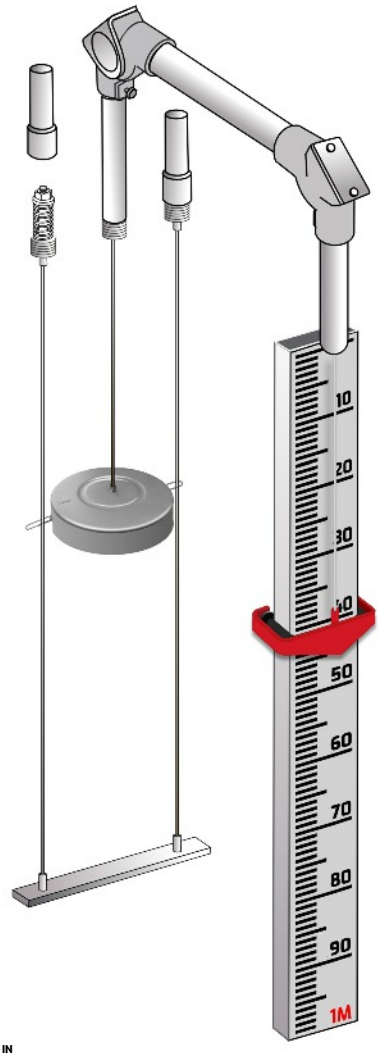
LiquiLevel FBS

Float & Board Tank Level Indicator

Installation & Operating Instructions



ENGINEERED & MADE IN
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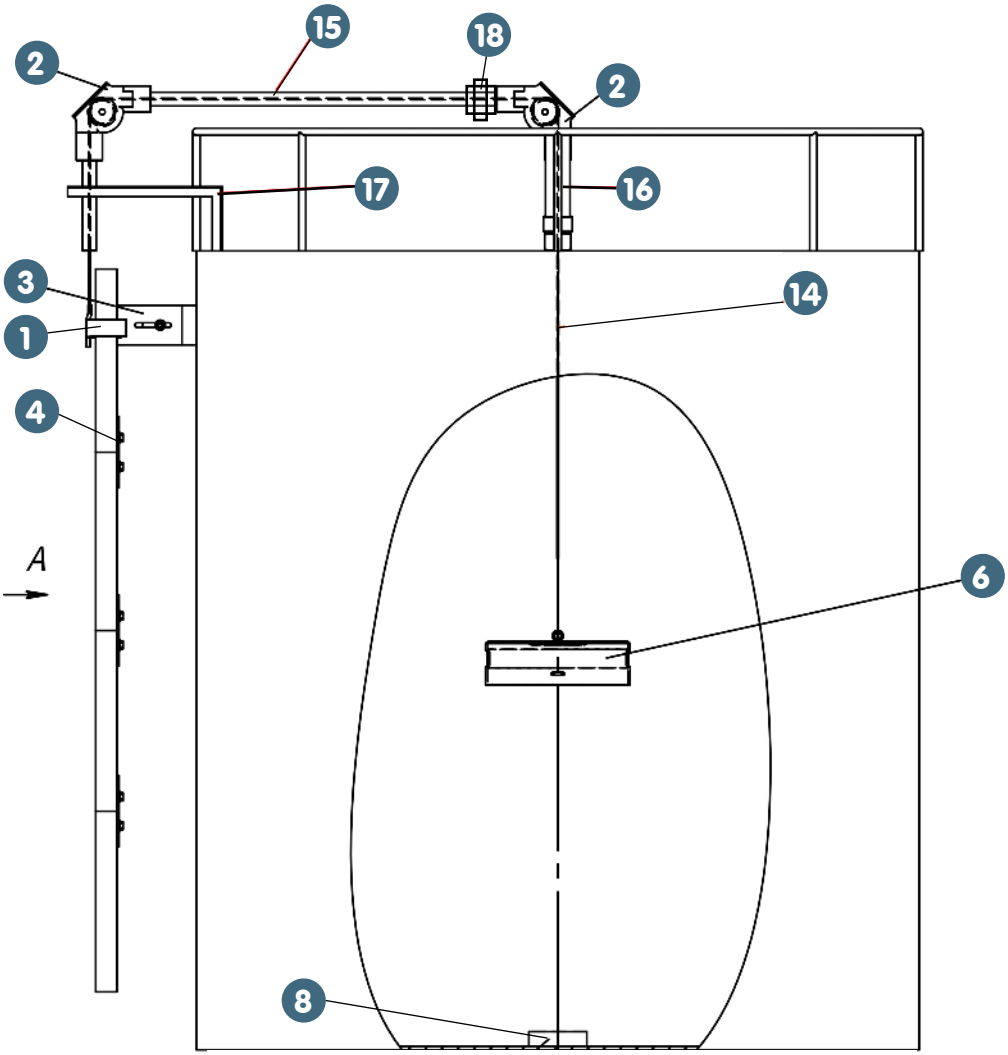
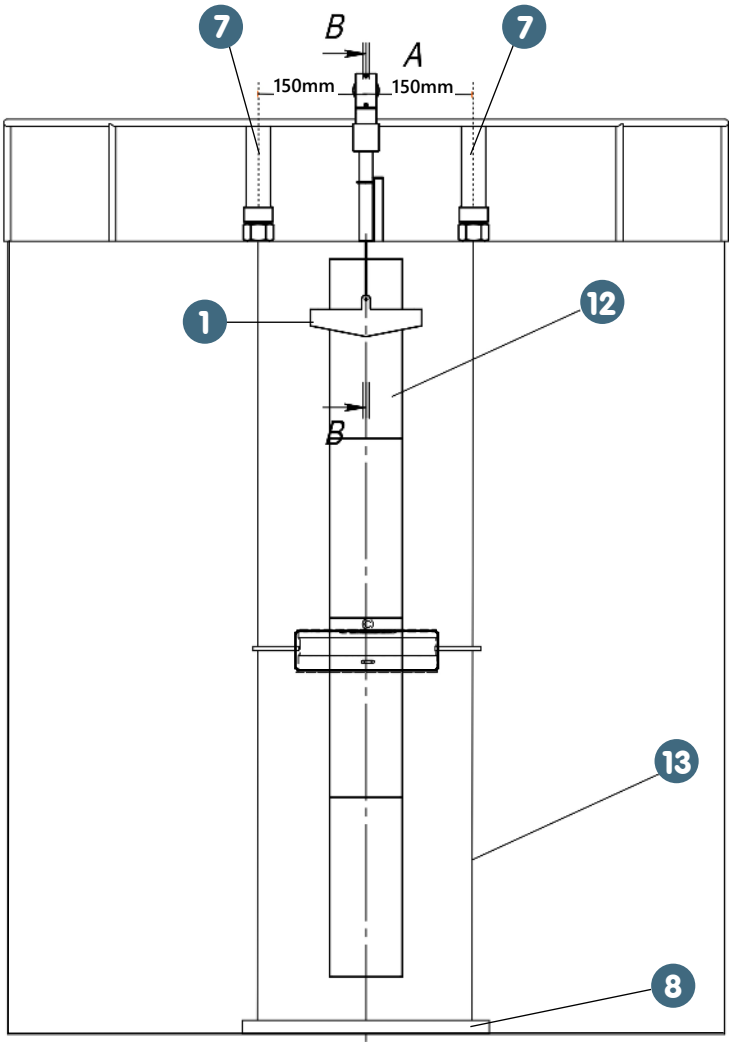
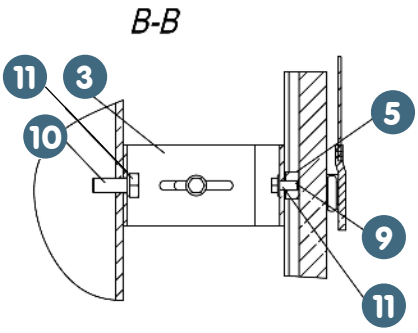


No:	Article No:	Product Description	Qty
1	11031	Red FBS Level Indicator	1
2	11030	FBS 90° 3/4" Pulley Elbow	2
3	11033	FBS Gauge Board/Tank Bracket kit	1 per length
4	11026	FBS Gauge Board joining kit	1 per length
5	11019	M6 Tee nuts for gauge board	1
6	10767	200/300mm Stainless Steel Float	1
7	10766	3/4"/ PN10 Spring Tensioners	2
8	10768	200/300mm Stainless Steel anchor	1
9	11011	M6 x 14mm Stainless St. Hex. Bolt	1 set
10		existing sectional steel tank bolt	1
11	11015	M6 Stainless Steel Penny Washer	1 set



No:	Article No:	Product Description	Qty
12	11023	Alu. Gauge Board in cm and mtrs	1 per length
12	11034	Alu. Gauge Board in inches and feet	1 per length
13	11051	SS303 1.5mm Braided cord	1 set
14	11051	SS303 1.5mm Braided cord	1 set
15	11041	3/4" x 600mm (std) conduit pipe	1
16	11040	3/4" x 150mm (std) conduit pipe	2
17	-	Conduit supported by client	1
18	10799	3/4" M x F Pipe union on request	1



Application.

