![Coltraco Ultrasonics | since 1987]
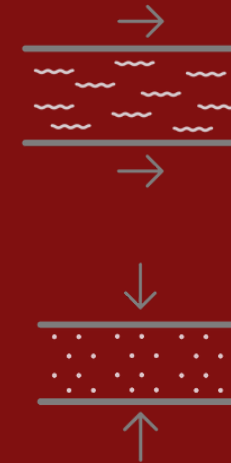
PORTASONIC® CALCULATOR

Tablet-based Flow to Pressure Calculator

using flow rate results from the Portasonic®

PORTASONIC® CALCULATOR

The only instrument capable of determining the pressure required to drive fluids at a specified flow speed

PN: 2618949-CALC

Software on robust 7" electronic tablet giving the world's first capability in calculating the pressure required to pump a liquid along a pipe that is travelling at the flow speed measured by the Portasonic®
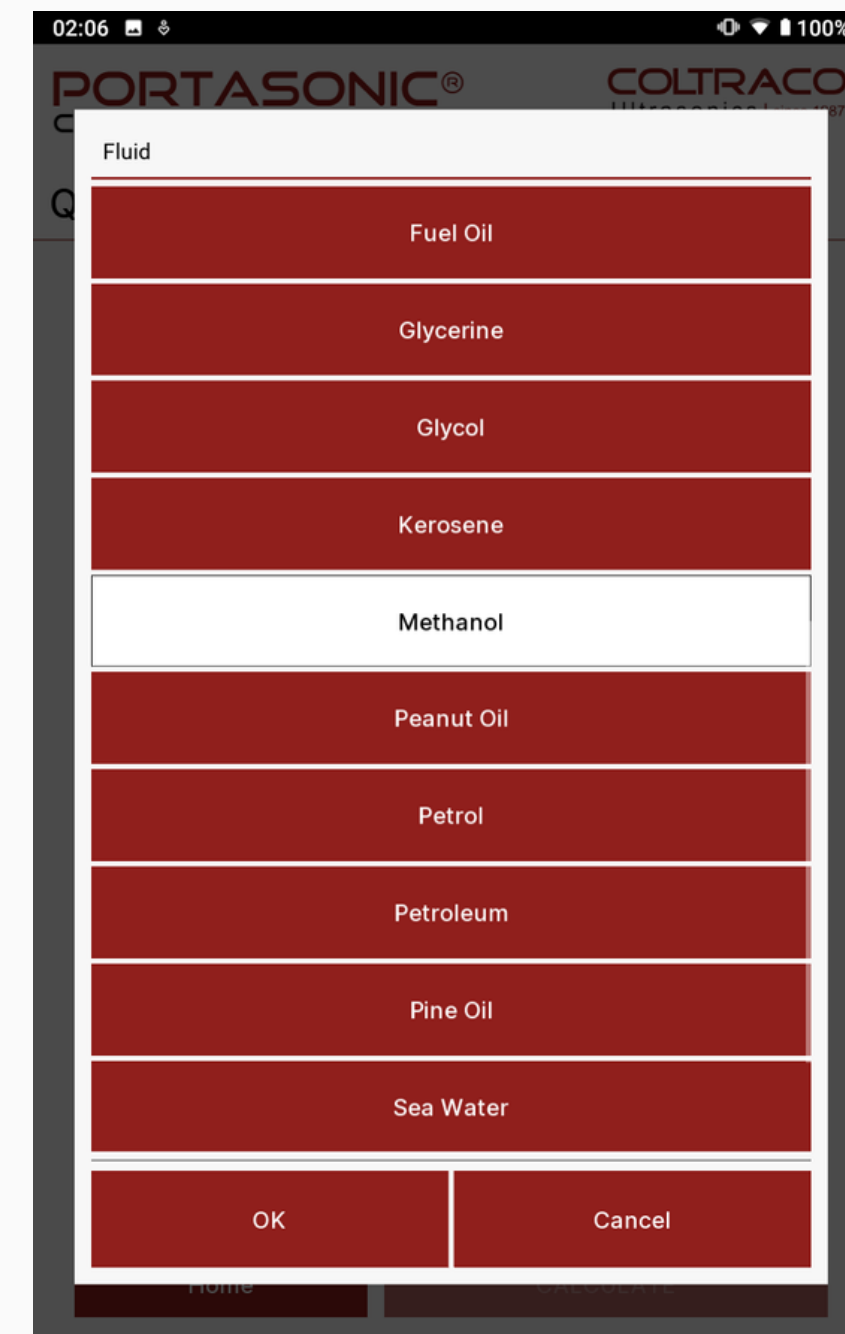
FOR PORTASONIC CUSTOMERS

The perfect product to save your flow and pressure results for better reporting. Combine calculated pressure with readings from the Portasonic® 2.FL0 to verify measured flow speeds and rates against a fixed pressure gauge in the system

MULTI-PURPOSE

Works on 23 different common pipe materials: ABS, aluminium, asbestos, carbon steel, cast iron, cement, copper, ductile iron, epoxy, fibre glass, glass, GRP, lead, nylon, PE, PP, PTFE, PVC, rubber, stainless 403, stainless 316, steel, Teflon

19+ FLUIDS

Fuel Oil
Glycerine
Glycol
Kerosene
Methanol
Peanut Oil
Petrol
Petroleum
Pine Oil
Sea Water
OK   Cancel

PORTASONIC® CALCULATOR

INTUITIVE
Calculate quickly and easily using an intuitive touchscreen tablet

CLEAR RESULTS
Save data to records and export via USB or email to ensure traceability

ACCURATE
Accounts for temperature and material roughness to produce results of the highest empirical accuracy

REPORTING
Save the results from your Portasonic® 2.FL0; record and download inspection reports. Filter records by date or by pipe

RELIABLE
Facilitate determination of the expected wear and tear on the system caused by pressure

