easy to maintain, no deformation.

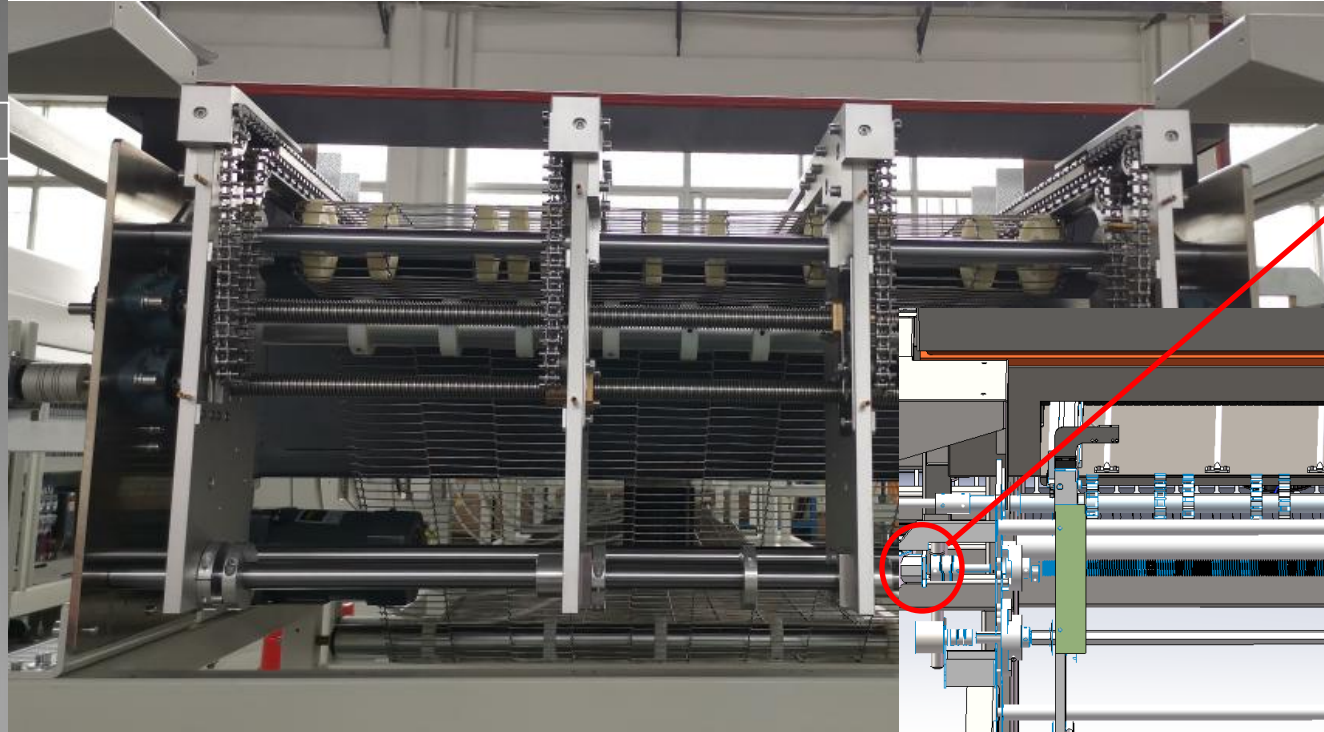


Other company design(Make holes in the guide rail,Damage to the rail body,Inconvenient for maintenance and replacement)

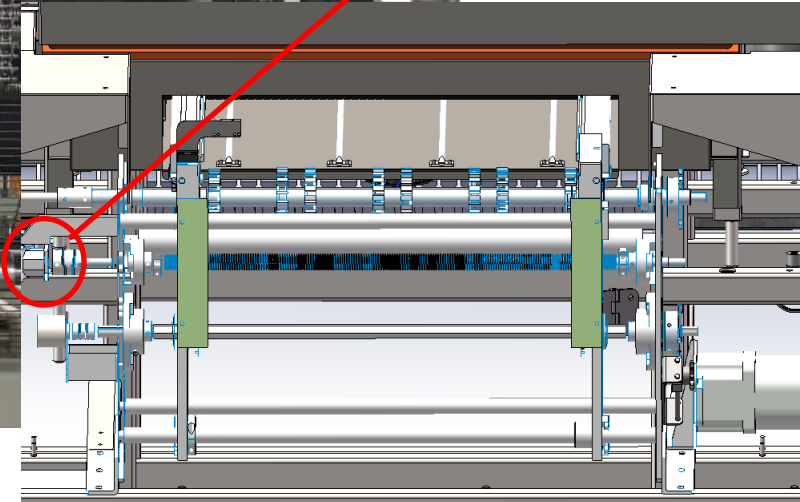
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Manual
Output



In extreme cases, the PCB on the mesh and guide rail can be manually moved out.

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The commutator adjusts rail width, Reliable structure, High synchronization, will not cause the rail to be out of synchronize.



Other company design (Chain drive, poor synchronization, inconsistent width, easy to jam PCB)

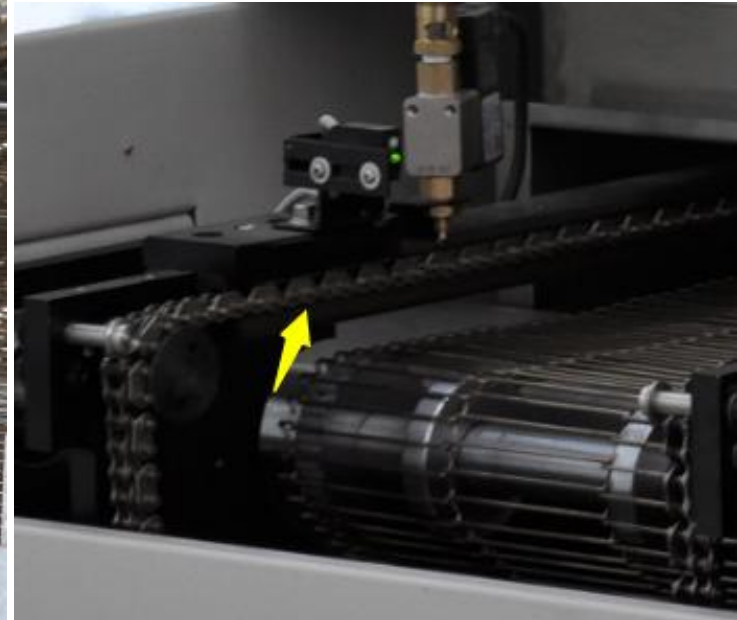
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Small cycle chain, better stability, expansion function response to different temperature.

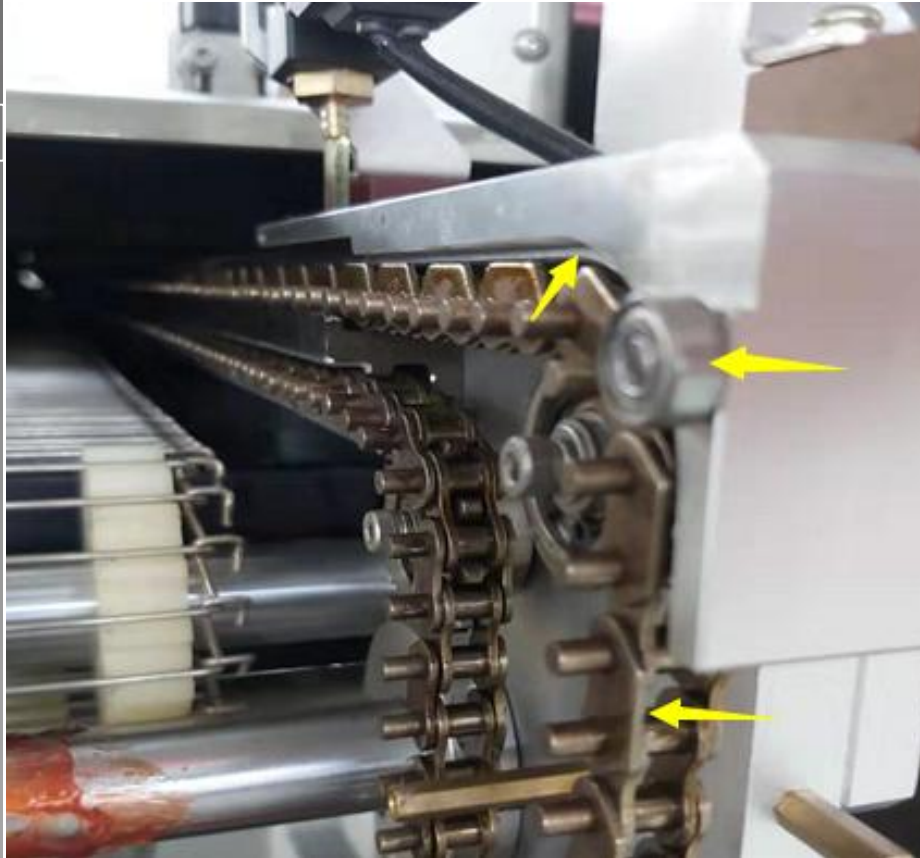


Other company design (Large cycle chain, poor stability)

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The guide bearing and 4mm chain edge are special designed to prevent pcb from being blocked.

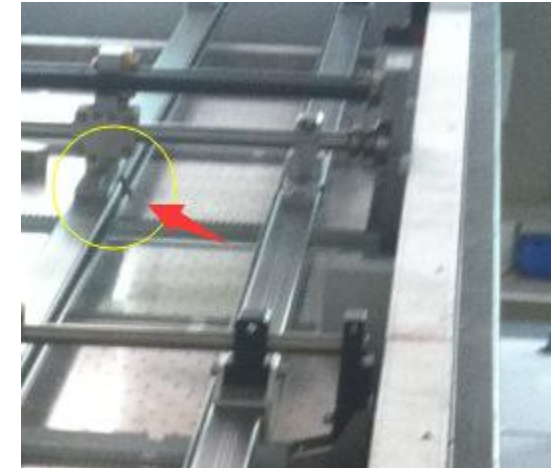
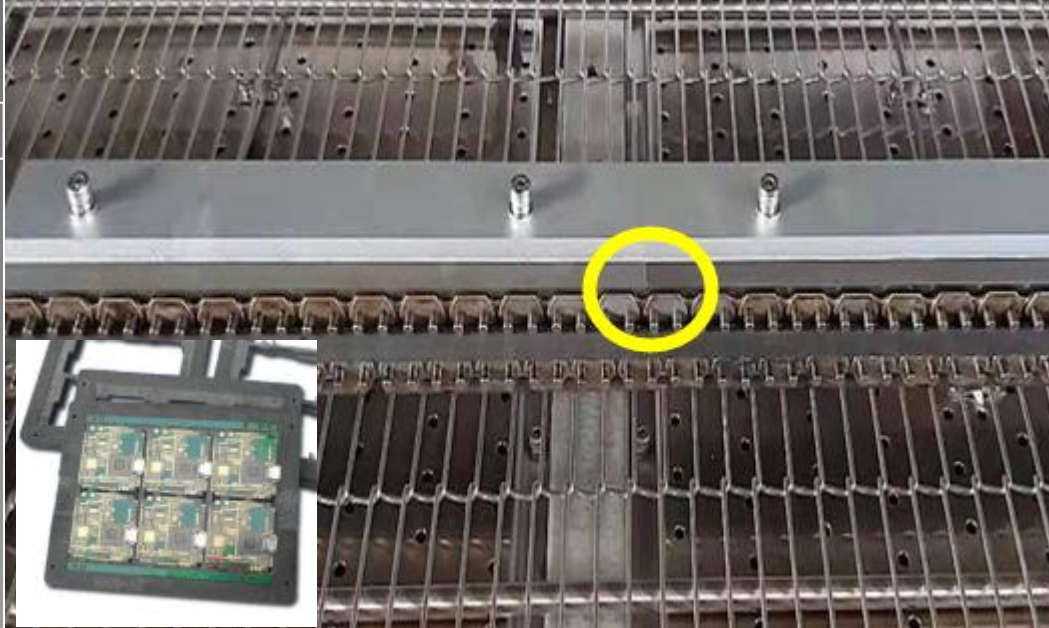


Other company design
(Without these 3 designs)

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I.C.T's unique design allows the rails to connect seamlessly in the middle, Not stuck.

