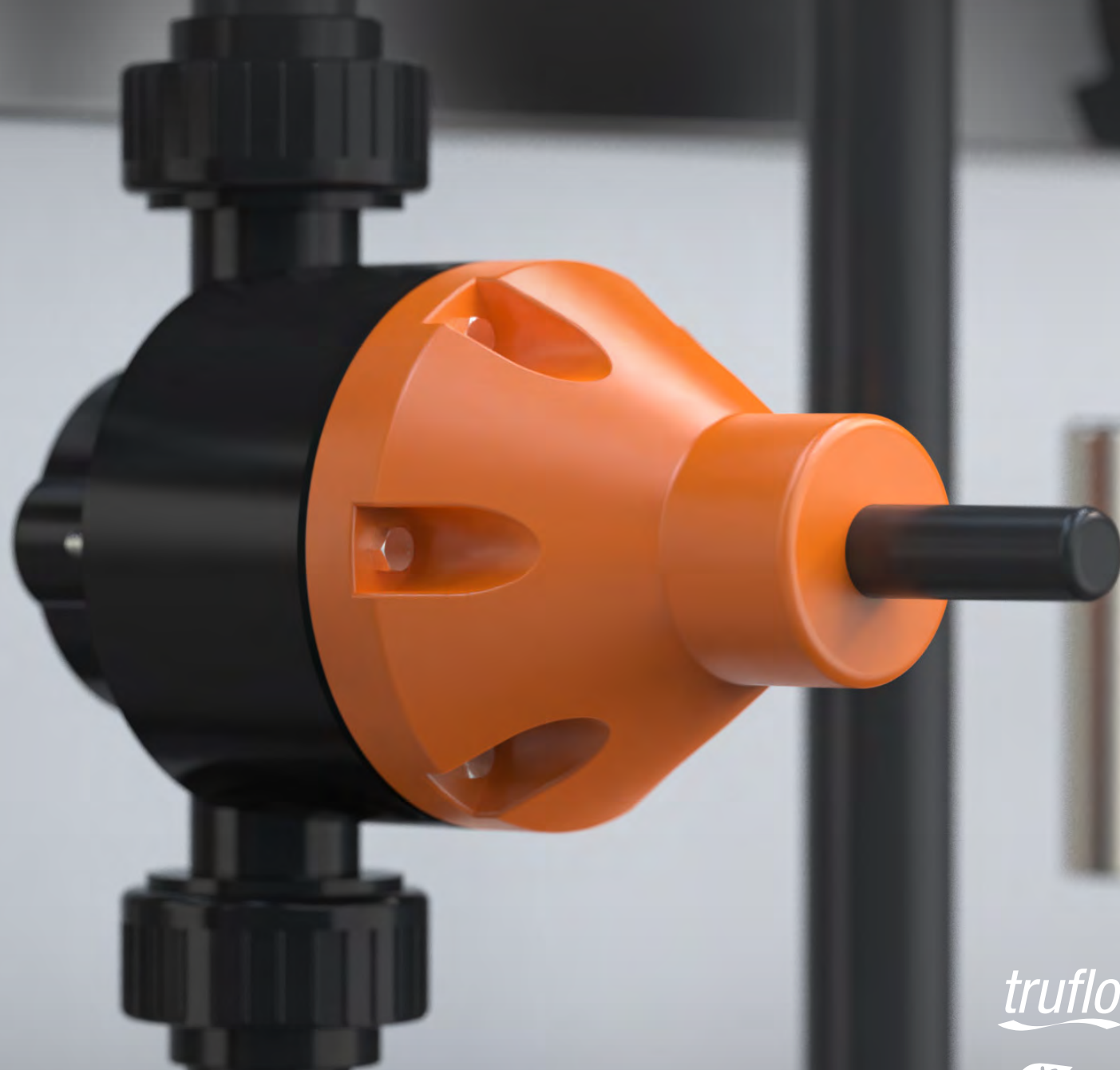


# Quick Start Manual



*truflo®*

  
RoHS Compliant 

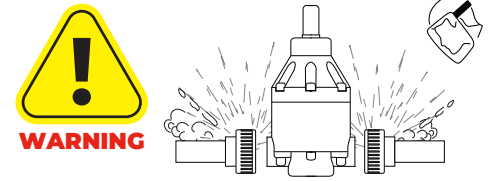
Read the user's manual carefully before starting to use the unit.  
Producer reserves the right to implement changes without prior notice.

# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves

### Safety Information

- De-pressurize and vent system prior to installation or removal
- Confirm chemical compatibility before use
- **DO NOT** exceed maximum temperature or pressure specifications
- **ALWAYS** wear safety goggles or face-shield during installation and/or service
- **DO NOT** alter product construction



#### Warning | Caution | Danger

Indicates a potential hazard. Failure to follow all warnings may lead to equipment damage, or failure, injury, or death.



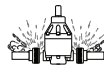
#### Note | Technical Notes

Highlights additional information or detailed procedure.



#### Personal Protective Equipment (PPE)

Always utilize the most appropriate PPE during installation and service of Truflo products.



#### Pressurized System Warning

BRP may be under pressure. Take caution to vent system prior to installation or removal. Failure to do so may result in equipment damage and/or serious injury.

### Intended Use

Only operate the BRP fitting if it is in perfect technical condition and only use it as intended:

- Ensure the Pressure-Relief/Back Pressure valve material is suitable for the process media. Please check chemical resistance.
- Adhere to the operating limits (Pressure and temperature limits)
- Observe the Process Setting Range
- The BRP Series is not suitable for media that contains solids

The technical data listed in the current data sheet are engaging and must be complied with.

### Personnel for Installation

All operations described in this instruction manual must be carried out only by trained personnel or an accredited person.

The qualified personnel must have read and understood the operating instructions in this manual and must follow said instructions accordingly.

- Observe the instructions on the and keep them legible, e.g. nameplate, identification marking for fluid connections.

Only carry out work on the fitting if the following requirements are met:

- ✓ System is empty
- ✓ System has been flushed
- ✓ System is de-pressurized
- ✓ System has cooled down
- ✓ System is secured against being switched back on again



Do Not Make Any Modifications to the Device!

### Hazardous Media

When handling hazardous media (e.g. hot, flammable, explosive, toxic, hazardous to health or the environment), observe the safety regulations for the handling of hazardous substances.

Use personal protective equipment when carrying out any work on the valve.

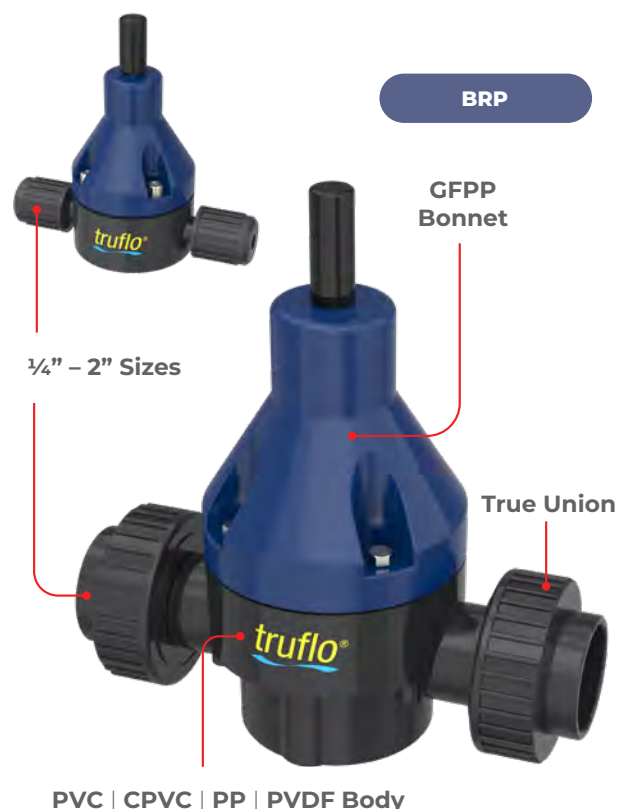
Collect leaking pumped liquid and residues in a safe manner and dispose of in accordance with environmental regulations.

# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves

### Product Description

The Truflo® BRP Series Back Pressure Relief Valve has two functions. As a back pressure valve installed in-line downstream of a pump. In this position the back pressure below the metering pump is maintained. When the BRP valve is installed in the branch of a tee fitting, it functions as a pressure relief valve. The valve remains closed until inlet pressure reaches the preset pressure which is adjusted by turning the spring tensioning bolt. The pressure at the inlet of the valve acts upward against the piston, allowing the liquid under higher pressure to flow upwards through the orifice.

