Lyra

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

Lyra Reflow System

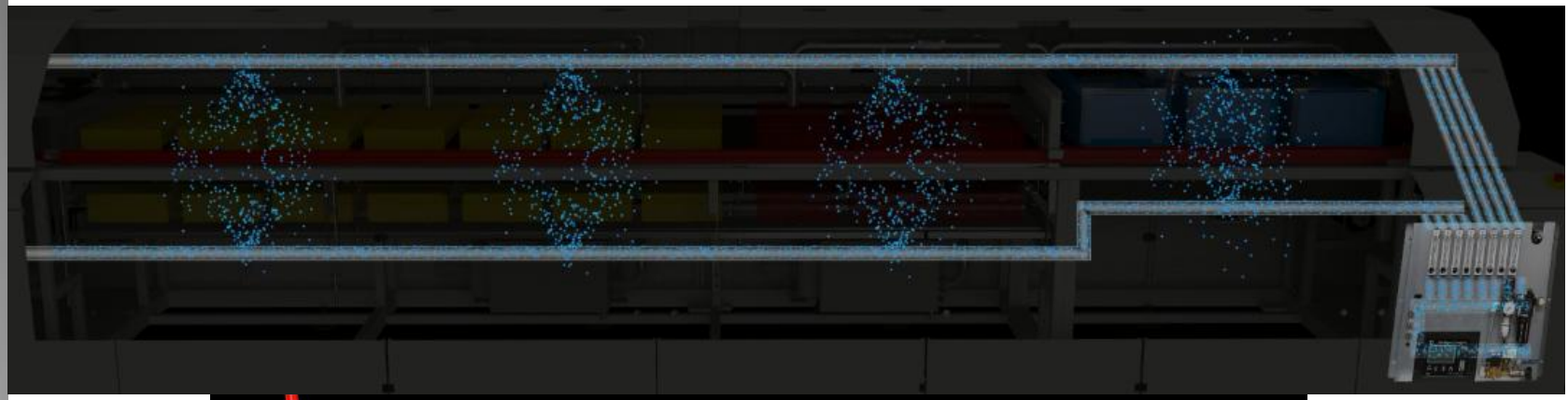
Stabile Process

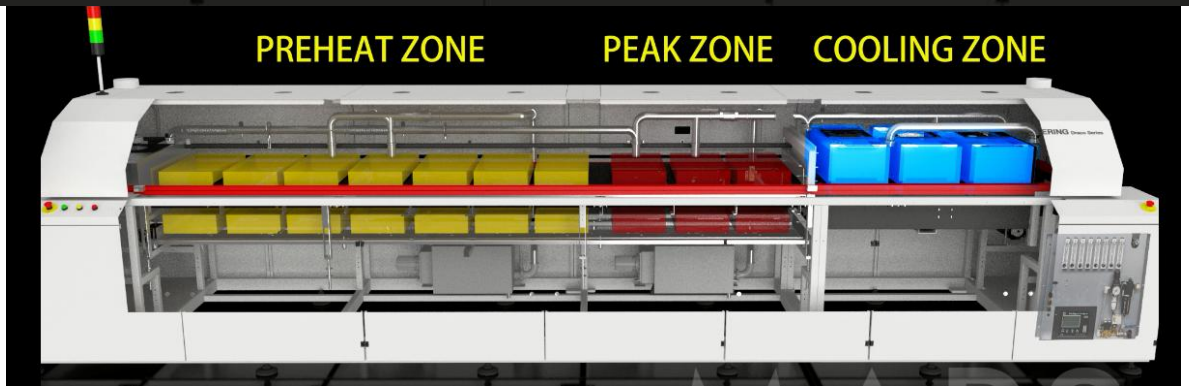
Optimal heat transfer

User-friendly software

Short downtimes

Standard Nitrogen Machine





Each ETA Lyra is made with Nitrogen Standard. Customer can add nitroge n at any time in future, but machine from other company can not do it.

Lyra

Modular Machine Concept

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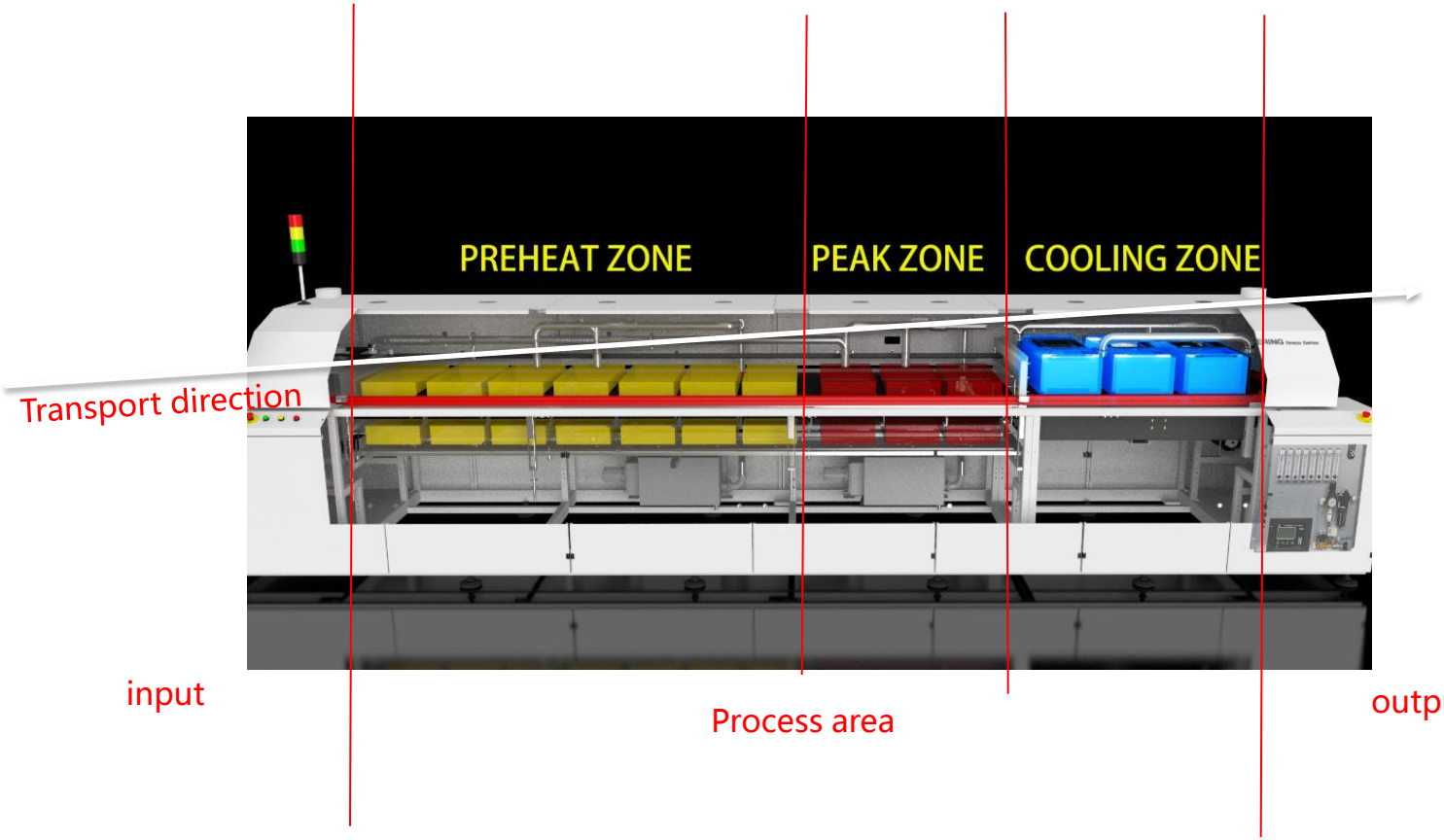


Lyra

Machine lengths

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

Amount of cooling zones

Amount of peak zones

Amount of preheating zones

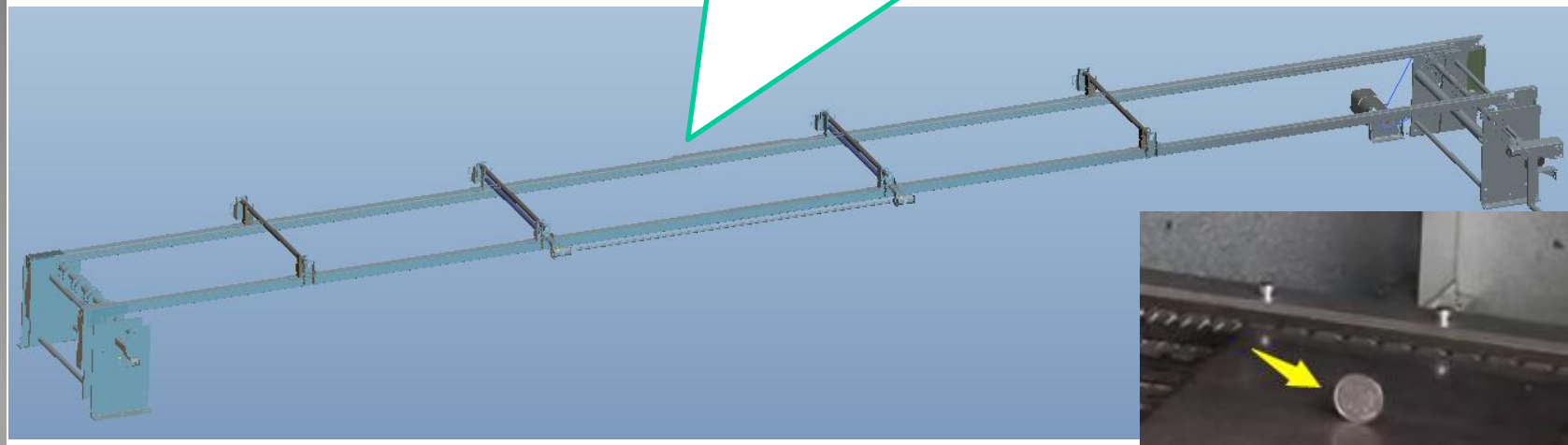
Lyra nitro 733

Nitrogen operation

Lyra

Transport System

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



Guide Rail will not deformed!!!

