

# KARA-Anti shock Combination Air Release Valve

## Features:

- . Advanced design with simple mechanism, strong float to prevent cracking during sudden water hammer & quick closure.
- . Aerokinetic mechanism to resist blow shut under higher air velocity even up to sonic velocity of air.
- . For the potential water hammer location or transmission pipeline, we should use anti shock combination air valve to prevent from damage or impact of severe water hammer.
- . Anti shock device is installed on top of bonnet, It will slow down the exhausting air flow out during filling to prevent hammer impact, whenever vacuum happen, the device will drop down and let Large air into the pipeline.
- . No arms or levers to prevent vibrating, bending, direct closure of the float.
- . Smooth barrel outside of the float, keep float moving in specified guide rail.
- . Guide barrel buffer for collision prevention, and drain easy with proper holes around the barrel during vacuum.
- . Outside screen will be an option for safety and prevent insects or birds in.
- . Fully fusion epoxy coated inside and outside of valve body for long term services.
- . Manufacturing standard meets or exceeds BS EN 1074-4, AWWA C512
- . Flange drilling and dimension meets BS EN 1092 and BS EN 558 and ANSI flange.

**K**ARA- Combination air release valve with anti shock device provides 3 functions: 1.Restricted air release during filling of the pipeline. 2.Small air release under pressurized pipeline. 3.Large air intake during draining of the pipeline.



## Service Fields:

For clean water system, transimission and distribution, irrigation system.

## Technical Data:

Size range:DN 50-300MM

Pressure ratings:

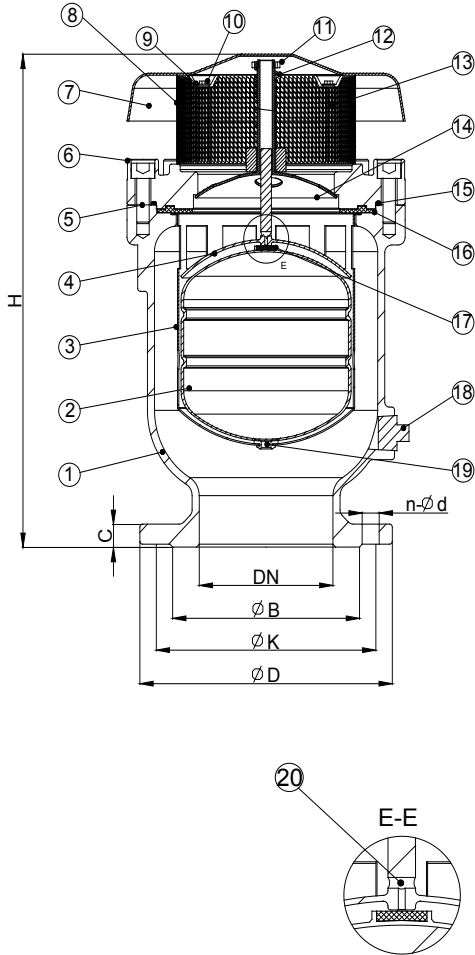
1.0Mpa, 1.6Mpa, 2.5 Mpa (Flange)

Working temperature: -10°-80°C.

Flow media: clean water

Please consult factory for PN40 and anti shock device whenever there is water hammer issue

## Main Valve-DN50-DN300



## Parts List

No.	Part Name	Material	Standard
1	Body	Ductile Iron	EN GJS 500-7
2	Float	Stainless Steel	AISI 304
3	Guide Barrel	Stainless Steel	AISI 304
4	Sealing Arc	Stainless Steel	AISI 304
5	In Hex Bolt	Carbon Steen/ Stainless Steel	G. I/ AISI 304
6	Bonnet	Ductile Iron	EN GJS 500-7
7	Cover	Carbon Steel	Commercial/ Epoxy Coated
8	Screen	Stainless Steel	AISI 304
9	Washer	Carbon Steel/ Stainless Steel	G. I/ AISI 304
10	Hex Bolt	Carbon Steel/ Stainless Steel	G. I/ AISI 304
11	Nut	Carbon Steel/ Stainless Steel	G. I/ AISI 304
12	Spring	Stainless Steel	AISI 304
*13	Pillar	Aluminium	Commercial
14	Anti Shock Device	Stainless Steel	AISI 304
15	O-Ring	Rubber	EPDM/NBR
16	Seat	Rubber	EPDM
17	Nozzle Seat	Rubber	EPDM
*18	Plug (Option)	Stainless Steel	AISI 304
19	Buffer	Rubber	EPDM
20	Small Nozzle	Stainless Steel	AISI 304

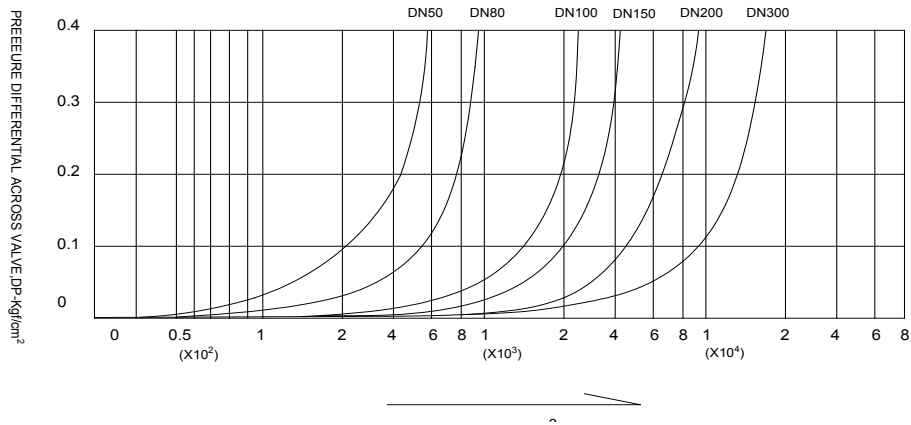
\* For Size ≤DN150.