Fixture will not stuck

Other company design (Will stuck, especially with fixture)

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Heating System

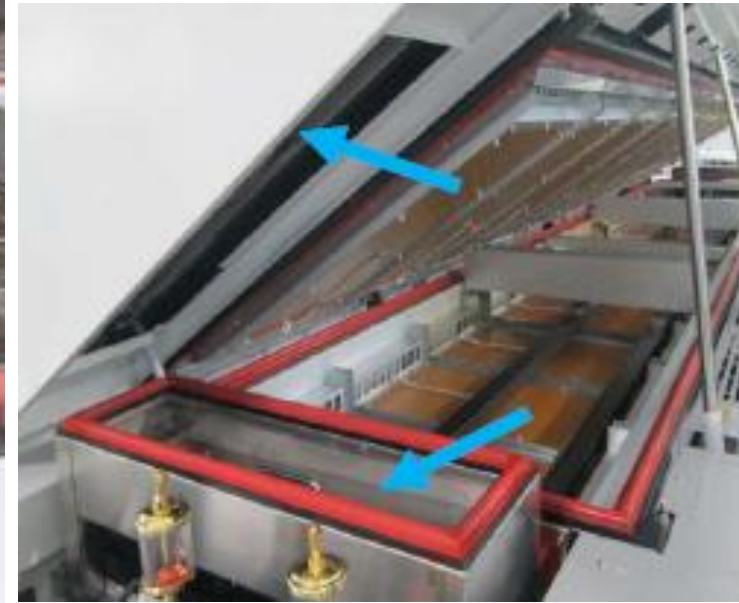
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Heating System

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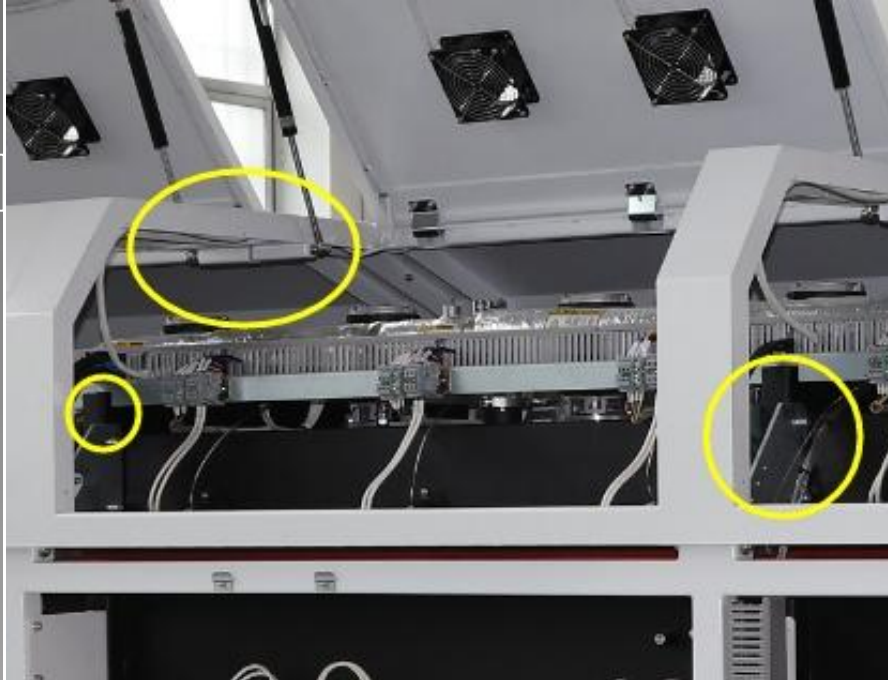
I.C.T exhaust moves forward, and the preheat zone has reserved nitrogen buffer zone, which is manufactured as nitrogen machine standard

Other company design (The exhaust is close to the preheat zone, not nitrogen standard, uneven temperature, power consumption)

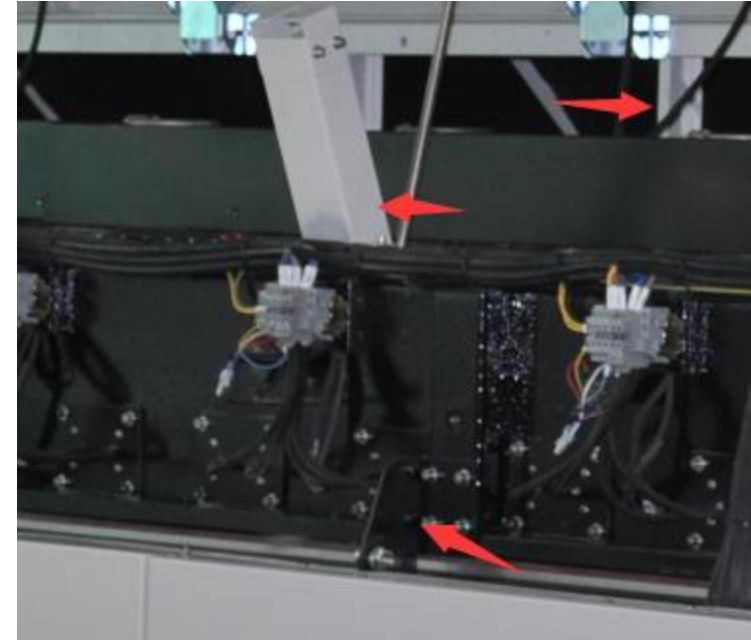
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No hole on chamber body design separates heat from coming out, ensures more accurate temperature performance, meantime, machine cover stay cool, low request on air conditioner, electricity energy saving for users..

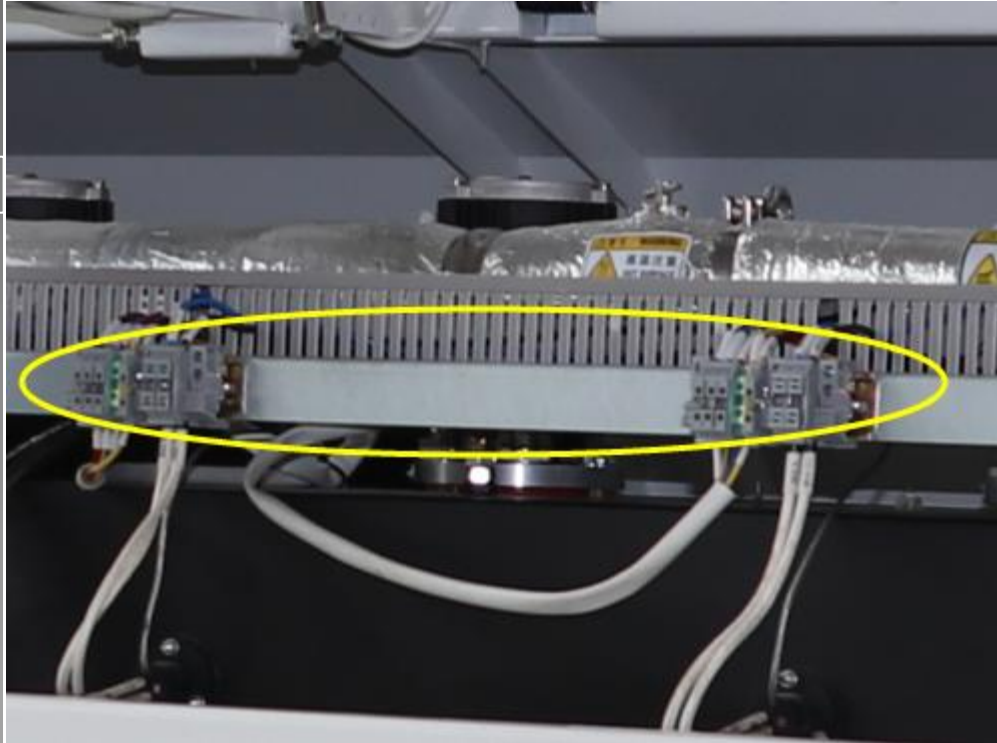


Other company design (Load capacity of oven body, oven structure will be damaged for long time.)