Lyra

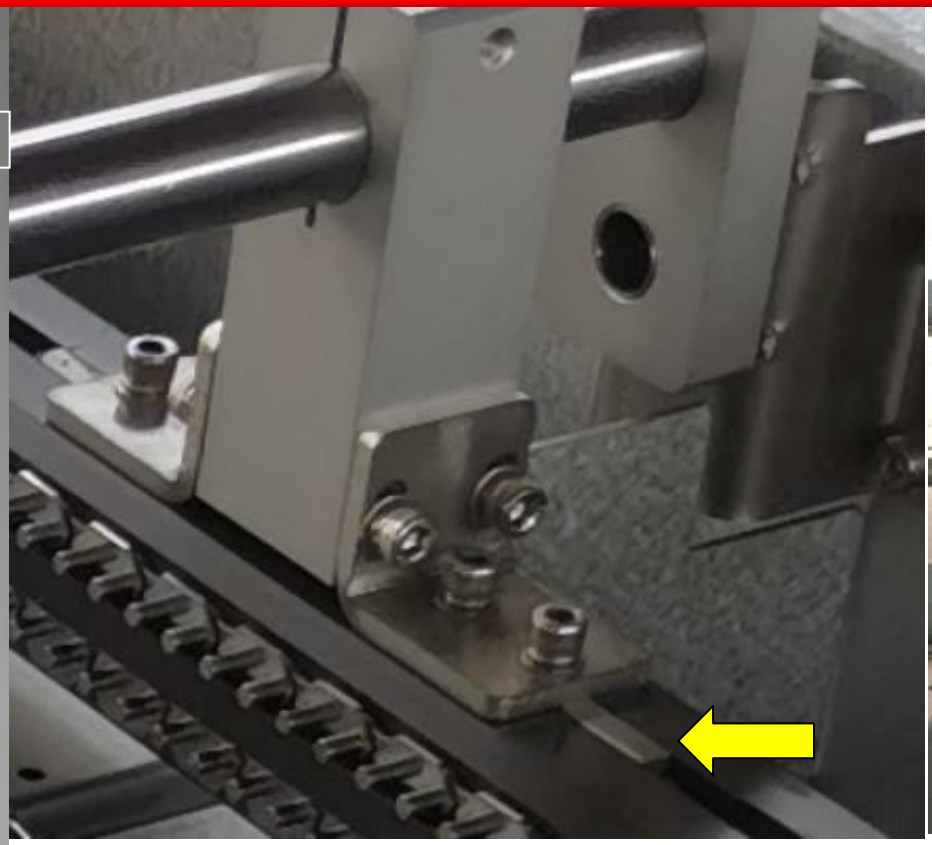
Transport System

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

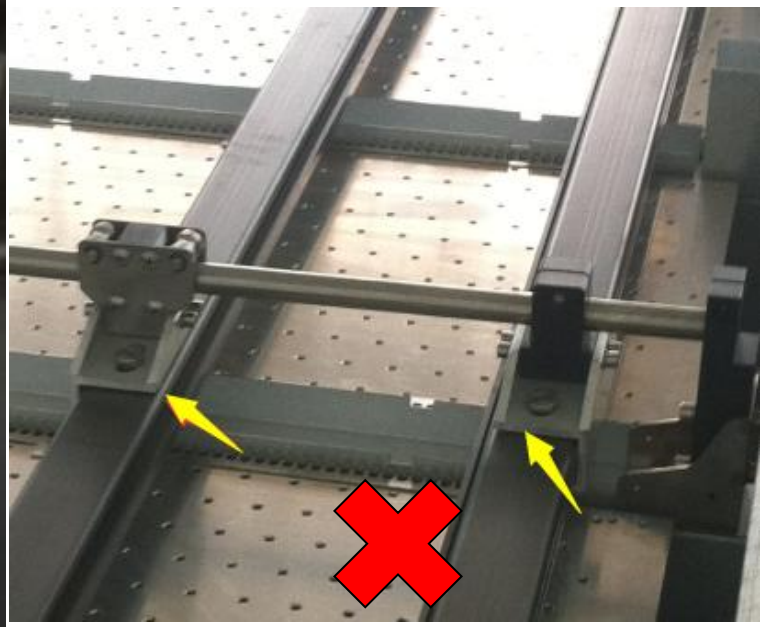
Other company design

Lyra

Transport System



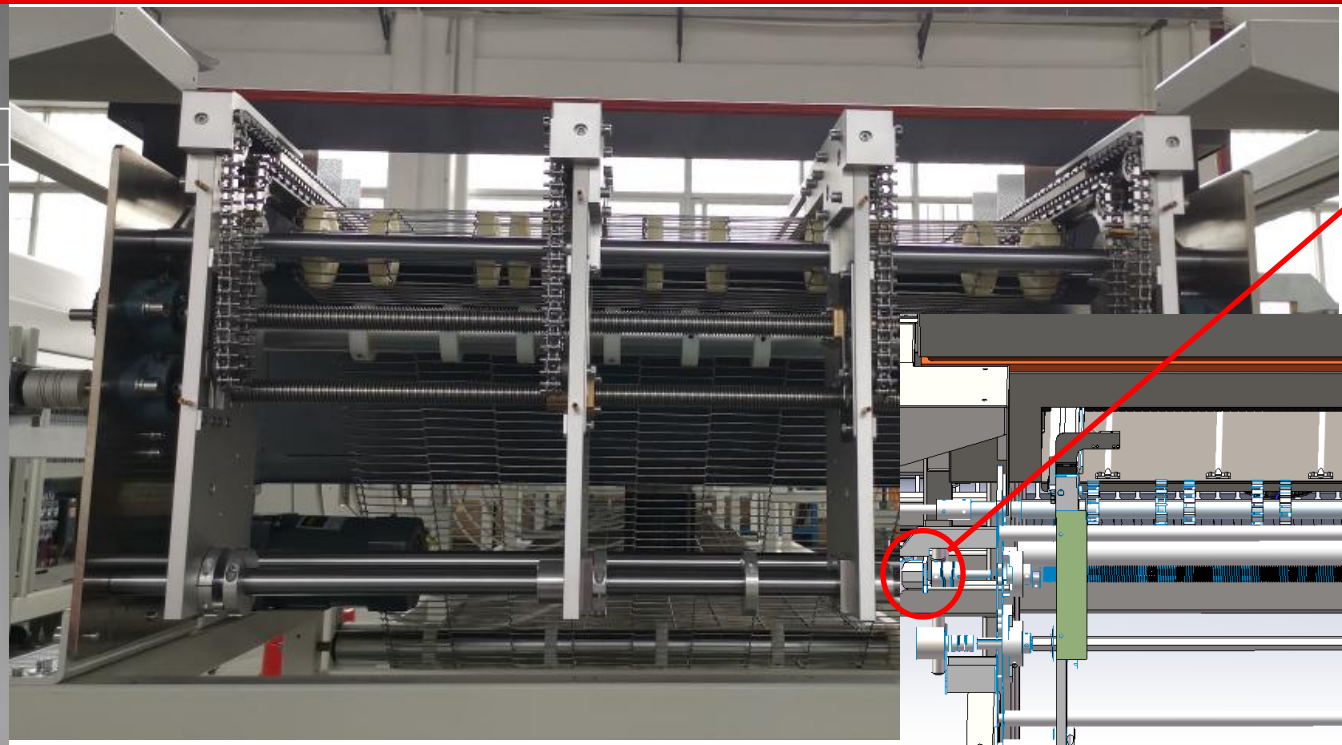
ETA guide rail adopts non-destructive design without damaging the guide rail body, and the link adopts positioning pin. Easy to maintain, no deformation.

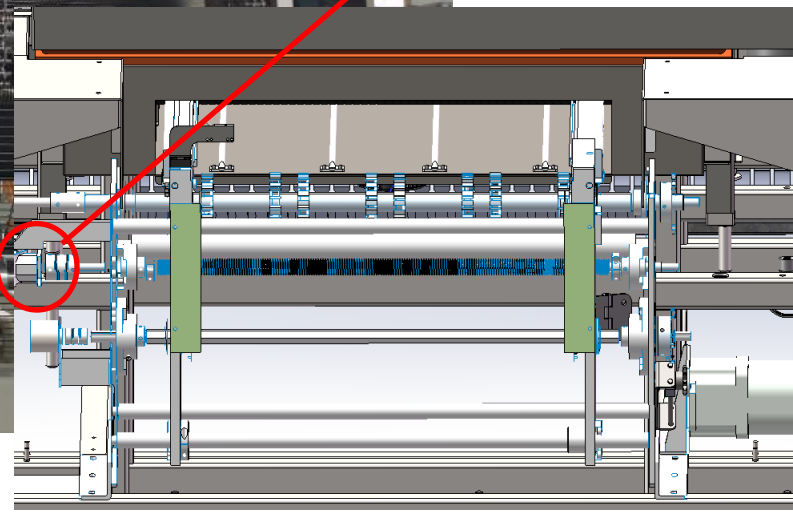


Other company design(Make holes in the guide rail,Damage to the rail body,Inconvenient for maintenance and replacement)

Lyra

Transport System





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

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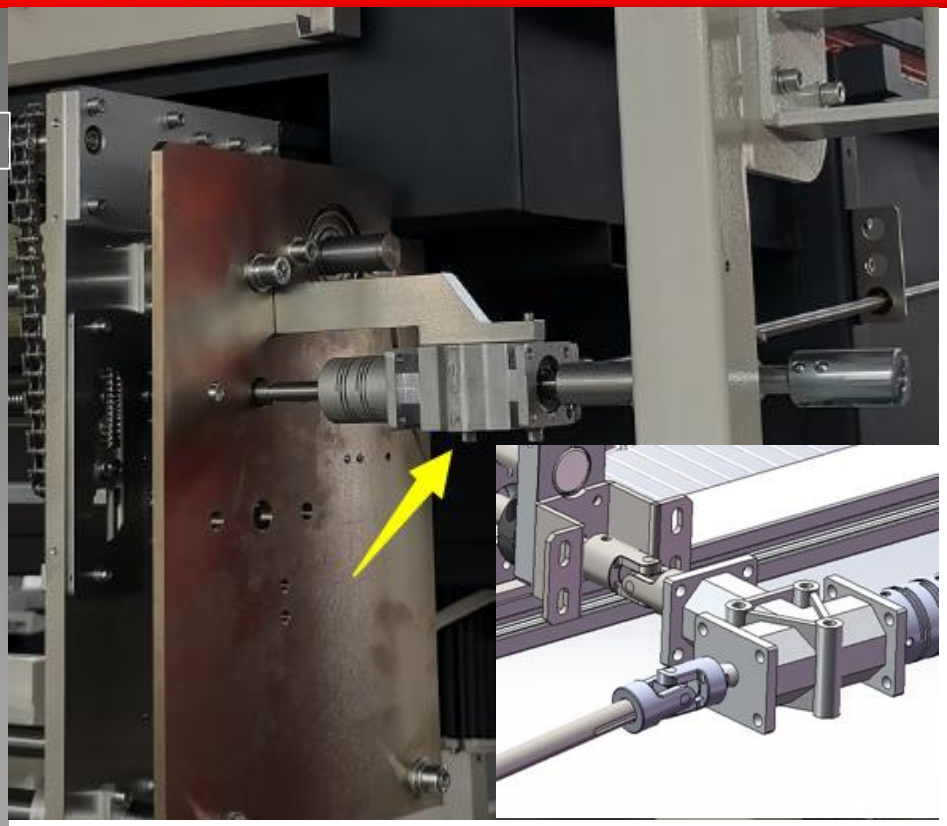
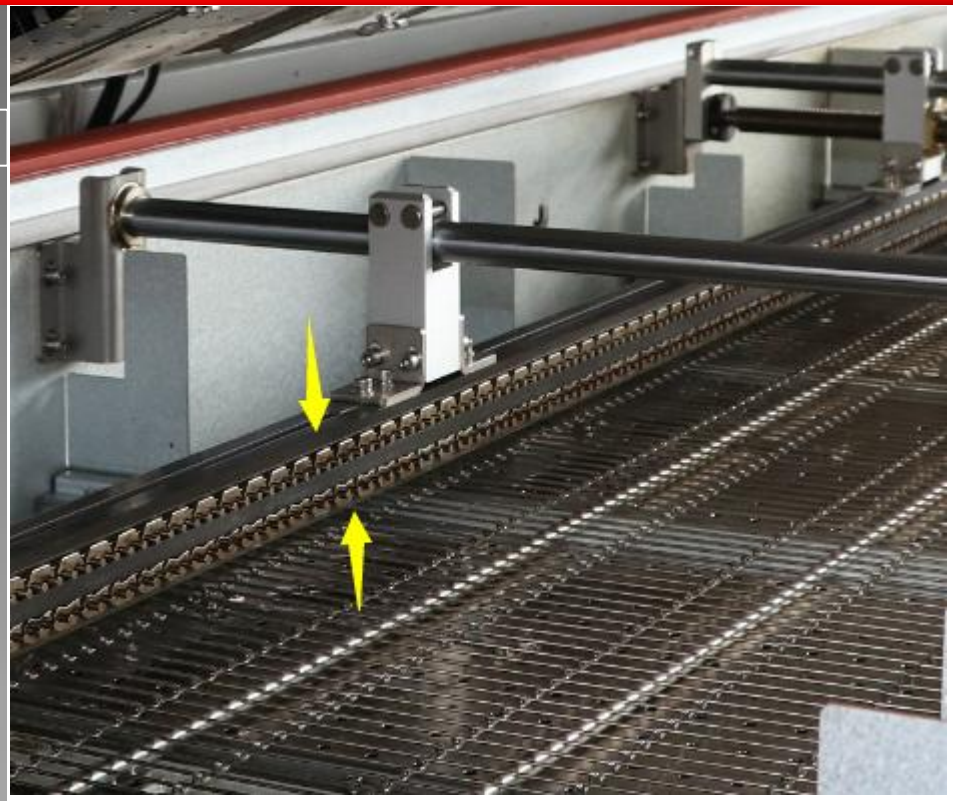


The commutator adjusts rail width,Reliable structure,High synchronization, will not cause the rail to be out of synchronize.

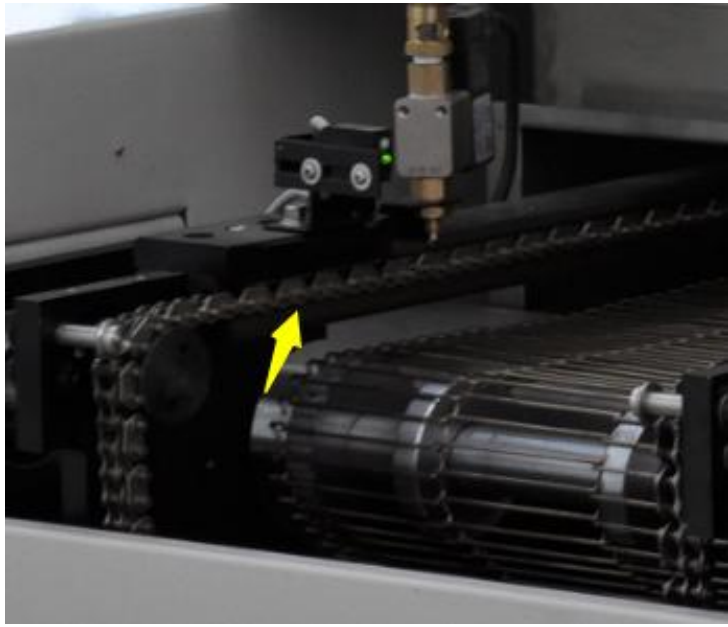
Other company design (Chain drive, poor synchronization, inconsistent width, easy to jam PCB)

Lyra

Transport System



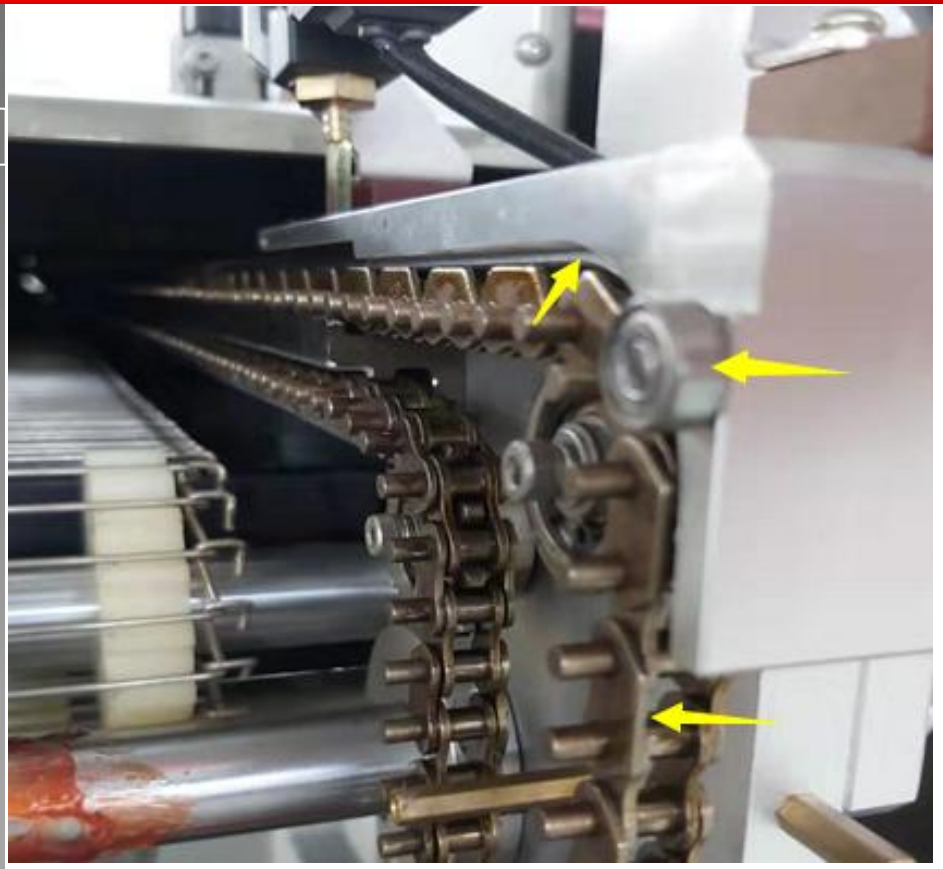
Small cycle chain, better stability, expansion function response to different temperature.



Other company design (Large cycle chain, poor stability)

Lyra

Transport System

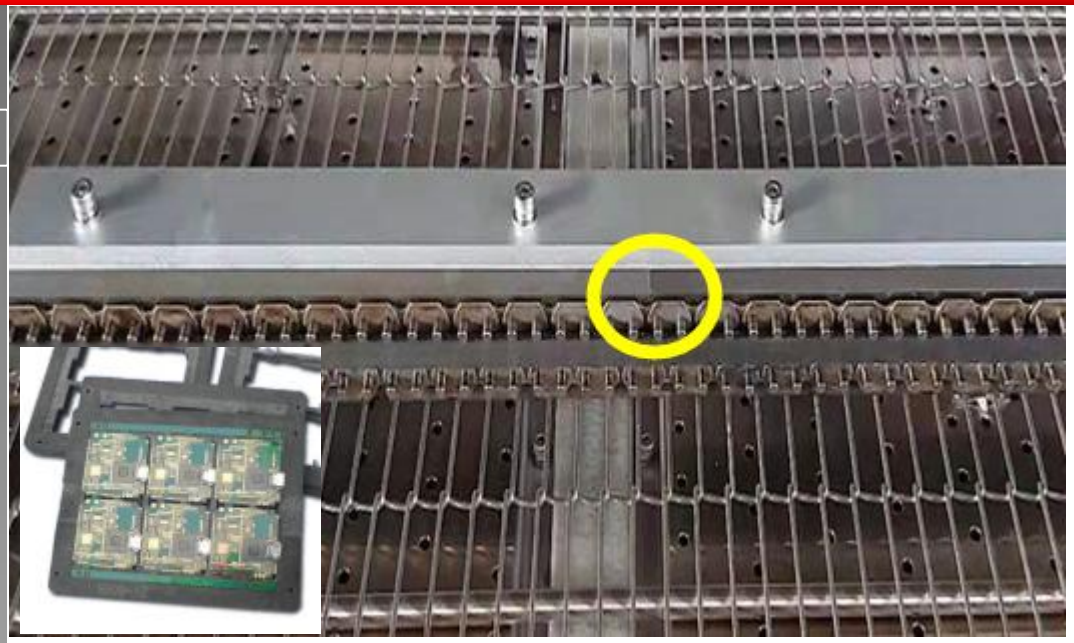


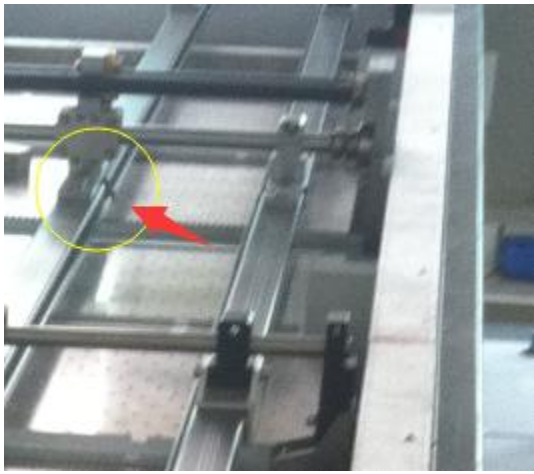
The guide bearing and 4mm chain edg e are special desined to prevent pcb from being blocked.

Other company design (Without these 3 designs)

Lyra

Transport System





ETA'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)

Lyra

Heating System

Lyra

Heating System

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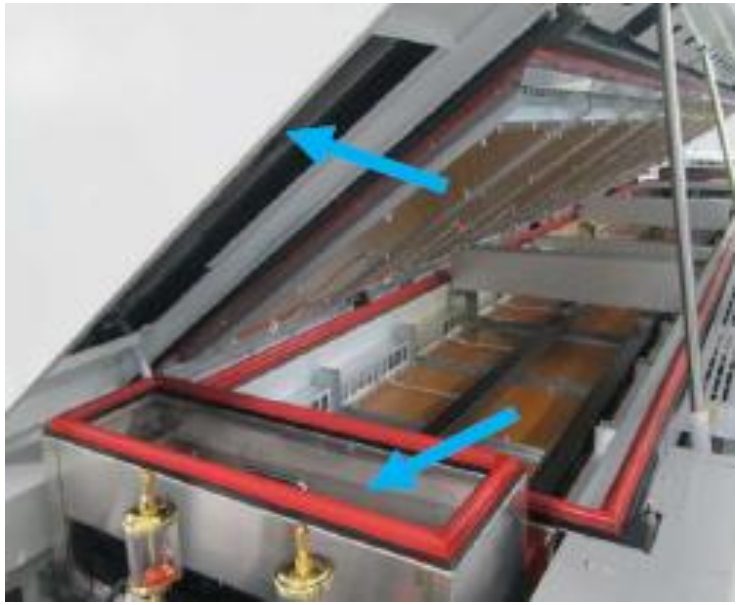
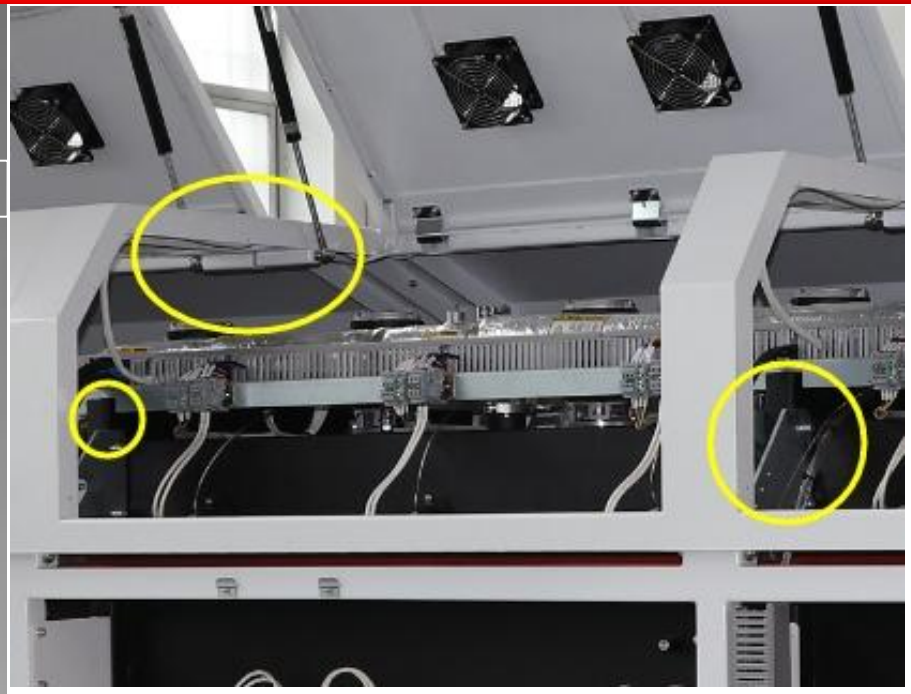


ETA exhaust moves forward, and the preheat zone has reserved nitrogen buffer zone, which is manufactured as nitrogen machine standard

