



Capture Screen



Minimize



Exit



001102



Zeus 2



Zeus 3



Zeus 4

YASKAWA



Controls



Geometries



Liquid Class



Advanced

Command Line:

Send

Clear

Open Zeus Manual

Console

QPM Graph

pLLD/cLLD Graph



1 Recieving: Qlid0032qi0145 0145 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146 0146

[]



Sending: Getting QPM Data...

[Qlid0032li4983ln17]



1 Recieving: Qlid0031qi0142 0142 0141 0141 0141 0140 0140 0140 0140 0140 0140 0140 0140 0140 0140 0140 0141 0141 0141 0141

[]



Sending: Getting QPM Data...

[Qlid0031li4933ln50]



1 Recieving: Qlid0030qi0391 0387 0383 0379 0375 0371 0366 0362 0357 0353 0349 0345 0341 0336 0332 0328 0324 0319 0315 0311

[]



Sending: Getting QPM Data...

[Qlid0030li4883ln50]



1 Recieving: Qlid0029qi0509 0509 0508 0508 0508 0507 0507 0506 0505 0504 0503 0502 0501 0499 0498 0496 0494 0492 0490 0489

[]



Sending: Getting QPM Data...

[Qlid0029li4833ln50]



1 Recieving: Qlid0028qi0501 0501 0501 0501 0501 0501 0502 0502 0502 0503 0502 0502 0503 0503 0503 0503 0503 0503 0504 0504

[]



Sending: Getting QPM Data...

[Qlid0028li4783ln50]



