



## Welcome to QLab Stability Room

Stability testing is an important part of drug, food & drink, cosmetic, polymer and other products evaluation and provides evidence of how the quality of a substance varies under a variety of environmental conditions. Stringent requirements of stability testing demand a purpose designed room combining assured performance with minimal maintenance.

To perform this study we can use regular stability chambers for small amount of samples. Otherwise for voluminous samples, a stability room designed by QLab is the best alternative instead of using the regular stability chambers for same study condition.

### The First Manufacturer in Indonesia

QLab is the first and only Indonesian company constructing **The Stability Room** which provide customized volume and specification that use Intelligent Control System for much better performances and excellence distribution performance.

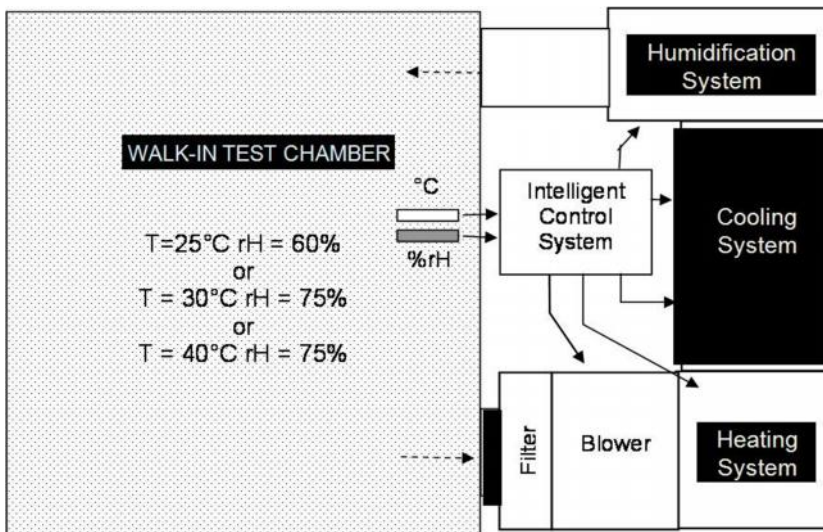
Intelligent control system controls the work of stability room devices. Consumption of electricity will be managed just to achieve the required temperature and relative humidity. This system will keep in stabile condition, or the fluctuation of temperature and relative humidity is very smooth.

#### Benefits of using Intelligent Control System :

- Temperature and humidity stability can be reached quickly and can be maintained at stabile condition
- Low consumption of energy
- Good distribution of condition due to low fluctuation



## Why is it called Stability Room ?



QLab Stability Room is able to accommodate huge space and enable people walk-in to the room. It has similar system which are installed in regular stability test chamber and it's completed with an integral complex systems such as; fully air supply, high speed air velocity, low air retention time and system

components for Humidification system, Cooling system and Heating system which will be running simultaneously.

## What is the different with HVAC ?

Recently, there is a general mistake to understand about stability room. People accept that as the same system with a common HVAC room (such as: conditioning room, stability room).

In fact, both are significantly difference.

HVAC rooms do not require such complex and integrated system like regular stability chamber or stability room system. HVAC has opposite system with regular stability chamber or stability room.



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## Features

- Stainless steel interior
- Polyurethane/PU (75 mm thickness) zinc-alum powder coated exterior
- Stainless steel SUS 304 wire shelf , rack and castors
- Fully customizable options for design, volume, specification and configuration
- Wide range of temperature/humidity application : 20°C - 45°C ( ± 2°C)/ 50 – 85%rH ( ± 5%rH) or other applications
- Software fully comply to FDA CFR 21 Part 11 and GAMP5, Features : data-logging, data storage, calculation of various humidity parameters, graphic functions
- RJ45 (Ethernet) communication
- Better Logging System : Online and Offline logging, completed with Internal memory 128 MB (saves 47,000 data records per MB card storage capacity)
- Uninterruptible Logging for better documentation ; logging back up if power failure and logging back up if PC failure
- Testing products safety device for overshoot temperature and electrical parts protection
- Central Alarm System for alerting : when Safety device is working, humidity/temperature value is out of range and low water feeding failure
- Networkable Monitoring via RS485 serial communications with regular QLab Stability Test Chamber and other instrument up to 64 units
- Qualification Document : DQ, IQ,OQ and PQ

## Fully Customizable Options

### We make it easy for you.

QLab is proud to offer a fully customizable test room to fit perfectly your current testing operation and to meet your special performance requirements.

