

Unilever Digital Pilot Plant Visual Design

for
Windows Phone Capture App,
Windows 8 Playback App &
Windows 8 Dashboard App

Andy's Rig: Batch ID & Description

PFD

Main Mixer - Turbine/Sweep

Start time 10.30am 0h0

Heat (Jacket) 0h05

Min	Target	Max
52.00	54.00	56.00
Temperature	°C	

Add over the top 0h31

Mass

GAQ-00075 Water - Demineralised	80.00 kg
Chlorinated	(40.00%)

Mix 0h38

Anchor	45.00 %
Anchor	25.00 rpm
Anchor	1.00 m/s

Check 0h48

Min	Target	Max
52.00	54.00	56.00
Temperature	°C	

Recirculate 0h51

Flow Rate	1000.00 rpm
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GAP-01237 Lactic Acid 88%	0.48 kg
---------------------------	---------

From pre-mixer side-pot

Add into recirculation loop 1h03

Rate	11.00 % (over 5-10 minutes)
------	-----------------------------

Mix 1h11

Time	30.00 min
------	-----------

Homogenize 1h31

Sample Plan

- Destination: Perfume house
- Weight: 630kg
- Results: Pending...
- Sample pots: 10 = 10kg
- Drums: 20 = 600kg
- Waste: 10kg

Data Collection & Alerts

No data was collected. Do you want to notify an engineer?

Yes No Remind me

Turn heater off at end of step

Live Data Feed

Anchor speed %

Mixer C

Attention! Max temperature exceeded! 56.2°C

Anchor Tip Speed

Rate

Jacket Temperature

Attention! 56.2°C

Data Comparisons

Jacket Temperature

Anchor Speed

Rate

Batch Name & ID vs Batch Name 2 & ID 2

Batch Name & ID vs Batch Name 2 & ID 2

Notifications

Error: Heat (Jacket): No data was collected. Notify an engineer 0h 05m

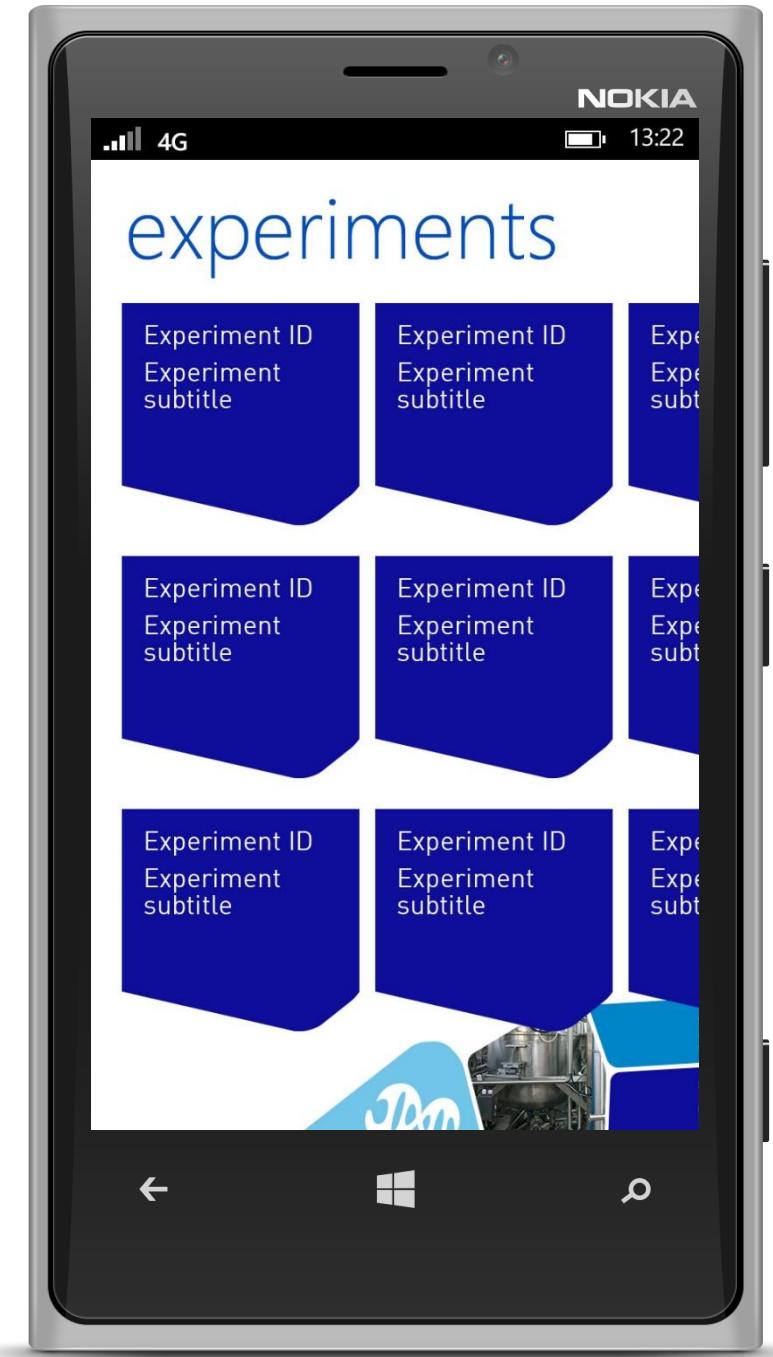
Reminder: Heat (Jacket): Turn heater off at end of step 0h 30m

