

ORIFICE[®] for Windows[™]

Flow Element Sizing Software



Developed by FlowSoft Inc., St. Charles, MO

FlowSoft's **ORIFICE for Windows**, flow element sizing software package, allows you to quickly and easily size all types of flow elements, in either English or S.I. units. By computerizing the sizing of flow elements, you can save time and improve the accuracy of your calculations.

There are over 600 fluids in the program's fluid property database. Simply select the fluid name and **ORIFICE for Windows** automatically computes the density, viscosity, and other fluid properties.

ORIFICE for Windows Highlights

- Size virtually all types of flow elements, such as orifice plates, flow nozzles, venturi tubes, and restriction orifices.
- Size for Beta Ratio, Flow Rate, or Differential Pressure.
- Works with liquid, gas, vapor, or steam flows.
- Supports both English & SI Units.
- Store and recall calculations from any disk drive including network file servers.
- Fluid physical property data built-in on over 600 fluids.
- Built-in pipe data for over 300 carbon steel and stainless steel pipes in all schedules.
- Printout detailed specification sheets.
- Configure the program to operate with the default values you normally use.

- Extensive error checking with on-line suggestions to correct problems.
- On-line pop-up help at any place in the program, with a click of the mouse.
- Runs under Windows 95, 98, 2000, or NT4
- Free updates and technical support for six months on our Internet web site.

English or S.I. Units

Select virtually any unit of measure in either English or S.I. units. You can even "mix and match" units. For example, you can select differential in inches of water column and flow in cubic meters per second.

Beta, Flow, or Differential Calculations

The program will calculate for Beta Ratio, Flow Rate, or Differential Pressure. The "back calculation" feature is useful for sizing an existing flow element for different process conditions.

Sizes Orifices, Nozzles, & Venturi Tubes

ORIFICE for Windows will size all types of concentric, eccentric, and segmental orifice plates at all tap locations, flow nozzles, venturi's, low loss venturi's, and restriction orifice plates. Just select the desired flow element and **ORIFICE for Windows** will use the proper equations to quickly and easily size the element.

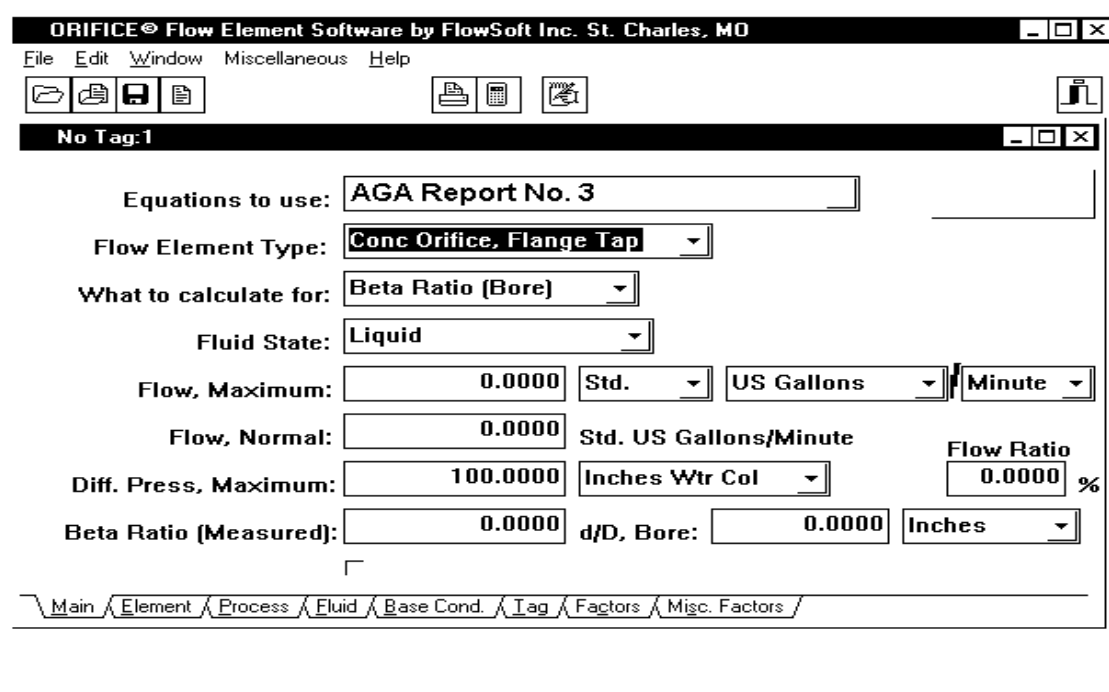


Figure 1 Example of Main ORIFICE Screen

Automatic Units Conversion

All common units of measure for fluid properties, pressure, flow, temperature, differential pressure, etc. are supported by **ORIFICE for Windows**. No time consuming and error prone data conversions are required. You can “mix and match” units. For example, enter pressure in pounds per square inch and flow in kilograms per hour.

