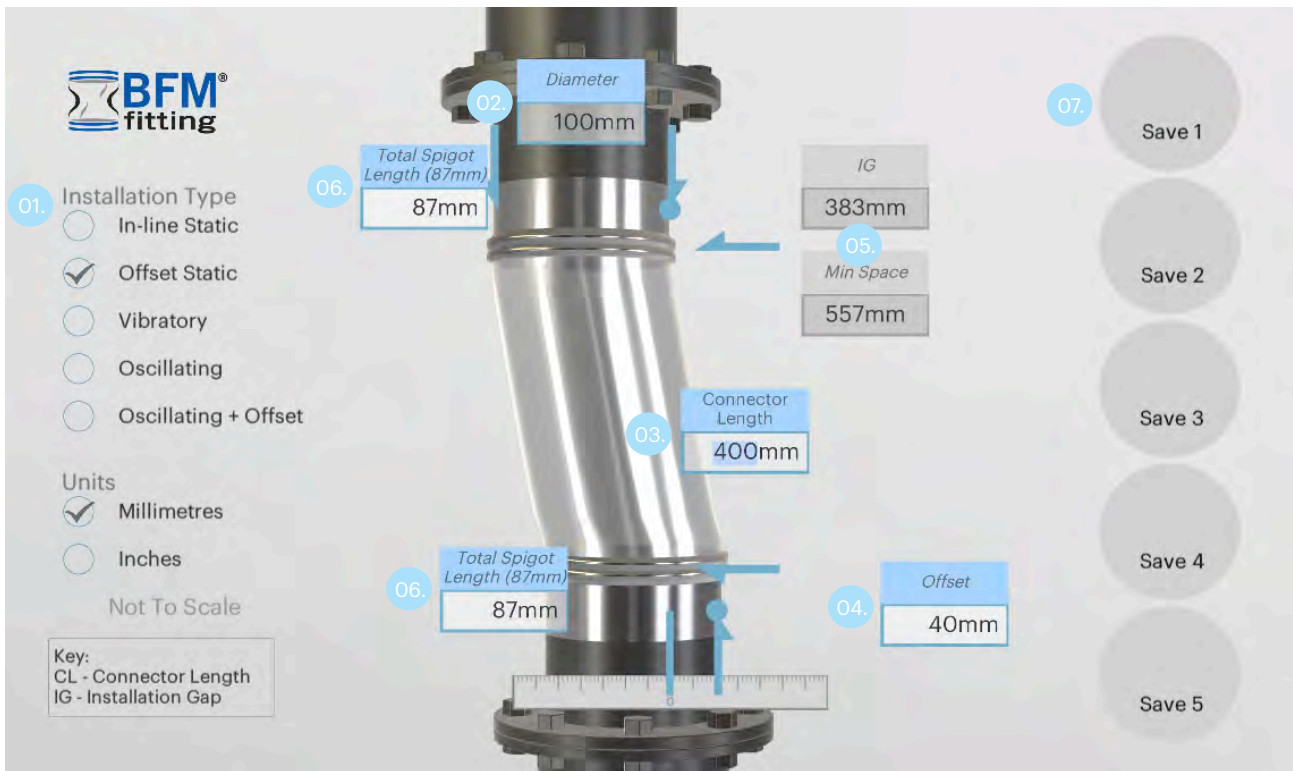


# BFM® Installation Calculator V1 - User Guide

The BFM® Installation Gap Calculator allows you to calculate the correct Installation Gap and Minimum Space required to install a specific Connector Length.

Below is a step-by-step guide for using the IG Calculator, and over the page you'll find some general Calculator tips and information.



**01.** Select the 'Installation Type'.  
(You can adjust the 'Units' at any time during the calculation.)

- In-line Static
- Offset Static
- Vibratory
- Oscillating
- Oscillating + Offset

**02.** Enter the Connector Diameter

Diameter: 100mm

**03.** Enter the desired Connector Length

Connector Length: 400mm

**04.** Enter offset amount, or for vibrating/oscillating, measure total horizontal movement in both directions from a fixed point and enter longest measurement in either direction (see over page)

Offset: 40mm

*(Option not visible for Inline Static)*

**05.** The calculated Installation Gap (IG) and Minimum Space needed to install will display here.

IG: 383mm

Min Space: 557mm

*(The IG provided is the recommended measurement (gap) needed to be left between the two Spigots when welding them to the pipes.)*

**06.** If you want to reduce the Minimum Space needed to install, or would like to try a longer Connector (but have limited actual space available to install), you can alter the Spigot Lengths and recalculate.