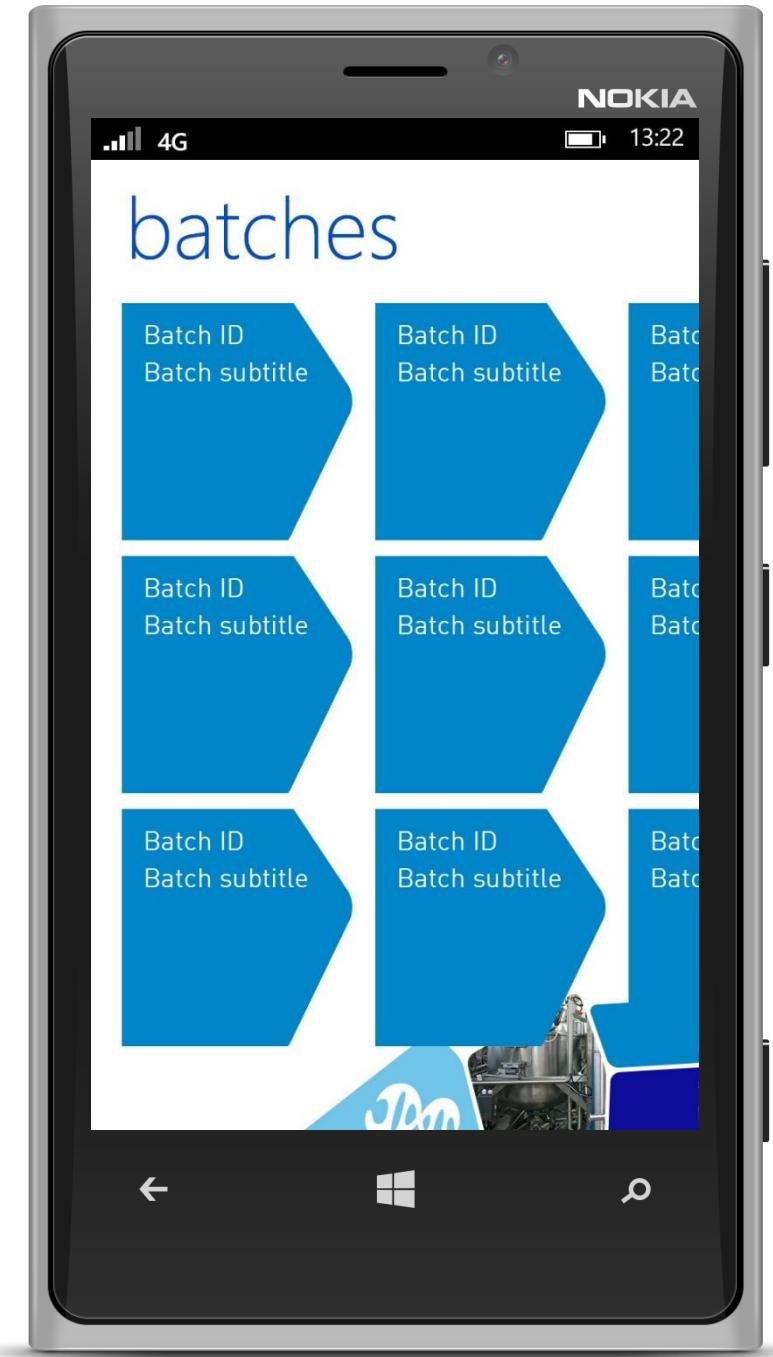
Attention: Check temperature: Temperature threshold exceeded. Notify an... 0h 49m