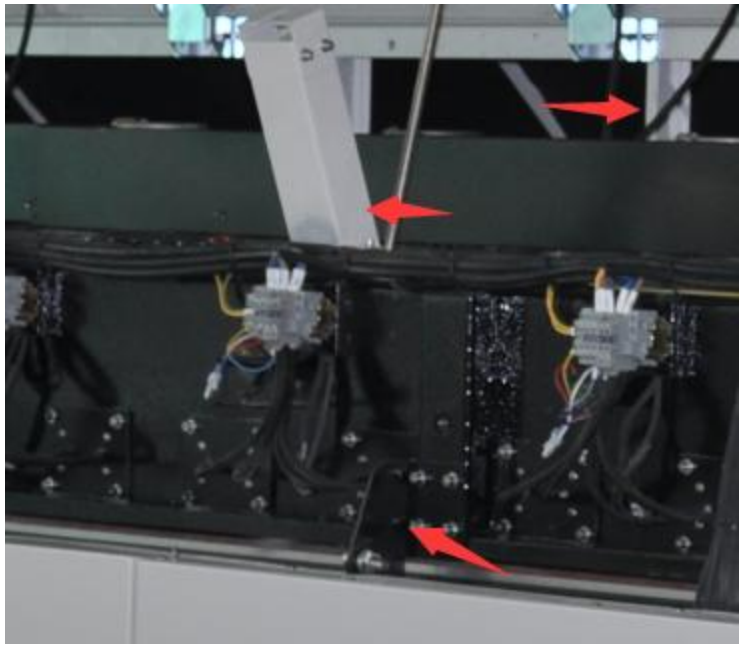
Other company design (The exhaust is close to the preheat zone, not nitrogen standard, uneven temperature, power consumption)

Lyra

Heating System



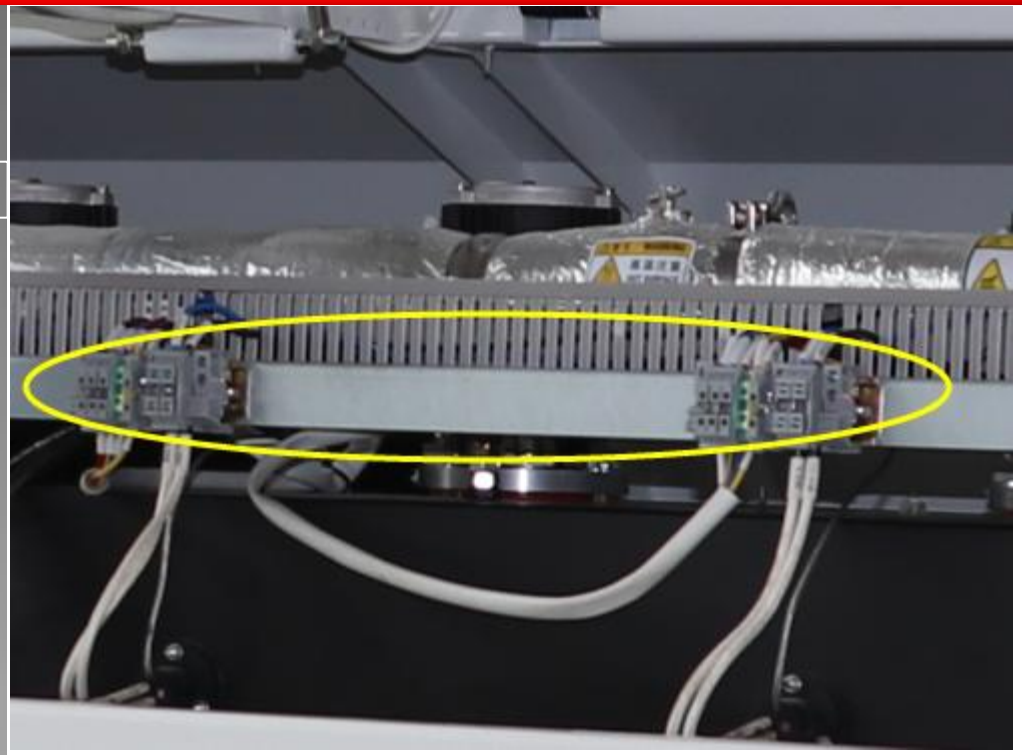
No hole on chamber body design separates heat from coming out , ensures more accurate temperature performance, meantime, machine cover stay cool, low request on air conditioner, electricity energy saving for users..



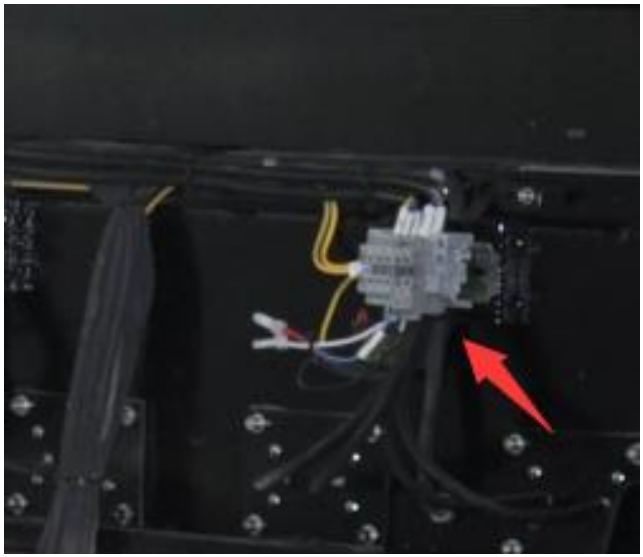
Other company design (Load capacity of oven body,oven structure will be damaged for long time.)

Lyra

Heating System



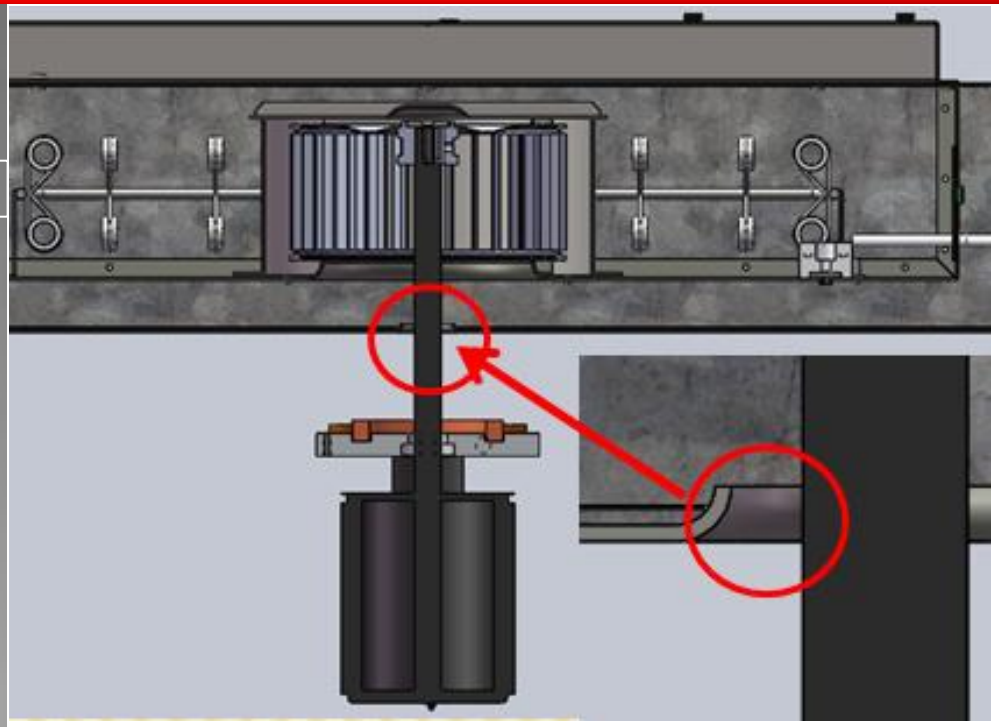
ETA oven all electrical parts and connection points are suspended, not in contact with the oven body, high safety.



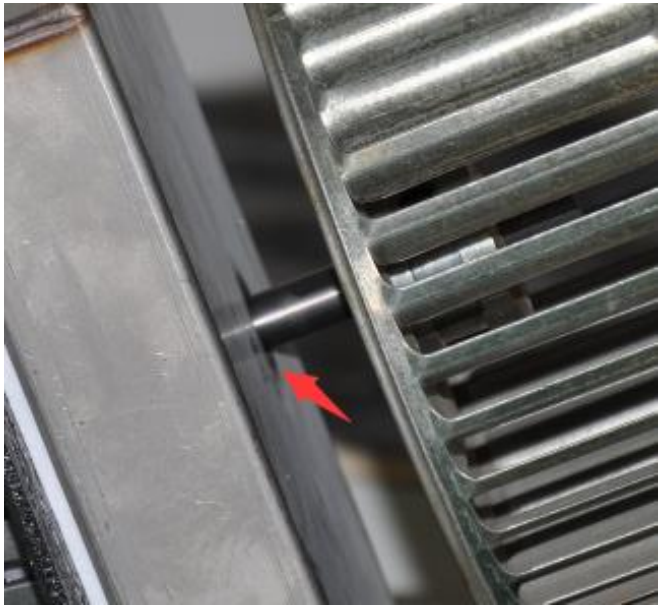
Other company design (electrical parts and connection points are directly fixed on the oven body, with low cost and low safety.)

