



# J. v. G. cooling AUTO 2008 & climate chamber for Flasher (25°C)



J.v.G. Thoma GmbH   
 SolarNology  
 cooling AUTO 2008 & climate Flasher

This machine is a new revolutionary cooling & heating facility for the module production.

The advantage is a better lamination result, the modules are in a much higher quality. J.v.G. invented this in 2007/2008. Modules have a longer lifetime, better against delamination and finally more yield. The cooling process is automated, with FIFO (first in first out) principle. Hand cooling is not defined, not repeatable and not unique made. The cooling station also extends the capacity of the laminator. Fully automated Interfaces to laminators, already realized are Nishinbo- Spaleck- and ECO-laminators. Same machine is also used as climate chamber before Flasher. (25 degree Celsius).



interface to laminator



cooling facility





## Specification datas

- 1 Increases quality of the modules, better against delamination;  
increases quality of Flasher measurements
- 2 FIFO out principle
- 3 Increases capacity of the line, higher output of modules
- 4 Variable sizes of glass  
minimum 600 mm x 1200 mm  
maximum 1000 mm x 2000 mm
- 5 Dimension of the cooling station  
length about 8,5 m  
width about 2 m  
height about 1,8 m
- 6 Two Pyrometer sensors
- 7 One conveyor sensor for loading modules
- 8 Five sensors for unloading conveyor
- 9 PLC controlled loading & unloading mode
- 10 PLC controlled cooling scenarios (three examples programed) customer specific possible
- 11 PLC controlled heating scenarios
- 12 Motor driven
- 13 Frequence controlled
- 14 Temperature sensors (two), with display and control outside
- 15 Three cooling programs with PLC useable / three heating programs with PCL useable
- 16 Inline version
- 17 Automated interface for Nishinbo laminator; Spaleck & Ecoprogetti; Endeas; J. v. G. Flasher; Berger
- 18 Unload buffer for cooled modules; for one complete load capacity
- 19 Prepared up to ultra super fast cure (curing time 12 minutes, minimum 9 minutes possible)