


# *the modula*



reddot design award  
honourable mention 2009

## Innovation made in Switzerland

- 1979** First Kirsten patent: The electromagnetic **jet wave** solder pump
- 1992** First Lead-free Wave Soldering Solution delivered
  - Pioneers in Lead-free Soldering 
- 2001** Foundation of Kirsten Soldering AG, Switzerland
- 2001** Partnership with Air Liquide for K-IN2ERTWAVE™
- 2004** The 2000th Kirsten **jet wave** system is delivered
- 2006** Incorporation of Kirsten Soldering in the Swiss Future Finance Holding
- 2006** Kirsten starts development & design on **the modula wave**®
- 2008** **the modula wave**® is introduced to the market
- 2009** **the modula wave**® receives the “red dot award: product design 2009”



reddot design award  
honourable mention 2009

## Kirsten – the team



**Bruno Ghidotti**  
CEO, Kirsten Soldering AG



**Peter Grundy**  
Business Development Manager  
EMT Processes



**Joaquín Sierra**  
Technical Support  
*the modula*



**Thomas Frey**  
Research and Development  
*the modula*

***the modula***

**the innovation in soldering  
lean, space efficient, adaptable**

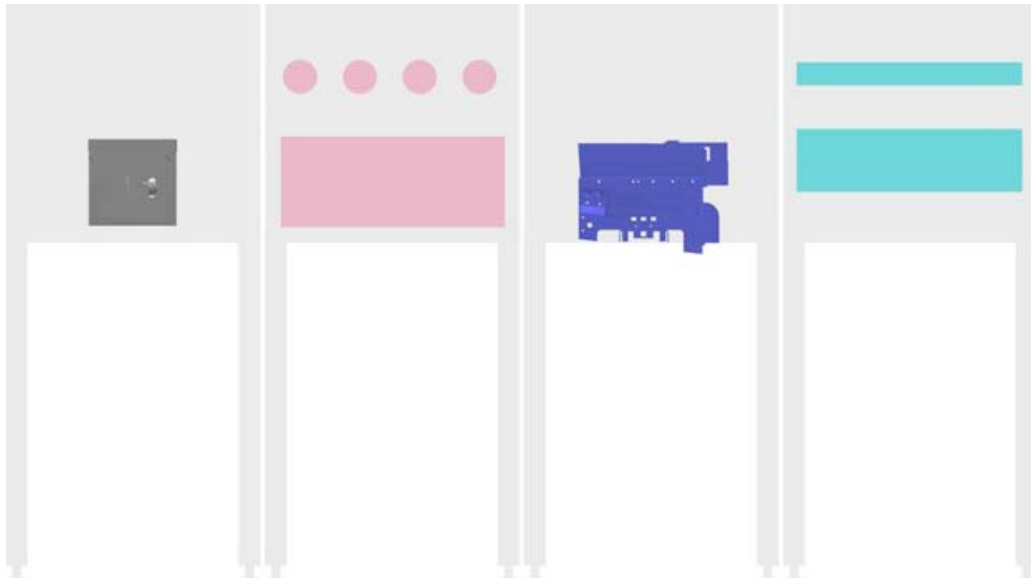
## *the modula concept*

flux  
module

preheat  
module

solder  
module

cooling  
module



*the modula*

**the modular solder solution  
that meets your expectations**

# *the modula wave*<sup>®</sup> - a minimum configuration

PCBs: Horizontal at all times!