Facilitate risk assessment of high pressure systems

ACCURATE
Provides a non-invasive alternative to pressure gauges

FLOW RATE
Combine with the Portasonic® to verify flow speeds and rates

SAFE
Determine if your pipe is pressurised to within a safe tolerance

INNOVATIVE
Ergonomic design, lightweight, easy to use for all skill levels

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Tablet screen

02:08   100%

PORTASONIC®
CALCULATOR

COLTRACO
Ultrasonics | since 1987

Calculate - Example Pipe

Pipe Name: Example Pipe   Inner Diameter: 35 mm

Material: Cast Iron   Entrance Height: 1.5 m

Length: 10.2 m   Exit Height: 2.1 m

Fluid	Crude Oil
Temperature (°C)	43
Flow Speed (m/s)	11

Gauge Pressure: 5.912 Bar

Calculate

Save Record

View Records

Home

ACCURACY

Portasonic CALCULATOR uses an empirical equation which closely models the fluid dynamics in a pipe system using real-life industry data. **The calculated pressure is accurate to within ±5%** excepting the following caveats:

- This accuracy is for clean pipes, free of internal corrosion and residue build-up.
- It is also valid for temperatures between 10°C and 30°C.
- Temperatures outside of these bounds will, for the most part, still yield results of a similar accuracy, but these are as yet unverified.
- Some graded liquids are listed under a general name, for example, crude oil.
- These take median values for the liquid properties, which will not necessarily be accurate for all grades.
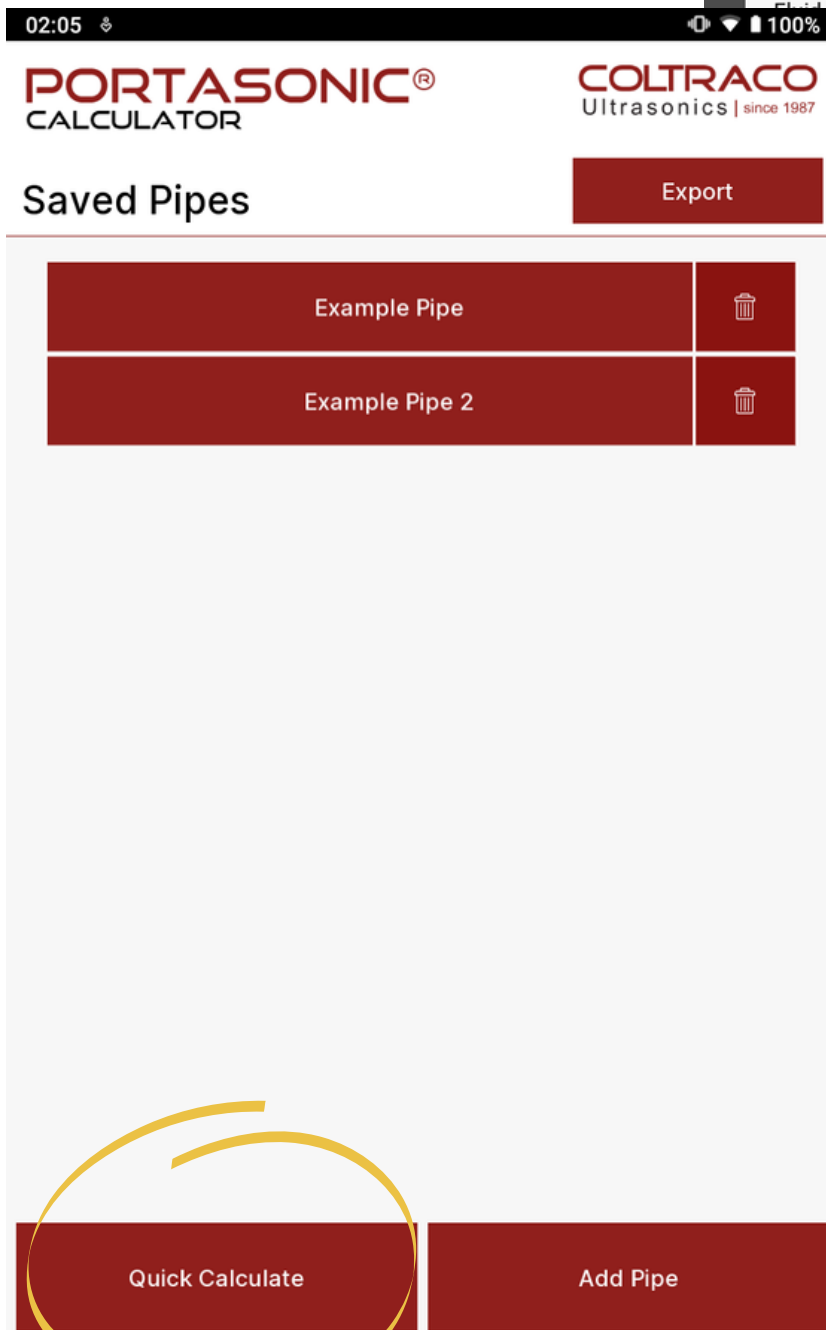- Manufacturer Disclaimer: the software is designed under COVID-19 conditions

WHY DOES PRESSURE MATTER?

