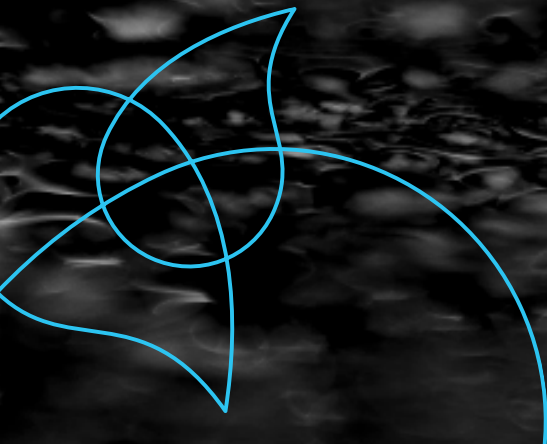




WAGATE® FLAP GATES
INSTALLATION MAINTENANCE
& PRODUCT GUARANTEE



PLEASE NOTE SERIAL/ORDERNUMBER HERE:

THANK YOU FOR PURCHASING A WAPRO PRODUCT.
FOR FURTHER PRODUCT INFORMATION PLEASE REFER
TO WAPRO.COM

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OPERATION INSTRUCTIONS

WAGATE FLAP VALVES – KVR, KVF, KVM, KVD, KVI, KVB, KKL, IKV, IKF, KVI-B

SAFETY INSTRUCTIONS

This manual should be read and properly understood before product commissioning. All personnel working with the product must be experienced and familiar with the safety and warning instructions in this document.

STANDARDS/DIRECTIVES

Our products are designed and manufactured in compliance with recognized standards and directives. This is certified in the Declaration of Conformity.

COMMISSIONING

Before commissioning the user needs to check that the product is free of any damage obtained during transport or storage.

Prior to first use, the user needs to make sure that the steps described in the commissioning part of the manual have been followed precisely.

TRANSPORT AND STORAGE

TRANSPORT

The product should be kept on its original packaging during the entire transport. The shipment pallet must be kept level and securely fastened down. It is not allowed to stack other products on top of the product during transport.

The product can only be moved on its original shipment pallet or using at least two of the lifting points on the outside of the product (Only applicable to flap valves too large to be handled by hand).



Lifting the product using any other method could result in damage to personnel or the product itself.

STORAGE

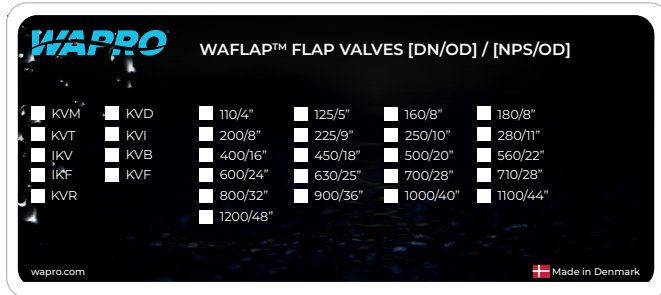
The product must be stored in a dry, well-ventilated environment, away from direct sunlight. Temperatures in storage must be between -30°C and 40°C. The surface temperature of the plastics can't exceed 80°C. The product must not be flooded or otherwise submerged in water during storage.

If the product is stored outside for longer durations, it is advisable to cover up the inlet pipe to keep dirt and debris out, as well as keeping wildlife from inhabiting the flap valve.

In areas with high humidity or with big fluctuations in temperature, the transportation wrapping must be removed to avoid buildup of condensation.

IDENTIFICATION

Do not remove the label. If purchasing spare parts, state the size and type of valve.



FLAP VALVE APPLICATIONS

The following table shows the applicable uses of each flap valve type, as well as which types of operation is available. If a flap valve is used outside its intended application, proper function can't be ensured, contact Wapro for advice.

MODEL	PIPE	WALL	FOR BENCHING MANHOLES	TYPE OF MOUNTING	DESCRIPTION
KVR	X		(X)	Mirror welding	Mirror welding for pipe end
KVF		X		Wall	Mounting on flat wall
KVM	X			Coupling	Mounting on pipe end
KDV	X			Flange	Standardly produced with flanges according to EN1092-1. Other flange sizes available upon request
KVI	X		(X)	Insert	For insert in existing pipes. ID must be provided
KVB		X		Rounded	Mounting on round walls and wells
KKL		X		Wall	Mounting on flat wall
IKV	X		X	Insert	Installation in plastic well
IKF	X		X	Insert	Installation in PVC and / or concrete inspection wells, equipped with a float
KVI-B	X			Insert	For insert into concrete pipes

(X) = is possible

MOUNTING

This manual should be read and properly understood before mounting. All personnel working with the product must be familiar with the safety and warning instructions in this document.

MOUNTING ON WALL- KKL, KVF, KVB

Flap valves can be manufactured for mounting directly on both flat and curved walls.

