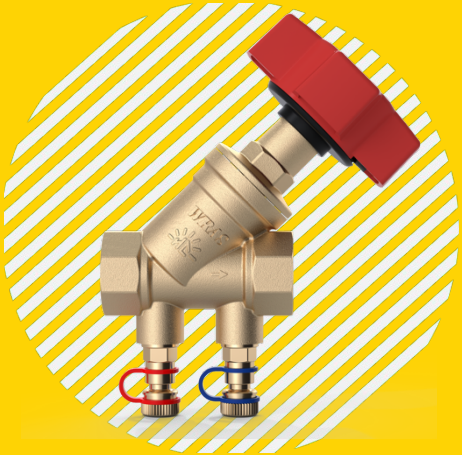
TECHNICAL DATASHEET

WRAS APPROVED BALANCING VALVE

HOME CREATOR



Item No.: HC-000220

1 CERTIFICATION INFORMATION

Declaration of conformity: WRAS approved balancing valve, Confirmation of the approval can be obtained from the WRAS Approvals Directory.

Approval Number: 241202078

2 PRODUCT BASICS

Product Name: WRAS APPROVED BALNCING VALVE (FXF series)

Purpose: It is used as a shut-off valve in pipeline systems (water supply, household drinking, heating), transporting any media that are not aggressive to the materials of the product.

Manufacturer (supplier): HOME CREATOR GROUP LTD.

3 MAIN TECHNICAL DATA AND CHARACTERISTICS

3.1 SPECIFICATIONS

Table 1

No.	Characteristic	unit change	Meaning
1	Average total service life	years	30 years
2	Maintainability		repairable
3	Average full resource (from position 0 to 100)	cycles	12000
4	Mean time between failures (from position 0 to 100)	cycles	6000
5	Operating pressure	MPa	2.0
6	Test pressure	MPa	3.0
7	Working environment temperature		110
8	Nominal diameter range	inches	1/2", 3/4", 1"
9	Tuning scale range	meaning	0-99
10	Conditional capacity (Kv 99) in position 99 for diameters:		
10.1	1/2"	m°/hour	4.74
10.2	1/2" Low Flow	m°/hour	2.78
10.3	3/4"	m°/hour	7.9
10.4	1"	m°/hour	10.75
11	Mounting position		Any

3.2 MATERIAL OF MANUFACTURE AND CONSTRUCTION

Female-Female thread (FxF)