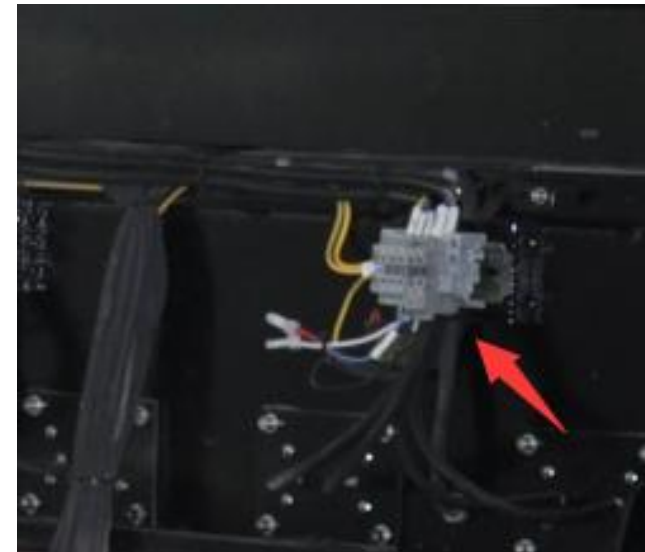
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I.C.T oven all electrical parts and connection points are suspended, not in contact with the oven body, high safety.

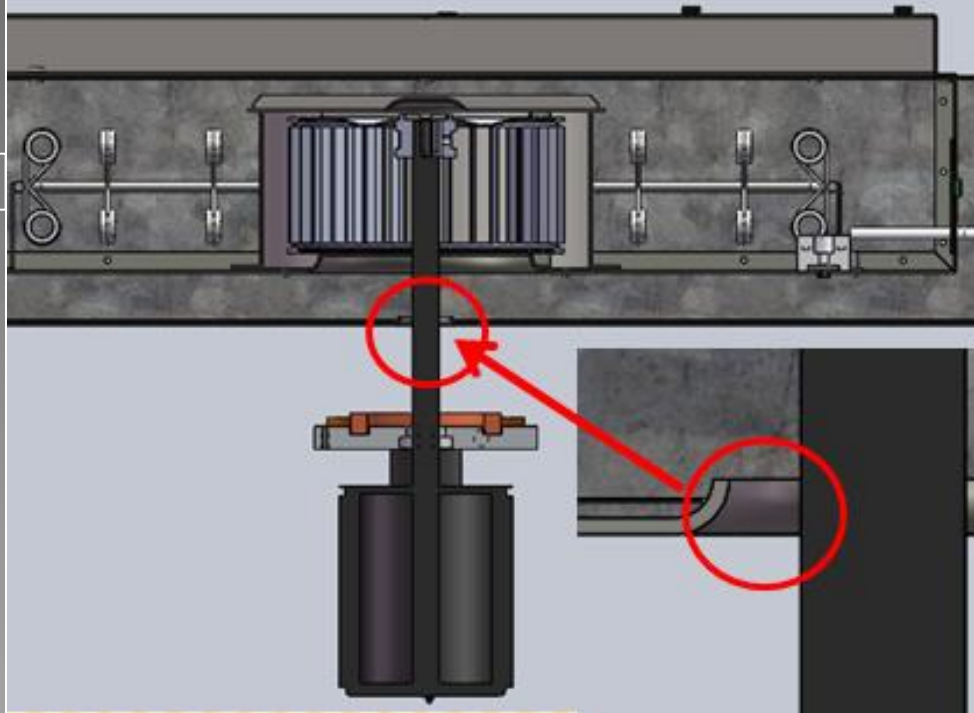


Other company design (electrical parts and connection points are directly fixed on the oven body, with low cost and low safety.)

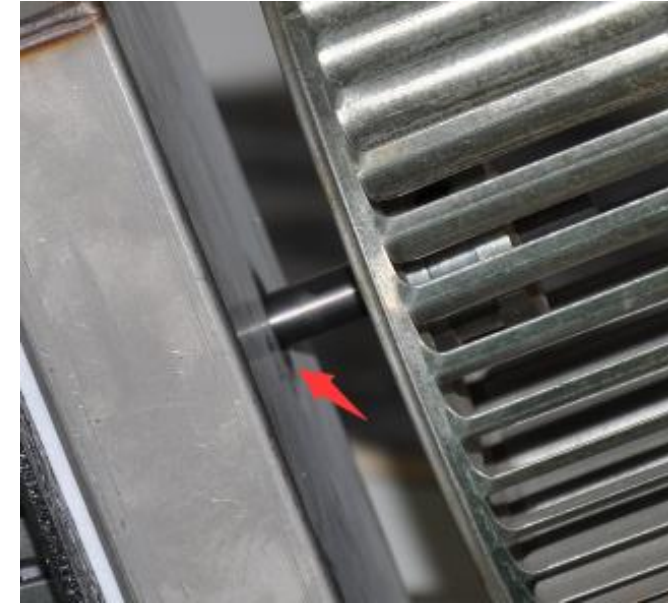
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I.C.T oven high temperature motor protection design, long-term and durable.



Other company design (Without protection design, the motor is easy to break.)

