

Air conditioners

Condensation in reservoirs

Hydraulic and lubricating oils must be kept free from contamination and water. Most fluid reservoirs must be able to breathe, thus allowing water vapour and solid contaminants to enter. Temperature fluctuations in the reservoir will cause this water vapour to condense which will not only cause oxidation of the oil, but can also lead to considerable mechanical damage.

Filtration and drying: a single process

Standard air breathers remove some of the solid particles but allow water vapour in the air to pass freely. The RMF 'Air conditioner' deals effectively with both so reservoirs can breath clean, dry air. The air is first dried by passage through a column packed with Z-R gel granules. The dried air is then passed through a pleated synthetic fibre filter element (replaceable spin-on type) where solid particles are removed, so that the air reaching the reservoir is both clean and dry.

Monitoring

The uptake of moisture can be observed by the change in colour of the indicator granules in the Z-R gel. They turn from ruby-red (active) to light orange (replace). The Z-R gel granules are completely replaceable, non toxic and non carcinogenic. An optional contamination indicator shows when the air filter is in need of replacement.

Active coal

RMF 'Air conditioners' can be fitted with a combination of Z-R gel and active coal, the active coal will eliminate oil vapour and the smell, it will also prevent the Z-R gel from being contaminated with this oil damp.

Atmospherically closed

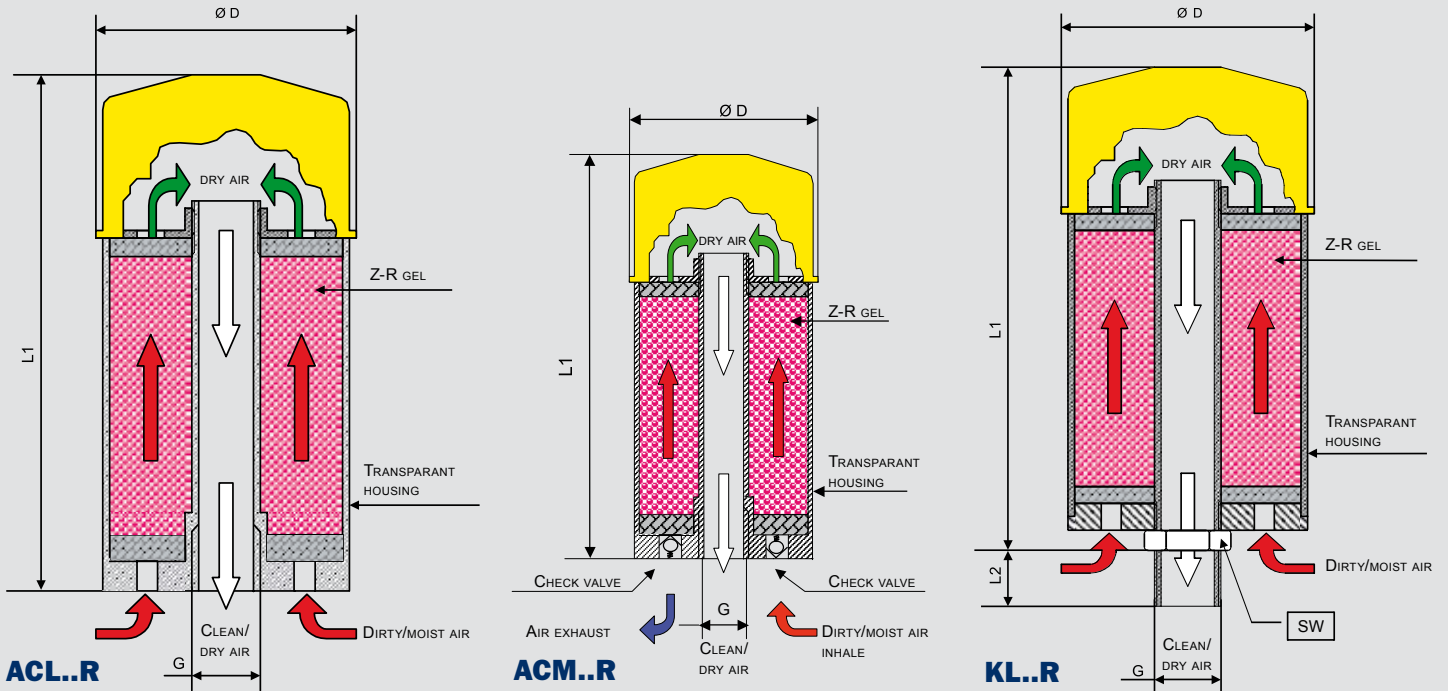
The RMF range also offers some 'Air conditioners' for gearbox applications which have spring loaded (0.01 bar) check valves fitted in the base in opposing directions, opening only whilst inhaling or exhaling. This way there is no atmospheric contact with the air and the Z-R gel under static conditions increasing the lifetime of the drying agent.

