

VALVIO



Hints to use VALVIO
Bedienungstipps für VALVIO

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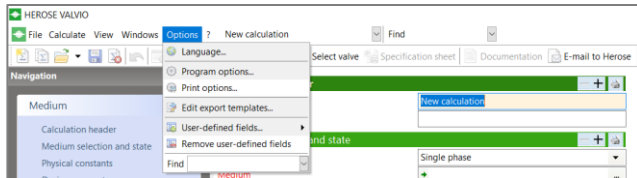
4. Help | *Hilfe*

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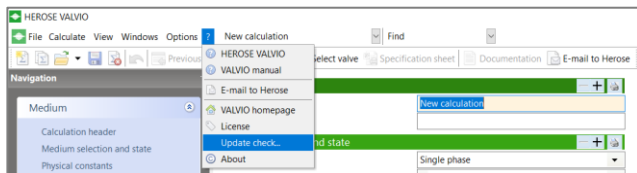
[4.3 Contact HEROSE | *HEROSE Kontakt*](#)

Settings | *Einstellungen*



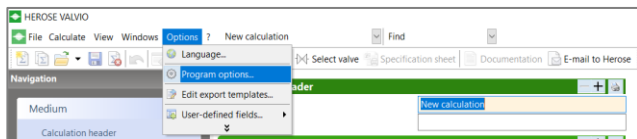
1. Language
 - Options
 - Language
 - Select your favorite language

1. Sprache
 - Extras
 - Sprache
 - Wählen Sie ihre Sprache aus



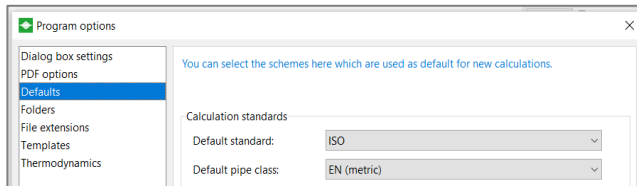
2. Updates
 - ?
 - Update check
 - Select your preferred rhythm for Updates

2. Updates
 - ?
 - Updateprüfung
 - Wählen Sie Ihren gewünschten Update Rhythmus aus



3. Unit of Measurement
 - Options
 - Program options
 - Defaults
 - Select your standard default values and unit of measurement

3. Maßeinheiten
 - Extras
 - Programmoptionen
 - Standardeinstellungen
 - Wählen Sie Ihre Standardwerte und –einheiten



Calculations | Berechnungen

1. Parameter Overview | *Parameter Übersicht*

Parameters: Overview

A parameter input field normally has the following structure:

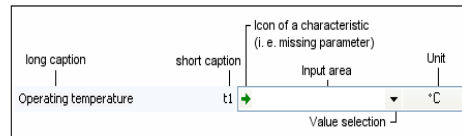


Figure: Structure of an input field












Each parameter has a long identifier and a short **caption**. The long caption provides an explanation of the parameter, while the short identifier is generally the name of a variable.

The **input box** shows the current value of a parameter. This value may be variable. In order to change the value, select the input box and enter another meaningful value in it. A selected input box has a colored background (usually pastel yellow).

Calculations | Berechnungen

1. Parameter Overview | *Parameter Übersicht*

To the left of the input box you may see **icons** with the following meanings:

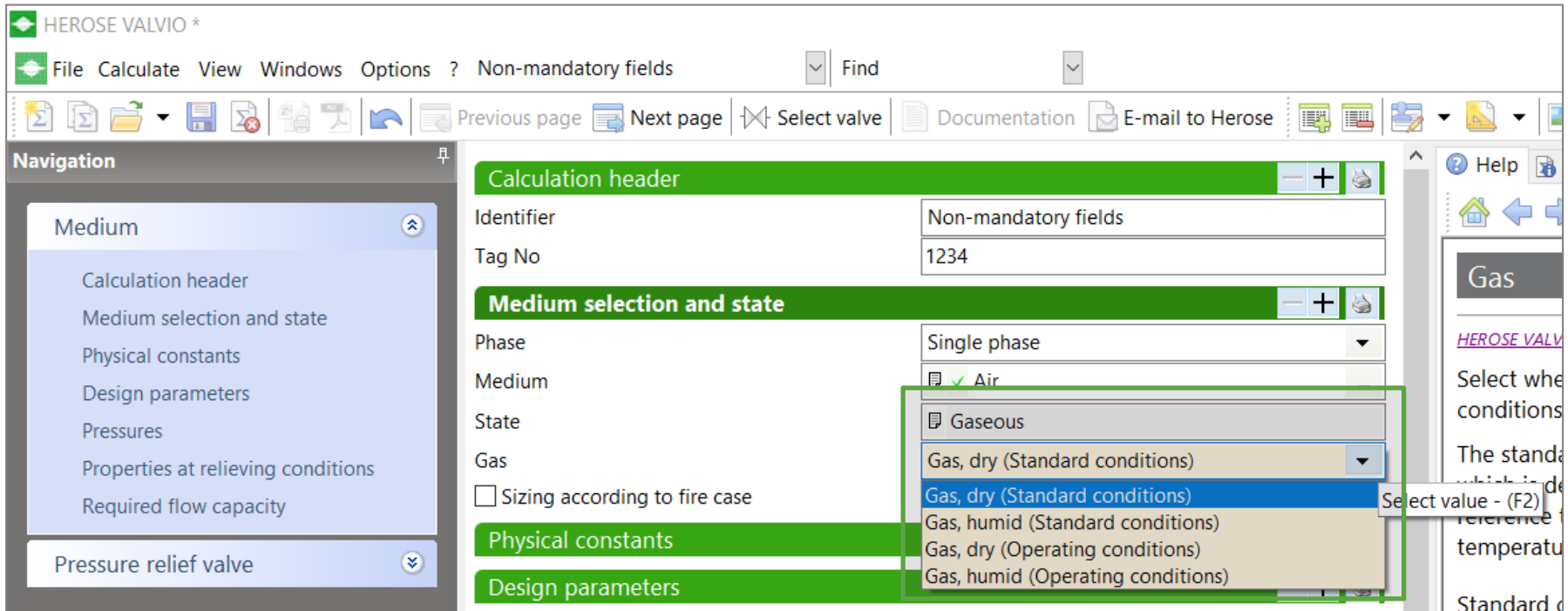
| | |
|---|---|
|  | Missing parameters generally result in an error. |
|  | Errors indicate that the calculation cannot be performed completely and possibly not at all (e.g. if a parameter has been given a meaningless value or if it cannot be calculated). |
|  | Alarms indicate that the calculation result may not be satisfactory. E. g. this can mean a device should not be used this way because it may be damaged. |
|  | Warnings are output if it may not be possible to perform the calculation correctly (e.g. in the event of choked flow or deviations from a standard). |
|  | Hints are messages which are probably not relevant (e.g. approximate values). They generally indicate the cause of a minor inaccuracy. |
|  | Confirmations indicate that the parameters of a calculation are consistent, so that the device can be used standard-conform. Please note that confirmations are not available in all modules and all cases. They are intended for complex constellations to confirm the conclusiveness of the calculation. |
|  | Calculated values are identified by a calculator icon. Click on this button if you want to represent the parameter on a graph as a function of an input parameter. |
|  | You can overwrite some calculated values with your own (measured) values. In this case, the calculator icon is struck through. Click on this button if you want to restore the value calculated by HEROSE VALVIO. |
|  | Values that have been looked up are identified by a sheet of paper. Looked up means that the value determined by HEROSE VALVIO is not based on a calculation, but has been taken from a table (possibly an internal one). |
|  | You can overwrite some looked-up values with your own (measured) values. In this case, the paper icon is struck through. Click on this button if you want to restore the value determined by HEROSE VALVIO. |
|  | If a note is attached to a parameter, this is indicated by a paper clip. Click on this button to open a dialog box in which you can edit the note. |

Calculations | Berechnungen

1. Parameter Overview | *Parameter Übersicht*

To the right of an input box you may see a button (▼) with which you can select a value. Click on this button if you want to use an interactive accessibility function.