The benefit for you is a test room solution that truly optimizes your test resources, processes and goals.

We will happily work around your current situation to ensure your testing room is as efficient and effective as possible. And for sure, it lies within your budget as well.

We really care to listen and understand what you need before offering advice on which solution could be most suitable for your requirement.

All our products we supply are installed, tested and commissioned on site by our own fully trained technicians - all you need to do is open the door of the rooms and put your products in.

You will get the same thoughtful care and attention from us whichever costumed size and configuration you choose. You will get the same prompt installation and after sales service & support too, for all places in Indonesia.



## Our Service and Support Commitment

QLab technician are available to assist with your stability room star-up, operation, troubleshooting, repair and preventive maintenance and calibration agreements

No matter what your service needs are, our technician are ready to help you over the phone or in person

QLab understands how important test chamber reliability and dependable hardware are for your test processes and overall project time.

Even the shortest period of unintended downtime can cause major setbacks, big delays and result in missed revenue.

We fulfill the highest demands with regard to quality, performance and safety which assure you a SUSTAINABLE operation for a long period.

We are committed to being there for you throughout the operational lifetime of your stability room by providing:

- Well trained manufacture technicians; to solve all stability test room problems
- Fast support and one day service (inner city customer), and ASAP departure subject to air/land ticket availability (outer city customer)
- Weekday and weekend availability for any unexpected emergencies
- All parts are in stock and ready for immediate delivery to maintain your test room in optimum condition
- Best price of qualified/branded parts (OEM price condition )

### Additional Optional Feature

- Shelves increase product loading capacity, allowing for more effective use of testing space
- An extended warranty is available on the part and/or labor of your equipment
- Maintenance service contract and calibration agreement help to keep your room in optimum condition and minimizing system downtime



# Warranty

QLab warrants our products to be free from defects in material and workmanship, provided the same is installed, maintained and operated in accordance with the instruction manual.

The electrical and mechanical parts are covered against any failure which may happened as long as all specified working conditions of the considered equipment have been thoroughly followed.

This period of warrantee is of 12 months from date of installation.

## On-site Calibration

Calibration and adjustment of the stability chamber probe can be directly done on the sensor. Multiple points calibration can be chosen to have precise measurement.

### We calibrate your probes by the following methods:

- ROTRONIC calibration device and SCS-certified humidity standards
- SCS-certified reference probes (reference measurement)

## rotronic COMPLIANCE DECLARATION DV04-30.787.01-1

for  
Software  
HW4 version 1.2.1.14714

physical devices  
HygroLogNT: firmware release 1.2  
HygroFlex, HygroLab, HygroPlan, HygroMid: firmware release 4.0

We attest that the validated version of the rotronic HW4 software and associated devices fulfill the requirements defined in the rotronic ERES White Paper, version 1.0, based on the following paragraphs:

21 CFR Part 11  
21 CFR 150  
21 CFR 210-211  
EU Annex 11

validated by ROTRONIC Instrument Corp.  
Inspected by Kerson AG,  
December 2005

The HW4 software and devices have been reviewed against the specifications and the ERES White Paper, version 1.0, in order to provide evidence that the above mentioned regulations are fulfilled accordingly.

The measuring devices and the software have been validated and verified against the specifications provided by the manufacturer.

Inspected by Yves Samson, Kerson AG

Date/signature

Accepted by the manufacturer Daniel Ribler, ROTRONIC AG

Date /signature

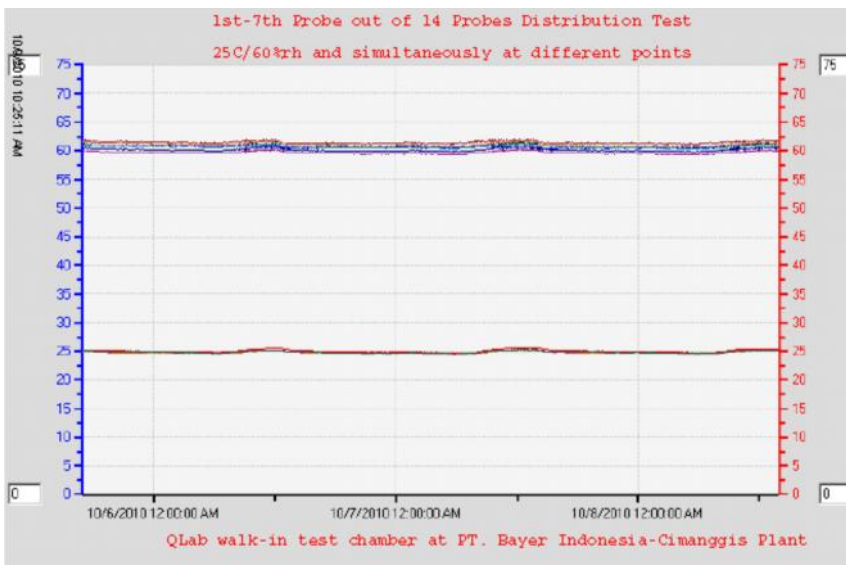




# QLab Mapping Graphics

## MAPPING OF QLAB WALK-IN STABILITY ROOM (real result of example project)

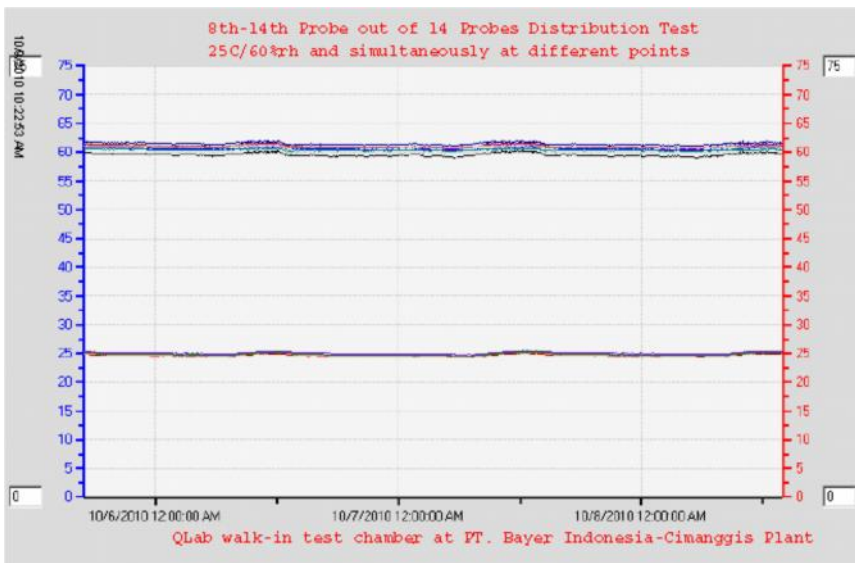
Under setting condition of 25°C/60%rh and simultaneously at 14 different points



From: 10/5/2010 5:00:00 PM  
To: 10/8/2010 1:56:00 PM

Humidity %rh  
Total: 28959 Data Points  
Minimum: 59.28 (10/7/2010 5:39:00 AM)  
Maximum: 62.15 (10/6/2010 12:03:00 PM)  
Average: 60.709  
Standard deviation: 0.614

Temperature °C  
Total: 28959 Data Points  
Minimum: 24.42 (10/7/2010 5:41:00 AM)  
Maximum: 25.63 (10/7/2010 1:39:00 PM)  
Average: 24.872  
Standard deviation: 0.190  
Mean Kinetic Temperature: 24.874



From: 10/5/2010 5:00:00 PM  
To: 10/8/2010 1:56:00 PM

Humidity %rh  
Total: 28959 Data Points  
Minimum: 58.96 (10/7/2010 5:39:00 AM)  
Maximum: 62.15 (10/7/2010 12:06:00 PM)  
Average: 60.712  
Standard deviation: 0.620