Benefits RMF 'Air conditioner'

- Reducing water contamination level prolongs the life of the additive package and reduces oxidation of the oil and bearing surfaces.
- Eliminates rusting due to condensation.
- Reduces machine downtime.
- Extends the machine's useful life.
- Reduces cost of ownership.

Applications

RMF 'Air conditioners' can be used on hydraulic power units, lube and oil tanks, gearboxes, diesel fuel tanks and storage tanks for biodegradable fluids. Industries that are successfully applying 'Air conditioners' include: steel industry, aviation industry, forestry industry, pulp & paper industry, cement industry, petrochemical industry and mining industry.



LIGHT VERSION SERIES ACL..R/ACM..R			
Type	ACL93R	ACL96R	ACM61R
Total weight	0.9 kg	1.1 kg	0.4 kg
Z-R gel volume	300 cc	600 cc	100 cc
Water absorption	86 gram	172 gram	29 gram
Max. air flow	700 l/min		50 l/min
Absorption material	Z-R gel 3-6 mm		
Z-R gel	Non toxic		
Dimensions			
Type	ACL93R	ACL96R	ACM61R
L1	150 mm	210 mm	135 mm
D	Ø 96 mm		Ø 68 mm
G	¾" BSP female		⅜" BSP female

HEAVY DUTY SERIES KL...R				
Type	KL93R	KL96R	KL121R	KL122R
Total weight	1.2 kg	1.5 kg	2.7 kg	4.0 kg
Z-R gel volume	300 cc	600 cc	1,000 cc	2,000 cc
Water absorption	86 gram	172 gram	288 gram	576 gram
Max. air flow	700 l/min		1,500 l/min	
Absorption material	Z-R gel 3-6 mm			
Z-R gel	Non toxic			
Dimensions				
Type	KL93R	KL96R	KL121R	KL122R
L1	145 mm	210 mm	250 mm	360 mm
L2	20 mm		30 mm	
D	Ø 96 mm		Ø 128 mm	
G	¾" BSP male		1 ¼" BSP male	
SW	32 mm		50 mm	





**Ordering codes:
RMF 'Air conditioners'**

**Filertype:
desiccant breathers**



Table 1	Table 2	Table 3	Table 4

Table 1	Type of body	Tank connection	Air filter
KL	Heavy duty version	Male threading on stainless steel tube	3µ fibre glass spin-on
ACL	Light version (only in 93 and 96 series)	Female threading in plastic housing	3µ fibre glass spin-on
ACM	Mini light version (only in 60 series)	Female 3/8" threading in plastic housing with two integrated check valves	3µ fibre glass spin-on

Table 2	Conf.	Diameter (mm)	Height (mm)	Connection	Weight total (kg)	Max. air flow (l/min)
61	ACM	68	135	3/8" BSP (Female)	0.4	50
93	ACL	96	150	3/4" BSP (Female)	0.9	700
	KL	96	175	3/4" BSP (Male)	1.2	700
96	ACL	96	210	3/4" BSP (Female)	1.1	700
	KL	96	240	3/4" BSP (Male)	1.5	700
121	KL	128	290	1 1/4" BSP (Male)	2.7	1,500
122	KL	128	400	1 1/4" BSP (Male)	4.0	1,500

Table 3	Type	Drying agent	Desiccant volume (cc)	Nominal water absorbing capacity (gram)
R	61	ZR - Gel	100	29
	93		300	86
	96		600	172
	121		1,000	288
	122		2,000	576
RC	93	Approx. 2/3 Z-R Gel 1/3 Active Coal (not available for ACM61R)	200 / 100	57
	96		400 / 200	115
	121		700 / 300	201
	122		1,400 / 600	403

Table 4	Type	Options	
V	121	Integrated check valves (0.01 bar)	Only available for KL121 series