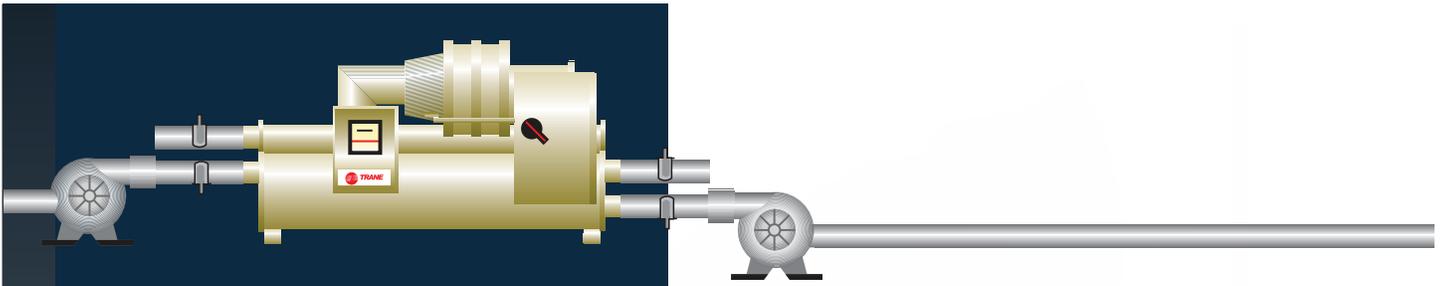




BAS
Graphics Library
for Microsoft® Visio®

User Manual vs.1.4

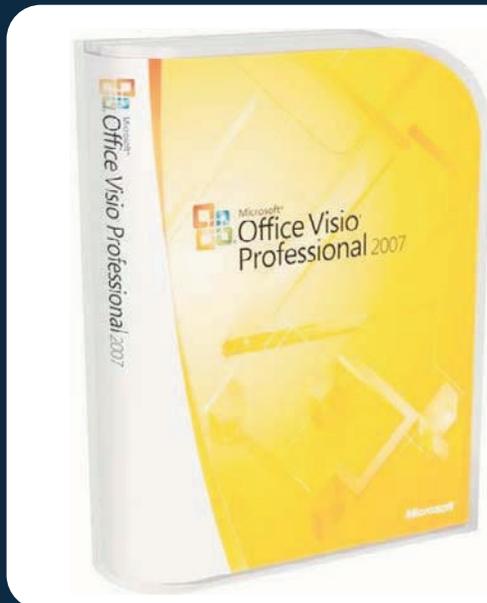


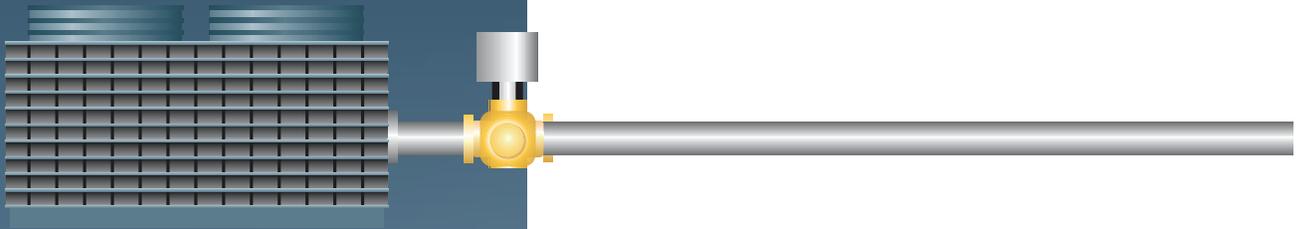
Introduction

This document is provided as an overview for our new graphics library now streamlined for Microsoft Visio. Its intention is to function as a procedural information resource rather than a tutorial. Big picture processes are covered to give the user familiarity as well as minor troubleshooting skills.