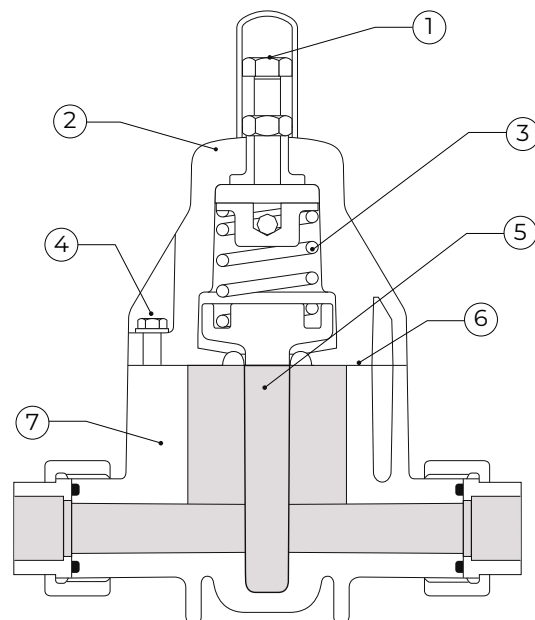
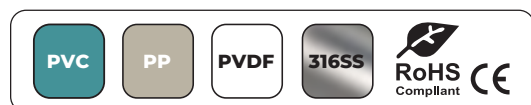


### Features

- ✓ PTFE Teflon® / EPDM Bonded Diaphragm
- ✓ Glass Filled PP Bonnet
- ✓ PVC | CPVC | PP | PVDF | 316 SS Bodies
- ✓ Field Adjustable 5-150 Psi Range
- ✓ Socket or NPT Connections
- ✓ Small Footprint
- ✓ Unaffected by Downstream Pressure

### Technical Specifications

No.	Part	Pcs.	Materials
1	Adjustment Screw	1	Galvanized Steel
2	Bonnet	1	PPG
3	Coil Spring	1	Galvanized Steel
4	Bonnet Bolts	1	316 SS
5	Piston Plunger	1	PPG
6	Control Diaphragm	1	PTFE Teflon® Bonded EPDM
7	Body	1	PVC   CPVC   PP   PVDF



# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves

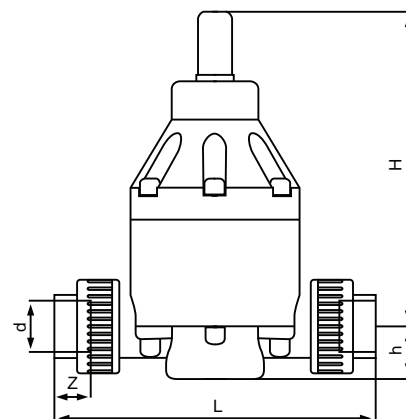
### Maximum Pressure (Psi)

Size	Material	20°C 68°F	30°C 86°F	40°C 104°F	50°C 140°F	60°C 86°F	70°C 158°F	80°C 176°F	90°C 194°F	100°C 212°F
½" - 2"	PVC	150	90	44	15	-	-	-	-	-
	PP	150	116	90	60	37.5	15	-	-	-
	PVDF	-	150	-	90	-	55	40	30	15

**NOTE :** CPVC Pressure/Temp. same as PP

### Dimensions

Model	Size	L	H	d	z	h
BRP005	½"	165	165	20	18	25
BRP075	¾"	170	165	25	21	25
BRP100	1"	212	173	32	26	35
BRP125	1 ¼"	226	173	40	28	35
BRP150	1 ½"	292	225	50	37	58
BRP200	2"	305	225	63	37	58



### CV Values

½" (3.9)	¾" (6.6)	1" (9.4)	1 ¼" (18.4)	1 ½" (20.2)	2" (28)
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### Model Selection

BRP Back Pressure Relief Valve — PVC   PP   CPVC   PVDF   316SS										
Size	Part Number	Material	Part Number	Material	Part Number	Material	Part Number	Material	Part Number	Material
¼"	BRPV-003	PVC	-	-	-	-	-	-	-	-
⅜"	BRPV-003	PVC	-	-	-	-	-	-	-	-
½"	BRPV-005	PVC	BRPP-005	PP	BRPC-005	CPVC	BRPF-005	PVDF	BRP3-005	316 SS
¾"	BRPV-075	PVC	BRPP-075	PP	BRPC-075	CPVC	BRPF-075	PVDF	BRP3-075	316 SS
1"	BRPV-100	PVC	BRPP-100	PP	BRPC-100	CPVC	BRPF-100	PVDF	BRP3-100	316 SS
1¼"	BRPV-125	PVC	BRPP-125	PP	BRPC-125	CPVC	BRPF-125	PVDF	BRP3-125	316 SS
1½"	BRPV-150	PVC	BRPP-150	PP	BRPC-150	CPVC	BRPF-150	PVDF	BRP3-150	316 SS
2"	BRPV-200	PVC	BRPP-200	PP	BRPC-200	CPVC	BRPF-200	PVDF	BRP3-200	316 SS