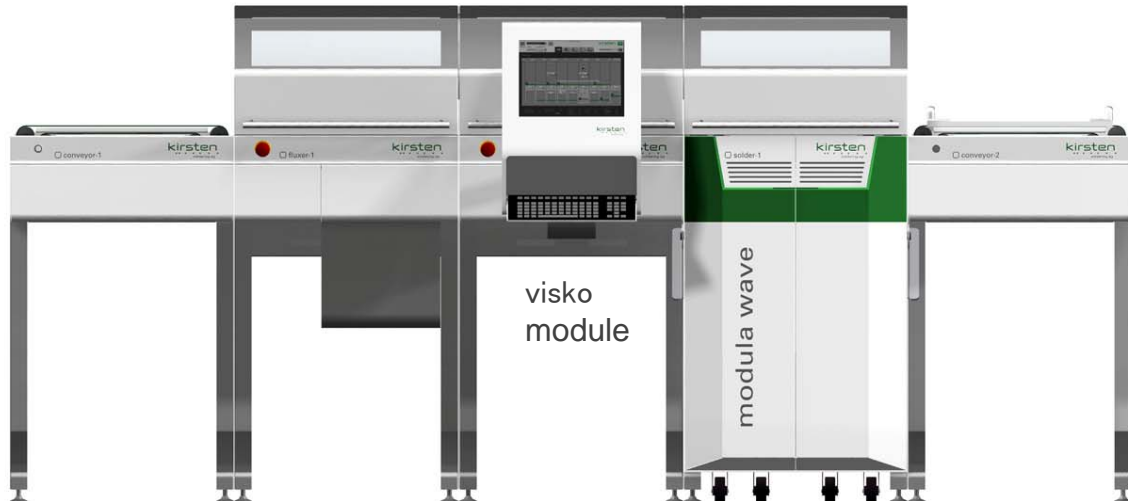
Input-conveyor  
module

flux  
module

preheat  
module

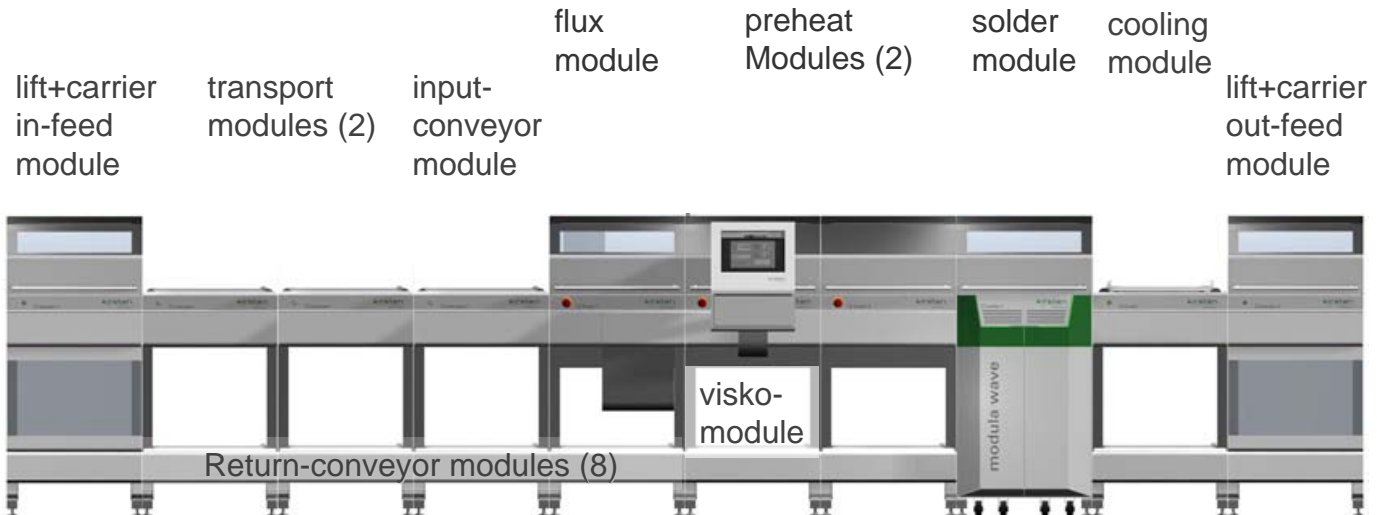
solder  
module

Output-conveyor  
module



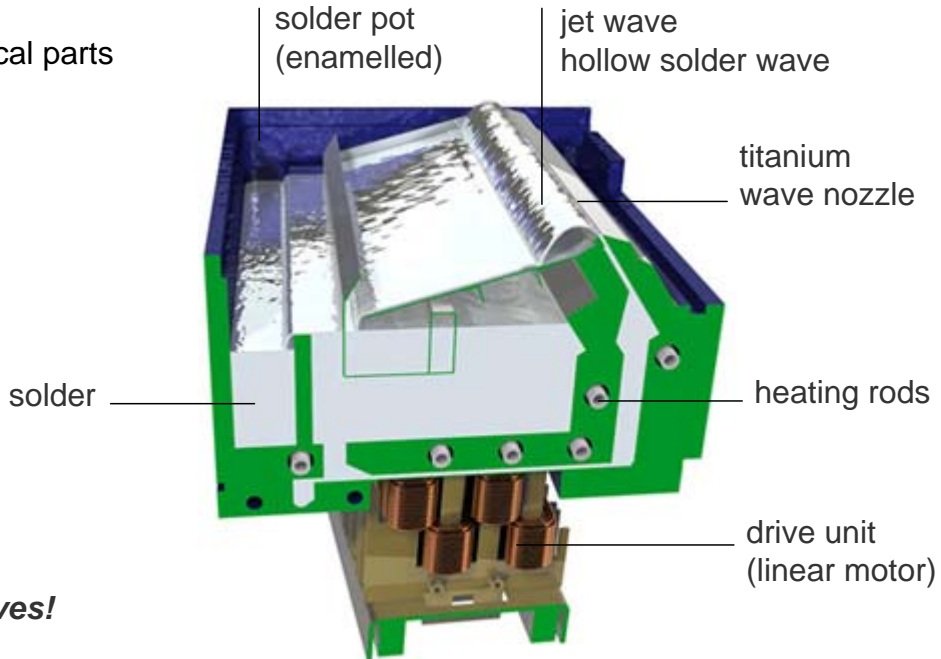
## *the modula wave*<sup>®</sup> - a typical configuration

PCBs: Horizontal at all times!



## jet wave - the hollow solder wave

Unique pump without  
any moving mechanical parts



*Only the solder moves!*

## Advantage in Production

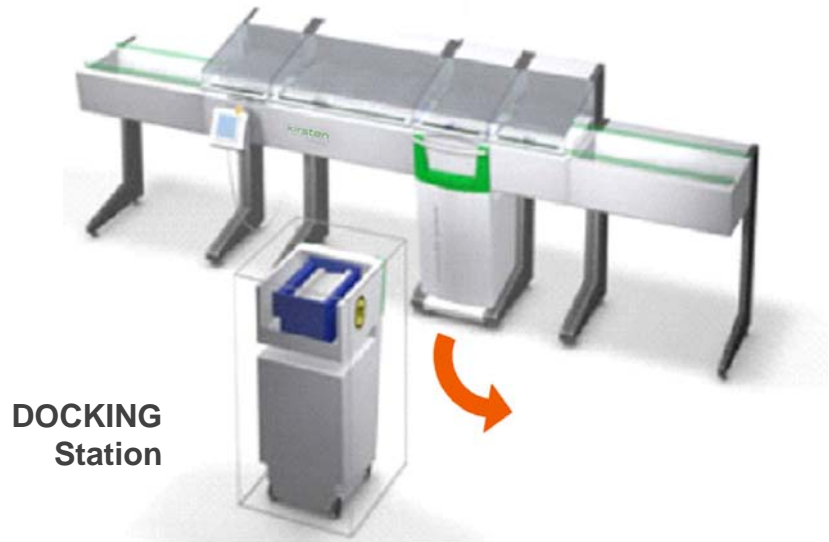
- Short wetting time – lowest thermal stress for the components
- High wave speed – increased joint quality
- Highest thermal energy transfer of all solder wave systems
- Single wave / short high temperature peak – kind to sensitive components
- Process dwell steps are infinitely variable
- Total flexibility in setting the process window
- Hold-down clamps of components are unnecessary
- High flexibility – suits batch of size 1 or high-mix or high volume
- Improved inert environment

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**this concept offers unique flexibility**

## *the modula wave<sup>®</sup> system*

Flexibility is enhanced by the use of the external Docking station.  
Different solders for different processes.