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Download



Update Graph



Zeus 1



Zeus 2



Zeus 3



Zeus 4



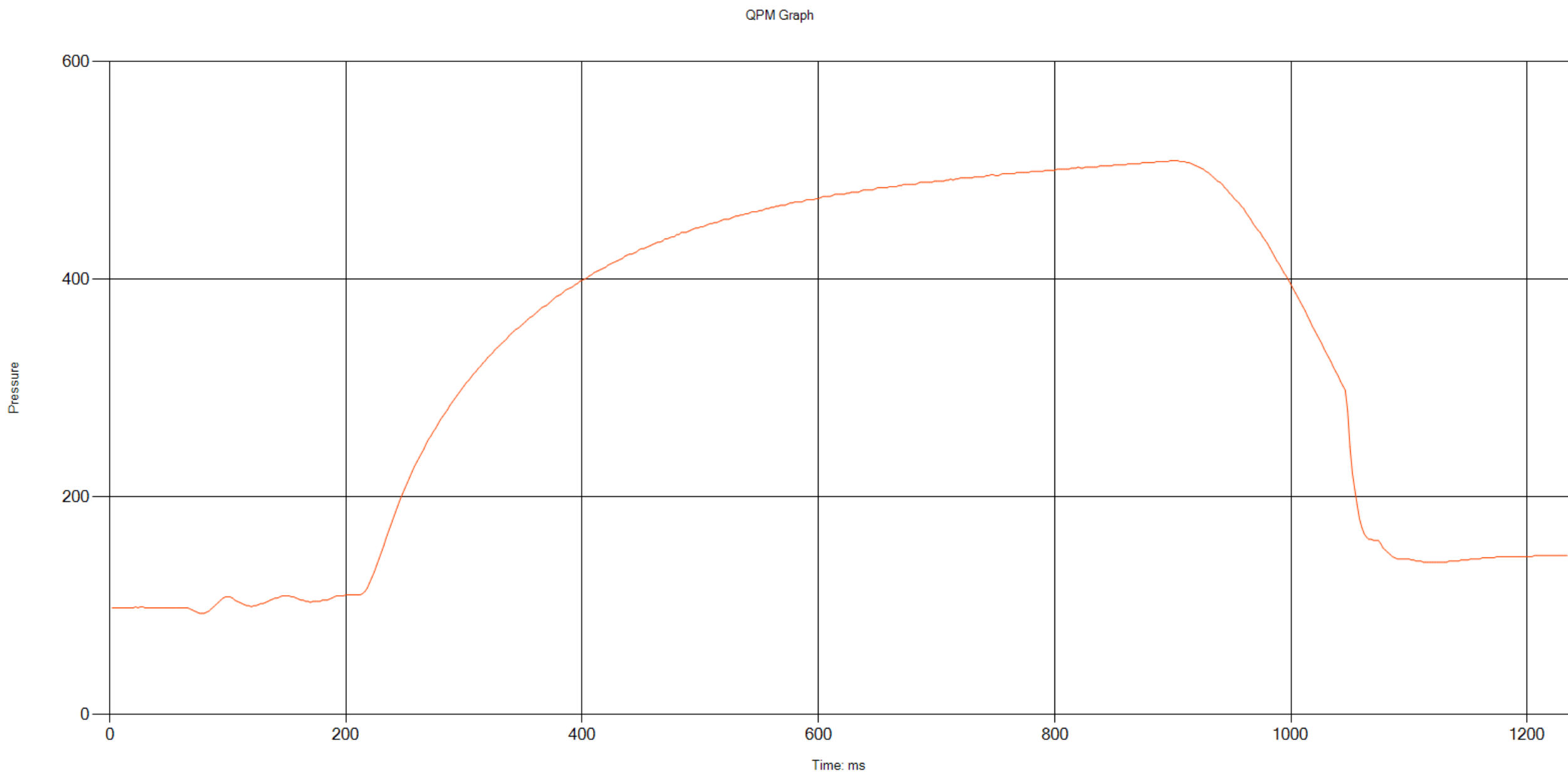
Enable Points

Graph Name

Console

QPM Graph

pLLD/cLLD Graph





Capture Screen



Minimize



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001102



Zeus 2



Zeus 3



Zeus 4

YASKAWA



Controls



Geometries



Liquid Class



Advanced

## Aspirate/Dispense Profiles

Testing

Testing-copy

## Aspirate/Dispense Profiles



Add



Open



Delete

## Initialization

Z-Drive

Dosing Drive

Both Drives

## Tip Handling

Tip Type:



Deck Geometry:



Pickup Tip



Discard Tip

## Status



Capture Screen



Minimize



Exit



001102



Zeus 2



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Liquid Class



Advanced

## Aspirate

Alias:

Testing-copy

(ai) Aspiration Volume:

[0-1000.0μl]

1000.0

(ge) Container Geometry:

71 - 13x100 TEST TUBE



(go) Deck Geometry:

72 - TEST TUBE POSITION



(lq) Liquid Class:

70 - JET EMPTY



(gq) QPM:

☒ Enabled

(lb) LLD:

☒ Enabled

(zp) LLD Search Pos:

[0-280.0mm]

115.0

(cf) Liquid Surface Pos:

[0-280.0mm]

115.0

(ma) Mix Volume:

[0-1000.0μl]

0.0

(mb) Mix Flow Rate:

[0-2500.0μl/s]

250.0

(dn) Mix Cycles:

[0-99]

0



Aspirate (GA)

## Dispense

(di) Dispensing Volume:

[0-1000.0μl]

1000.0

(ge) Container Geometry:

71 - 13x100 TEST TUBE



(go) Deck Geometry:

72 - TEST TUBE POSITION



(lq) Liquid Class:

70 - JET EMPTY



(gq) QPM:

☒ Enabled

(lb) LLD:

☐ Enabled

(zp) LLD Search Pos:

[0-280.0mm]

115.0

(cf) Liquid Surface Pos:

[0-280.0mm]

126.0

(zm) Search Bottom Mode:

☐ Enabled

(ma) Mix Volume:

[0-1000.0μl]

0.0

(mb) Mix Flow Rate:

[0-2500.0μl/s]

0.0

(dn) Mix Cycles:

[0-99]

0



Dispense (GD)

## Aspirate/Dispense Profiles



Save



Copy



Cancel

## Initialization

Full-screen Snip

Z-Drive

Dosing Drive

Both Drives

## Tip Handling

Tip Type:

6 - 1000 μL CO-



Deck Geometry:

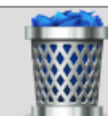
70 - TIP PICK UI



71 - TIP DISCAR



Pickup Tip



Discard Tip

## Status

1 Recieving: GUID0001er00  
[No error during the command]Sending: Discarding Tip...  
[GUID0001go71]



Capture Screen



Minimize



Exit



001102



Zeus 2



Zeus 3



Zeus 4

YASKAWA



Controls



Geometries



Liquid Class



Advanced

Search

## Container Geometry (GC)

01 - Index 01

70 - 16x100 TEST TUBE

71 - 13x100 TEST TUBE

99 - test non conform shape

Search

## Deck Geometry (GO)

Alias:

Index 01

(go) Index:

[30-99]

1

(te) Traverse "Z":

[0-280.0mm]

90.0

(tm) Tip Searach "Z":

[0-180.0mm]

149.0

(tr) Tip Discard "Z":

[0-280.0mm]

145.0



Send GC



Get GC

1



Send GO



Get GO

1

## Status

1 Recieving: GBid0008ge01cb000bg0000g  
[]Sending: Loading Container Geometry...  
[GBid0008ge01]1 Recieving: GRid0007go01te0900tm1490  
[]Sending: Loading Deck Geometry...  
[GRid0007go01]

