

## Information Products/Markets

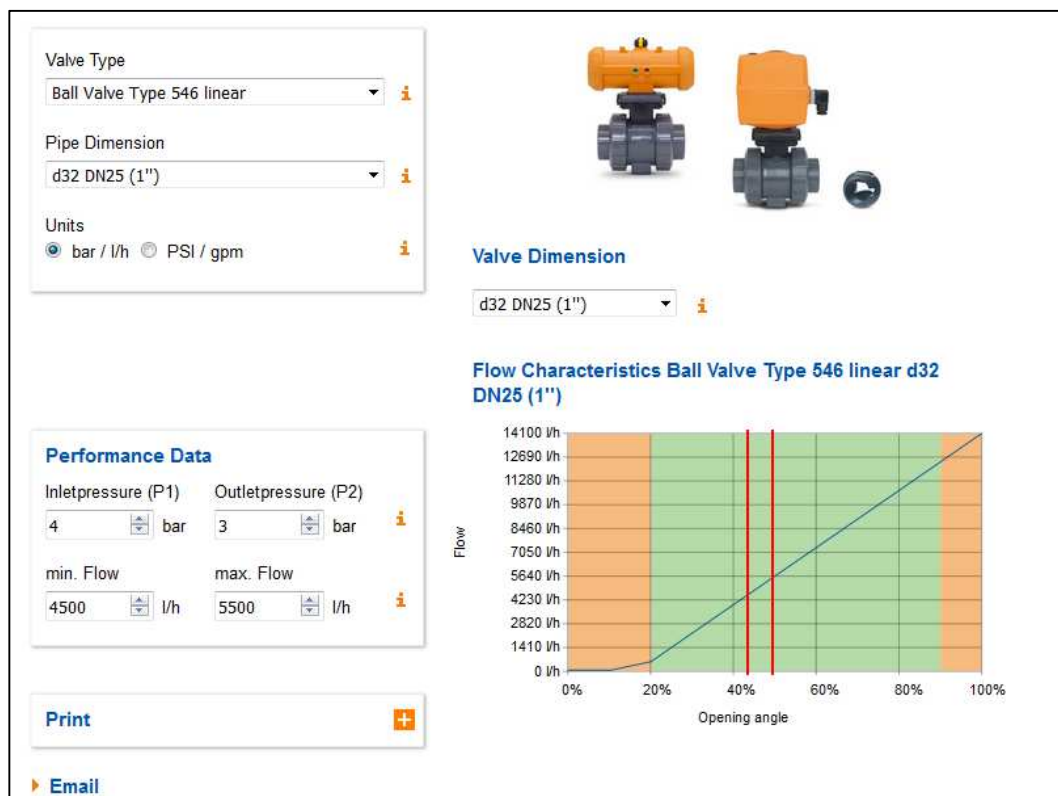
### IS 21 /2017 – BU Industry

## Control Valve Calculator

We realized that the size of control valves was very often defined just by the pipe dimension and not in relation to the effective flow characteristic of a specific valve type. This may lead to inefficiency, sometimes even to product claims and unhappy customers

To reduce this kind of complains and to add value to our automation product range, we are pleased to announce the release of our new “Valve Sizing” online tool , which offers you and your customers a calculation platform to find the correct size for control valves .

The tool **calculates the operation area in relation to the opening angle and effective flow**. These calculations used to be very complex and were made manually with our printed planning documents, which often led to the wrong valve dimension. With this tool, only the process parameters are required and the operation area of the valve is directly visualized in the diagram.



**Benefits:**

- Faster reaction to customer request due to online accessibility of tool
- Easy documentation & sharing
- Easy calculation of correct valve size

**Additional Features:**

- Print the document, ideal for project documentations
- Enter the process parameters once; mail it to yourself to store, or to discuss the results send it to a colleague. By clicking on the "Email"-button a specific URL is going to be generated with the process parameters stored.
- Our valves often have a higher flow rate than our competitors; with this tool it is easy to illustrate the value of our valves.

**Availability:**

The new Control Valve calculator is available in the Online Tools section of our International website [www.gfps.com](http://www.gfps.com) : try it now! [www.gfps.com/control-valve-calculator](http://www.gfps.com/control-valve-calculator)

The screenshot shows the GF Piping Systems website interface. The top navigation bar includes the GF+ logo, the text "GF Piping Systems", and links for "Corporation", "GFPS Headquarters", and "English". Below this is a secondary navigation bar with "Products & Solutions", "Support & Services", and "About GF Piping Systems".

The main content area is titled "Control Valve Calculator: How to find the optimal valve dimension". It contains a descriptive paragraph, a selection of valve types and pipe dimensions, and a "Performance Data" section with input fields for inlet/outlet pressure and flow rates. A "Flow Characteristics" graph is also present, showing flow rate versus opening angle. A red circle highlights the "Online Tools" menu item in the left sidebar, and another red circle highlights the "Control Valve Calculator" option within that menu.

**Control Valve Calculator: How to find the optimal valve dimension**

Valve and pipe dimensions are still automatically selected to be the same by many installers, although a smaller valve dimension is often more advantageous for a precise flow. This online calculator helps you to calculate the best valve size for your installation.

Select the required valve type and pipe size and enter your process parameters. Then you can choose between different valve sizes. If the working range of the selected valve is optimal, you will see it, marked by two red lines, in the green area of the diagram. If not, please correct accordingly:

- If the opening angle is in the front orange section ("vibration"), select a smaller valve size.
- If the opening angle is in the back orange section ("cavitation"), select a bigger valve size.
- If there is no red line in the graph, please check if the flow rate is within the range of the selected valve.

If you are not sure about the exact value of inlet pressure (P1) and outlet pressure (P2), we suggest to start with  $\Delta P = 1 \text{ bar} / 14.5 \text{ psi}$  ( $\Delta P = P1 - P2$ ).

Valve Type: Diaphragm Valve Type 514 - 517

Pipe Dimension: d20 DN15 (1/2")

Units:  bar / l/h  PSI / gpm

Valve Dimension: d20 DN15 (1/2")

Performance Data

|                           |                              |
|---------------------------|------------------------------|
| Inletpressure (P1): 5 bar | Outletpressure (P2): 4.5 bar |
| min. Flow: 1200 l/h       | max. Flow: 2500 l/h          |

Flow Characteristics Diaphragm Valve Type 514 - 517 d20 DN15 (1/2")

| Flow (l/h) | Opening angle (%) |
|------------|-------------------|
| 5303       | 100               |
| 4773       | 90                |
| 4243       | 80                |
| 3712       | 70                |
| 3182       | 60                |
| 2652       | 50                |
| 2121       | 40                |
| 1591       | 30                |
| 1061       | 20                |
| 530        | 10                |
| 0          | 0                 |

Should you need any further information, feel free to contact us at:

