VAG DUOJET® Automatic Air Valve
Single-chamber type

PN 10/16/25 - DN 50...200
KAT-A 1912

Product characteristics and benefits

- Resilient seated
- With flange end acc. to EN 1092-2
- Single chamber air valve in compact design
- Very high discharge capacity up to sonic velocity due to stabilised floater
- Triple function air valve
- Venting function:
  - Large orifice to vent high quantities of air during draining the pipeline
  - Large orifice to release high quantities of air during filling the pipeline
  - Small orifice to release low quantities of air during operation under pressure
- Outlet female threaded acc. to DIN ISO 228
- Minimum operation pressure: 0.3 bar

Materials

- Body: Ductile iron EN-GJS-400-15 (GGG-40)
- Bonnet: Stainless steel 1.4308
- Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506)
- Inner parts: Stainless steel 1.4541
- Float: Plastic polypropylene
- Sealing: EPDM

Corrosion protection

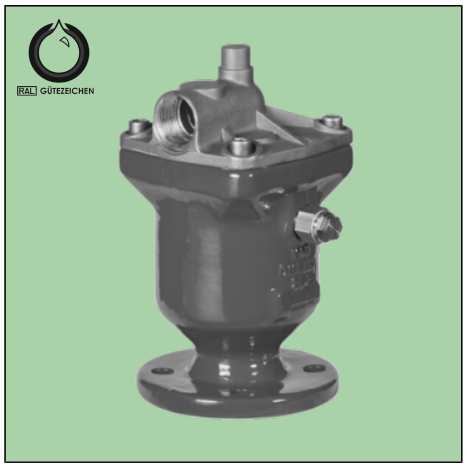
- Internally and externally epoxy coated acc. to GSK guidelines

Versions

- Standard version as described
- For pressures of 0.1...1 bar special seal (with special sealing). Please specify operating pressure when inquiring/ordering.
- Floater stainless steel 1.4571
- Bonnet ductile iron EN-GJS-400-15 (GGG-40)
- Anti-Surge with integrated shut-off valve and individual calculated orifice acc. to KAT-A 1918
- With integrated shut-off valve
- DUOJET®-S with VAG CEREX® 300-L Butterfly valve with hand lever acc. to KAT-A 1912-S
- Slow-closing option with shut-off valve
- DUOJET® AWWA standard acc. to KAT-A 1919
- DUOJET®-T tamper resistant acc. to KAT-A 1925
- With inside rubber lined for seawater application
- With insect protection
- Venting set acc. to KAT-A 1914

Field of application

- Chamber installation
- Installation in plants



Tests and approvals

- Final inspection test acc. to EN 12266
- DVGW tested and registered

Note

For valve dimensioning the free VAG UseCAD® software is available on request.

For proper installation and safe operation please follow the installation and operation instructions:
KAT-B 1912

DN	PN	Maximum operating pressure [bar]	Maximum operating temperature for neutral liquids [°C]
50...200	25	25	50
50...200	16	16	50
200	10	10	50

Test pressure body with water [bar]	Test pressure seat with water [bar]
37.5	37.5
24	24
15	15

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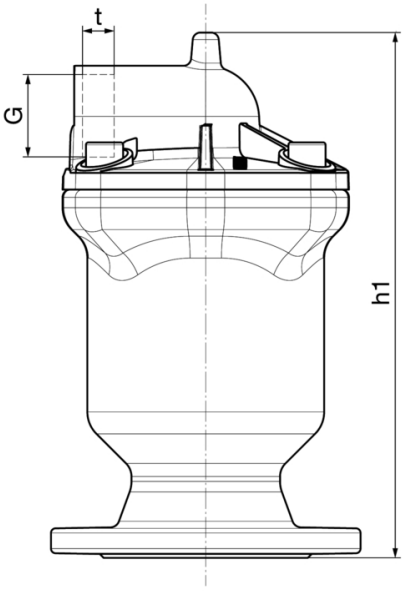
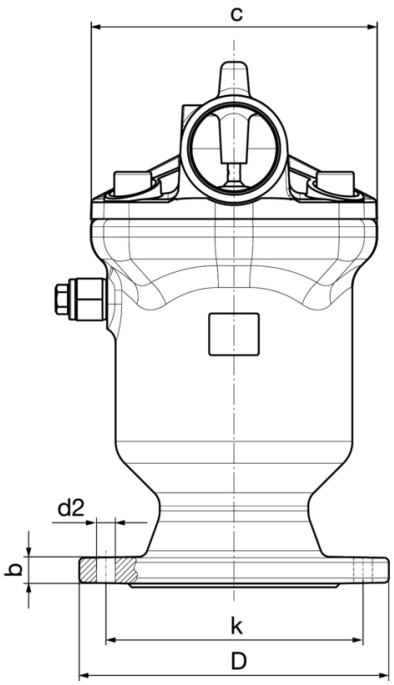
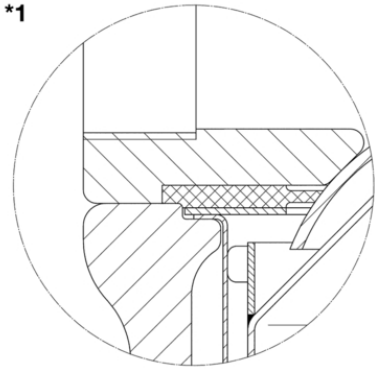
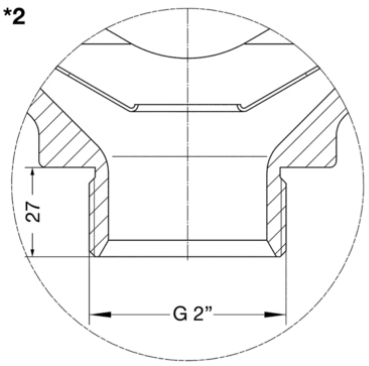
Drawing