While some information may appear obvious to the experienced Visio user, this manual must appeal to the wide range of potential users. No matter your skill level, we strongly suggest reading completely through this document prior to contacting us as most questions will be answered herein.

Visio's interface was chosen as the platform for the new graphics library due to its popularity in the business world and overall ease of use. To access the Graphics Library you will need to install Microsoft Visio.





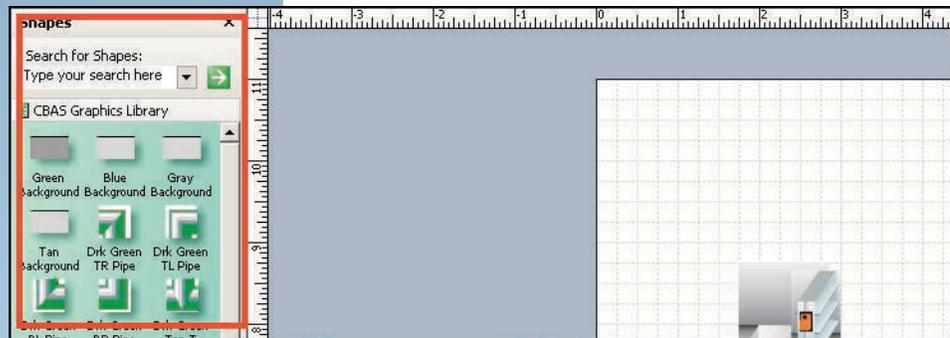
Using Microsoft Visio: A Basic Overview

Visio is a tool used through the business community to develop formulaic diagrams that convey complex business concepts, ideas, and systems. Typical operating procedure involves having two separate files open simultaneously: a stencil and a drawing.

The stencil is the file containing the family of images used to create a diagram. The drawing is the file where images from the stencil are placed (specifically in the “drawing area”). Both files exist separately so multiple stencils can be used to create a single document if desired.

Steps to begin creating a Visio drawing:

1. Open Microsoft Visio.
2. At the top menu, select “File > New > New drawing.”
3. Now open the Graphics Library stencil by selecting “File > Shapes > Open Stencil.”
4. Browse for the provided file named “CBAS Graphics Library.vss” and click “Open”
5. The Graphics Library stencil will appear on the left side of your screen with a green background.



Above: The stencil file appears on the left with a green background

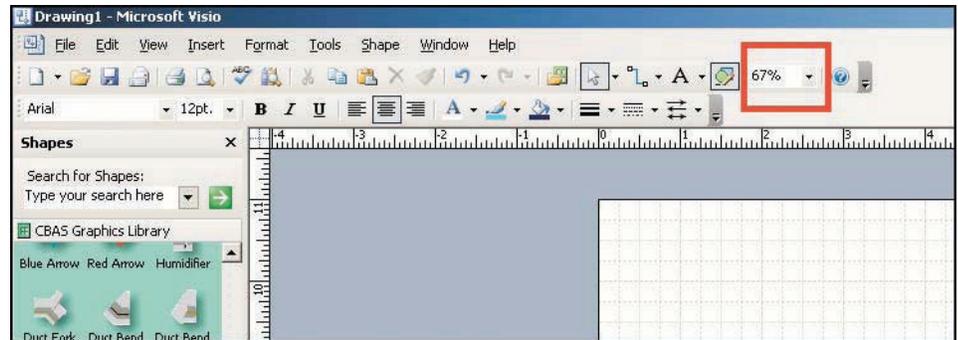
6. Click on an object in the stencil, hold down, drag, and drop the object onto your drawing. Continue this until your drawing is complete.

7. To view your drawing close up, select “View > Zoom” from the top menu, or use the quick menu pulldown at the top of the window. Zooming in on your drawing can help when you need to move an object slightly using the arrow keys on your keyboard.

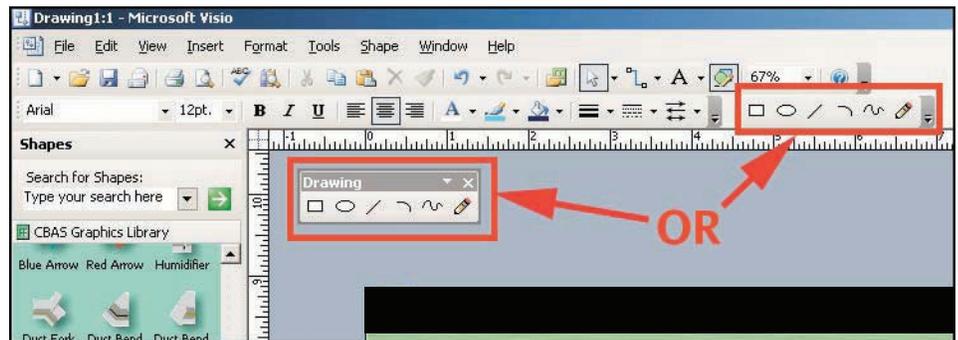
8. Microsoft Visio’s Drawing toolbar can be used to create a number of additional graphic elements. You can access the Drawing toolbar by selecting from the top menu “View > Toolbars > Drawing.” When you use the rectangle or circle tool to draw a shape in your document, you can change the line and fill colors. Select the object, then click the paintbrush icon on the top menu and select a line color. The fill color can be changed by selecting the paint bucket from the top menu and picking a color. To remove a line or a fill, simply select “No Line” or “No Fill” from each respective menu.

9. To save your drawing, select File > Save As from the top menu. We suggest making a new folder where you can organize your drawings for easy reference.

10. Refer to the “Creating BAS Graphics” section for information on exporting your final graphic

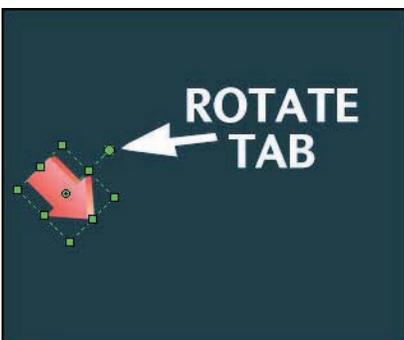


Above: Locating the zoom pulldown



Above: The Drawing toolbar can appear as a pallet or “nested” menu.

Manipulating an object in the drawing area:

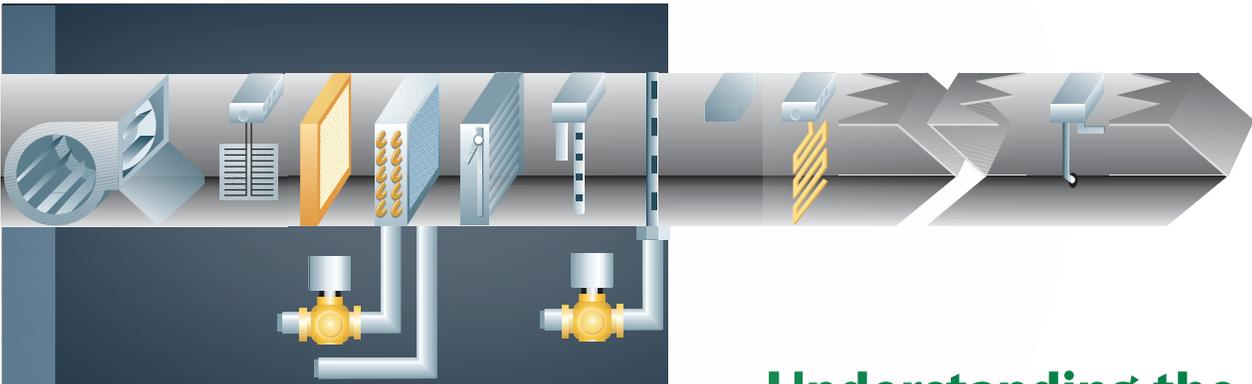


Above: Rotating an object.

