Who is Yamatake?

>>> ***Japanese instruments manufacturer***

for the industry and building automation use.

- ***One of the biggest manufacturers in the world.***
  - Sales record: 1.8 billion $ at year 2000
  - Employees: 8000
  - 100 years history
- ***Jointed with Honeywell as Yamatake-Honeywell until 1997.***
  - To supply products as Honeywell brand.
  - To import Honeywell products to Asian market.
- ***Main business***
  - Industrial automation business
  - Building automation business
  - Control product business

Yamatake group

YAMATAKE

- Group structure.

Japanese market

Yamatake Building System
* Sales and service

Yamatake Industry System
* Sales and service

Other group companies

Yamatake Corporation

* ***Production center***
* *To manage the control product business*
* ***To manage the international business***

Overseas sales companies

* USA … Yamatake Control Valves, ***Yamatake Sensing Control, Ltd.***
* Europe … Yamatake Europe
* Asia … China, Korea , Taiwan, Singapore, Malaysia, Thailand, Philippine, Indonesia and Others.

Yamatake Sensing Control, Ltd

YAMATAKE

- Mission
  - First
    - Sensors and controllers business in North America.
    - Semiconductor and electric devices equipments industry first.
    - Sales and ***engineering support***
  - Secondary
    - Automobile factories service

Focusing on Semicon equipments industry!

- Area
  - Head office: Santa Clara
  - Cover area: Silicon valley, Phoenix, Austin Ohio and some other areas.

- Features
  - High share in the Asian semiconductor tool market.
    - Temperature controller 30% or more
    - Fiber photoelectric sensors 10%
  - ***Application solution*** provider
  - ***Technical support*** for customers backed by successful activity in the semicon tool market.

Actual solution in the Semicon market

YAMATAKE

Control algorithm

- Process control
  - Control ability
    - High response control … Flip Chip Bonder, Laser Die Bonder.
    - Stability against disturbance … Wire bonding, Handler.
    - Overshoot reduction … CVD, Diffusion and Oxidization furnace, Wafer cleaner to use fluoride chemical, Leads free reflow furnace.
    - Ultra stability by the extra high resolution measurement, 1/1000-1/10000 degree C …Environmental chamber for stepper.

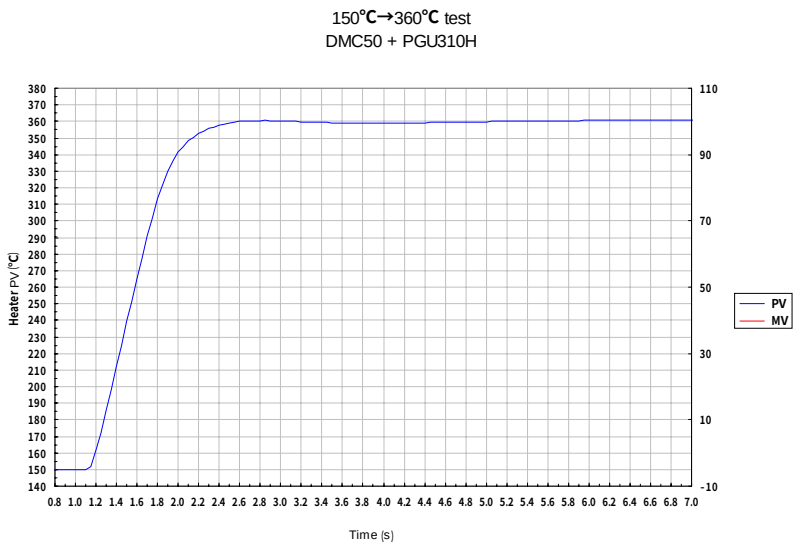
Actual application(Flip chip bonding)