\* Plug will be added upon request.

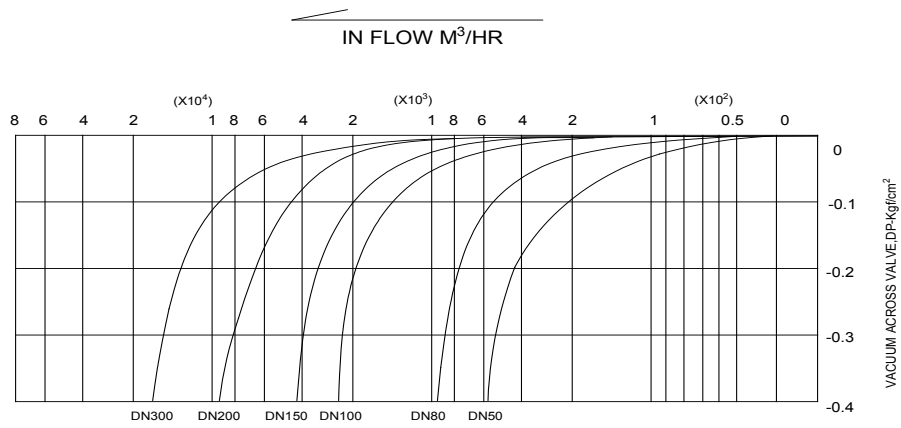
## Dimension

DN	ØB			ØD			ØK			H	N-Ød			C			
	PN10	PN16	PN25	PN10	PN16	PN25	PN10	PN16	PN25		PN10	PN16	PN25	PN10	PN16	PN25	
50	99			165			125			310	4-Ø19			19			
80	132			200			160			382	8-Ø19			19			
100	156			220	235		180	190		420	8-Ø19	8-Ø23		19			
150	211			285	300		240	250		520	8-Ø23	8-Ø28		19	20		
200	266	274		340	360		295	310		630	8-Ø23	12-Ø23	12-Ø28		20	22	
300	370			460			410			800	12-Ø23	12-Ø28		24.5			

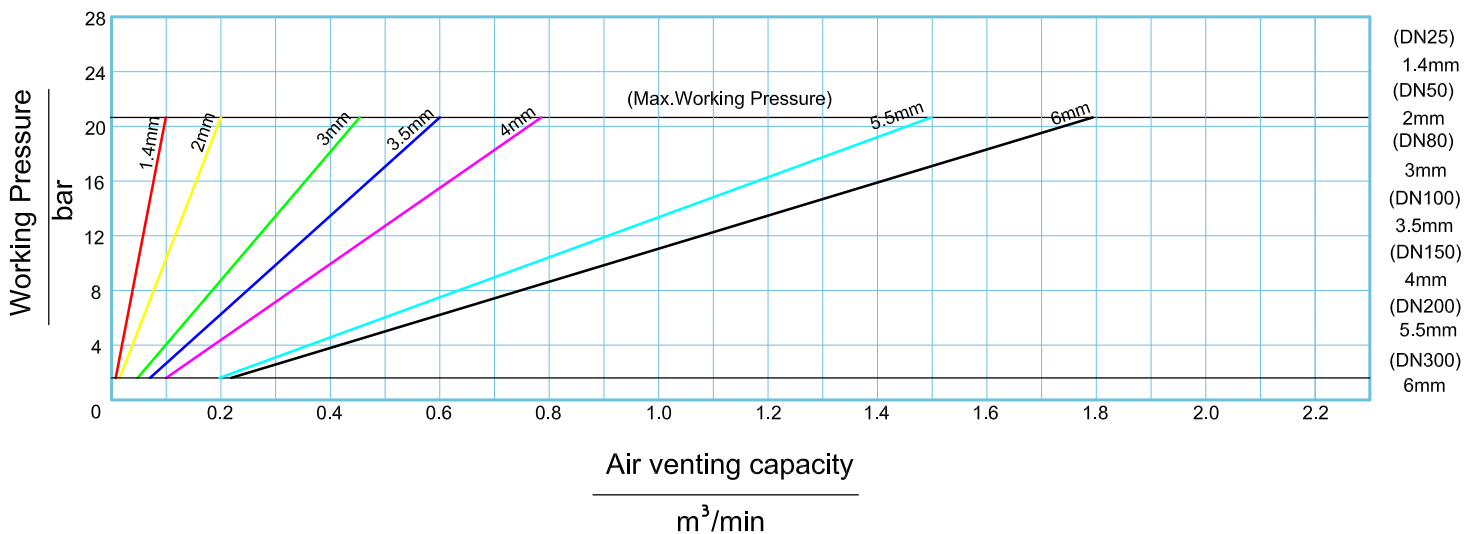
Unit: MM



\* Air flow capacity will be restricted by anti device, the curve shown above is for standard air valve .



**Air Venting**



## KARA-Quick Selection Table

Water flow rate range Max.CMH (M <sup>3</sup> /Hour)	1,360	4,160	8,500	19,100	33,400	76,300
Main pipe size MM	200-400	400-700	750-1000	1050-1500	1500-2000	2100-3000
Inlet size of KARA MM	50	80	100	150	200	300
bore of outlet MM	75	95	130	170	230	330
small orifice size MM	2	3	3.5	4	5.5	6

\*Those flange type from DN 50-300 can be up to Max. WP PN 25.

## Ordering Code

Model:  
KAR- kinetic air valve, with 3 functions  
KAV-Kinetic air/vacuum valve, with 2 functions,  
for restricted air exhaust and large air intake

Type:  
A: Anti shock device