*1: Special seal for operating pressures of 0.1….1 bar (no standard version)



*2: DN 50 / PN 16 connection with G 2" thread (no standard version)

Technical data

PN 10

DN		200
G Screw connection	[inch]	4"
D	[mm]	340
b	[mm]	20
k	[mm]	295
c	[mm]	260
d2	[mm]	22
h1	[mm]	505
t	[mm]	40
No. of holes		8
Weight approx.	[kg]	57.00
Volume approx.	[m^3]	0.04

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Technical data

PN 16

DN		50	80	100	150	200
G Screw connection	[inch]	1 1/4"	2"	2 1/2"	4"	4"
D	[mm]	165	200	220	285	340
b	[mm]	19	19	19	19	20
k	[mm]	125	160	180	240	295
c	[mm]	160	185	205	260	260
d2	[mm]	18	18	18	22	22
h1	[mm]	337	340	383	505	505
t	[mm]	20	25	30	40	40
No. of holes		4	8	8	8	12
Weight approx.	[kg]	15.00	25.00	28.00	56.00	57.00
Volume approx.	[m^3]	0.01	15	0.02	0.04	0.04

PN 25

DN		50	80	100	150	200
G Screw connection	[inch]	2"	2"	2 1/2"	4"	4"
D	[mm]	165	200	235	300	360
b	[mm]	19	19	19	20	22
k	[mm]	125	160	190	250	310
c	[mm]	185	185	205	260	260
d2	[mm]	18	18	22	28	28
h1	[mm]	337	340	383	505	505
t	[mm]	25	25	30	40	40
No. of holes		4	8	8	8	12
Weight approx.	[kg]	25.00	25.00	28.00	56.00	57.00
Volume approx.	[m^3]	15	15	0.02	0.04	0.04

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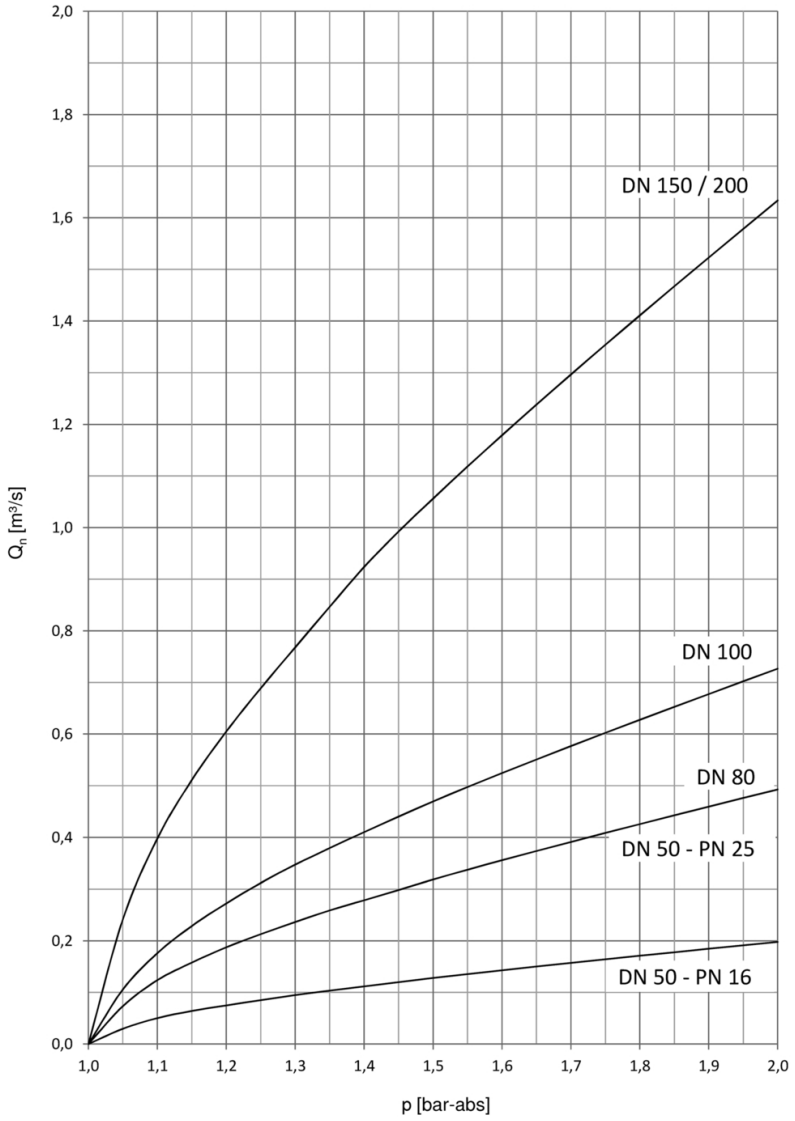
Further information

