**WARNING**

Do not simultaneously use AutoCAD-based applications that use points with three coordinates.

It is possible to use backgrounds simultaneously, by running PAMCAD and inserting the background as an external reference. (AutoCAD command: “Insert” > “External Reference”) or to make a simple copy/paste from the existing drawing to PAMCAD.

**Important warning :**

> This software is the property of Saint-Gobain PAM.

> Drawing dimensions generated by this application are provided for guidance only, and Saint-Gobain PAM declines all liability in respect of their accuracy.

> Anyone using this software should refer to the Saint-Gobain PAM technical documentation containing product specification and application scope, and check that the drawn solution is technically feasible, taking into consideration the product specification and the condition in which they are to be installed.

> Saint-Gobain PAM reserves the right to alter the drawing dimensions of the product ranges to reflect changes to the products sold by the company.

> The existence of a drawing does not automatically imply that the corresponding part is available from stock.

> Saint-Gobain PAM accepts no liability for the consequences of misuse of this software application.
# Summary

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Quick installation

I.1. Synoptic of installation

1. Copy of the PAMCAD.V3.bundle bundler folder:

   %appdata%\Autodesk\ApplicationPlugins
   or in
   %programdata%\Autodesk\ApplicationPlugins

2. Run AutoCAD

I.2. Prerequisite

Choose between a type of installation in %appdata% or %programdata%.

Install the product in %appdata% allows a product’s installation without needing administrator rights, but make the product user-dependent and requires an individually installation.

Install the product in %programdata% make it available for all the users of the work station but requires administrator rights to be installed.

I.3. Procedure

1. Go to the directory %appdata%\Autodesk\ApplicationPlugins by typing the address in Windows explorer.
Quick installation

2. Copying the directory “PAMCAD.V3.bundle” in the directory %appdata%\Autodesk\ApplicationPlugins

3. Close and relaunch AutoCAD so that the changes take effect.

4. At the launching of PAMCAD, warning messages may appear. It needs to be answered by accepting to load files involved.
Use of the software

PAMCAD enables draftsmen to quickly and easily create sufficiently accurate and detailed drawings of the product ranges sold by Saint-Gobain PAM.

Running PAMCAD:

Type « PAMCAD » in a command line interface, use the toolbar or use the dropdown menu to launch PAMCAD.

The main menu of PAMCAD appears, and you can choose the part you want to draw. You must first choose the category, then you can select the part you want to draw.
**Use of the software**

Contents of each category are indicated in the following table:

<table>
<thead>
<tr>
<th>Gates valves chambers</th>
<th>Pipes and fittings</th>
<th>Valves</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Air valve chambers</td>
<td>- Pipes</td>
<td>- Gate valves</td>
<td>- Flange adaptors</td>
</tr>
<tr>
<td>- Wash out valve chambers</td>
<td>- Bends</td>
<td>- Butterfly valves</td>
<td>- Couplings</td>
</tr>
<tr>
<td>- Isolating valve chambers</td>
<td>- Tees</td>
<td>- Air valves</td>
<td>- Dismantling joints</td>
</tr>
<tr>
<td>- Turn out valve chambers</td>
<td>- Level invert tees</td>
<td>- Control valves</td>
<td></td>
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<tr>
<td></td>
<td>- Crosses</td>
<td>- Check valves</td>
<td></td>
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<tr>
<td></td>
<td>- Junctions 45°</td>
<td>- Filters</td>
<td></td>
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<tr>
<td></td>
<td>- Collars</td>
<td>- Hydrants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Tapers</td>
<td>- Multivalves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Excentric tapers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Flanged sockets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Flanged spigots</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blank flanges</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>- Reduction plates</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Pipe blocks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use of the software

Using Pamcad:

Selecting a product type in the dropdown menu opens a window that lets you specify the part parameters and the drawing view (front view, right view, left view, etc.).

You can select the product type and the different parameters by using static or dropdown menus. The view is selected by clicking in the View section of the screen.

Example: Bends

To insert the part manually, click OK.

To connect the part to another part created with Pamcad, click on the « Connect button » button.
Use of the software

Connection to an other part:
- Use the menus to select the part that you want to insert
- Click on the Connect button
- Then click on the junction where you want to insert the new part
- If the connections are compatible, the requested action is performed; if not, the program returns you to the menu.

Features availables:

Running Pamcad, this toolbar appears:

This toolbox enables you to use different features of PAMCAD, as the dropdown menu do.
Use of the software

Symmetry:
Provide a symmetrical representation of the selected part.

- Select « Symmetry » in Pamcad toolbar.
- Click on the axis of the piece you want to transform.

Select by family:
Identify parts in a drawing.

- Select the option « Select by family » in Pamcad toolbar.
- Choose the parts family you want to highlight.

All parts in that family will be drawn using broken lines.
Use of the software

Location:

Identify parts on the drawing by means of a number, which will be used, for example, when lists are generated.

- Use the dropdown menu or Main menu to open the “Location” window
- Enter a number for the part that you want to identify
- Click on “Ok”
- On the drawing, click on the part that you want to identify
- Set the insertion point for the number
- Repeat the procedure for the other parts

Part property:

Display the properties of the selected parts and insert them in the drawing.

- Select « Properties » in the Pamcad toolbar
- Click on a part
- Select the properties to insert in the drawing
- Click on OK and set the insertion point for the properties.
Use of the software

Dimensions:

Display the main dimensions of every part of the drawing.

You have the possibility to display dimensions in different units, and to change their size.

To remove the dimensions, click on the button ~ ~

Parts list:

This function, accessible via the dropdown menu and the Main menu, lets you create a table listing the selected parts.

- Select “Parts List”
- Select the options that you want to include in the table (using the relevant AutoCAD commands)
- Click on “Ok”
- Specify the insertion point for the table

If you select the "Export to file" option, a text file containing the parts list will be created in the same directory as the drawing file.
Use of the software

Scale:

Enable to reduce or augment the size of the texts which will be drawn using « Part properties » or « Dimensions » for example.

Scale factor : 1

Scale factor : 10

Angular displacement :

This function increase to view the angular deflection between pipes. The draftsman can then superpose the PAM-CAD drawing with a map to know if the network needs a bend or not.

- Select “Angular deflection”
- Choose the starting pipe
- Use the cursor to visualize the angular deflections.

The values of angular deflections are printed near every socket