Data Validity Checks

ORIFICE for Windows will monitor your input data and display possible data entry errors. When a error is detected, a message instantly pops up, warning you of a potential problem.

Program checks for possible errors. Such as the pressure drop exceeding critical drop or sonic velocity. This is a common problem with restriction orifices and can cause significant errors if not addressed.

The program automatically checks the results of a calculation to be sure that the data are within limits.

Pipe Data

Built in pipe size data for over 300 sizes and schedules of carbon steel and stainless steel pipe. The user simply selects the nominal pipe size, schedule and material from a pop-up menu. **ORIFICE** then supplies the necessary pipe data. If you are using a honed meter section or one with special diameter pipe, you can enter the actual inside diameter directly.

Fluid Properties Database

Fluid properties on over six hundred (600) fluids including air, steam, and water are instantly available. **ORIFICE for Windows** will quickly compute the physical properties for most fluids without having to resort to property tables and look up charts. This saves time during data entry and prevents look up errors. For fluids not in the database, there are a number of internal routines to compute the physical properties of a fluid.

Prediction Methods Supported

1. AGA NX19
2. Redlich Kwong method.
3. Fluid property predictions for over 600 fluids. When one of the fluids is selected,

the program will automatically compute the required properties.

Energy Analysis

ORIFICE for Windows computes the permanent pressure loss at both normal and maximum flow rates. This allows the user to quickly and easily determine the energy required by the flow element. Compare various types of flow elements to see if a more energy efficient flow element might be a better choice.

Drain/Vent Hole Correction

ORIFICE for Windows will automatically compute the correction factor for a drain or vent hole if one is used. The program will select the hole diameter automatically or it can be entered manually.

Save & Recall Data

Flow element data can be stored for easy retrieval and access. The user can set the default conditions for a calculation and the desired units of flow, pressure, temperature, density, etc. are automatically used. It is not necessary for the user to input these items during the data entry phase. If changes are required, the user need only change the data and recalculate without having to reenter all the data.

Visit Our Internet World Wide Web Site

Browse our Internet web site, <http://www.FlowSoft.com>, for on-line literature and technical support. Download updates with a software maintenance contract. Email address is Info@FlowSoft.com for general questions and TechSupport@FlowSoft.com for technical support questions.

Technical Support & Program Upgrades

Technical support is provided for 90 days via email. Software program update service (Software Maintenance Contract) is available for \$250.00 per year and must be ordered within the first six months after purchase of the program.

Custom Programming Services

FlowSoft develops both Windows and DOS based custom software packages. Normally most programming is done in C++ but we also work in most common programming languages. Contact FlowSoft for additional information.

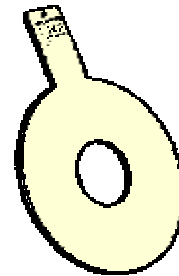
Year 2000 Compliant

ORIFICE for Windows is fully Year 2000 Compliant (Y2K). All date fields are handled in their full precision to eliminate any date related problems in the year 2000 and beyond.

Pricing and Delivery

ORIFICE for Windows program will normally be shipped within 1-2 days after receipt of order. Cost is \$1,195.00 (US. Funds, single user version) plus \$17.50 for shipping and handling. Multi-user shipping is \$25.00.

Free program updates for 6 months are included. Updates can be downloaded from our web site, www.FlowSoft.com.



Price **\$1,195** single user

Multi-User Network Versions

ORIFICE for Windows is available in multi-user versions for network installation.

3 User Network Version - \$2,995
5 User Network Version - \$4,495
10 User Network Version - \$7,495
20 User Network Version - \$12,595

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ORIFICE for Windows Order Form

Bill To:	Ship To:
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Attention : _____	Attention : _____
Street : _____	Street : _____
Addnl..... : _____	Addnl : _____
City, ST ZIP : _____	City, ST ZIP : _____
Attention : _____	Attention : _____
Telephone.... : _____	Telephone ... : _____

Quantity	Program	Price Each	Total
	ORIFICE for Windows – Single User	\$1,195.00	
	ORIFICE for Windows – 3 User	\$2,995.00	
	ORIFICE for Windows – 5 User	\$4,495.00	
	ORIFICE for Windows – 10 User	\$7,495.00	
	1 Year Software Maintenance Contract	\$250.00	
	2 Year Software Maintenance Contract (10% savings)	\$450.00	
	3 Year Software Maintenance Contract (20% savings)	\$600.00	
	Single User Shipping (Federal Express 2 day)	\$17.50	
	Multi-User Shipping (Federal Express 2 day)	\$25.00	
	COD Charge	\$7.50	
	Total Cost		

Method of Payment

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Name on Credit Card (Printed) _____ Date _____

Signature _____

Note: If purchase order is used, a copy must be attached to this order.