## *the modula wave<sup>®</sup> system*

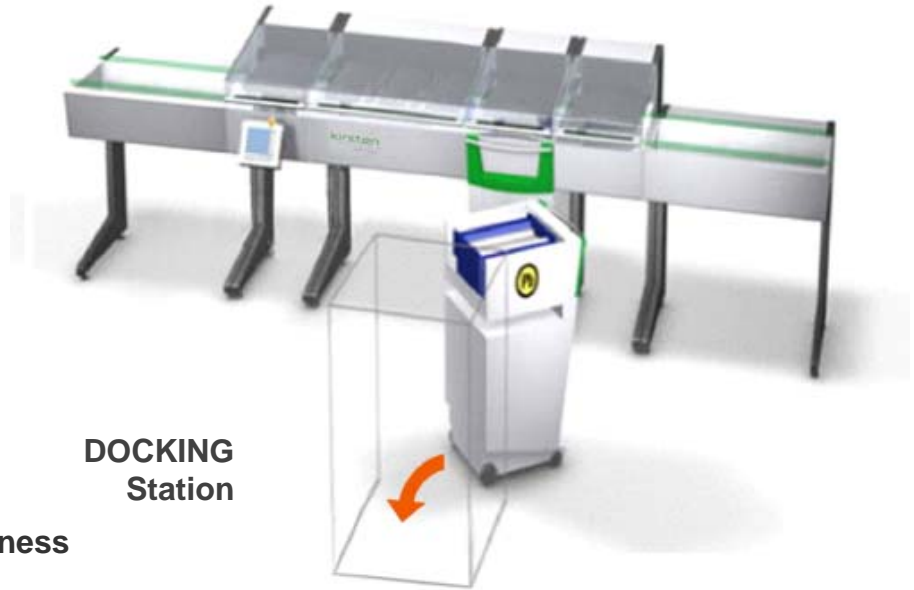
Easy removable solder modules on castors.



- Very short changeover time
- Operator's safety enhanced

## *the modula wave<sup>®</sup> system*

Store the solder module in the docking station



**DOCKING  
Station**

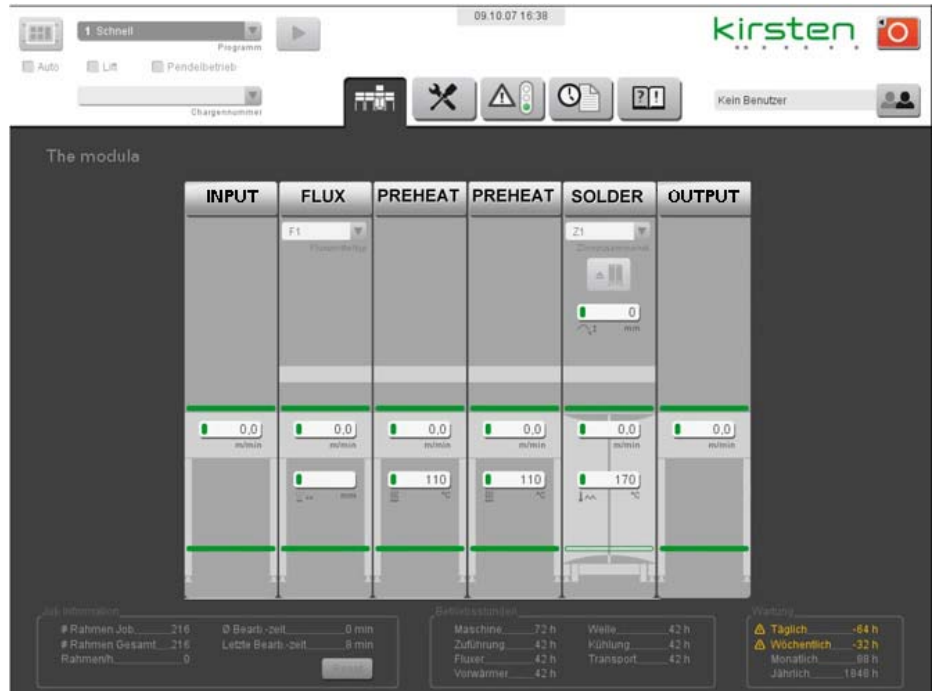
- Minimum maintenance
- Maintain factory cleanliness

