GUIDELINES to Design Pulse Valve Adapter Plates

We are pleased to announce the release of guidelines that will help you take the right measurements to design the perfect adapter plate to replace diaphragm valves with Pulse Valves. This plate is located over competition base and under the PV.

As you can imagine, it is very important to have precise dimensions to avoid any potential leakage with this drop-in solution. The guidelines introduce the different steps to follow. Each measurement required is represented by a letter, and letters have to be reported in the Excel file attached.

1. Remove the upper part of the diaphragm valve

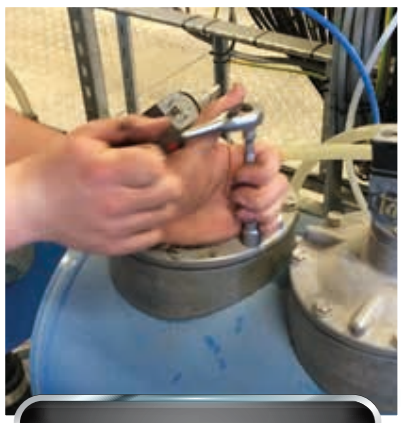
Two situations. See pictures below.

The competition base is inside a tank

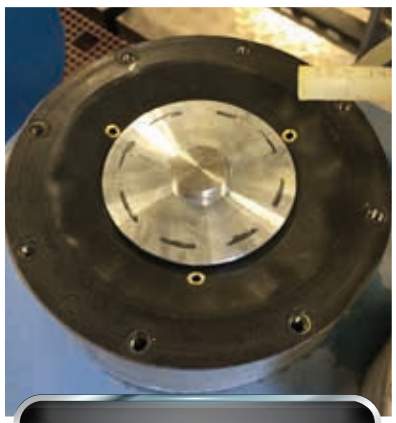
The competition base is outside a tank

In both situations, it is necessary to remove the screws of the upper part to have access to the base.

Once the upper part is removed, the diaphragm can be reached.



Remove the screws



Diaphragm is accessible

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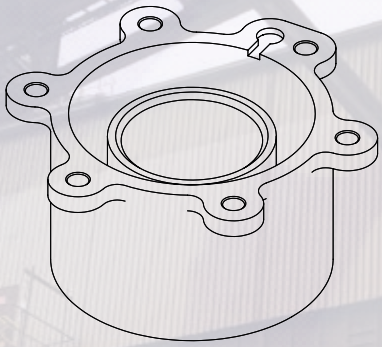
IMPORTANT

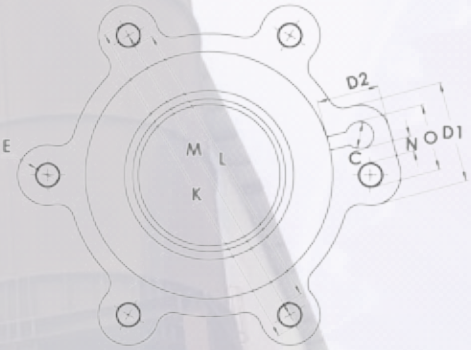
- ★ **Use a caliper to take measurements**
- ★ **Take maximum pictures of :**
  - ☞ Tank with / without diaphragm
  - ☞ Diaphragm
  - ☞ Top part of the diaphragm valve
  - ☞ P/N of competitor valve

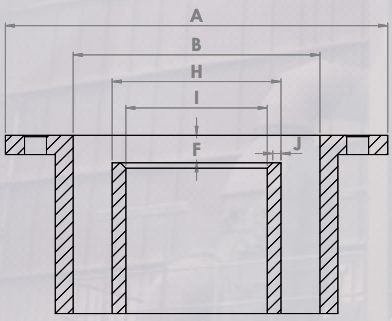
2. Measurements of the competition base

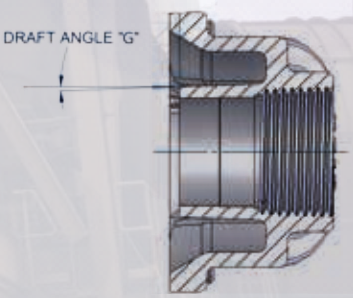
Each competition base is different. Below is a list of all the requirements that have to be considered. Not all of them are measurable according to the base that needs to be adapted. This step is crucial because a mistake can lead to leakage in the plate.