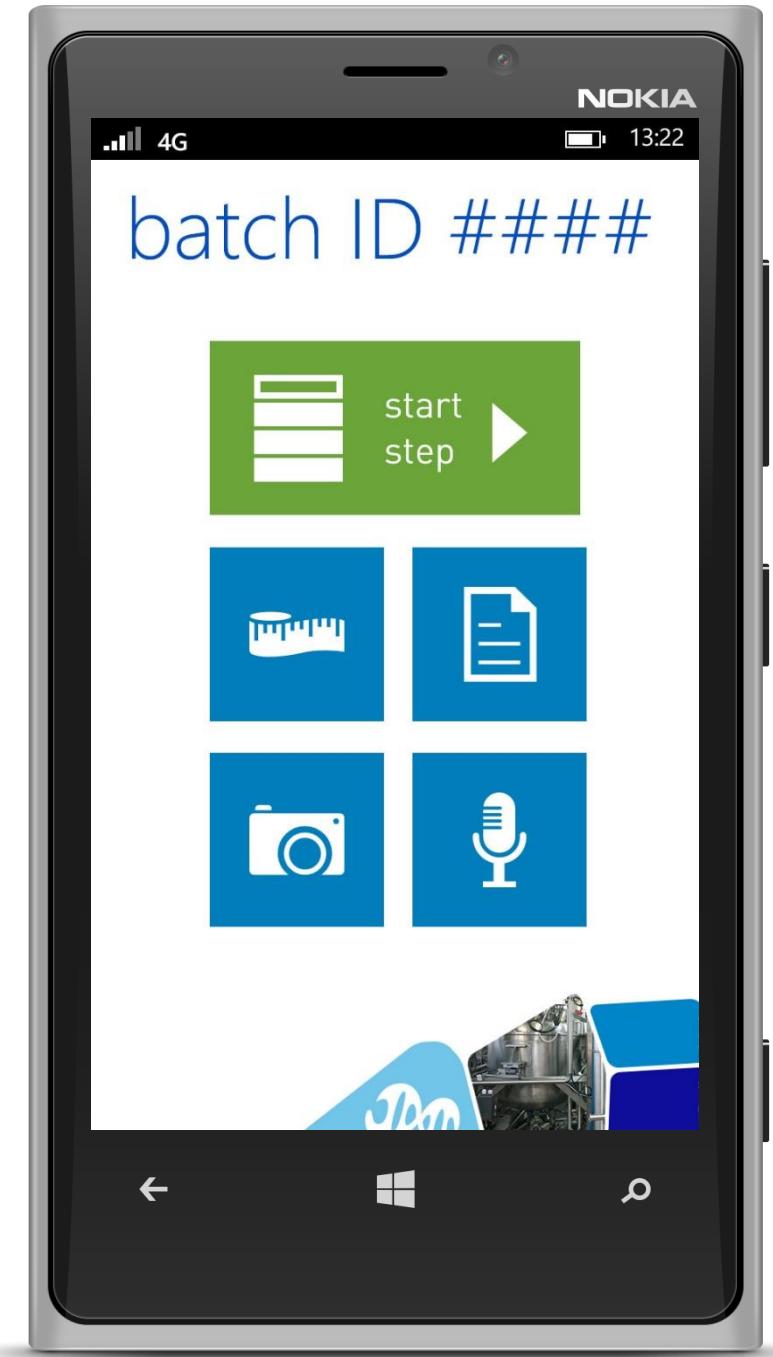


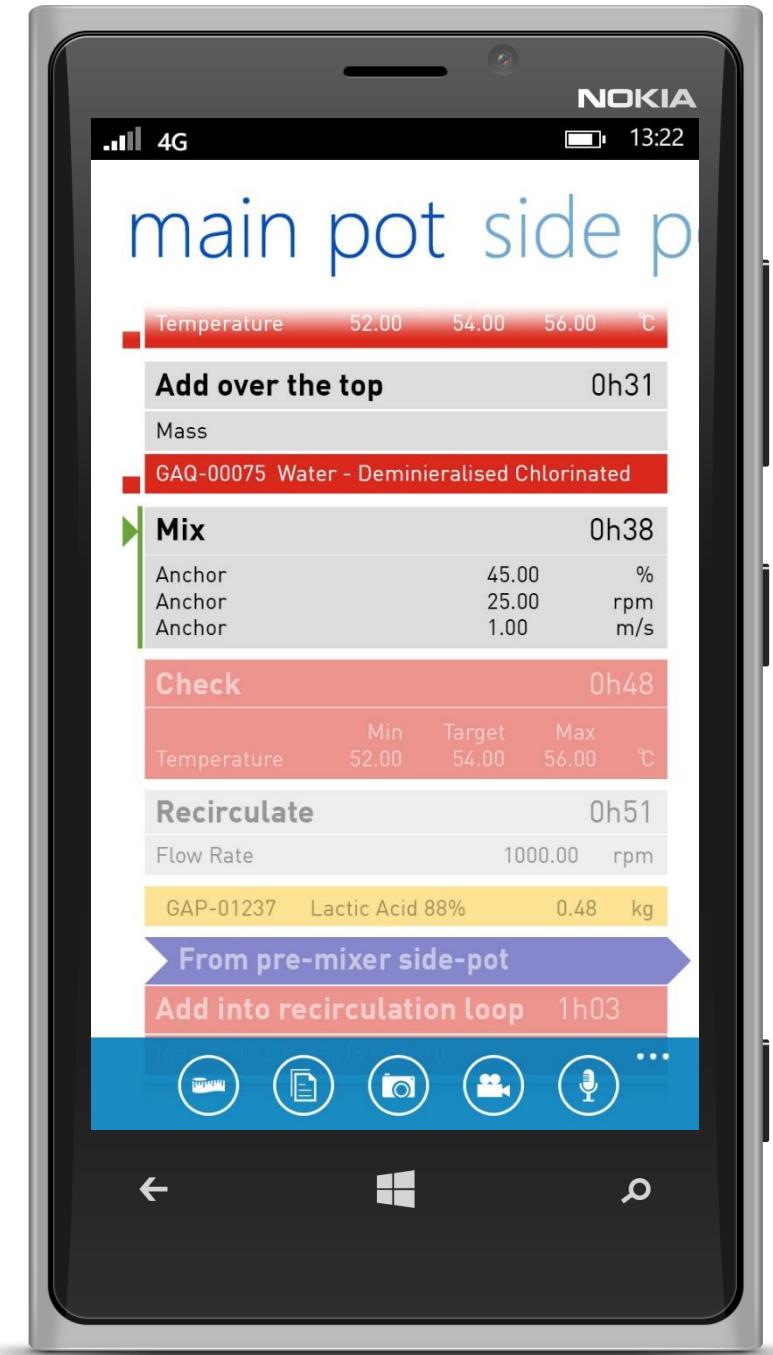
Capture App

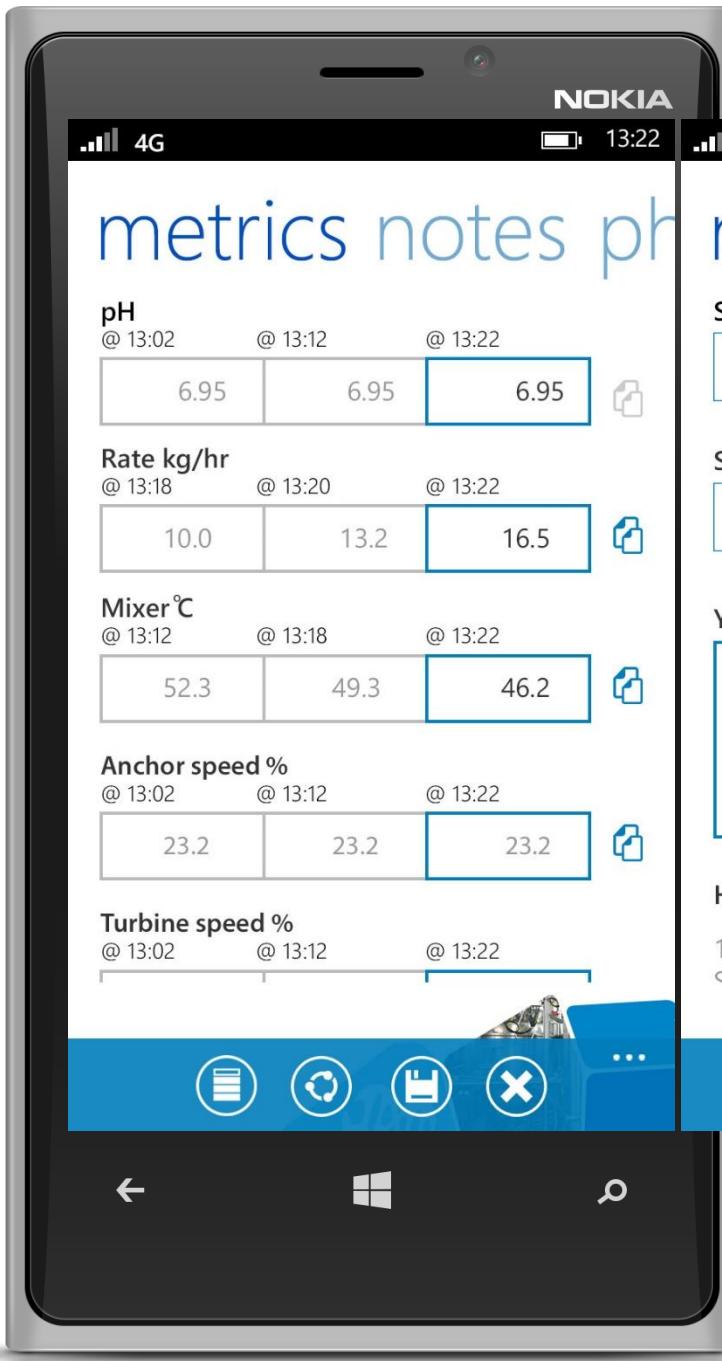












metrics notes ph notes photo & v

Select type

Clarity

Select observation

5/5 All particles dissolved

Your notes

Stopped mixing to allow bubbles to clear in order to observe clarity.