Add



Open



Delete



Save



Copy



Cancel





Capture Screen



Minimize



Exit



001102



Zeus 2



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Zeus 4

YASKAWA



Controls



Geometries



Liquid Class



Advanced

Search

## Container Geometry (GC)

01 - Index 01  
70 - 16x100 TEST TUBE  
71 - 13x100 TEST TUBE  
99 - test non conform shape

Search

## Deck Geometry (GO)

01 - Index 01  
70 - TIP PICK UP - TIP MUST BE IN PLACE  
71 - TIP DISCARD - REMOVE TIP HOLDER  
72 - TEST TUBE POSITION - ASPIRATE/DISPENSE



Add



Open



Delete



Add



Open



Delete



Send GC



Get GC

1



Send GO



Get GO

1

## Status



1 Recieving: GBid0008ge01cb000bg0000g



Full-screen Snip



Sending: Loading Container Geometry...  
[GBid0008ge01]



1 Recieving: GRid0007go01te0900tm1490



Sending: Loading Deck Geometry...  
[GRid0007go01]



Capture Screen



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Controls



Geometries



Liquid Class



Advanced

Search



Add



Open



Delete



Send GL



Get GL

1

Liquid Class (GL)

01 - Index 01  
 70 - JET EMPTY  
 80 - JET PART  
 81 - Index 81 - test

Satus



1 Recieving: GWid0013gp01ww0257 0000 1 0303 0000 1 0  
 []



Sending: Loading QPM Dis...  
 [GWid0013gp01]



1 Recieving: GSid0012gv01vv0572 0005 0015 0 0355 0005  
 []



Sending: Loading QPM Asp...  
 [GSid0012gv01]



1 Recieving: Glid0011gh01cl00010 00006 00050 00055 00  
 []



Sending: Loading Corection Curve Dis...  
 [Glid0011gh01]



1 Recieving: GEid0010gg01ck00010 00006 00050 00055 0  
 []



Sending: Loading Corection Curve Asp...  
 [GEid0010gg01]



1 Recieving: GMid0009lq01uu0 0 05000 0050 00050 00250  
 []



Sending: Loading Liquid Class...



Capture Screen



Minimize



Exit



001102



Zeus 2



Zeus 3



Zeus 4

YASKAWA



Controls



Geometries



Liquid Class



Advanced

Search



Save



Copy



Cancel



Send GL



Get GL

99

Alias:

Index 99

(Iq) Index:

99

[30-99]

(uu) Filter Tips:

☐ Enabled

Flow Rate Transport Vol:

0.0

[0-2500.0 $\mu$ l/s]

Aspiration

Aspiration Mode:

Simple

Aspiration Flow Rate:

0.0

[0-2500.0 $\mu$ l/s]

Over-Aspirated Volume:

0.0

[0-999.9 $\mu$ l]

Transportaion Volume:

0.0

[0-1000.0 $\mu$ l/s]

Blowout Air Volume:

0.0

[0-1000.0 $\mu$ l]

Swap Speed:

0.0

[0-300.0mm/s]

Settling Time:

0.0

[0-99.9s]

Aspiration LLD Mode:

☐ cLLD

cLLD Sensitivity:

Very High

pLLD Sensitivity:

Anti-Droplet Control:

☐ Enabled

Dispensing

Dispensing Mode:

Jet Empty

Dispensing Flow Rate:

0.0

[0-2500.0 $\mu$ l/s]

Stop Flow Rate:

0.0

[0-2500.0 $\mu$ l/s]

Stop Back Volume:

0.0

[0-32.5 $\mu$ l]

Transport Volume:

0.0

[0-1000.0 $\mu$ l]

Dispense Acceleration:

0.0

[0-20.0 $\mu$ l/s<sup>2</sup>]

Dispense Swap Speed:

0.0

[0-300.0mm/s]

Settling Time:

0.0

[0-99.9s]

Liquid Class Parameters

Correction Curve

QPM Parameters





Capture Screen



Minimize



Exit



001102



Zeus 2



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Controls



Geometries



Liquid Class



Advanced

Search



Save



Copy



Cancel



Send GL



Get GL

99

## Aspiration

Interpolation

1

2

3

4

5

6

7

8

Clot Threshold:

[0-1023]

0

0

0

0

0

0

0

0

0

Empty Threshold:

[0-1023]

0

0

0

0

0

0

0

0

0

Foam Threshold:

[0-1023]

26881

0

0

0

0

0

0

0

0

Pressure Range:



Liquid Class Parameters

Correction Curve

QPM Parameters

## Dispensing

Interpolation

1

2

3

4

5

6

7

8

Clot Threshold:

[0-1023]

0

0

0

0

0

0

0

0

0

Foam Threshold:

[0-1023]

0

0

0

0

0

0

0

0

0

Pressure Range:

