

HYDRASSIST VALVE



Hydrassist Valve

Description and operating instructions

The 4-way ball valve is used to increase the working pressure in the water supply line from the hydrant by interconnecting a centrifugal pump. This valve allows an immediate direct supply in case of undersupply of water. Pressure will be increased and supplied to the initial water supply line by switching over and creating a bypass with integrated centrifugal pump. There is no interruption in water flow. The valve can be used to shut off the hydrant supply by slackening the locking device of the handle.

AWG

A Unit of IDEX Corporation



FOREWORD

Conversions and modifications

Unauthorised conversions or modifications to the Hydrassist Valve are prohibited without written consent from the manufacturer.

AWG Fittings GmbH accepts no liability for damage caused by conversions or modifications, improper handling by the customer or by third parties commissioned by the customer or caused by non-compliance with these instructions.

Copyright

This operating manual is valid for the device Hydrassist Valve

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The document may not be copied or reproduced in whole or in part without the written permission of AWG Fittings GmbH. The document is intended for persons using the device described and must not be passed on to third parties. Subject to technical changes and errors.

These instructions and the applicable documents are not subject to any automatic update service. The latest version can be obtained from the manufacturer.

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SAFETY INFORMATION

Operating personnel:

Only persons whom have read and understood these operating instructions or have been trained in the use of the system may work with the Hydrassist Valve. The safety instructions must be strictly observed.

The user must read the instruction manual before use. Failure to follow the warnings and instructions may result in injury. If you do not understand how to use this device and have not received proper training, do not use this product.

Meaning of safety words:

	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Intended use:

The AWG Hydrassist Valve is a hydrant valve that enables the first due engine to lay the initial supply line directly from the hydrant to the fire. If additional pressure is needed, a pumper can be connected to the valve and start pumping, increasing the pressure. There are no interruptions in the water flow.

Foreseeable misuse:

- Operating above maximum operation pressure.
- Not draining and allowing water to freeze inside the product.
- Dropping the fitting from a height where damage is incurred.
- Prolonged exposure to temperatures¹ above + 55°C / +130° F, or below -20°C / -5° F
- Operating in a corrosive environment.
- Other misuse that might be unique to your specific firefighting environment

 **WARNING**

Read these instructions before use.

Failure to follow the instructions provided with the piston intake valve, may result in serious injury. For safe use of this product, you must read and follow the instructions.

¹ with flowing water
M1137B02 | Rev.01-03/22

PRODUCT WARNINGS

▲ DANGER

▲ DANGER

Do not exceed maximum operating pressure, particularly when relay pumping. Exceeding the maximum rated pressure for this appliance may cause malfunction or failure resulting in severe injury or death.

▲ DANGER

Failure of fittings and hoses can result in injury. Use caution not to exceed hose pressure as stated in NFPA 1961 for the type of hose being used.

▲ DANGER

Ensure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

▲ DANGER

Open and close all valves slowly. Failure to operate valves slowly may cause a water hammer, which may result in: damage or failure of the hose, coupling devices and appliances leading to injury or death

▲ DANGER

Attach hose line securely to valve.
Attach hose line securely to appliance/apparatus.

Ensure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

Open the air bleeder on top of the valve completely.

▲ DANGER

Slowly fill the hose line with water and allow all the air to bleed from the hose. Do not fill too quickly, as this may cause a water hammer and damage: valves, hoses, apparatus and/or appliances, resulting in equipment failure or injury. When all the air has been bled from the hose line, close the air bleeder valve completely. Slowly open the intake valve completely. Avoid opening quickly as this may cause a water hammer and damage valves, hoses, apparatus and/or appliances resulting in equipment failure and injury.

▲ WARNING

▲ WARNING

This equipment is to be used by trained firefighting personnel only. Failure to obtain proper training may result in severe injury or death.

▲ WARNING

Altering this device may reduce its operating effectiveness or safety. Do not alter or change in any way from its intended design.

▲ WARNING

Inspect valve for damage or malfunctioning parts before use. Ensure valve is fully closed.

▲ WARNING

Do not use if damaged. Damage to the product may cause malfunction or failure. Remove from service until the unit can be repaired.

⚠ WARNING

Check for damage or worn coupling connections. Damage or worn connections may become disconnected under pressure. Remove from service to be repaired by an AWG certified repair facility.

⚠ WARNING

Ensure the threads on the Hydrassist Valve are matched to the threads on the hose connections and hydrant.

⚠ WARNING

Do not connect the hose to the valve until the full length of hose to be used is completely laid.

⚠ WARNING

Do not use the valve as shut-off when testing hose.

⚠ WARNING

Open and close valves with your hands only. DO NOT use tools to assist in operating the valves.