Das Dreieck an der rechten Seite eines Feldes bietet die Möglichkeit eine Auswahl zu treffen.



HEROSE VALVIO *

File Calculate View Windows Options ? Non-mandatory fields Find

Navigation

- Medium
 - Calculation header
 - Medium selection and state
 - Physical constants
 - Design parameters
 - Pressures
 - Properties at relieving conditions
 - Required flow capacity
- Pressure relief valve

Calculation header

Identifier Non-mandatory fields

Tag No 1234

Medium selection and state

Phase Single phase

Medium Air

State Gaseous

Gas Gas, dry (Standard conditions)

Sizing according to fire case

Physical constants

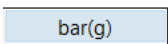
Design parameters

Gas

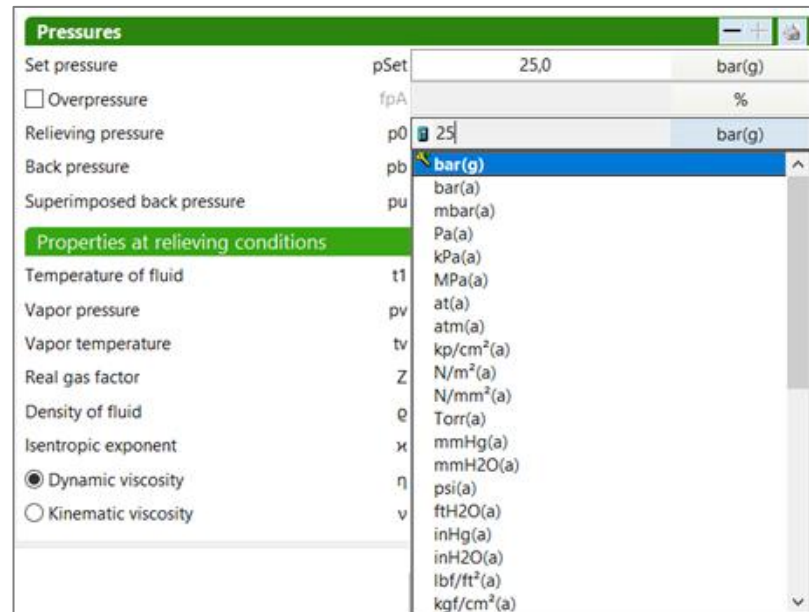
Select value - (F2)

Calculations | Berechnungen

1. Parameter Overview | Parameter Übersicht

The final element of a value parameter is the unit. Click on this button  if you want to change the measure unit.

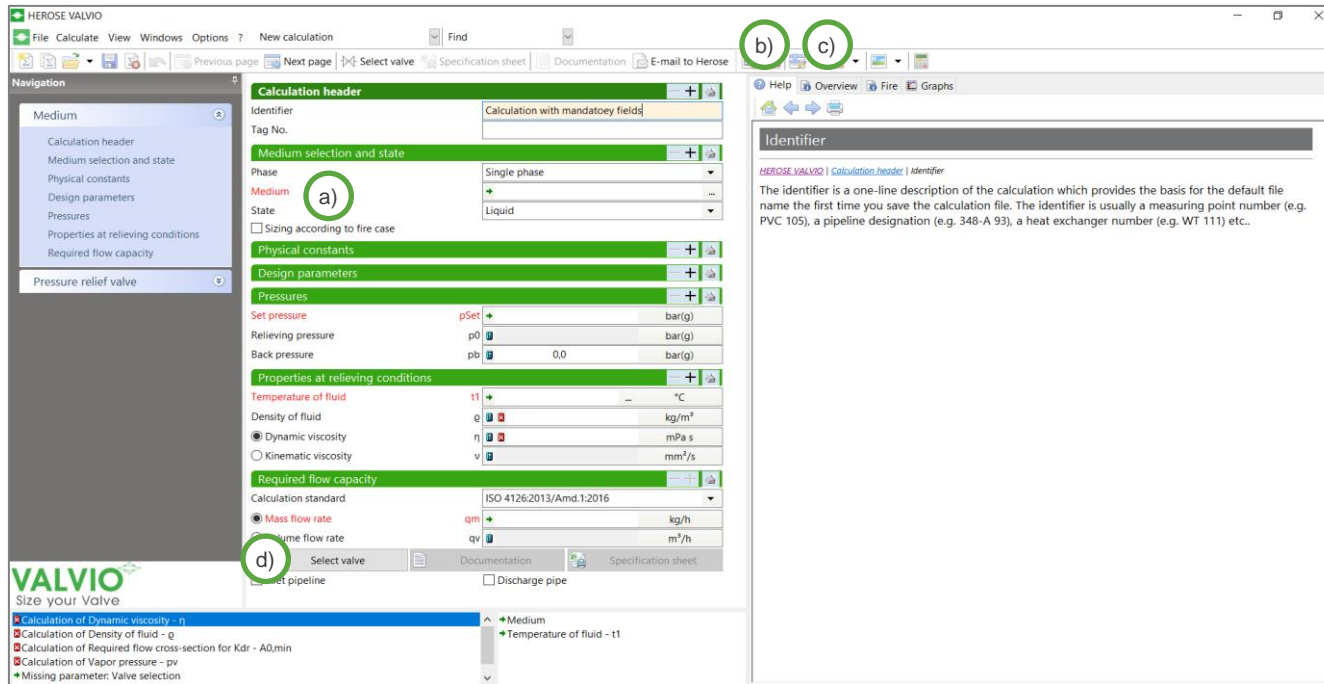
An der rechten Seite des Eingabefeldes befindet sich ein blau hinterlegter Button, der die Möglichkeit bietet die Einheit zu ändern.



The screenshot shows the 'Pressures' section of the VALVIO software. The 'Set pressure' parameter is set to 25,0 bar(g). A dropdown menu is open, showing a list of units for selection. The units listed are: bar(a), mbar(a), Pa(a), kPa(a), MPa(a), atm(a), kp/cm²(a), N/m²(a), N/mm²(a), Torr(a), mmHg(a), mmH₂O(a), psi(a), ftH₂O(a), inHg(a), inH₂O(a), lbf/ft²(a), and kgf/cm²(a). The 'bar(g)' unit is currently selected and highlighted in blue.

