



MODEL CD4000 CHEM-DEMIL AIR HANDLING FILTER SYSTEM
SPECIFICATION

System Air Flow Rate	800 to 4000 CFM
System Design Pressure	±24" W.G.
Temperature Range of Air Entering Filter	50°-130°F
Flow Order	Prefilter/HEPA/Charcoal/Charcoal/HEPA/Fan
Prefilter Type	Dry disposal group III-type per ARI Standard 850, Class 1 per UL Standard 900
Prefilter Bank Configuration	1 bank, 2 high × 2 wide
Prefilter Efficiency	80-85% ASHRAE Standard 52-76
HEPA Filter Type	Throw away, extended media, dry-type, bayonet-type per MIL-HDBK-144
HEPA Filter Bank Configuration	2 banks, 2 high × 2 wide
HEPA Filter Efficiency	99.97% on 0.3 micron particles
Charcoal Adsorber Cell Type	Type II per IES Standard CS-8
Charcoal Adsorber Bank	2 banks, 6 cells high × 2 wide
Charcoal Adsorber Bank Air-to-Adsorbent Residence Time	0.25 seconds @ maximum system flow rate
Total System Air-to-Adsorbent Residence Time	0.5 seconds @ maximum system flow rate
Adsorbent Type	8 × 16 mesh activated coconut shell carbon per ANSI N509 (not impregnated)

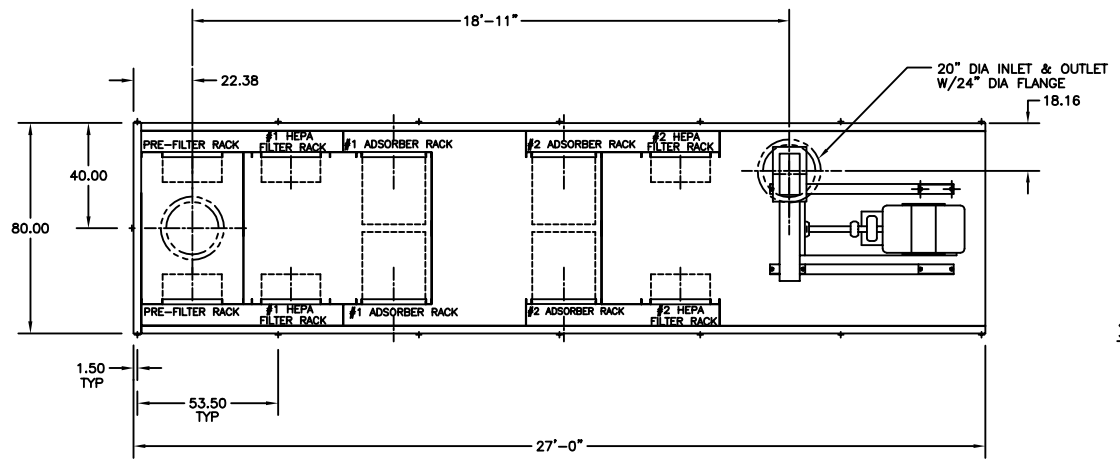
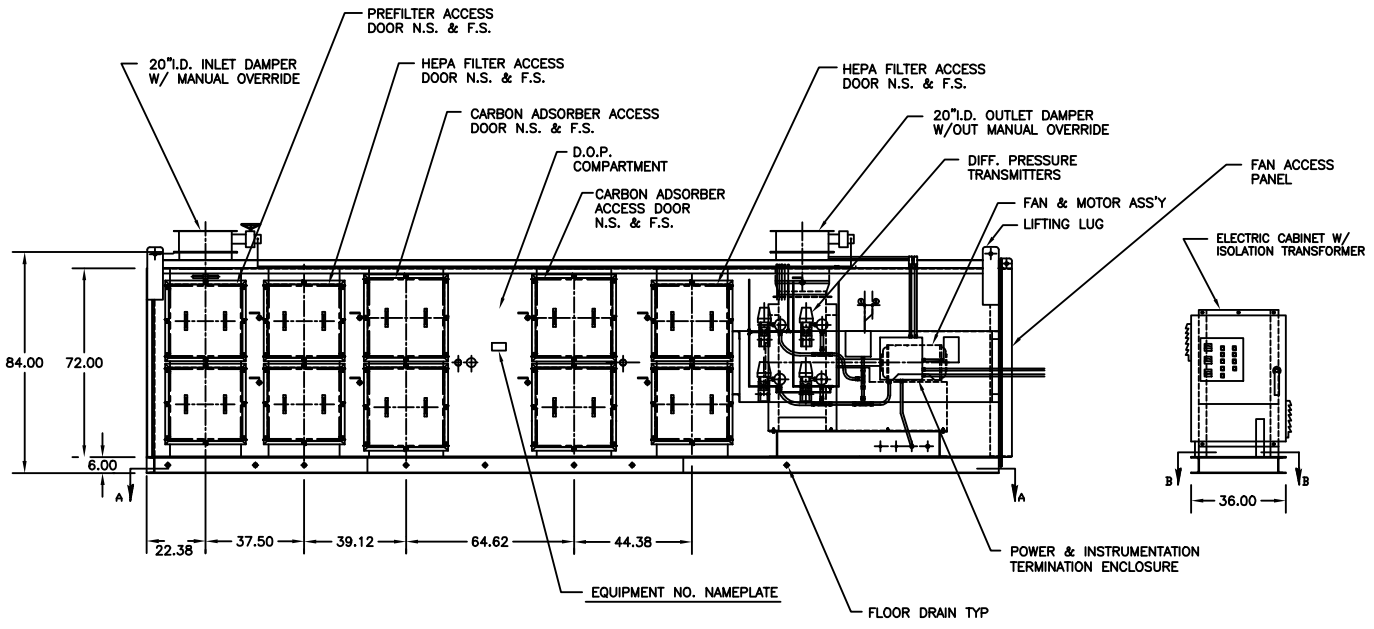
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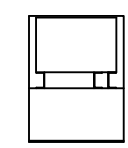
Inlet / Outlet Dampers	20" diameter butterfly dampers (bubble-tight) with pneumatic actuator
Instrumentation	Differential pressure indicator / transmitters across prefilter and HEPA banks as well as across entire filter system, 4-20 mA Flow indicator / transmitter, 4-20 mA Mid-bed agent monitoring array, Teflon, heat-traced
Maximum Housing Leakage Rate	0.1 SCFM/sq. ft. of housing surface at 10" W.G.
System Design Standard	ANSI N509-1989
Housing Materials of Construction	Stainless Steel, type 304L
Fan Type	Centrifugal single width, single inlet, arrangement 8, air foil wheel
Motor Type	20 Hp, totally enclosed, fan-cooled, 1800 RPM
Motor Speed Control	Variable frequency drive with isolation transformer
Utility Requirements	480 VAC, 3 phase, 60 Hz for system power, 90 psig plant air for damper actuators and in-place test usage

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



SECTION A-A



SECTION B-B

REV.	PART OR IDENTIFYING NO.	DESCRIPTION	QUANTITY	UNIT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS $\pm 1/2$.X $\pm .2$.XXX $\pm .12$.000 $\pm .062$	CONTRACT NO. APPROVALS DATE 2/7/00	IONEX <small>Research Corporation</small> P.O. Box 602 Greenwood, CO 80039
MATERIAL CHECKED APPROVED REVISED	PARTS LIST MODEL CD4000 CHEM-DEMIL AHFU	PRODUCTION ORDER NO. SEC. NO. D DRG. NO. 7033 REV.
DO NOT SCALE DRAWING	SCALE NONE	SHEET 1 of 1