⚠ WARNING

Always open and close valves fully and do not regulate water flow or pressure with the valve. DO NOT THROTTLE, STOP, OR OPERATE BETWEEN STOP POSITIONS! Throttling could cause damage to the valve. When operations are completed, shut down valve completely.

⚠ WARNING

Bleed off any excess pressure in the hose lines, disconnect and drain hose lines.

⚠ WARNING

Always fill auxiliary pumper lines before “changing over”. Changeover to empty auxiliary lines may cause water hammer and could damage the valve.

⚠ WARNING

Ensure the area around the Hydrassist Valve is clear when attached to a hydrant. Do not wedge hoses in between obstructions and the Hydrassist Valve during hook-up. This places additional stress on the Hydrassist Valve connection during operating and can cause failure.

⚠ WARNING

Attempting to disconnect the valve before pressure is relieved may result in serious injury.

⚠ WARNING

After use, clean and inspect the valve for damage or malfunctioning parts. Repair or replace damaged parts otherwise remove valve from service until repairs can be made. The valve should be repaired by an AWG certified repair facility.

⚠ WARNING

After use, disconnect and drain all hose lines and inspect the appliance for damage. If any components are damaged or malfunctioning, remove from service until appliance can be repaired.

⚠ CAUTION

⚠ CAUTION

The appliance design has an intake valve that should be secured to the appropriate inlet (fixed position on to the vehicle) before use.

⚠ CAUTION

For use with fresh water or standard firefighting foam. Not recommended for use with salt water.
After use with foam or salt water, flush with fresh water.

⚠ CAUTION

Check the valve during your normal maintenance routine.

Inspect appliance for damage or malfunctioning parts routinely. If appliance is damaged or not functioning as it should, repair or remove appliance from service until repairs can be made.

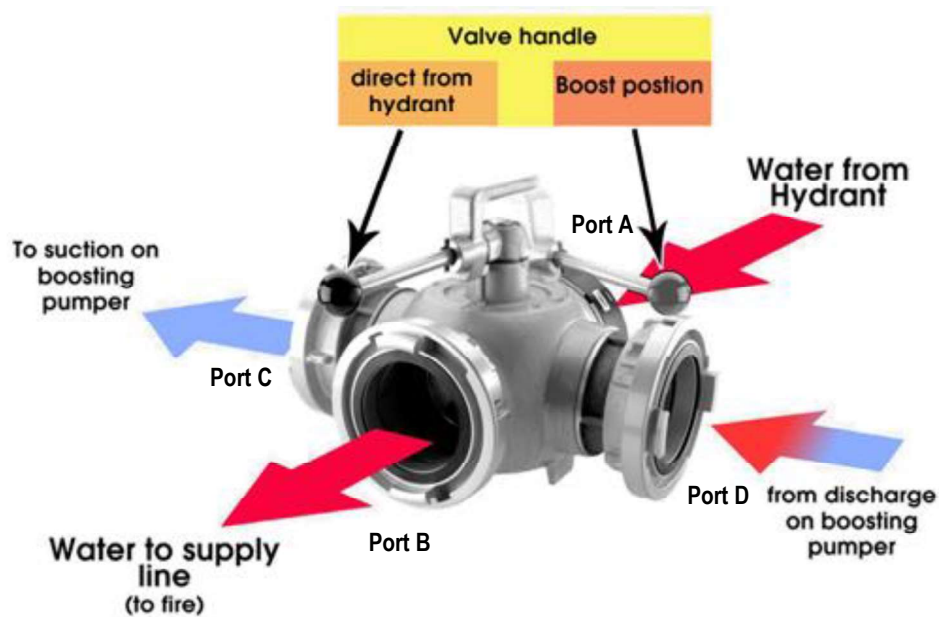
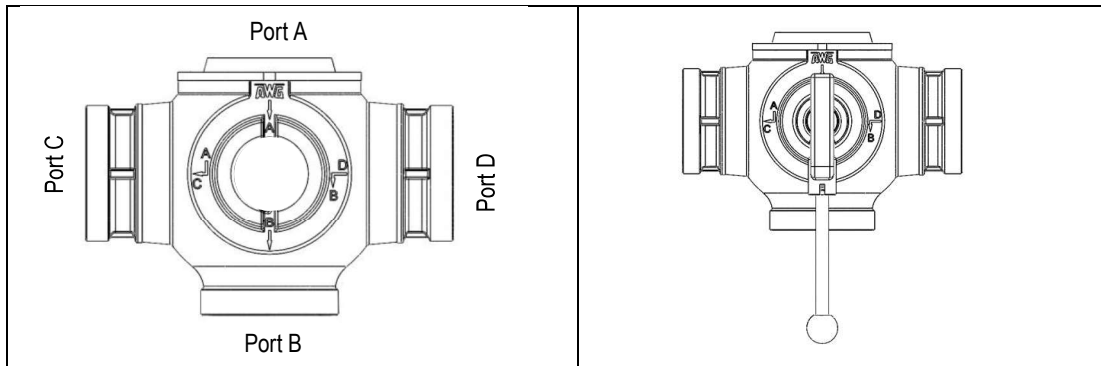
TECHNICAL INFORMATION