Calculations | Berechnungen

2. Calculation process with mandatory fields | *Ablauf einer Berechnung mit Pflichtfeldern*

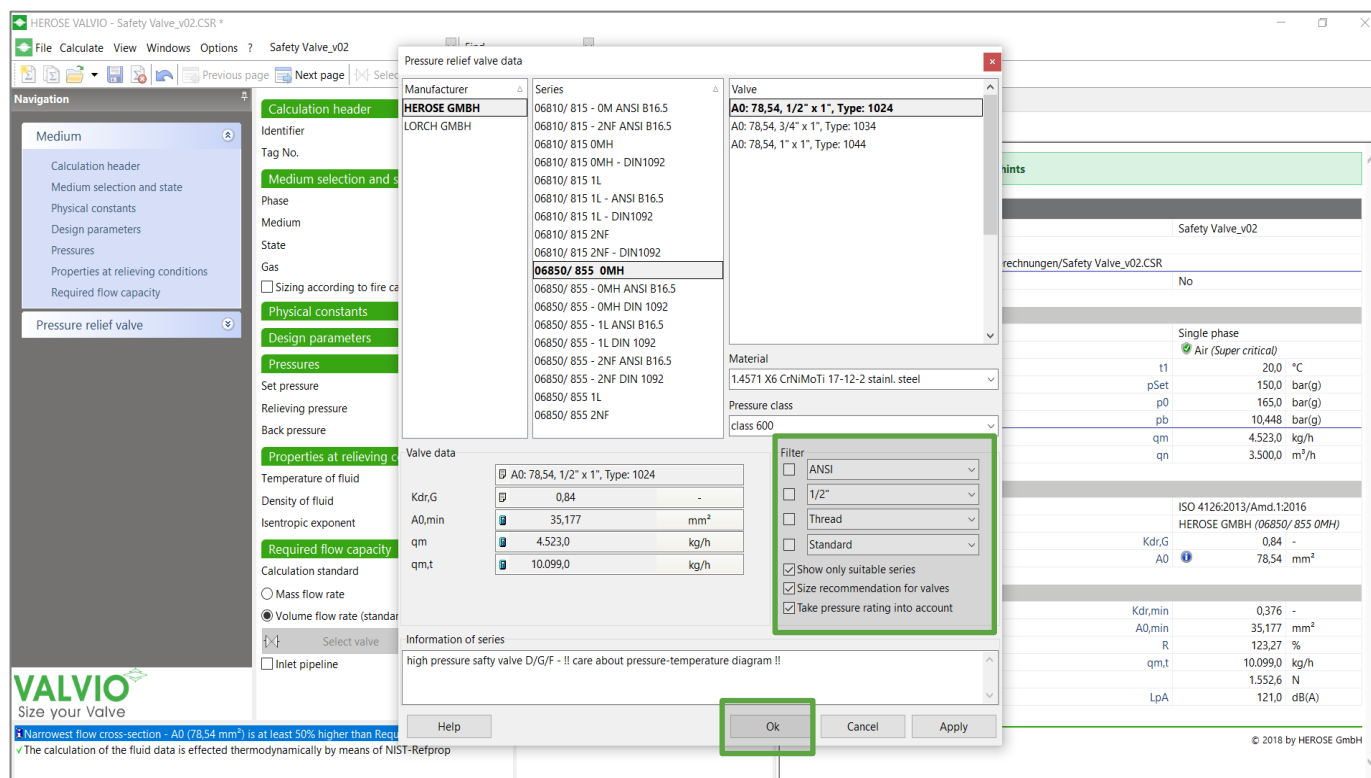


The screenshot shows the VALVIO software interface. The main window is titled 'HEROSE VALVIO' and contains a 'Calculation header' section with fields for Identifier, Tag No., and Medium selection and state. The 'Medium selection and state' section includes Phase (Single phase) and State (Liquid). The 'Physical constants' section includes Density of fluid (ρ) and Dynamic viscosity (η). The 'Design parameters' section includes Pressures (Set pressure, Relieving pressure, Back pressure) and Properties at relieving conditions (Temperature of fluid, Density of fluid, Dynamic viscosity, Kinematic viscosity). The 'Required flow capacity' section includes Calculation standard (ISO 4126:2013/Amd.1:2016) and Mass flow rate (qm). Mandatory fields are marked in red. A help window is open, showing information about the Identifier field. The Overview window shows the current calculation and error messages. The 'Select valve' button is highlighted.

- a) Mandatory fields are marked **red**
- b) You can get additional Information regarding the Parameters under Help
- c) Overview is showing you the current calculation and error messages
- d) To select a valve and set more filters, click „Select valve“

- a) Pflichtfelder sind **rot** markiert
- b) Die Hilfe zeigt Ihnen Informationen zu dem Feld
- c) Die Übersicht zeigt Ihnen die aktuelle Berechnung und Fehlermeldungen
- d) Um weitere Filter zu setzen und ein Ventil auszuwählen, klicken Sie auf „Ventil auswählen“

Calculations | Berechnungen



The screenshot shows the VALVIO software interface with the 'Pressure relief valve data' dialog box open. The dialog is used to select a valve model from a list of suggestions. A green box highlights the 'Filter' section, which includes dropdown menus for 'ANSI', '1/2\"

Pressure relief valve data

| Manufacturer | Series | Valve |
|--------------|-----------------------------|---|
| HEROSE GMBH | 06810/ 815 - 0M ANSI B16.5 | A0: 78,54, 1/2" x 1", Type: 1024 |
| LORCH GMBH | 06810/ 815 - 2NF ANSI B16.5 | A0: 78,54, 3/4" x 1", Type: 1034 |
| | 06810/ 815 OMH | A0: 78,54, 1" x 1", Type: 1044 |
| | 06810/ 815 OMH - DIN1092 | |
| | 06810/ 815 1L | |
| | 06810/ 815 1L - ANSI B16.5 | |
| | 06810/ 815 1L - DIN1092 | |
| | 06810/ 815 2NF | |
| | 06810/ 815 2NF - DIN1092 | |
| | 06850/ 855 OMH | |
| | 06850/ 855 - 0MH ANSI B16.5 | |
| | 06850/ 855 - 0MH DIN 1092 | |
| | 06850/ 855 - 1L ANSI B16.5 | |
| | 06850/ 855 - 1L DIN 1092 | |
| | 06850/ 855 - 2NF ANSI B16.5 | |
| | 06850/ 855 - 2NF DIN 1092 | |
| | 06850/ 855 1L | |
| | 06850/ 855 2NF | |

Valve data

Valve: A0: 78,54, 1/2" x 1", Type: 1024

Kdr,G: 0,84

A0,min: 35,177 mm²

qm: 4,523,0 kg/h

qm,t: 10,099,0 kg/h

Information of series

high pressure safety valve D/G/F - !! care about pressure-temperature diagram !!

Filter

- ANSI
- 1/2"
- Thread
- Standard
- Show only suitable series
- Size recommendation for valves
- Take pressure rating into account

Material

1.4571 X6 CrNiMoTi 17-12-2 stainl. steel

Pressure class

class 600

Material properties

| Property | Value |
|----------|---------------------------|
| t1 | 20,0 °C |
| pSet | 150,0 bar(g) |
| p0 | 165,0 bar(g) |
| pb | 10,448 bar(g) |
| qm | 4,523,0 kg/h |
| qn | 3,500,0 m ³ /h |

ISO 4126:2013/Amd.1:2016

HEROSE GMBH (06850/ 855 OMH)

Kdr,G: 0,84

A0: 78,54 mm²

Material properties

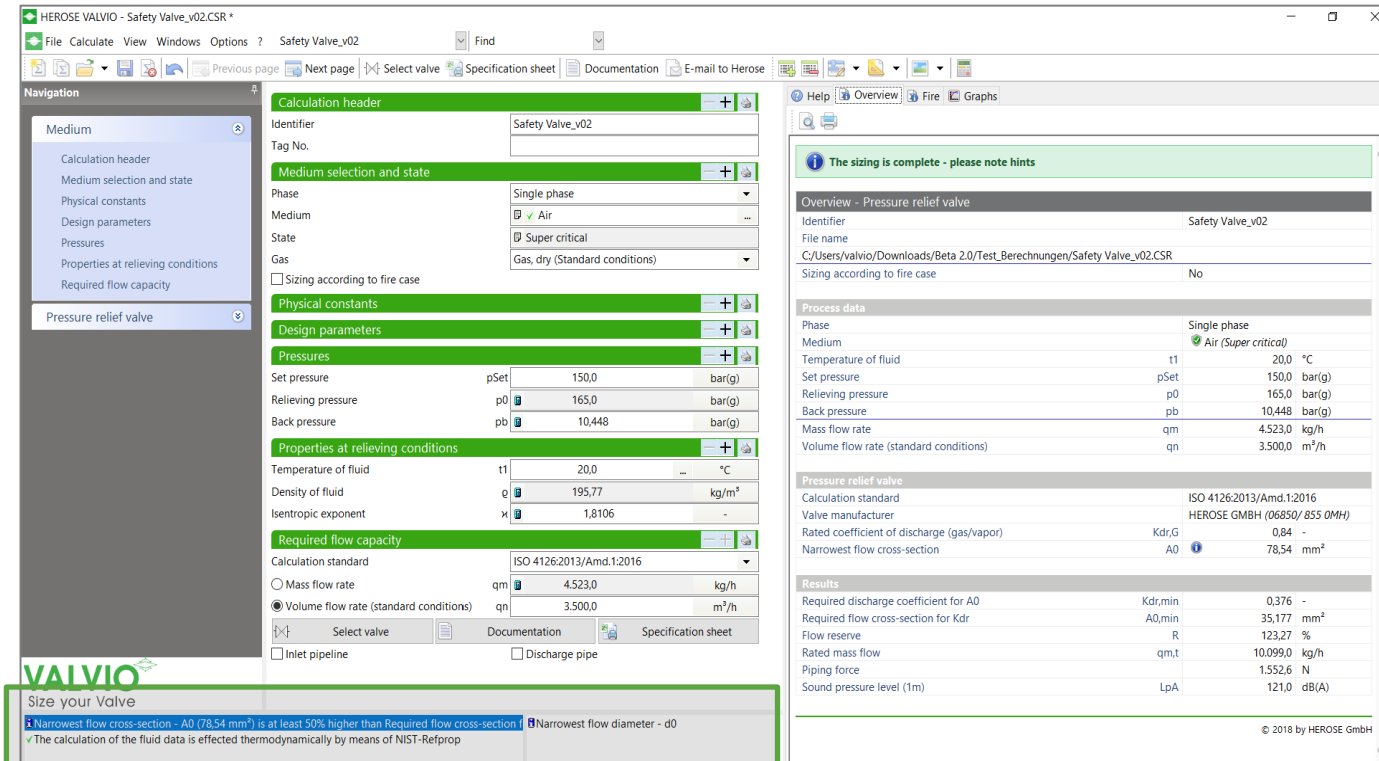
| Property | Value |
|----------|------------------------|
| Kdr,min | 0,376 |
| A0,min | 35,177 mm ² |
| R | 123,27 % |
| qm,t | 10,099,0 kg/h |
| | 1,552,6 N |
| LpA | 121,0 dB(A) |

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▪ With using the **filters**, you can limit the suggestions

▪ Über die **Filter** können Sie weitere Einschränkungen vornehmen

Calculations | Berechnungen



The screenshot displays the VALVIO software interface for calculating safety valve requirements. The main window is titled "HEROSE VALVIO - Safety Valve_v02.CSR". The interface is divided into several sections:

- Navigation:** A sidebar on the left lists various calculation categories, with "Pressure relief valve" selected.
- Calculation header:** Shows the identifier "Safety Valve_v02".
- Medium selection and state:** Parameters include Phase (Single phase), Medium (Air), State (Super critical), and Gas (Gas, dry (Standard conditions)).
- Physical constants:** Includes temperature of fluid (t1 = 20.0 °C), density of fluid (ρ = 195.77 kg/m³), and isentropic exponent (κ = 1.8106).
- Design parameters:** Includes set pressure (pSet = 150.0 bar(g)), relieving pressure (p0 = 165.0 bar(g)), and back pressure (pb = 10.448 bar(g)).
- Properties at relieving conditions:** Includes mass flow rate (qm = 4.523.0 kg/h) and volume flow rate (qn = 3.500.0 m³/h).
- Required flow capacity:** Shows the calculation standard (ISO 4126:2013/Amd.1:2016) and the required flow rate (qn = 3.500.0 m³/h).
- Pressure relief valve:** Shows the calculation standard (ISO 4126:2013/Amd.1:2016), valve manufacturer (HEROSE GMBH), and the required discharge coefficient (Kdr,G = 0.84).
- Results:** Shows the required discharge coefficient for A0 (Kdr,min = 0.376), required flow cross-section for Kdr (A0,min = 35,177 mm²), flow reserve (R = 123.27 %), rated mass flow (qm,t = 10,099.0 kg/h), piping force (1,552.6 N), and sound pressure level (LpA = 121.0 dB(A)).

A green banner at the top of the results section states: "The sizing is complete - please note hints". A red box highlights a warning in the bottom left corner: "Narrowest flow cross-section - A0 (78.54 mm²) is at least 50% higher than Required flow cross-section".

- If the sizing is correct, the main comment within the overview is green
- Please note the hints on the bottom left corner

- Wenn Ihre Berechnung korrekt ist, erscheint ein grüner Kommentar in dem Reiter Übersicht
- Bitte beachten Sie die Hinweise in der unteren linken Ecke

Calculations | Berechnungen

Cryogenic liquid gases | *tiefkalt verflüssigte Gase*

- Safety valves (SV) are used in the gaseous state of cryogenic liquid Gases. E.g. **liquid Nitrogen (N₂)** or **liquid Oxygen (O₂)**. For the SV calculation you need to enter the pressure and the Temperature of fluid at relieving conditions – so in the gaseous state.
- To get a hint for the correct temperature to enter you can check the Vapor temperature. You can find it in the Details [+]. The Temperature of the fluid (t1) needs to be above the Vapor temperature (tv) to get a correct calculation (as is this case -140°C).
- *Sicherheitsventile (SV) werden in der Gasphase von tiefkalt verflüssigten Gasen verwendet. Zum Beispiel bei **flüssigem Stickstoff (N₂)** oder **flüssigem Sauerstoff (O₂)**. Für die SV-Auswahl muss neben dem Ansprechdruck auch die Temperatur des Mediums bei Ausblasebedingungen - also in der Gasphase - eingegeben werden.*
- *Als Anhaltspunkt können Sie dazu die Siedetemperatur (tv) prüfen. Sie ist in den Details [+] zu finden. Der Temperaturwert (t1) für die Gasphase muss über dem Wert der Siedetemperatur (tv) liegen, um eine Berechnung durchführen zu können (wie in diesem Beispiel -140°C).*

| Properties at relieving conditions | | | |
|--|------|----------|--------------------|
| Temperature of fluid | t1 | -140,0 | °C |
| Vapor pressure | pv | 32,945 | bar(g) |
| Vapor temperature | tv | -146,96 | °C |
| Real gas factor | Z | 2,0934 | - |
| Density of fluid | ρ | 594,35 | kg/m ³ |
| Isentropic exponent | κ | 4,2071 | - |
| <input checked="" type="radio"/> Dynamic viscosity | η | 0,055802 | mPa s |
| <input type="radio"/> Kinematic viscosity | ν | 0,093888 | mm ² /s |
| Enthalpy of evaporation (p, tv) | Δhvp | | kJ/kg |

Calculations | Berechnungen

3. Article numbers / Artikelnummern

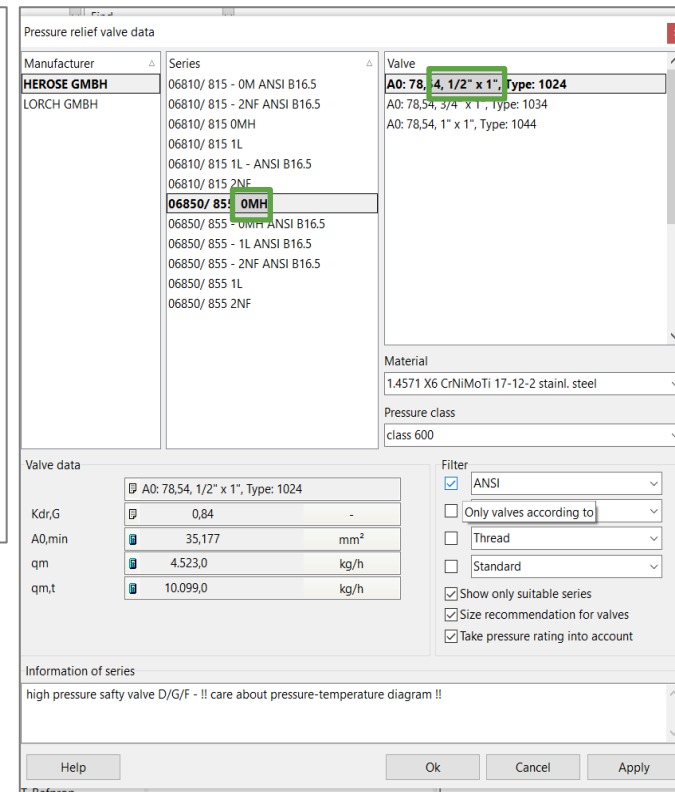
0681X.06XX.00XX00H

Nennweite
06: $d_0=6$

Große Ein/Aus
22: $\frac{1}{2}'' \times \frac{1}{2}''$
23: $\frac{1}{2}'' \times \frac{3}{4}''$
32: $\frac{3}{4}'' \times \frac{1}{2}''$
33: $\frac{3}{4}'' \times \frac{3}{4}''$

Dichtung
O: Metallische D.
2: O-Ring Weichdichtung
L: SP-1 Vespel
N: NBR
F: FKM
P: PTFE

Gewindetyp Ein/Aus
00: G - ISO 228/1
22: NPT - ANSI B1.20.1



Pressure relief valve data

| Manufacturer | Series | Valve |
|--------------|-----------------------------|----------------------------------|
| HEROSE GMBH | 06810/ 815 - OM ANSI B16.5 | A0: 78.54, 1/2" x 1", Type: 1024 |
| LORCH GMBH | 06810/ 815 - ZNF ANSI B16.5 | A0: 78.54, 3/4" x 1", Type: 1034 |
| | 06810/ 815 OMH | A0: 78.54, 1" x 1", Type: 1044 |
| | 06810/ 815 1L | |
| | 06810/ 815 1L - ANSI B16.5 | |
| | 06810/ 815 2NF | |
| | 06850/ 855 - OMH | |
| | 06850/ 855 - OMH ANSI B16.5 | |
| | 06850/ 855 - 1L ANSI B16.5 | |
| | 06850/ 855 - ZNF ANSI B16.5 | |
| | 06850/ 855 1L | |
| | 06850/ 855 2NF | |

Material: 1.4571 X6 CrNiMoTi 17-12-2 stainl. steel

Pressure class: class 600

Valve data

| | |
|--------|---|
| Filter | <input checked="" type="checkbox"/> ANSI |
| | <input type="checkbox"/> Only valves according to |
| | <input type="checkbox"/> Thread |
| | <input type="checkbox"/> Standard |
| | <input checked="" type="checkbox"/> Show only suitable series |
| | <input checked="" type="checkbox"/> Size recommendation for valves |
| | <input checked="" type="checkbox"/> Take pressure rating into account |

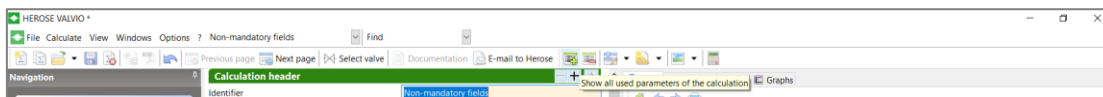
Information of series

high pressure safety valve D/G/F - !! care about pressure-temperature diagram !!

