PEWeldBank

User Manual Version 11

www.PEWeldBank.com

Info@PEWeldBank.com

PEWeldBank.com

Page **Contents**

Fusion Management System (FMS)

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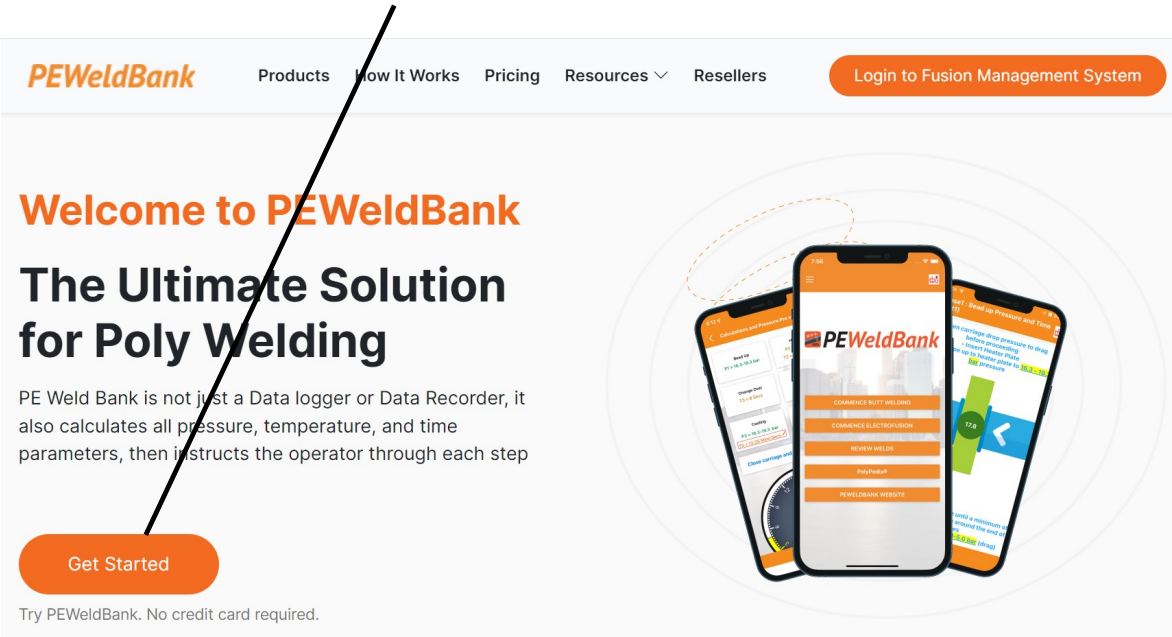
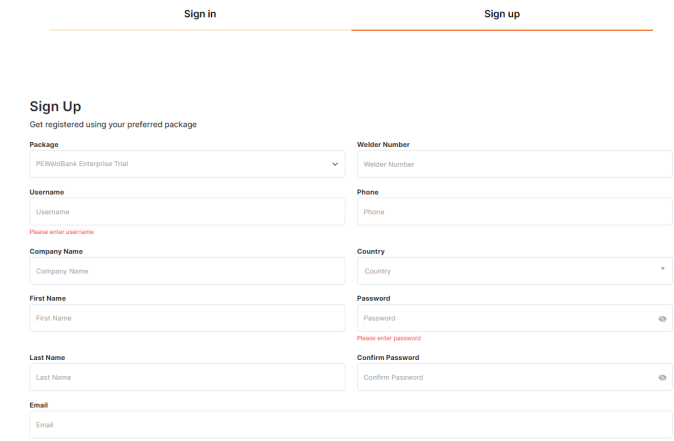
How to Subscribe to *PEWeldBank* Fusion Management System (FMS) on your PC or Laptop

You must subscribe to "PE Weld Bank Enterprise Multi User" if you want to use sensors

1. Go to *PEWeldBank*.com on your PC or Laptop
2. Click on Get Started



3. Click "Sign up"



PEWeldBank.com

Subscription Rates

Go to PEWeldBank.com for the current subscription features, details and prices.

“Standard” - AUD 5

This allows the user to calculate Butt Weld Time and Pressure parameters and steps them through the welding process with active timers and alarms. It stores weld information for up to three months.

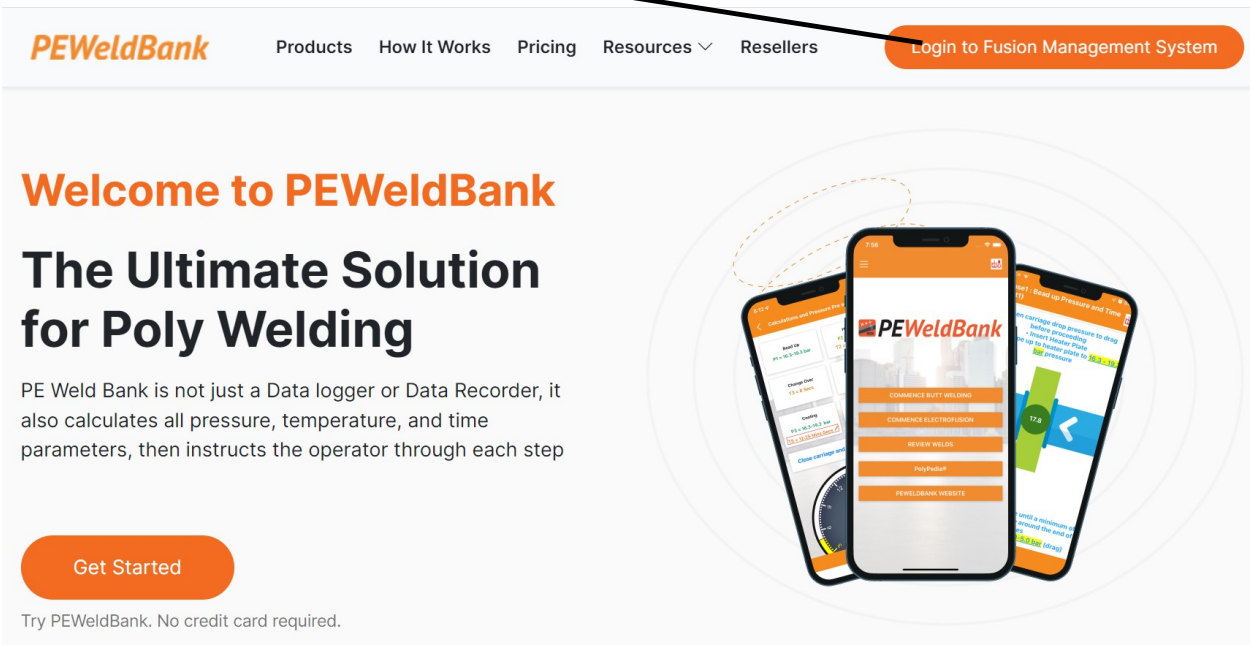
“Enterprise” - AUD15* per user per month

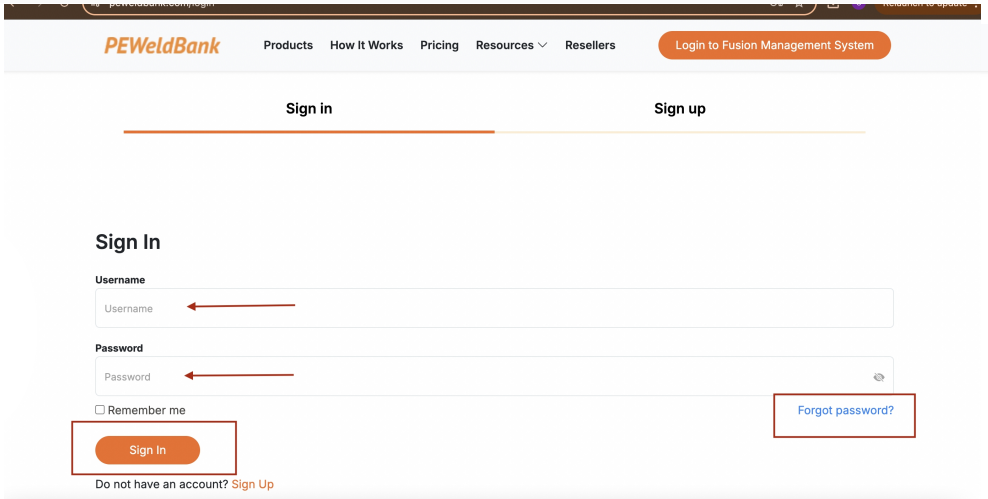
This includes standard features and includes the ability to store Butt and Electrofusion weld data and connect to Bluetooth Sensor sets for active data recording.
This level also allows for multiple user reports to be stored together within a company database.

How to log in to the Fusion Management System (FMS)

You must subscribe to "Enterprise Subscription" if you want to use sensors

1. Go to *PEWeldBank*.com on your PC or Laptop
2. Click on "Login to Fusion Management System"

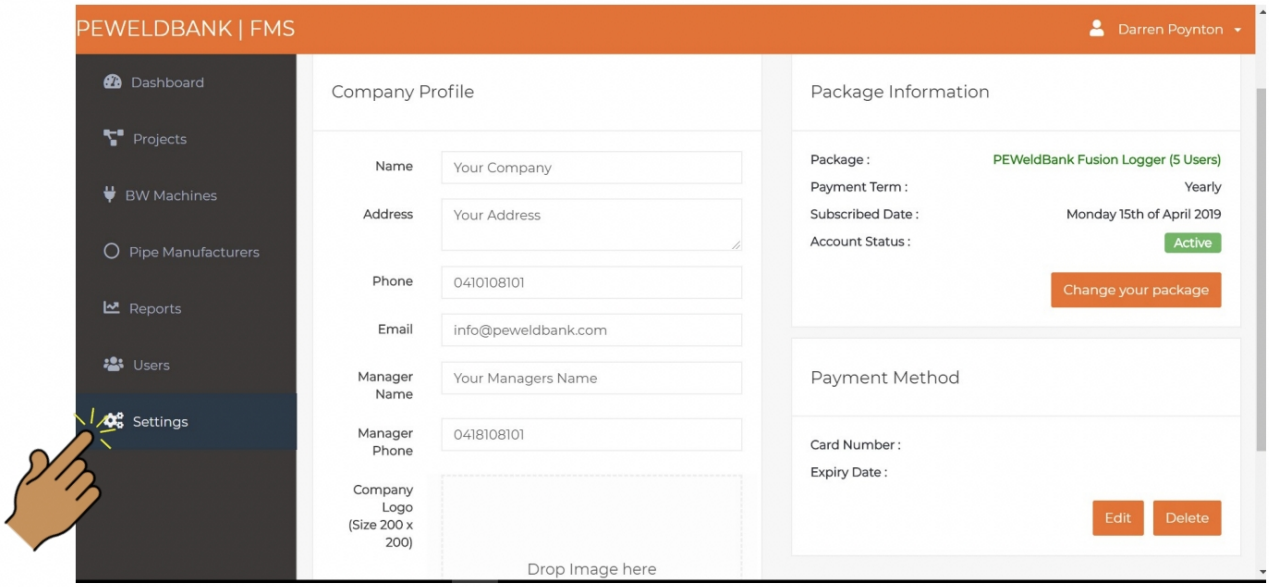




3. Login:
   User ID
   Password
   Login

How to set up Company Details

Step 1, Click on Settings
Enter your Company Details. You can also insert a company logo here, this will be displayed on your reports



Note there are 3 levels of users access;

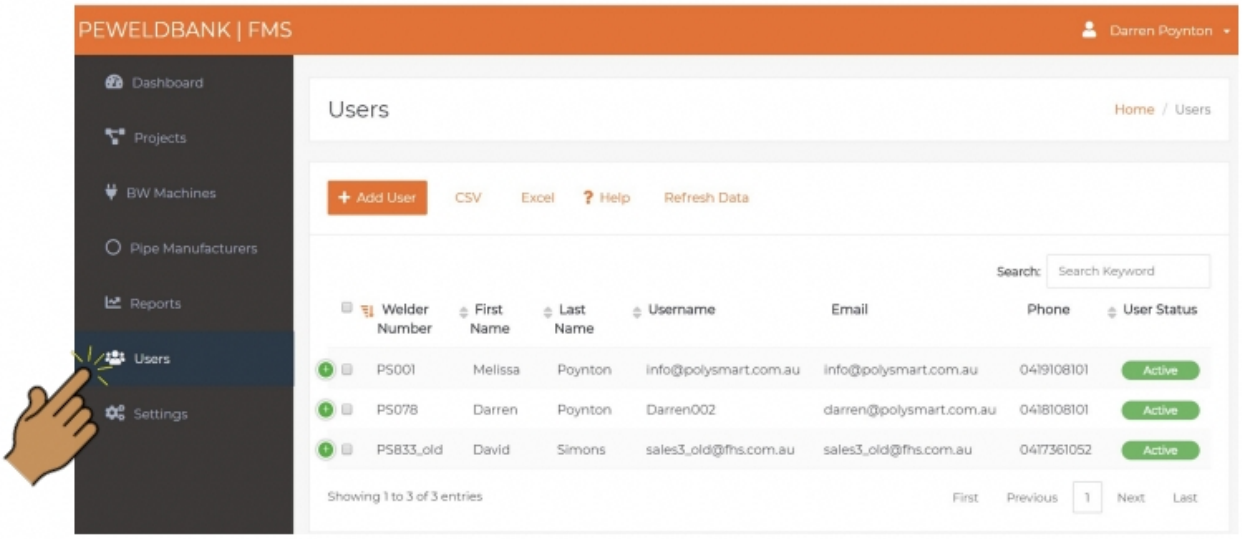
- **Super admin** - This is the person that initially set the system up, they control company details, quantity of users, credit card etc. this user has access to all levels. To change Super admin user they must send an email to info@peweldbank.com and nominate the new Superadmin user from the user list, PEWeldBank will change this ASAP
- **Admin** - Controls adding / deleting, Projects, Users, Butt and Electrofusion machinery, pairing of sensors, pipe manufacturers
- **Welder** - Select projects, machines, pipe and welding standard, use of app to conduct welding

For more information regarding User Hierarchy, see Appendix 4

Set up Users (welder / admin)

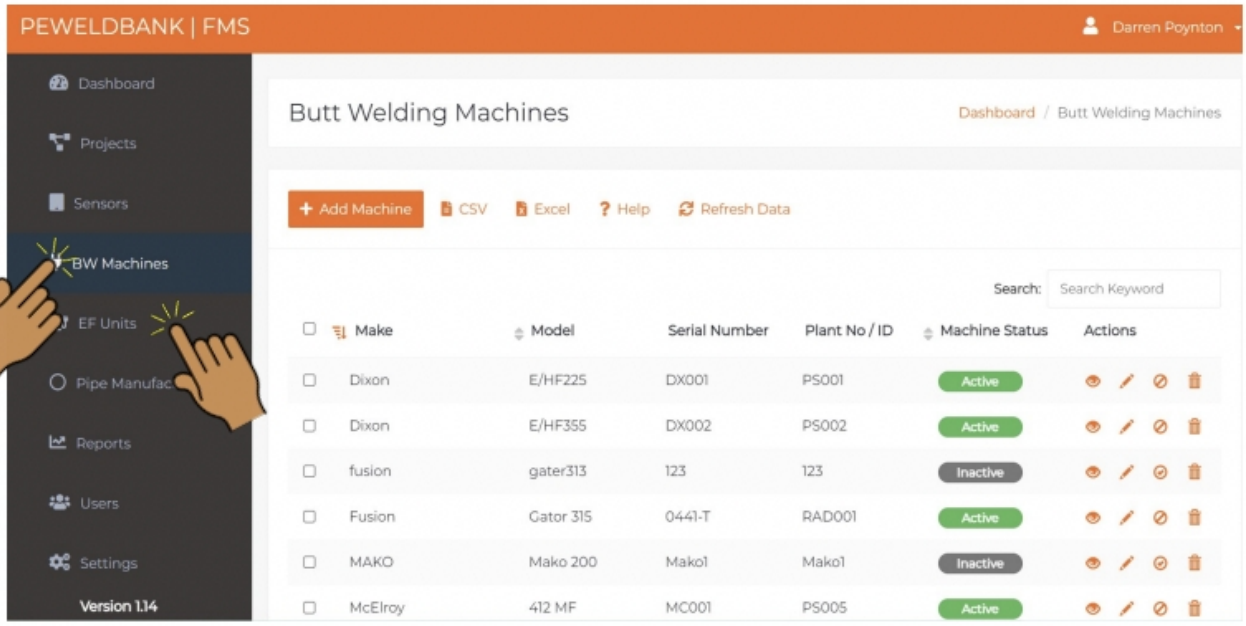
Step 2, Click on Users

Set Up User Details. You can allocate a User "Welder" or "Admin" rights



How to set up Butt Welding and Electrofusion Machines

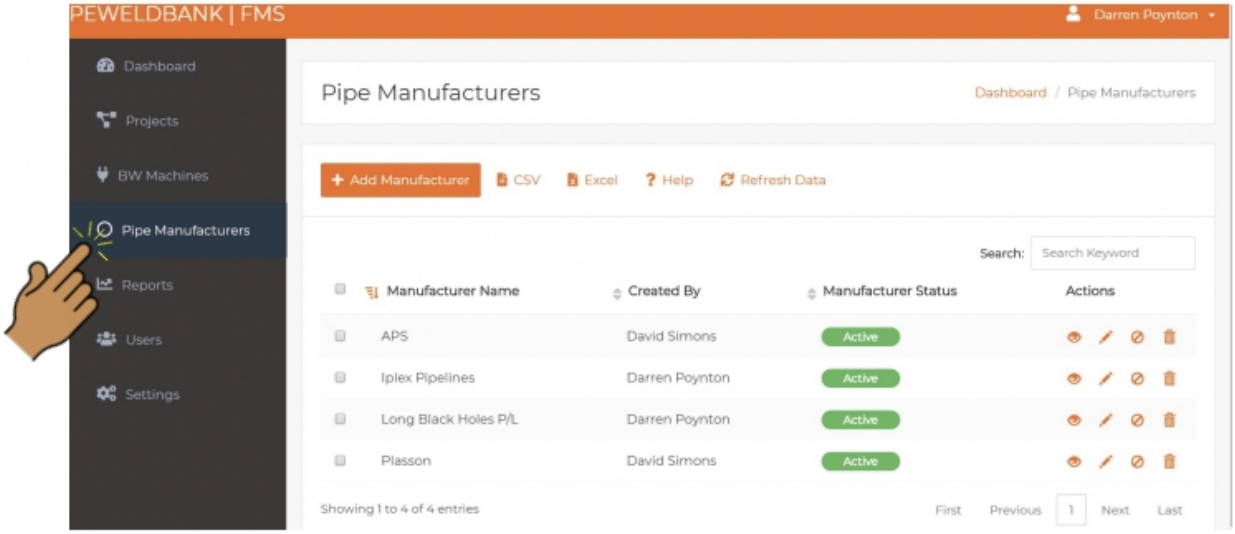
Step 3, Click on BW Machines or EF Units
Set Up your Butt Welding Machines or Electrofusion Control Units