1. To move an object already in the drawing area, click and drag it. For more sensitive increments of movement, select it, and while holding down a “Shift” key, use the arrow keys on your keyboard.
2. To deselect an object, click anywhere outside of the drawing area (this appears as the dark gray area of the drawing file’s window).
3. To scale an object, first select it, then while holding down a “Shift” key, click and drag on one of the green tabs on either side of the object.
4. To rotate an image, select the image, click and hold on the green tab sticking out from the top of the image. While holding, move your mouse to rotate the image.

5. Objects will end up on top of one another in the order they are placed in the drawing. To move one object behind or on top of another object, right click on that object, select “Shapes > Bring to Front” or “Shapes > Send to Back.”

6. You can neaten a column or row of objects by using the Align feature in Microsoft Visio. Select all the objects you want to align together. Go to the top menu and select “Shapes > Align Shapes.” A window will appear allowing you to choose how the selected objects are aligned.



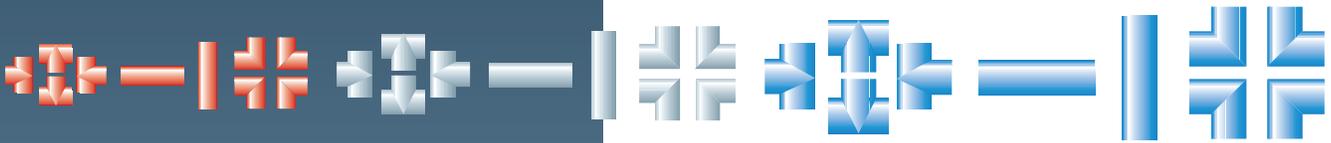
Understanding the BAS Graphics Library Stencil

We have developed a custom stencil file containing its own graphic library for use in developing BAS specific imagery. The mission of the library is making custom graphics readily accessible to dealers and sales teams who may have neither the time nor training to build high quality imagery for a project's BAS interface. To achieve this goal, we developed an interlocking "modular" library of HVAC industry images which can be placed side-to-side, top-to-bottom, or one over the other in any number of ways to create finished imagery for export to BAS editing software.

Among the many elements illustrated in the Graphics Library are:

- AHUs
- Multiple colors of piping
- Cooling towers
- Sensors
- Coils
- Valves
- Tanks
- Pumps
- Miscellaneous ductwork
- Dampers
- Chillers
- Button graphics
- Custom backgrounds

Through this assortment of modular elements, a dealer can generate within minutes a complete screen template and an illustration of the HVAC mechanics for any particular screen.



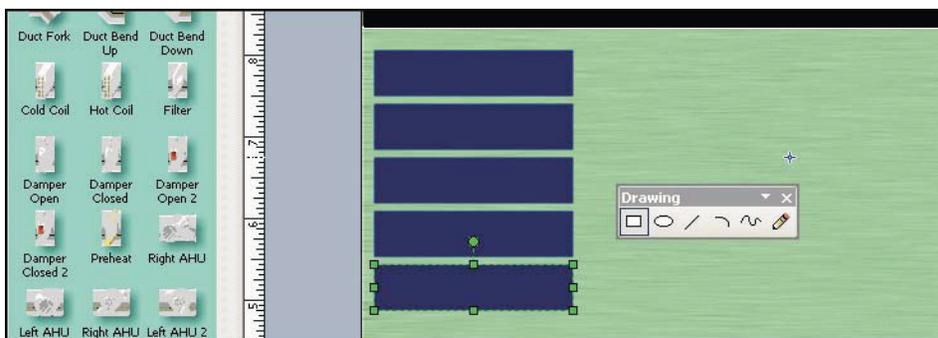
Creating BAS Graphics

Through use of the BAS Graphics Library, you can quickly develop entire BAS graphics to complete whole screens in the BAS interface. The end product is one single JPG image file that can then be imported into BAS. The following is a basic step-by-step approach to completing a BAS screen exclusively using the imagery in the graphics library.

