

# ADK Core Style Liquid Line Filter-Drier

The ADK is a solid core liquid line filter-drier ideal for use with CFC, HCFC, and HFC refrigerants.



## Features

- Solid copper connections
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE oils

## Nomenclature

example: ADK 083S

ADK	08	3	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

## Specifications

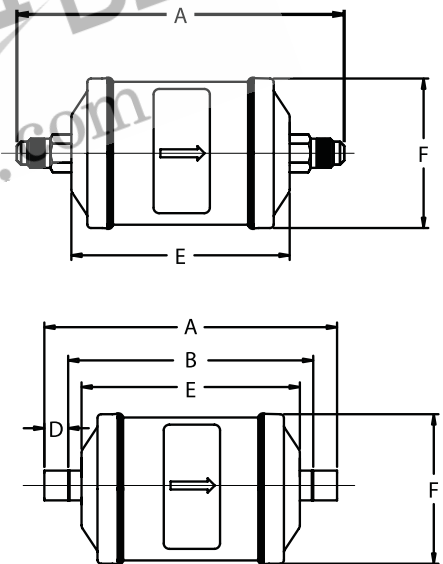
- Desiccant Blend: optimized for high water capacity and acid capacity
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

## Ordering Information

PCN	Description	Connection Size	Dimensions (in)					Weight (lbs)
			A	B	D	E	F <sup>1</sup>	
059874	ADK-032	1/4 SAE	4.38					
052451	ADK-032S	1/4 ODF	3.88	3.13	0.38	2.56	1.75	0.50
023157	ADK-033	3/8 SAE	4.69					
053172	ADK-033S	3/8 ODF	4.06	3.25	0.44			
060125	ADK-052	1/4 SAE	4.88					
060126	ADK-052S	1/4 ODF	4.44	3.69	0.38	3.00	2.63	1.00
060127	ADK-053	3/8 SAE	5.13					
060128	ADK-053S	3/8 ODF	4.50	3.69	0.44			
060129	ADK-082	1/4 SAE	5.63					
060130	ADK-082S	1/4 ODF	5.00	4.31	0.38			
060131	ADK-083	3/8 SAE	5.94			3.81	2.63	1.25
060132	ADK-083S	3/8 ODF	5.38	4.06	0.63			
060133	ADK-084	1/2 SAE	6.19					
060134	ADK-084S	1/2 ODF	5.38	4.06	0.75			
059838	ADK-162S	1/4 ODF	6.94	5.25	0.25			
059820	ADK-162	1/4 SAE	6.56					
059839	ADK-163	3/8 SAE	6.75					
060795	ADK-163S	3/8 ODF	6.25	5.00	0.63	4.75	2.63	1.75
059840	ADK-164	1/2 SAE	7.13					
059841	ADK-164S	1/2 ODF	6.38	5.00	0.75			
059842	ADK-165	5/8 SAE	7.56					
059843	ADK-165S	5/8 ODF	6.56	5.13	0.63			
060172	ADK-303	3/8 SAE	9.63					
058507	ADK-303S	5/8 ODF	8.94	8.13	0.44			
060173	ADK-304	1/2 SAE	9.81					
060176	ADK-304S	1/2 ODF	9.06	8.06	0.50	7.50	3.13	3.50
060174	ADK-305	5/8 SAE	10.31					
060177	ADK-305S	5/8 ODF	9.25	8.00	0.63			
060178	ADK-307S	7/8 ODF	9.88	8.38	0.75			
060179	ADK-309S	1-1/8 ODF	10.19	8.38	0.94			
060182	ADK-413	3/8 SAE	9.75					
060183	ADK-414	1/2 SAE	10.00					
060185	ADK-414S	1/2 ODF	9.19	8.19	0.50	7.63	3.69	4.75
060184	ADK-415	5/8 SAE	10.44					
060186	ADK-415S	5/8 ODF	9.44	8.19	0.63			
060187	ADK-417S	7/8 ODF	10.00	8.50	0.75			
060188	ADK-419S	1-1/8 ODF	10.38	8.50	0.94			
060190	ADK-757S	7/8 ODF	15.50	14.94	0.75	13.13	3.69	7.75
060191	ADK-759S	1-1/8 ODF	15.88	14.17	0.94			