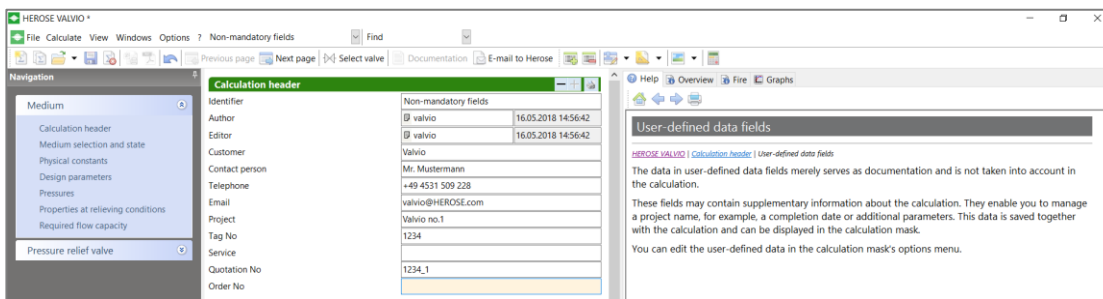
Buttons: Help, Ok, Cancel, Apply

Calculations | Berechnungen

4. Additional non- mandatory fields | Weitere Berechnungsfelder



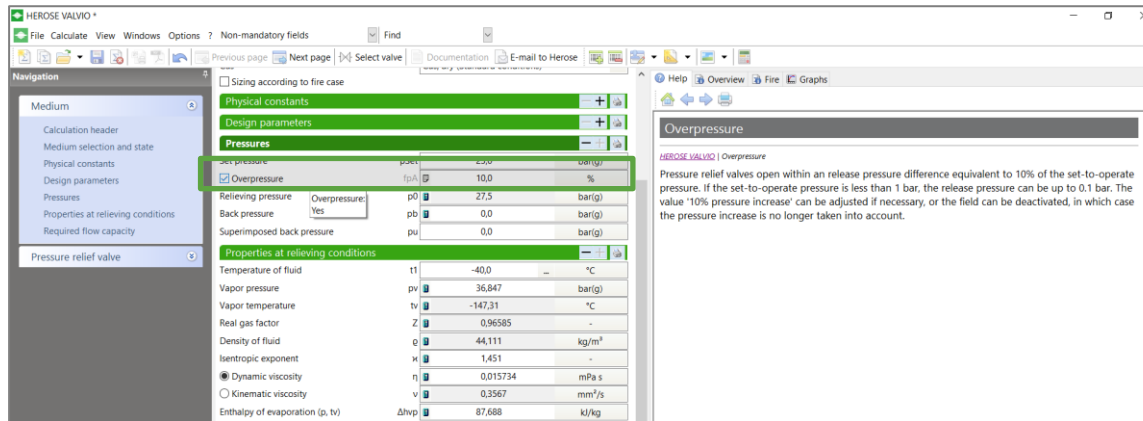
- To see / change additional parameters, you can click on the plus (+).
- Um weitere Felder zu sehen / bearbeiten, können Sie auf das Plus (+) klicken.



- To see / change additional parameters, you can click on the plus (+).
- Please note the Error Messages if the parameters are not fitting.
- You can use the Help to get background information regarding a parameter.
- Es öffnen sich für jeden Bereich Felder, die Sie nach belieben ausfüllen können.
- Beachten Sie die Fehlermeldungen bei widersprüchlichen Eingaben.
- Nutzen Sie die Hilfe, um die genaue Bedeutung eines Parameters erklärt zu bekommen.

Calculations | Berechnungen

4. Additional non- mandatory fields | Weitere Berechnungsfelder



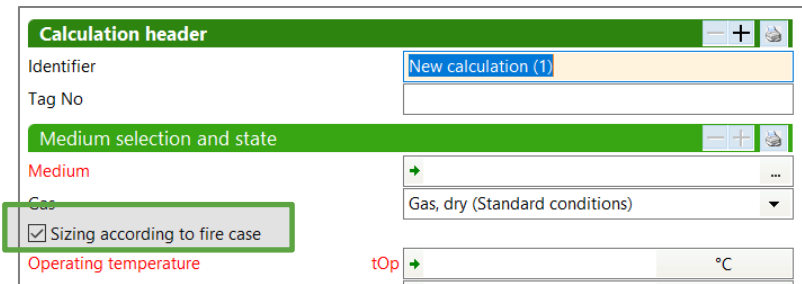
The screenshot displays the 'HEROSE VALVIO' software interface. The 'Pressures' section is active, showing the 'Overpressure' field set to 10.0%. The 'Relieving pressure' is 27.5 bar(g), 'Back pressure' is 0.0 bar(g), and 'Superimposed back pressure' is 0.0 bar(g). The 'Properties at relieving conditions' section shows various fluid properties such as temperature of fluid (-40.0 °C), vapor pressure (36.847 bar(g)), and density (44.111 kg/m³).

- You have the possibility to turn of or change the Overpressure.
- Sie haben die Möglichkeit die Funktion Drucksteigerung auszuschalten oder den Standardwert von 10% anzupassen.

Calculations | Berechnungen

5. Special cases | Sonderfälle

- To calculate a safety valve in a fire case, activate the click box **Fire case**.
- Für die Behälter Auslegung im Brandfall setzen Sie den Haken bei **Brandfall**.
- With a click on Image, you will get a graphic description of the Vessel data that is required for a Fire case calculation.
- Mit einem Klick auf Bilder in der Symbolleiste erhalten Sie eine grafische Darstellung zu den geforderten Maßen des Behälters.
- With a click on Fire you will get an overview about all your data entered for this Fire case. You can [export](#) the data in Excel and PDF.
- Mit einem Klick auf Brandfall in der Symbolleiste erhalten Sie eine Übersicht über Ihre Daten zu diesem Brandfall. Sie können diese Daten in Excel und PDF [exportieren](#).



Calculation header

Identifier: New calculation (1)

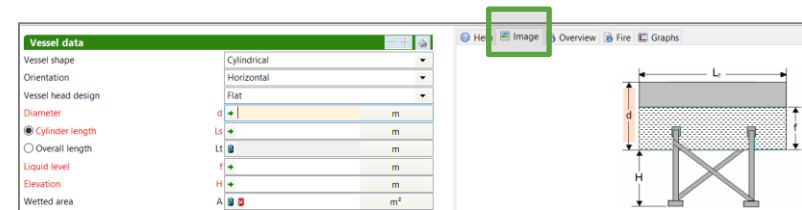
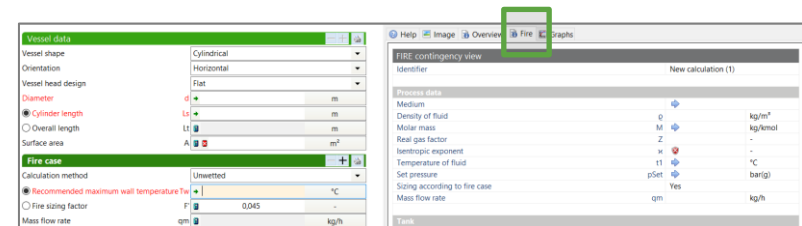
Tag No:

Medium selection and state

Medium: Gas, dry (Standard conditions)

Sizing according to fire case

Operating temperature: tOp °C

Vessel data

Vessel shape: Cylindrical

Orientation: Horizontal

Vessel head design: Flat

Diameter: d m

Cylinder length: L m

Overall length: Lt m

Surface area: A m²

Fire case

Calculation method: Unsettled

Recommended maximum wall temperature T_w: °C

Fire sizing factor: F

Mass flow rate: qm kg/h

FIRE contingency view

Identifier: New calculation (1)

Process data

Medium: g kg/m³

Density of fluid: ρ kg/m³

Molar mass: M kg/mol

Real gas factor: Z

Isentropic exponent: κ

Temperature of fluid: T °C

Set pressure: pSet (bar(g))

Sizing according to fire case: Yes

Mass flow rate: qm kg/h

Tasks

Calculations | Berechnungen

5. Special cases | Sonderfälle

- VALVIO will ask you for the Vessel data:
- Es werden folgende Behälterdaten abgefragt:

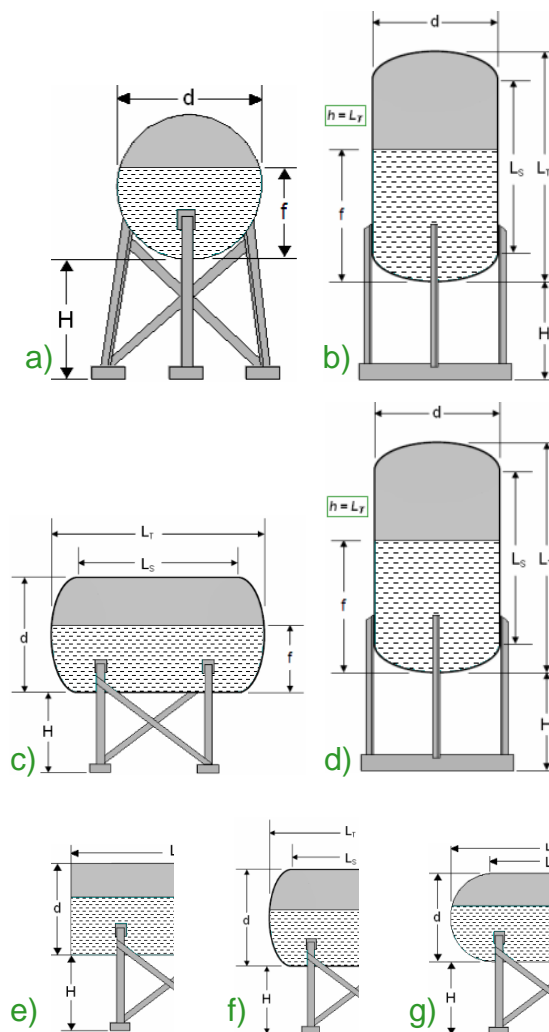
➤ Shape: a) Spherical or b) Cylindrical ➤ Form: a) Rund oder b) Zylindrisch

➤ Orientation: c) Horizontal or d) Vertical

➤ Head design: e) Flat or f) Ellipsoidal 2:1 or g) Hemispherical

➤ Lage: c) Horizontal oder d) Vertikal

➤ Behälterboden: e) Flach oder f) Ellipsoid 2:1 oder g) Halbkugelförmig



Documententation | Dokumentation

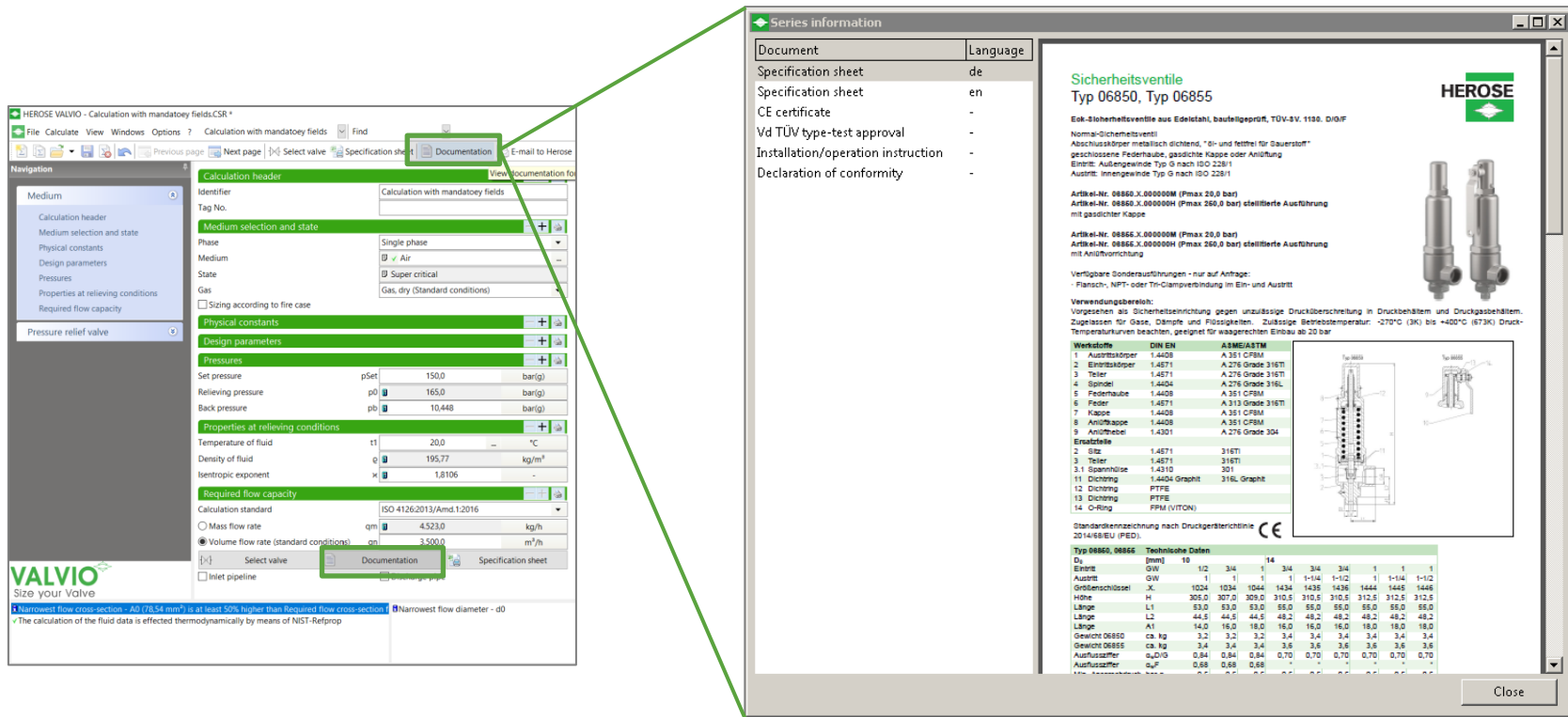
1. Data export | Daten Export

- File | *Datei*
- Export and send | *Exportieren und Senden*
 - Choose if you want to export and save or send the file | *Wählen Sie, ob Sie die Datei exportieren oder versenden möchten*
 - Choose the format you want to export or send | *Wählen Sie das Format (PDF oder Excel) indem Sie die Datei exportieren oder versenden möchten*
- You can also use the short track and click on the Excel / PDF sign in the toolbar | Alternativ können Sie auch auf das Excel / PDF Logo in der Toolbar klicken



Documententation | Dokumentation

2. Datenblätter | Data Sheets



HEROSE VALVIO - Calculation with mandatory fields.CSR*

File Calculate View Windows Options ? Calculation with mandatory fields Find

Navigation: Calculation header, Medium selection and state, Physical constants, Design parameters, Pressures, Properties at relieving conditions, Required flow capacity, Pressure relief valve

Calculation header

Identifier: Calculation with mandatory fields
Tag No.:

Medium selection and state

Phase: Single phase
Medium: Air
State: Super critical
Gas: Gas, dry (Standard conditions)

Sizing according to fire case

Physical constants

Design parameters

Pressures

Set pressure pSet: 150,0 bar(g)
Relieving pressure pR: 165,0 bar(g)
Back pressure pB: 10,448 bar(g)

Properties at relieving conditions

Temperature of fluid t1: 20,0 °C
Density of fluid ρ: 195,77 kg/m³
Isentropic exponent κ: 1,8106

Required flow capacity

Calculation standard: ISO 4126:2013/Amd.1:2016
Mass flow rate qm: 4,5230 kg/h
Volume flow rate (standard conditions) qv: 3,5000 m³/h

Select valve: Documentation Specification sheet

Series information

| Document | Language |
|------------------------------------|----------|
| Specification sheet | de |
| Specification sheet | en |
| CE certificate | - |
| Vd TÜV type-test approval | - |
| Installation/operation instruction | - |
| Declaration of conformity | - |

**Sicherheitsventile
Typ 06850, Typ 06855**

HEROSE

Edk-3locher-Sicherheitsventile aus Edelstahl, baufertigprüf., TÜV-SV, 1195, D01/F