Follow the instructions below and report the Data in the Excel sheet









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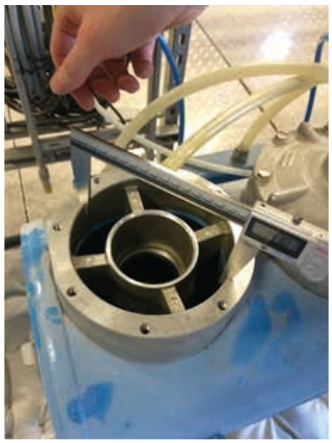
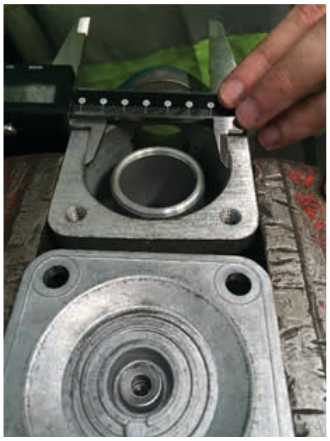
A) Diameter of the base: Letters A, B, C, D1, D2, H, I, K, L, M, N & O

Refer to the 3D drawing above to make measurements





B) Thread / Hole diameter: Letter E / Dim. E

Two cases: the holes can be with or without thread.

Therefore dimensions are important.

Example: the drilling for an M8 thread can be 7.4 mm or 7.6 mm, and not 8.0 mm precisely.

C) Height from the outlet port to the top of the valve: Letters F & J

Letter F: The distance from under the diaphragm to the top of the outlet port determines the length of the ring from the center of the adapter plate that covers the outlet port, and prevents any potential leakage.

To measure that distance, use a metal slat that you put on top of the tank, and take the measurement from the bottom part of the bar to the top of the outlet port.

Letter J: In depth, the inside of the outlet port can be thinner.

Report Data in the Excel sheet.

D) Outlet port / Inside of the tank: Letter I

Refer to the 3D drawing above for measurements

For letter I, the outlet port is sometimes inclined from inside to outside so the shape of the outlet port is conical.

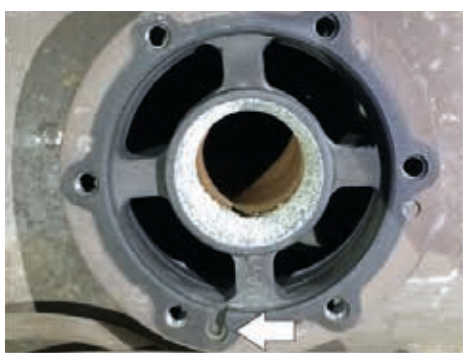
Accurate measurements are important to have the adapter plate ring cover well the outlet port.

E) Dimension of competition base bleed port : letter D1, D2

Bleed port dimensions determine the core maker location on the adapter plate.

Sometimes necessary for some plates & important to avoid any leakage.

Report Data in the Excel sheet.



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3. Measurement Table

Refer to Excel file to collect dimensions

Reference	Comments	Dimensions			
A	Outside diameter main outline (mm)				
B	Inside diameter main outline (mm)				
C	If exists, bleed port diameter (mm)				
D1	If exists, length of the bleed port station				
D2	If exists, width of the bleed port station				
E	Number of holes				
	Hole thread (Mx)				
F	Height from top of outside port to underneath the membrane (mm)				
G	Draft angle INSIDE or OUTSIDE of the outlet port	Inside ☐		Outside ☐	
H	Outside diameter outlet port (mm)				
I	Inside diameter outlet port (mm)				
J	In depth inside diameter outlet port (mm)				
K	Fixing points MAC base : External Diameters from opposite holes (for all opposed diameters)				
L	Fixing points MAC base : Internal Diameters from opposite holes (for all opposed diameters)				
M	Average diameters dimensions (mm)				
N	Min distance between closest fixing point to bleed port				
O	Max distance between closest fixing point to bleed port				