Add Suffix — 'S' - Sanitary Connection  
\* Consult Factory for 10-235 Psi : Model BRP3-H

# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves

**ICON**™ Corrosion-Free  
PROCESS CONTROLS Instrumentation Equipment™

### Operation

#### Pressure Setting



**Set the Pressure Relief Valve under the Same Conditions encountered later during Operation!**

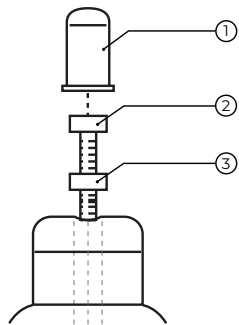
Recommendation for the setting: Installation of a diaphragm guard before the pressure relief valve.

1. If present, remove protection cap (1) at adjustment screw (2) from the valve.
2. Undo locknut (3).
3. Turn adjustment screw (2) counter-clockwise until the spring. Valve is open.
4. Start up system.
5. Turn adjustment screw (2) clockwise until desired system pressure is reached.
6. Fix the adjustment screw (2) using a ring wrench, then tighten the locknut (3).

 **Adjustment screw can be sealed to prevent unauthorized adjustment, if necessary.**

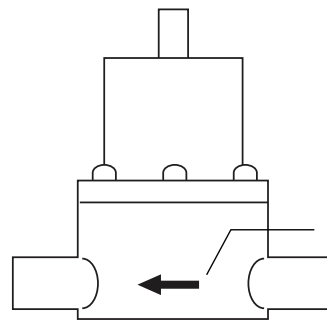
7. Plug on protection cap (1), if present.

#### Set Pressure (Schematic Representation)



- 1 - Protection Cap
- 2 - Adjustment Screw
- 3 - Lock Nut

#### Direction of Flow



Valve with Directional Arrow

#### Removing Valve

1. Ensure that:
  - ✓ System is empty
  - ✓ System has been flushed
  - ✓ System is de-pressurized
  - ✓ System has cooled down
  - ✓ System is secured against being switched back on again
2. Remove Valve from the pipe.
3. Decontaminate the Valve if required.
  - ✓ Dead space in the valve may still contain medium.
  - ✓ Follow safety regulations governing the handling of hazardous substances.
  - ✓ Follow applicable standards and guidelines in the country where the pump is operated.

# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves

### Installation

#### Preparing for Installation

Check operating conditions.

⚠

#### Risk of Poisoning and Environmental Damage from Medium!

- Leaks due to impermissible pipework forces.
- Ensure that the fitting is not subject to anypulling or thrusting forces or bending moments.

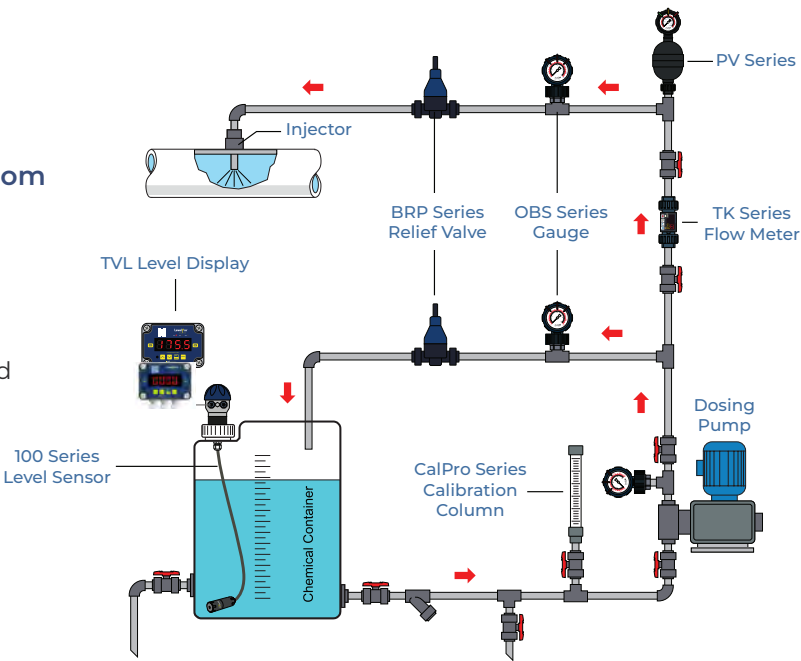
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#### Leak due to faulty installation!