<sup>1</sup> Does not include weld bead

## Dimensional Data



# ADK Capacity Tables

Description	Connection	Flow Capacity Tons @ 1 psi $\Delta P$ <sup>1, 4</sup> (For kW, multiply tons by 3.5)							Water Capacity <sup>2</sup> Drops of Water <sup>3</sup>												
		R-12		R-134a		R-22		R-407C	R-410A		R-404A/507		R-502								
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F						
ADK 032	1/4 SAE	1.6	1.9	2.1	2.1	2.0	1.4	1.3	70	74	68	69	63	57	46	47	36	76	72	71	63
ADK 032S	1/4 ODF	1.9	2.3	2.5	2.5	2.4	1.7	1.6													
ADK 033	3/8 SAE	2.2	2.7	2.9	2.9	2.9	2.0	1.9													
ADK 033S	3/8 ODF	2.5	3.0	3.3	3.3	3.2	2.2	2.1	185	195	180	180	130	150	120	125	95	200	190	185	165
ADK 052	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4													
ADK 052S	1/4 ODF	2.4	2.9	3.1	3.1	3.1	2.1	2.0													
ADK 053	3/8 SAE	3.0	3.7	4.0	4.0	3.9	2.7	2.6													
ADK 53S	3/8 ODF	3.7	4.5	4.9	4.9	4.8	3.3	3.2	250	265	245	250	225	205	165	170	130	275	260	255	230
ADK 082	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4													
ADK 082S	1/4 ODF	2.5	3.1	3.4	3.4	3.3	2.2	2.2													
ADK 083	3/8 SAE	3.5	4.3	4.7	4.7	4.6	3.1	3.0													
ADK 083S	3/8 ODF	3.4	4.2	4.6	4.6	4.5	3.0	3.0													
ADK 084	1/2 SAE	5.5	6.7	7.3	7.3	7.1	4.9	4.7													
ADK 084S	1/2 ODF	5.7	7.0	7.6	7.6	7.4	5.1	4.9													
ADK 162	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4	365	390	360	265	330	300	240	250	190	400	380	375	335
ADK 163	1/4 SAE	3.6	4.4	4.8	4.8	4.7	3.2	3.1													
ADK 163S	1/4 ODF	4.0	4.9	5.3	5.3	5.2	3.6	3.5													
ADK 164	1/2 SAE	6.8	8.3	9.0	9.0	8.8	6.0	5.8													
ADK 164S	1/2 ODF	7.1	8.6	9.3	9.3	9.1	6.2	6.1													
ADK 165	5/8 SAE	9.7	11.8	12.8	12.8	12.5	8.6	8.3													
ADK 165S	5/8 ODF	10.7	13.1	14.2	14.2	13.9	9.5	9.2													
ADK 167S	7/8 ODF	13.1	16.0	17.3	17.3	17.0	11.8	11.3													
ADK 303	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3	820	865	800	810	740	675	540	555	420	895	845	835	745
ADK 304	1/2 SAE	7.1	8.6	9.3	9.3	9.1	6.2	6.1													
ADK 304S	1/2 ODF	7.2	8.8	9.5	9.5	9.4	6.4	6.2													
ADK 305	5/8 SAE	11.3	13.8	15.0	15.0	14.7	10.0	9.7													
ADK 305S	4/8 ODF	11.9	14.5	15.7	15.7	15.4	10.5	10.2													
ADK 306S	3/4 ODF	13.0	15.8	17.1	17.1	16.8	11.5	11.1													
ADK 307S	7/8 ODF	14.3	17.4	18.9	18.9	18.5	12.6	12.3													
ADK 309S	1 1/8 ODF	20.4	24.9	27.0	27.0	26.5	18.0	17.5													
ADK 413	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3	1120	1240	1100	1140	1010	945	740	780	580	1260	1156	1170	1020
ADK 414	1/2 SAE	8.0	9.8	10.6	10.6	10.4	7.1	6.9													
ADK 414S	1/2 ODF	8.8	10.7	11.6	11.6	11.4	7.8	7.5													
ADK 415	5/8 SAE	12.8	15.6	16.9	16.9	16.6	11.3	11.0													
ADK 415S	5/8 ODF	13.5	16.5	17.9	17.9	17.5	12.0	11.6													
ADK 417S	7/8 ODF	16.6	20.3	22.0	22.0	21.7	14.7	14.3													
ADK 419S	1 1/8 ODF	20.7	25.2	27.3	27.3	26.8	18.3	17.7													
ADK 757S	7/8 ODF	28.0	34.2	37.1	37.1	36.3	24.8	24.1													
ADK 759S	1 1/8 ODF	30.6	37.3	40.4	40.4	39.6	27.0	26.3													

<sup>1</sup> All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature  
 5°F saturated vapor temperature  
 3.1 lbs./min./ton for R-134a  
 2.9 lbs./min./ton for R-22 and R-407C  
 4.0 lbs./min./ton for R-404A/507 and R-12  
 4.4 lbs./min./ton for R-502  
 2.7 lbs./min./ton for R-410A

<sup>2</sup> Water Capacities are based on:  
 Equilibrium Point Dryness (EPD) of:  
 50 parts per million for R-134a, R404-A/507,  
 R-410A and R-407C  
 60 parts per million for R-22  
 15 parts per million for R-12  
 30 parts per million for R-502

<sup>3</sup> 20 drops of water = 1 gram = 1 cc

<sup>4</sup> For 2 PSI  $\Delta P$ , Multiply values by 1.4

## Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.4	2.2	2.2	2.0	2.2	2.0	2.1	1.9	2.0	1.7	1.9	1.7	2.2	2.0
05	5.9	6.0	5.5	5.5	5.4	5.4	5.2	5.0	4.8	4.5	4.7	4.5	5.5	5.4
08	8.0	7.4	7.4	6.7	7.3	6.6	7.0	6.2	6.5	5.5	6.4	5.5	7.5	6.6
16	14.5	12.5	13.4	11.4	13.2	11.2	12.6	10.4	11.7	9.4	11.6	9.3	13.5	11.2
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.4	14.9	17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8
75	52.8	48.3	48.6	43.9	48.0	43.1	45.8	40.2	42.8	36.0	42.1	35.6	49.1	43.0