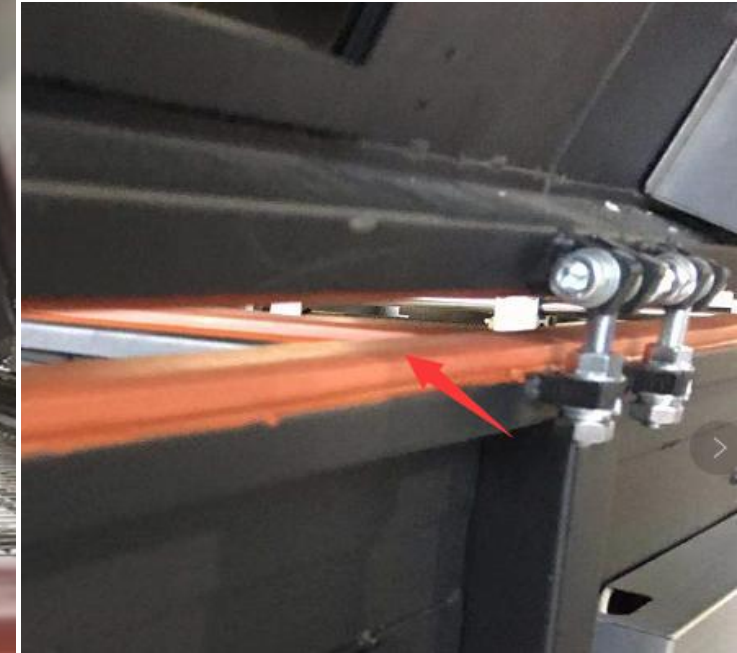
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I.C.T oven disconnect-type design,
convenient for maintenance.



Other company design (No
space, difficult to maintain
and repair.)

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I.C.T oven Nitrogen machine structure, upgrade to nitrogen machine at any time

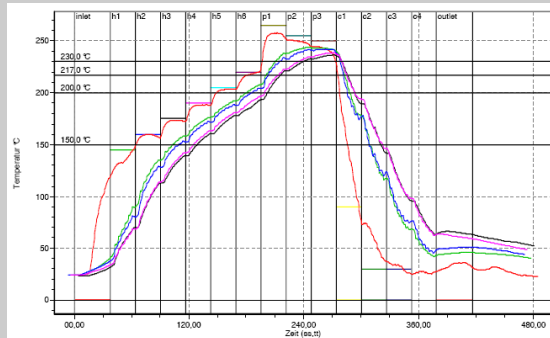


Other company design (Air oven can not upgrade nitrogen oven)

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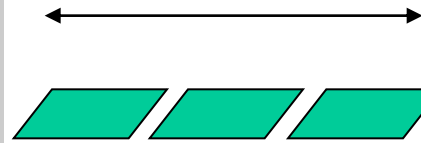
Perfect Process control and reliability (Loading effect < 2K)

No loaded



C 0603 li	243,9
C 0603 mi	242,0
Pin Wandler	233,4
Cfp	236,6

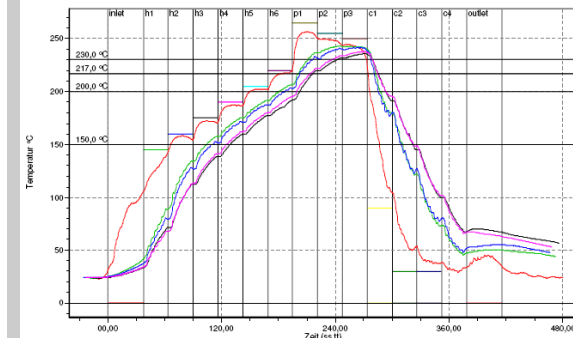
loading
t = 8,5 min



Loaded with
15 pcs stainless steel plates
(175 x 300 x 2 mm 0,8 kg)

12 kg

Full loaded



C 0603 li	242,2
C 0603 mi	240,4
Pin Wandler	231,3
Cfp	234,9

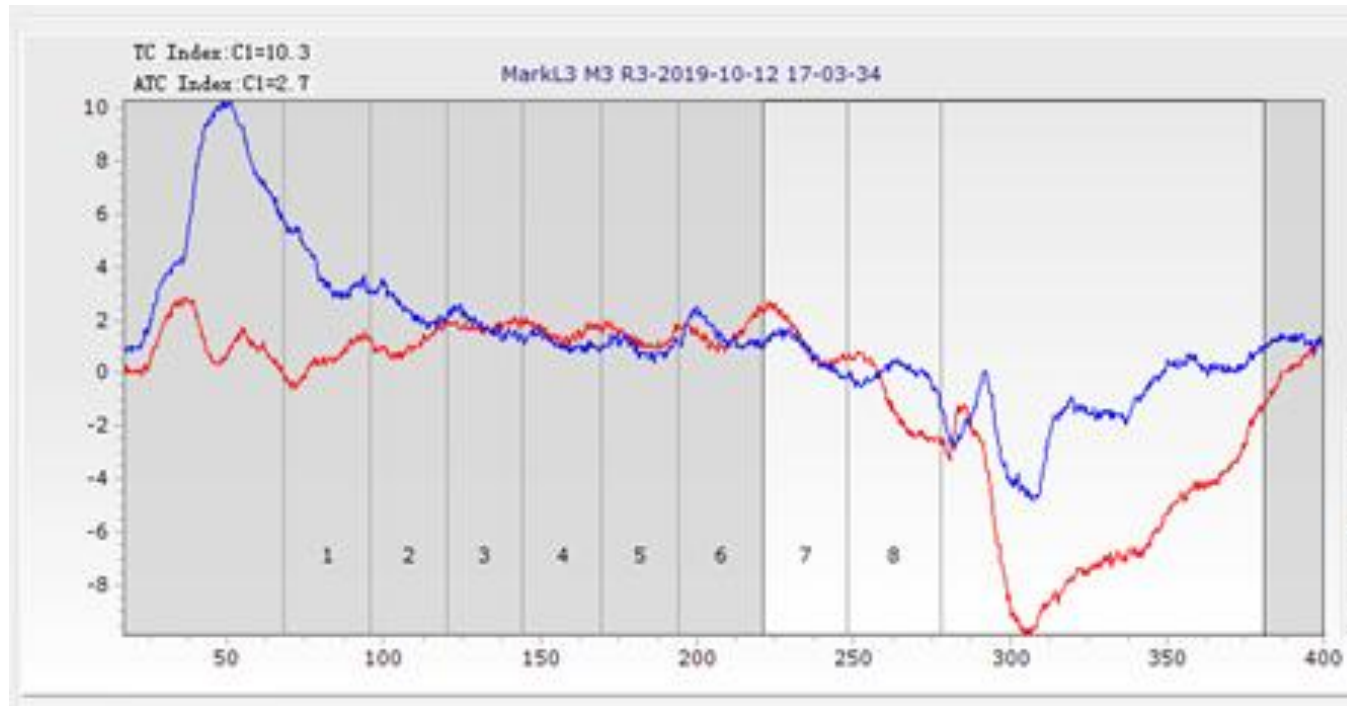
Result: Loading effect < 2 K

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Thermal uniformity analysis:

thermal uniformity capacity $CI = 2.0 \text{ } ^\circ\text{C}$

Transmission speed 87.5 cm/min; motor frequency 35Hz



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Heat balance analysis:

heat balance capacity $\Phi = 24.5 \text{ }^\circ\text{C} - 27 \text{ }^\circ\text{C}$

Transmission speed 87.5 cm/min; motor frequency 35Hz

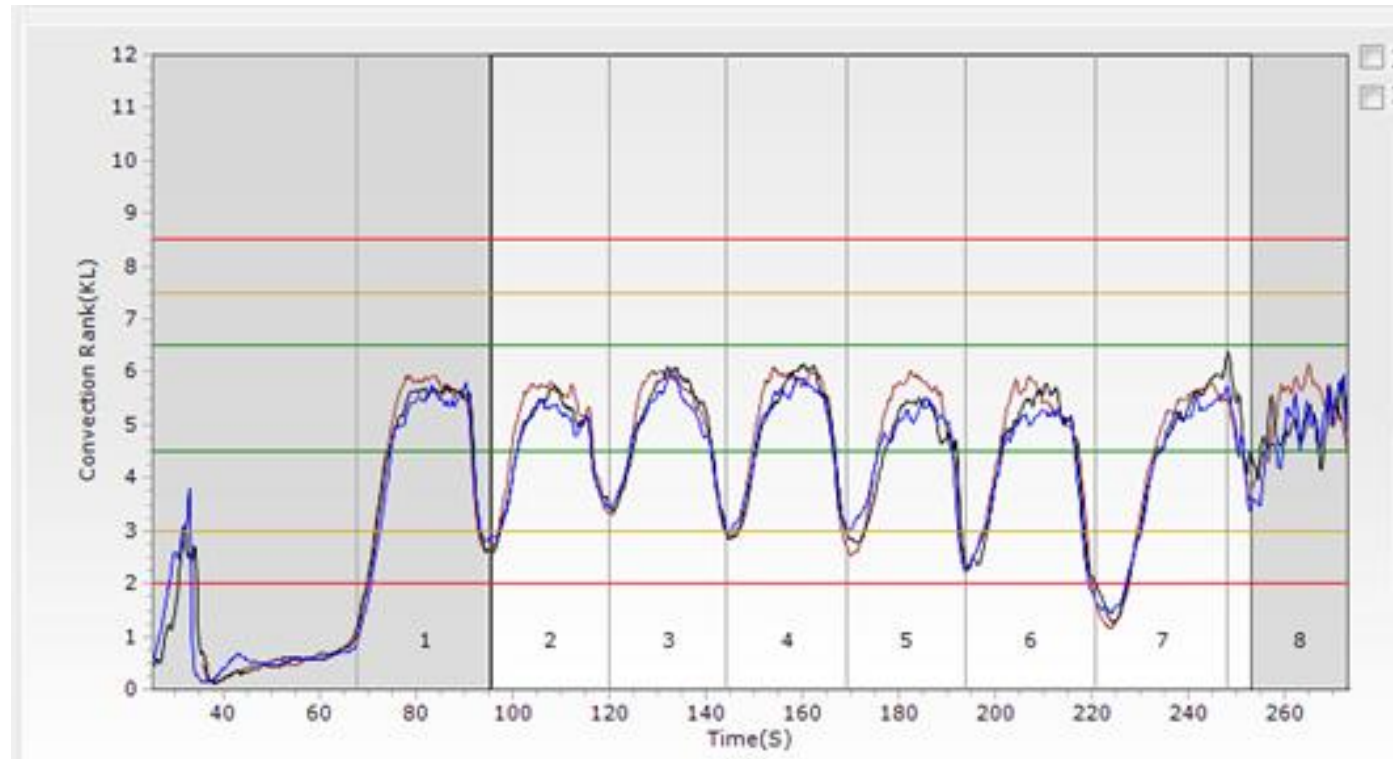


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Air flow analysis:

Air flow is 4.5kl

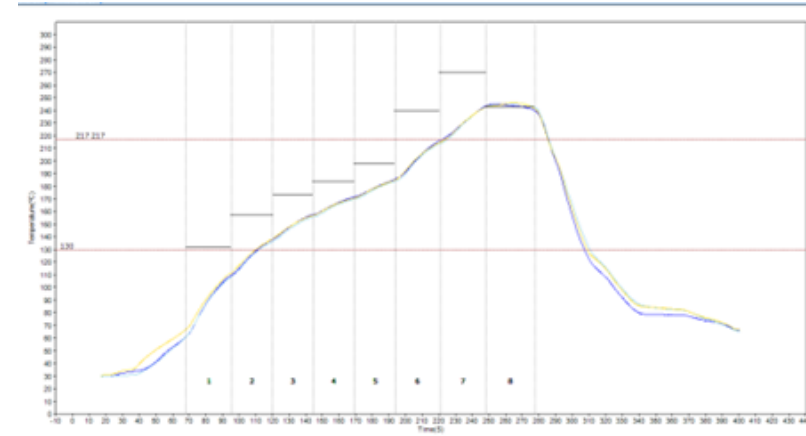
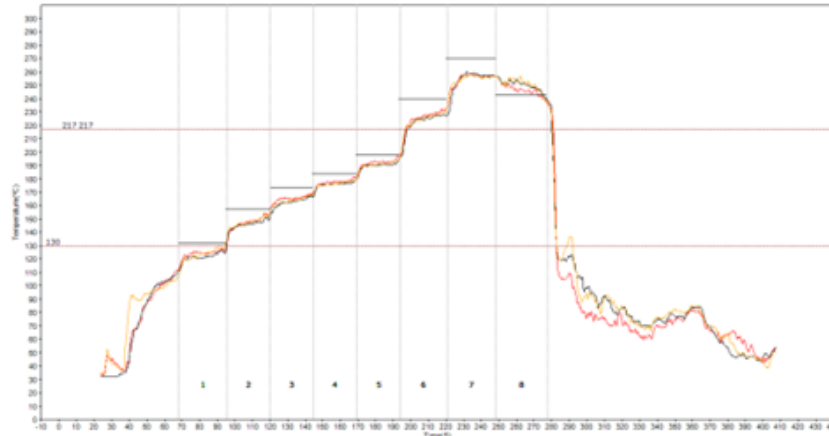
Transmission speed 87.5 cm/min; motor frequency 35Hz