NOTE: Steps 2-5 are extremely important to include each time you begin developing a BAS screen image—even if you do not intend to use one of the background images included in the graphics library. These steps ensure your end product has the correct overall dimensions for use in BAS.

1. Open a new document and the BAS Graphics Library stencil file.
2. Drag and drop one of the background images from the stencil onto the document.
3. At the top menu, select “File > Page Setup.”
4. A small window will appear. Click on the “Page Size” tab.
5. Select “Size to fit drawing contents” and click the “Ok” button. The drawing area of your document will now resize to the dimensions of the background image you placed.
6. Now that you have a background, you can

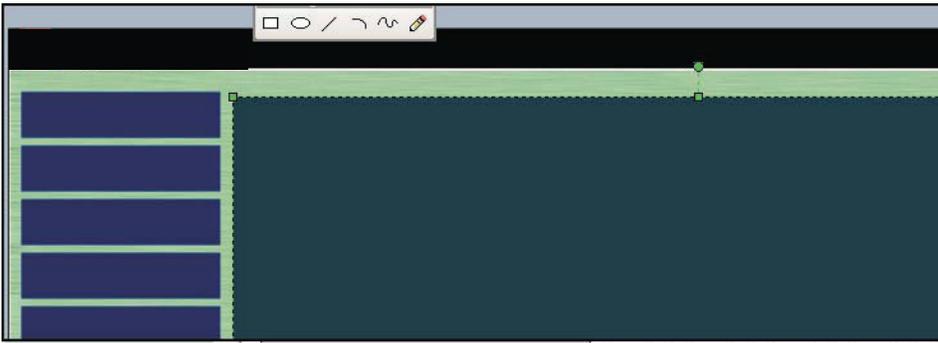
begin placing graphic elements for your overall BAS interface (i.e. menus). This will include button graphics, tabs, or any other areas where you might have a clickable field placed in the



Above: Using the Drawing pallet to make menu button graphics.

BAS editor. The graphics library stencil contains a button and a tab graphic, each of which can be placed multiple times in the drawing area. You can also use Microsoft Visio's Drawing toolbar to make rectangles and circles with colored backgrounds and borders, as well as individual lines of various thicknesses. Quicken the pace of making buttons by copying and pasting the same object until you have the number you need.

7. A large rectangle can be drawn to create the area where your mechanical illustrations will consistently appear. It is suggested that this be a very large area so a variety of mechanical HVAC illustrations will be able to fit. See the example below:



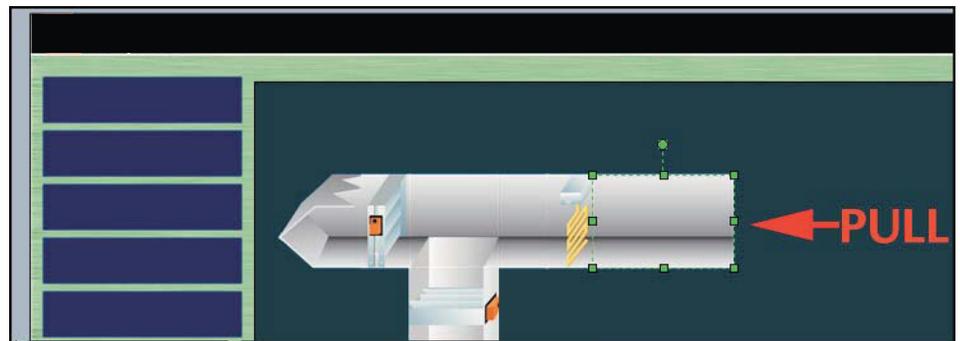
Above: A large rectangle was drawn as the zone for our HVAC illustrations.

drawing under a different name and begin laying out a mechanical illustration using objects from the BAS Graphics Library stencil.