History

13:12 Clarity - 4/5 Most particles dissolved
Stopped mixing to allow bubbles to clear in



photo & video a audio metrics no



Add title here

History

Viscosity



12:48, 23 Dec 2014

Clarity



10:14, 18 Dec 2014



Start recording

Add title here

History

Turbine mixer loud whining
12:48, 23 Dec 2014, 1m 03s



Turbine mixer intermittent whining
10:14, 18 Dec 2014, 0m 46s





Playback App

Panasonic FZ-G1

TOUGH PAD



A1

A2



Experiments

Experiment ID
Experiment subtitle

Details details details
details details details

Experiment ID
Experiment subtitle



A1

A2



_batches

Batch ID
Batch subtitle

Details details details
details details details details

Batch ID
Batch subtitle

Batch ID
Batch subtitle



A1

A2



Batch ID & Description

Main Mixer - Turbine/Sweep

Start time 10.30am 0h0

Heat (Jacket) 0h05

Temperature Min Target Max 52.00 54.00 56.00 °C

Add over the top 0h31

Mass

GAQ-00075 Water - Demineralised 80.00 kg
Chlorinated [40.00%]

Mix 0h38

Anchor 45.00 %

Anchor 25.00 rpm

Anchor 1.00 m/s

Check 0h48

Temperature Min Target Max 52.00 54.00 56.00 °C

Recirculate 0h51

Flow Rate 1000.00 rpm

GAP-01237 Lactic Acid 88% 0.48 kg

From pre-mixer side-pot

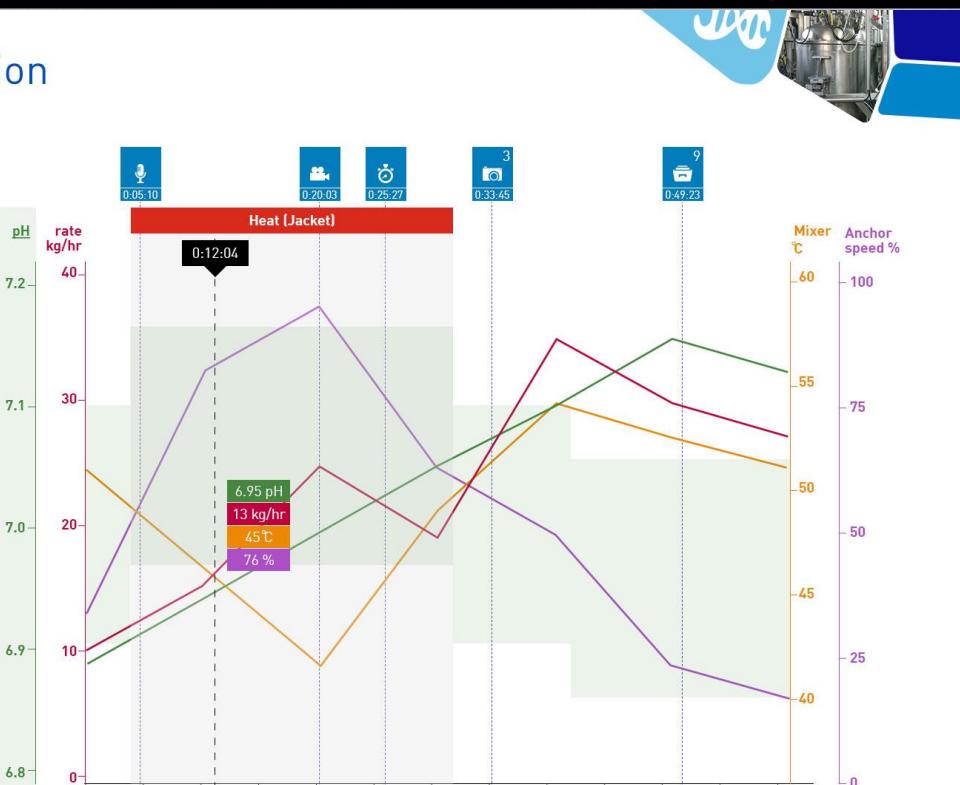
Add into recirculation loop 1h03

Rate 11.00 % (over 5-10 minutes)

Mix 1h11

Time 30.00 min

Homogenize 1h31



A1

A2



Time

30.00 min

U:UU:UU

U: I U:UU

U:ZU:UU

U:GU:UU

U:4U:UU

U:JU:U

1:00:00



PFD



Vertical Axis



Step/ Activity



pH



Mix
°C



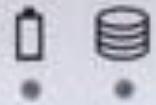
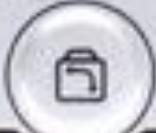
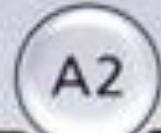
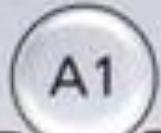
Ancho
Speed