The pressure in a pipe system must be closely monitored to ensure it does not exceed safe tolerances. Critically high pressures can lead to pipe failure, damage to property, and risk to personnel. The durability and safe functioning of pipes, pumps, and related equipment are also affected by pressure. Knowledge of the pressure in a pipe system is therefore important for ensuring that the flow is occurring as expected, in a safe and sustainable manner.
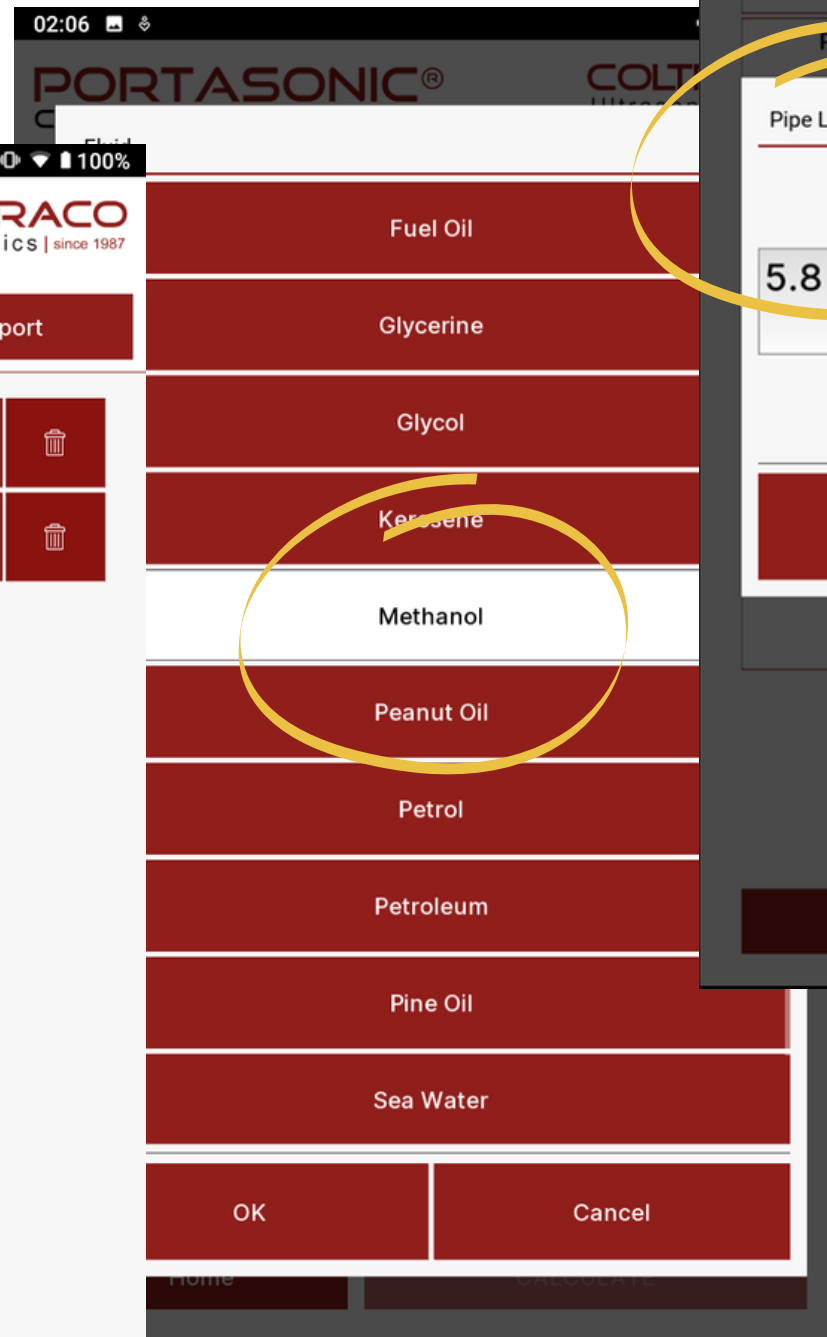
- Portasonic® CALCULATOR is a non-invasive alternative to pressure gauges, which may require costly installation in difficult to reach places.