10. Objects can be stretched by selecting and pulling on any one of the green tabs. This is useful for horizontal and vertical pipe and duct graphics that need to take up more room.

11. When you have completed a mechanical HVAC composition, save the drawing in the folder you made for the project. Use a name that briefly, but clearly describes the particular drawing. This will help you locate the drawing later.

12. After saving, you're ready to export the finished drawing for use as a screen in BAS.



Above: A graphic element can be stretched by pulling any of its green tabs.

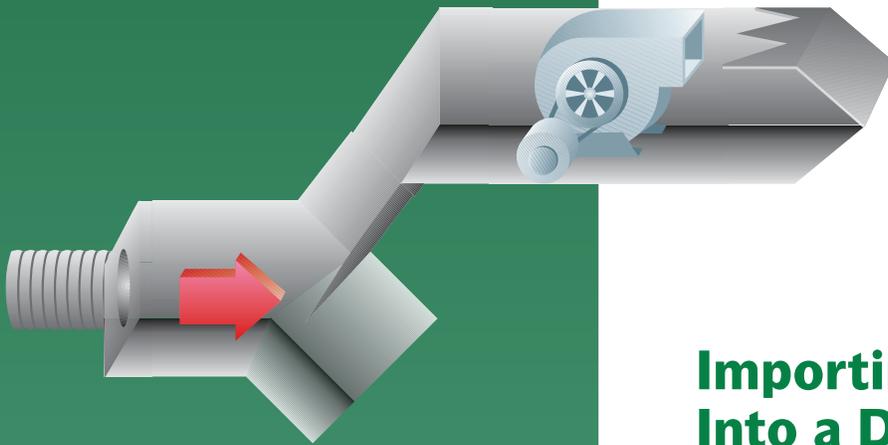
Note: Make certain you do not place objects or drawn elements (rectangles, lines, etc.) outside of Microsoft Visio's drawing area (the white area with the grid pattern). Microsoft Visio will export all graphic elements in a drawing thereby making your exported composition too long or too tall.

Exporting a Drawing for Use in BAS

When you're satisfied with a drawing, it's ready for importing into BAS. To prepare the file for this, it must be exported from Microsoft Visio. These steps outline the process you should follow to make sure your file is exported properly.

1. On the top menu, select "Edit > Select All."
2. Go to "File > Save As."
3. Locate the folder you want to export your graphic to.
4. Name your file in the "File Name" field. ***DO NOT use spaces or periods in the file name.***
5. Click on the "Save as type" pull down and scroll down to the selection titled "JPEG File Interchange Format (*.jpg)." Click the "Save" button.
6. A window will appear with specific details that can be modified for your file. You can select the background color that your file will have (in case you are not using a background image) and the image quality (higher quality produces a larger file size). These preferences are up to you and will not make-or-break the end product.
7. Under "Resolution," select "Custom." In the first two fields to the right of Custom, enter "72" in both.
8. Ensure that under "Size" the option "Source" is selected.
9. Click the "Ok" button.

Note: Step 1 is extremely critical. Any objects selected will be the only objects exported. Conversely, if no objects are selected, everything will export. The best course of action is to use the "Select All" command to ensure every object in the drawing is exported together.



Importing Objects Into a Drawing

You may find that you need to add an object that is not available in the BAS Graphics Library stencil to a drawing. This might be a logo for your company, a logo for your client, or some other job-specific image such as a location photo or floor plan.

If a job-specific logo needs to appear throughout all your BAS screens, we suggest importing that image prior to completing your template file so it does not need to be imported again each time you start a new drawing.

The following steps should be taken to import images:

1. On the top menu, select “Insert > Picture > From File.”
2. Browse for the image file you want to insert.
3. Select the file and click the “Open” button.
4. The object will appear selected in the drawing area. You can now manipulate it by scaling, moving, or rotating like any other object in your drawing area.