Rate of air release in dependence of the operating pressure

large orifice



x: Internal pressure [bar - absolute]
y: Air flow rate Q_n [m^3/s]

The actual volumetric flow rate through the valve depends on the site conditions and is mandatory not equal with the standard flow rate (n). To determine the actual volumetric flow rate passing through the valve, the prevailing site conditions have to be known. The actual flow rate can be calculated as follows:

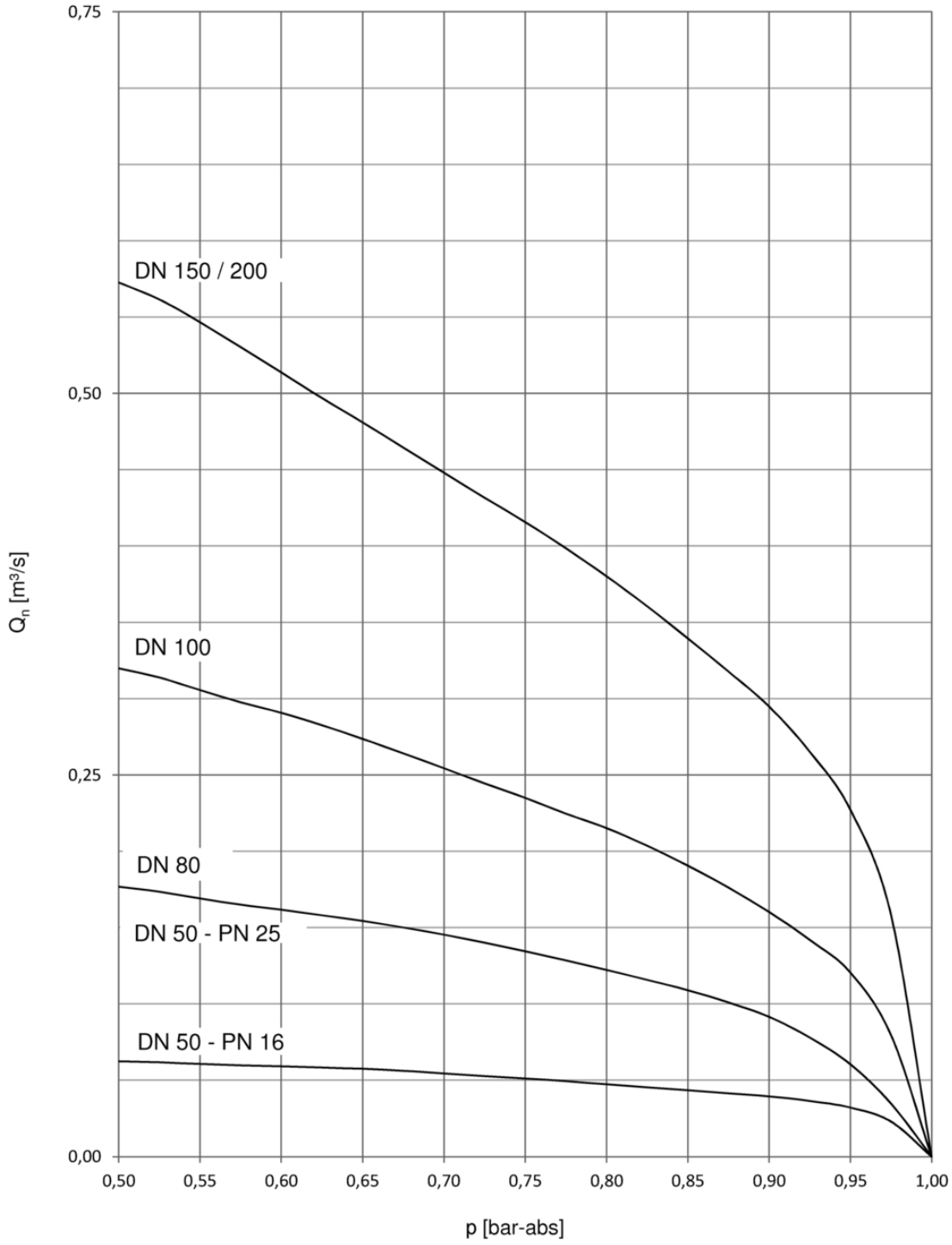
$$Q = \frac{Qn * Pn * T}{P \cdot T_n}$$

P_n = 1bar
T_n = 20° C

Further information

Rate of air intake in dependence of the operating pressure

large orifice



x: Internal pressure p [bar - absolute]
y: Air inflow rate Q_n [m^3/s]

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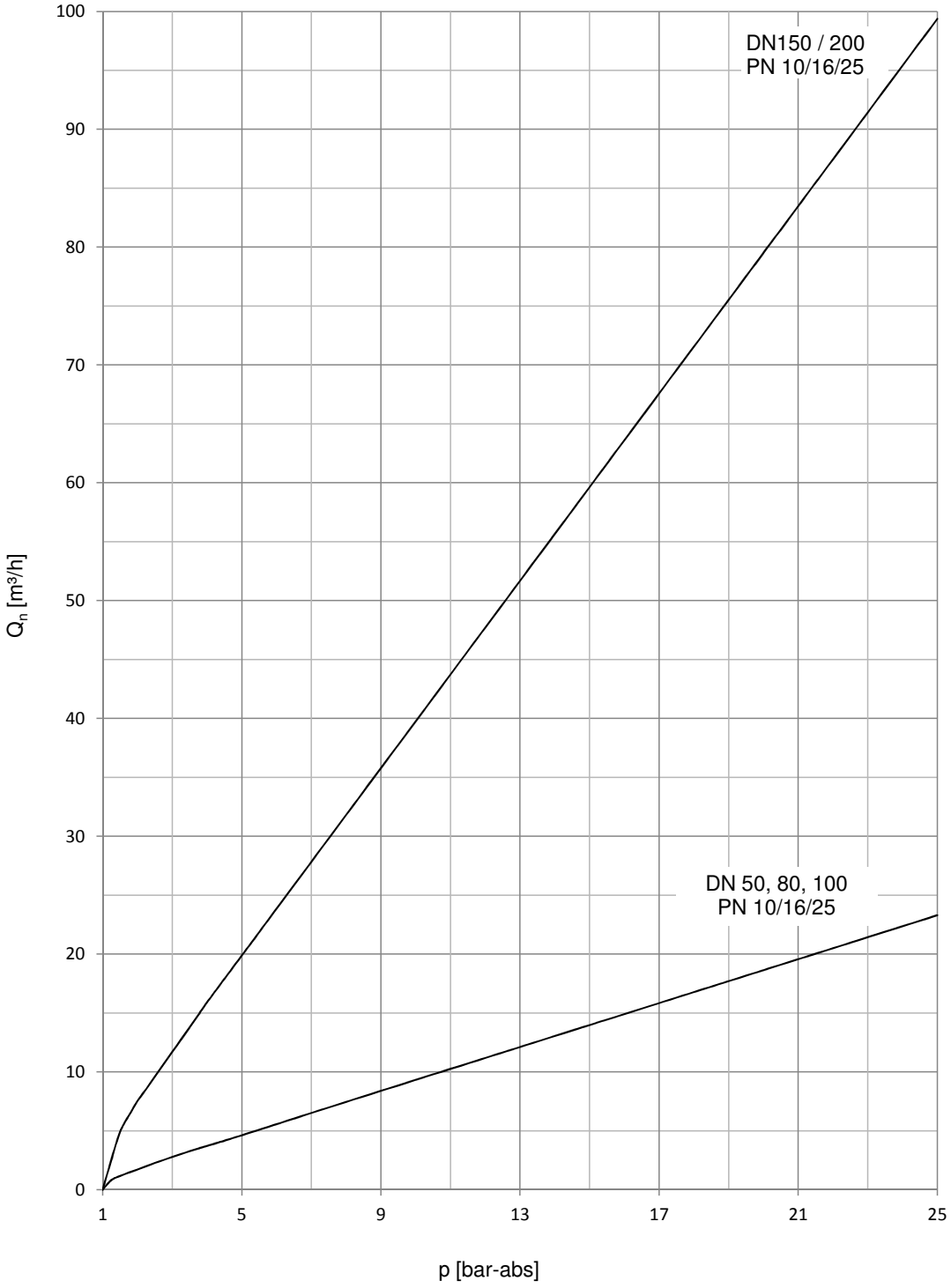
Further information

Rate of air release at full internal operating pressure

small orifice



x: Operating pressure p in pipeline [bar]
y: Air release rate Q_n [m³/h]