This visual tank level gauge when installed together with LiquiLevel FBS is used to measure and indicate liquid levels in industrial facilities for water, water treatment, fire fighting storage tanks, Rainwater harvesting and power generation. This level gauge is mostly used in checking storage, maintaining constant water levels, and measuring certain amounts of liquids in batch processes.

Characteristics

- Simple visual level gauge using a weighted balance/level indicator to be read in either cm/mtrs or inches/feet units.
- Designed for easy and quick installation to storage tanks on-site with minimum DIY knowledge and minimal tools.
- Simple calibration.
- Aluminium profile with stainless steel brackets and fixings designed for long trouble-free life.

Operation Principle

LiquiLevel FBS Tank level indicator float, floats at a certain submerging depth where the weight of the float, the buoyancy of the float, and level indicator maintain their equilibrium. Measured levels are indicated by the external red level indicator which will always show accurate water level within the tank as well as measurements in either imperial or metric units. (cm/inches)

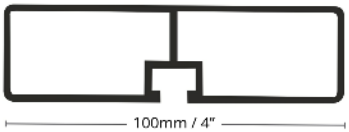
System Components

Back of Aluminium gauge board showing M6 Tee nut which slides and can be fixed at any point on the gauge board making it practical and simple to install to tank.

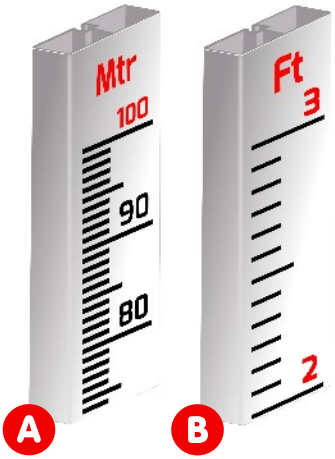
Gauge Board Fixings

All brackets including the level indicator are installed using M6 Tee nuts designed to fix to the back of the gauge board for quick and simple installation on site.

Tee nuts are supplied with the installation packs.



Ribbed design adds strength and durability to the aluminium profile.



Gauge Board.
Article number: 11023. Cm & Metres
Article number: 11024. Inches & Feet

FBS Gauge board is available in 2 options:-

A) Metric CM and Metres. Length of each gauge board: 1 mtr

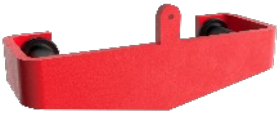
B) Imperial inches and feet. Length of each gauge board: 1 mtr

FBS Aluminium gauge board has been specifically designed for visual tank level monitoring. Strong and weather resistant this gauge board is lightweight, yet very strong and durable making installation safe and simple.

Fixing brackets and fixings to the gauge board is simple thanks to its slotted rail on the reverse side/back of the board. Everything is fixed to the gauge board using this slide rail system with M6 Tee nuts.

No fixings protrude through the face of the gauge board ensuring smooth operation of the level indicator at all times.

Gauge board width: 100 mm / 6"
Gauge board depth: 30 mm / 1.25"



Level Indicator
Article number: 11031

Heavy duty stainless steel 316 construction with Red powder coated finish for clear visual level monitoring. Built-in heavy duty rollers engineered specifically for the gauge board for smooth, reliable, accurate and maintenance free operation.

Dimensions: 155 x 55 x 60 mm (W x H x D). Inches 6 1/8" x 2 1/4" x 2 3/8"

90° Pulley elbow.
Article number: 11030

Heavy duty cadmium plated steel pulley elbows with 3/4" BSPF threaded connections c/w removable cover plate for maintenance and inspection.

