







**VALVE HR 50** 

# **VALVE HR50:**



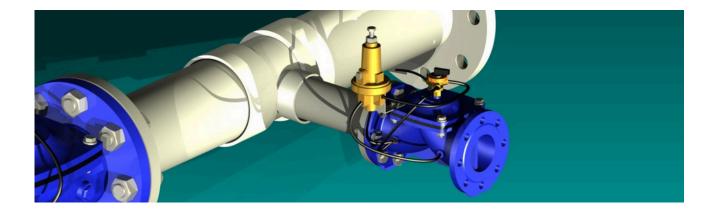
The FLUM VALVES cast iron hydraulic valve is a SANDERS type diaphragm hydraulic valve with a single chamber, with a basic opening and closing operation due to the pressure exerted by the water in the pipeline.

#### **NOTABLE FEATURES:**

- □ ISO-7-1 cylindrical BSP thread PN6 and PN10 membranes, with curved seat in the valve body,
- reinforced with ribs for greater performance.
- Easy access to the control chamber without having to remove the valve from the pipe.
- Screws with anti-seize treatment .
- Optimum operation both in horizontal and vertical positions, thanks to its interior ribs that prevent lateral and longitudinal deformation of the membrane, keeping the membrane without deformations.
- ☐ Simple and robust design.
- $\square$  Low pressure losses thanks to the design of the body and membrane.

# **MATERIALS**

Component	Material			
BODY AND LID	GG ductile iron			
PAINT	150 micron thick epoxy-polyester			
DIAPHRAGM	Natural rubber reinforced with nylon fabric			

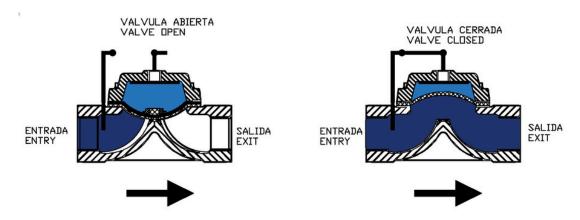


# **FUNCTIONING**

The valve opens or closes hydraulically depending on the pressure applied to the top of the diaphragm:

- ☐ If the applied pressure is equal to or greater than the inlet pressure, the valve closes completely tight.
- If the applied pressure is lower than the input pressure, the valve opens completely.

Using the hydraulic valve we can regulate the pressure or flow in a pipe, varying the volume of water in the upper part of the diaphragm.

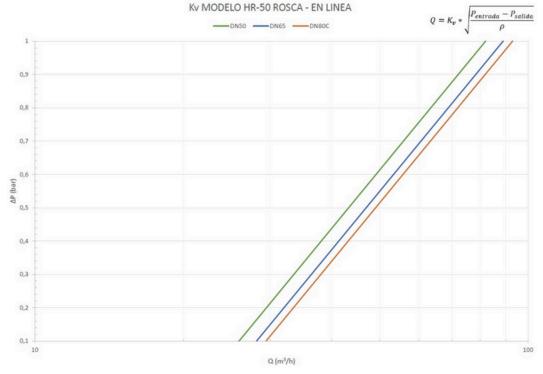


#### **HYDRAULIC SPECIFICATIONS**

We carry out opening and closing tests on each valve individually, complying with the UNE EN-12266-1 of 2013 regulations, which regulates valve tests, test procedures and acceptance criteria for pressure tests.

#### **LOAD LOSS**

Pressure loss test carried out according to UNE EN-1267 regulations.

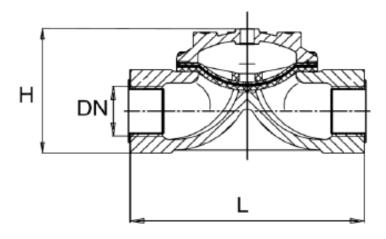


\*To size a valve correctly, consider  $\Delta P = 0.2$ 

CONNECTIONS CONNECTION	D.N. (mm)	DN (inches) ( inch )	kvs	Nominal pressure  Nominal pressure  (Bar)	Minimum working pressure  Minimum working pressure  (Kg/ cm2 )
	50	2"	82	6 10	0.4 0.8
THREAD THREAD	65	2 ½"	82	6 10	0.4 0.8
	80C	3" (3-2-3)	82	6 10	0.4 0.8

# **PHYSICAL SPECIFICATIONS:**

- □ All our threaded valves comply with the BSP standard regarding connection threads.
- ☐ Also available with NPT thread upon request.



CONNECTIONS CONNECTION	Material	D.N. (mm)	DN (inches) ( inch )	L (mm)	(mm)	Weight Weight (kg)
<b>THREAD</b> THREAD	GGG50	50	2"	180	105	3.20
	GGG50 GGG50	65	2 1/2"	205	125	4.00
		80C	3" (3-2-3)	210	135	4.40

# **WARNINGS:**

- Do not install the product without first reading and understanding the safety instructions.
- □ Pressure equipment, do not handle under load.
- ☐ This type of equipment must be handled by qualified personnel. The assembly, handling or maintenance of this equipment must be carried out by personnel with appropriate experience.
- Hidráulica Romyspan is not responsible for any failure caused by the manipulation of the equipment by personnel other than the company.
- Hidráulica Romyspan is not responsible for possible damages or injuries due to misuse of the equipment.