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t-t : 0.3-0.7 °C

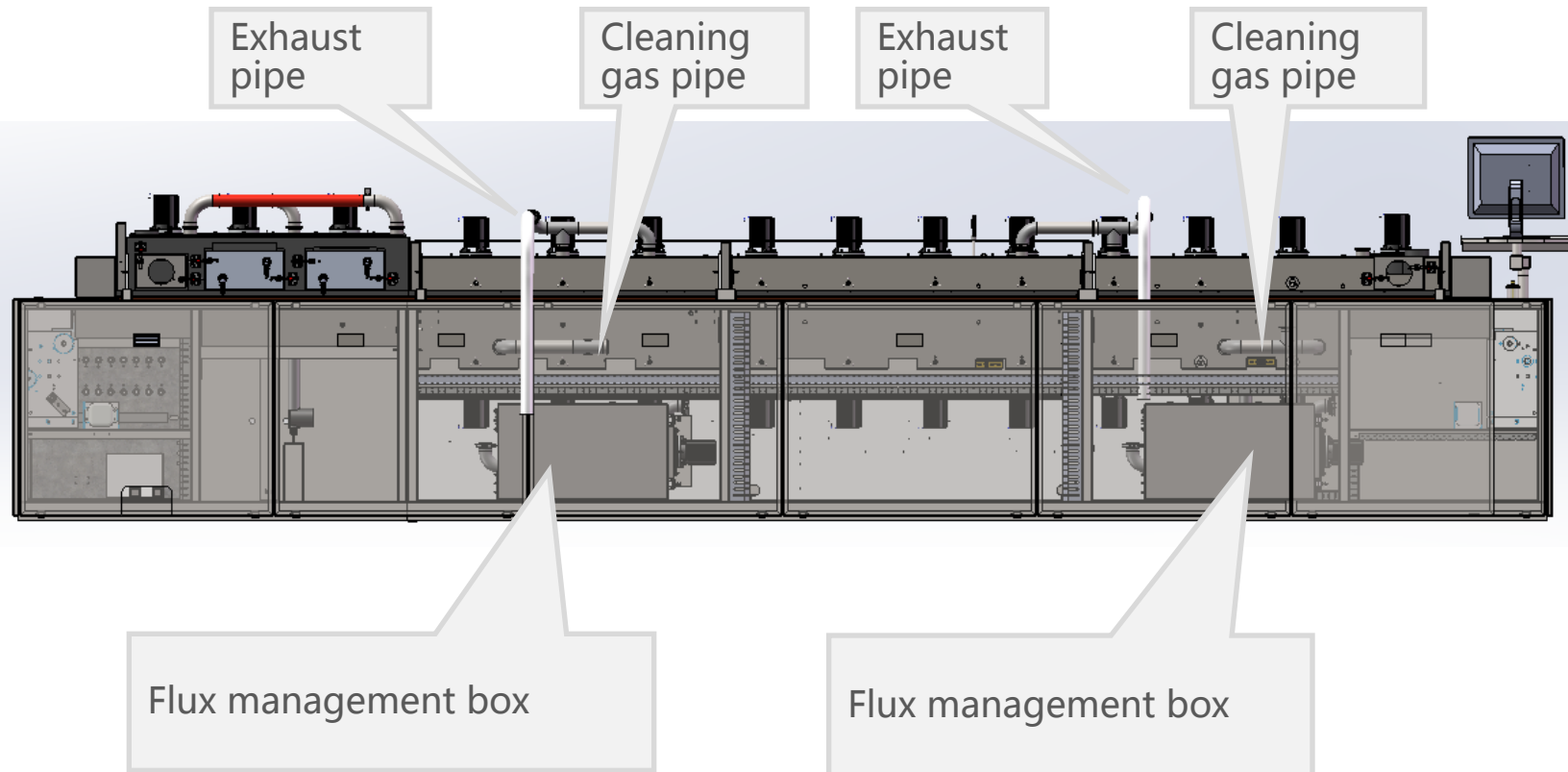
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Residue Management

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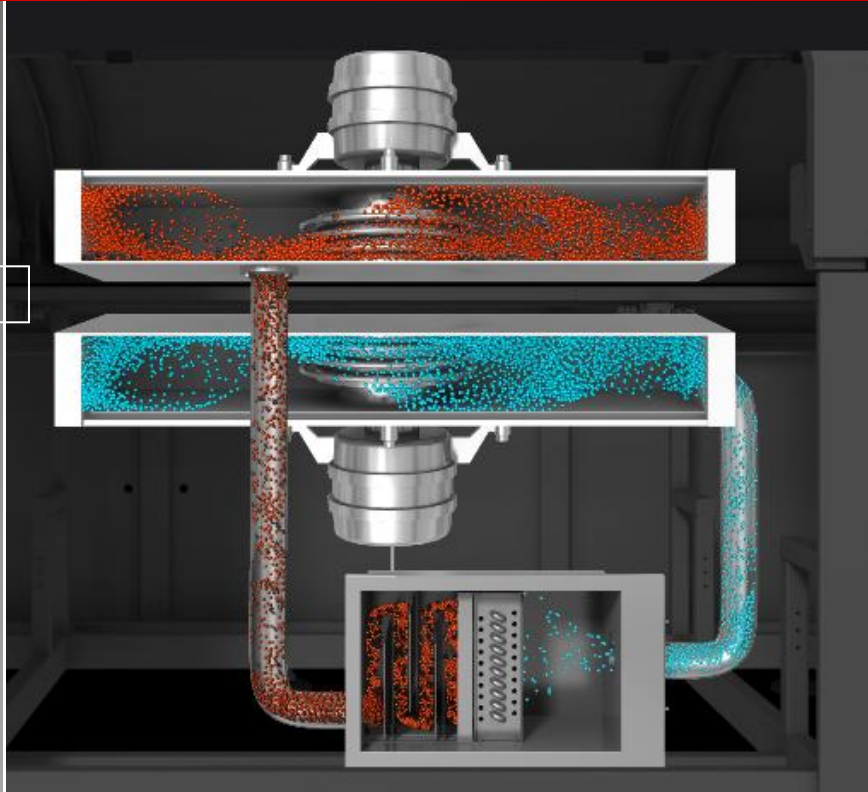
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Residue Management

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I.C.T flux management system can effectively manage residue and reduce nitrogen consumption



Other company design (Just filter system, loses heat and nitrogen)