Set up Pipe & Fittings Manufacturers

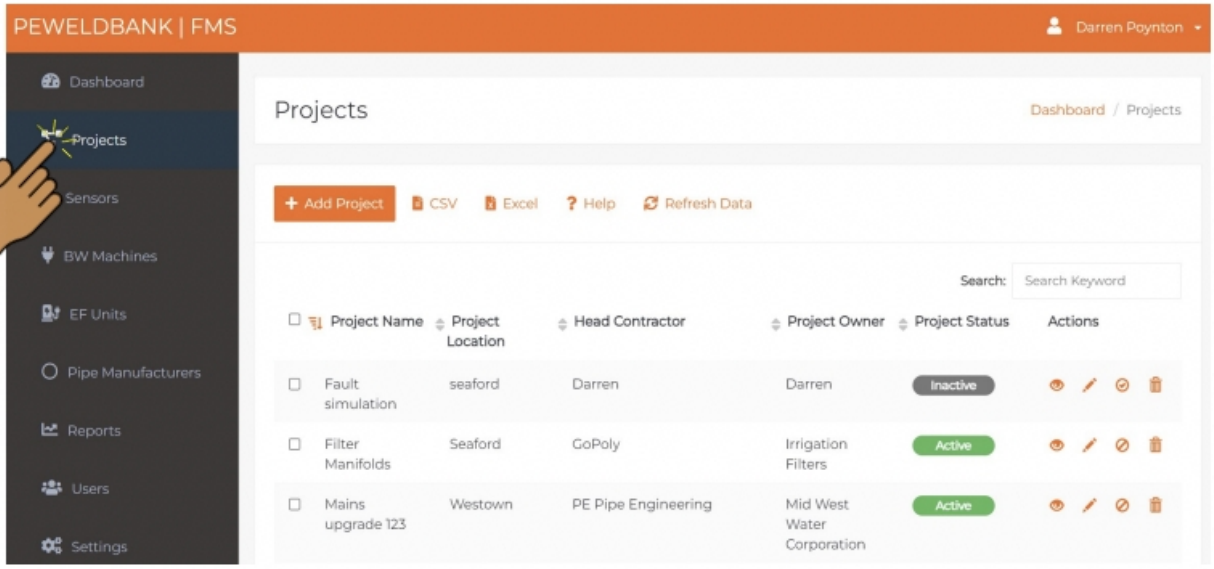
Step 4, Click on Pipe Manufactures

Set Up your Pipe and Fittings Library



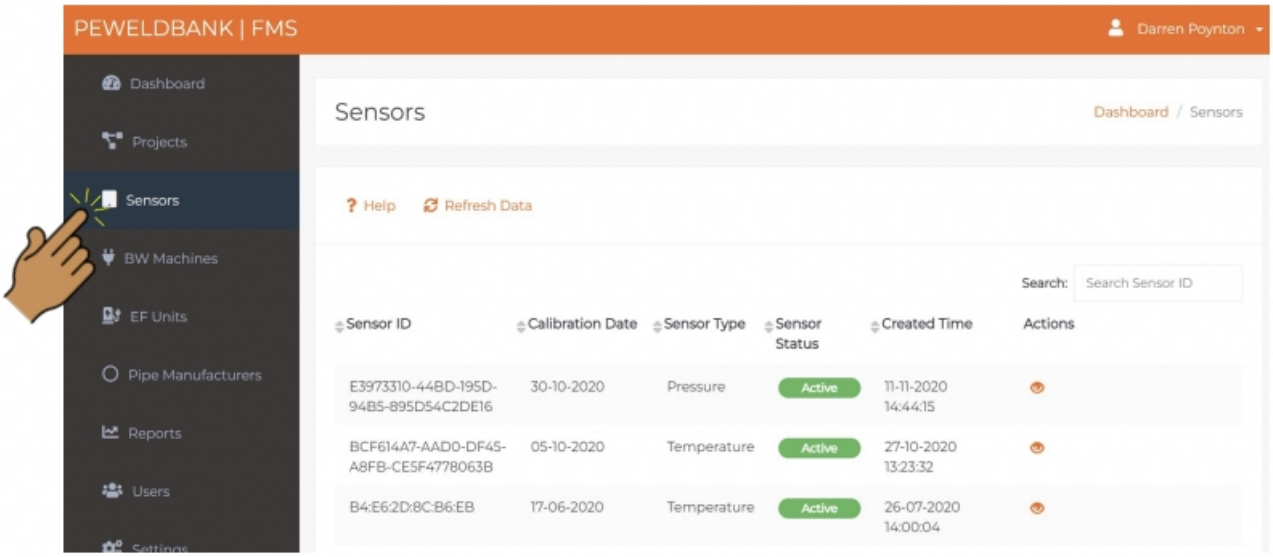
Set up Projects / Jobs

Step 5, Click on Projects
Set Up Project Details



Review active sensors

Step 6, Click on Sensors



FMS
Reporting System

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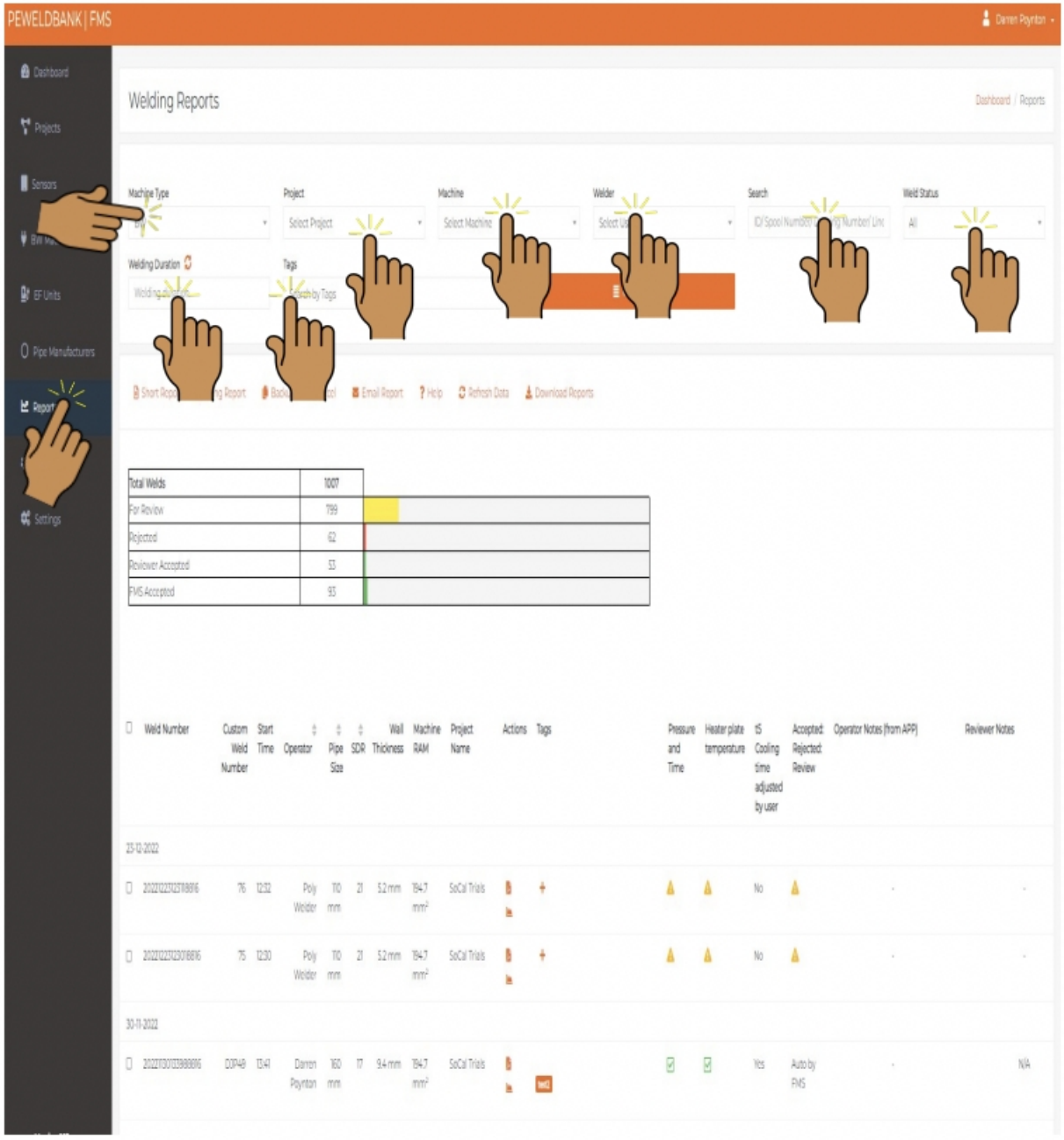
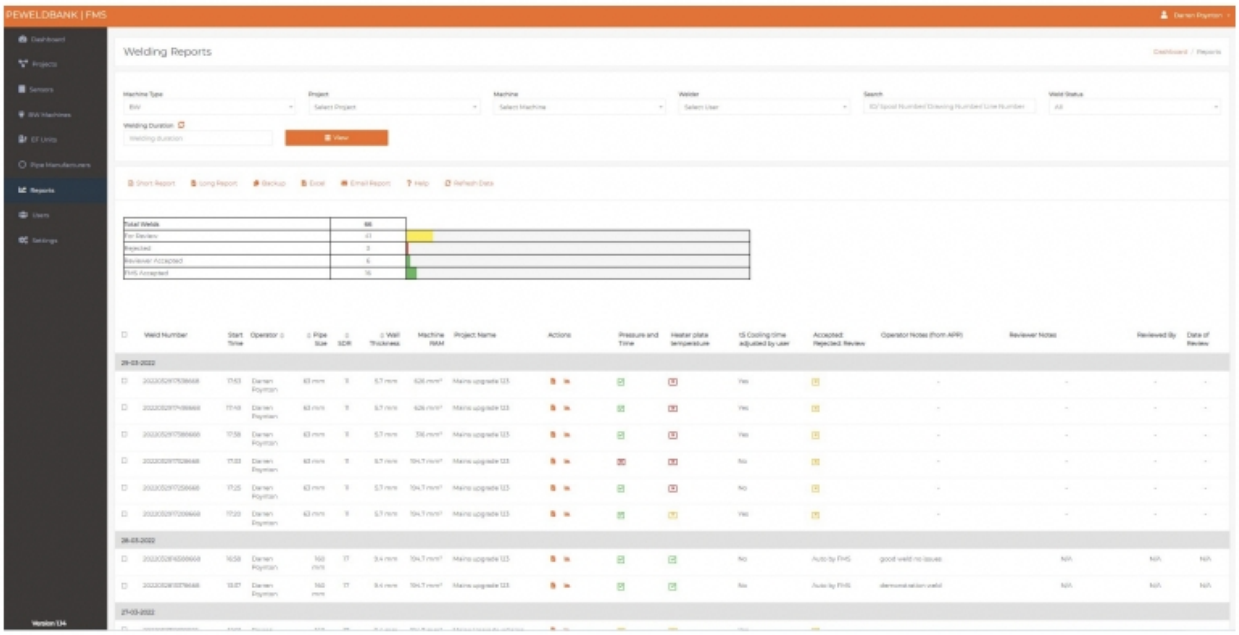
Reports

There are multiple reports and sort functions available, you can use one or multiple search features at the same time.



Reports

There are multiple reports and sort functions available

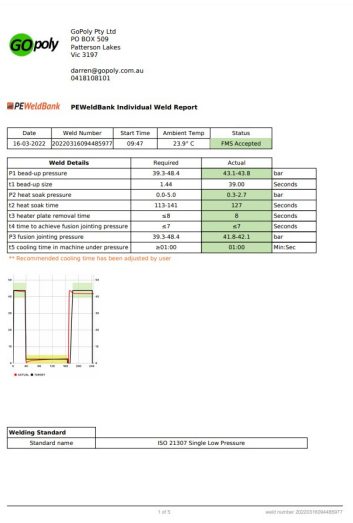


On the welding reports page the user can see a list of all welds and create a customised report by one or multiple search headings, then you can select a 4-5 page full report or “Short” or “Long” Reports or export all reports to your own back ups or excel, from this area you can send selected reports directly to you client.

Search Heading	Search Description
Machine Type	Butt Welder or Electrofusion
Project	Project Name
Machine	Make and Model of machine
Welder	The user or person doing the welding
Search	ID/ Spool Number / Drawing Number / Line Number
Weld Status	Status of weld i.e. Accepted, Rejected or waiting for Review
Welding Duration	Select time frame
Tags	Select tagged reports

Reports – Full 4-5 page report

There are multiple reports and sort functions available within the FMS, below is an example of the full 4-5 page report.



GoPoly Pty Ltd
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darren@gopoly.com.au
0418108101

PEWeldBank Individual Weld Report

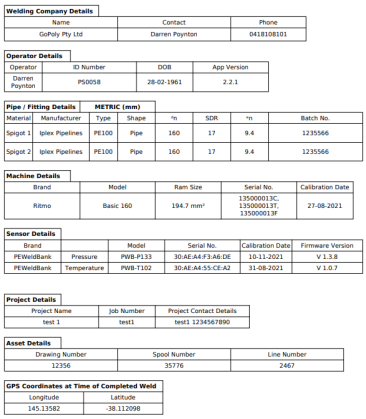
Date	Weld Number	Start Time	Ambient Temp	Status
16-03-2022	20220316094485977	09:47	23.9° C	FMS Accepted

Weld Details	Required	Actual	
P1 bead-up pressure	39.3-48.4	43.1-43.8	bar
t1 bead-up size	1.44	39.00	Seconds
P2 heat soak pressure	0.0-5.0	0.3-2.7	bar
t2 heat soak time	113-141	127	Seconds
t3 heater plate removal time	≤8	8	Seconds
t4 time to achieve fusion jointing pressure	≤7	≤7	Seconds
P3 fusion jointing pressure	39.3-48.4	41.8-42.1	bar
t5 cooling time in machine under pressure	≥01:00	01:00	Min:Sec

*** Recommended cooling time has been adjusted by user

Welding Standard

Standard name	ISO 21307 Single Low Pressure



Welding Company Details

Name	Contact	Phone
GoPoly Pty Ltd	Darren Poynton	0418108101

Operator Details

Operator	ID Number	DOB	App Version
Darren Poynton	PS0058	28-02-1961	2.2.1

Pipe / Fitting Details — **METRIC (mm)**

Material	Manufacturer	Type	Shape	°n	SDR	°n	Batch No.
Spigot 1	Iplex Pipelines	PE100	Pipe	160	17	9.4	1235566
Spigot 2	Iplex Pipelines	PE100	Pipe	160	17	9.4	1235566

Machine Details

Brand	Model	Ram Size	Serial No.	Calibration Date
Ritmo	Basic 160	194.7 mm²	135000013C, 135000013T, 135000013F	27-08-2021

Sensor Details

Brand		Model	Serial No.	Calibration Date	Firmware Version
PEWeldBank	Pressure	PWB-P133	30:AE:A4:F3:A6:DE	10-11-2021	V 1.3.8
PEWeldBank	Temperature	PWB-T102	30:AE:A4:55:CE:A2	31-08-2021	V 1.0.7

Project Details

Project Name	Job Number	Project Contact Details
test 1	test1	test1 1234567890

Asset Details

Drawing Number	Spool Number	Line Number
12356	35776	2467

GPS Coordinates at Time of Completed Weld

Longitude	Latitude
145.13582	-38.112098

Heater Plate Target (° C)		215-235	
	Front	Back	
Zone 1	223	223	
Zone 2	222	226	
Zone 3	225	224	
Zone 4	224	227	
Average	224.16		At commencement of weld
Fixed Point Sensor		226-230	Measured during Phase 1 and 2

Quality / Process Checklist

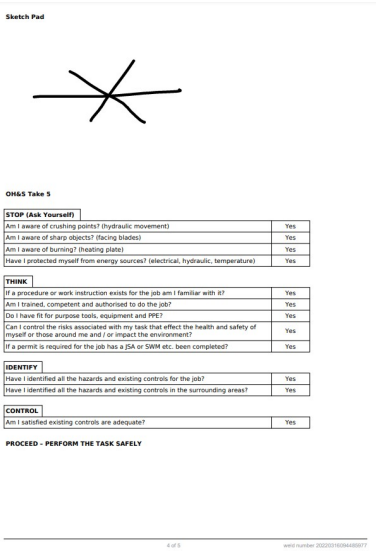
Is weld area protected?	Yes
Have the pipes been cleaned before placing in machine?	Yes
Are pipe ends covered?	Yes
Is pipe faced correctly?	Yes
Have pipe faces been cleaned?	Yes
Have pipe ends been checked for gap?	Yes
Is pipe aligned within 10% of wall thickness?	Yes

Alignment Photo

Finished Weld Photo

Notes

Good test weld



Sketch Pad

OH&S Take 5

STOP (Ask Yourself)

Am I aware of crushing points? (hydraulic movement)	Yes
Am I aware of sharp objects? (facing blades)	Yes
Am I aware of burning? (heating plate)	Yes
Have I protected myself from energy sources? (electrical, hydraulic, temperature)	Yes

THINK

If a procedure or work instruction exists for the job am I familiar with it?	Yes
Am I trained, competent and authorised to do the job?	Yes
Do I have fit for purpose tools, equipment and PPE?	Yes
Can I control the risks associated with my task that effect the health and safety of myself or those around me and / or impact the environment?	Yes
If a permit is required for the job has a JSA or SWM etc. been completed?	Yes

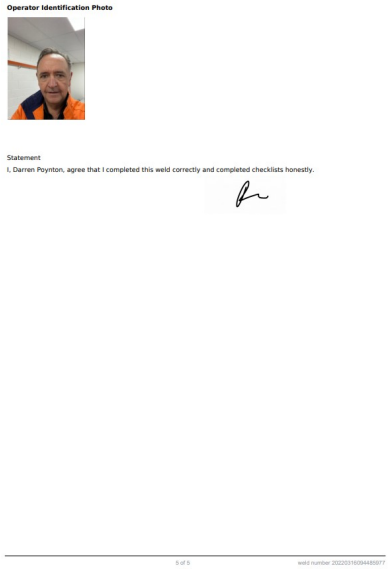
IDENTIFY

Have I identified all the hazards and existing controls for the job?	Yes
Have I identified all the hazards and existing controls in the surrounding areas?	Yes

CONTROL

Am I satisfied existing controls are adequate?	Yes

PROCEED - PERFORM THE TASK SAFELY



Operator Identification Photo

Statement

I, Darren Poynton, agree that I completed this weld correctly and completed checklists honestly.

N.B. Ambient Temperature.
Please note that the ambient temperature sensor is within the Pressure Sensor case, This temperature may be influenced by external factors, such as proximity to hydraulic motor, direct sunlight and charging of battery.

Reports – Short, long and export to excel

There are multiple reports and sort functions available within the FMS, below is an example of a short report and long report and below them is an example of an excel report

GoPoly Pty Ltd
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0418108101

PEWeldBank Weld Summary (Short)

Date	Weld Number	Start Time	Operator	Pipe Size	SDR	Job number
29-03-2022	20220329175386668	17:53	Darren Poynton	63 mm	11	12341234
29-03-2022	20220329174986668	17:49	Darren Poynton	63 mm	11	12341234
29-03-2022	20220329173886668	17:38	Darren Poynton	63 mm	11	12341234
29-03-2022	20220329173286668	17:33	Darren Poynton	63 mm	11	12341234
29-03-2022	20220329172586668	17:25	Darren Poynton	63 mm	11	12341234
29-03-2022	20220329172086668	17:20	Darren Poynton	63 mm	11	12341234
28-03-2022	20220328165886668	16:58	Darren Poynton	160 mm	17	12341234
28-03-2022	20220328133786668	13:37	Darren Poynton	160 mm	17	12341234
27-03-2022	20220327120188222	12:01	Darren Poynton	160 mm	17	P001
27-03-2022	20220327085285977	08:53	Darren Poynton	160 mm	17	test1
25-03-2022	20220325090485977	09:04	Darren Poynton	160 mm	17	test1
22-03-2022	20220322103785977	10:37	Darren Poynton	160 mm	17	test1
21-03-2022	20220321201285977	20:23	Darren Poynton	160 mm	17	test1
18-03-2022	20220318131485977	13:17	Darren Poynton	160 mm	17	test1
16-03-2022	20220316111385977	11:15	Darren Poynton	160 mm	17	test1
16-03-2022	20220316094485977	09:47	Darren Poynton	160 mm	17	test1
15-03-2022	20220315065685977	06:56	Darren Poynton	160 mm	17	test1
10-03-2022	20220310142885977	14:28	Darren Poynton	160 mm	17	test1
10-03-2022	20220310142085977	14:20	Darren Poynton	160 mm	17	test1
09-03-2022	20220309130485977	13:05	Darren Poynton	125 mm	11	test1
08-03-2022	20220308115885977	12:00	Darren Poynton	125 mm	11	test1
07-03-2022	20220307133685977	13:37	Darren Poynton	160 mm	17	test1
07-03-2022	20220307132485977	13:25	Darren Poynton	160 mm	17	test1
04-03-2022	20220304103985977	10:39	Darren Poynton	160 mm	17	test1
04-03-2022	20220304102685977	10:26	Darren Poynton	160 mm	17	test1
04-03-2022	20220304101085977	10:10	Darren Poynton	160 mm	17	test1
04-03-2022	20220304095885977	09:58	Darren Poynton	160 mm	17	test1
04-03-2022	20220304091185977	09:11	Darren Poynton	160 mm	17	test1
03-03-2022	20220303230285977	23:02	Darren Poynton	160 mm	17	test1

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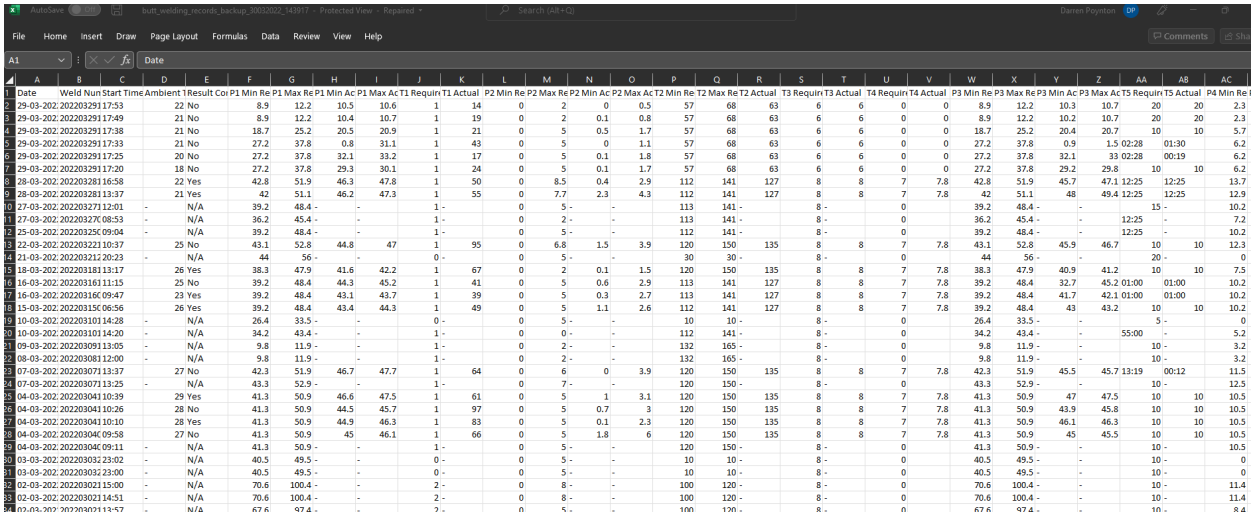
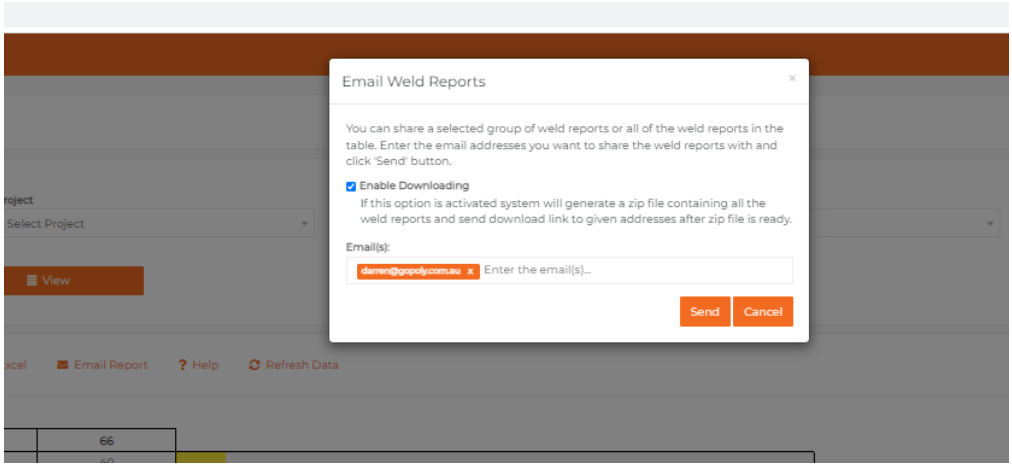
PEWeldBank Weld Summary (Long)

Date	Weld Number	Start Time	Operator	Pipe Size	SDR	Wall Thickness	Machine RAM	Job number
29-03-2022	20220329175386668	17:53	Darren Poynton	63 mm	11	5.7 mm	626 mm²	12341234
29-03-2022	20220329174986668	17:49	Darren Poynton	63 mm	11	5.7 mm	626 mm²	12341234
29-03-2022	20220329173886668	17:38	Darren Poynton	63 mm	11	5.7 mm	316 mm²	12341234
29-03-2022	20220329173286668	17:33	Darren Poynton	63 mm	11	5.7 mm	194.7 mm²	12341234
29-03-2022	20220329172586668	17:25	Darren Poynton	63 mm	11	5.7 mm	194.7 mm²	12341234
29-03-2022	20220329172086668	17:20	Darren Poynton	63 mm	11	5.7 mm	194.7 mm²	12341234
28-03-2022	20220328165886668	16:58	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	12341234
28-03-2022	20220328133786668	13:37	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	12341234
27-03-2022	20220327120188222	12:01	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	P001
27-03-2022	20220327085285977	08:53	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
25-03-2022	20220325090485977	09:04	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
22-03-2022	20220322103785977	10:37	Darren Poynton	160 mm	17	10.0 mm	194.7 mm²	test1
21-03-2022	20220321201285977	20:23	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
18-03-2022	20220318131485977	13:17	Darren Poynton	160 mm	17	10.0 mm	194.7 mm²	test1
16-03-2022	20220316111385977	11:15	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
16-03-2022	20220316094485977	09:47	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
15-03-2022	20220315065685977	06:56	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
10-03-2022	20220310142885977	14:28	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
10-03-2022	20220310142085977	14:20	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	test1
09-03-2022	20220309130485977	13:05	Darren Poynton	125 mm	11	11.0 mm	753 mm²	test1

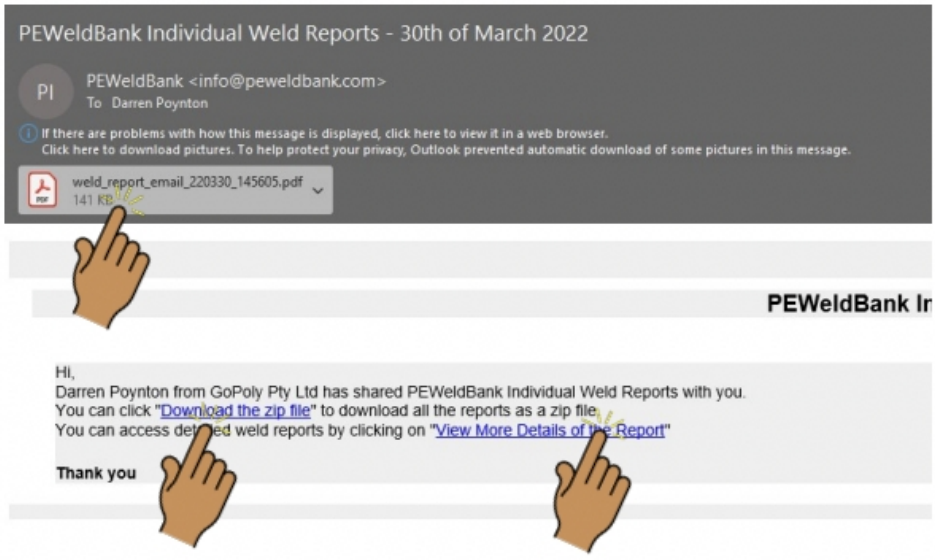


Reports - Email directly to client

The email report option allows you to select welds and then email them to your client. Please note these reports take a short while to generate, if it doesn't come through please ask your client to check their junk or spam box



Your client will receive email similar to this, with 3 options for viewing reports



See 3 report options on next page

Reports - Email directly to client

The first one is a summary.