*(Default set at 87mm full spigot length)*

Total Spigot Length (87mm)

Total Spigot Length (87mm)

**07.** At any time, you can save a completed calculation by clicking on a 'Save' circle.

*(You can save up to 5 different calculations as shown.)*

Save 1

Save 2

400mm length  
100mm diameter  
40mm offset  
87mm spigots  
383mm IG  
557mm Space

Save 2

## BFM® Installation Gap Calculator V1 - User Guide (continued)

**DIAMETER VS LENGTH:** The largest connector diameter is 1,650mm (65”), and the corresponding lengths are subject to the following:



- Any connector from 700mm (27½”) to 1,000mm (39½”) diameter can have a maximum length of 500mm (20”).
- Any connector from 1,050mm (41”) diameter to 1,650mm (65”) can have a maximum length of 200mm (8”).

*NB: There are additional diameter/length restrictions that apply to different materials and for connectors with rings - the calculations are provided based on our most common Seeflex 040E material. Refer to the 'Quick Ref Limitations Summary' for more information on the other material restrictions that apply.*

**SPIGOT LENGTH:** The top and bottom spigots can have different lengths. The default for both is set at the standard length of 87 mm (3½”), but they can be cut down to 35mm (1½”) length minimum. For any spigot length under 50mm (2”), it is important to ensure there is a heat sink to avoid distorting spigot when welding onto the pipe.

**MAXIMUM OFFSET/  
MOVEMENT:**

- Static:** Maximum Offset = 20% of CL (Connector Length) up to 100mm (max)
- Vibratory:** Maximum Movement = 20% of CL (Connector Length) up to 100mm (max)
- Oscillating:** Maximum Movement = 20% of CL (Connector Length) up to 100mm (max)  
*and*  
Minimum IG (Installation Gap) is (CL-25%)



**SAVING YOUR  
CALCULATIONS:**

To complete the calculation, ensure you have pressed 'Enter' on your keyboard to make sure your last data entry has been accepted. You can then click on the 'Save 1' circle on the right hand side of the Calculator screen - this will save all of the measurements for that particular calculation. You can continue with more calculations and save up to 5 on screen at the same time.

To save these calculations for future reference, you will need to take screen-shots (either using a 'clipping' tool or the 'print-screen' function).



## Measuring Offset & Movement

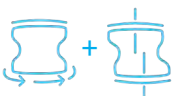
(TIP: it is usually easier to measure at the outside edge of the spigots)



For **Offset Static**, the measurement to enter into the 'Offset' box is the horizontal difference between a fixed point on the top Spigot compared to the same point on the bottom Spigot.



For **Vibratory** or **Oscillating**, the measurement to enter into the 'Movement' box is the *maximum horizontal movement in either direction* from a fixed point on the top Spigot compared to the same point on the bottom Spigot.



For **Oscillating + Offset**, the measurement to enter into the 'Movement' box is the *maximum horizontal difference in either direction* from a fixed point on the top Spigot compared to the same point on the bottom Spigot. This includes any initial offset (ie. you need to know the *total maximum horizontal difference in either direction vs if the two spigots were in alignment*).

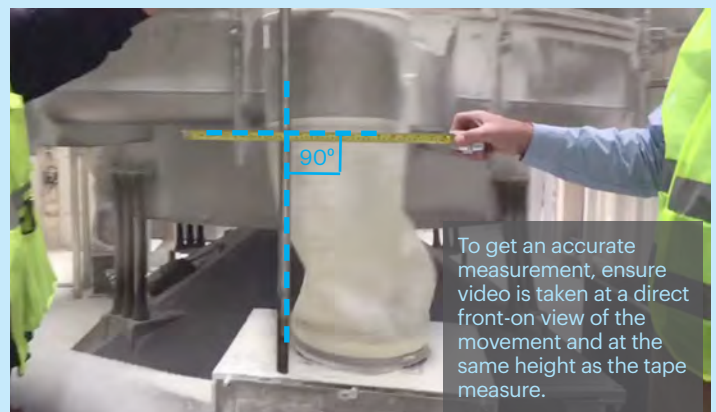
### HOW TO MEASURE:

The best way to measure Movement is to have a vertical marker (a stick or pole) held up at the edge of the pipe and then hold a tape measure at right-angles to the pole so that it extends across the front and past the edge of the moving spigot.

Then, using slow-motion on your phone/camera, video the movement of the spigot. You must have the camera at the same height and at a 90° angle to the tape measure to get an accurate reading.

It is best to video the movement at both start up and wind down, as there is often a larger swing at this time than during regular operation.

We recommend watching the 'Measuring for the Right Connector' video on the BFM® fitting website for more guidance.



To get an accurate measurement, ensure video is taken at a direct front-on view of the movement and at the same height as the tape measure.