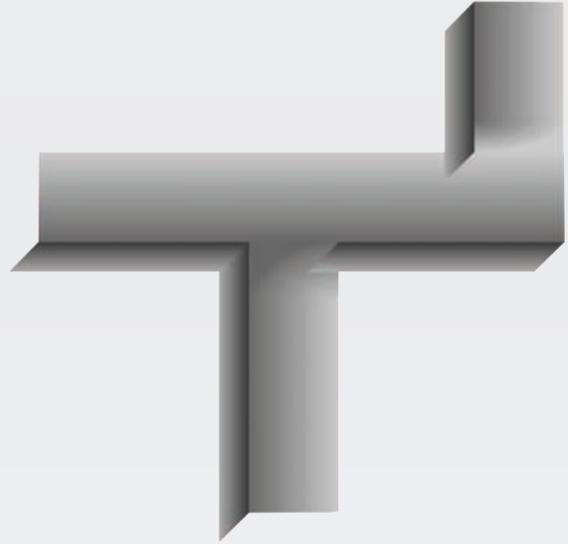
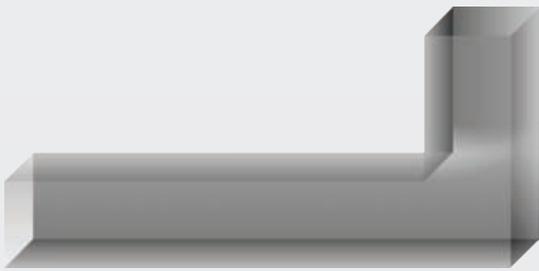
Objects that are imported into Microsoft Visio become “embedded” in the drawing file. This means you can use the drawing file independently on other computers without also having the files for your imported objects. The Microsoft Visio drawing saves its own copy of the object.

Note: If an image with a transparent background is desired, import an image that was saved as a transparent GIF (*.gif). Check your photo-editing software manual for how to produce a transparent GIF.

Sample Graphics

With over 1000 individual renderings, the BAS Graphics library provides a comprehensive suite of tools for rapidly creating BAS graphics. Included here is an overview of some of the included graphics.