Lyra

Heating System



ETA oven high temperature motor protection design, long-term and durable.



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

Lyra

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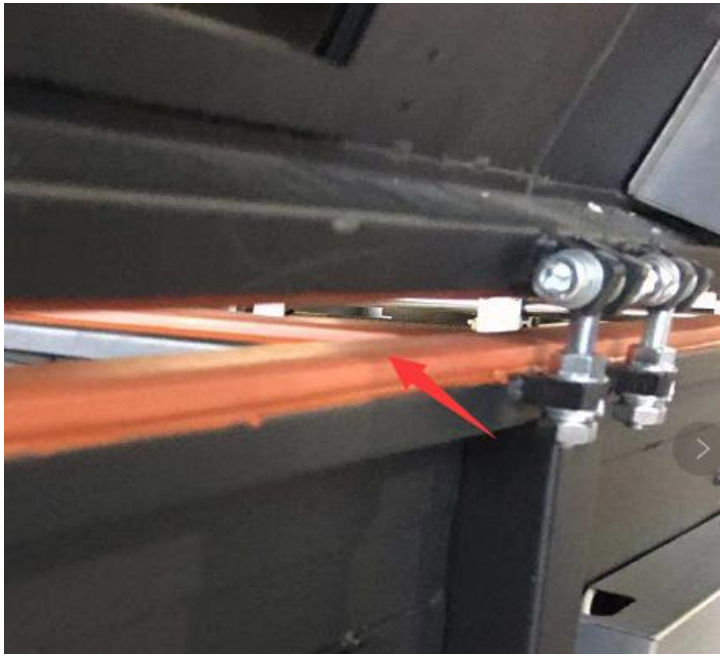
ETA oven disconnect-type design, convenient for maintenance.

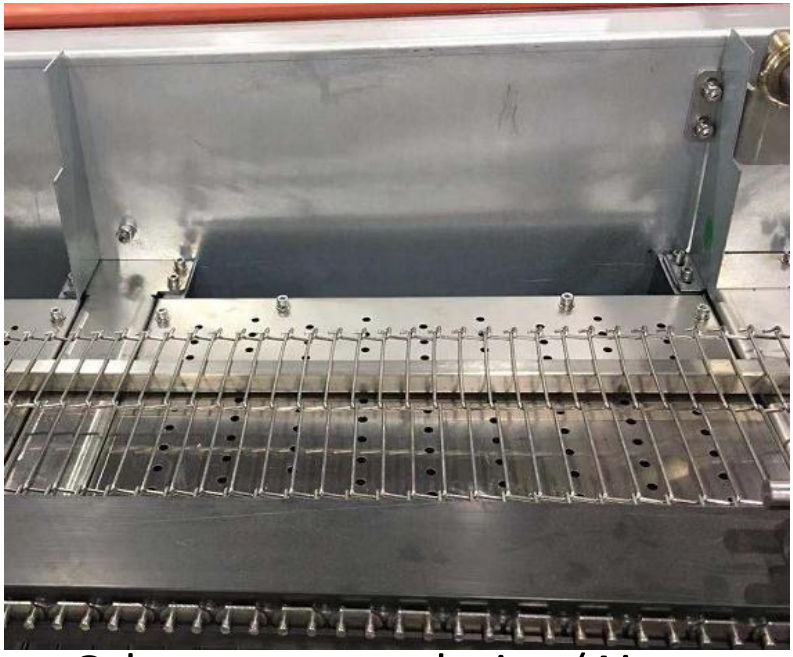


Other company design (No space, difficult to maintain and repair.)

Lyra

Heating System

ETA oven Nitrogen machine structure, upgrade to nitrogen machine at any time



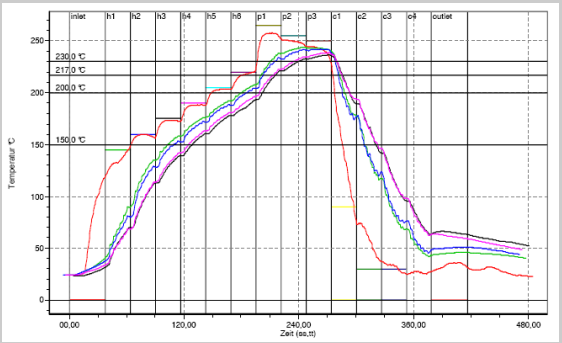
Other company design (Air oven can not upgrade nitrogen oven)

Lyra

Heat Transfer

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

No loaded



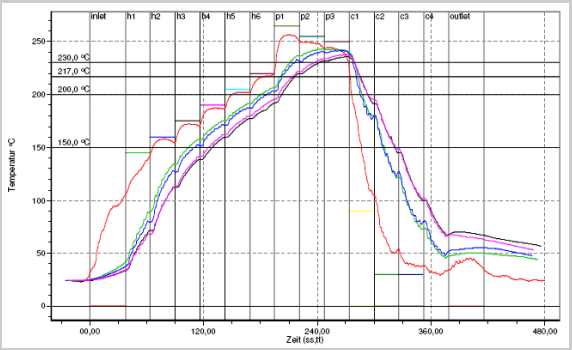
C 0603 li	243,9
C 0603 mi	242,0
Pin Wandler	233,4
Cfp	236,6

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

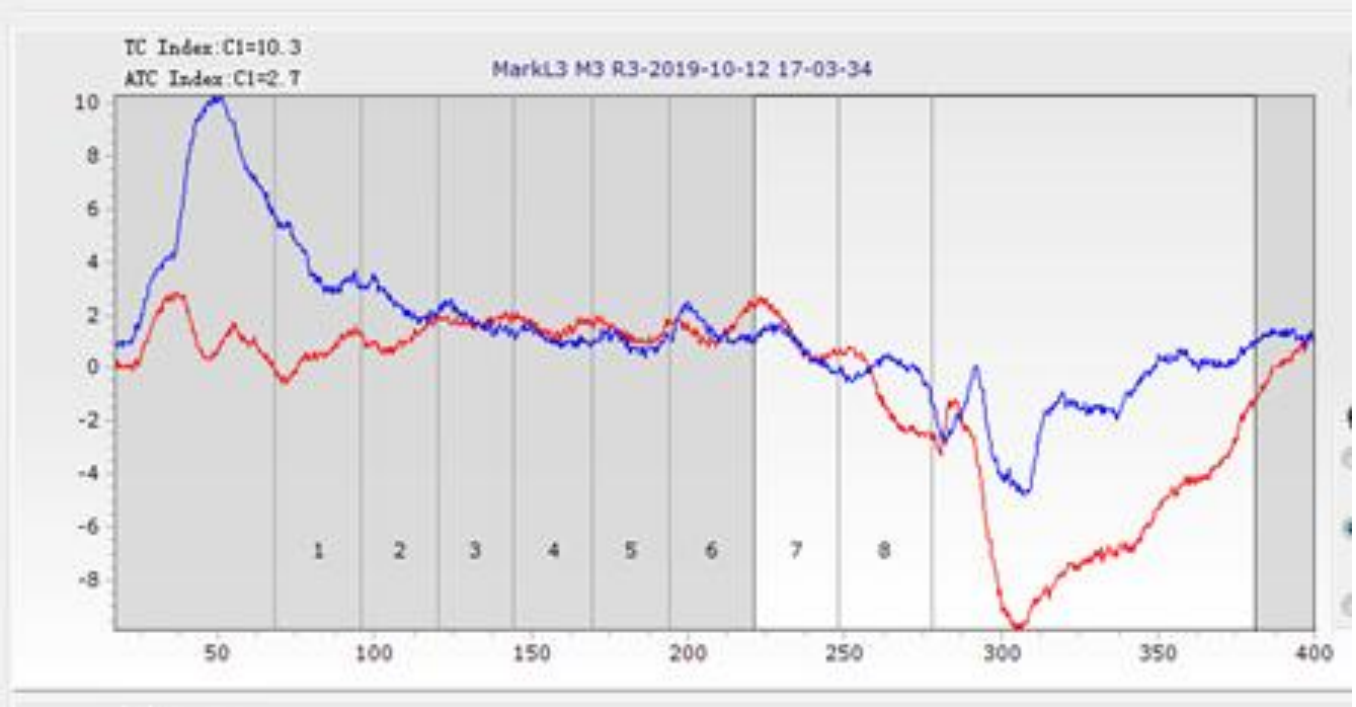
Lyra

Heat Transfer

Thermal uniformity analysis:

thermal uniformity capacity CI = 2.0 ℃

Transmission speed 87.5 cm/min; motor frequency 35Hz



Heat Transfer

Heat balance analysis:

heat balance capacity Φ = 24.5 ℃ - 27 ℃

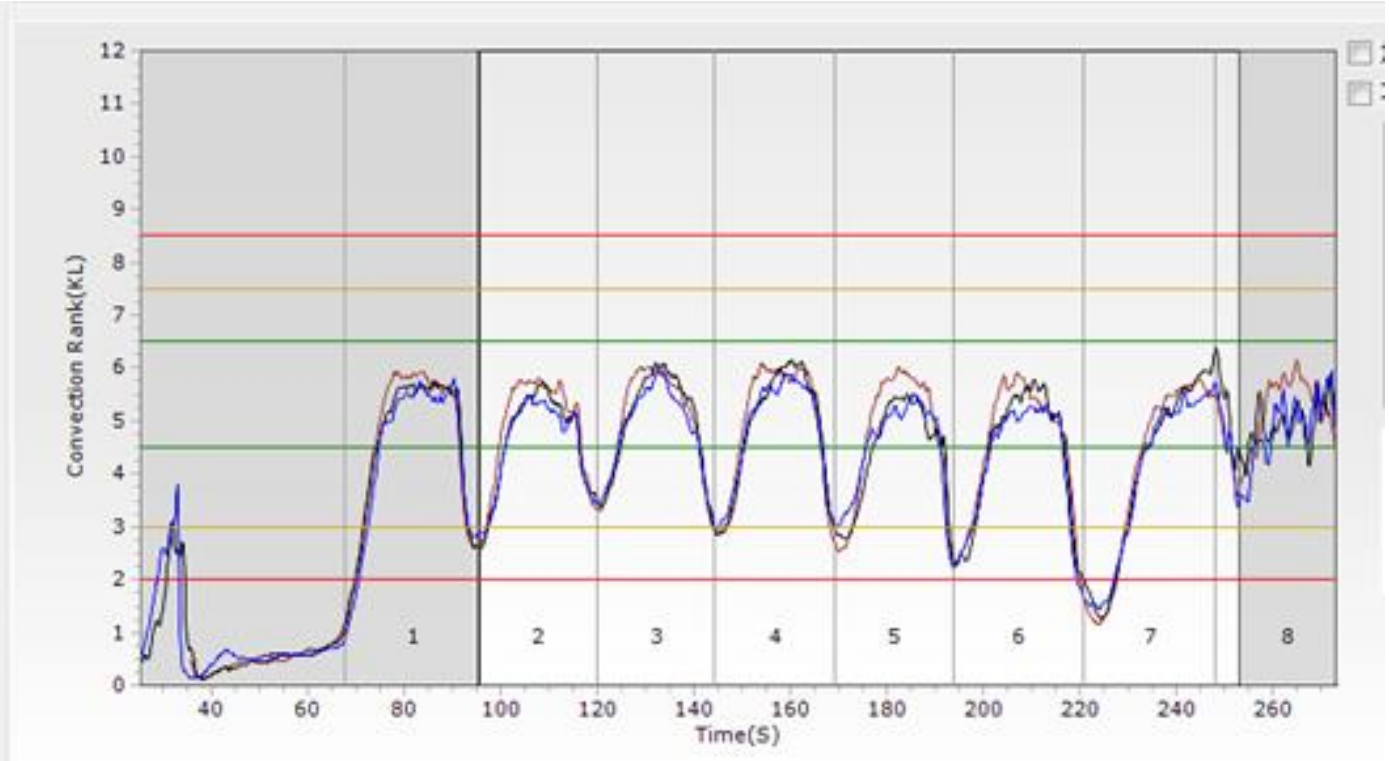
Transmission speed 87.5 cm/min; motor frequency 35Hz

Heat Transfer

Air flow analysis:

Air flow is 4.5kl

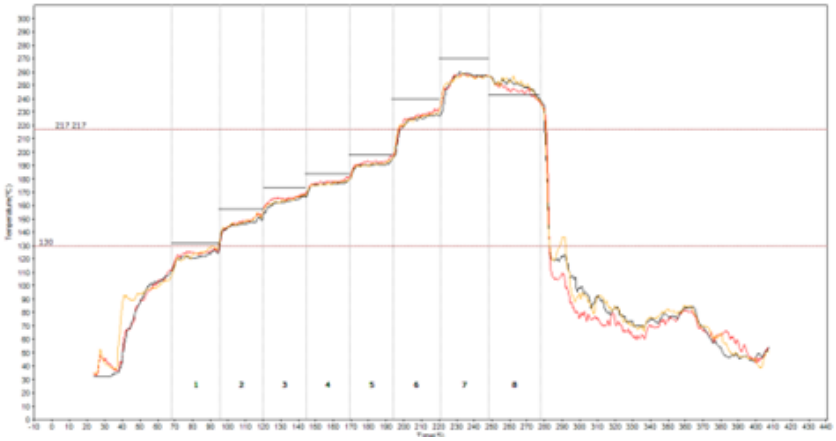
Transmission speed 87.5 cm/min; motor frequency 35Hz

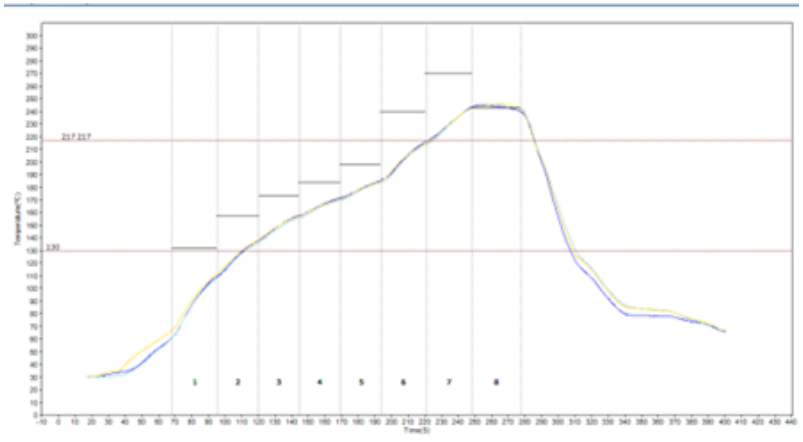


Heat Transfer

t-t :0.3-0.7 ℃

Transmission speed 87.5 cm/min; motor frequency 35Hz





Lyra

Residue Management

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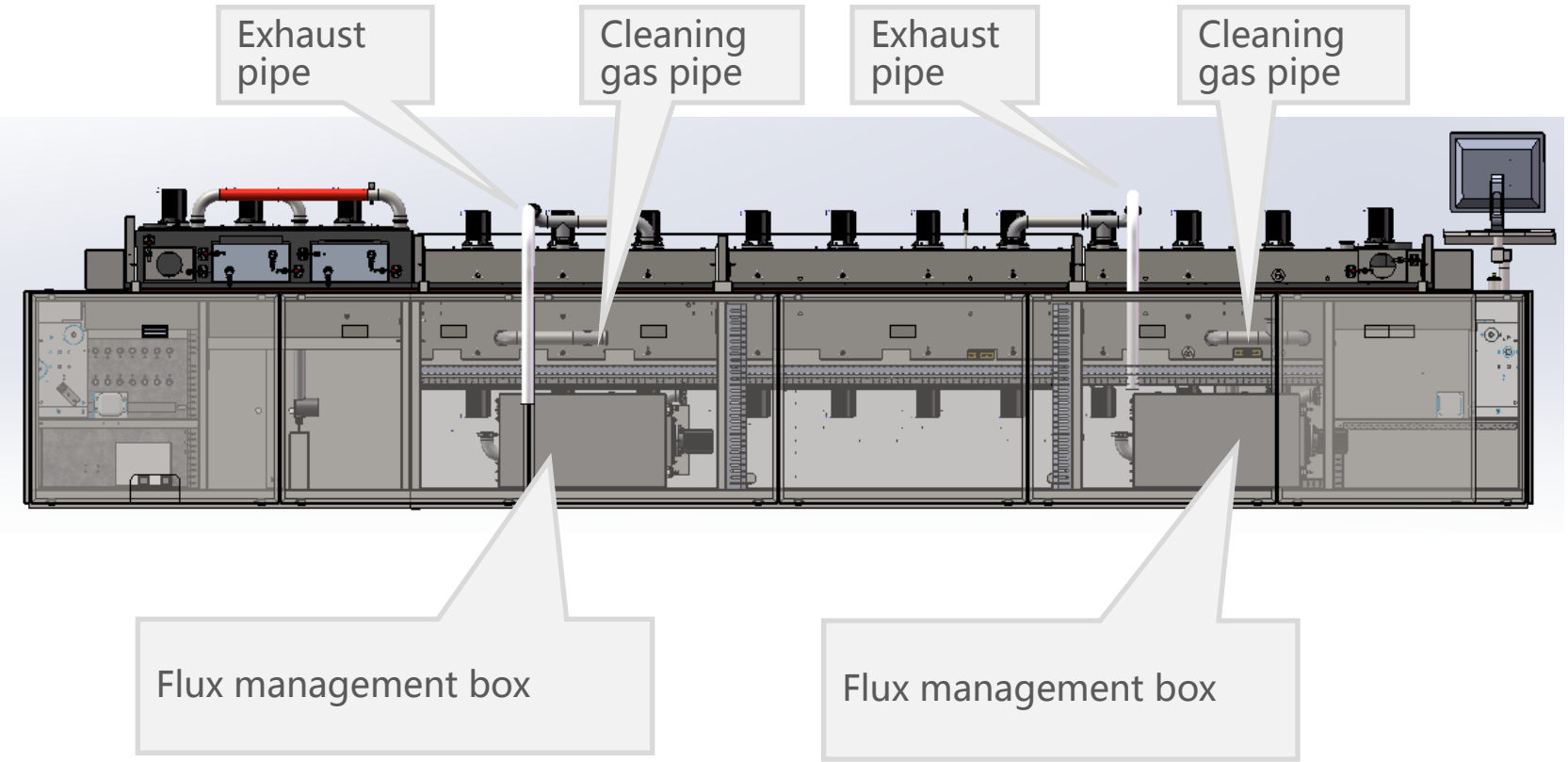