#### **SECURITY INSTRUCTIONS**

- □ To install the valve in the correct direction, the date on the valve body must coincide with the direction of water flow.
- ☐ The valves must not be installed underground. If you have to install it underground, mount it inside a closed box.
- ☐ For greater durability of the equipment, it is recommended to install a filter to avoid stones and impurities in the control system.

# WHAT TO DO IF?

Material	POSSIBLE REASON	PROCEDURE		
THE VALVE DOES NOT CLOSE	WRONG CONNECTIONS OR VALVES CLOSED INSULATORS CLOGGED FILTER	CHECK THE COMPLETE CONNECTION AND THE POSITION OF THE INSULATING VALVES. IF NECESSARY, MODIFY ASSEMBLY AND OPEN INSULATING VALVES TO ALLOW WATER FLOW.  REMOVE THE MICROTUBE LEAVING THE FILTER TO CHECK IF		
	CLOGGED TIETEIX	THERE IS WATER FLOW. CLEAN FILTER MESH OR REPLACE IF NECESSARY		
	BLOCKED CIRCUIT	EXAMINE CONNECTING PIPES FROM THE INLET AND CHECK FOR FLOW. CLEAN OR CHANGE ACCESSORY IF NECESSARY.  REMOVE COVER AND EXAMINE MEMBRANE AND SPRING, REPLACE		
	BROKEN MEMBRANE OR SPRING	DAMAGED ELEMENT IF NECESSARY.  REMOVE AND CHECK SOLENOID CORE. CLEAN OR REPLACE IT IF		
	CALCIFIED SOLENOID	NECESSARY. INSPECT PILOT OR RELAY FOR WORN, DEFECTIVE PARTS OR		
	PILOT OR RELAY DRAIN VALVE MAIN CHAMBER	FAILURE IN ASSEMBLY. CHANGE DEFECTIVE COMPONENTS OR COMPLETE PILOT.		
THE VALVE DOES NOT OPEN	WRONG CONNECTION OR CLOSED INSULATING VALVES	CHECK THE COMPLETE CONNECTION AND THE POSITION OF THE INSULATING VALVES. IF NECESSARY, MODIFY ASSEMBLY AND OPEN INSULATING VALVES TO ALLOW WATER FLOW.		
	INSUFFICIENT PRESSURE UPSTREAM OF THE VALVE	EXAMINE INLET PRESSURE, IF IT IS INSUFFICIENT, CHANGE MEMBRANE AND SPRING FOR A MODEL FOR LOWER WORKING PRESSURES. REMOVE COVER AND EXAMINE MEMBRANE AND SPRING. REPLACE		
	BROKEN MEMBRANE OR SPRING	DAMAGED ELEMENT IF NECESSARY.  REMOVE AND CHECK SOLENOID CORE. CLEAN OR REPLACE IT IF		
	CALCIFIED SOLENOID	NECESSARY. INSPECT PILOT OR RELAY FOR WORN PARTS,		
	PILOT OR RELAY DOES NOT DRAIN VALVE MAIN CHAMBER	DEFECTIVE OR FAILURE IN ASSEMBLY. CHANGE DEFECTIVE COMPONENTS OR COMPLETE PILOT. REMOVE THE MICROTUBE LEAVING THE FILTER TO CHECK IF		
	CLOGGED FILTER	THERE IS WATER FLOW. CLEAN FILTER MESH OR REPLACE IF NECESSARY. TIGHTEN AND LOOSE THE PILOT ADJUSTMENT SCREW AND		
THE VALVE DOES NOT	MISADJUSTED PILOT	OBSERVE IF THERE IS A REACTION. IN CASE OF CORRECT REACTION, RE-ADJUST THE PILOT TO THE DESIRED PRESSURE EXAMINE PILOT WORKING RANGES. IF IT IS OUT OF THE RANGE,		
REGULATE PROPERLY	WORKING PRESSURE OUTSIDE THE PILOT WORKING RANGE	CHANGE THE INTERNAL SPRING OF THE PILOT OR COMPLETE PILOT. INSPECT PILOT OR RELAY FOR WORN, DEFECTIVE PARTS OR		
	FAULTS IN REGULATOR PILOT	FAILURE IN ASSEMBLY. CHANGE DEFECTIVE COMPONENTS OR COMPLETE PILOT.  EXAMINE THE MEMBRANE AND IF IT IS DAMAGED, REPLACE IT		
THE VALVE DOES NOT	MEMBRANE LOSES WATER  THE CONTACT SURFACE OF THE	WITH A NEW ONE.  POSSIBLE DIRT LOCATED BETWEEN THE MEMBRANE AND ITS  SUPPORT ON THE VALVE BODY. MANUALLY CLOSE THE VALVE AND		
CLOSE COMPLETELY	MEMBRANE DOES NOT MAKE A CORRECT CLOSURE	IF THE PROBLEM CONTINUES, OPEN THE VALVE COMPLETELY TO CLEAN THE SUPPORT AREA OF THE MEMBRANE.		



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HIDRÁULICA ROMYSPAN S.L. C/Bogotá s/n nave 1-2-3 Pol. Ind. LA SERRETA MURCIA (30500) España

TEL: +34 968 80 94 87

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