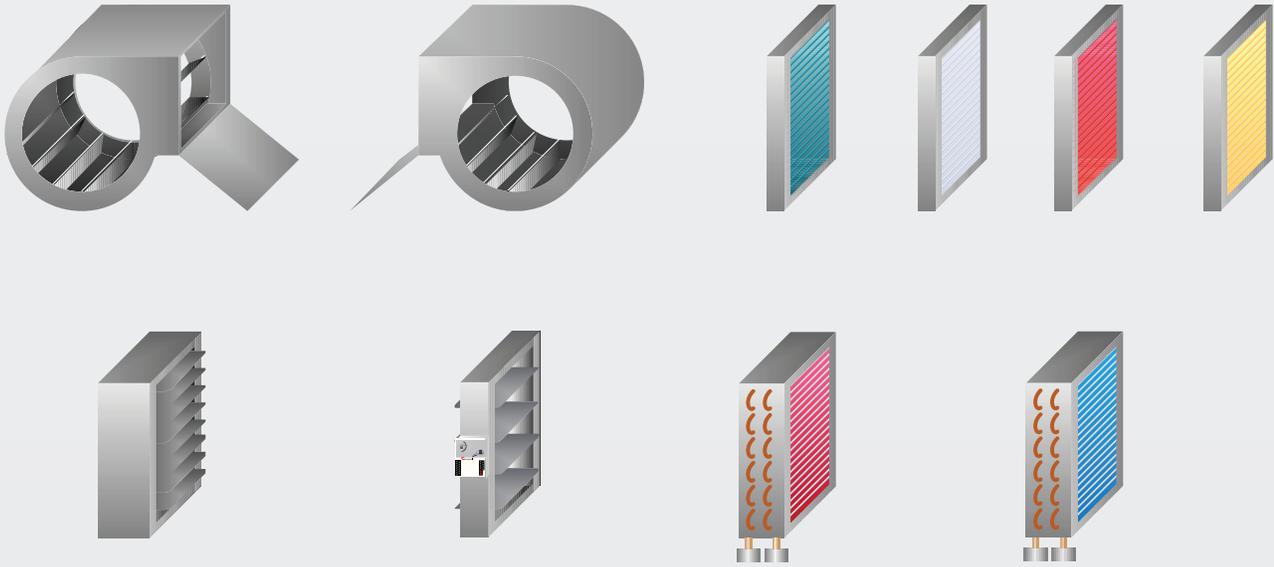
Duct Pieces



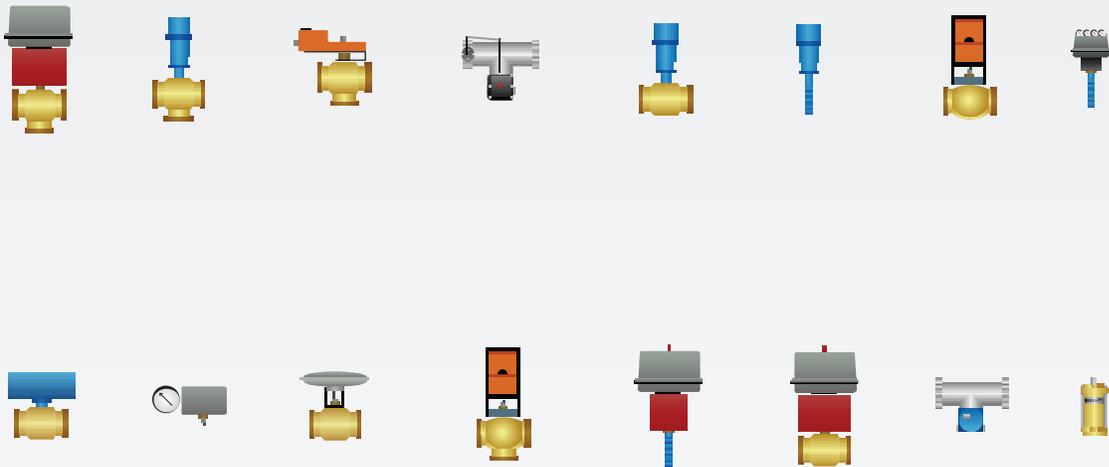
Duct Sensors



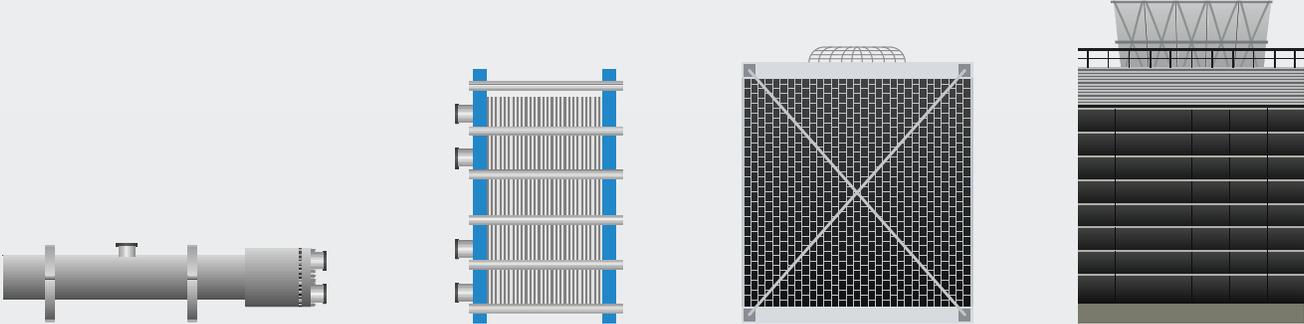
Duct Equipment



Pipe Sensors and Valves



Pumps and Cooling Towers



Large Equipment Chillers

