AcornPipe Surface Area Calculation 1

AcornPipe's surface area calculation is intended to help estimate painting costs. It assumes you don't paint the inside! Since the surface area of fittings is just a rough proxy for paint costs, the surface area calculation is not intended to be equally precise for every item.

Pipes: AcornPipe uses the OD of the pipe with the formula Pi x diameter x length.

Reducers: Reducers are assumed to be the same as a piece of pipe of the larger size, same length as the reducer.

Elbows: BW elbows are assumed equivalent to a piece of pipe of the same length, as measured along the centerline of the elbow.

Flanges: Flanges are assumed equivalent to 24 inches of pipe.

Branches: Weldolets and sockolets are taken as equivalent to a pipe whose length is the branch's arm2 dimension (basically the part beyond the header).

Caps: Caps are assumed equivalent to 12 inches of pipe.

Tees, SW Elbows etc.: Tees, crosses, connectors, stub ends and SW/TH elbows are assumed equivalent to a length of pipe adding up to the dimensions of their arms. So a reducing tee will give less surface area than a straight tee.

Miscellaneous Items such as shoes, valves, and gaskets do not currently have any associated surface area.

You can check what surface area AcornPipe has assigned to an item by calling up the item information window. Press shift-F11 and select Item Information. You can then use right and left arrow keys to go through each item in turn.



Most users seem to like to treat everything less than 2 inch size as nom. 2 inch for the purposes of surface area calculations, and this is the default. However, under Master Files/Minimum Weld Sizes, you can specify a different minimum pipe size for the surface area calculation.

🛇 AcornPipe - Minimum weld sizes for calculations					
Minimum size for Diameter-Inch calculation	Socket Welds	Buttwelds	WOL Welds	Nozzle Welde	Slip-On Welds
These calculations also use factors in: Fitting Ratings Flange Ratings MatGroup factors Weld Wall Factors	Sloped Factor	Min Size	for Surface Area Calc		<u>C</u> lose