

REMOVES OIL FROM CHILLER'S REFRIGERANT

Continuously Dehydrates and Filters Refrigerant

OAM PURGER™

Automatically removes OIL, ACID and MOISTURE from Centrifugal Chiller's refrigerant charge. AUTOMATICALLY RETURNS REMOVED OIL TO THE CHILLER'S OIL SUMP where it belongs.

Literature File No. 1106-03

Special Features & Benefits:

- Pays for itself in energy savings cost in approximately 3 to 4 months of operation
- Keeps saving energy cost even after it pays for itself
- Typically removes oil from refrigerant charge in approximately a month (500 ton Chiller containing 12% oil by weight)
- Continuously Dehydrates and Filters Refrigerant
- Restores Chiller to peak operating capacity
- Once refrigerant cleaned, maintains system oil free
- Operates 24 hours a day whether chiller is on or off
- Totally automatic
- Easy to install (120 VAC and Only three 1/4" connections to existing Chiller ports)
- There are no mechanical or ejector pumps, the OAM Purger uses only gravity, heat and pressure differential to work
- Typically, refrigerant charge does not have to be "pulled" to install
- Reduces maintenance and helps prevent premature failure
- Utilizes EZ Change – Quick connect Refrigerant Filter (can be changed while system is operating)
- Removes Moisture (Dehydrates) and Acid from Refrigerant and Oil



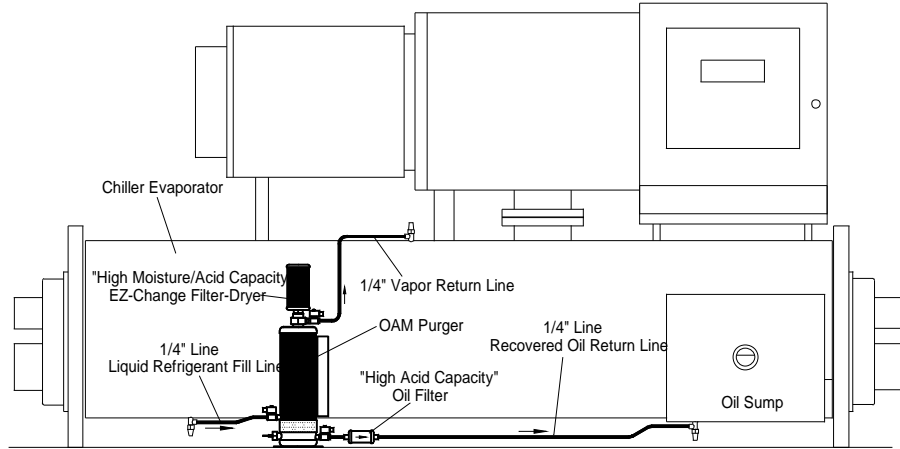
PATENT 6,952,938 B2

SPECIFICATIONS FOR MODELS OAM-LPC200-11/113 OAM-LPC200-123 OAM HPC200

" ELECTRICAL REQUIREMENTS:	• 120 Volts AC • 60 Hz 220V version available on request • 15 Amp Fused Circuit • 1-Phase
" FAULT RELAY Output Rating	• 120 VAC - 240VA
" OPERATING ENVIRONMENT	• 70°F to 105°F - 5% to 80% relative humidity, non-condensing
" STORAGE ENVIRONMENT	• 0°F TO 120°F - 5% to 80% relative humidity, non-condensing
" DIMENSIONS	• Height: 33" -- Width: 16" -- Depth -- 12"
" WEIGHT	• 60 lbs (shipping weight 95 lbs)
" CONNECTIONS	• Three 1/4" OD connection - (Combination Vapor/Liquid & Oil)
" DISTILLATION OPERATING TEMPERATURE	• 145 Degrees Fahrenheit
" PRESSURES	• Tested Pressure 350 psi
" RATE OF REFRIGERANT PROCESSED, AVERAGE	• 850 to 1250 pounds per week 44000 to 65000 pounds per year
" WEIGHT OF REFRIGERANT PROCESSED PER CYCLE, AVERAGE	• 10 to 20 pounds refrigerant-oil mixture per cycle

Refrigerant and Oil Line Hook-up

All OAM Purger Models require only three 1/4" OD line connections between the refrigeration system and the purge unit (see illustration).



EFFECTS OF OIL IN REFRIGERANT	
LOSS OF EFFICIENCY	100
	95
	90
	85
	80
	75
	70
	65
	60
	55
50	
45	Typical
40	Efficiency
35	Loss
30	
25	
20	
15	
10	
5	
	5 10 15 20 25 30 35 40 50
	% OIL BY WEIGHT

CHILLER REFRIGERANT CHARGE BY WEIGHT IN lbs.												
	100	200	300	400	500	600	700	800	900	1000	1100	1200
% OIL	lbs. of Oil in Refrigerant Charge based on % by weight											
1%	1	2	3	4	5	6	7	8	9	10	11	12
2%	2	4	6	8	10	12	14	16	18	20	22	24
3%	3	6	9	12	15	18	21	24	27	30	33	36
4%	4	8	12	16	20	24	28	32	36	40	44	48
5%	5	10	15	20	25	30	36	40	45	50	55	60
6%	6	12	18	24	30	36	42	48	54	60	66	72
7%	7	14	21	28	35	42	49	56	63	70	77	84
8%	8	16	24	32	40	48	56	64	72	80	88	96
9%	9	18	27	36	45	54	63	72	81	90	99	108
10%	10	20	30	40	50	60	70	80	90	100	110	120
11%	11	22	33	44	55	66	77	88	99	110	121	132
12%	12	24	36	48	60	72	84	96	108	120	132	144
13%	13	26	39	52	65	78	91	104	117	130	143	156
14%	14	28	42	56	70	84	98	112	126	140	154	168
15%	15	30	45	60	75	90	105	120	135	150	165	180
16%	16	32	48	64	80	96	112	128	144	160	176	192
17%	17	34	51	68	85	102	119	136	153	170	187	204
18%	18	36	54	72	90	108	126	144	162	180	198	216
19%	19	38	57	76	95	114	133	152	171	190	209	228
20%	20	40	60	80	100	120	140	160	180	200	220	240
21%	21	42	63	84	105	126	147	168	189	210	231	252
22%	22	44	66	88	110	132	154	176	198	220	242	264
23%	23	46	69	92	115	138	161	184	207	230	253	276
24%	24	48	72	96	120	144	168	192	216	240	264	288
25%	25	50	75	100	125	150	175	200	225	250	275	300
OIL WEIGHS APPROXIMATELY 7 LBS. PER GALLON												
60 LBS. = APPROXIMATELY 8.5 GALLONS												

Studies supported by ASHRAE (which also site other studies) and statements of a major chiller OEM indicate that oil in refrigerant reduces heat transfer and therefore efficiency. Oil content of 1% (by weight) produces a reduction of 3% efficiency and up to 15% produces a reduction of 40 to 50% in efficiency. The reduction in efficiency tends to be consistent for different refrigerants.

According to ASHRAE study 601-TRP the Average Chiller has 12% oil by weight in its Refrigerant Charge. A 500 lbs. Refrigerant Charge at 12% by weight contains 60 lbs., or 8.5 gallons of oil.

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