KKL and KVF can be mounted on flat walls.

KVB can be mounted on curved walls.

Installation of KKL on a wall or in a channel, use the included impact anchor, bolts and washers (purchased separately), and follow the instructions for installation that are included.

Make sure to bolt through all mounting holes.

When mounted the flap valve should not lean more than 5 degrees from horizontal in any direction. Violating this can result in reduced watertightness, blockage of moving parts and permanent damage to the flap valve.

MOUNTING SURFACE DIRECTION

Before mounting of the flap valve, make sure that the mounting surface is flat and smooth (max. $\pm 3\text{mm/m}$)

MOUNTING SURFACE GASKET

KKL, KVF and KVB flap valves are supplied with a mounting gasket for sealing against the mounting surface. Make sure that this gasket is correctly seated and has not been damaged during transport.

MOUNTING ON PIPES – IKV, IKF, KVI, KVD, KVM, KVR, KVI-B

Before mounting of the flap valve, make sure that the mounting surface of the inspection well or existing pipe is clean and smooth. Make sure the flap valve is intact and clean.

When mounted the flap valve should not lean more than 5 degrees from horizontal in any direction. Violating this can result in reduced watertightness, blockage of moving parts and permanent damage to the flap valve.

IKV and IKF flap valve for direct plug-in into pipe installations are supplied as standard with two sets of sealing rings in different sizes to ensure proper sealing on pipes with variable tolerances.

For proper sealing, make sure to use the correct one.

SERVICE ACCESS

To be able to perform proper repair and servicing of the flap valve, there must be an acceptable accessibility to reach the flap valve.

COMMISSIONING

These steps must be followed closely before first use.

After mounting make sure the flap valve opens and closes smoothly. Make sure that there is no sudden resistance to the movement which would indicate a problem.

Make sure that the sealing is tight, there must not be any gaps.

MAINTENANCE

The following maintenance must be performed for the product to operate as intended. Failing to do so voids the warranty. Maintenance plan.

MAINTENANCE PLAN EVERY 12 MONTHS:

- To check for proper function, move the flap valve to ensure there is no resistance
- Clean the flap valve of any growths or buildup filth
- Inspect the gaskets for any signs of cracks or wear
- Re-tighten the bolts and screws
- Inspect the flap valve for visual signs of damage. If any significant damage is found, please contact Wapro for advice

WARRANTY

WAPRO A/S WARRANTY

Wapro will remedy defects in material and/or workmanship in any new Wapro valve for a period of two (2) years from the documented date of purchase so long as the valve has been used in accordance with Wapro's instructions and recommendations and under normal operating conditions. The warranty does not cover damage to the valve caused by external mechanical forces, such as interference from humans, animals or machines, nor is the warranty valid if the valve has been modified or altered in any way post-production. Furthermore, the warranty is not valid (a) if the valve is damaged due to exposure to high concentrations of chemical substances, (b) if the valve is damaged because of pressure spikes, water hammering or vacuums exceeding the rated limits, (c) the warranty is invalid if flow velocity exceeds what is recommended, and (d) if malfunctions are caused by other equipment.

To request warranty service, the buyer should contact the WaGate dealer where the valve was purchased within a reasonable time after discovering any defects. The valve serial number or order number must be quoted in the case of a warranty claim. Wapro's liability is limited to the replacement or repair of the defective valve. Wapro will not assume costs incurred for removal of defective valves or subsequent installation of replacement valves. Furthermore, Wapro will not assume transportation costs of damaged valves or replacement valves. Wapro warrants that repaired or replaced valves are covered for the greater of either the remainder of the original valve warranty or 90 days. THE WARRANTY EXPRESSED ABOVE SHALL BE IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT WHICH ARE EXPRESSLY DISCLAIMED, AND IS IN LIEU OF ANY AND ALL OTHER OBLIGATIONS OR LIABILITY ON WAPRO'S PART. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, UNDER NO CIRCUMSTANCES WILL WAPRO BE LIABLE TO BUYER FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING ANY DAMAGE FOR LOSS OF REVENUE OR PROFIT), OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH FURNISHING OF THE VALVES, PARTS OR SERVICE HEREUNDER, OR THE PERFORMANCE, USE OF, OR INABILITY TO USE ANY OF THE VALVES, PARTS OR SERVICE, OR OTHERWISE, WHETHER BASED IN CONTRACT, WARRANTY, TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE OR ANY OTHER LEGAL OR EQUITABLE THEORY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY SHALL APPLY EVEN IF SUCH REMEDIES FAIL THEIR ESSENTIAL PURPOSE. FOR THE AVOIDANCE OF DOUBT, NO EMPLOYEE, AGENT OR OTHER REPRESENTATIVE OF WAPRO IS AUTHORIZED TO EXTEND OR OTHERWISE MODIFY THE WARRANTY SPECIFIED HEREIN.

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