



**Greater Cairo Foundries**

شركة مسابك القاهرة الكبرى ش.م.م

## GCF AIR INLET-RELIEF VALVE



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# GCF AIR INLET-RELIEF VALVE SERIES 6200 / 6300

The GCF Air Valve series 6200 & 6300 is a ductile iron Air Inlet-Relief Valve which allows deaeration during pipeline operation as well as entrance and exit of air in the course of pipeline filling and emptying, thereby securing an undisturbed pipeline operation. Their function is to automatically release and admit air without operator assistance. It's suitable for water application.

## Comparison between Air Valves Series 6200 and Series 6300

GCF Series	6200	6300
Design	Two Chamber Air Valve without internal Shut -off Valve	Two Chamber Air Valve with internal Shut -off Valve
Installation Pipeline	Should be installed with an external shut off valve (gate valve) between Air Valve and connecting flange	Installed Directly on pipe flange
Valve Cleaning	Cannot be cleaned if there is no external shut - off valve	When shut -off valve is closed the air valve can be cleaned without interruption of the supply pipeline

## FUNCTION AND OPERATION DESCRIPTION

GCF Series 6300 and 6200 air valves with double chamber ( relief and vacuum) are designed to perform three functions :

- 1- The relief of air on the start-up of the system while pipeline are filled
- 2- The intake of air on shut - off of the system while pipeline are being drained
- 3- The discharge of pressurized air pockets during operation

### OPERATION OF AIR VALVES TAKES PLACE IN 3 DIFFERENT STAGES;

#### 1. System is turned on by a valve opening or pump start;

- when water begins to fill the pipeline pushing air;
- air is vented through the large chamber;
- water flows inside the valve causing the float to rise and seal the outlet.

#### 2. During operation, pressurized air pockets accumulate in the system;

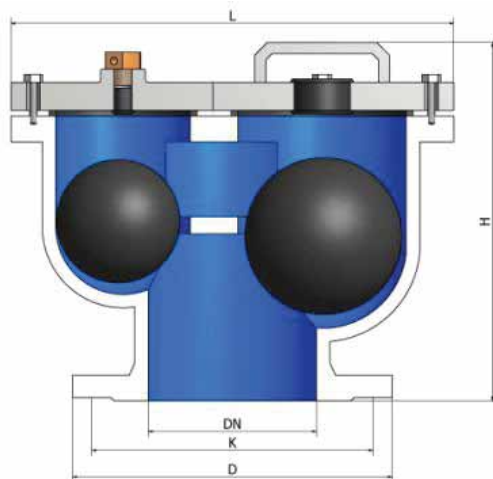
- air pockets enter the valve and cause the float in small chamber to drop;
- air is vented through the small orifice;
- water flows inside the small chamber causing the float to rise and seal the outlet.

#### 3. System is turned off by a valve closing or pump shut off;

- the level of water in the pipeline drops, causing vacuum inside the system;
- the float drops and opens the large chamber;
- air is let in the system.

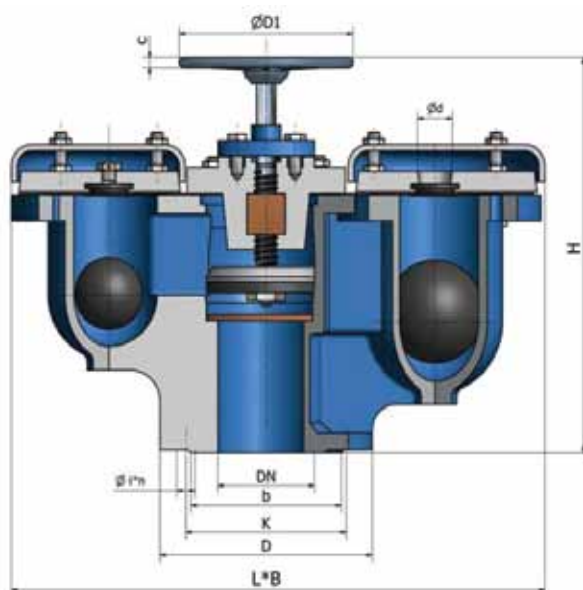
# VALVE DIMENSIONS

## SERIES 6200



DN	H	L	D	K	n		Mass (kg)
					PN10	PN16	
80	270	310	200	160	8	8	25
100	280	335	220	180	8	8	35
150	345	395	285	240	8	8	55
200	445	550	340	295	8	12	100