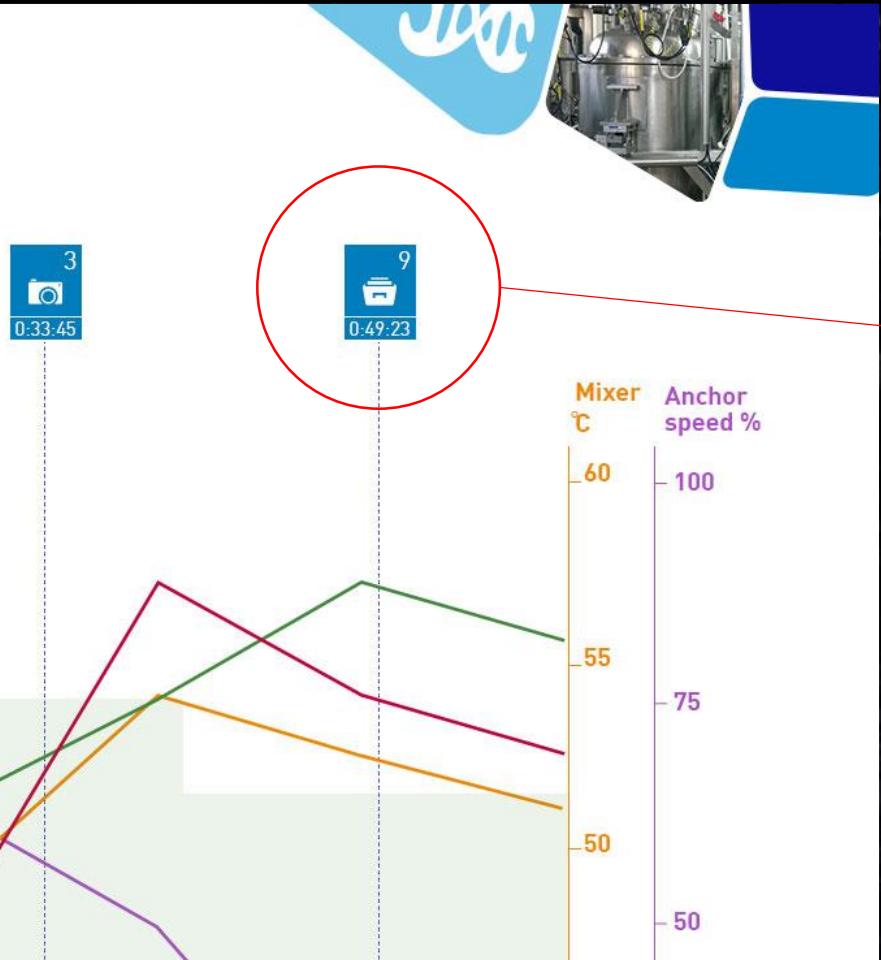
Annotations



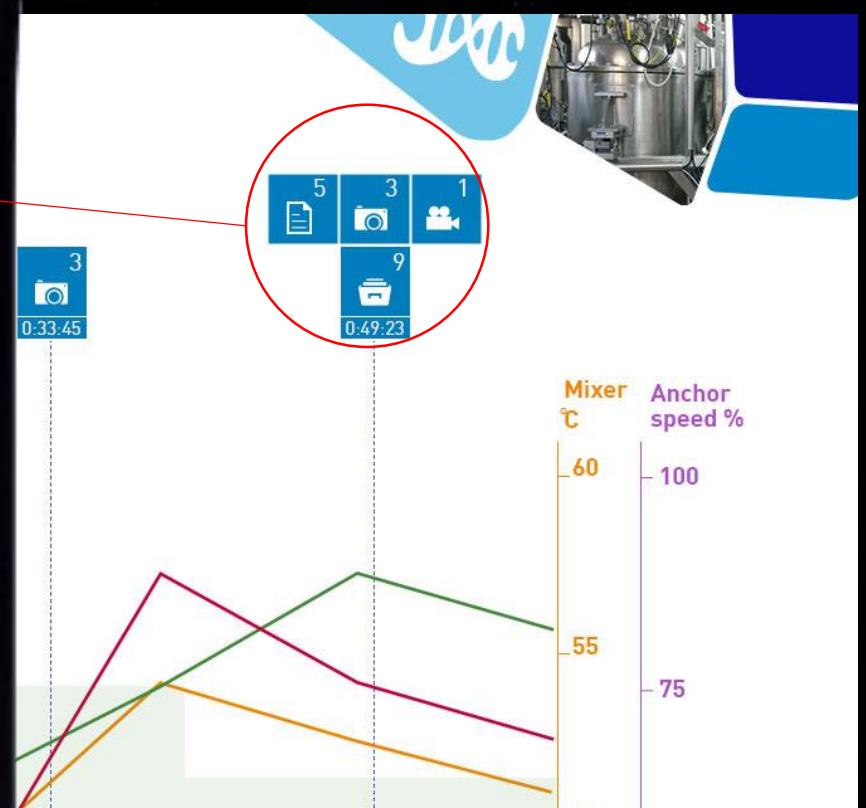
Metrics



TOUGH PAD



TOUGH PAD



Batch ID & Description

Main Mixer - Turbine/Sweep

Start time 10.30am

0h00

0:39:23 Mix (step name here)

0:39:53 Mix



Took a sample to test viscosity

0h51

Flow Rate

1000.00 rpm

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque vel elit ip

GAP-01237

Lactic Acid 88%

0.48 kg

6.9

10

sum. Morbi maximus est in auctor convallis. Donec nec fermentum magna. Maecenas lacinia

metus enim, eu feugiat erat tristique sed.

Add into recirculation loop 1h03

Rate 11.00 % (over 5-10 minutes)

Mix

1h11

Time 30.00 min

Homogenize

0h03

0:39:53 Mix

0:39:53 Mix



Measured viscosity Mixer speed % Anchor speed %

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque vel elit ipsum. Morbi maximus est in auctor convallis. Donec nec fermentum magna. Maecenas lacinia metus enim, eu feugiat erat tristique sed.

50
45
40
35
30
25
20
15
10
5
0



A1

A2

▼ ▲

◀ ▶

Windows

File

Help

Power

Batch ID & Description

Main Mixer - Turbine/Sweep

Start time 10.30am

0h00

0:40:23 Mix

0h05



Took a sample to test viscosity

0h51

Flow Rate

1000.00 rpm

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque vel elit ip

GAP-01237

Lactic Acid 88%

0.48 kg

6.9

10

sum. Morbi maximus est in auctor convallis. Donec nec fermentum magna. Maecenas lacinia

metus enim, eu feugiat erat tristique sed.

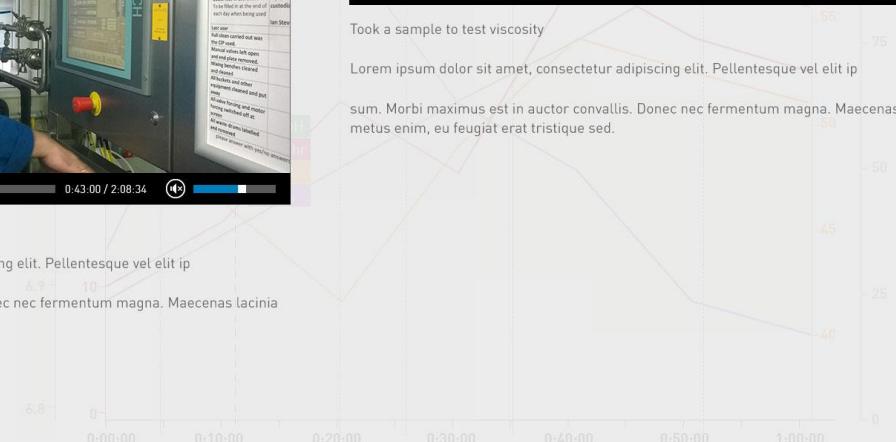
Add into recirculation loop 1h03

Rate 11.00 % (over 5-10 minutes)