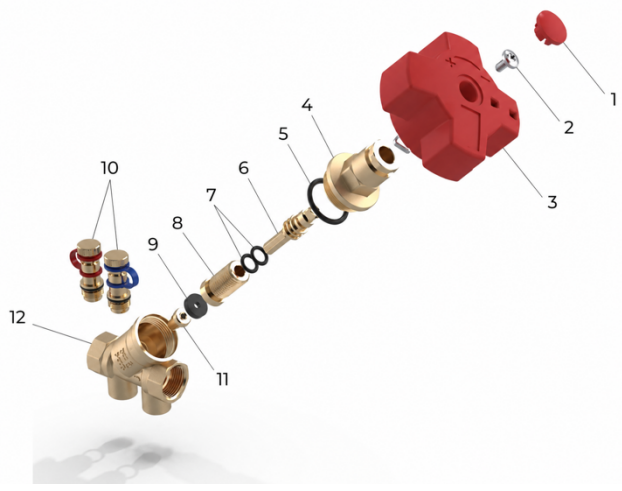


Table 2

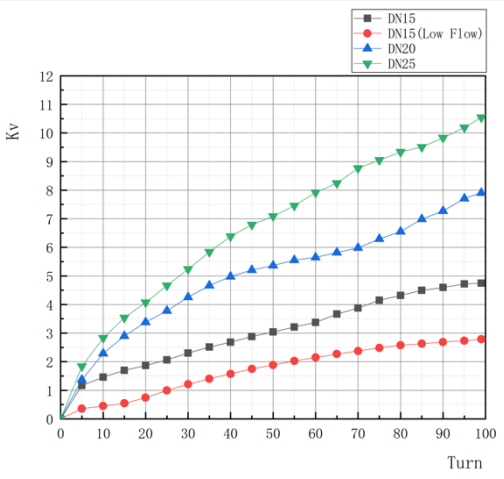
No.	Name	Material
1	Color Buckle	ABS
2	Phillips flat head screws	304
3	Hand Wheel	ABS
4	Valve Cover	DZR BRASS
5	O-ring	EPDM
6	Stem	DZR BRASS
7	O-ring	EPDM
8	Water Stop Plate	DZR BRASS
9	O-ring	EPDM
10	Pressure Gauge Joint	DZR BRASS
11	Screw	304
12	Body	DZR BRASS

1. HOME CREATOR brass products are made by hot stamping of brass grade DZR brass as per the British standard CZ132.
2. The Rubber Mat is made of EP8018F EPDM according to European standards.

3.3 HYDRAULIC CHARACTERISTIC

Table 3

Scale value	Kv value (m^\hour) for DN			
	1/2"	1/2" Low Flow	3/4"	1"
00	0	0	0	0
05	1.167	0.355	1.372	1.838
10	1.458	0.449	2.289	2.828
15	1.695	0.543	2.897	3.536
20	1.869	0.740	3.378	4.070
25	2.065	0.996	3.779	4.667
30	2.302	1.208	4.256	5.233
35	2.508	1.401	4.661	5.840
40	2.678	1.572	4.977	6.380
45	2.875	1.749	5.208	6.788
50	3.042	1.882	5.360	7.091
55	3.213	2.027	5.553	7.454
60	3.374	2.147	5.648	7.920
65	3.665	2.267	5.815	8.242
70	3.874	2.375	5.983	8.768
75	4.148	2.482	6.296	9.051
80	4.319	2.577	6.549	9.334
85	4.492	2.628	6.989	9.509
90	4.594	2.685	7.274	9.829
95	4.721	2.735	7.706	10.191
99	4.747	2.786	7.903	10.548



Note:

1. Intermediate values are found by interpolation.
2. At positions 0, 1,2 Ku for valves of all diameters is equal to 0 (sample of elasticity of the spool gasket).

Here is an example of setting up a table:

it is required to adjust the pressure difference Δp=0.12 bar on the valve DN=3/4" at a flow rate in the riser Q=0.78 m3/hour;

Calculate the flow rate through the valve

$Kv=Q/\sqrt{\Delta P}=0.78/\sqrt{0.12}=2.25m3$ time

According to the settings table, the nearest values are 20 (2.19) and 25 (2.55), the difference is where it is needed.

20+(2,25-2,19:((2,55-2,19)/25-20))= 20

3.4 BALANCING VALVE LEAVER HANDLE

Female-Female thread (FxF)



3.5 CROSS SECTION

Female-Female thread (FxF)

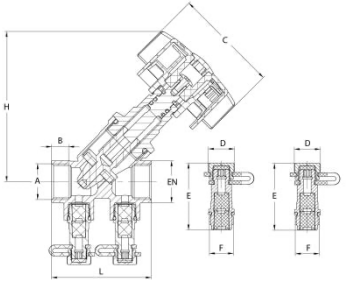


Table 4

Item	DN	Size	Weight, g	Overall dimensions, mm								
				B	L	A	H	C	D	F	E	EN
HC-00022O	15	1/2"	353	11	58.5	1/2"	88	70	14	G1/4"	36	24.5
HC-00022O	20	3/4"	479	13	68.5	3/4"	93	70	14	G1/4"	36	30.5
HC-00022O	25	1"	704	18	89.5	1"	98.5	70	14	G1/4"	36	38

4 INSTALLATION AND OPERATION

4.1 Installation of a balancing valve should be carried out by a specialist or a specialized organization in accordance with the Installation Requirement Notes (IRNs) "WRAS water regulation approval schedule".
4.2 The direction of flow of the working fluid must coincide with the direction of the arrow on the valve body.
4.3 Valves should be installed at the end of the regulated circuit, thereby reducing the likelihood of airing.
4.4 When installing valves, it is prohibited to apply torques exceeding the values indicated in the table:

Thread, inches	1/2"	3/4"	1"
Extreme twist, Hm	30	40	50

4.5 When installing self-sealing measuring nipples instead of plugs, no additional sealing material is required.
4.6 After installation is completed, the system must be tested with hydrostatic pressure exceeding the operating pressure by 1.5 times for 10 minutes.