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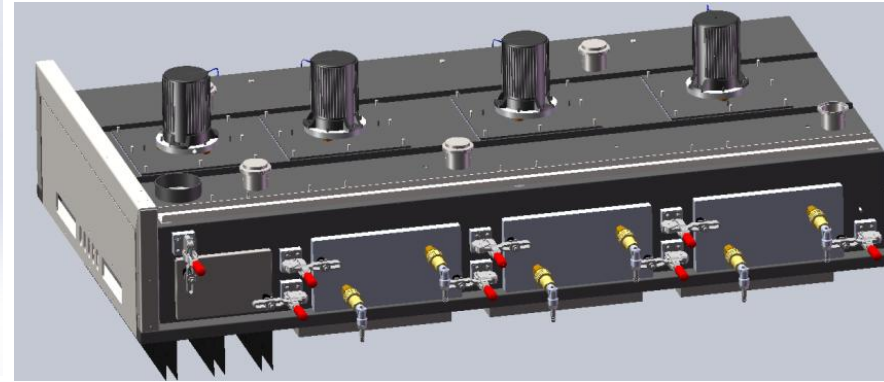
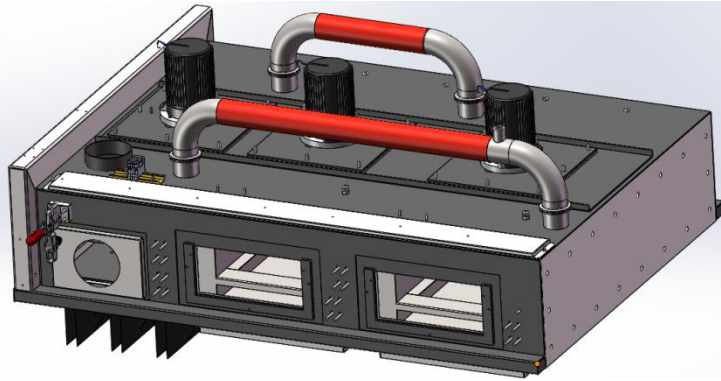
I.C.T cooling system is more reasonable, water cooling and air cooling can be replaced at any time, and nitrogen in the cooling zone can be monitored

Other company design (Old design, poor cooling effect, non adjustable monitoring)

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Cooling System

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Energy saving design structure in
nitrogen environment

Engineering

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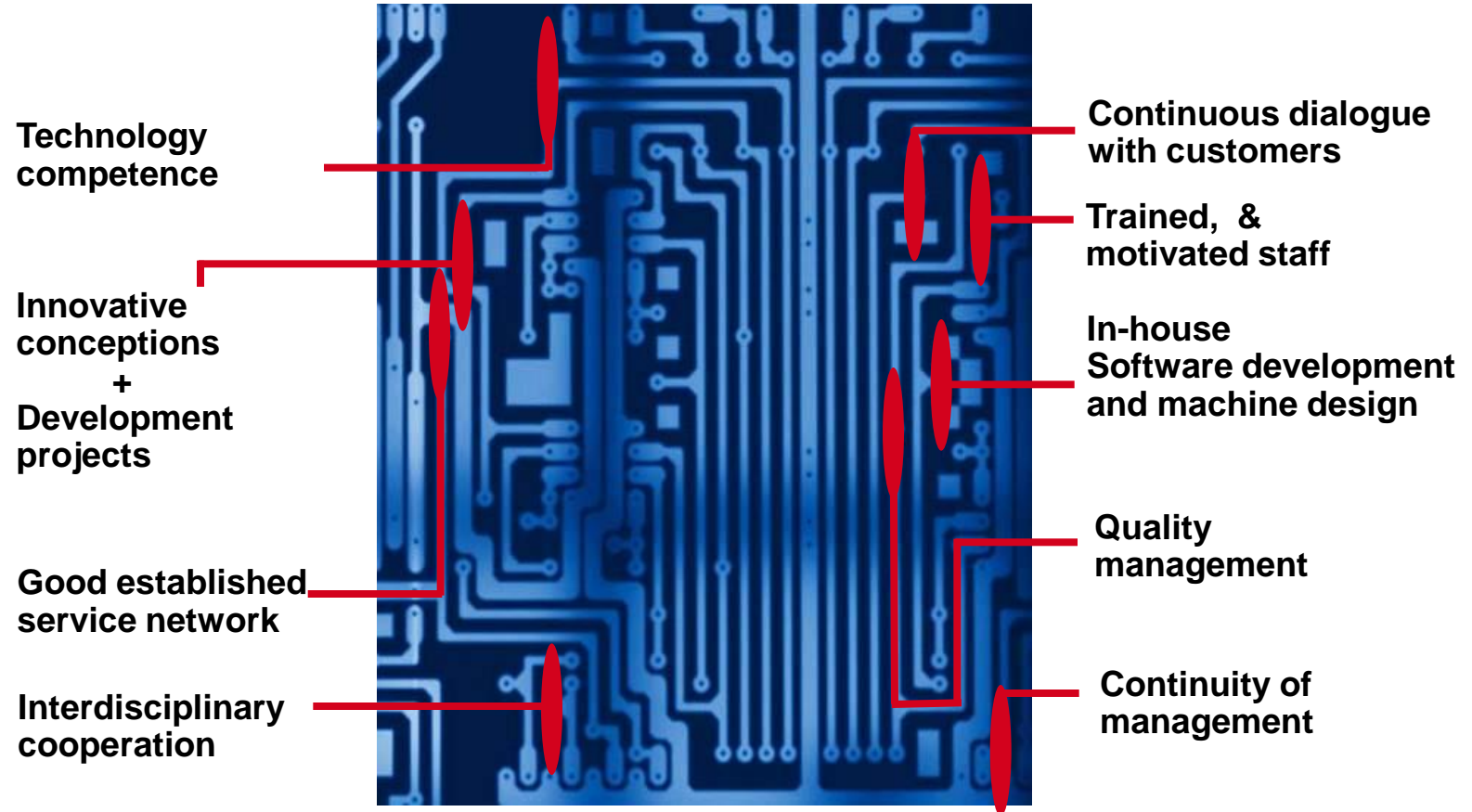
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CE certified

- Design
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- Engineering**
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Profit from our Know-How!



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- Engineering

Overview Lyra

Highest flexibility

- Modular machine concept
- Individual configuration of heating and cooling zones

Best of Class Performance

- Optimal heat transfer
- Excellent cooling performance
- Controllable cooling zones

Low Operating Costs

- Minimal maintenance efforts thanks powerful Residue Management System
- Reduced consumption of fluids (gas, water, current, exhausted gas)