## SERIES 6300



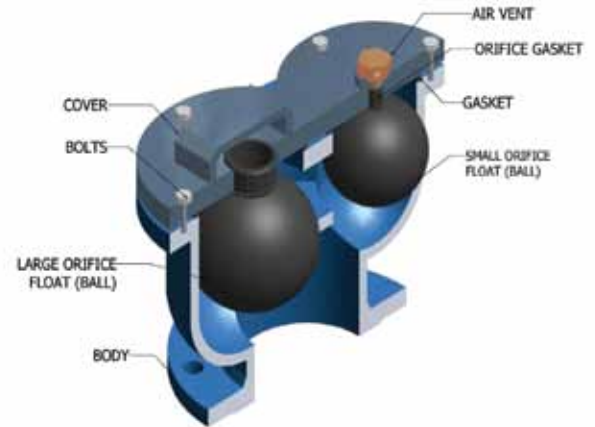
DN	H	L	B	D	K	n		i	a	c	D1	d	Mass (kg)
						PN10	PN16						
50	305	390	170	165	125	4	4	19	14	29	180	35	37
80	395	600	250	200	160	8	8	19	17	34	225	56	45
100	455	700	280	220	180	8	8	19	19	38	280	80	60
150	560	930	400	285	240	8	8	23	24	42	360	110	105
200	692	1100	500	340	295	8	12	23	24	42	360	165	165

# MATERIAL SELECTION

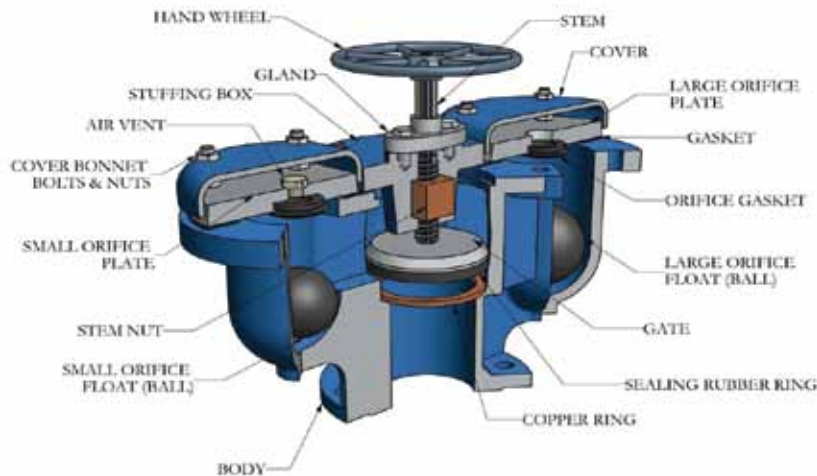
## SERIES 6200

Description	Material	Material Standard
Body	Ductile Iron GGG50	Equivalent to DIN 1693
cover	Ductile Iron GGG50	Equivalent to DIN 1693
Air vent	Bronze	
Orifice gasket	EPDM Rubber	BS EN 681
Orifice float	EPDM or ABS	EPDM(BS EN 681) ABS (ISO 2580)
Gasket	EPDM Rubber	BS EN 681
Bolt & nut	Galvanized steel	Grade 4.6 and 8.8

Other material available upon request



## SERIES 6300



Description	Material	Material Standard
Body	Ductile Iron GGG50	Equivalent to DIN 1693
Gate	Ductile Iron GGG50	Equivalent to DIN 1693
Stem	Stainless Steel	ASTM grade 304
Small orifice Float(Ball)	EPDM or ABS	EPDM(BS EN 681) ABS (ISO 2580)
Gland	Ductile Iron GGG50	Equivalent to DIN 1693
Small Orifice plate	Ductile Iron GGG50	Equivalent to DIN 1693
Bolt & Nuts	Galvanized steel	Grade 4.6 and 8.8
Gasket	EPDM Rubber	BS EN 681
Stuffing Box	EPDM Rubber	BS EN 681
Large Orifice plate	Ductile Iron GGG50	Equivalent to DIN 1693
Large Orifice Float (Ball)	EPDM or ABS	EPDM(BS EN 681) ABS (ISO 2580)
O-Ring	EPDM	BS EN 681