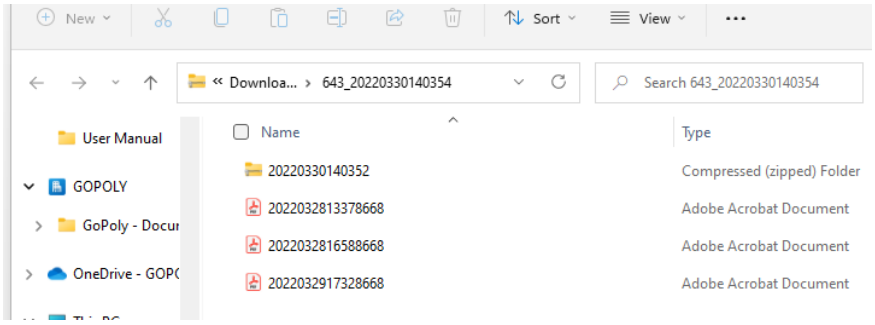
Darren Poynton
GoPoly Pty Ltd
PO BOX 509
Patterson Lakes
Vic 3197

darren@gopoly.com.au
0418108101

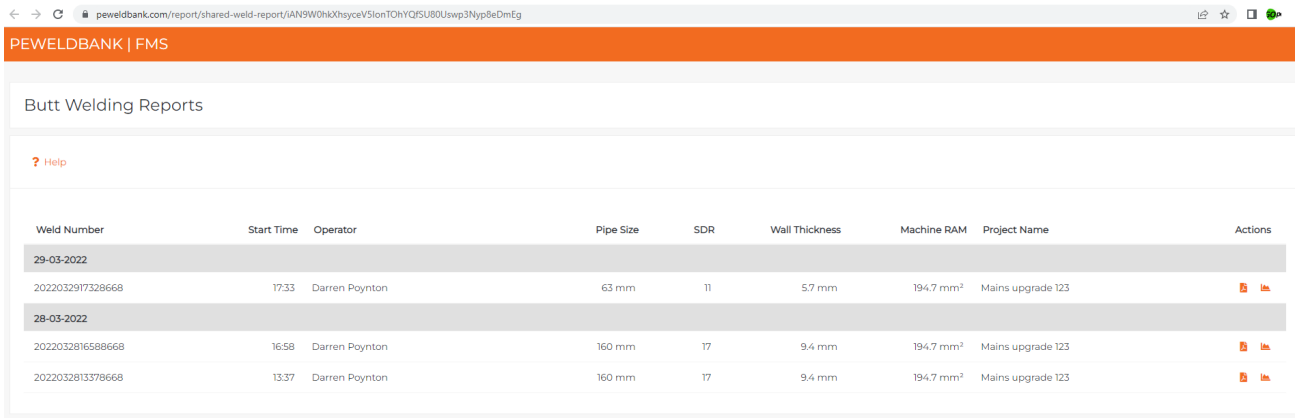
PEWeldBank Weld Summary (Email)

Weld Number	Start Time	Operator	Pipe Size	SDR	Wall Thickness	Machine RAM	Project Name
29-03-2022							
2022032917328668	17:33	Darren Poynton	63 mm	11	5.7 mm	194.7 mm²	Mains upgrade 123
28-03-2022							
2022032816588668	16:58	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	Mains upgrade 123
2022032813378668	13:37	Darren Poynton	160 mm	17	9.4 mm	194.7 mm²	Mains upgrade 123

The second is a Zip file holding of each selected weld each PDF is a full 4-5 page report.



The third option gives your client a full report for each weld and access to the weld graph



Smartphone / Tablet User Guide

www.PEWeldBank.com
Info@PEWeldBank.com

PEWeldBank.com

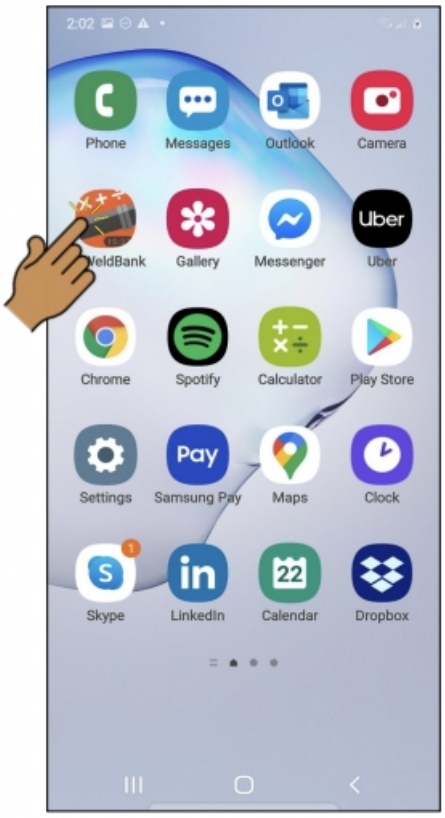
Download *PEWeldBank* app in your preferred store for FREE

Go to search on Google Play or Apple App store enter “peweldbank”

GET IT ON Google Play

Download on the App Store

Once downloaded to your Smartphone or tablet, click on the *PEWeldBank* icon

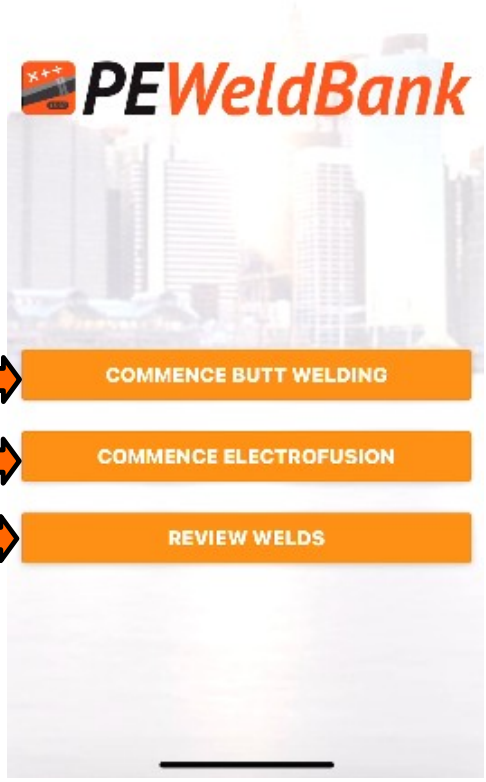


Use your Username and Password to log in, this will take you to the home screen.

Home Screen

Operation is very easy to access via the Home Screen

Drop Down Menu



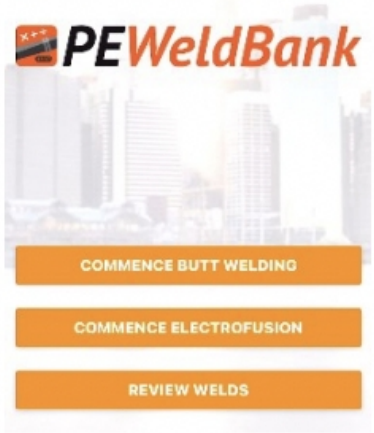
Tap here to start a Butt weld

Tap here to start an Electrofusion weld

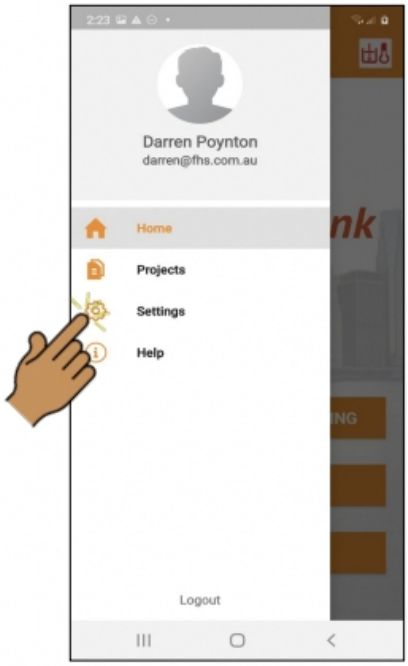
Tap here to review weld

Smartphone / Tablet - Default System Settings

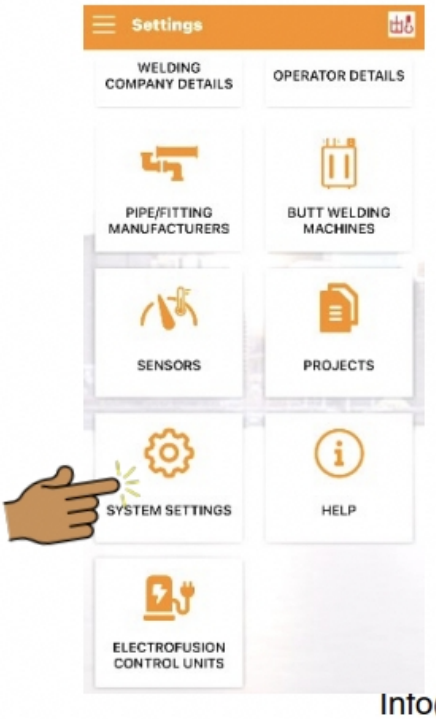
Click on dropdown menu



Click on menu item



Select **System Settings** to Edit Settings



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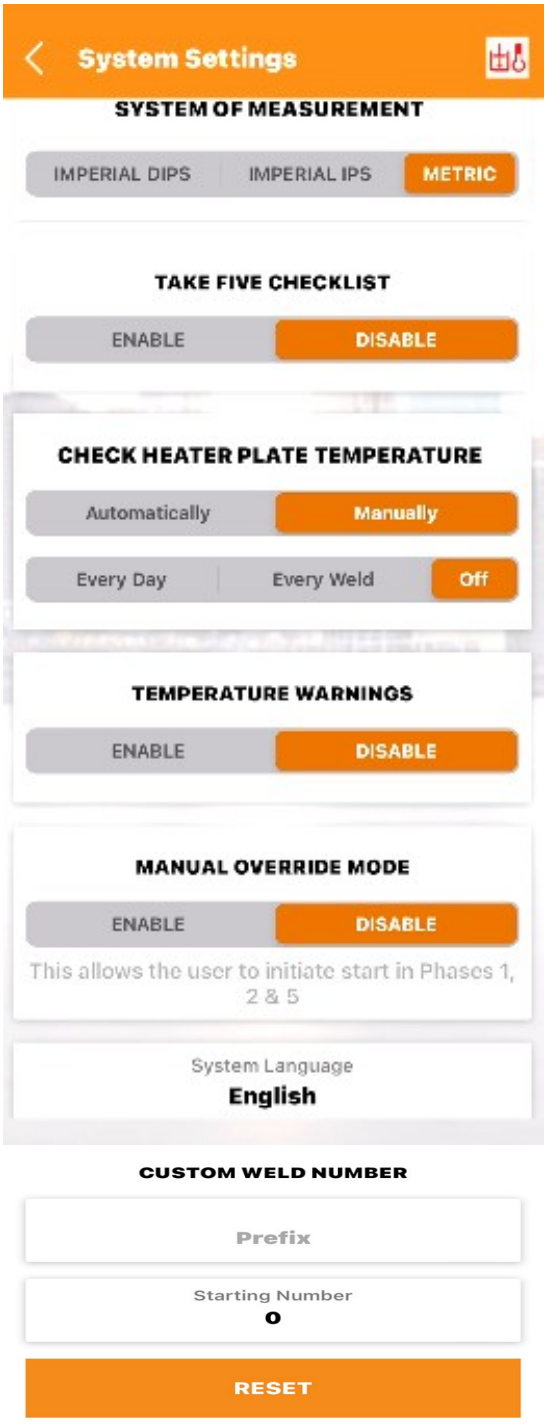
Smartphone / Tablet - Default System Settings

Select your preferred defaults before welding

These changes can only be made by user with Superadmin or Admin level



SYSTEM OF MEASUREMENT

Choose preferred measurements

TAKE 5 CHECK LIST

By enabling this, the app will ask the user to complete Welding Safety questions at the start of a weld session

CHECK HEATER PLATE TEMPERATURE

By enabling this, the app will ask the user to check heater plate temperature at selected interviews or turn this feature off.

TEMPERATURE WARNINGS

When enabled user will be notified if temperature goes out of range

MANUAL OVERIDE MODE

This enables to initiate start in Phases 1, 2 & 3

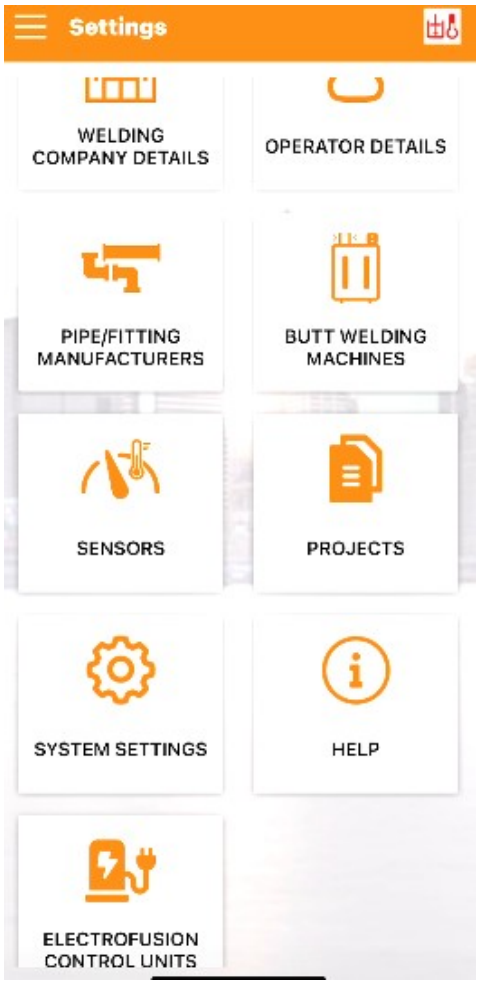
SYSTEM LANGUAGE

Enables user to choose different languages

CUSTOM WELD NUMBER

Set smartphone custom weld number series

Smartphone / Tablet - Settings



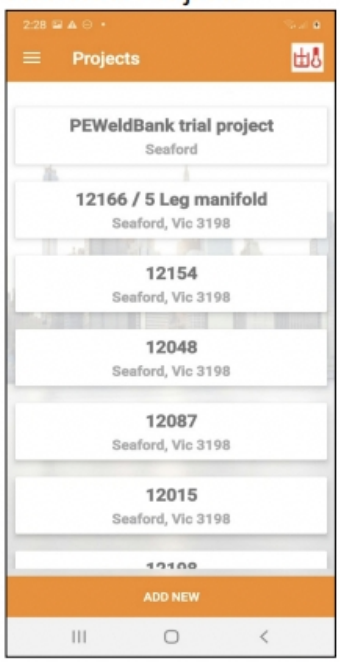
All of these options except for Sensors, System Settings and some of the Operator Details can also be edited via the FMS

Smartphone / Tablet Menu Screens ADDING NEW PROJECT

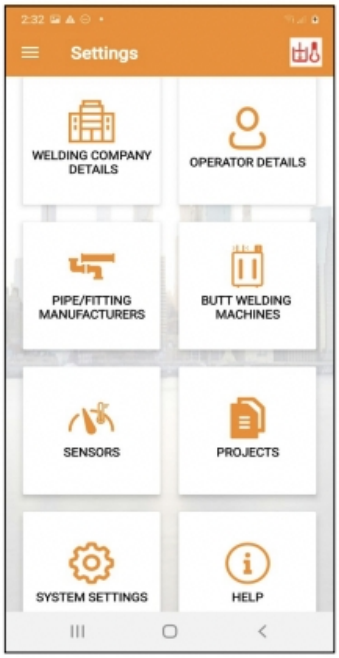
Click on dropdown menu

Click on menu item

Select **Projects** to Edit or Add New Projects

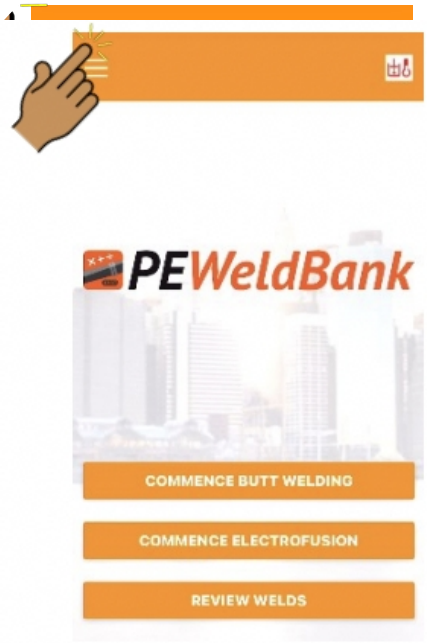


Select **Settings** to Edit Settings

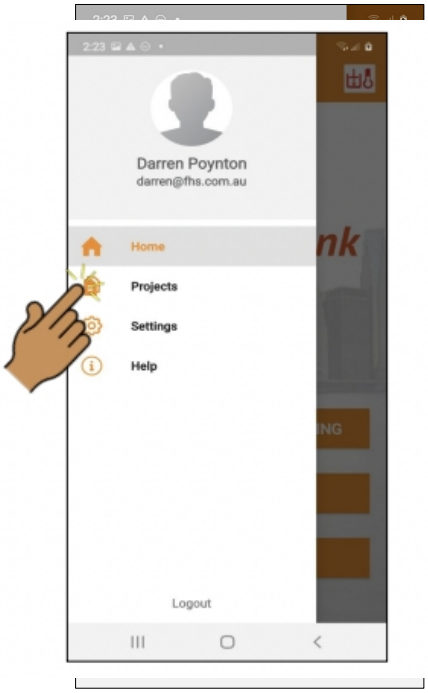


Smartphone / Tablet Menu Screens ADDING NEW MACHINE

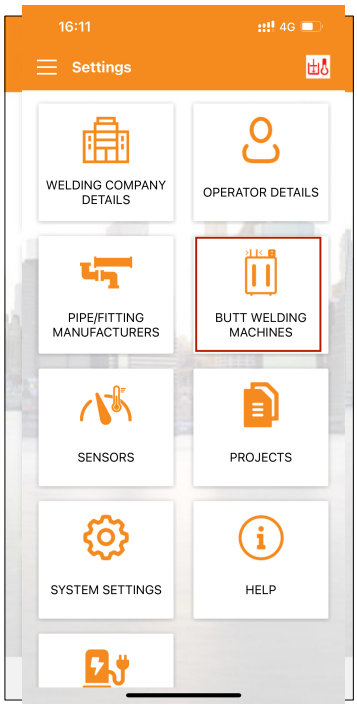
Click on dropdown menu



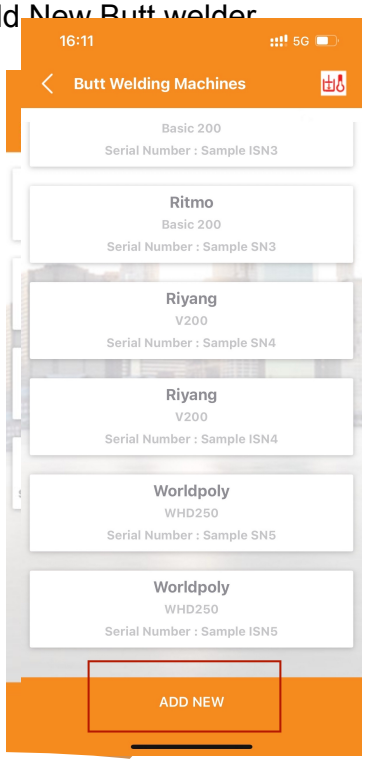
Click on menu item



Select **Butt welding Machines** to Edit



Select **ADD NEW** to Edit or Add New Butt welder



Connection to Hydraulic circuit

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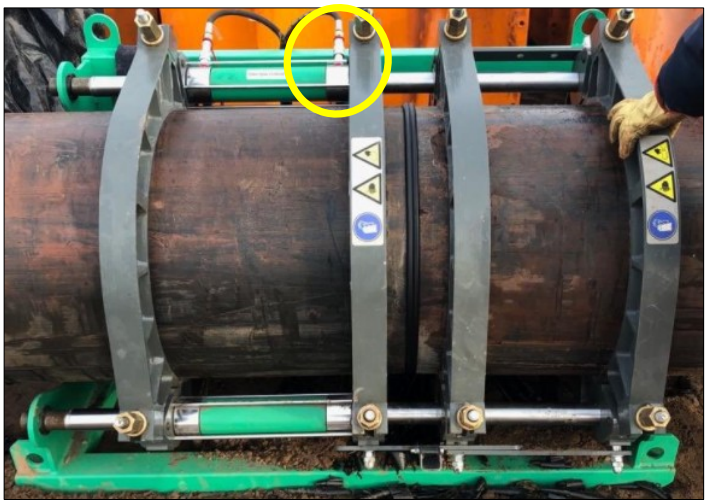
Fitting Hydraulic Transmitter / Transducer to Machine

Hydraulic Connection

Many machines have a test port already fitted.
If your machine does not have a test point, you will need to fit a tee with test point to **the closing side of your pressure circuit**.
A tee with connection point can be fitted to a machine where the hoses are fitted to the pressure control unit. Any hydraulic company should be able to fit one for you.
See Appendix 1 for examples.



Note:
This is the closing side of the hydraulic cylinder, follow this hose back to your controller.
As we set up more machines we will keep a library of connections, please don't hesitate contacting us for assistance with initial set up.

Bluetooth Pressure Sensor Setup

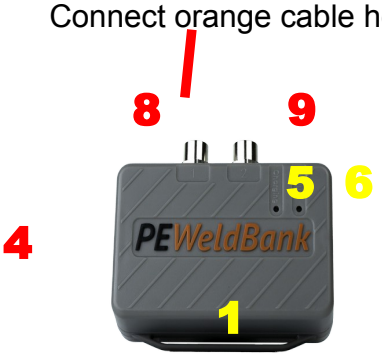
How to connect pressure sensor to Butt welder See also “Appendix 1”

****Before starting ensure both Sensors are fully charged****

Plug charge cable into charging port and charge until the red light turns to green (6 hours)

Pressure Sensor Components

Connect orange cable here



1 Bluetooth Pressure Sensor

2 Hydraulic Transducer

3 Orange or Black Hydraulic Sensor Connection cable

4 Charging Port

5 Charging Indicator Light (Red/Green)

6 Bluetooth Connection Status Light (Blue)

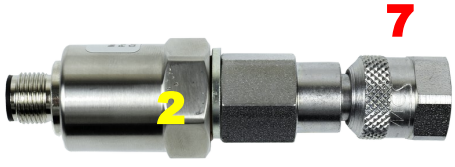
7 Hydraulic connection

8 Hydraulic Sensor Port 1

9 Hydraulic Sensor Port 2 (Spare)

10 QR code

On the Rear of both Sensors there is a **QR Code** that you scan to enable sensor when prompted by phone or tablet or just select connect to nearest sensor.



Hydraulic Connection Continued

Stauff 20 test point
available from your local PEWeldBank reseller or hydraulics supplier

The PEWeldBank Transmitter
This fits to the Stauff test point

Fit the PEWeldBank transmitter to the test point.
Now fit the Orange or Black cable supplied to the Bluetooth pressure sensor **Port 1** as shown below.

Connection to Heater Plate

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Temperature Sensors dated January 2020

Bluetooth Temperature Sensor Setup

How to use sensor with heater plate.

****Before starting ensure Sensors are fully charged****

Plug charge cable into charging port and charge until the red light turns to green (5 hours)

Pressure Sensor Components

Connect surface probe here

1 Bluetooth Temperature Sensor

2 Surface Temperature Probe

3 Charging Port

4 Charging Indicator Light (Red/Green)

5 Bluetooth Connection Status Light (Blue)

6 Spare Port

7 Port for surface probe (marked Fixed)

8 QR code

On the Rear of both Sensors there is a **QR Code** that you scan to enable sensor when prompted by phone or tablet

Temperature Sensors dated March 2022 & later

Bluetooth Temperature Sensor Setup

How to connect your Temperature Sensor to your heater plate. “See Appendix 3”

****Before starting ensure Sensors are fully charged****

Plug charge cable into charging port and charge until the red light turns to green (5 hours)

Pressure Sensor Components

1 Bluetooth Temperature Sensor

2 Surface Temperature Probe

3 Charging Port

4 Charging Indicator Light (Red/Green)

5 Bluetooth Connection Status Light (Blue)

6 Port for Surface probe

7 Port for Fixed PT100 connection

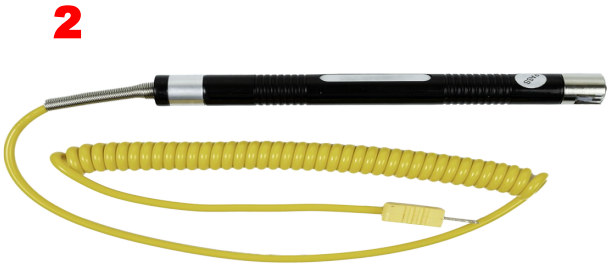
8 QR code

9a PT100 connection cable for Ritmo*

9b PT100 connection cable for others*

On the Rear of both Sensors there is a **QR Code** that you scan to enable sensor when prompted by phone or tablet

*see appendix 3



9a

9b

Pairing Sensors to Phone or Tablet

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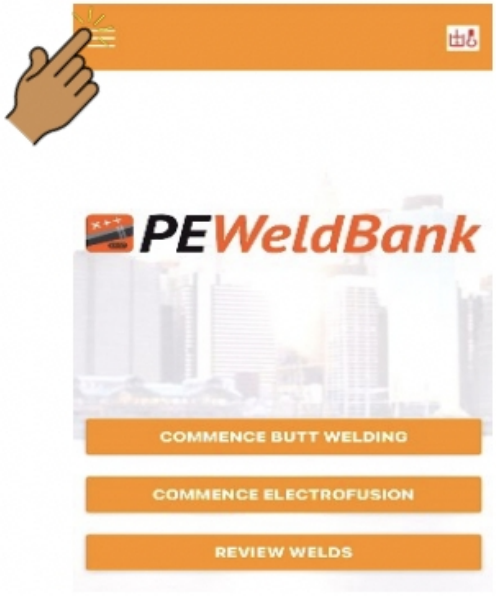
Bluetooth Setup & Pairing of Sensors

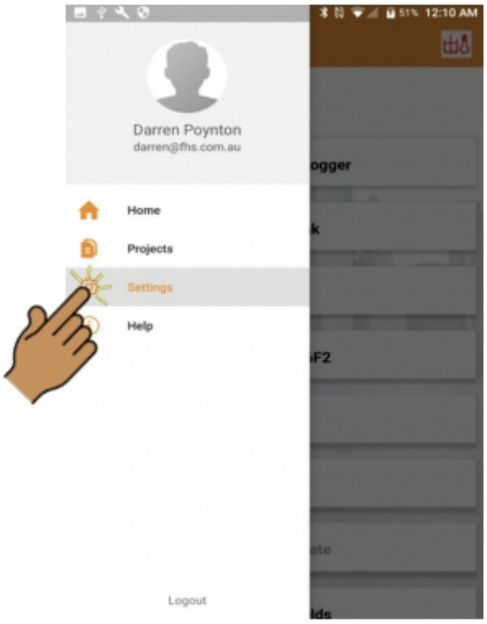
*N.B. you can only use sensor set with **PEWeldBank Fusion Logger** subscription, For initial pairing you must also have administrator user level permission and connection to the internet*

Ensure that Bluetooth is enabled on your smartphone / tablet. Follow the prompts

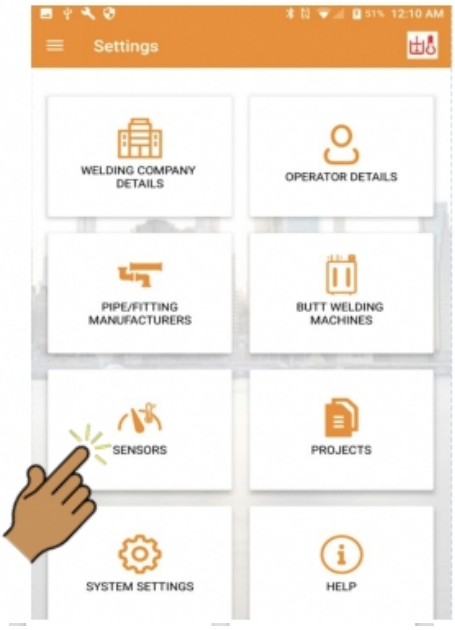
1. Click **Dropdown Menu**



2. Click **Settings**



3. Click **Sensors**



4. Click **Add New**

Bluetooth Setup & Pairing of Sensors Continued

Pairing of Sensors

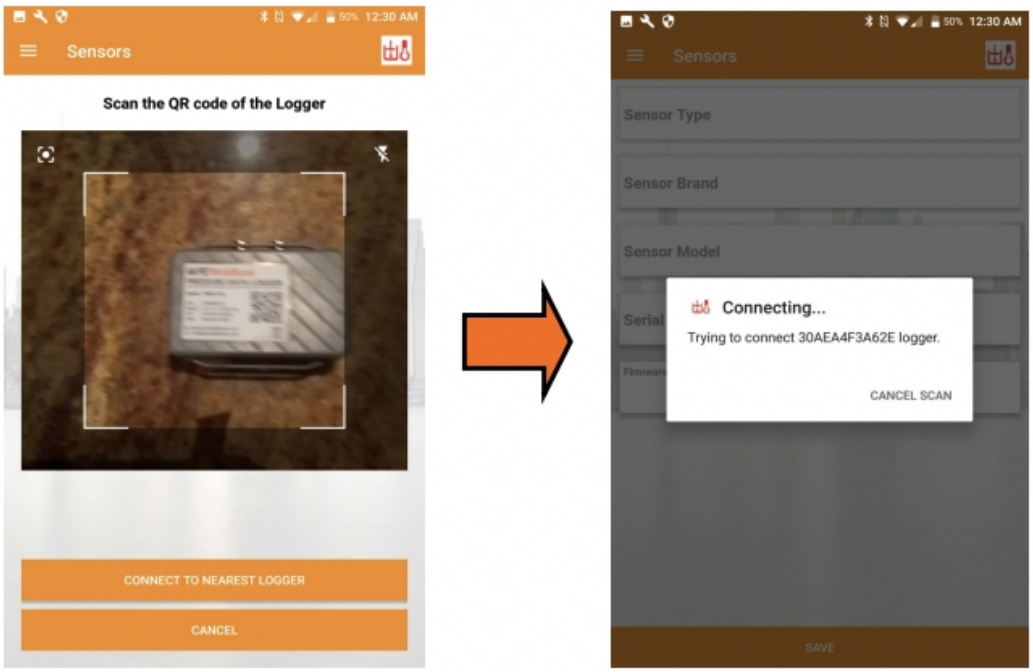
- Connect Pressure sensor to pressure at least 2 bar.
- For the Temperature sensor holding the Surface Temperature Probe against heater plate (at least 80°c / 176°f) will activate the sensor.
- The status light will flash, enabling you to proceed with Bluetooth pairing.

Alternatively

- Remove and replace the battery from the sensor, this will activate and status light will flash for 2 minutes enabling you to proceed with Bluetooth pairing.
- Status light must be flashing fast before proceeding.

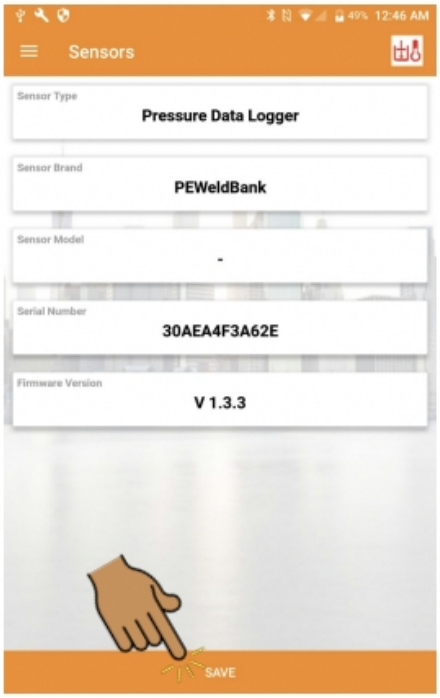
Follow instructions in Dropdown menu on smartphone or tablet [settings] [sensors] [add new] [save]

Scan QR code:

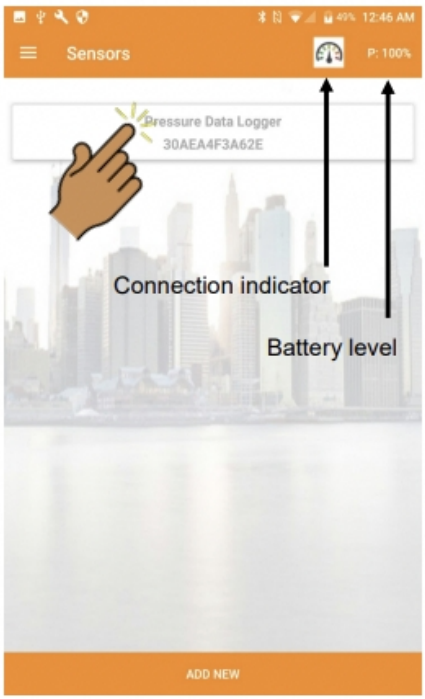


Bluetooth Setup & Pairing of Sensors Continued

Click Save



Check connected sensor



Connected

When connected blue Light on the sensor will flash slowly

Click Drop down menu to return to home screen follow instructions again for second sensor

To remove a sensor from Phone or Tablet select sensor you want to remove and click and hold for 2 seconds then delete, for iOS swipe then delete

Welding Procedure for App

Also see Basic Welding Machine Operating Procedure

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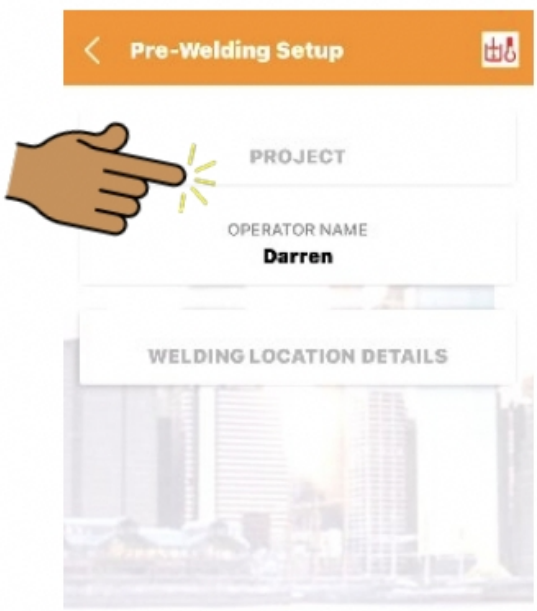
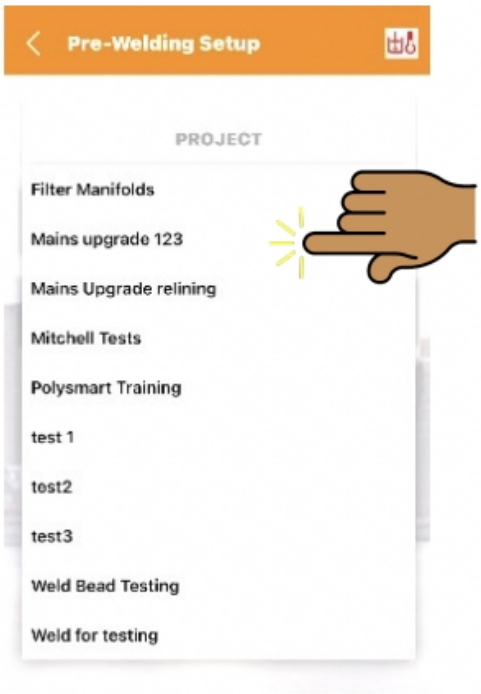
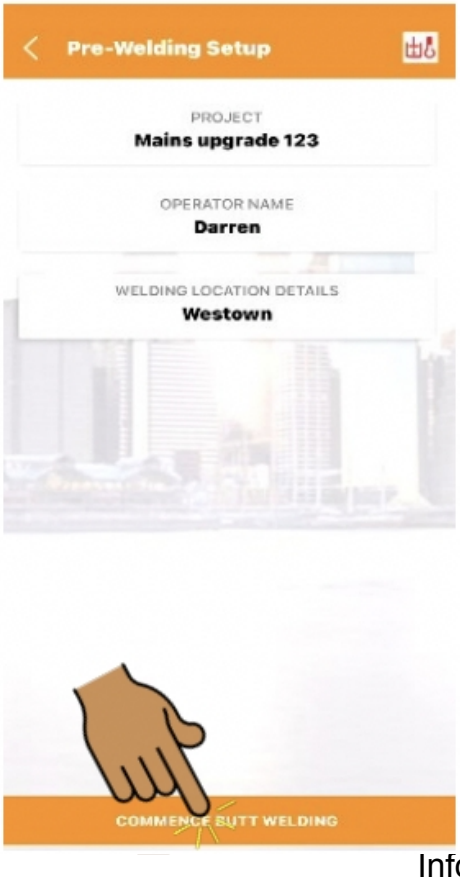
Home Screen: Commence Butt welding or Electrofusion

From this screen you can commence Butt welding or Electrofusion.
You can also review previous welds or allocate a second GPS location

Select Project





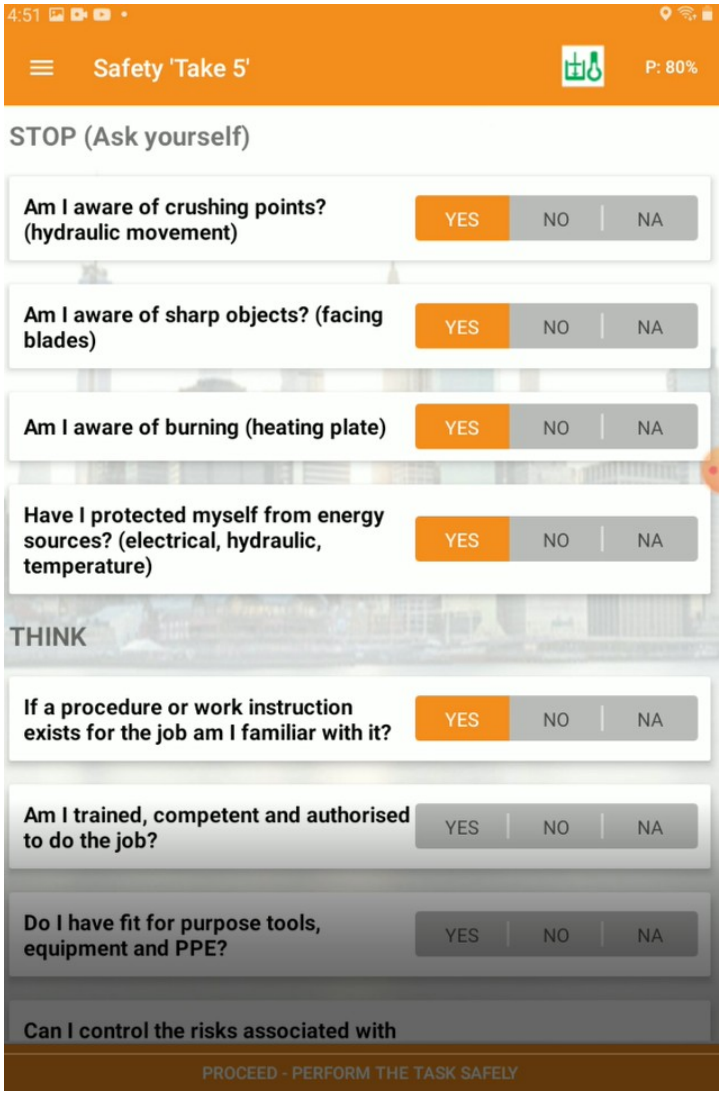


From this screen you need to select a project.

The Projects can be set up from within this app or from the FMS.

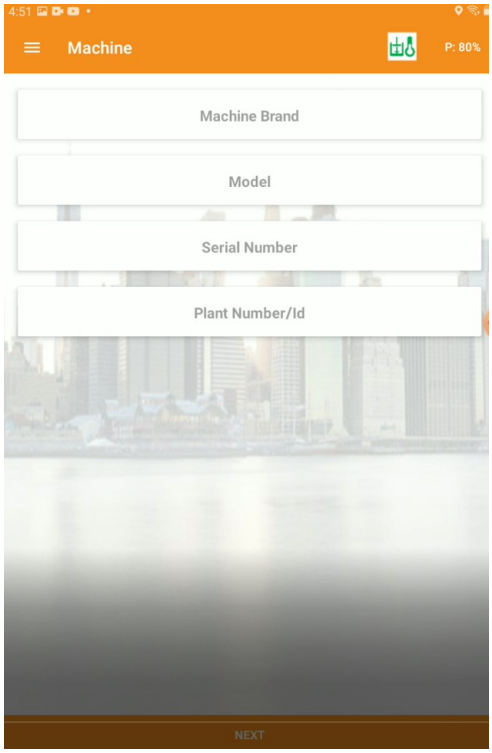
Note: You must have Admin access to set up projects, however User or Admin may select a project to use.

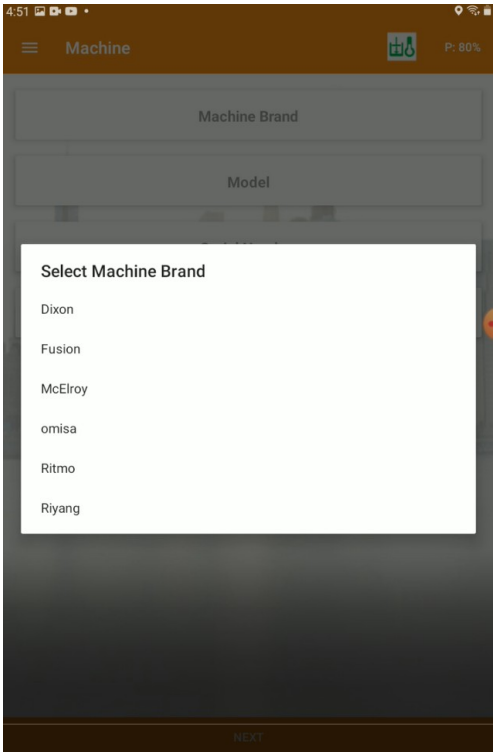
Safety “Take Five”

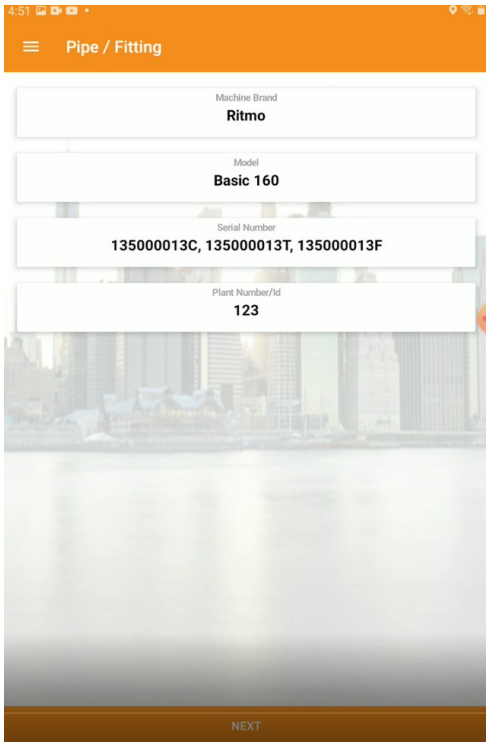


This is a 12 question OH&S assessment, these questions are asked of the user at the start of the welding session.
This information is collected and recorded within reports, available within FMS
By default this option is disabled, this option may be enabled within System Settings

Machine selection

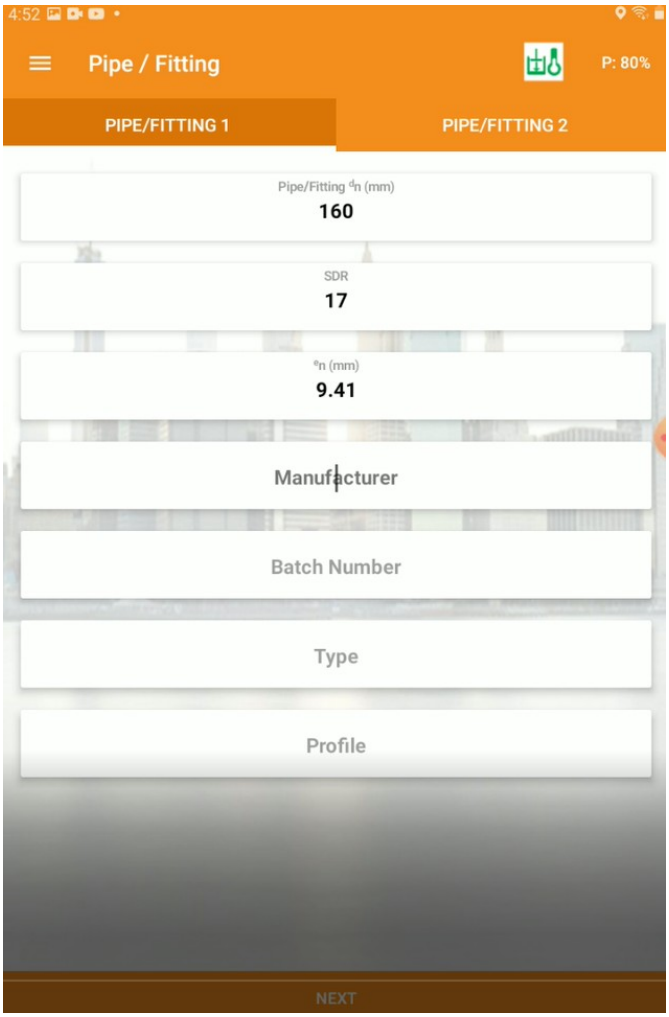






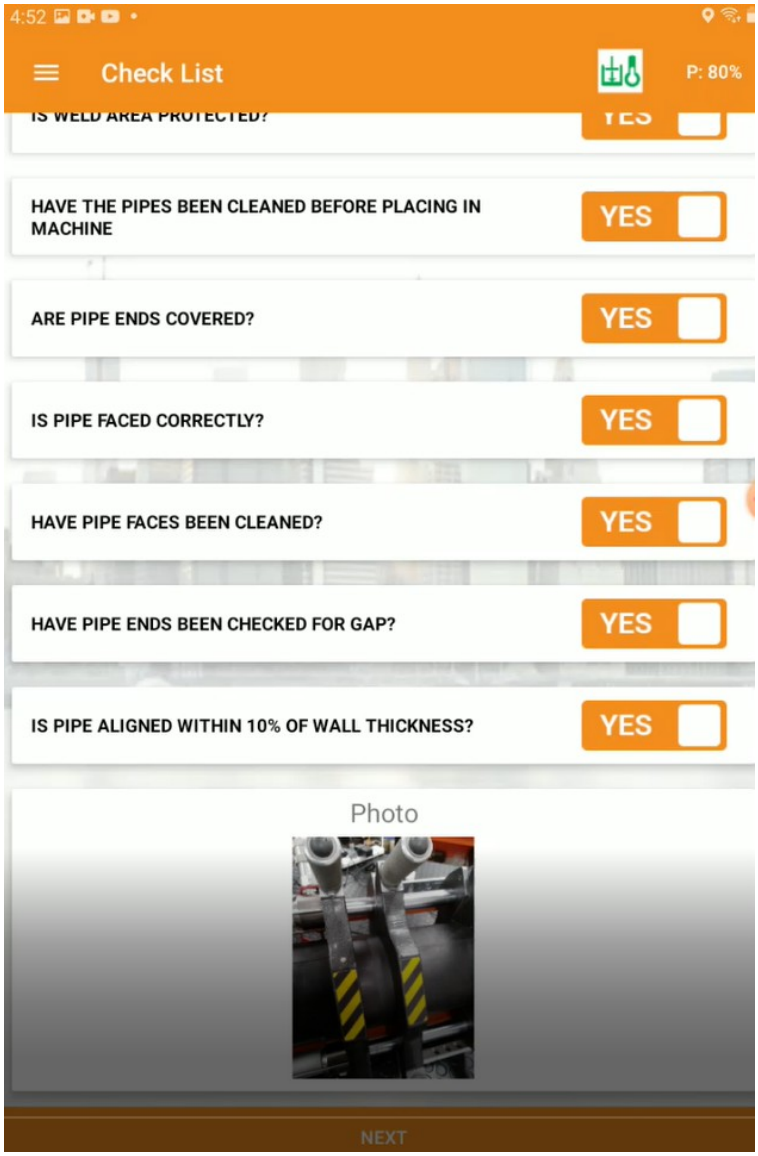
From this screen you will need to select a Machine.
Machines can be added and edited from within this app or from the FMS.
Note: You must have Admin access to set up projects, however User or Admin may select a machine to use.
By selecting machine it will use stored hydraulic ram information for pressure calculations, and machine data in reports.

Pipe / Fitting selection



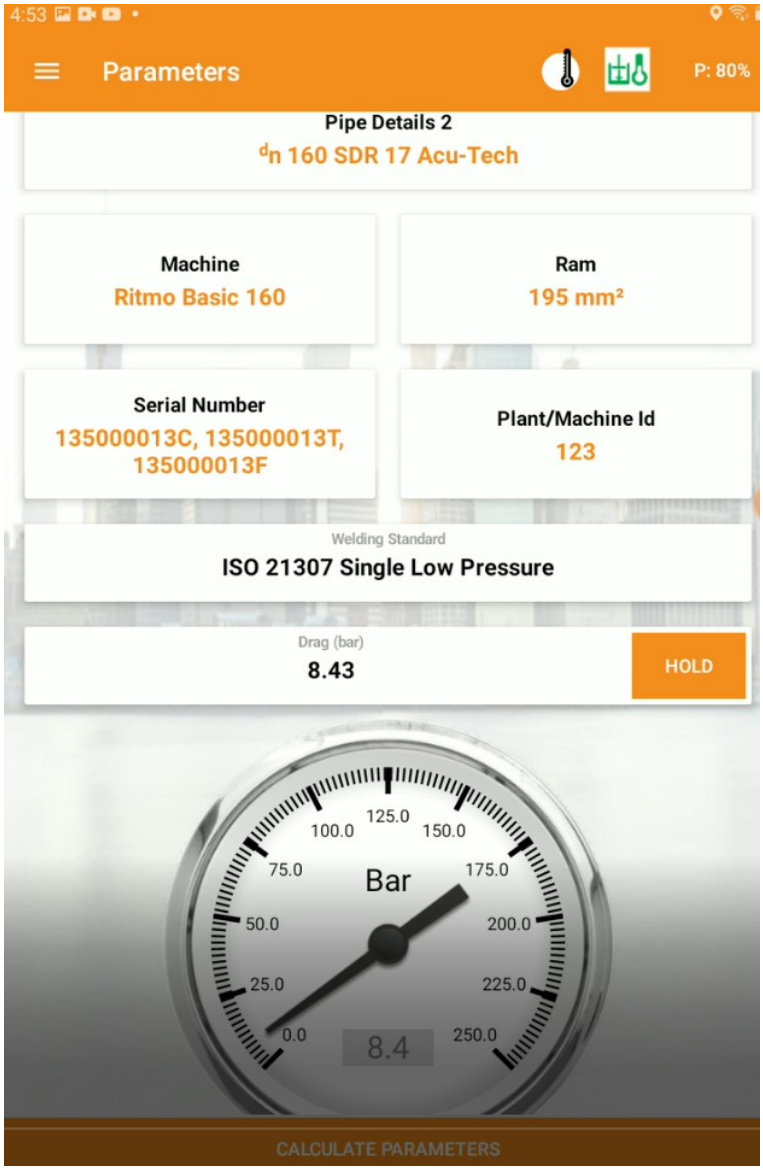
From this screen you will need to select a Pipe size and SDR, pipe wall thickness is automatically calculated but can be adjusted manually.
Manufacturer, Type and Profile fields are optional.
Pipe data can be added and edited from within this app or from the FMS.
Note: You must have Admin access to set up projects, however User or Admin may select a machine to use.
By selecting machine it will use stored hydraulic ram information for pressure calculations, and machine data in reports.

Pre weld check list



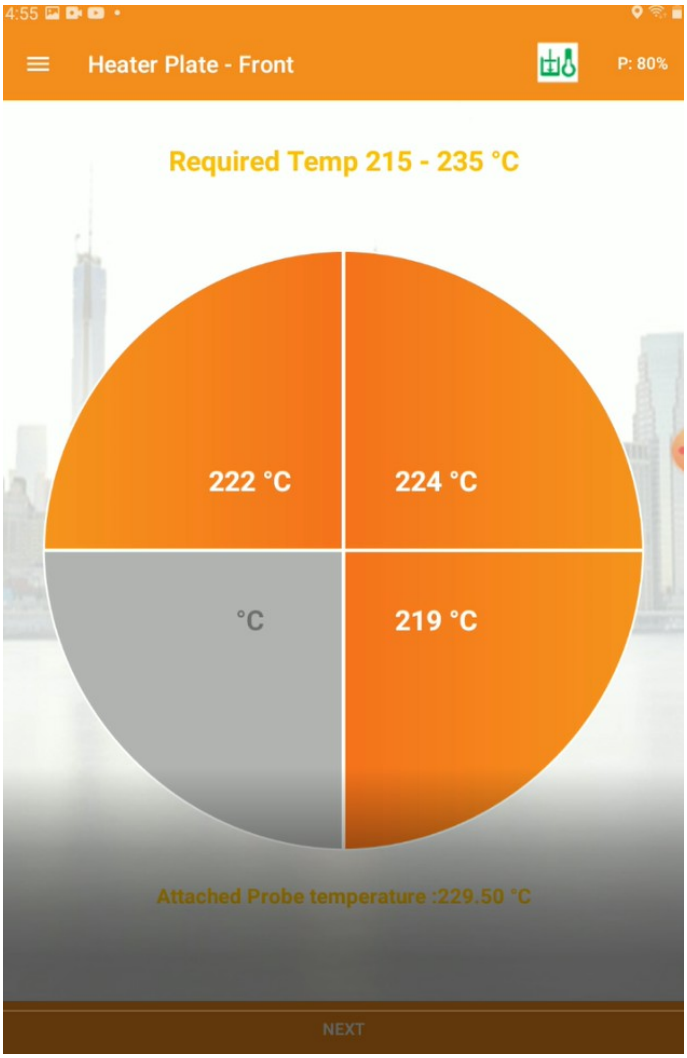
This check list has 7 optional questions, these questions default to NO and are included on reports, however you do not need to answer these to be able to move onto the next screen.
Upon selecting yes to the last question the camera will be activated to allow user to take a photo of pipe alignment and gap.

Parameters



The Parameters screen displays a review of pipe and machinery and asks user to enter preferred welding standard, this preference is set as a default until the start of a new session.
The drag also needs to be entered in this screen.
Note: The Pressure Gauge will be active only when sensor set is supplied and paired.

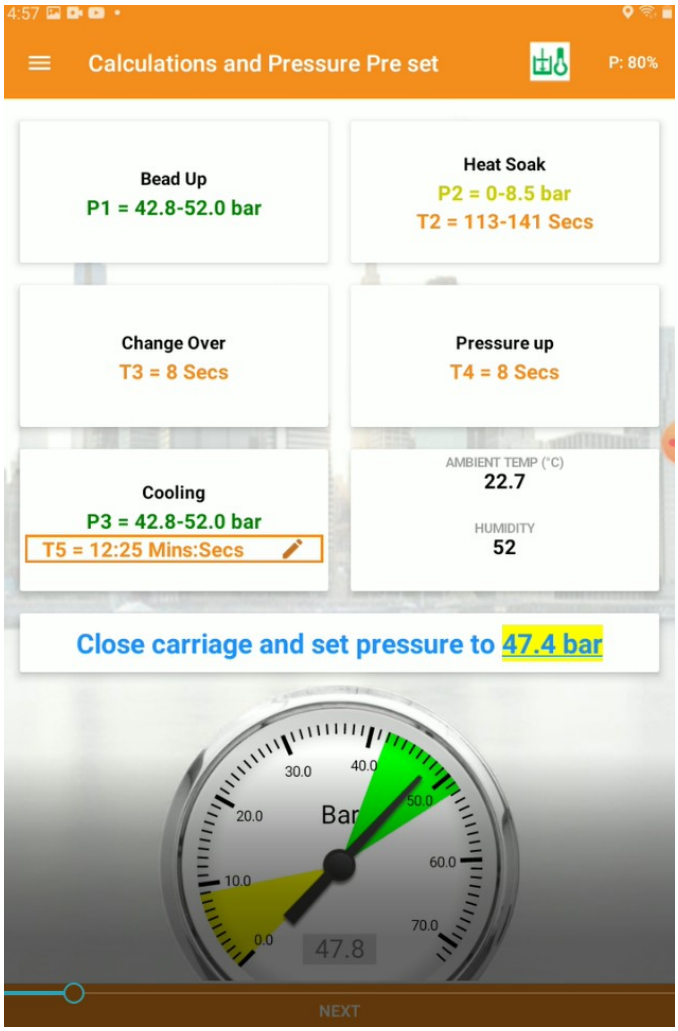
Check Heater plate



When connected to temperature sensor set, this screen automatically logs temperature during Bead up and heat soak phases, also using the supplied surface temperature probe the user can accurately record the surface temperature at the start of the welding session or at the start of every weld or turn to manual entry,

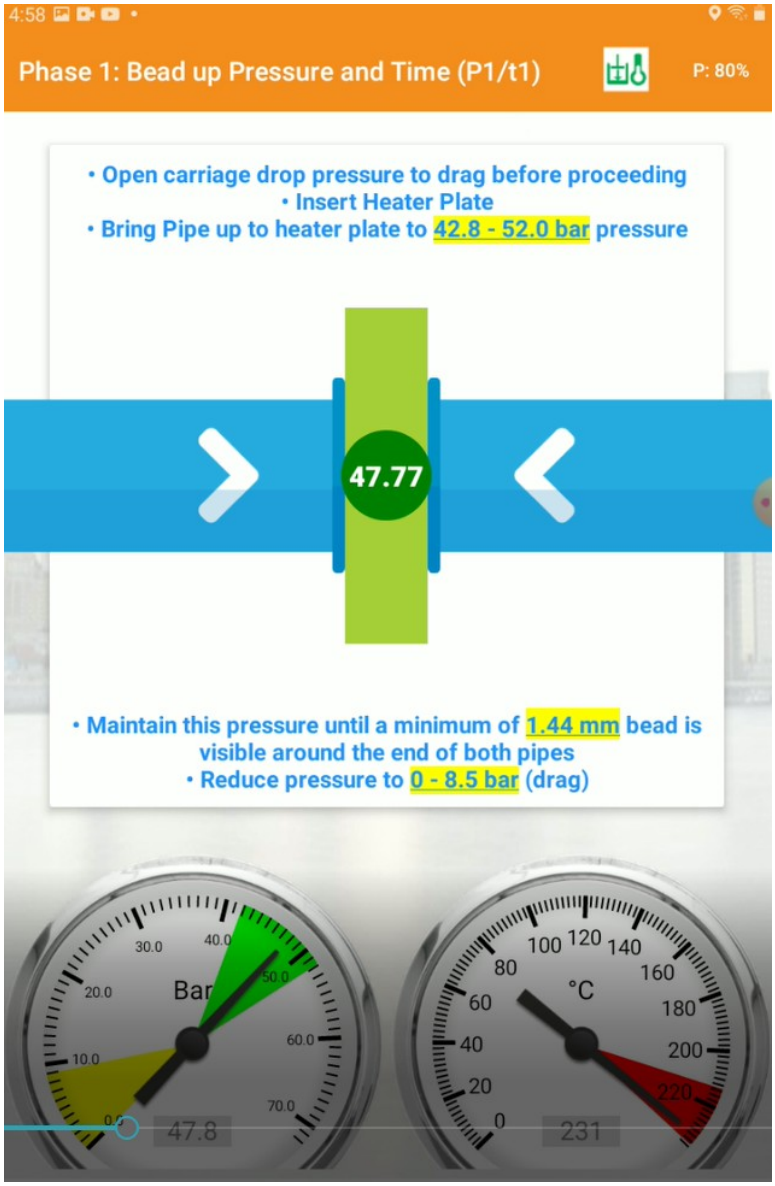
This temperature recording options can be adjusted within system settings

Calculation and Pressure Pre set



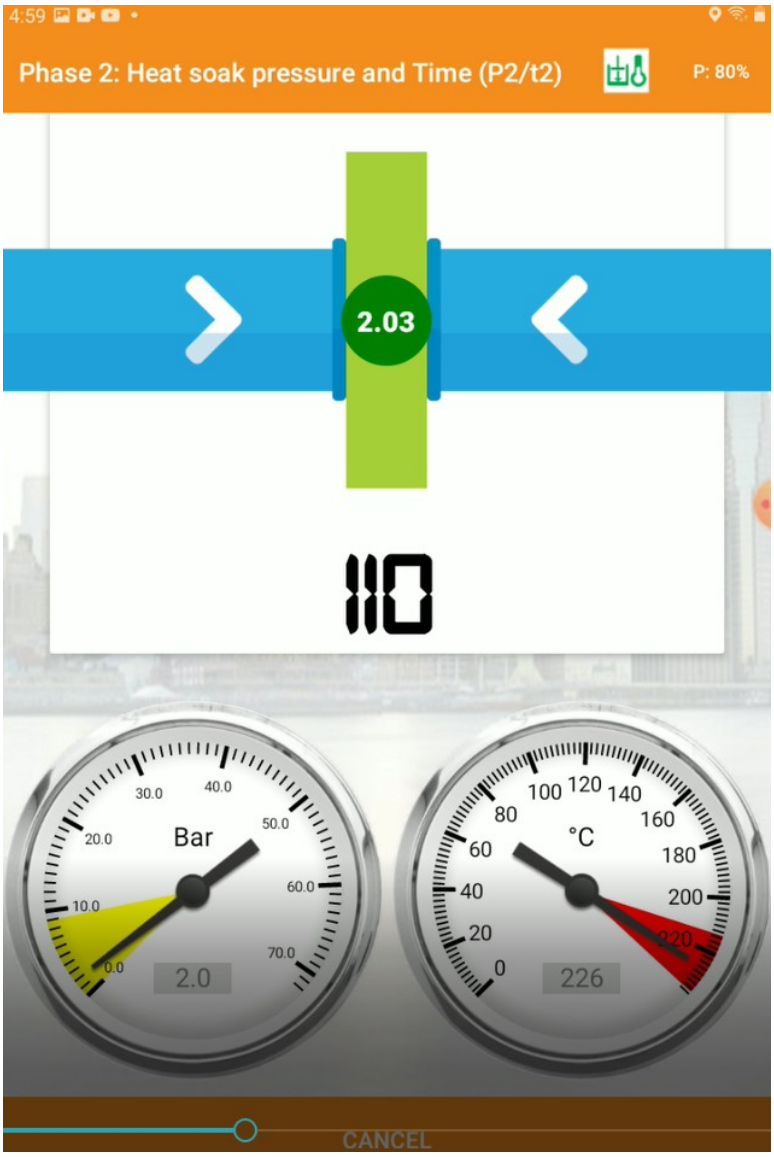
When connected to pressure sensor set, this screen automatically logs Ambient temperature and Humidity, if not connected to sensor set these can be added manually.
This screen also allows the user to manually adjust T5 cooling time to allow for Reduced cooling times or extending the time when allowance for rough handling is required. This adjustment is noted on weld reports!
Most importantly the user must set pressure for Phase 1 and Phase 5 at this point.

Phase 1: Bead up



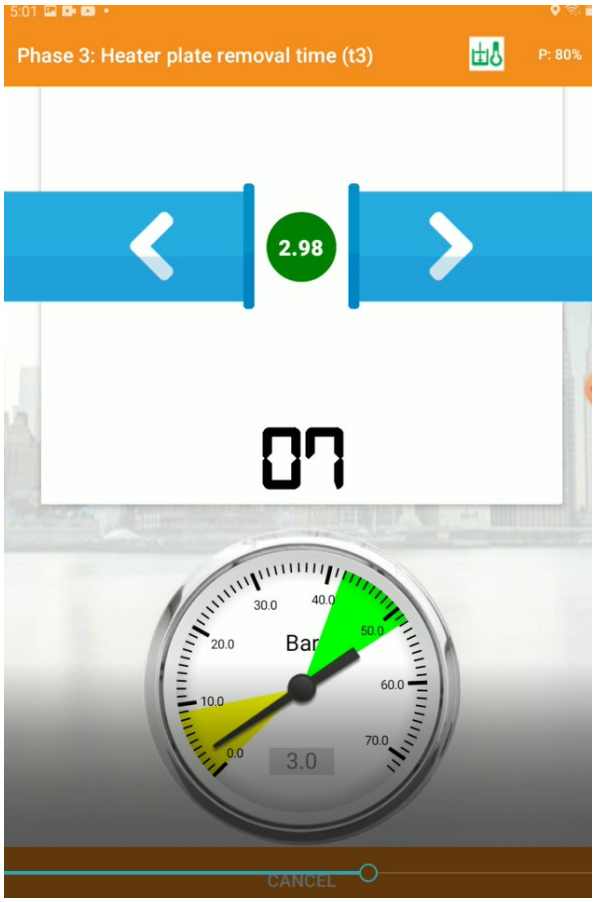
Phase 1 screen Instructs the user what to do and when to reduce pressure to Drag. Temperature can also be monitored during this Phase

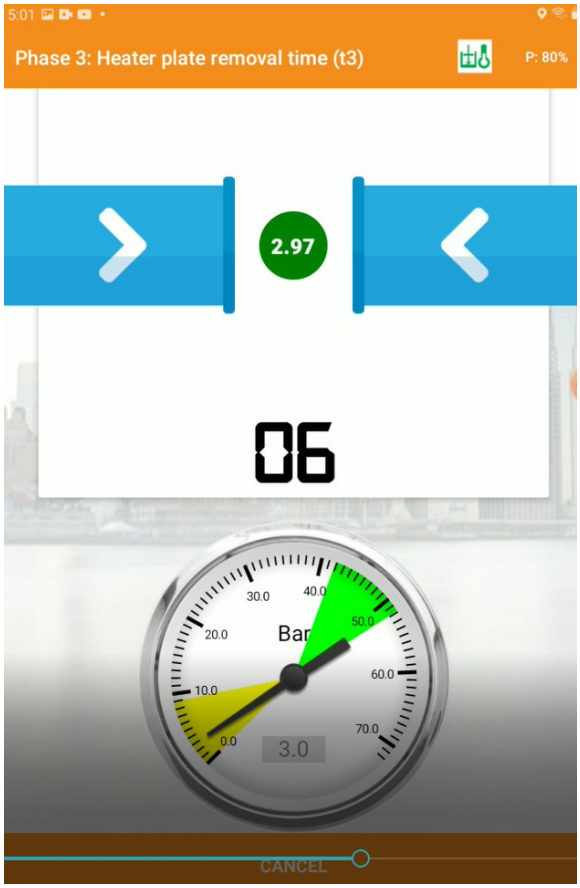
Phase 2: Heat Soak



After bead up as soon as user drops to Drag pressure or below the Heat soak timer begins count down (the pressure is recorded during this phase)

Phase: 3. Heater Plate Removal

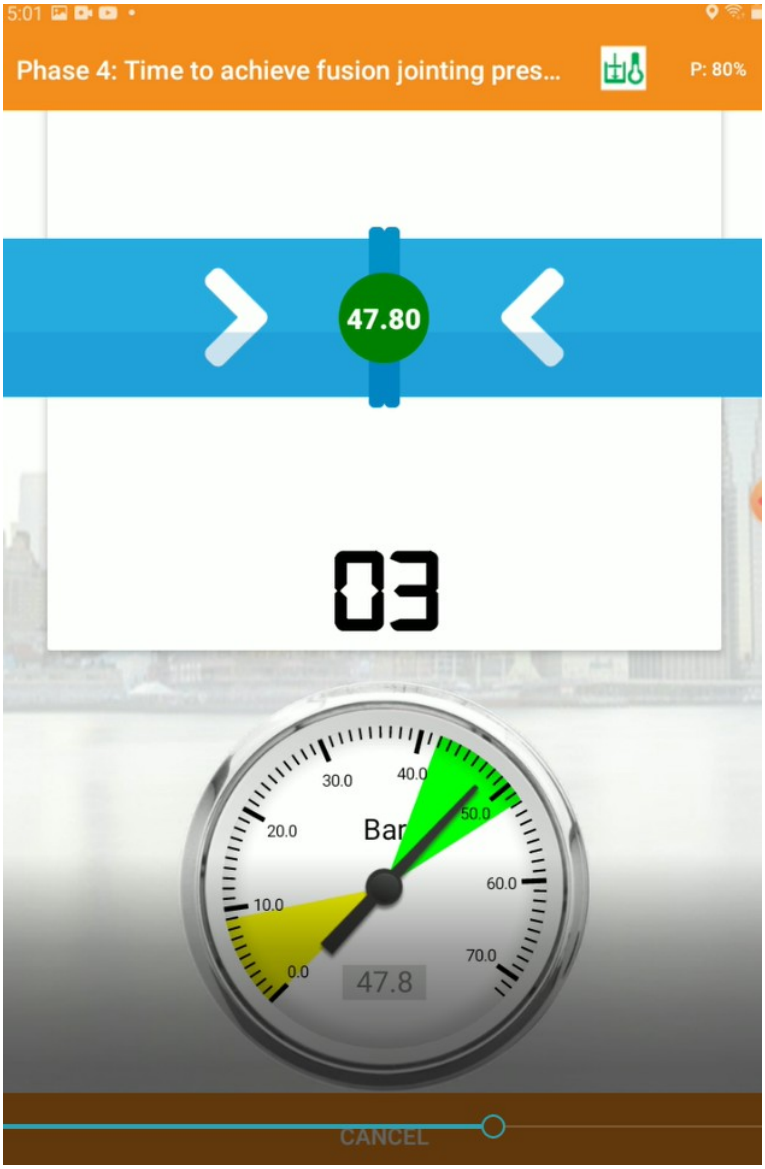




User is notified by a alarm to remove heater plate and bring ends back together within displayed time

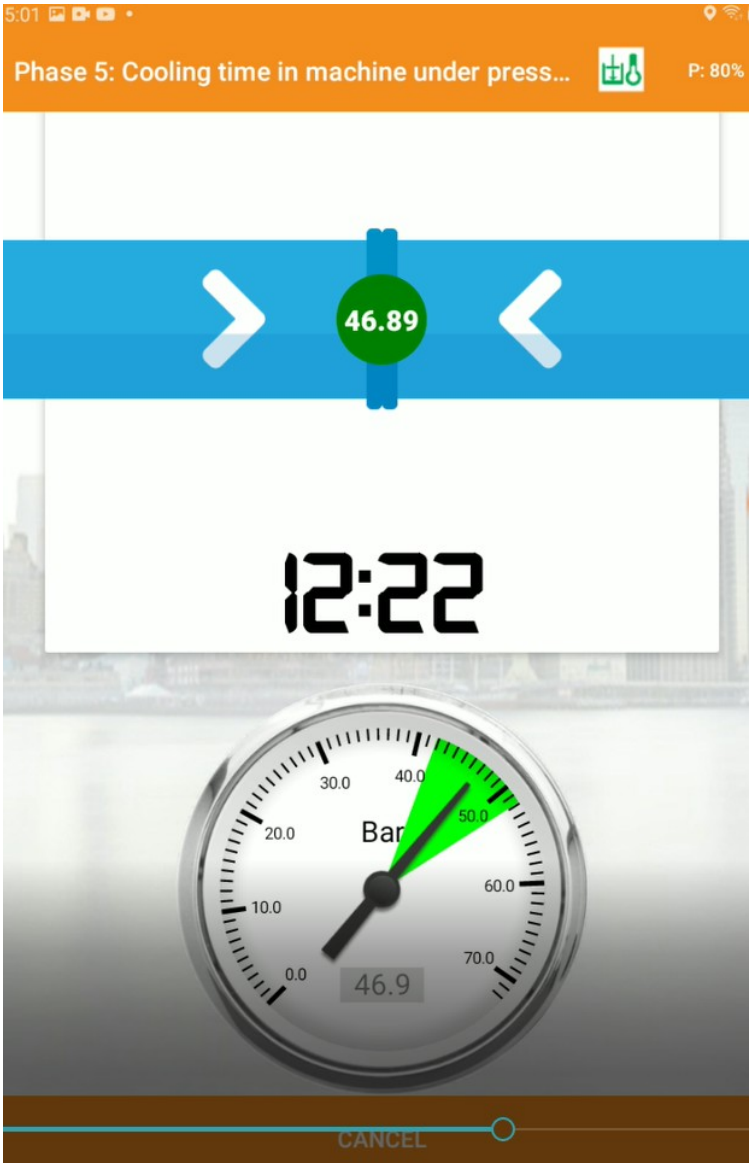
Phase 4: Pressure up

(for high Pressure welding this Phase is incorporated within Phase 3)



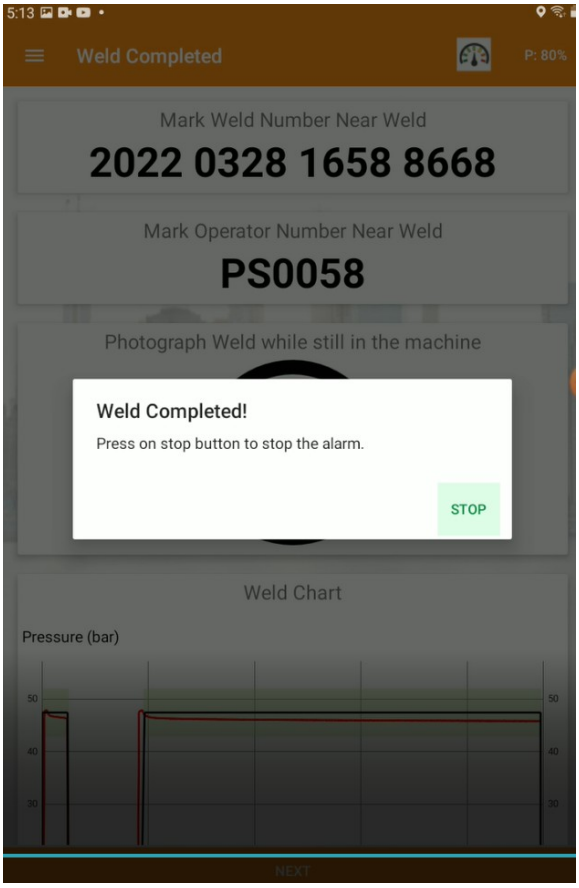
User is notified by a alarm to bring ends back up to weld pressure within displayed time.

Phase 5 Cooling time in Machine under Pressure



Timer automatically starts for cooling time

Weld Completed



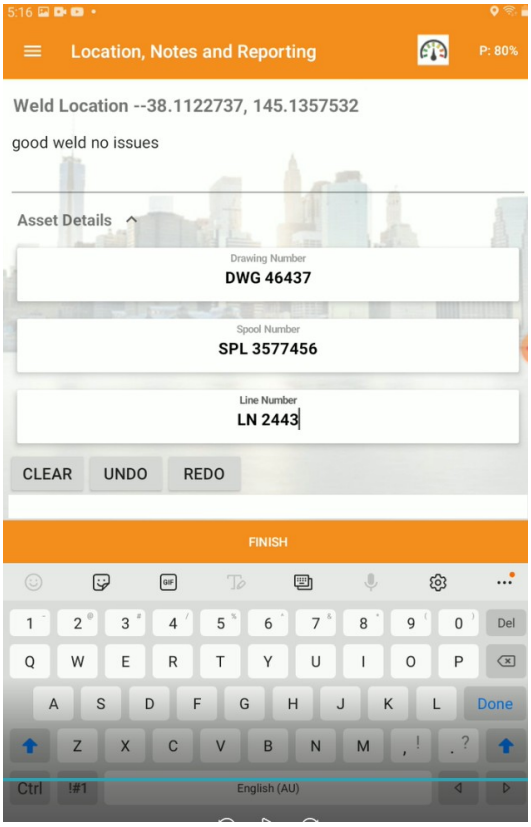
Once weld is completed the user is prompted to mark the unique weld number and welder id onto the pipe next to the weld
The unique number is made up from the following information.

Year					Month		Day			Hour		Minute			Part of user ID	FMS created from project			
2	0	2	2		0	3	2	8		1	3	3	7		8	6	6	8	-

The user is prompted to take a photo including the unique ID number of completed weld while still in machine.

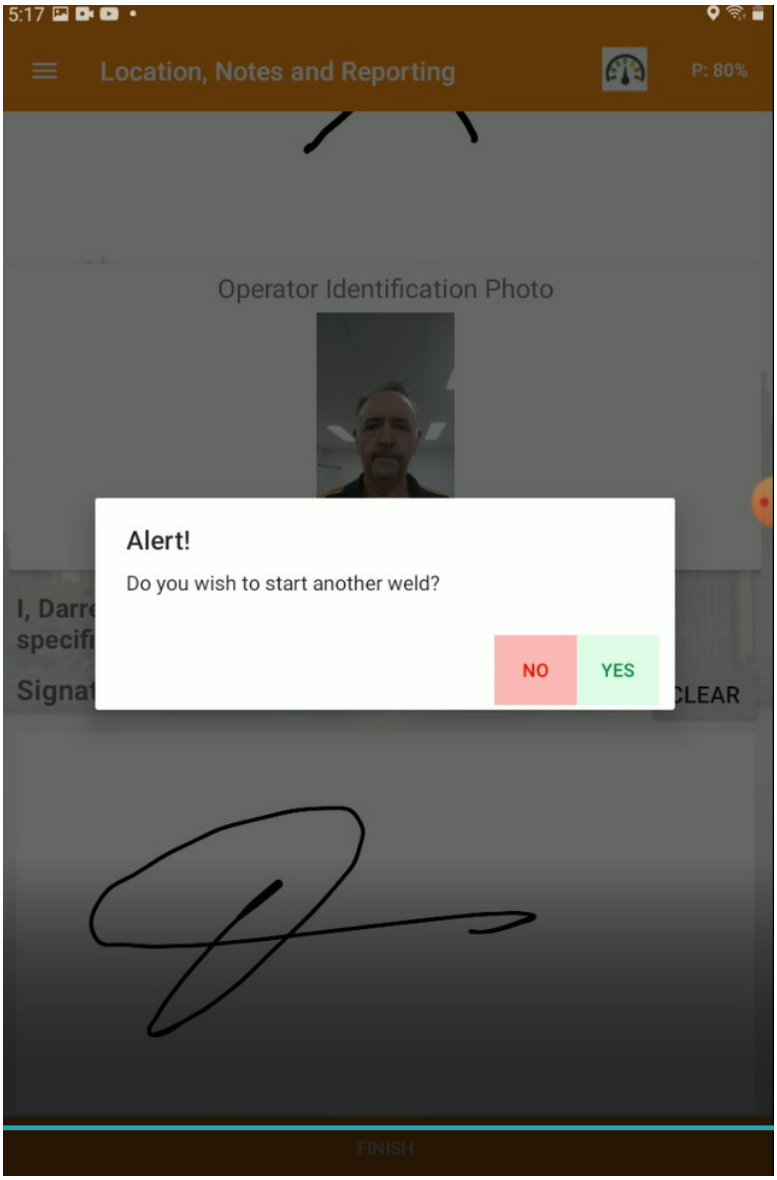
The graph gives the user the opportunity to review the weld before progressing.

Location, Notes and Reporting



The GPS is automatically recorded and displayed in this screen
The User can also enter comments
And further Asset details including :
Drawing Number
Spool Number
Line number
There is an area here to include a ;
Sketch
Operator Identification Photo
Operator Signature
The information here is not compulsory except for the signature.

Do you wish to start another weld



At this point the user can choose to finish the session or continue to another weld, if they choose to continue they are taken back to the check list screen and all other data parameters are still set to the same as previous weld.
If the user choses No the system returns to the Home screen

Basic Welding Machine Operating Procedure

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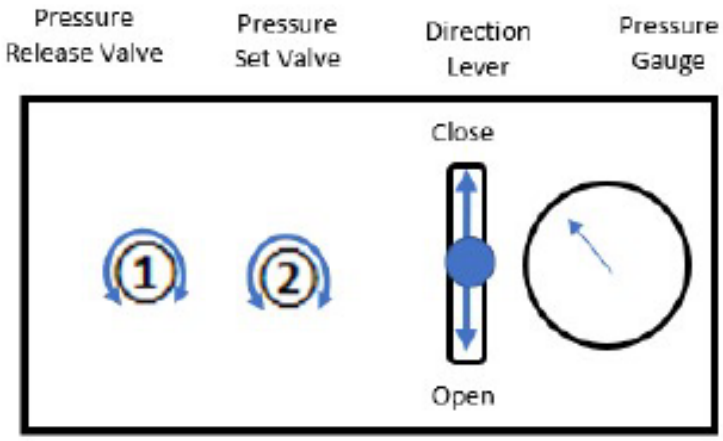
Hydraulic Valve Control Sequence when using PEWeldBank (On demand flow)



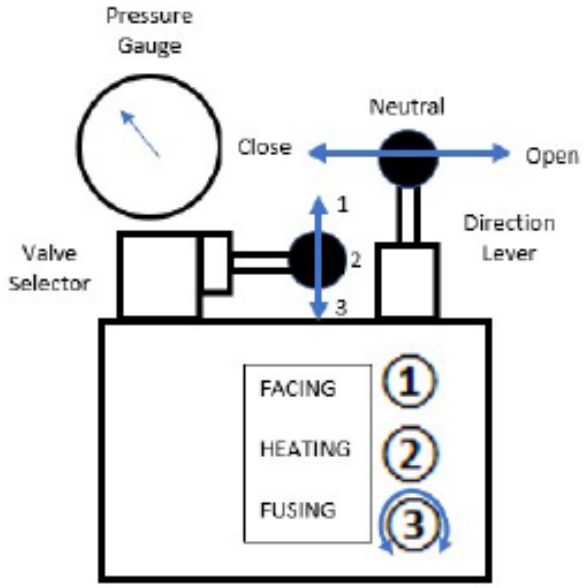
Generic Pressure control unit. Most basic units run similarly but valves may be arranged differently.

After Facing, cleaning, alignment and Recording Drag pressure

1. Close Pressure Release Valve ①
2. Close carriage and set Pressure Set Valve ② to XX bar
3. Press [NEXT] on PEWeldBank.
4. Open carriage this will drop pressure to drag or less.
5. Insert Heater Plate.
6. Bring Pipe up to heater plate to XX bar pressure and hold Direction Lever for several seconds.
7. When you have bead up size
8. Reduce to 0-Drag Using Pressure Release Valve ①
   And Wait for Heat Soak Time.
8. Open Carriage: Just enough to remove heater plate.
9. Remove Heater Plate and Close carriage, hold Direction Lever for several seconds.

(Continual flow:- Hydraulic pump runs continually,
On demand flow :- Hydraulic pump only runs when lever activated)

Valve Control Sequence when using PEWeldBank (Continual flow)



After Facing, cleaning, alignment and setting Heating / Drag pressure.

1. Close carriage and set Fusing pressure valve ③ to XX bar
2. Press [NEXT] on PEWeldBank
3. Open carriage ALL THE WAY this will drop pressure to drag or less.
4. Insert Heater Plate
5. Bring Pipe up to heater plate to XX bar pressure
6. When you have bead up size
7. Reduce to 0-Drag

To do this correctly you must move "Valve Selector" to 2 position and wait for pressure to drop to below drag, then move "Direction Lever" to neutral. And Wait for Heat Soak Time

8. Open Carriage:, move "Valve Selector" down to Fusion Position 3, move "Direction Lever" to the right, just enough to remove heater plate.
9. Remove Heater Plate and Close carriage.
10. To avoid pressure spike, slow carriage speed just before closure.

(Continual flow:- Hydraulic pump runs continually,
On demand flow :- Hydraulic pump only runs when lever activated)

Review welds and add second GPS location

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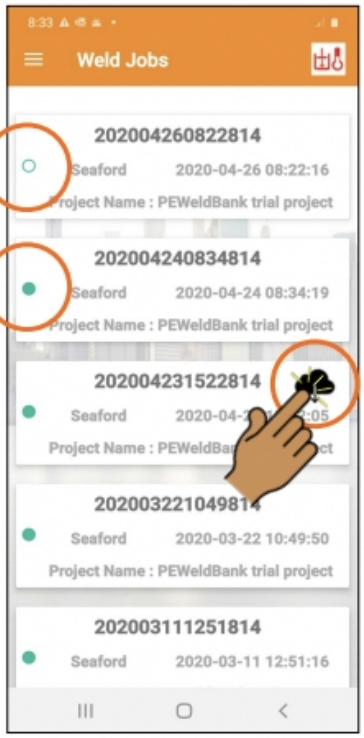
How to Review Welds on Smartphone or Tablet

Go to the **HOME SCREEN**
Click on **REVIEW WELDS**

Empty green circle indicates that weld has been recorded on Tablet / Phone, but is waiting to be uploaded to FMS

Full green circle indicates that the weld is recorded on Tablet / Phone *and* FMS

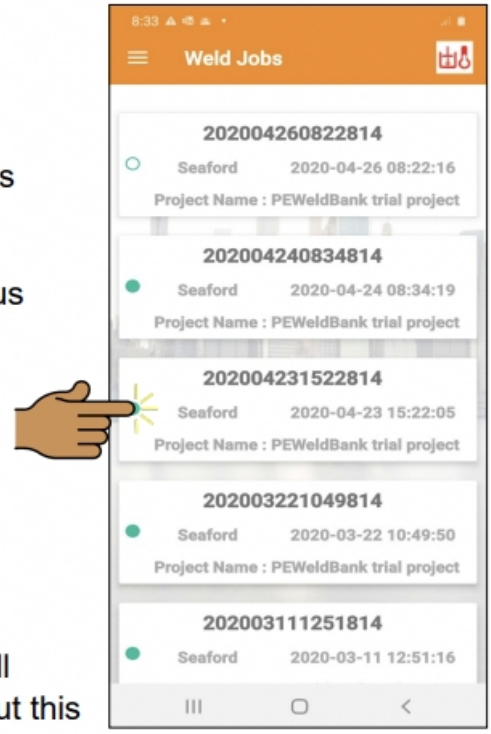
If you see a cloud icon this means this weld is only on the FMS but can be downloaded to the Tablet / Phone by clicking on icon

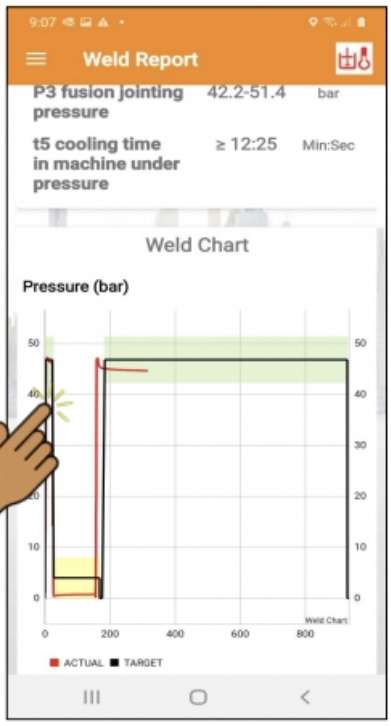


How to Review Welds - Insert 2nd GPS Location

A valuable feature of ***PEWeldBank*** is the ability to add a 2nd GPS location. This is particularly useful where the installation location is different to where the welding was undertaken.

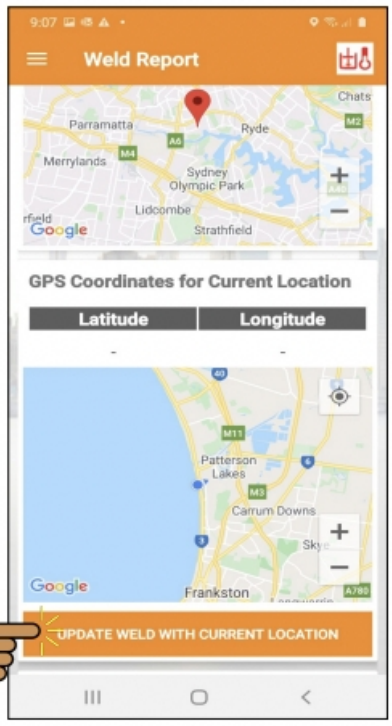
From the Review Welds screen (see previous page), select a weld you want to review or add the second GPS location.





The on-screen Report shows all information about this weld

Zoom into graph to see finer detail



Scroll down further to find the GPS location.

Click here to update weld location, this does not change original information it simply adds a second GPS location for this weld which will be available on reports.

Trouble shooting

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Troubleshooting

Pressure Sensor		
Problem	**Reason**	**Solution**
No fast flashing blue status light on sensor	Sensor connected to wrong side of hydraulics	Make sure it is connected to closing side of hydraulics (this is generally the cylinder inlet closest to middle of machine see photo)
	Sensor not connected to hydraulic with	Connect transducer cable to transducer and sensor and increase pressure, fast flashing should start within 10 seconds
	Orange transducer connected to wrong port on sensor	Connect transducer cable to Port "1" on sensor
	Battery low or flat on sensor	Charge sensor until Charging light shines green
		Check operation of sensor by momentarily removing and replacing battery, Blue Status light should flash fast
Zero pressure reading on smartphone		Check above information
I have fast flashing blue light but wont connect to smartphone	Bluetooth turned off in smartphone	Turn Bluetooth to on in smartphone
		Smartphone must be connected to internet for initial pairing
	Camera disabled	Allow camera settings in smartphone
		Try connecting to nearest sensor rather than scanning qr code
	Not paired	Check in PEWeldBank on smartphone settings > sensors, your sensor should be listed here (check that the number matches number on sensor) delete any sensor not currently required
	Battery low or flat on sensor	Charge sensor until Charging light shines green
	Battery low or flat on smartphone	Charge smartphone
	Sensor not connected to	Check above information
Zero pressure reading on smartphone		Check above information
Pressure reading on Machine Gauge is different to smartphone	Machine Gauge is probably incorrect	All PEWeldBank transducers are highly accurate and calibrated when packed, if concerned have your gauge tested.

Troubleshooting

Temperature Sensor		
Problem	**Reason**	**Solution**
No fast flashing blue status light on sensor	Surface Probe not in contact with Hot heater plate	Hold Surface Probe against Hot heater plate for at least 10 seconds this will activate sensor
	Battery low or flat on sensor	Charge sensor until Charging light shines green
	Surface Probe not connected to correct port on sensor	Connect Surface probe to "Fixed" port on sensor
		Check operation of sensor by temporally removing and replacing battery, Blue Status light should flash fast
I have fast flashing blue light but wont connect to smartphone	Bluetooth turned off in smartphone	Turn Bluetooth to on in smartphone
		Smartphone must be connected to internet for initial pairing
	Camera disabled	Allow camera settings in smartphone
		Try connecting to nearest sensor rather than scanning qr code
	Not paired	Check in PEWeldBank on smartphone settings > sensors, your sensor should be listed here (check that the number matches number on sensor) delete any sensor not currently required
	Battery low or flat on sensor	Charge sensor until Charging light shines green
	Battery low or flat on smartphone	Charge smartphone
	Surface probe must be held against heater plate	Hold Surface Probe against Hot heater plate for at least 10 seconds this will activate sensor
Temperature reading on heater plate controller is different to smartphone	Temperature reading is possibly incorrect or reading core temperature, not surface temperature	All PEWeldBank surface probes are accurate and calibrated when packed, if concerned have your heater plate independently tested.

Calibration Details

In accordance with
ASTM F3124-15. Standard Practice for
Data Recording the Procedure used to Produce Heat Butt Fusion Joints in Plastic Piping Systems or Fittings.

GOPOLY Pty Ltd (the manufacturer of the PEWeldBank sensor set) recommends bi-annual calibration. However, local governance may have different requirements, so we suggest that you check with the relevant authorities in your area.

Pressure Transducers come with a 5-year performance guarantee from the instrument manufacturer, the Pressure Transducers can be tested / compared against qualified instruments.

Surface Temperature Probes come with a 2-year performance guarantee from the instrument manufacturer. The Surface Temperature Probes can be tested / compared against qualified instruments.

Independent Laboratory Testing / Calibration may be requested in some cases. If so, we recommend that you contact your local PE Weld Bank reseller or a local testing / calibration laboratory to calibrate Pressure Sensor /Transducer and Temperature Sensor / Surface Temperature Probe, or return to GOPOLY for this service.

PEWeldBank

Appendix 1 Connection of Hydraulic test point

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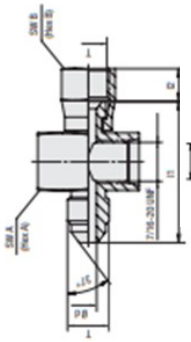
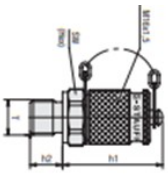
Appendix 1a
Ritmo Basic with steel case

N.B. first ensure that the power is disconnected & there is no pressure in system.
Remove hydraulic hose from control box (Closing pressure side)
Fit “Stauff Swivel run tee”
Fit hydraulic hose to “Stauff Swivel run tee”
Fit “Stauff Test point”
Fit PEWeldBank Transducer to Stauff test point 20.

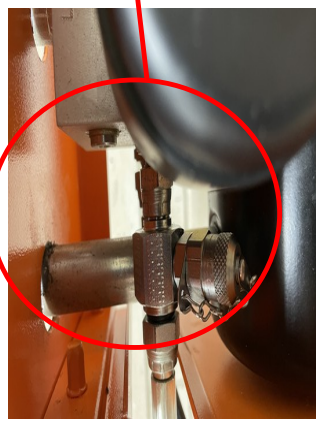


Line item “1”



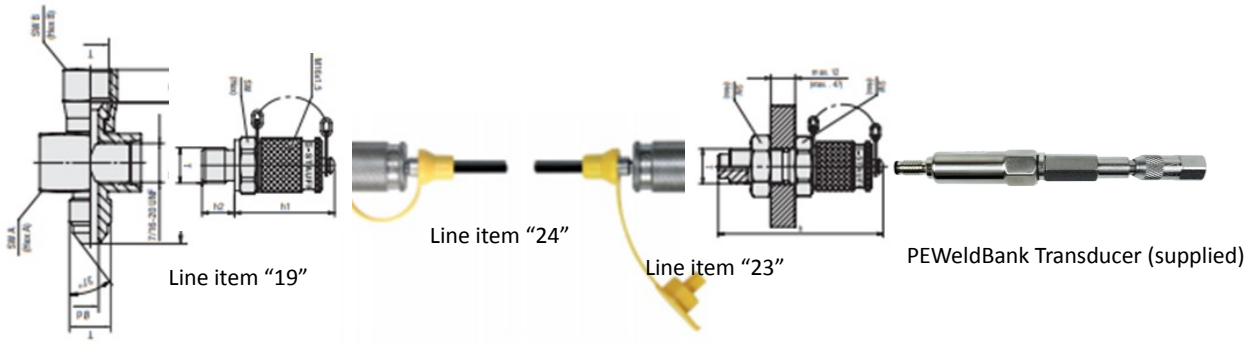
Line item “19”

PEWeldBank Transducer (supplied)



Appendix 1b
Ritmo Basic with Plastic case

N.B. first ensure that the power is disconnected & there is no pressure in system.
You will need to remove top cover from control box.
Remove hydraulic hose from control box
Fit item “1”
Fit hydraulic hose to item “1”
Fit item “19 to 1”
Drill hole into plastic case and fit item “23”
Connect Line item 24 to item 19 and Line item “23
Fit PEWeldBank Transducer to item “23”



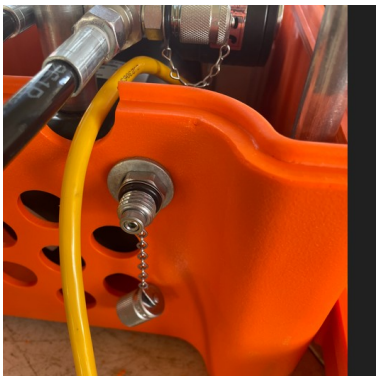
Line item “1”

Line item “19”

Line item “24”

Line item “23”

PEWeldBank Transducer (supplied)

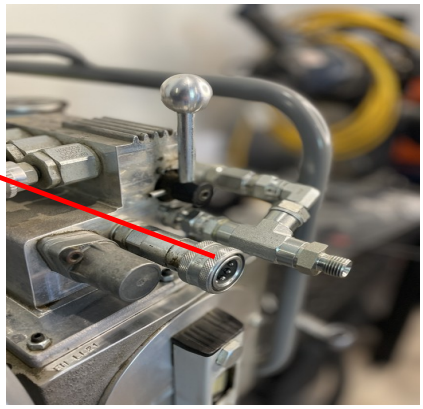


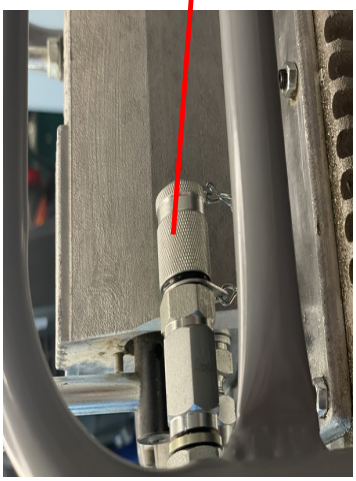
Appendix 1c
Dixon EHF 225 & 350

N.B. first ensure that the power is disconnected &there is no pressure in system.
Remove male quick connect fitting and washer leaving the hex nipple in the block
(Hava a rag handy as there may be an amount of hydraulic oils leackage)
Fit assembly

Refit washer and quick male connect fitting

Fit PEWeldBank Transducer





Assembly available from PE Weld Bank reseller

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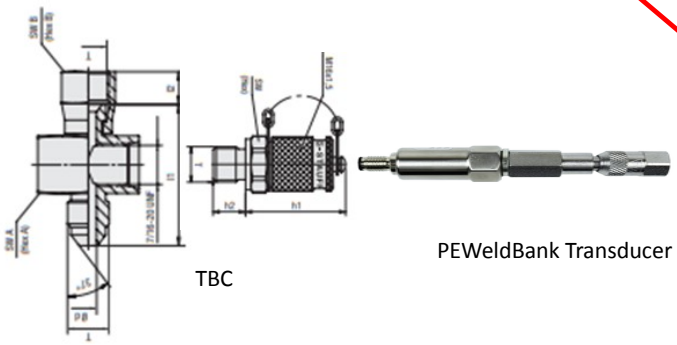
Appendix 1d
+GF+ TM Series

N.B. first ensure that there is no pressure in system.
Remove male quick connect hydraulic coupling from control box
Fit TBC
Re-Fit male coupling to “TBC”
Fit “TBC
Fit PEWeldBank Transducer to TBC



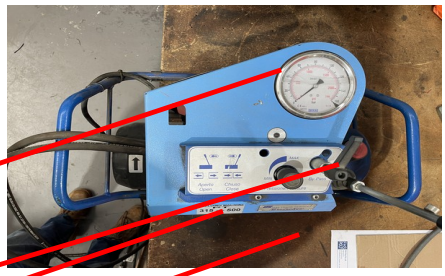
TBC

PEWeldBank Transducer (supplied)

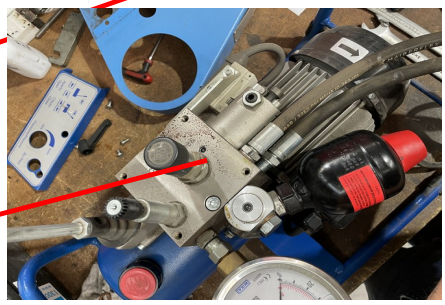
TBC

Appendix 1e
Technodue PT 160-500

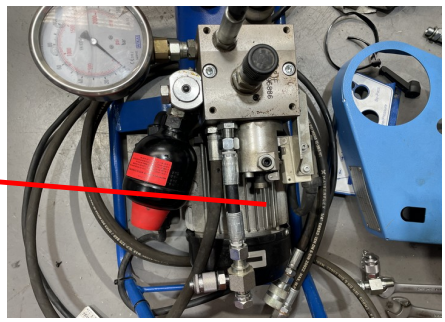
N.B. first ensure that the power is disconnected & there is no pressure in system.



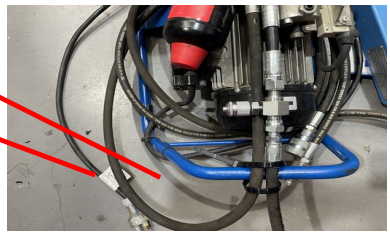
Remove lever from valve
Remove top cover plate
Remove lower cover plate

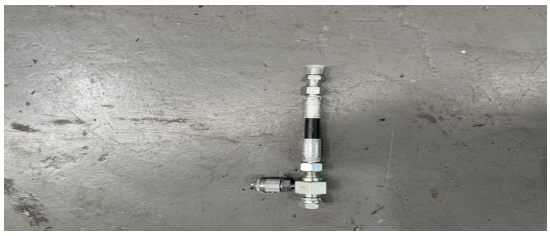


Remove hydraulic hose from port "A"
(Have a rag handy as a little oil may escape.)
Fit assembly into Port "A"



Replace hydraulic hose to Assembly
Fit a cable tie to frame
Replace lower cover plate
Replace top cover plate
Replace lever to valve

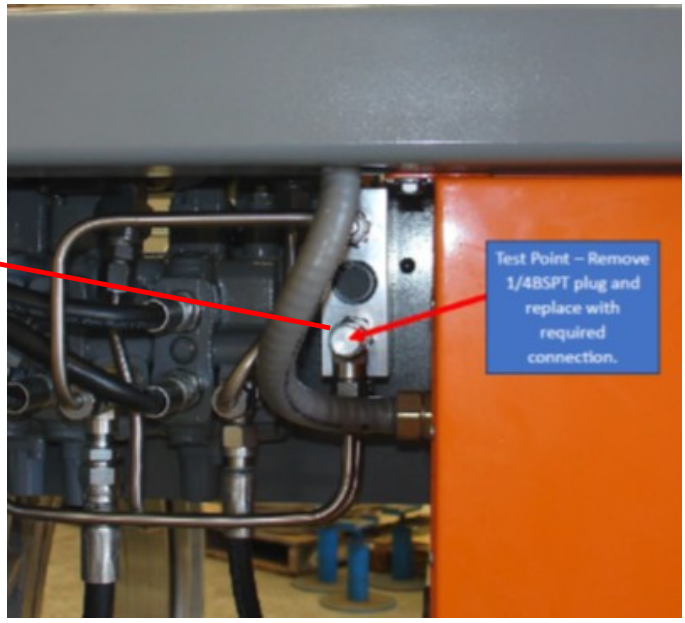


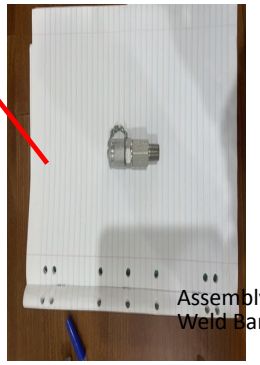


Assembly available from PE Weld Bank reseller

Appendix 1f
Dixon EHF 450 & 630

N.B. first ensure that the power is disconnected there is no pressure in system.
Remove 1/4" plug
(have a rag handy as there may be an amount of hydraulic oil leakage)
Fit Test point 20 assembly with 1/4" male tapered fitting,. Use Teflon or hydraulic thread sealant.





Assembly available from PE Weld Bank reseller

Test 20 with 1/4" BSPT adaptor

Appendix 1g
Worldpoly WHD Control box

N.B. first ensure that the power is disconnected there is no pressure in system.

Remove 1/4” plug or transducer (have a rag handy as there may be an amount of hydraulic oil leakage)
Fit Test point 20 assembly with 1/4” male tapered fitting,. Use Teflon or hydraulic thread sealant.

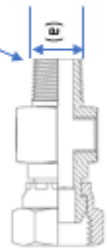
Assembly available from PE Weld Bank reseller

Test 20 with 1/4” BSPT adaptor
(Item # Test Point 002)

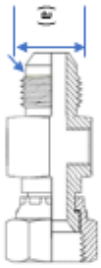
Please contact your local hydraulics company or PEWeldBank reseller for fittings.
The following is a guide, we will add to this as more information becomes available.

Hydraulic Test Port Tee Identification

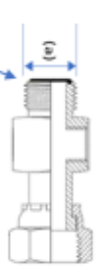
Line No	"BSPT" Male x BSPP Female Swivel BSPP Test Port Tee			
	Part Number	Description	OD mm (a)	Price
1	BTM-BSF-BPF-0404	1/4 BSPT M/F Test 1/8 BSPP	13.03±	
2	BTM-BSF-BPF-0608	3/8 BSPT M/F Test 1/8 BSPF	16.50±	
3	BTM-BSF-BPF-0808	1/2 BSPT M/F Test 1/8 BSPP	20.59±	
4	BTM-BSF-BPF-1212(	3/4 BSPT M/F Test 1/8 BSPPF		
5	BTM-BSF-BPF-1616(	1 BSPT M/F Test 1/8 BSPPF		



	"JIC" Male x JIC Female Swivel BSPP Test Port Tee			
	Part Number	Description	OD mm (a)	
6	JIM-JIF-BPF-070702	7/16 JIC M/F Test 1/8 BSPPF	10.97±	
7	JIM-JIF-BPF-090902	9/16 JIC M/F Test 1/8 BSPPF	14.13±	
8	JIM-JIF-BPF-121202	3/4 JIC M/F Test 1/8 BSPPF		
9	JIM-JIF-BPF-141402	7/8 JIC M/F Test 1/8 BSPPF		
10	JIM-JIF-BPF-171702	1-1/16 JIC M/F Test 1/8 BSPPF		
11	JIM-JIF-BPF-212102	1-5/16 JIC M/F Test 1/8 BSPPF		



	ORFS Male x JIC Female Swivel BSPP Test Port Tee			
	Part Number	Description	OD mm (a)	
13	ORM-ORF-BPF-090	9/16 ORFS M/F Test 1/8 BSPPF		
14				
15	G-M0914	NIPPLE 9/16 JIC X 14 METRIC		
16	A-J-0609	ADAPTOR BSPT X 9/16 JIC M/F		
17				
18				



	BSPP Male x Test 20 Male			
	Part Number	Description	OD mm (a)	
19	BPM-TEST-0220	**1/8 BSPPM x TEST 20 M	9.60±	
20	BPM-TEST-0420	1/4 BSPPM x TEST 20 M	10.90±	
21	BPM-TEST-0620	3/8 BSPPM x TEST 20 M	13.05±	
22	BPM-TEST-0820	1/2 BSPPM x TEST 20 M		

** Suits above Test Port Tees

	Test 20 Bulk Head Coupling & hose			
	Part Number	Description		
23	432-5612	Test 20 Bulk Head Coupling		
24	Test 20 hose x 400mm	Test 20 hose x 400mm		

	Misc		
25	BTM-BTM-0404	1/4" BSPTM x 1/4" BSPTM Nipple	
26	BTF-BTF-BTF-0404(	1/4" BSPT Female Tee* TPT	

*branch tapped 1/4" Parallel

Please contact your local hydraulics company or PEWeldBank reseller for fittings.
The following is a guide, we will add to this as more information becomes available.

			Price	
1 19	Ritmo Basic 160-315 in steel case	BTM-BSF-BPF-040402 BPM-TEST-0220		Remove hose from pressure side of block and install these fittings
1 19 23 24	Ritmo Basic 160-315 in Plastic case	BTM-BSF-BPF-040402 BPM-TEST-0220 432-5612 Test 20 hose x 400mm		Remove top from case install tee between hose and block, drill hole in case install 432-5612 fitting then connect with supplied hose
1 19	Omisa Whiteline Basic 160-315 in	BTM-BSF-BPF-040402 BPM-TEST-0220		Remove hose from pressure side of block and install these fittings
15 16 7 19	Riyang (OLD) Silver machine	G-M0914 A-J-0609 JIM-JIF-BPF-090902 BPM-TEST-0220		Remove original nipple and Fit these fittings under accumulator and swing down on 45 degrees
7 19	Worldpoly 160-315 WHD160/315	JIM-JIF-090902 BPM-TEST-0220		Remove hose that connects to block from gauge and install these fittings
21 25 26	Dixon EHF225 & 355	BPM-TEST-0420 1/4" BSPTM x 1/4" BSPTM N 1/4" BSPT Female Tee*TPT		Remove Male Quick connect and install these fittings refit male quick connect
	Technodue			

Appendix 2
Updating Sensor Firmware

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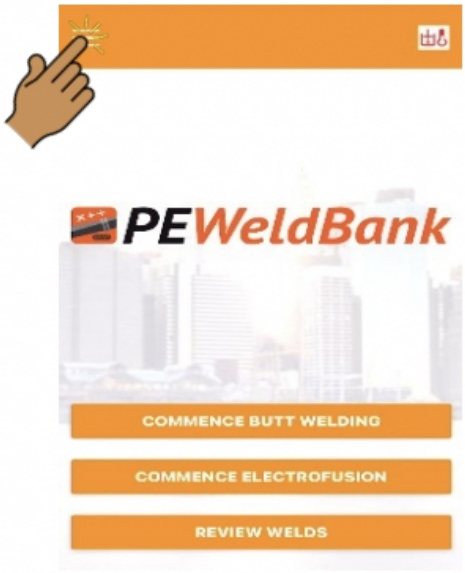
Updating Sensors Firmware

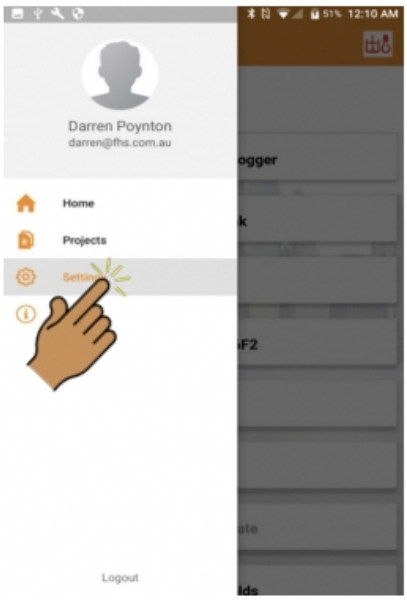
Temperature Sensors V 1.0.9 and Pressure Sensors V 1.3.9 or earlier cannot be updated and must be returned to Flowlogix Pty Ltd for update.

Ensure that Bluetooth is enabled on your smartphone / tablet. Follow the prompts

1. Click **Dropdown Menu**

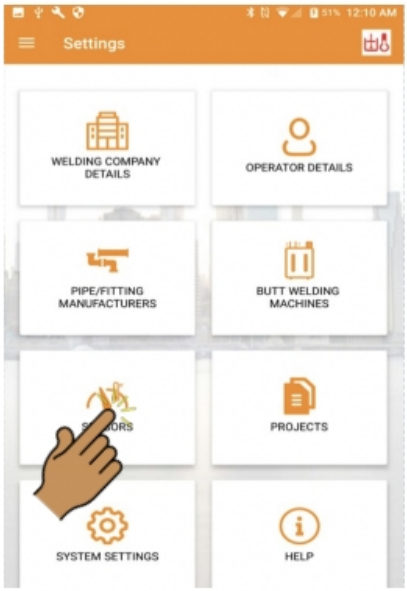


2. Click **Settings**

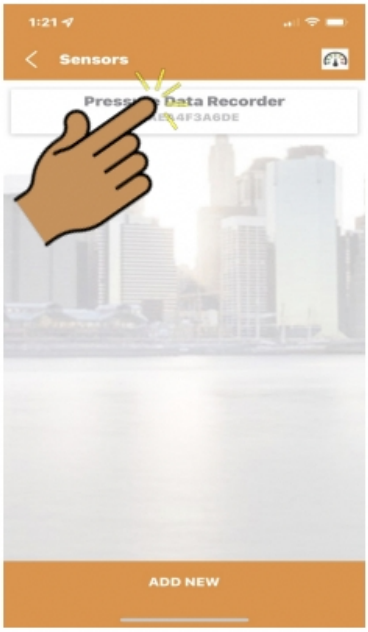


Updating Sensors Firmware

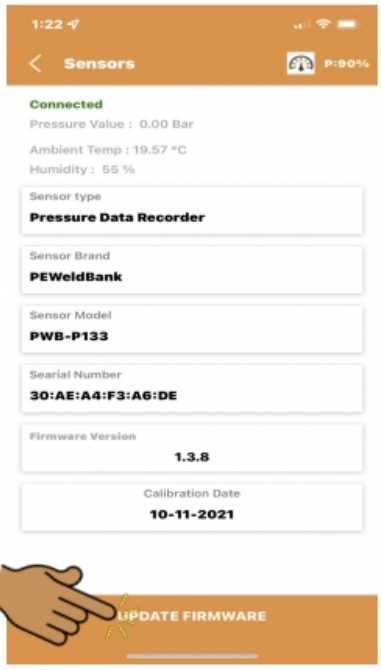
3. Click **Sensors**



4. Click **sensor**

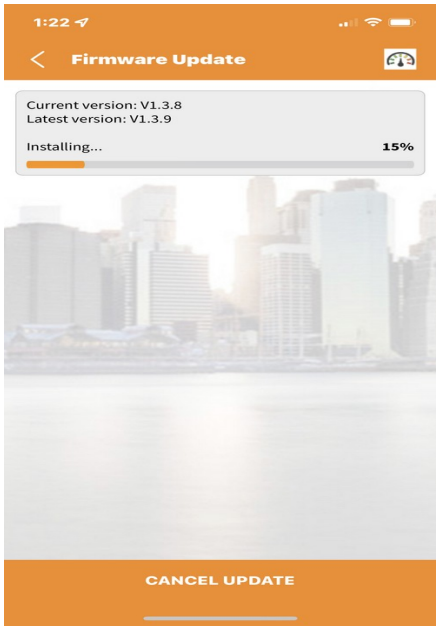


5 Click **Update Firmware**

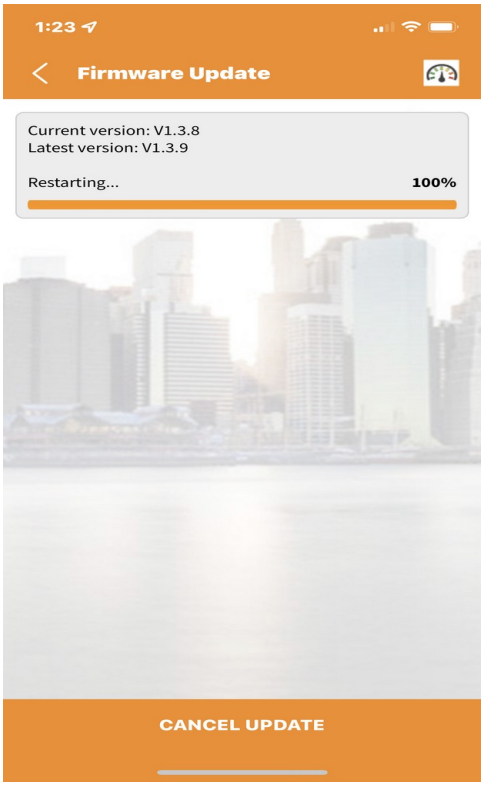


6 Click **Start Update**

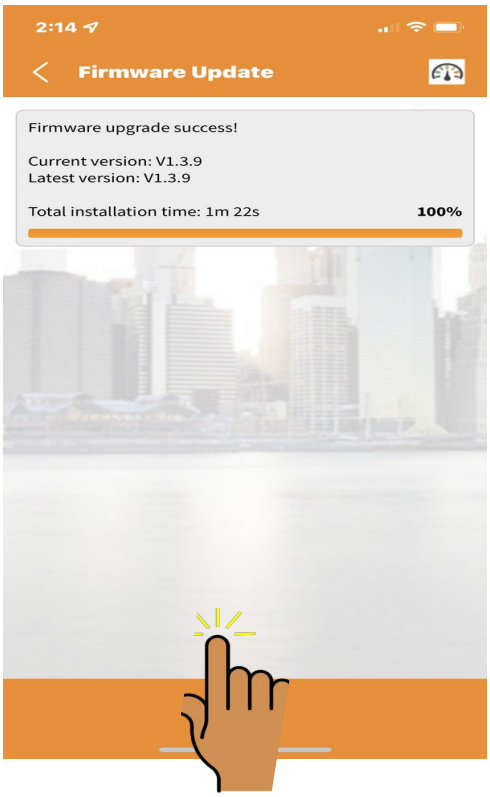
Updating Sensor Firmware



7. Firmware updated



5 Click **Finish**



Appendix 3
Connection to Heater Plate via PT100 internal sensor

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The Sensors dated March 2022 and later allow for connection to the Butt welding machines heater plate internal PT100 probe (where available)

Many machines have provision to plug in a data logger or temperature sensor. i.e. Ritmo, Worldpoly and GF, in most cases this may be used to connect to PE Weld Bank

McElroy and Dixon

Many McElroy and Dixon heater plates have a small temperature gauge inserted into the heater plate this can be removed and a PT100 probe inserted for connection directly to PEWeldBank

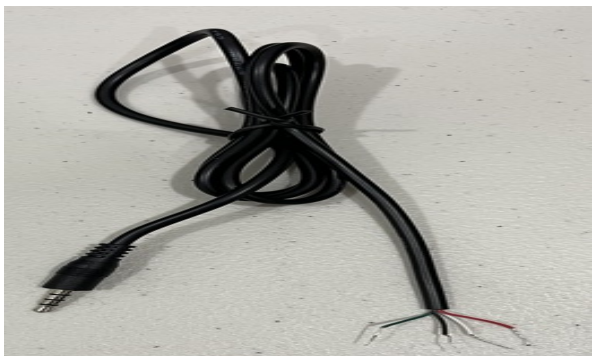
Please note:
The sensor probe (PT100) for the “Fixed Point Sensor” is located internally, close to the centre of the heater plate.
It is normal for it to read at a higher temperature than the “Surface Temperature Probe”.
Zone 1 to 4, Front and Back represent Surface Temperature including the Average.
Fixed Point Sensor represents heater plate internal temperature.

Heater Plate Target (° C)		215-235	
	Front	Back	
Zone 1	226	226	
Zone 2	226	228	
Zone 3	227	228	
Zone 4	226	228	
Average	226.81		At commencement of weld
Fixed Point Sensor		240-242	Measured during Phase 1 and 2

The PEWeldBank App allows the user to test the surface temperature at the start of “Every Day” or before “Every Weld”

If the user selects “Every Day” the app will ask for acceptance of previous check before allowing the user to continue the weld process.

This 1m long lead is included. One end is to plug into the Fixed sensor port (3.5mm 4 pole) the other end will plug into most Ritmo Basic and Delta model machines (5.5 x 2.1mm DC Barrel plug).