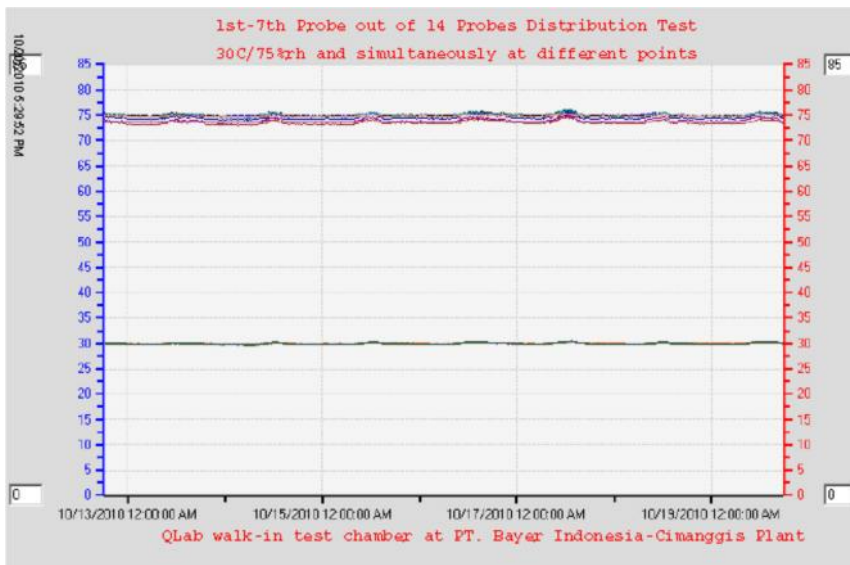
Temperature °C  
Total: 28959 Data Points  
Minimum: 24.29 (10/7/2010 5:35:00 AM)  
Maximum: 25.45 (10/7/2010 12:51:00 PM)  
Average: 24.825  
Standard deviation: 0.218  
Mean Kinetic Temperature: 24.827



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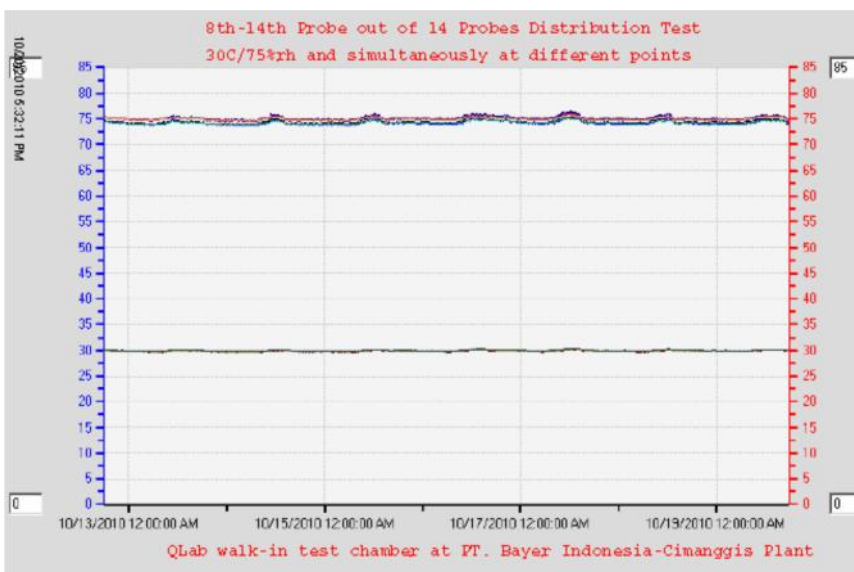
1. Under setting condition of 30°C/75%rh and simultaneously at 14 different points



From: 10/12/2010 6:00:00 PM  
To: 10/19/2010 5:50:00 PM

Humidity %rh  
Total: 70497 Data Points  
Minimum: 72.87 (10/13/2010 10:03:00 PM)  
Maximum: 76.42 (10/17/2010 12:29:00 PM)  
Average: 74.536  
Standard deviation: 0.637

Temperature °C  
Total: 70497 Data Points  
Minimum: 29.64 (10/14/2010 5:47:00 AM)  
Maximum: 30.42 (10/17/2010 12:48:00 PM)  
Average: 29.933  
Standard deviation: 0.121  
Mean Kinetic Temperature: 29.934



From: 10/12/2010 6:00:00 PM  
To: 10/19/2010 5:50:00 PM

Humidity %rh  
Total: 70497 Data Points  
Minimum: 73.54 (10/14/2010 12:49:00 AM)  
Maximum: 76.73 (10/17/2010 12:29:00 PM)  
Average: 74.711  
Standard deviation: 0.496

Temperature °C  
Total: 70497 Data Points  
Minimum: 29.58 (10/14/2010 7:24:00 AM)  
Maximum: 30.3 (10/17/2010 12:01:00 PM)  
Average: 29.880  
Standard deviation: 0.118  
Mean Kinetic Temperature: 29.881