* Condition

: 150 to 360 degree C test/2sec

* Result

: No overshoot by new algorithm



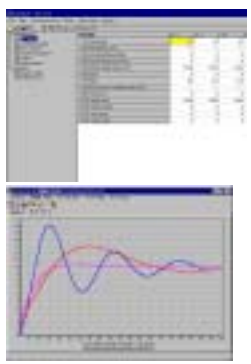
Actual solution in the Semicon market

YAMATAKE

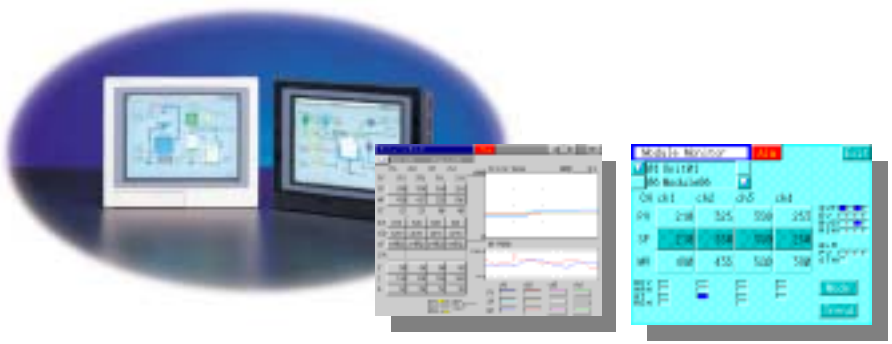
- Process control
  - Contribution for making your compact tool
    - Module type controller, DMC10
      - 4ch in one module
      - Max. 120 modules to one Host
    - Single loop controller SDC series (*Available soon)
      - The most thin depth in the world, 60mm!
  - Reduction of the engineer's work
    - PC loader for temperature controllers.
    - Dedicated monitoring software for DMC10 in the touch panel EST.

DMC10

DMC10 with PC loader



EST with monitor screen



Controller business

- History
  - Controller manufacturer From 60's.
  - One of the biggest in the world, 70 million US$* in the year 2000!
    - = The third largest in the world.
    - 150 million US$ total sales

•This record is only of controllers.

DMC10

SDC series

- Features
  - Market focus
    - Semicon, Electronic device, Food machinery, Automobile and Air conditioning.
  - Consulting sales
  - Solution providing sales, especially for control issue.
  - Wide variety of products
    - Many kinds of process controllers
    - Communication converters – device-net, CC-link, Profibus, TCP/IP and so on.
    - Touch panels, recorders, temp sensors and heater controllers.
    - Motor valves, pressure and flow transmitters, flame safe guard and so on.
  - Strong in the combination business module controllers and touch panel
    - DMC10, DMC50 and EST

Product

YAMATAKE

Process controller for panel mount

Model	SDC10	SDC20	SDC21	SDC22	SDC30	SDC31
Size(DIN)	1/16	1/8	1/4	1/8	1/8	1/4
Features	* Selftunig control * DIN rail mount available	* PC loader available	* PC loader available	* Melsec-net mini direct communication	* Neuro & Fussy control * PC loader available	* Neuro & Fussy control * PC loader available
Accuracy	0.5%	0.3%	0.3%	0.3%	0.2%	0.2%
Sampling r	0.5s	0.5s	0.5s	0.5s	0.2s	0.2s
D/O	2	2	3	2	2	2
D/I	2	1	1	-	4	4

Model	SDC40A	SDC40B	SDC40R	SDC40G	DCP31/32	DCP551/552
Size(DIN)	1/4	1/4	1/4	1/4	1/4	1
Features	* Neuro & Fussy control * PC loader available * Internal cascade * 2 analog inputs	* Po m * 3 analog inputs * 3 analog ouputs	* 1/1000 degreeC RTD range	* for infrared sensors	* Program pattern control * 19 program patterns * 2 analog inputs * PC loader available	* Program pattern control * 99 program patterns * 2 analog inputs * PC loader available * Momory card available
Accuracy	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Sampling r	0.1s	0.1s	0.1s	0.1s	0.1s	0.1s
D/O	8	8	8	8	12	16
D/I	12	12	12	12	8	16

Product

YAMATAKE

Process controllers for install panels.

Module type controller, DMC10

* MAX.4 loops
* 15 modules connectable and with the communication extension module, CMC10B, MAX 120 modules for one host instrument.
* PC loader available
* Package software of EST
* Dedicated operation unit, SDU10 available.

Board type controller, CB508

* 8 loops / board
* VME size

Module type controller, DMC50

* MAX 8 loops
* High accuracy and fast sampling rate.
* Special control algorithm
* Programmable by PC loader, ISA graph
* Ethernet module available.

Product

YAMATAKE

Others

Programmable touch panel, EST series

* 5.7 inch STN & 10.4 inches TFT
* Programless communication with PLC
* DMC10 package software
* Trend monitoring & data gathering
* Alarm monitoring

Communication converter, CMC10 series

* RS232C/RS485
* Device-net, Profibus, CC-link
* Programless communication with major PLCs

Others

Recorders, SSR&SCR, Temperature and humidity sensors, signal converters.