Norma-Sicherheitsventil
Abschlusskörper metallisch dichtend, "dr- und fettfrei für Dauerstoff"
geschlossene Federhaube, gasdichte Kappe oder Anflutung
Eintritt: Außengewinde Typ 0 nach ISO 228/1
Austritt: Innengewinde Typ 0 nach ISO 228/1

Artikel-Nr. 06860.X.000000M (Pmax 20,0 bar)
Artikel-Nr. 06860.X.000000H (Pmax 260,0 bar) stiftierte Ausführung mit gasdichter Kappe

Artikel-Nr. 06866.X.000000M (Pmax 20,0 bar)
Artikel-Nr. 06866.X.000000H (Pmax 260,0 bar) stiftierte Ausführung mit Anflutung

Vertigbare Sonderausführungen - nur auf Anfrage:
- Flansch-, NPT- oder Tri-Clamp-Verbindung im Ein- und Austritt

Verwendungsbereich:
Vorgesehen als Sicherheitsvorrichtung gegen unzulässige Drucküberschreitung in Druckbehältern und Druckgasbehältern. Zugelassen für Gase, Dämpfe und Flüssigkeiten. Zulässige Betriebstemperatur: -270°C (3K) bis +400°C (673K) Druck-Temperaturkombination beachten, geeignet für wasserdichten Einbau bis 20 bar

| Werkstoffe | DIN EN | ASME/ASTM |
|--------------------|--------|-------------------|
| 1. Austrittskörper | 1.4408 | A 351 CF8M |
| 2. Eintrittskörper | 1.4871 | A 276 Grade 316Ti |
| 3. Teller | 1.4871 | A 276 Grade 316Ti |
| 4. Spindel | 1.4404 | A 276 Grade 316L |
| 5. Federhaube | 1.4408 | A 351 CF8M |
| 6. Feder | 1.4871 | A 313 Grade 316Ti |
| 7. Kappe | 1.4408 | A 351 CF8M |
| 8. Antriebskappe | 1.4408 | A 351 CF8M |
| 9. Antriebsbolzen | 1.4301 | A 276 Grade 304 |

Erstatteile

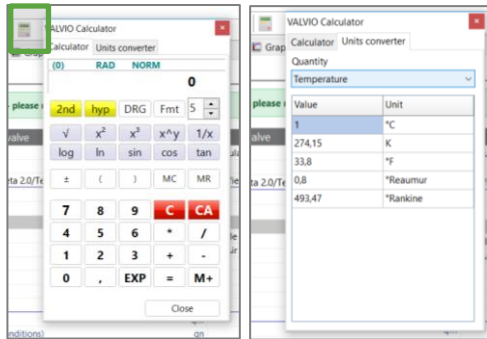
| | | |
|---------------------|--------------|---------|
| 2. Size | 1.4871 | 316Ti |
| 3. Teller | 1.4871 | 316Ti |
| 3.1. Spindelbohrung | 1.4310 | 301 |
| 11. Dichtung | 1.4404 | Graphit |
| 12. Dichtung | PTFE | |
| 13. Dichtung | PTFE | |
| 14. O-Ring | FFKM (VITON) | |

Standardkennzeichnung nach Druckgeräterichtlinie 2014/68/EU (PED).

| Typ 06850, 06855 | Technische Daten | | | | | | | | | | | |
|------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| D | 10 | | | 14 | | | 1 | | | 1 | | |
| Eintritt | GW | 1/2 | 3/4 | 1 | 1 | 1 | 1-1/4 | 1-1/2 | 1 | 1-1/4 | 1-1/2 | |
| Austritt | GW | 1 | 1 | 1 | 1 | 1 | 1-1/4 | 1-1/2 | 1 | 1-1/4 | 1-1/2 | |
| Größerschicht | X | 1024 | 1034 | 1044 | 1434 | 1436 | 1436 | 1436 | 1444 | 1445 | 1446 | |
| Höhe | H | 305,0 | 307,0 | 309,0 | 310,5 | 310,5 | 310,5 | 312,5 | 312,5 | 312,5 | 312,5 | |
| Länge | L1 | 83,0 | 83,0 | 83,0 | 85,0 | 85,0 | 85,0 | 85,0 | 85,0 | 85,0 | 85,0 | |
| Länge | L2 | 44,5 | 44,5 | 44,5 | 48,2 | 48,2 | 48,2 | 48,2 | 48,2 | 48,2 | 48,2 | |
| Länge | A1 | 14,0 | 16,0 | 18,0 | 16,0 | 16,0 | 16,0 | 16,0 | 18,0 | 18,0 | 18,0 | |
| Gewicht 06850 | ca kg | 3,2 | 3,2 | 3,2 | 3,4 | 3,4 | 3,4 | 3,4 | 3,4 | 3,4 | 3,4 | |
| Gewicht 06855 | ca kg | 3,4 | 3,4 | 3,4 | 3,6 | 3,6 | 3,6 | 3,6 | 3,6 | 3,6 | 3,6 | |
| Ausflussper | α ₀ /D ₀ | 0,84 | 0,84 | 0,84 | 0,70 | 0,70 | 0,70 | 0,70 | 0,70 | 0,70 | 0,70 | |
| Ausflussper | α ₀ /F | 0,68 | 0,68 | 0,68 | 0,57 | 0,57 | 0,57 | 0,57 | 0,57 | 0,57 | 0,57 | |

Close

Hilfe | Help



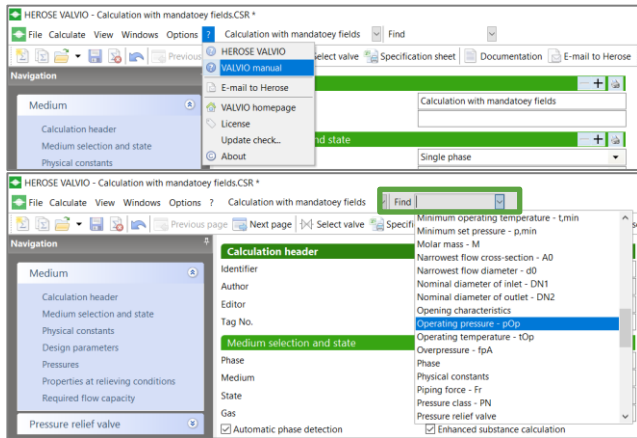
1. Calculator

- Calculator symbol
- Use Standard Calculator or Units converter

1. Taschenrechner

- Taschenrechner Symbol
- Sie können einen normalen Taschenrechner oder einen Einheitenrechner nutzen

Hilfe | Help



2. Help

- ? ?
- VALVIO manual
 - Use the VALVIO manual to check the meaning of a parameter or a formula behind a calculation
 - The Search (Find) allows you to find a parameter withing the calculation

2. Hilfe

- ? ?
- VALVIO-Bedienung
 - Die VALVIO-Bedienung gibt Ihnen Hilfe einen Parameter oder eine Formel zu verstehen
 - Die Suche hilft Ihnen einen Parameter in der Berechnung zu finden und zu verändern

3. Questions

- Any questions? Send us an Email!

3. Fragen

- Noch Fragen? Senden Sie uns eine Email!



If you have any questions about VALVIO, please feel free to contact us.

Kontaktieren Sie uns gerne, wenn Sie Fragen zu VALVIO haben.



valvio-support@herose.com