Designed Network Solutions

DNS Combination Kinetic Air Release Valve

DNS Combination kinetic air release valve provide 3 functions: 1.Large air release during filling of the pipeline.
2.Small air release under pressurized pipeline.
3.Large air intake during draining of the pipeline.



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.
- No arms or levers to prevent vibrating, bending, direct closure of the float.
- Smooth cage outside of the float, keep float moving in specified guide rail.
- Bottom rubber buffer for collision prevention, and drain easy with proper holes around the cage 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 BS EN 1074-4, AWWA C512
- Flange drilling and dimension meets BS EN 1092 and BS EN 558 and ANSI flange.
- If there is water hammer issue, please consult factory

Service Fields:

For water system, fire fighting, irrigation system.

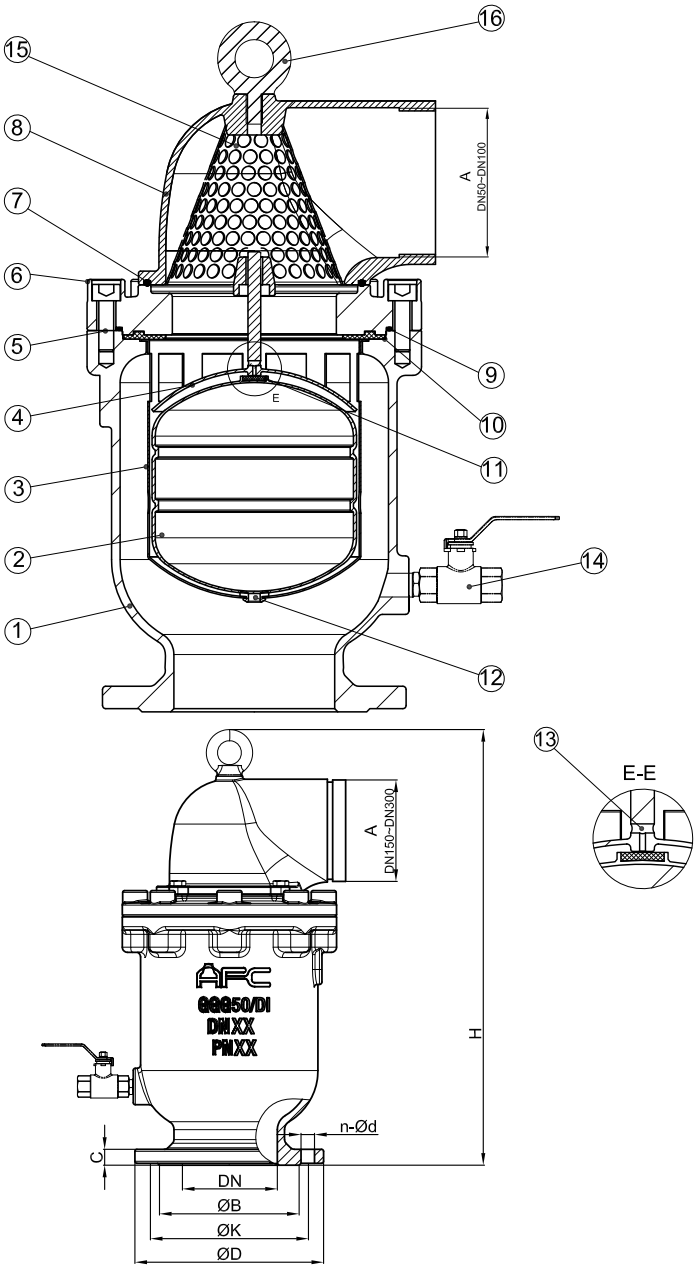
Technical Data:

Size range:	DN 50-300MM
Pressure ratings:	0.1 Bar to 16 Bar (Thread)
	0.1 Bar to 25 Bar (Flanged)
Working temp:	-10°-80°C.
Flow media:	clean water

WRAS APPROVED PRODUCT
Cert No. 2301005

Designed Network Solutions Ltd, 15 Buckingham Drive, Northwich, CW9 8WB
T 07375 385089 E craig@dns-uk-ltd.co.uk W dns-uk-ltd.co.uk

Main Valve-DN50-DN300



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	Stainless Steel	AISI 304
6	Bonnet	Ductile Iron	EN GJS 500-7
7	O-Ring	Rubber	NBR
8	Exhaust bend	Ductile Iron	EN GJS 500-7
9	O-Ring	Rubber	NBR
10	Seat	Rubber	EPDM
11	Nozzle Seat	Rubber	EPDM
12	Buffer	Rubber	EPDM
13	Small Nozzle	Stainless Steel	AISI 304
14	Ball valve	Stainless Steel	AISI 304
15	Screen	Stainless Steel	AISI 304
16	Eyebolt	Stainless Steel	AISI 304