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## QL-Series Product Advantages

- Using heating element humidification system, steam injection, all types of water feeding (low conductivity water 30 - 200 µS is recommended)
- Using Switzerland Intelligent Control System to achieve excellent distribution performance (homogeneous and stabile) and energy consumption efficiency
- High volume air circulators optimize vertical-horizontal directional flow that resulting a very even cross flow of air, leading to good conduction with the test product surface.
- Using better refrigeration package with refrigerant R-410a (non -CFC)
- Better Documentation with Uninterruptible Logging by a big capacity data logger completed with flash card memory of 128 MB. Available logging back up if power failure and if PC failure
- Probe/sensor of room could be calibrated and adjusted with calibrator or multiple calibration with standard solution
- Using advanced technology instruments with multi probes for some different points on distribution test; fast and perfect result
- Loop validation
  - *Use simulator probe to verify both the digital and analog signal transmission*
  - *Whenever the humidity and/or temperature signal is set to a fixed value, this is reported on the HW4 main screen (Current Values tab)*
- Networkable Via RS-485 for monitoring and integrating up to 64 instruments (max cable 1000 m length), easier to monitor individual data, alarm and logging system
- **More cost-effective for both unit and its operational**

**If you need further information and/or enquiry, please contact us :**

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Technical Support	<a href="mailto:support@qlab-ks.com">support@qlab-ks.com</a>



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## Technical Data

<b>Series</b>		<b>QL Model</b>
Volume	liter	Customized
<b>Interior dimension</b>		Customized
<b>Exterior dimension</b>		Customized
Rack and shelf	pcs	Customized
Electrical supply ( $\pm 10\%$ ) 50/60 Hz	V	380/220
Unit nominal power	W	Depends on its design
Door	number	1
Cooling system protection from power shock		Delay on
Refrigerant for cooling system		Non - CFC
Humidification system		Steam injection system with conductance value of water feeding is  5 - 30 $\mu$ S (recommended)
Material		Exterior and interior : polyurethane/PU (75mm thickness) zinc-alum powder coated.  AMS & Air circulating system : inner-outer stainless steel SUS 304 with Thermobreak® insulation 20mm thickness (or customized)  Flooring : concrete coated by epoxy (or customized)  Rack : stainless steel SUS 304 or SUS 201
Probe/sensor accuracy		$\pm 0.5$ %RH, $\pm 0.1$ K at 10...30 °C
Long-term stability, humidity sensor		<1%RH, 0.1°C / year
Validation of analog and digital transmission (loop validation)		Enable
Temperature range without humidity (at room temp. 30 °C)	°C	+20 – 45
Temperature fluctuation when cooling is operated	$\leq \pm$ °C	0.3
Temperature variation with humidity	$\leq \pm$ °C	1.0
Humidity range	%RH	50 – 85
Humidity fluctuation with temperature	$\leq \pm$ %RH	2.0
Humidity variation with temperature	$\leq \pm$ %RH	3.0
Controller		Intelligent Control System
Off-line logging power back-up		External battery
Sensor type		Pt 100 (temperature), Rotronic HYGROMER® IN-1 (humidity)
Sensor and display resolution for temp. and humidity		0.01
Sensor calibration and adjustment :		



## Technical Data

Series		QL Model
- 1-point or multi-point humidity calibration or adjustment		Yes
- 1-point or 2-point temperature calibration or adjustment		Yes
Setting, Logging and Monitoring		By external PC (exclude) and individual LCD display on the room
Software		Fully comply to FDA CFR 21 Part 11 and GAMP5 with features : data-logging, data storage, calculation of various humidity parameters, graphic functions
Port data access		RJ45 (Ethernet)
Network		Networkable via RS485 up to 64 units
Alarm		Central Alarm System
Logging method		On-line and Off-line logging
Memory capacity		128 MB (saves 47,000 data records per MB card storage capacity)
<b>Safety/Protection</b>		For overshoot temperature safety device and low level water protection

*Custom specifications and configurations are available, please contact us.*



QLab is Your  
Complete Solution  
for Stability Test  
Room

**DON'T TAKE JUST OUR WORD FOR IT.  
LISTEN TO OUR CUSTOMERS**



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