This 1m long lead is included. One end is to plug into the Fixed sensor port (3.5mm 4 pole) the other end has 4 wires allowing fitment of you own plug to suit your machine. (Red = FORCE — , White = RTD —, Green = RTD +, Black = FORCE +. For connection to 2 wire probe join [Red+White] & [Green+Black]

For connection to your machine, plugs can be purchased from your local electronics supplier, these are examples of plugs that are compatible to many Worldpoly and GF machines, you will need to contact your machine supplier for wiring diagrams

GF example

Worldpoly example

This lead is compatible to many Dixon and McElroy machines where you can remove the existing small dial thermometer and replace with this PT100 probe. (these can be made to order)

Appendix 4

User Hierarchy:

PE Weld Bank User Heirarchy			
	SUPER ADMIN* / WELDER	ADMIN / WELDER	WELDER
Person that initially set up system	Yes	No	No
Edit Company Details	Yes	No	No
Maintain Credit Card Details	Yes	No	No
Adding / Deleting / Pairing Sensors	Yes	Yes	Yes
Adding / Deleting / Editing: - Users - Projects - Butt Welding Machinery - Electrofusion Machinery - Setting preferances for: - OH&S check list - Heater Plate Temperture Recording - Custom Weld Number	Yes	Yes	No
Reviewer: - Approve / Reject Welds	Yes	Yes	No
Select: - Projects - Machines - Welding Standards - Conduct Welding	Yes	Yes	Yes

N.B. App system settings are device based not user based,
i.e. if user was to log into a different device the settings may not be correct for this user.

*To change Super admin user the Super admin must send an email to info@peweldbank.com and nominate the new Superadmin user from the user list

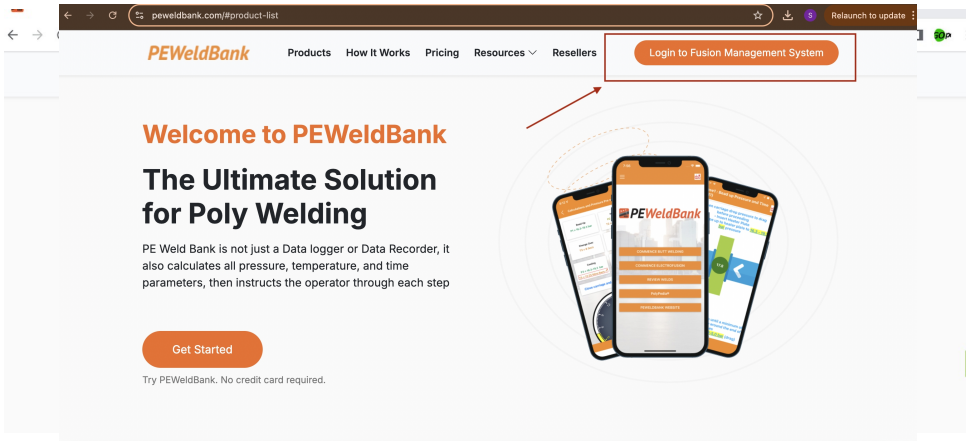
Note: If a user's Level is changed they MUST logout and log back into app for changes to take place.

Appendix 5
Unsubscribe or Resubscribe
PE Weld Bank
FMS

www.PEWeldBank.com
Info@PEWeldBank.com

To unsubscribe from PE Weld Bank FMS

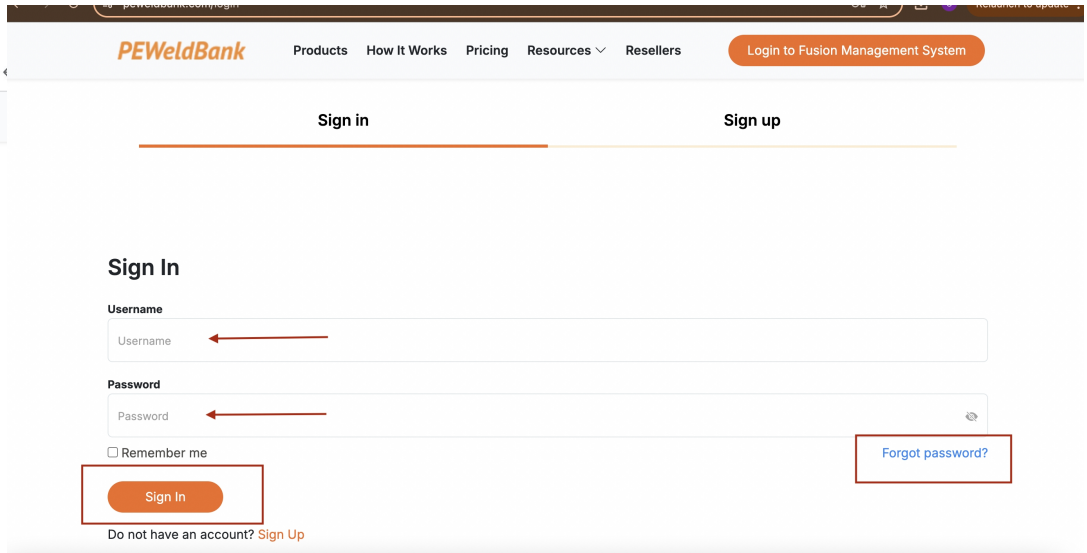
Log onto PEWeldBank .com



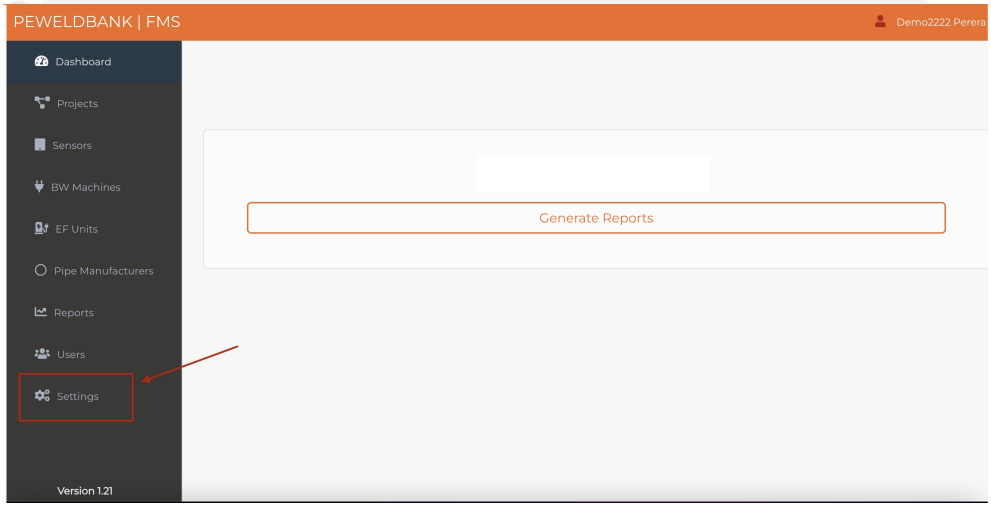
Forgotten your username? send an email to info@peweldbank including your first and last name requesting your username.

Forgotten you password ? Click on forgot password, you will be sent a temporary password to your email address (check spam folder)

When you have this information Sign in

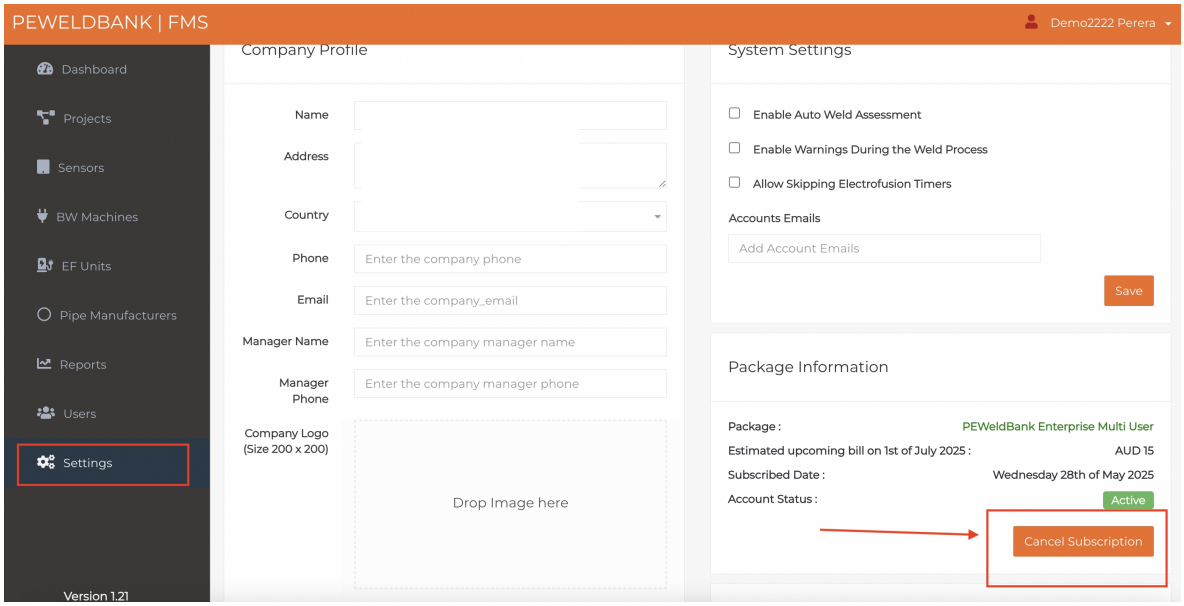


Click on Settings



Click on Cancel Subscription
This will immediately unsubscribe your account.

To renew again simply click on this button again and you will be able to re access your account.

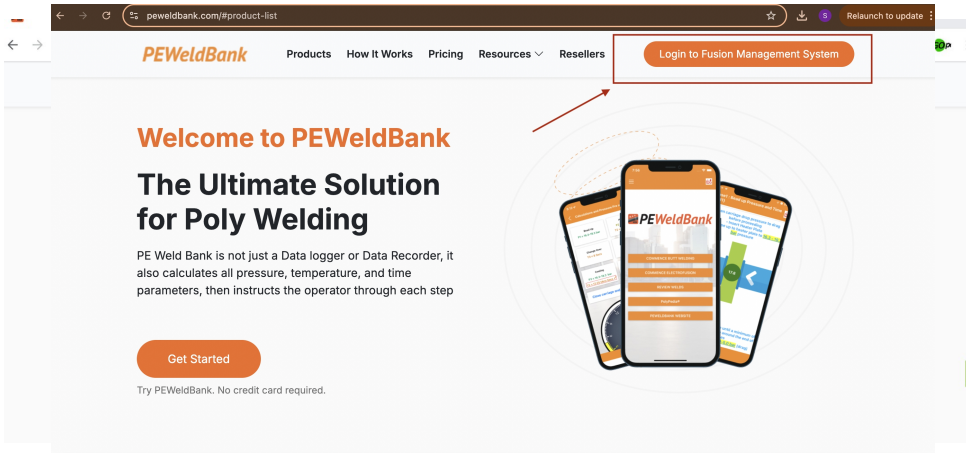


Appendix 6
Re Subscribing or Changing Credit Card Details

www.PEWeldBank.com
Info@PEWeldBank.com

To Change Credit Card Details in PE Weld Bank FMS

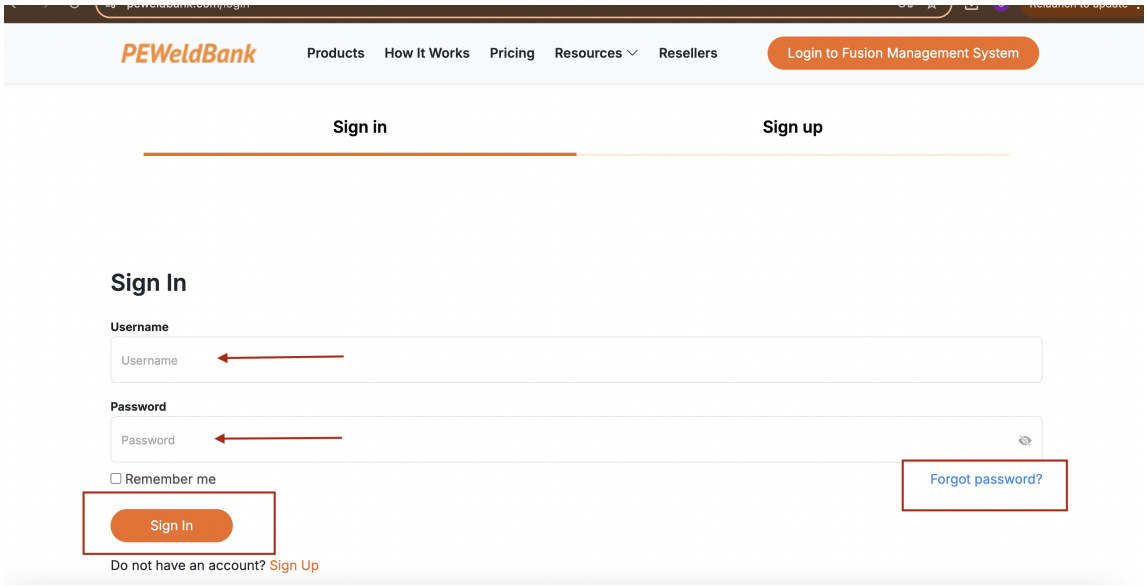
Log onto PEWeldBank.com



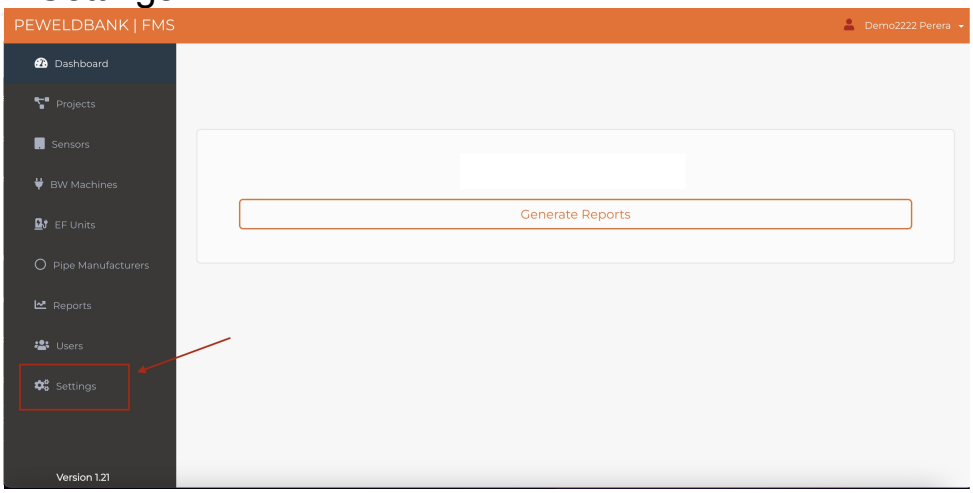
Forgotten your username? send an email to info@peweldbank including your first and last name requesting your username.

Forgotten you password ? Click on forgot password, you will be sent a temporary password to your email address (check spam folder)

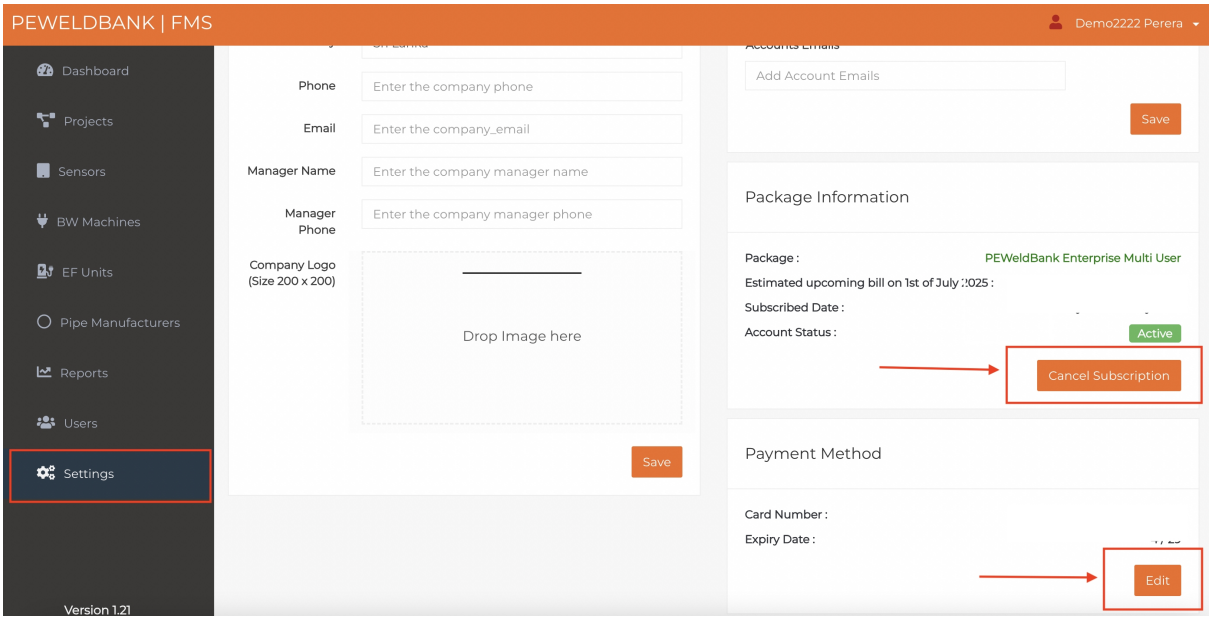
When you have this information Sign in



Click on Settings



Click on Re Subscribe or Edit
Here you will be able to re subscribe or change card details.



Appendix 7
Reviewing welds

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Welds Flagged as “For Review”

PEWeldBank does not reject any welds, it simply asks for the reviewer to carry out further inspection of the weld.
Some welds may not be FMS Accepted due to time, pressure or temperature variations, see examples below.
Please also note where heat soak pressure is dropped to ZERO, PEWeldBank cannot always detect a change in pressure when the heater plate is removed, therefore not allowing accurate timing, in this case it must rely on verification by the reviewer to inspect and decide whether to accept the weld or reject it.

Reviewing welds not FMS approved

[redacted]

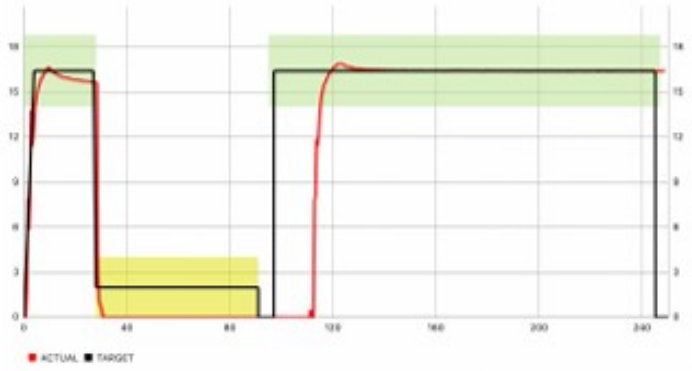
PEWeldBank **PEWeldBank Individual Weld Report**

Date	Weld Number	Custom Weld Number	Start Time	Ambient Temp	Status
03-05-2024	202405031154812386	1134	11:54	24.4° C	For Review

Project Details

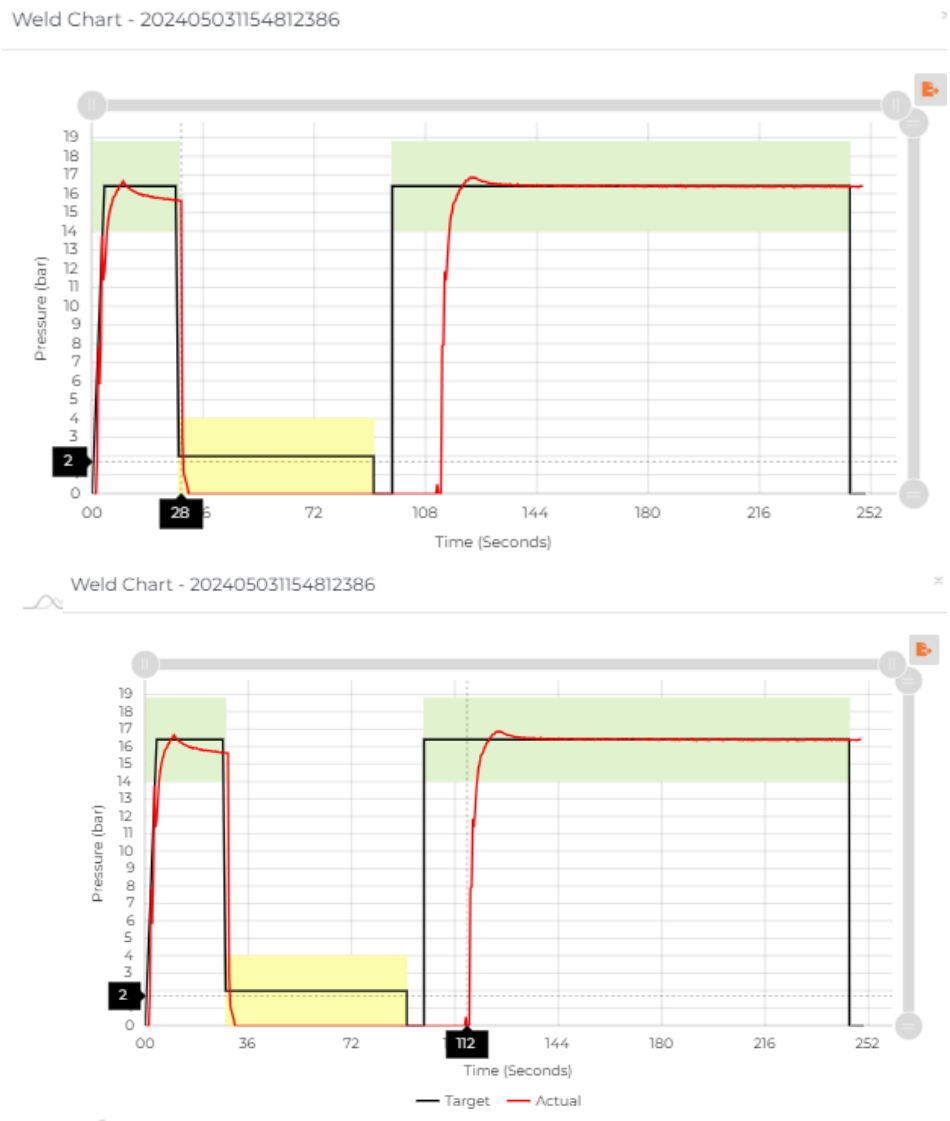
Project Name	Job Number	Project Contact Details
[redacted]	JB1061	[redacted]

Weld Details	Required	Actual	
P1 bead-up pressure	14-18.8	15-16.7	bar
t1 bead-up size	Until indication of bead	23.00	mm / Seconds
P2 heat soak pressure	0.0-4.0	0.0-0.7	bar
t2 heat soak time	57-69	~63	Seconds
t3 heater plate removal time	≤6	≤6	Seconds
t4 time to achieve fusion jointing pressure	Not Specified	Not Specified	Seconds
P3 fusion jointing pressure	14-18.8	0-16.9	bar
t5 cooling time in machine under pressure	≥02:28	02:28	Min:Sec



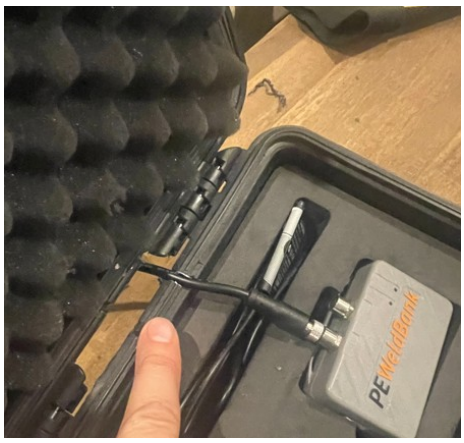
Reviewing welds not FMS approved

Using the weld chart feature, measure the heat soak time by moving you cursor over the start and finish of heat soak. In this example it is 84s, whereas in the weld details it allows up to 69 seconds plus 6s for heater plate removal equals 75s therefore the heat soak was approximately 9s too long
(s = seconds)



Weather resistant modification

If you are experiencing extreme weather conditions a simple modification may help.
Drill a 5.5mm hole in the sensor set case and leave the sensor inside, this will further protect the unit from dust , snow etc.



For further information:

Please contact PEWeldBank:
Email: info@PEWeldBank.com
Please note that our sales and support office is based in Melbourne Australia, we will respond to all enquiries as soon as possible, however we have a number of resellers worldwide that may be able to assist you. See our website for your nearest reseller.
www.peweldbank.com/reseller