Weight & Dimensions

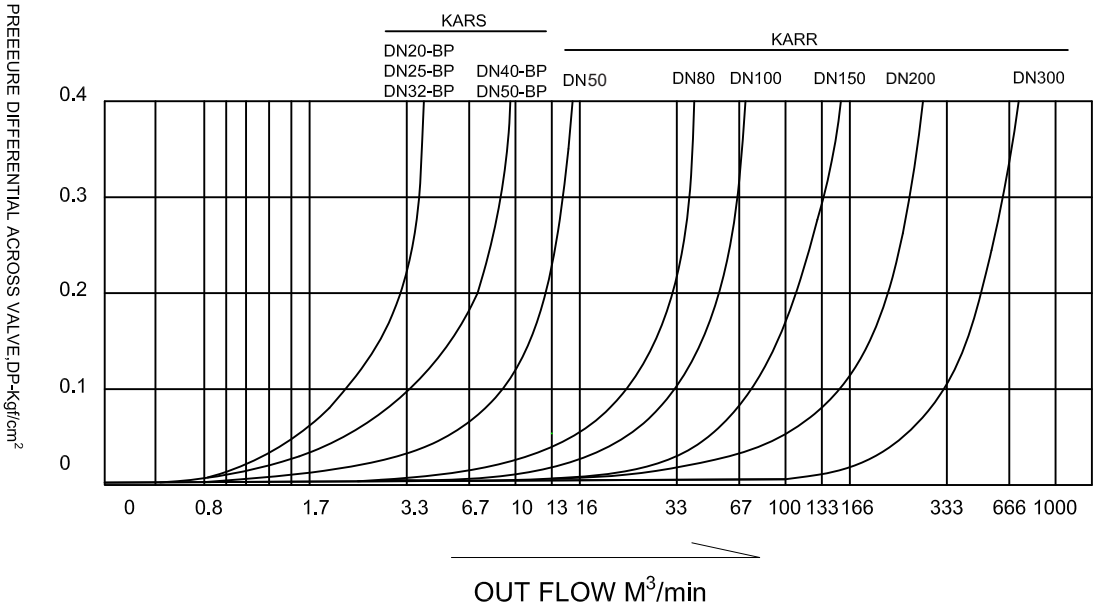
DN	Model No.	A MM	H MM	W Kg
50	DNS-50R-TF-PN16-KARR-PAV-SK	165	315	9
80	DNS-80R-TF-PN16-KARR-PAV-SK	200	360	13.5
100	DNS-100R-TF-PN16-KARR-PAV-SK	220	475	17
150	DNS-150R-TF-PN16-KARR-PAV-SK	285	525	34
200	DNS-200R-TF-PN16-KARR-PAV-SK	340	625	65
300	DNS-300R-TF-PN16-KARR-PAV-SK	460	746	147