Spring Tensioners for float assembly
Article number: 10766

Cadmium plated powder coated steel with 3/4" BSP threaded connection complete with cover cap for maximum protection of spring assembly.

Stainless Steel Float
Article number: 10767

Stainless steel cylindrical float with guide lugs for guide wires.

Gauge board/Tank fixing Bracket
Article number: 11033

Heavy duty stainless steel 316 90° brackets for installation of gauge board to tank to be installed 1 mtr / 3' apart

Gauge board Connecting Brackets
Article number: 11008

Slotted plate 100mm/ 4" x 55mm 2 2/8" for connecting gauge boards together. 1 kit supplied together with fixings for each gauge board (1 kit per 100mm/ 3') length.

Conduit Pipes
Article number: 11040 and 11041

Galvanised 3/4" BSP conduit pipe for installation between pulley elbows and storage tank connection. 2 x 150mm, and 1 x 600mm long

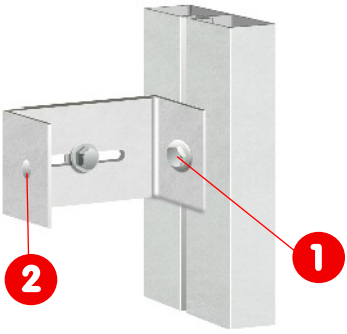
Fixings/fasteners

All necessary fixing and fasteners are supplied with the kit. All fasteners are M6, requiring only 1 wrench/ spanner to install the gauge board system.

Note: we do not supply the fastener to fix brackets to storage tank as this can vary in size depending on the shape, size and specification of your tank.

Installation

FBS Gauge board system can be installed to a wide range of tanks including steel sectional tanks. By using existing tank bolts brackets can easily be installed using these bolts as a fixing point. If this system is being installed to other types of tanks, M10 or 3/8" vertical fixing points will be required every 1 mtr/ 3' to install gauge board safely.



Gauge board/Tank fixing Bracket Kit
Article number: 11033

Heavy duty stainless steel 316 90° brackets for installation of gauge board to tank.

We recommend that you install 1 kit per aluminium gauge board (every 1 mtr / 3')

Kit includes:-

1 x 90° **Tank** bracket with M10 / 3/8" drilled hole for fixing to storage tank. If you are installing to a bolted steel tank, you can use the existing tank bolts.

1 x 90° **Gauge board** bracket with M6/1/4" hole for fixing bracket to gauge board with M6 Hex bolt/washer.

2 x M6 x 14mm Hex Bolts
3 x M6 Penny washers
1 x M6 Hex nut
1 x M6 Tee nut

Each Gauge board is supplied with 2 x 90 degree stainless steel brackets and fixings.

No: 1. 90° Gauge board bracket with M6 hole. This bracket is connected to the gauge board

No: 2. 90° bracket with 10mm / 3/8" hole for connecting to your storage tank.

Starting at the bottom of the tank, install the Gauge Board/tank Brackets 1 mtr/ 3' apart (approximately). If fixing to sectional bolted steel tanks, use existing tank bolts to fix brackets to your tank. Once you have all your 'tank' brackets installed you can now install the 'gauge board' brackets.

Joining gauge boards

Determine the height of your tank and cut the gauge board to length. Made from aluminium it is easily cut using a hack saw or preferably an saw with TCT blade.

Taking care, lay the gauge boards out in order face down (be careful not to scratch face of gauge board), so that the slotted side is facing up.

Slide M6 slide nuts along channel and line up with gauge board connector. Insert M6 Hex bolts/washers and fasten.

Depending on the height of your tank you may want to make up the gauge board in 4 mtr/12' sections. And then join the complete gauge board when installing to tank brackets.

When joining the gauge boards together slide an extra tee nut into the channel before connecting to the next gauge board. This nut will be used for connecting the gauge board bracket. 1 tank bracket required per 1 mtr/ 3' length. Do not tighten the bolt completely as this bracket needs to slide freely and line up with the tank brackets which are now installed to the tank.

Once gauge board is fastened to the tank, slide red level indicator onto the gauge board (top/bottom) using the stainless braided wire, connect red level indicator to the float via the pulley elbows and conduit pipe system. Next, connect the bottom tank anchor to the two guide wire tensioners at the top of the tank. Adjust, calibrate all components to correspond with the gauge board and fasten using double stainless wire grips. Cut away any excess wire.