5 DESCRIPTION AND WORK

5.1 Product should be operated in accordance with the pressures and temperatures in the Technical Specifications Table It is not allowed to operate the valve with the handle screw removed or loose.
5.2 Solvents, paints and other substances that are corrosive to the handle material are not allowed on the valve handle.
5.3 The working medium in the valve is not allowed to freeze.

6 MAINTENANCE

6.1 Articles must be operated within the values specified in para. 3, para. 4 of this technical passport.
6.2 To extend the service life of sealing elements, it is recommended to open / close the HOME CREATOR balancing valve at least 1 time in 6 months.

7 STORAGE AND TRANSPORTATION CONDITIONS

Products are transported in the packaging of the manufacturer in accordance with the rules operating on the mode of transport used.

8 RESOURCES, LIFETIMES AND MANUFACTURER'S (SUPPLIER'S) WARRANTIES

8.1 Average full service life of a balancing valve: 30 years.
8.2 The manufacturer (supplier) guarantees the operability and compliance with the safety requirements of the product if the consumer complies with this technical passport HC-00022O.
8.3 Warranty period: 5 years from the date of sale to the end user / from the date of commissioning of the object. The warranty covers all defects caused by the manufacturer.
8.4 When making claims about the quality of the goods, the buyer provides the following documents:
8.4.1 An application in any form, which indicates:
a) Name of the organization or F. And. About. buyer, actual address, contact phone number;
b) The name and address of the organization that carried out the installation of the product; c) a brief description of the malfunction of the product.
8.4.2 A document confirming the purchase of the product (cash/sales receipt, waybill, receipt, etc.).
8.4.3 Photos of the product confirming its malfunction, or the product itself.
8.4.4 Act of hydraulic testing of the system in which the product was mounted.
8.4.5 Completed warranty card.
8.5 The warranty does not cover defects arising from:
8.5.1 Violations of the passport regimes of storage, transportation, installation and operation of the product.
8.5.2 The presence of traces of extraneous interference in the design of the product.
8.5.3 Effects of substances aggressive to the materials of the product.
8.5.4 Effects on the product of excessive force.
8.5.5 Impact on the product of fire, natural disasters and other force majeure circumstances.
8.6 The warranty also does not apply in cases where the manufacturer's markings are partially or completely changed, erased, removed or illegibly visible.
8.7 In case of unreasonableness of the claim, the costs of diagnostics and examination of the product are paid by the buyer.
8.8 Manufacturer HOME CREATOR GROUP LTD. reserves the right to make changes to the design of the product that do not affect the declared technical characteristics.
8.9 Claims for the quality of the goods can be made during the warranty period at the address of the manufacturer HOME CREATOR GROUP LTD.

9 CERTIFICATE OF ACCEPTANCE AND PACKAGING

9.1 Balancing valves packed by the manufacturer.
9.2 Packaging ensures the safety of products subject to compliance with clause 7.
9.3 The materials and substances used for packaging are safe for people and the environment.
9.4 The balancing valve is in the open position.
9.5 The batch of balancing valves is recognized as suitable for operation and is accepted with 100% control at RPR = 2.5 * PW.

Date of manufacture		QUALITY Mark	

10 **NOTE**

WARRANTY CARD No _____

Name: WRAS APPROVED BALANCING VALVE

Article: HC-00022O

Quantity: _____

Name and Address of the trading organization: _____

Date of Sale: _____ Seller's full name / Seller's signature, Stamp / seal of the trading organization: _____

I agree with the terms of the warrant: _____

Product Return Mark: _____

Buyer's signature: _____

Date / Signature: _____

View your passport Online:

WARRANTY PERIOD: 5 YEARS

Warranty is provided.
according to paragraph 8 of the technical passport HC-00022O

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