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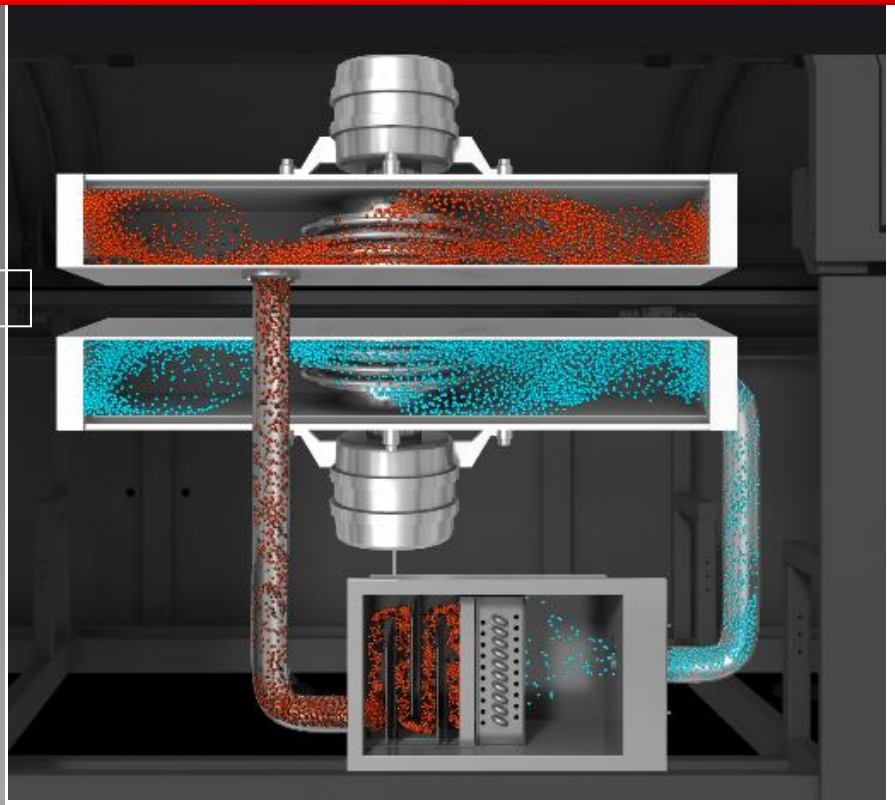


ETA flux management system can effectively manage residue and reduce nitrogen consumption

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

Lyra

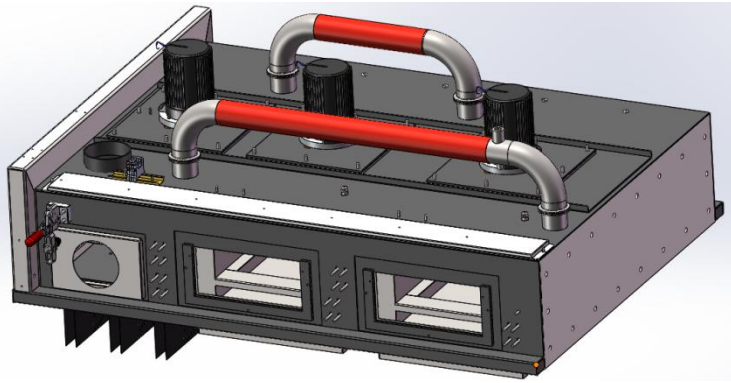
Cooling System

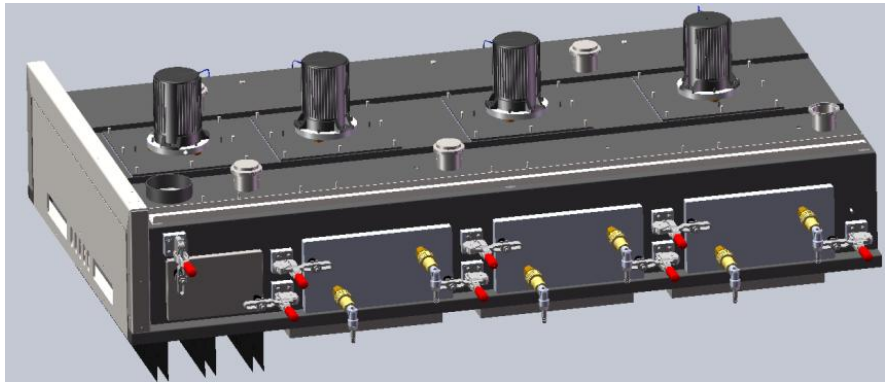
ETA cooling system is more reasonable, water cooling and air cooling can be replaced at any time, and nitrogen in the cooling zone can be monitored

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

Lyra

Cooling System





Energy saving design structure in nitrogen environment

Lyra

Engineering

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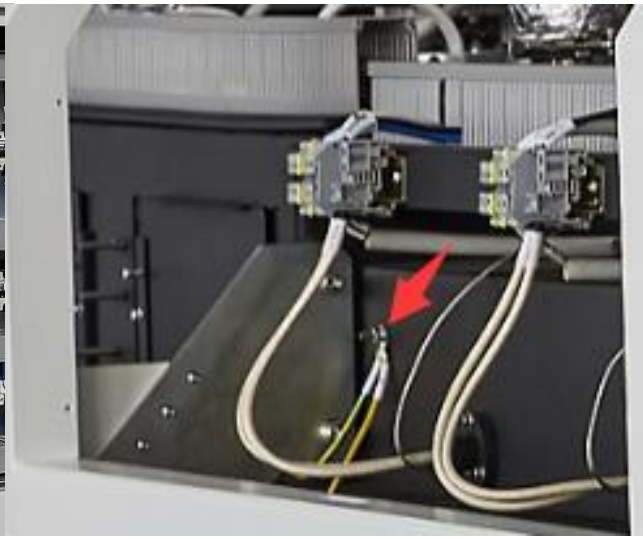
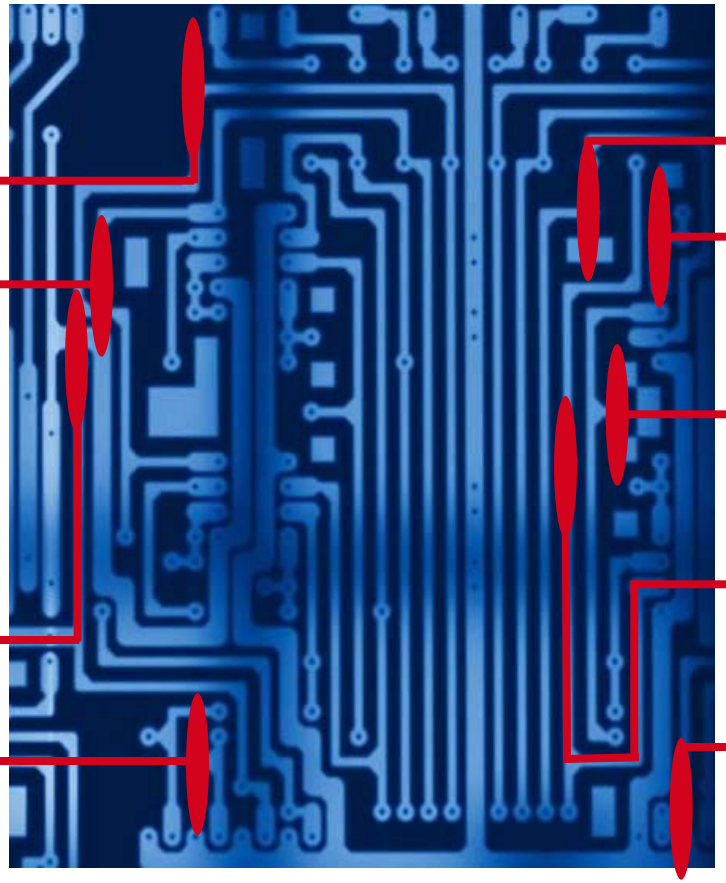


CE certified

Engineering

Profit from our Know-How!



Technology competence

Innovative conceptions + Development projects

Good established service network

Interdisciplinary cooperation

Continuous dialogue with customers

Trained, & motivated staff

In-house Software development and machine design

Quality management

Continuity of management

Lyra

The Standard Reflow-Soldering System

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)