



Maryville, TN

SCOPE

Model: AKC-500

Application: Activated Carbon Hydrocarbon Adsorber

OPERATING CONDITIONS

Inlet Design Flow Rate:	500	scfm, (Std. 70°F/14.7 psia)
Inlet Design Pressure:	100	psig (125 psig maximum)
Inlet Design Temperature:	100	° F (120° F maximum)
Inlet Relative Humidity:	< 40	% of saturation
System Design Pressure:	200	psig
Outlet Compressed Air Flow Rate:	500	scfm
Inlet Hydrocarbon Content at Design Conditions:	0.03	ppmw (mg/m ³)
Outlet Hydrocarbon Content at Design Conditions:	≤ 0.003	ppmw (mg/m ³)
Compressed Air Loss:	0.11	scfm
Decompression Air Losses:	28.75	scf
Service Life:	8,667	hours based on 3.0 ppmw inlet
Ambient Air Temperature:	38	°F (Min.); 120° F (Max.)
System Pressure Loss with Clean, Dry Activated Carbon:	3	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 ² /gram BET surface area
Adsorbent Quantity:	195 lbs. dry
Desiccant Vessel:	ASME Section VIII Division 1, "U" stamped, 200 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:	2 In. NPS
Insulation:	Not insulated

DRYER ASSEMBLY

Height:	86 inches
Width:	25 inches
Depth:	25 inches
Connection Size:	2 In. NPT
Dryer Assembly Weight:	500 pounds (approximately)