



## Maryville, TN

### SCOPE

Model: AKC-5000

Application: Activated Carbon Hydrocarbon Adsorber

### OPERATING CONDITIONS

Inlet Design Flow Rate:	<b>5,000</b>	scfm, (Std. 70°F/14.7 psia)
Inlet Design Pressure:	<b>100</b>	psig ( <b>125 psig maximum</b> )
Inlet Design Temperature:	<b>100</b>	° F ( <b>120° F maximum</b> )
Inlet Relative Humidity:	<b>&lt; 40</b>	% of saturation
System Design Pressure:	<b>150</b>	psig
Outlet Compressed Air Flow Rate:	<b>5,000</b>	scfm
Inlet Hydrocarbon Content at Design Conditions:	<b>0.03</b>	ppmw (mg/m <sup>3</sup> )
Outlet Hydrocarbon Content at Design Conditions:	<b>≤ 0.003</b>	ppmw (mg/m <sup>3</sup> )
Compressed Air Loss:	<b>0.11</b>	scfm
Decompression Air Losses:	<b>273.5</b>	scf
Service Life:	<b>8,240</b>	hours based on 3.0 ppmw inlet
Ambient Air Temperature:	<b>38</b>	°F (Min.); <b>120°</b> F (Max.)
System Pressure Loss with Clean, Dry Activated Carbon:	<b>2</b>	psid

### SYSTEM COMPONENTS

Prefilter (optional):	Coalescing filter with 0.01 µm element
Condensate Drain (optional):	Zero-loss Electronic Drain
After Filter (optional):	Particulate filter with 5 µm element
Final Filter:	Not applicable
Adsorbent Type:	Coal based activated carbon, 1,000 m <sup>2</sup> /gram BET surface area
Adsorbent Quantity:	1,854 lbs. dry
Desiccant Vessel:	ASME Section VIII Division 1, "U" stamped, 150 psig at 450°F
Controller Type:	Not applicable
Controller Model:	Not applicable
Energy Management System:	Not applicable
Residual Oil Indicator:	Johnson Controls A-4000-120 colorimetric indicator
Switching Valves:	Not applicable
Regeneration Blower:	Not applicable
Regeneration Heater:	Not applicable
Regeneration Cooler:	Not applicable
Piping:	6 In. 150 lb ANSI RF flange
Insulation:	Not insulated

### DRYER ASSEMBLY

Height:	128 inches
Width:	56 inches
Depth:	52 inches
Connection Size:	6 In. 150 lb ANSI RF flange
Dryer Assembly Weight:	6,150 pounds (approximately)