Id.-No.	Nominal Size	Inlet	Outlet	Length* [in] L	Width* [in] B	Height* [in] H	Weight* [lb]
10047533	DN 100	BSP G4 " female	3x BSP G5 " male	16.5 (420mm)	14.5 (370mm)	10.5 (265mm)	24.7 (12,2kg)

* w/o adapters

Max. operating pressure: PN16 / 200 PSI
Tested burst pressure per NFPA1965

Material: Body: aluminium anodized
Ball: stainless steel



INSTALLATION

Mounting to the Apparatus

Attach the valve securely to the hydrant with port A.

Attach hose line to discharge port B



This valve is intended to be attached to a hydrant. If needed this valve can be used to boost pressure in long hose lays. See OPERATION II: ALTERNATE OPERATION FOR BOOSTING LONG HOSE LAYS for cautions and procedures for this alternate use.

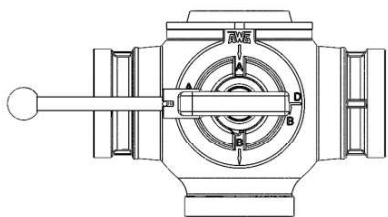
Make sure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

OPERATION: ON HYDRANT

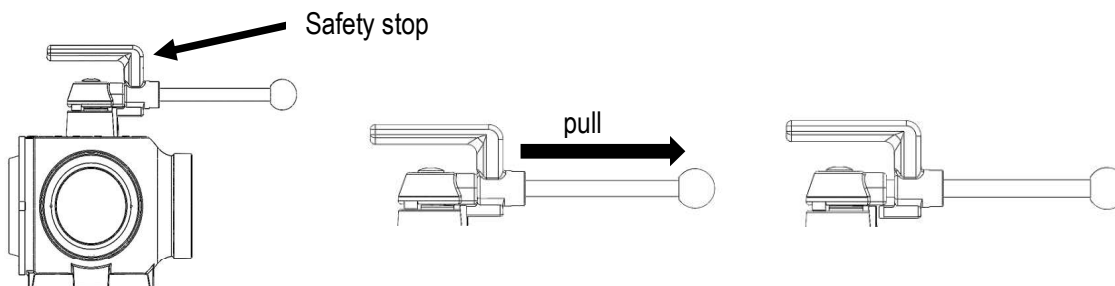
Valve Operation

Before mounting the hydrant, the valve must be closed; with the valve handle in the 'C' position (9 o'clock).

- Port A of the valve can then be securely mounted on the hydrant
- The hose line is connected to port B
- To fully close the valve; The valve handle should be in the 'C' position (9 o'clock).



- The handle has a safety stop to prevent accidental closure during operations. To change the water way/ open-close the valve with the hand lever, the safety device must be released. To do this the safety stop must be pulled outward before the lever can be turned.



- To change the water way from port A→B to A→C and D→B, turn the hand lever into the direction of the desired port. The safety device must be released before.

⚠ WARNING

Attach hose line securely to the valve.
Attach hose line securely to apparatus on the other end.

Open hydrant and bleed off air and debris through the hydrants secondary outlet(s), close the secondary outlet when done.

Slowly open the Hydrassist Valve by moving the valve handle to the 'B' position (6 o'clock). This position allows the water to flow straight through the valve and into the supply line.

⚠ DANGER

Open and close valves with your hands only. DO NOT use tools to assist in operating the valves. Open and close valves fully, DO NOT regulate water flow or pressure with the valve.

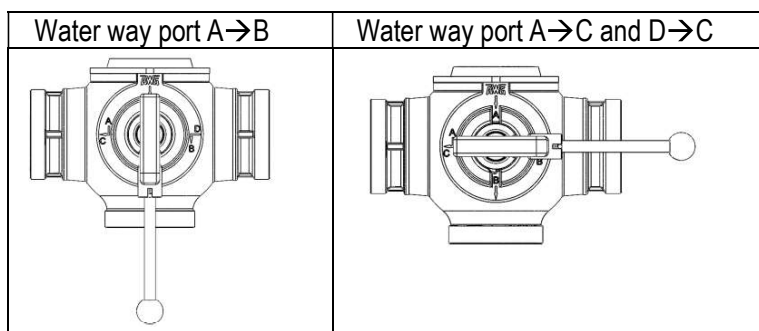
⚠ DANGER

Avoid opening quickly as this may cause a water hammer and damage valves, hoses, apparatus and/or appliances resulting in equipment failure or injury.