- It is, therefore, the only way of quantifying the pressure in any system where the flow speed is known, but there is no apparatus installed for pressure measurement.
- It can be used with all of your pipes to store records, thereby creating a centralised database of all past tests – **perfect for ensuring reliable, traceable reporting**.
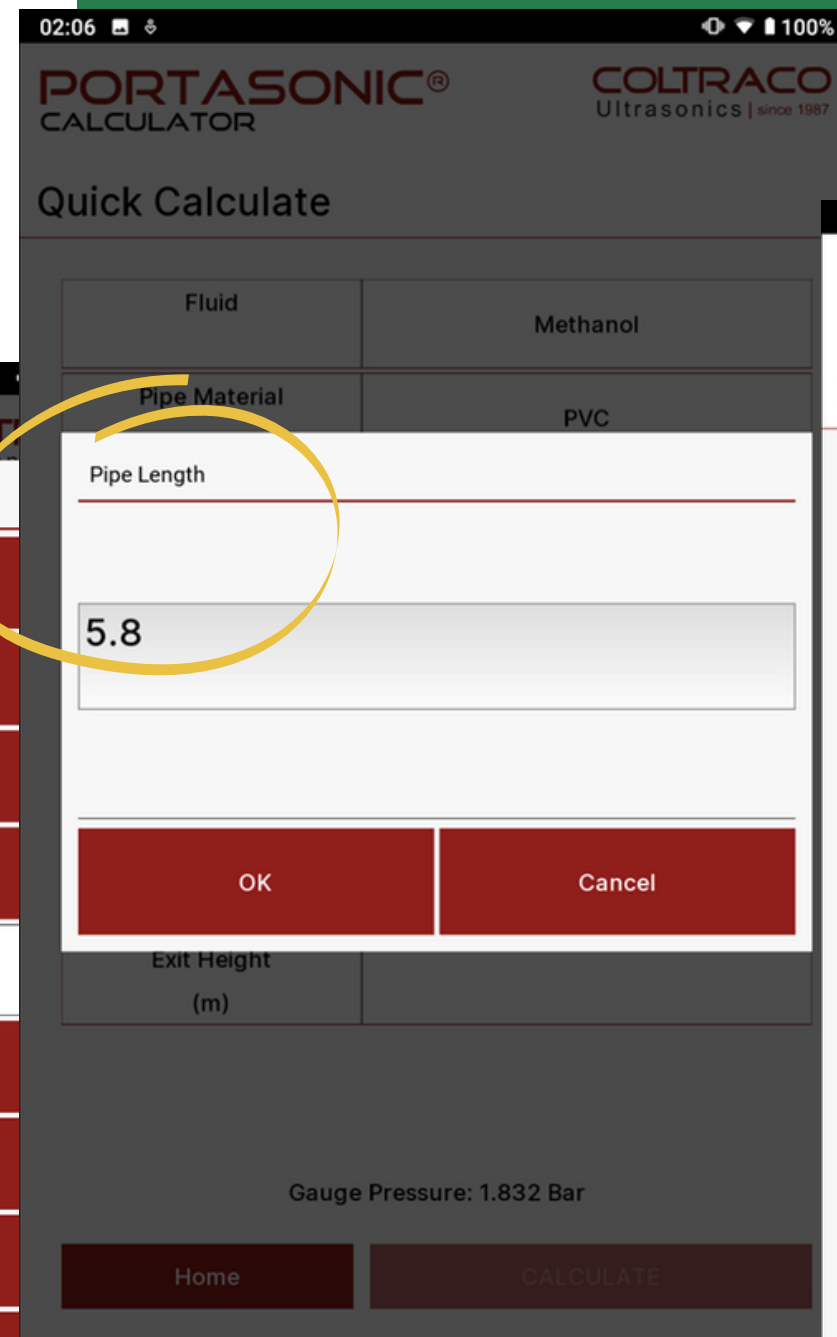
HOW TO TEST 1
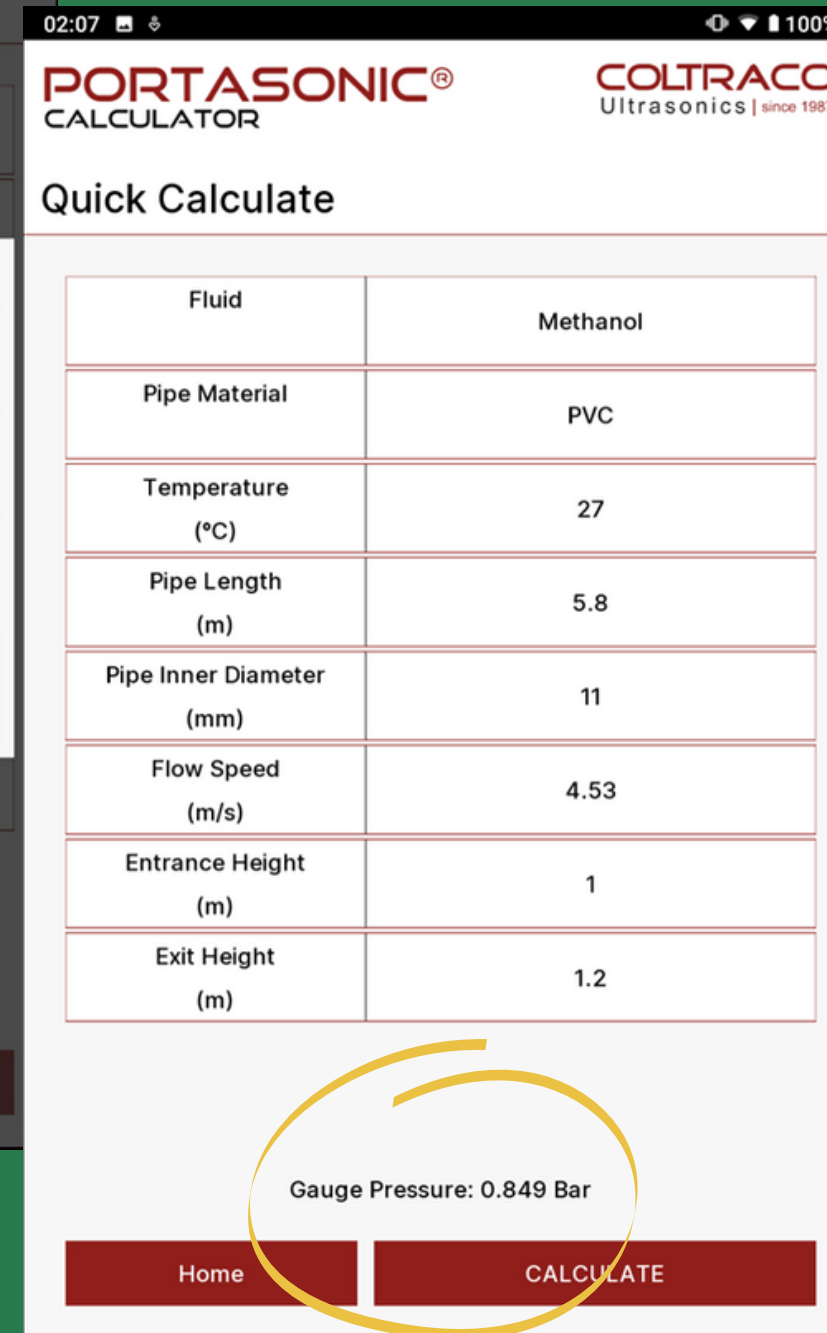
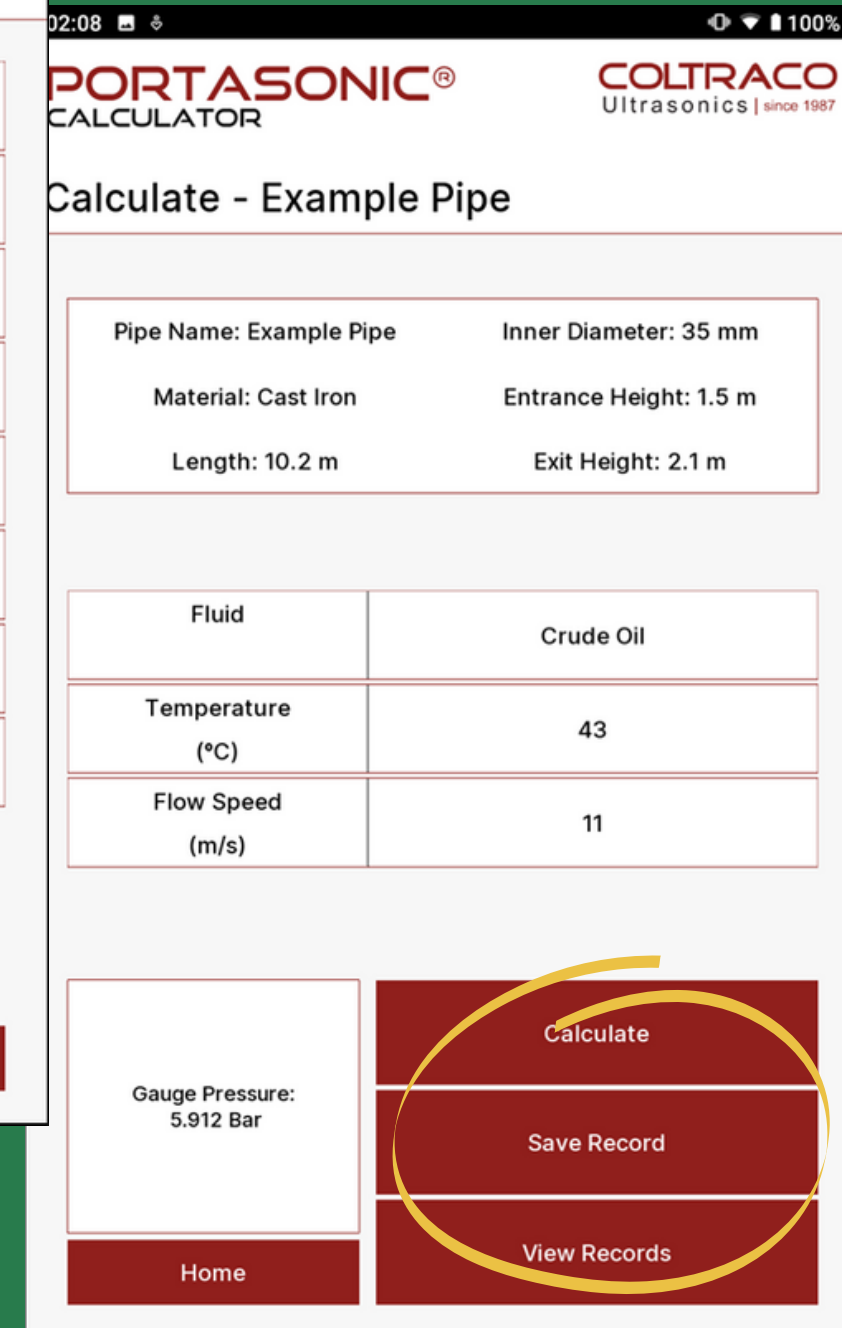Follow the yellow circles for the key steps:

1. Select: Quick Calculate

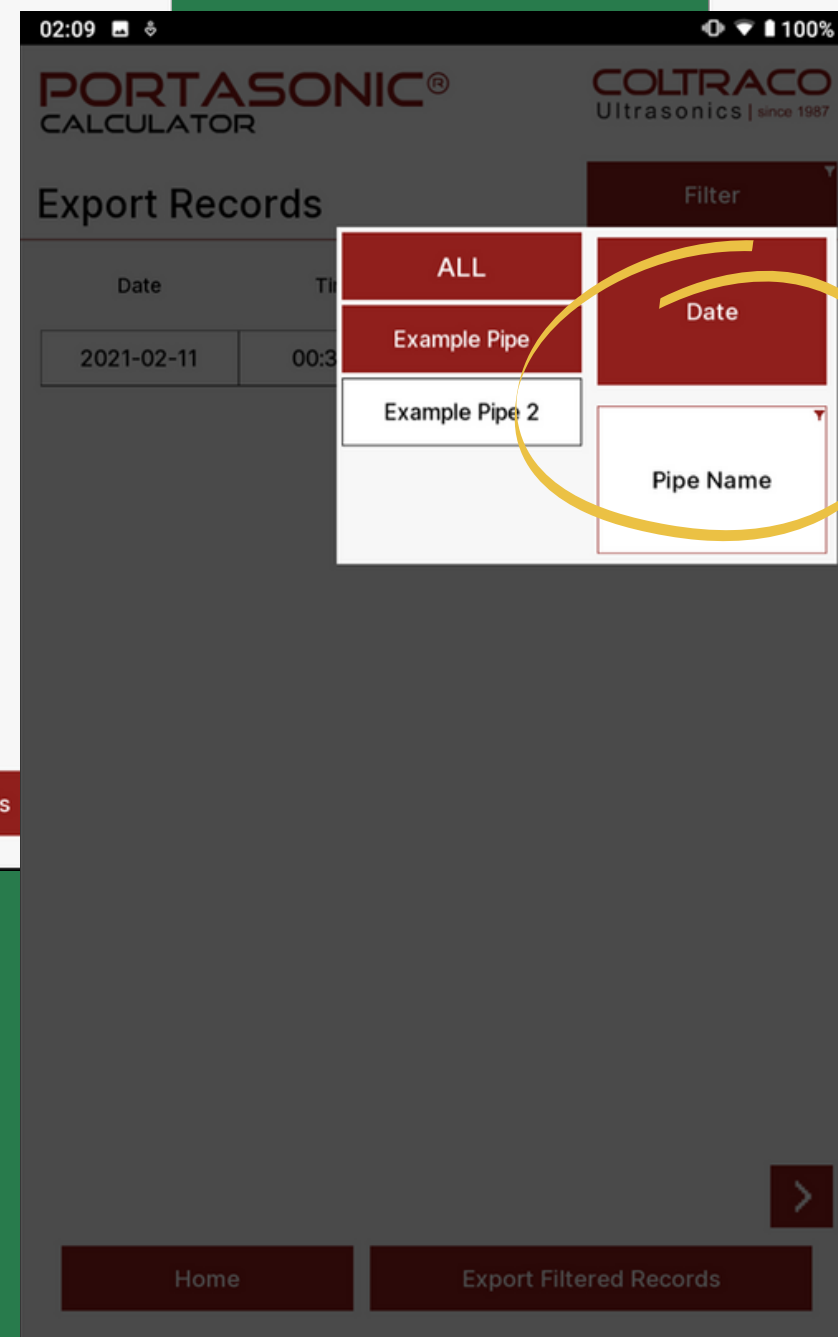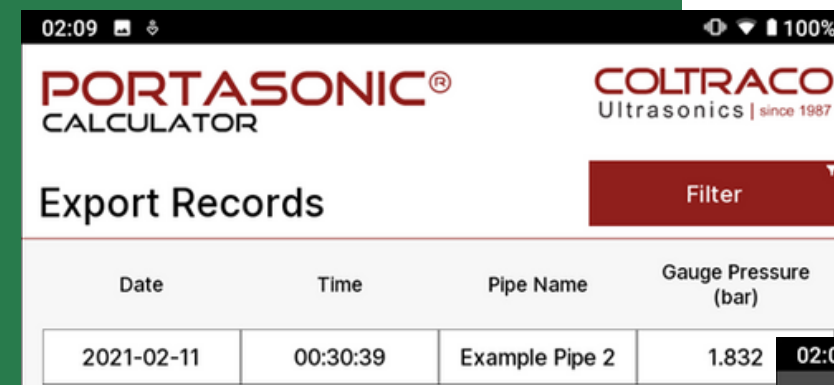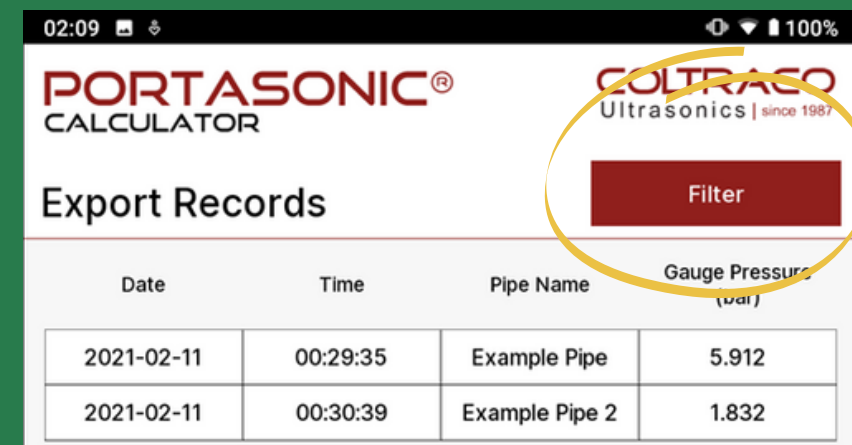2. Select: Fluid Type