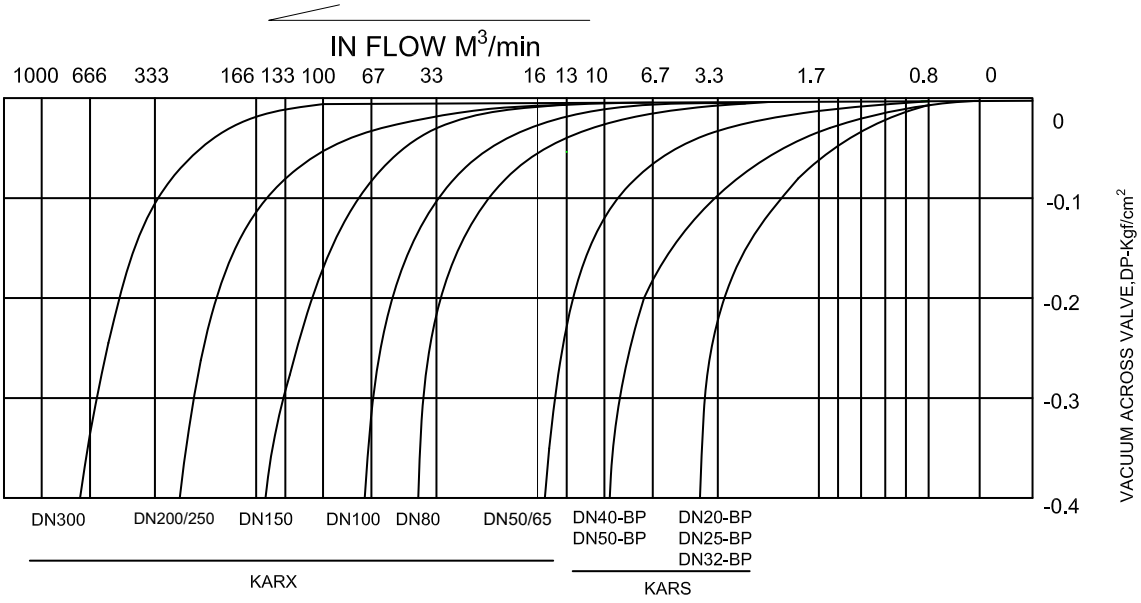
Air Valve Size Range Per Diameter

	Mains Size Up To
50mm (2")	450mm
80mm	750mm
100mm	1000mm
150mm	1400mm
200mm	1700mm
300mm	2500mm

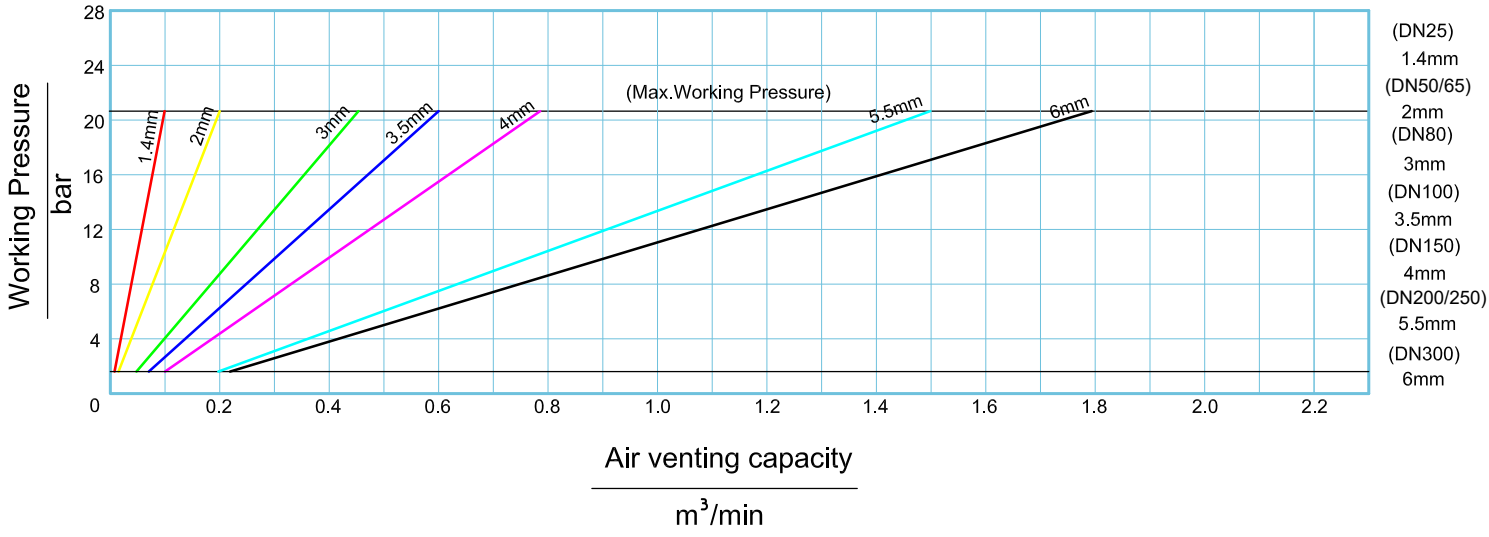
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Flow Performance





Air Venting



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Quick Selection Table

Water flow rate range Max.CMH (M^3/Hour)	760	1,360	4,160	8,500	19,100	33,400	76,300
Main pipe size MM	80-300	200-400	400-700	750-1000	1050-1500	1500-2000	2100-3000
Inlet size of KARR MM	25*/32*/ 40*/50*	50	80	100	150	200	300
bore of outlet MM	50	75	95	130	170	230	330
small orifice size MM	1.4	2	3	3.5	4	5.5	6

*These are pipe thread Combination Air Release Valve-KARS, which can be up to Max. WP PN16 .

Those flange type from DN 50-200 can be up to Max. WP PN 25.