



DESCRIPTION

MM Air breathers are ready and easy to use filters that can be used in any applications where tank fluid often rises and falls. Air Breathers ensure system cleanliness as they filter the air that comes into the system when the fluid leaves the tank.

Air Breathers come in many shapes and sizes, each with different micron ratings, flow rates and applications. Detailed information will be given.

Special versions are available on request; please consult with our team of specialists.



MICRO-MESH AIR BREATHERS

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- MMAF on page 5

FEATURES

- Cost effective
- Easy Installation
- Compact structure
- Easy element change
- Elements to ISO standards



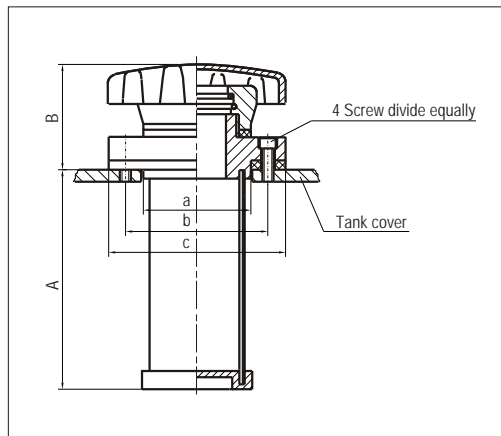
MMEF BREATHER FILTER SERIES

The MMEF is a breather with two parts: an air filter and an oil filter. It not only prevents impurities from entering the system, but also simplifies the oil tank structure and facilitates oil purification. This filter is manufactured with a copper-based powder metallurgy ensuring high filtration efficiency, high plasticity and high heat stress.



TECHNICAL DATA & MOUNTING SIZE

Model	MMEF ₁ -25	MMEF ₂ -32	MMEF ₃ -40	MMEF ₄ -50	MMEF ₅ -65	MMEF ₆ -80	MMEF ₇ -100	MMEF ₈ -120
Filter flow (l/min)	9	14	21	32	47	70	110	160
Air flow rate (l/min)	65	105	170	260	450	675	1055	1512
Oil filter area (cm ²)	80	120	180	270	400	600	942	1370
A (mm)	80	100	120	150	190	220	274	333
B (mm)	45	50	55	59	70	80	88	98
a (mm)	Ø39	Ø47	Ø55	Ø66	Ø81	Ø96	Ø118	Ø138
b (mm)	Ø51	Ø59	Ø66.5	Ø82	Ø102	Ø120	Ø140	Ø160
c (mm)	Ø64	Ø70	Ø80	Ø98	Ø120	Ø140	Ø160	Ø180
Screw (4 even) (mm)	M4 × 10	M4 × 10	M5 × 14	M6 × 14	M8 × 16	M8 × 16	M8 × 20	M8 × 20
Air filtration (mm)	0.279	0.279	0.279	0.105	0.105	0.105	0.105	0.105
Oil filtration	125µ (120 mesh/inch) or to customer specification							





MMQUQ BREATHER FILTER SERIES

The MMQUQ is a breather that is the modification of the MMEF series. This filter is manufactured with a copper-based powder metallurgy ensuring high filtration efficiency, high plasticity and high heat stress. Additionally, this filter has an easy installation system and operation.

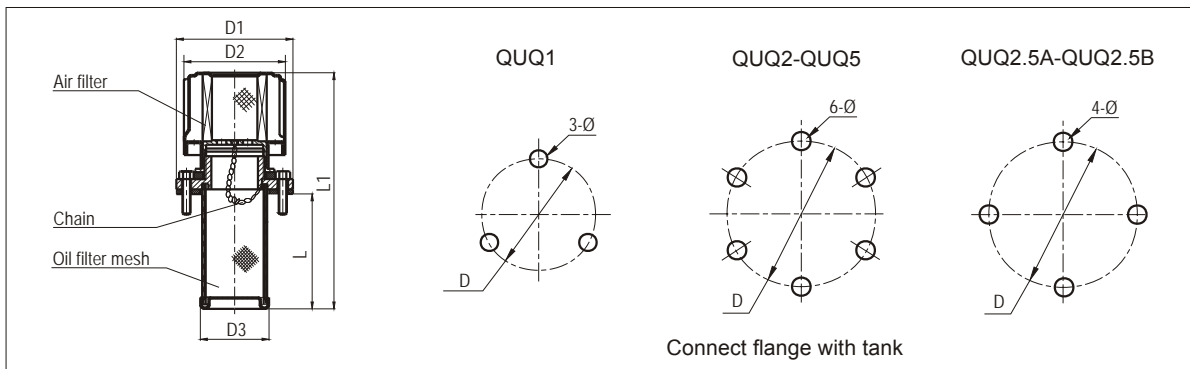


TECHNICAL DATA

Model	QUQ ₁ -** × *	QUQ ₂ -** × *	QUQ _{2.5} -** × *	QUQ ₃ -** × *	QUQ ₄ -** × *	QUQ ₅ -** × *
Air filtration (µm)			10 20 40			
Air flow rate (m ³ /min)	0.25 0.4 1.0	0.63 1.0 2.5	1.0 2.0 3.0	1.0 2.5 4.0	2.5 4.0 6.3	4.0 6.3 10
Temp. range (°C)			-20 ~ +100			
Oil filter mesh(mm)			0.5 (or as customer required)			

Note: air flow is based on air resistance ΔP=0.02MPa

MOUNTING SIZE



Model	D	D1	D2	D3	L	L1	Screw	Diameter
MMQUQ1	Ø41.3	Ø50	Ø44	Ø28	82	134	3 — M4 × 16	Ø4.5
MMQUQ2	Ø73	Ø83	Ø76	Ø48	98	159	6 — M4 × 8	
MMQUQ2b	Ø88	Ø97	Ø76	Ø48	98	159	6 — M4 × 8	
MMQUQ2.5	Ø110	Ø123	Ø113	Ø76	150	239	6 — M4 × 8	
MMQUQ2.5A	Ø96	Ø114	Ø90	Ø76	192	241	4 — M8 × 12	Ø9
MMQUQ2.5B	Ø105	Ø123	Ø90	Ø80	185	237	4 — M8 × 12	Ø9
MMQUQ3	Ø145	Ø160	Ø150	Ø89	195	320	6 — M4 × 12	Ø4.5
MMQUQ4	Ø250	Ø280	Ø256	Ø153	254	379	6 — M10 × 20	Ø11
MMQUQ5	Ø280	Ø320	Ø295	Ø197	270	395	6 — M12 × 20	Ø13

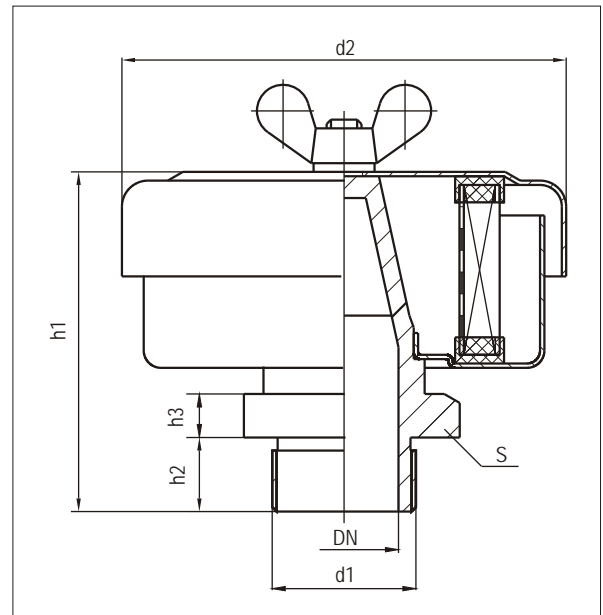
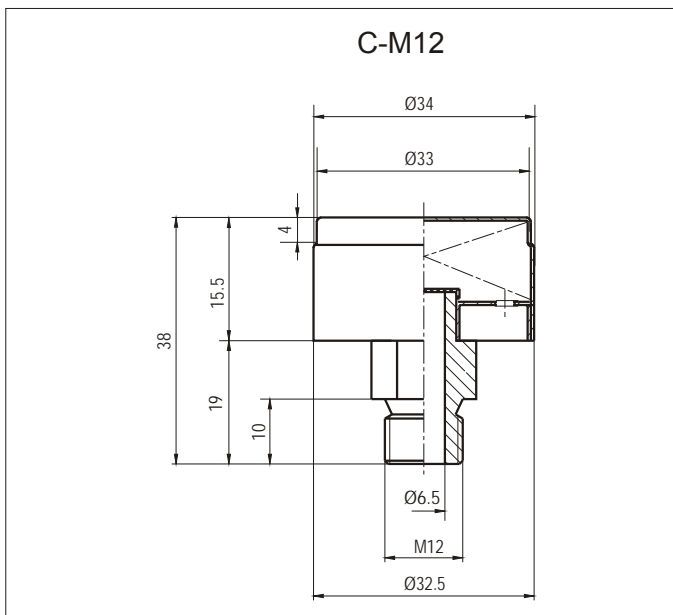


MMC BREATHER FILTER SERIES

The MMC breather filter series is used in decelerators to exhaust air. It can balance the pressure in the tank and prevent the contaminant from getting into the tank keeping the tank clean and prolonging its service life.

TECHNICAL DATA & MOUNTING SIZE

Nominal dia DN	d1		d2	S	h1	h2	h3	Air flow (m ³ /min)		Element model	
	M thread	G thread						C	D	C	D
6.5	M12		-	-	-	-	-	-	-	-	-
18		G3/4	Refer to PAF1								
25	M33×2	G 1A	102	46	78	17	10	2.95	0.59	C-X-32	D-X-32
32	M42×2	G 1¼A		55	90	19					
40	M48×2	G 1½A	177	60	130	19		13.0	2.61	C-X-65	D-X-65
50	M60×2	G 2A		75	134	22					
65	M76×2	G 2½A		90	138	24	12	15.85	3.17	C-X-80	D-X-80
80	M90×2	G 3A	212	105	145	26					





OTHER FILTER TYPES

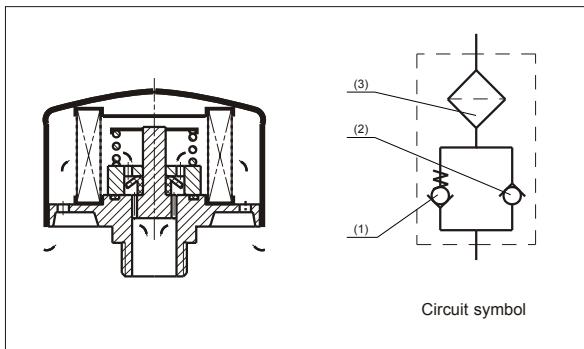
AIR BREATHER SERIES

MMPAF BREATHER FILTER SERIES

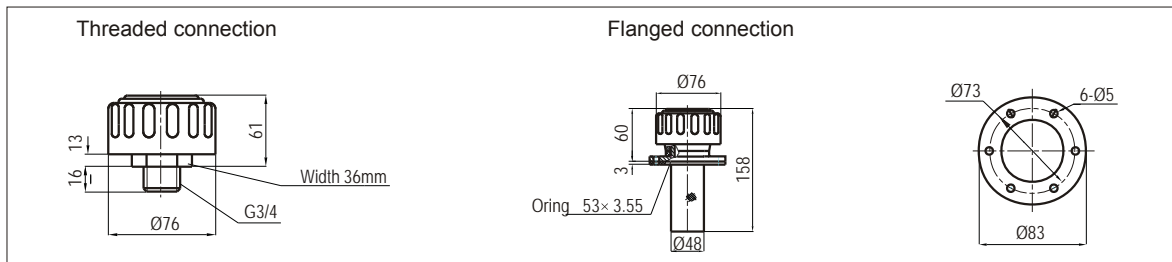
The MMPAF breather filter series is used in tanks where the fluid rises and falls frequently. The filter will keep the air in the tank clean and under the right pressure. The MMPAF is composed of an air filter, an air inlet check valve, an exhaust check valve and an oil filter.



TECHNICAL DATA & MOUNTING SIZE



Model	PAF ₁ - * - * * L			PAF ₂ - * - * * F		
Check valve setting (MPa)	0.02	0.035	0.07	0.02	0.035	0.07
Air flow rate (m ³ /min)	0.45	0.55	0.75	0.45	0.55	0.75
Air filtration (µm)	10	20	40	10	20	40
Oil filter mesh (mm)	None			0.5 or as per requirement		
Temp. range (°C)	-20 ~ +100			-20 ~ +100		
Connect type	Thread (G 3/4")			Flange (6M4×16)		
Weight (Kg)	0.2			0.28		



MMAF BREATHER FILTER SERIES

Air filtration accuracy 10 micron

AF-22 AF-35

Pressure drop-Flow graph

AF-22

AF-35