Mix 1h11

Time 30.00 min

Homogenize 1h03



A1

A2



Batch ID & Description

Main Mixer - Turbine/Sweep

Start time 10.30am

Heat [Jacket]

Temperature	Min	Target	Max
52.00	54.00	56.00	

Add over the top

Mass

GAQ-00075 Water - Demineralised	80.00
Chlorinated	[40.00]

Mix

Anchor	45.00
Anchor	25.00
Anchor	1.00

Check

Temperature	Min	Target	Max
52.00	54.00	56.00	

Recirculate

Flow Rate	1000.00
GAP-01237 Lactic Acid 88%	0.40

From pre-mixer side-pot

Add into recirculation loop

Rate	11.00	% (over 5-10 minutes)

Mix	1h11
Time	30.00 min

Homogenize 1h31

0:39:23 Mix (step name here)



Took a sample to test viscosity

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque vel elit ip
sum. Morbi maximus est in auctor convallis. Donec nec fermentum magna. Maecenas lacinia
metus enim, eu feugiat erat tristique sed.



0:49:23

Mixer
°C

100

55

75

50

60

45

50

40

25

0

0:00:00 0:10:00 0:20:00 0:30:00 0:40:00 0:50:00 1:00:00

0:43:00 / 2:08:34

A1

A2

▼

▲

Windows

File

Help

Power

Dashboard App

Andy's Rig: Batch ID & Description

Data Collection & Alerts **Live Data Feed**

PIQ

- Start time 10:30am 0h02 ✓ Data OK
- Heat (Jacket) 0h05 Alert! Temp target 50.00 °C exceeded
- Temperature 50.00 50.00 °C
- Add over the top 0h31
- PIQ: GAO-0075 Mixer - Dimensions determined 0h30 Ag (ab 80%)
- Mix 0h33 ✓ Data OK
- Rate 44.50 rpm
- Jacket 25.00 rpm
- Motor 1.30 min
- Check 0h48 Alert! 56.2°C
- Recirculate 0h51
- Review 100.00 rpm
- GAP-2103 Lactic Acid 6.0% 1.48 kg
- From pre-mixer side-pot
- Add into recirculation loop 1h03
- Rate: 11.00 % over 5-10 minutes
- Mix 1h11
- Fire 30.00 min
- Homogenize 1h17

Samplers

Outstanding engineering jobs

- No data was collected. Notify an engineer 0h 35m
- Reminder: Heat (Jacket)
- Alert! Check temperature Turn heater off at end of step 0h 30m
- Temperature threshold exceeded. Notify an engineer 0h 49m

Mixer C

Jacket C

Smoo Thoperator Hi, do you have a moment?

Mana Ger 10:41 Yeah sure. How can i help?

Smoo Thoperator I think we may have a problem with this batch. Take a look at the xxxxxxxx dial...

Mana Ger is typing a message...

56.2°C

Andy's Rig: Batch ID & Description

PFD

Main Mixer - Turbine/Sweep

Start time 10.30am 0h0

Heat (Jacket) 0h05

Temperature	Min	Target	Max
52.00	54.00	56.00	56.00

Add over the top 0h31

Mass

GAA-00075 Water - Demineralised Chlorinated	80.00 kg (40.00%)
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Mix 0h38

Anchor	45.00	%
Anchor	25.00	rpm
Anchor	1.00	m/s

Check 0h48

Temperature	Min	Target	Max
52.00	54.00	56.00	56.00

Recirculate 0h51

Flow Rate	1000.00	rpm
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GAP-01237 Lactic Acid 88%	0.48 kg
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From pre-mixer side-pot

Add into recirculation loop 1h03

Rate	11.00	% (over 5-10 minutes)
------	-------	-----------------------

Mix 1h11

Time	30.00	min
------	-------	-----

Homogenize 1h31

Data Collection & Alerts

Live Data Feed

✓ Data OK

✗ Error

🔔 Reminder

No data was collected. Do you want to notify an engineer?

Yes No Remind me

Turn heater off at end of step

Anchor Tip Speed

Rate

Jacket Temperature

✓ Data OK

Collecting...

44.56 %

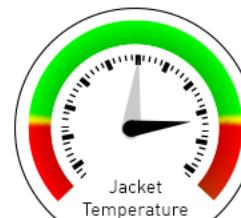
20.47 RPM

0.89 m/s

Attention! 56.2°C



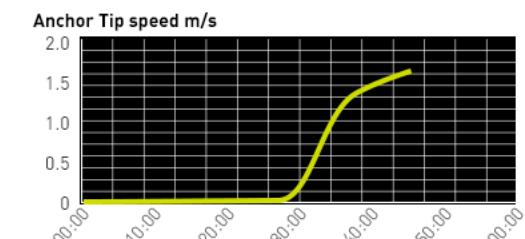
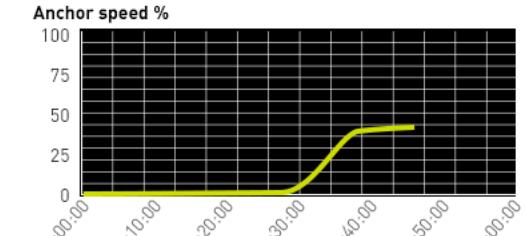
Data Comparisons



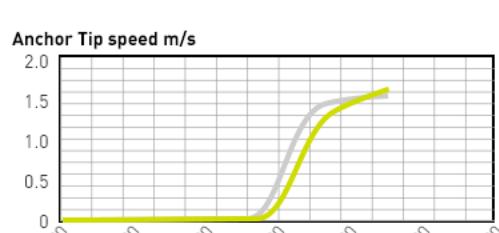
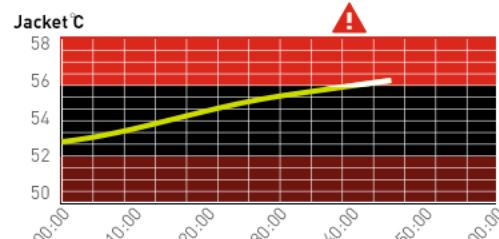
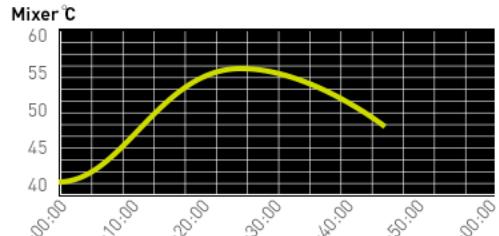
Batch Name & ID vs Batch Name 2 & ID 2



Batch Name & ID vs Batch Name 2 & ID 2



Batch Name & ID vs Batch Name 2 & ID 2



Batch Name & ID vs Batch Name 2 & ID 2



Sample Plan

Destination: Perfume house

Weight: 630kg

Results: Pending...