3. Enter: Pipe Length

4. Enter: all measurements to allow device to automatically calculate the Pressure (bar)

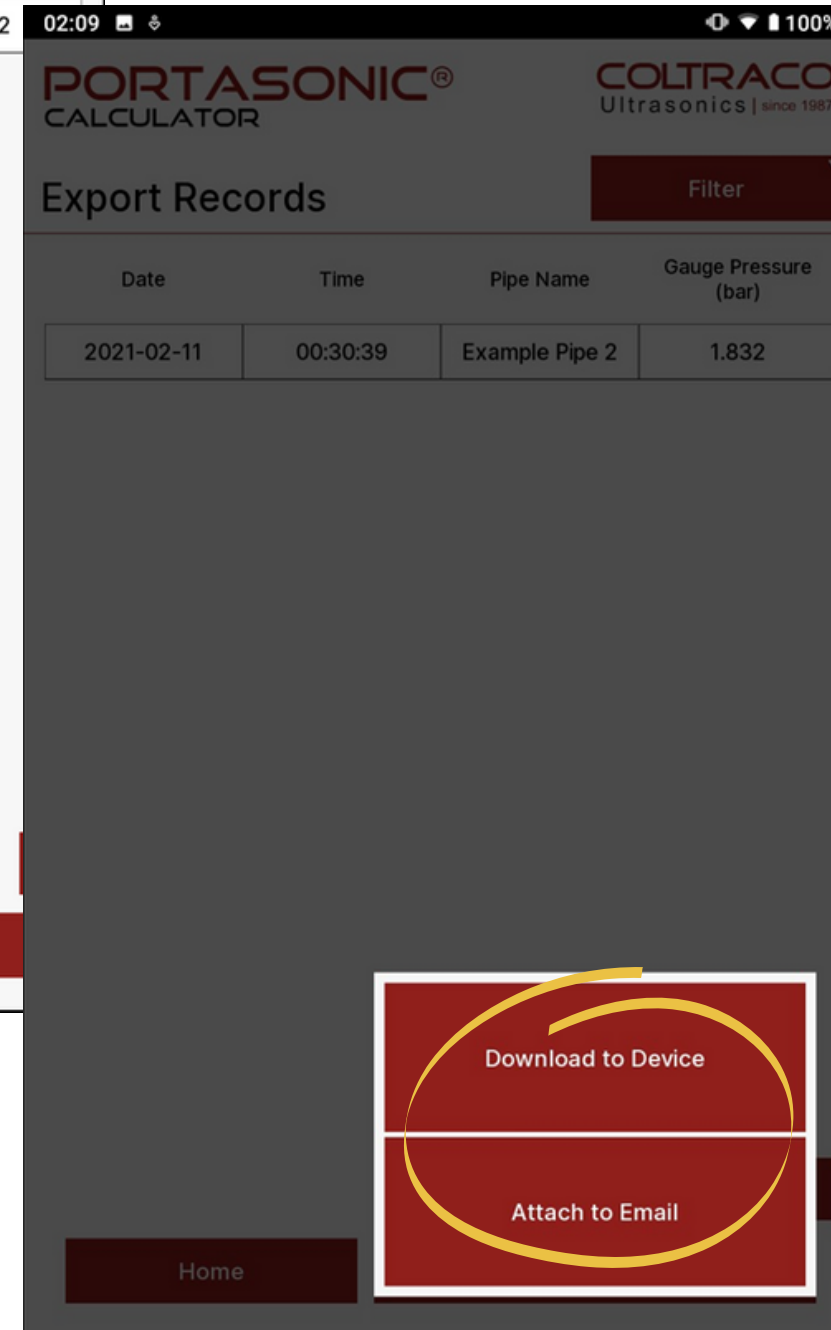5. Choose to calculate, save records or view existing records
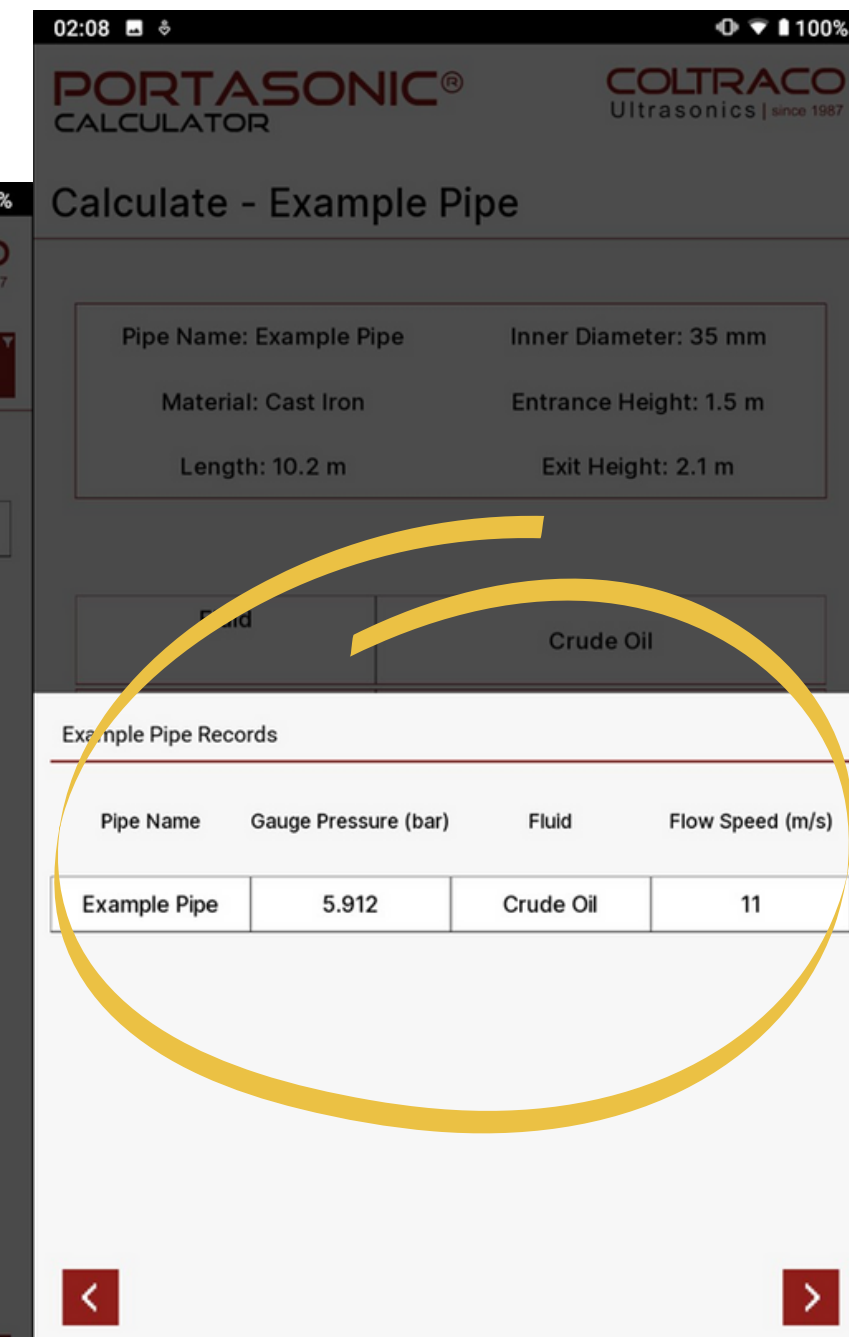
6. Choose to filter records

7. Filter by date and pipe name

8. Export filtered records

9. Choose download option or attach to email

10. Test complete with summary details: pipe name, pressure (bar), fluid type and flow speed (m/s)

TECHNICAL SPECIFICATIONS

DIMENSIONS	215.6x135.8x18.9mm
WEIGHT	558grams
WATERPROOF LEVEL	IP67 waterproof
MATERIAL	PC+TPU
BAND	2G:GSM 850/900/1800/1900MHz 3G:WCDMA 900/1800/2100MHz 4G:FDD-LTE B1/B3/B5/B7/B8/B17/B20/B66/B71/B28A/B; TDD-LTE: B38/B39/B40/B4
SIM CARD	Dual SIM card dual standby (1 micro + 1 nano)
CPU	MT6762 Cortex A53 octa core, 2.0GHz; GPU: PowerVR GE8320, 650MHz
OS	Android 9.0
DATA TRANSFER	USB Type-C/BT
SPEAKER	φ23 loudspeaker, 1 watt
FM RADIO	Yes, need to plug in earphone
SCREEN	7.0 inch HD IPS capacitive touch screen, 1280x800px
RAM	4GB RAM
ROM	64GB ROM, support TF card up to 128GB maximally
CAMERA	Double cameras, front 2.0MP camera, 13.0MP back camera with flashlight
WIFI	Yes, IEEE802.11 a/b/g/n/ac, support 2.4GHz/5GHz dual band WiFi
GPS	Yes, also supports A-GPS/GLONSS/BDS
BT	V4.0
NFC	Support, 13.56MHz
SENSOR	Geomagnetic sensor, light sensor, proximity sensor, gravity sensor, gyro sensor
I/O PORTS	1x SIM card slot; 1x TF card slot; 1x Micro USB port; 1x 3.5mm earphone jack
BATTERY	Built-in 8000mAh rechargeable Li-ion battery
STANDBY TIME	Up to 200 hours
OTHER FEATURES	Calculator, Calendar, Email, WiFi hotspot, OTG function, E-compass etc.
LANGUAGES	English
COLOUR	Black & Yellow

PACKAGE

Portasonic® CALCULATOR is delivered in a package with everything required to carry out testing:

7 inch handheld tablet
Plus accessories:
1x USB Cable
1x Hand Strap
1x USB Charger
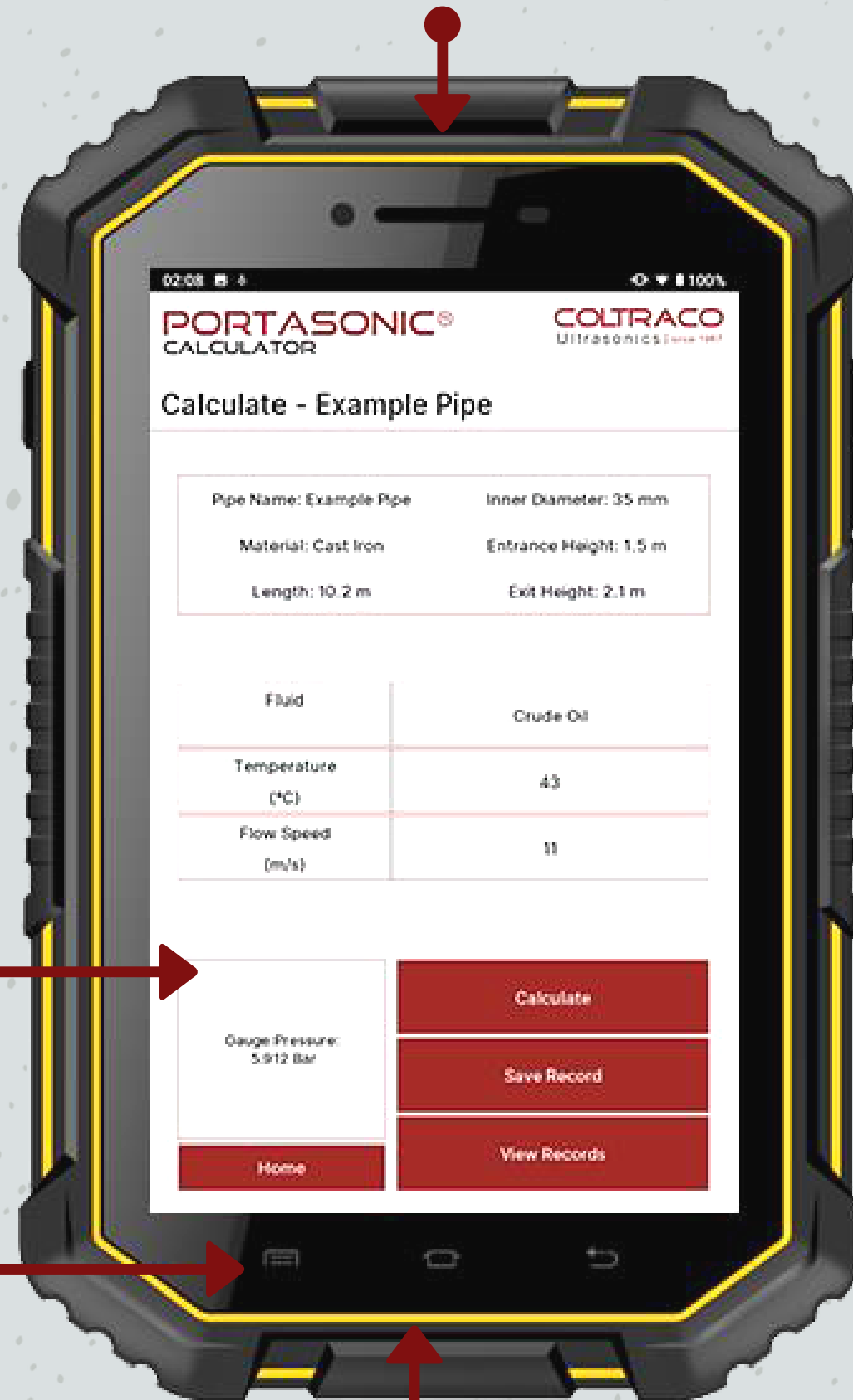1x Mini Screwdriver
1x User Manual