⚠ CAUTION

When it is necessary to boost the hydrant pressure:

Connect a hose line from the port at position 'C' (9 o'clock) to the suction inlet on the pumper. Next, connect a hose line from a discharge on the pumper to the port at position 'D' (3 o'clock). The valve handle is then turned to point at position 'D' (3 o'clock).



This will allow the water to flow from the hydrant to the suction inlet of an pumper, then out of the pumper discharge and back to the valve and out to the line with boosted pressure. Water will continue to flow through the valve from the hydrant to the line until the pump pressure exceeds the hydrant pressure. When pump pressure exceeds pressure in the valve an internal clapper valve will close and direct all hydrant flow to the pumper and back to the valve and out to the line under boosted pressure. There is no interruption to flow during this process.

⚠ WARNING

Boost the hydrant pressure as needed, however, no more than 150 PSI should be required.

⚠ WARNING

When operations are complete, slowly decrease boost pump pressure, this will allow the internal clapper to open and water will once again flow straight through the valve and into the supply line.

⚠ DANGER

Move the valve handle from the 'D' (3 o'clock) position to the 'B' (6 o'clock) position, and bleed of excess pressure from the hose lines at 'C' and 'D' connections before attempting to remove them from the valve and pump. Attempting to disconnect a hose before bleeding off pressure may result in injury.

⚠ DANGER

When ready, slowly shut down the hydrant and allow pressure to bleed off from the supply line. Attempting to disconnect a hose before bleeding off pressure may result in injury.

OPERATION II: ALTERNATE OPERATION FOR BOOSTING LONG HOSE LAYS

Valve Operation

⚠ WARNING

Use caution when using the Hydrassist Valve to boost long hose lays, long hose lays will stretch significantly when charged, pushing the hose and appliance which could push or trip personnel in its path.

⚠ WARNING

There is no air bleeder valve on the Hydrassist valve, the valve must be in the open position when charging the hose line to allow trapped air in the hose to pass through the valve.

⚠ WARNING

Hose lines must be charged slowly to prevent water hammer which can damage valves, pumps and couplings.

⚠ WARNING

To use the Hydrassist valve to boost pressure in very long hose lays, place the Hydrassist valve on a firm surface.

Securely attach the hose from the water supply to the Hydrant connection coupling.

Make sure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

Securely attach the hose to the discharge (to Fire) connection coupling.

Open the valve by turning the valve handle to 'B' (6 o'clock) position to allow water to flow straight through the valve.

Once the water supply is established and water is flowing through the valve, the boosting procedure is the same as with normal operation directly from a hydrant.

MAINTENANCE



Lubricate as necessary with AWG recommended lubricant: Fully synthetic grease for food technology (e.g. OKS 479).

Using anything other than the recommended lubricants may cause the o-rings to swell or degrade faster than expected.

Do not use excessive amounts of lubricant, over lubricating may cause dirt to collect inside the valve.

Use only recommended lubricant, improper lubricants may cause premature failure of O-rings and seals.

WARRANTY

- AWG Fittings GmbH warrants to the original purchaser and all subsequent purchasers of the AWG Fittings GmbH products that the product is free from defects in material and workmanship during a one (1) year period from the date of its sale by AWG Fittings GmbH.
- AWG Fittings GmbHs' obligation under this warranty is specifically limited to replacing or repairing any product which is determined by AWG Fittings GmbH inspection to be in a defective condition attributed to AWG Fittings GmbH manufacture or design. If AWG Fittings GmbH determines the product is defective, then AWG Fittings GmbH will repair or replace the product during the warranty period. The purchaser or beneficiary must notify AWG Fittings GmbH of any alleged defect within a reasonable time period.
- If AWG Fittings GmbH determines that the product is defective, then it will replace the product, repair the product, or refund the purchase price, at the discretion of AWG Fittings GmbH.
- This warranty is a LIMITED WARRANTY. The original purchaser of the product and any subsequent purchaser of the product and any person who is an intended or unintended beneficiary of the product shall not be entitled to recover from AWG Fittings GmbH any consequential or incidental damages for injury to person and/or property resulting from any defective product manufactured or assembled by AWG Fittings GmbH. It is agreed that the price stated and paid for the product is in part consideration for limiting AWG Fittings GmbH liability.
- This is a limited Expressed Warranty Only. AWG Fittings GmbH expressly disclaims with respect to the product all implied warranties of merchantability and all implied warranties of fitness for a particular purpose.
- There are NO WARRANTIES of any nature made by AWG Fittings GmbH beyond that stated in this Warranty.



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Two brands that together offer one of the widest ranges of premium equipment for rescue services. An overview can be found on our website.

www.awg-fittings.com

AWG Fittings GmbH

Bergstr. 25 . D-89177 Ballendorf

Phone: +49 (0) 73 40 / 91 88 98 0

awg-info@idexcorp.com . www.awg-fittings.com

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