Sample pots: 10 = 10kg

Drums: 20 = 600kg

Waste: 10kg



Notifications

Error: Heat (Jacket): No data was collected. Notify an engineer 0h 05m

Reminder: Heat (Jacket): Turn heater off at end of step 0h 30m

Attention: Check temperature: Temperature threshold exceeded. Notify an... 0h 49m



Outstanding engineering jobs

Data collection: Heat (Jacket) - No data was collected. S Thopera 07/01

Hardware: Temperature threshold exceeded S Thopera 07/01

Hardware: Dial stuck M Ger 05/01

Andy's Rig: Batch ID & Description

PFD			
Main (Mix) - Turbine/Sweep			
Start time 10.30am			0h0
Heat (Jacket)			0h05
Temperature Min 52.00 Target 54.00 Max 56.00 °C			
Add over the top			0h31
Mass			
GAQ-00075 Water - Demineralised Chlorinated 80.00 kg (40.00%)			
Mix			0h38
Anchor 45.00 %			
Anchor 25.00 rpm			
Anchor 1.00 m/s			
Check			0h48
Temperature Min 52.00 Target 54.00 Max 56.00 °C			
Recirculate			0h51
Flow Rate 1000.00 rpm			
GAP-01237 Lactic Acid 88% 0.48 kg			
From pre-mixer side-pot			
Add into recirculation loop			1h03
Rate 11.00 % (over 5-10 minutes)			
Mix			1h11
Time 30.00 min			
Homogenize			1h31

Data Collection & Alerts

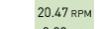
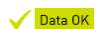
Live Data Feed



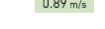
No data was collected. Do you want to notify an engineer?

Yes No Remind me

Turn heater off at end of step



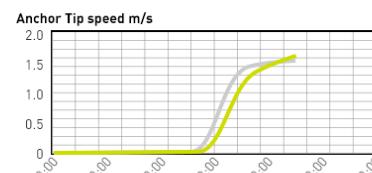
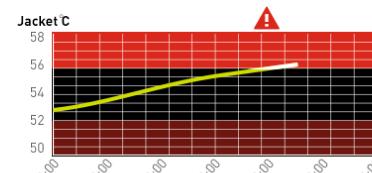
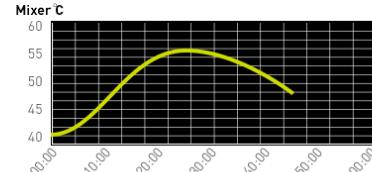
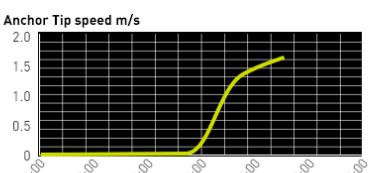
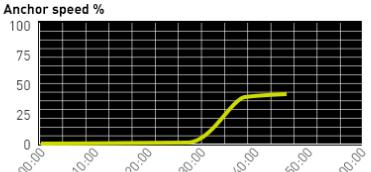
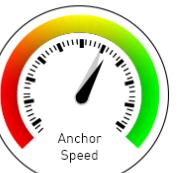
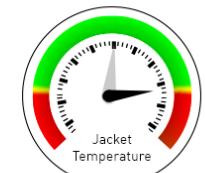
20.47 RPM



0.89 m/s



Data Comparisons



Attention! 56.2 °C



Sample Plan

Destination: Perfume house
Weight: 630kg
Results: Pending...

Sample pots: 10 = 10kg
Drums: 20 = 600kg
Waste: 10kg



Notifications

Error: Heat (Jacket): No data was collected. Notify an engineer 0h 05m
Reminder: Heat (Jacket): Turn heater off at end of step 0h 30m
Attention: Check temperature: Temperature threshold exceeded. Notify an... 0h 49m



Outstanding engineering jobs

Data collection: Heat (Jacket) - No data was collected. S Thopoperator 07/01
Hardware: Temperature threshold exceeded S Thopoperator 07/01
Hardware: Dial stuck M Ger 05/01

Andy's Rig: Batch ID & Description

PFD Main (Mixer) - Turbine/Sweep

Data Collection & Alerts Live Data Feed

Start time 10.30am 0h0 ✓ Data OK

Heat (Jacket) 0h05 Error

Add over the top 0h31 Reminder

Mass

GAQ-00075 Water - Demineralised	80.00 kg
Chlorinated	(40.00%)

✓ Data OK

Mix 0h38

Anchor 45.00 %
Anchor 25.00 rpm
Anchor 1.00 m/s

Check 0h48

Temperature Min 52.00 Target 54.00 Max 56.00 °C

Attention! 56.2°C

Recirculate 0h51

Flow Rate 1000.00 rpm

GAP-01237 Lactic Acid 88% 0.48 kg

From pre-mixer side-pot

Add into recirculation loop 1h03 Reminder

Mix 1h11

Time 30.00 min

Homogenize 1h31 Warning

Data Comparisons

Jacket Temperature, Anchor Speed, Rate, Anchor Tip Speed

Batch Name & ID vs Batch Name 2 & ID 2

Anchor speed %, Mixer C, Anchor Tip speed m/s, Jacket °C

Anchor Tip speed m/s

Sample Plan

- Perfume house: 10 = 10kg
- 630kg: 20 = 600kg
- Pending...: 10kg

Notifications

- Error: Heat (Jacket): No data was collected. Notify an engineer 0h 05m
- Reminder: Heat (Jacket): Turn heater off at end of step 0h 30m
- Attention: Check temperature: Temperature threshold exceeded. Notify an... 0h 49m

Outstanding engineering jobs

- Data collection: Heat (Jacket) - No data was collected. S Thopoperator 07/01
- Hardware: Temperature threshold exceeded S Thopoperator 07/01
- Hardware: Dial stuck M Ger 05/01

Attention! Max temperature exceeded! 56.2°C

Mana Ger 0:51

Mana Ger

Smoo Thopoperator 10:41
Hi, do you have a moment?

Mana Ger 10:41
Yeah sure. How can i help?

Smoo Thopoperator 10:41
I think we may have a problem with this batch. Take a look at the jacket temperature

Mana Ger is typing a message..

Sample Plan

Notifications

Outstanding engineering jobs

PFD

Main Mixer - Turbine/Sweep

Start time 10.30am 0h0

Heat (Jacket) 0h05

Temperature Min 52.00 Target 54.00 Max 56.00 °C

Add over the top 0h31

Mass

GAQ-00075 Water - Demineralised 80.00 kg
Chlorinated (40.00%)

Mix 0h38

Anchor 45.00 %
Anchor 25.00 rpm
Anchor 1.00 m/s**Check** 0h48

Temperature Min 52.00 Target 54.00 Max 56.00 °C

Recirculate 0h51

Flow Rate 1000.00 rpm

GAP-01237 Lactic Acid 88% 0.48 kg

From pre-mixer side-pot

Add into recirculation loop 1h03

Rate 11.00 % (over 5-10 minutes)

Mix 1h11

Time 30.00 min

Homogenize 1h31

Data Collection & Alerts

Live Data Feed

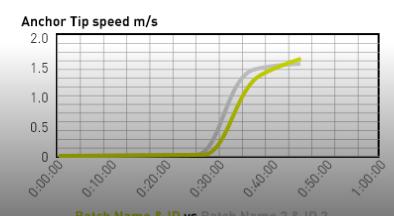
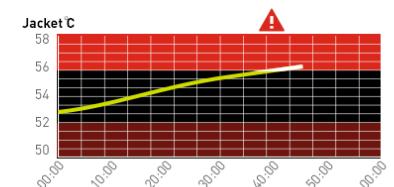
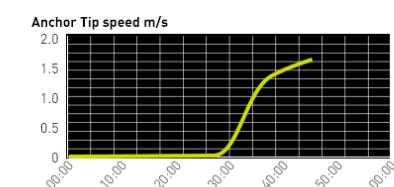
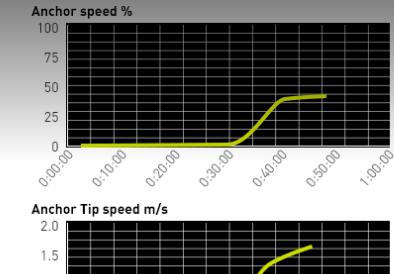
Data OK

Error

Reminder



Data Comparisons



Dashboard Setup

Reminders & Alerts

Settings

⬅ Dashboard Setup

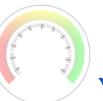
Recommended



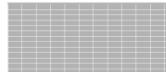
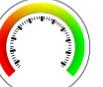
Real time
Anchor Speed
vs Select Batch to compare



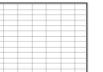
Real time
Anchor Tip Speed
vs Select Batch to compare



Real time
Jacket Temp
vs Select Batch to compare



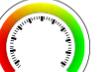
Real time Anchor Speed % ✓ vs Select Batch to compare



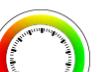
Additional



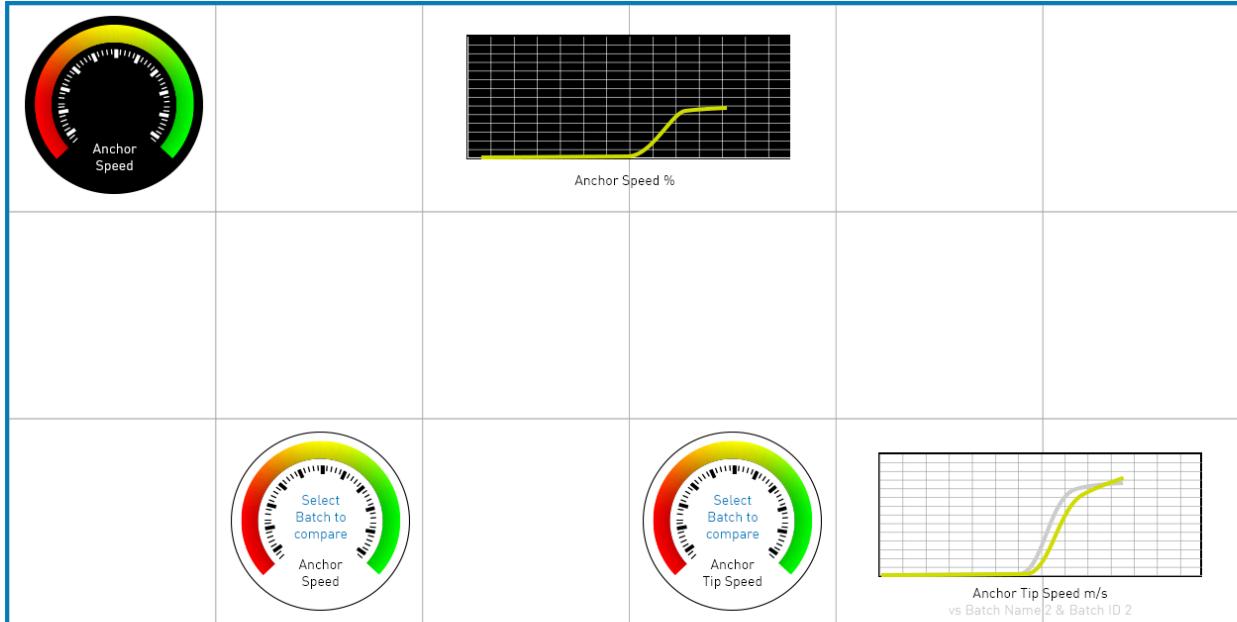
Real time
Rate
vs Select Batch to compare



Real time
pH
vs Select Batch to compare



Real time Anchor Tip Speed m/s vs Select Batch to compare



Instructions

Drag from the list on the left into your dashboard area shown above. You can reposition your gauges and graphs at any time by dragging to a new position.

You can view real time data against data from previous batches by dragging a white gauge or graph into your dashboard area, then click [Select Batch to compare](#).