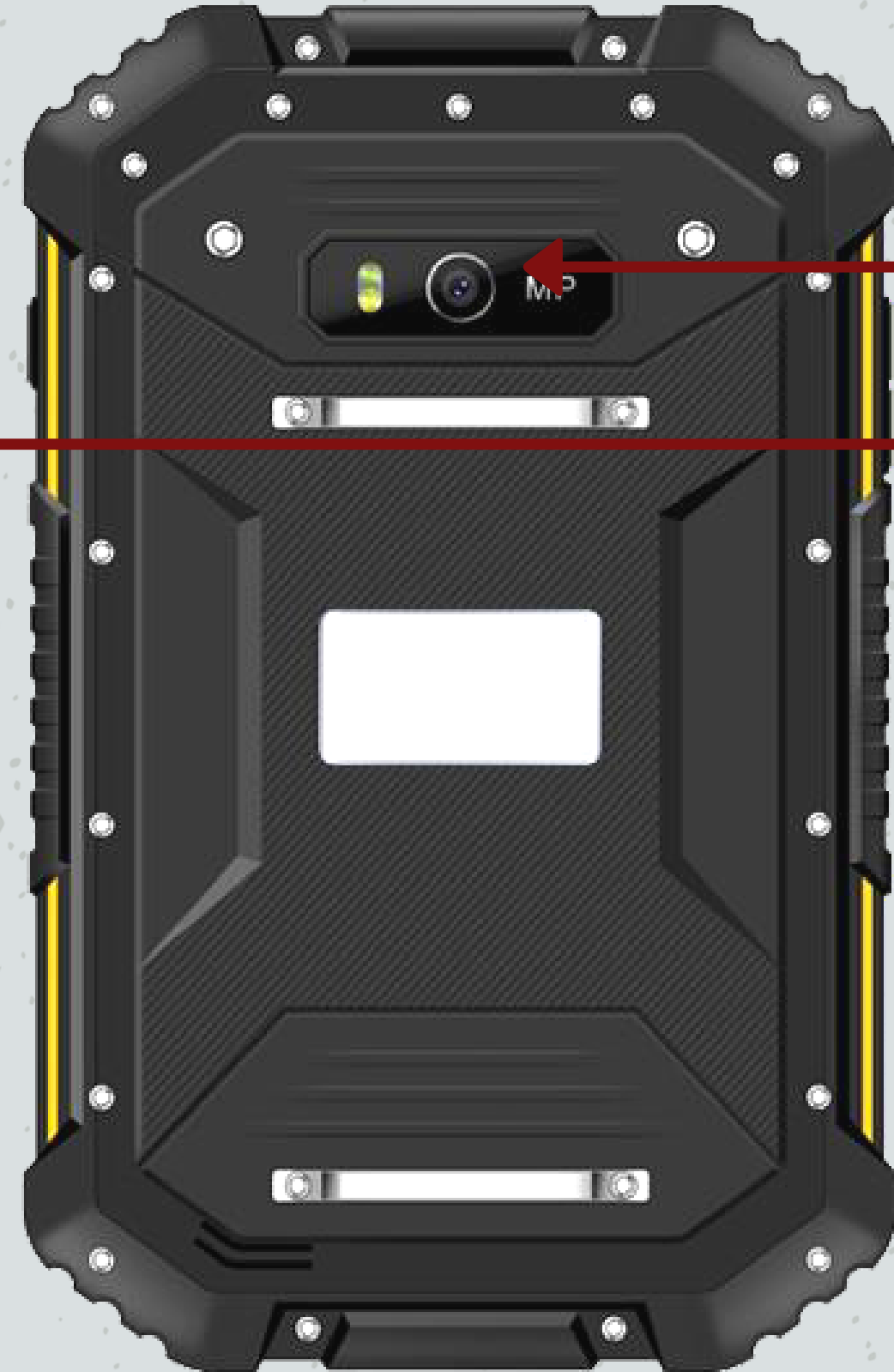Power Button

Capacitive Touch Display

Recent Apps Button
Home Button
Back Button

USB Type-C Port

13 MP back camera

Volume buttons

Portasonic® Calculator Display

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CUSTOMER CARE COMMITMENT

Technical Support provided free of charge for the unit's lifetime. Every unit provided by Coltraco comes with a 3 year warranty supporting the manufacturing quality of the main unit and 1 year on sensor.

OPTIONAL PORTACARE® after sales package.

We have local partners to support you worldwide through our global network of Partners, Distributors and ODA (Organisational Delegated Authorities).

ODAS are Service Centres which provide regional support for caliibration in UK, France, Greece, UAE, India, Singapore and USA, Brazil, Trinidad.