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**visko**

**the visualisation and control unit**

# the modula visko - the visualisation and control unit

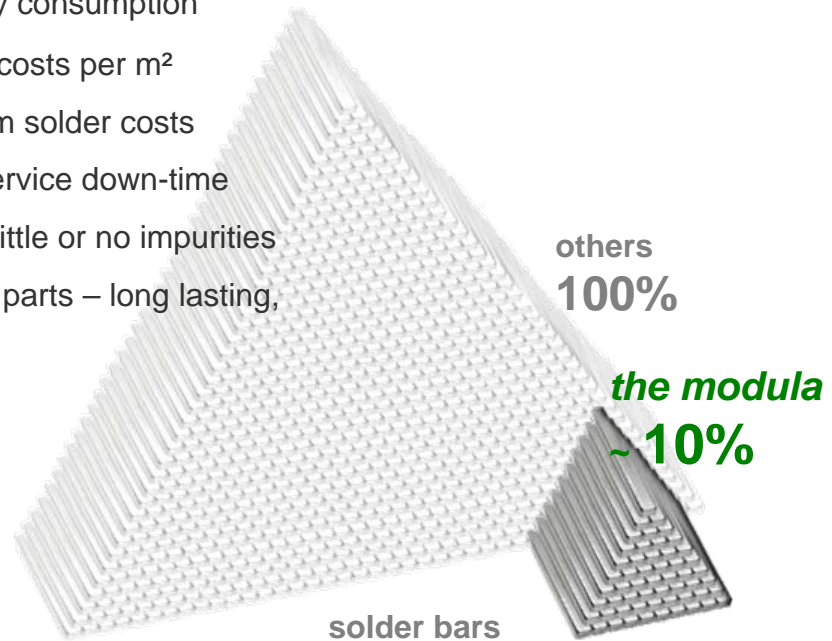


Via **visko** the transport speed can be optimized in each module.

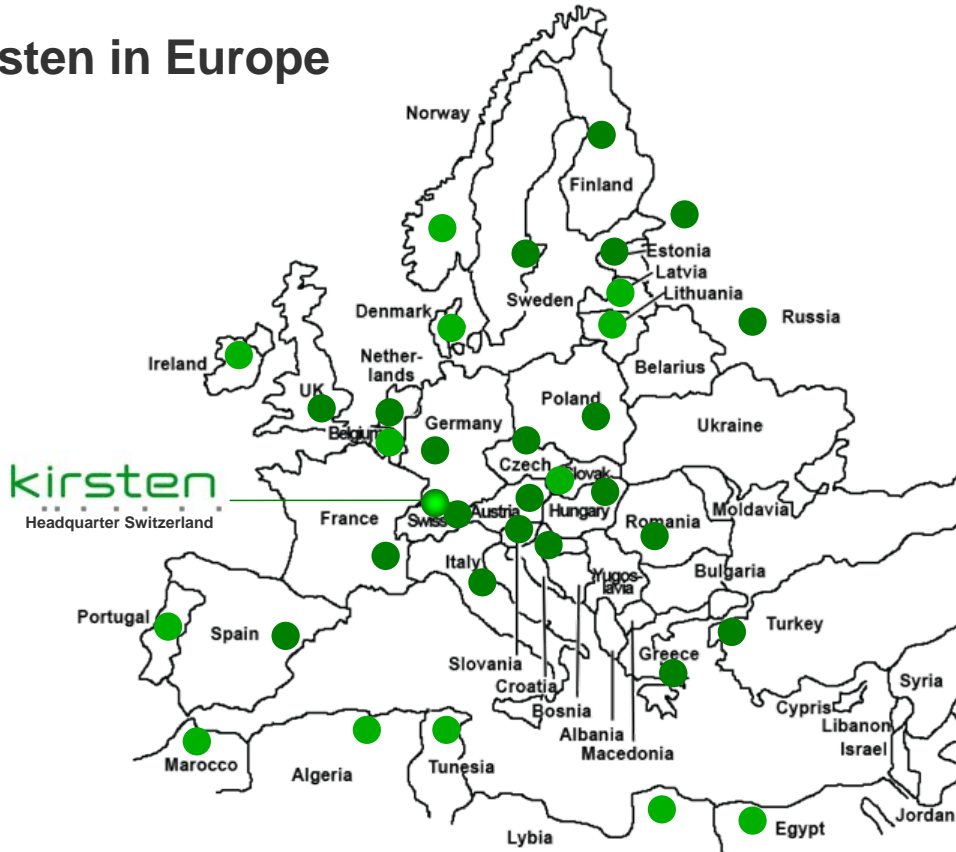
To provide total process control.

## Low Operational Costs

- Energy friendly – optimises energy consumption
- Compact design – minimum area costs per m<sup>2</sup>
- Smallest soldering bath – minimum solder costs
- Short warm-up time – minimum service down-time
- Quick and clean solder change – little or no impurities
- Pump without moving mechanical parts – long lasting, minimum maintenance



# Kirsten in Europe



# Kirsten worldwide



# *the modula* **lean and clean – flexibility included**

Kirsten Soldering AG  
Hinterbergstrasse 28  
CH-6330 Cham  
Switzerland

tel +41 (0) 41 747 04 80  
fax +41 (0) 41 747 04 81

[www.kirsten-soldering.ch](http://www.kirsten-soldering.ch)  
[info@kirsten-soldering.ch](mailto:info@kirsten-soldering.ch)

