DES-CASE BREATHER SIZING CHART

Please Note: This sizing guide is intended as a general guideline for sizing only; other considerations, such as humidity level, frequency of air flow, ambient temperatures, and chemical compatibility are very important in sizing a desiccant breather properly. Larger applications and special circumstances typically require the most thorough analysis.

Product Line	Des-Case Part #	Max Air Flow in CFM	PSID	GPM	LPM	Storage Tank avg Gallons	Hyd. avg Gallons	GB avg Gallons	Pounds of desiccant	Port Size	Ideal For	Comments
Standards	DC-BB	4.55	At 1 PSID	34.125	128.84	15	2	15	0.130	3/8" Multi-Fit (NPT, BSPP, BSPT)	General Use, Storage Drums, Totes, Hydraulics	Polycarbonate body, nylon standpipe, 3um filter element
Standards	DC-1	4.16	At 1 PSID	31.2	117.8	35	5	35	0.28	3/8" Multi-Fit (NPT, BSPP, BSPT)	General Use, Storage Drums, Totes, Hydraulics	Polycarbonate body, nylon standpipe, 3um filter element
Standards	DC-2	16	At 1 PSID	120	453	200	60	200	0.8	1" Multi-Fit (NPT, BSPT, NPSM)	General Use, Storage Drums, Totes, Hydraulics	Polycarbonate body, nylon standpipe, 3um filter element
Standards	DC-3	16	At 1 PSID	120	453	350	100	350	1.400	1" Multi-Fit (NPT, BSPT, NPSM)	General Use, Storage Drums, Totes, Hydraulics	Polycarbonate body, nylon standpipe, 3um filter element
Standards	DC-4	16	At 1 PSID	120	453	500	200	500	2	1" Multi-Fit (NPT, BSPT, NPSM)	General Use, Storage Drums, Totes, Hydraulics, Transformers	Polycarbonate body, nylon standpipe, 3um filter element
Extended Series	DC-EX-1	27	At 1 PSID	202.5	765	400	100	400	1.2	1" FNPT	Large gearboxes, storage tanks hydraulics, wind turbines, low profile applications (smallest size)	Six check valves, polycarbonate body, nylon standpipe with integrated honeycomb oil-mist reducer, 3um filter element
Extended Series	DC-EX-2	26	At 1 PSID	195	736	600	200	600	2.2	1" FNPT	Large gearboxes, storage tanks hydraulics, wind turbines	Six check valves, polycarbonate body, nylon standpipe with integrated honeycomb oil-mist reducer, 3um filter element
Extended Series	DC-EX-3	25	At 1 PSID	187.5	708	800	300	800	3.2	1" FNPT	Large gearboxes, storage tanks hydraulics, wind turbines	Six check valves, polycarbonate body, nylon standpipe with integrated honeycomb oil-mist reducer, 3um filter element
Extended Series	DC-EX-4	24	At 1 PSID	180	680	1,000	400	1,000	4.2	1" FNPT	Large gearboxes, storage tanks hydraulics, wind turbines	Six check valves, polycarbonate body, nylon standpipe with integrated honeycomb oil-mist reducer, 3um filter element
Ventguard	DC-VG-BB	1.45	At 1 PSID	10.875	41.06	15	2	15	0.13	3/8" Multi-Fit (NPT, BSPP, BSPT)	Gearboxes, Low-flow Applications, High Humidity, Frequent Washdowns, Gearbox Storage	Check valves, polycarbonate body, nylon standpipe, 3um filter element
Ventguard	DC-VG-1	1.45	At 1 PSID	10.875	41.06	35	5	35	0.28	3/8" Multi-Fit (NPT, BSPP, BSPT)	Gearboxes, Low-flow Applications, High Humidity, Frequent Washdowns, Gearbox Storage	Check valves, polycarbonate body, nylon standpipe, 3um filter element
Ventguard	DC-VG-2	12	At 1 PSID	90	70.5	200	60	200	0.80	1" Multi-Fit (NPT, BSPT, NPSM)	Gearboxes, Low-flow Applications, High Humidity, Frequent Washdowns, Gearbox Storage	Check valves, polycarbonate body, nylon standpipe, 3um filter element
Ventguard	DC-VG-3	11	At 1 PSID	82.5	64.5	350	100	350	1.40	1" Multi-Fit (NPT, BSPT, NPSM)	Gearboxes, Low-flow Applications, High Humidity, Frequent Washdowns, Gearbox Storage	Check valves, polycarbonate body, nylon standpipe, 3um filter element
Ventguard	DC-VG-4	10	At 1 PSID	75	50.9	500	200	500	2.00	1" Multi-Fit (NPT, BSPT, NPSM)	Gearboxes, Low-flow Applications, High Humidity, Frequent Washdowns, Gearbox Storage	Check valves, polycarbonate body, nylon standpipe, 3um filter element
Hydroguard	DC-HG-1	1.41	At 1 PSID	10.575	39.93	n/a	n/a	50	0.28	3/8" Multi-Fit (NPT, BSPP, BSPT)	Steady-state operations Gearboxes, High-humidity Applications, Frequent Washdowns	Expansion bladder, check valves, polycarbonate body, nylon standpipe, 3um filter element
Hydroguard	DC-HG-8	7	At 1 PSID	52.5	70.5	55	n/a	400	0.800	1" Multi-Fit (NPT, BSPT, NPSM)	Steady-state operations Gearboxes, High-humidity Applications, Frequent Washdowns	expansion bladder, check valves, polycarbonate body, nylon standpipe, 3um filter element
ND Breather	DC-ND-2	0.67	At 1 PSID	5.025	19	5 to 15	n/a	5 to 15	n/a	3/8" NPT	Oil Sight Glasses, Small Gearboxes	
ND Breather	DC-ND-35	40	At 1 PSID	300	1132	Consult Des-Case for tanks larger than 500 gallons			n/a	1" NPT	Low-humidity Applications, Continuous Operations w/ Frequent Washdowns, Arid, High-Dust Environments, Oil Misting Applications	Nylon body, 0.3um plastisol filter with ePTFE coating. Female connection will need DC-SB-VI.
XD Breather	DC-XD6	16	At 1 PSID	120	456	500	200	500	1.75	1 1/2" x 16 UN Female Thread	Harsh Environment, Mobile Equipment, Hydraulics	PC/PBT body and standpipe, 0.3 micron plastison filter. Female connection will need XDVA or DSA adapter
RS Breather	DC-RS-3	85	At 0.5 PSID	637.5	2407	800	400	please call	3	2" NPT	Bulk Storage, High-flow Applications, Harsh Environments, Chemical Storage	Customized based on the customer's needs RS Breathers can be ordered in a variation of the below: **Steel Housings** Carbon Steel 304 or 316 Stainless Steel **Gasket Material** Buna-N Viton EPDM **Filter Material** Standard (microglass w/polyurethane) Plastisol
RS Breather	DC-RS-5	85	At 0.5 PSID	637.5	2407	1300	600	please call	5	2" NPT		
RS Breather	DC-RS-9	80	At 0.5 PSID	600	2265	2400	1200	please call	9	2" NPT		
RS Breather	DC-RS-15	205	At 0.5 PSID	1537.5	5805	4000	1800	please call	15	3" NPT		
RS Breather	DC-RS-25	140	At 0.5 PSID	1050	3964	7000	please call	please call	25	3" NPT		
RS Breather	DC-RS-50	115	At 0.5 PSID	862.5	3256	14000	please call	please call	50	3" NPT		
RS Breather	DC-RS-75	80	At 0.5 PSID	600	2265	21000	please call	please call	75	3" NPT		
RS Breather	DC-RS-100	270	At 0.5 PSID	2025	7645	30000	please call	please call	100	4" NPT		
RS Breather	DC-RS-150	250	At 0.5 PSID	1875	7079	50000	please call	please call	150	4" NPT		
RS Breather	DC-RS-200	240	At 0.5 PSID	1800	6796	75000	please call	please call	200	4" NPT		

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BREATHER SIZING INQUIRY QUESTIONS/NOTATIONS

Below is information needed to properly size a breather. Please ask customers these questions before recommending a breather for their specific applications.

Questions

1. What is the customer's current maximum flow rate (cfm/gpm/lpm)

2. How large is the customer's application (gallons of lubricant the equipment holds)?

3. What type of machinery is the customer outfitting (gearbox, hydraulic resevoir, storage, etc.)?

4. What type of environment does the customer have (high-humidity, dry, dusty, frequent wash-downs, oil mist, etc)?

5. What type of lubricant or chemical is the machine using?

6. What type of contamination control products is the customer currently using?

General Notations

- 1 lb of desiccant absorbs approximately 0.73 cups of water at 38% weight by volume
- Efficiency of desiccant usage varies per breather type and is paramount to the breather life span
- If a breather has a low air flow rate and a small quantity of desiccant (referenced in "Sizing Chart" tab), use caution when recommending on systems over 35 gallons
- It's not uncommon for the first breather used to be spent quickly since it will initially eliminate current moisture build-up in the equipment. With consistent breather usage the customer should see increased breather life span depending
- Optimum cost efficiency is normally achieved with large units of each type (for example, a DC-4 would be more cost effective than a DC-2, even for smaller reservoirs)
- All breathers can be made with the Secondary Agent of the customer's choice (Orange Silica Gel, Activated Carbon, Molecular Sieve, Activated Alumina, and various combinations of the agents