Installation work on the pipes should only be performed by technicians who have been specially trained for the pipework in question.

1. Proper Installation of Valve within Piping System

- ✓ No pulling or thrusting forces.
- ✓ No bending moments.
- ✓ Adjust for changes in length due to temperature changes (compensators, expansion shanks).
- ✓ Optional installation position.



### Troubleshooting



#### Risk of Injury Due to Hazardous or Hot Process Media!

- Use personal protective equipment when carrying out any work on the fitting.
- Safely collect the media and dispose of it in accordance with environmental regulations.

Consult with the manufacturer regarding faults which are not identified in the following table, or which cannot be traced to the indicated causes.

Error	Possible Causes	Corrective Action
Fitting leaky at diaphragm.	Insufficient contact pressure (diaphragm fastening).	<ul style="list-style-type: none"><li>· Retighten screws</li></ul>
Pressure falls below the permissible value.	Diaphragms leaky.	<ul style="list-style-type: none"><li>· Replace diaphragm</li></ul>
Pressure rises above permissible value.	Fitting installed backwards.	<ul style="list-style-type: none"><li>· Install fitting in correction direction</li></ul>
Medium leaks out at adjustment screw.	Diaphragms defective.	<ul style="list-style-type: none"><li>· Replace diaphragms.</li></ul>



# Truflo® — BRP & BRP3 Series

## Back Pressure Relief Valves



### Warranty, Returns and Limitations

#### Warranty

**Icon Process Controls Ltd** warrants to the original purchaser of its products that such products will be free from defects in material and workmanship under normal use and service in accordance with instructions furnished by **Icon Process Controls Ltd** for a period of one year from the date of sale of such products. **Icon Process Controls Ltd** obligation under this warranty is solely and exclusively limited to the repair or replacement, at Icon Process Controls Ltd option, of the products or components, which **Icon Process Controls Ltd** examination determines to its satisfaction to be defective in material or workmanship within the warranty period. **Icon Process Controls Ltd** must be notified pursuant to the instructions below of any claim under this warranty within thirty (30) days of any claimed lack of conformity of the product. Any product repaired under this warranty will be warranted only for the remainder of the original warranty period. Any product provided as a replacement under this warranty will be warranted for the one year from the date of replacement.

#### Returns

Products cannot be returned to **Icon Process Controls Ltd** without prior authorization. To return a product that is thought to be defective submit a customer return (MRA) request form and follow the instructions therein. All warranty and non-warranty product returns to **Icon Process Controls Ltd** must be shipped prepaid and insured. **Icon Process Controls Ltd** will not be responsible for any products lost or damaged in shipment.

#### Limitations

This warranty does not apply to products which: 1) are beyond the warranty period or are products for which the original purchaser does not follow the warranty procedures outlined above; 2) have been subjected to electrical, mechanical or chemical damage due to improper, accidental or negligent use; 3) have been modified or altered; 4) anyone other than service personnel authorized by **Icon Process Controls Ltd** have attempted to repair; 5) have been involved in accidents or natural disasters; or 6) are damaged during return shipment to **Icon Process Controls Ltd** reserves the right to unilaterally waive this warranty and dispose of any product returned to **Icon Process Controls Ltd** where: 1) there is evidence of a potentially hazardous material present with the product; or 2) the product has remained unclaimed at **Icon Process Controls Ltd** for more than 30 days after **Icon Process Controls Ltd** has dutifully requested disposition. This warranty contains the sole express warranty made by **Icon Process Controls Ltd** in connection with its products. **ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED.** The remedies of repair or replacement as stated above are the exclusive remedies for the breach of this warranty. **IN NO EVENT SHALL Icon Process Controls Ltd BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING PERSONAL OR REAL PROPERTY OR FOR INJURY TO ANY PERSON. THIS WARRANTY CONSTITUTES THE FINAL, COMPLETE AND EXCLUSIVE STATEMENT OF WARRANTY TERMS AND NO PERSON IS AUTHORIZED TO MAKE ANY OTHER WARRANTIES OR REPRESENTATIONS ON BEHALF OF Icon Process Controls Ltd.** This warranty will be interpreted pursuant to the laws of the province of Ontario, Canada.

If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision of this warranty.



by



Corrosion-Free  
Instrumentation Equipment