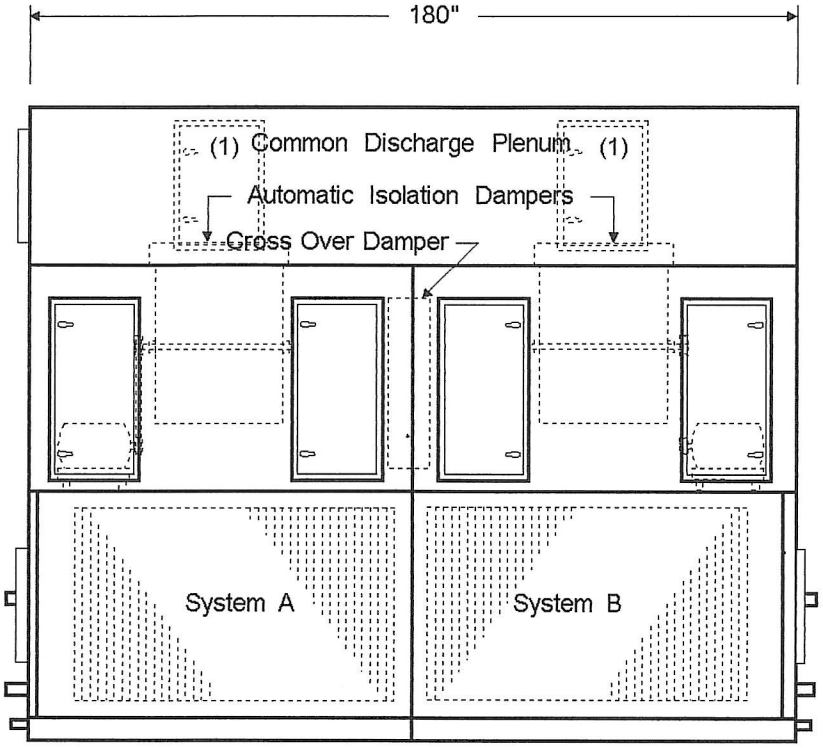

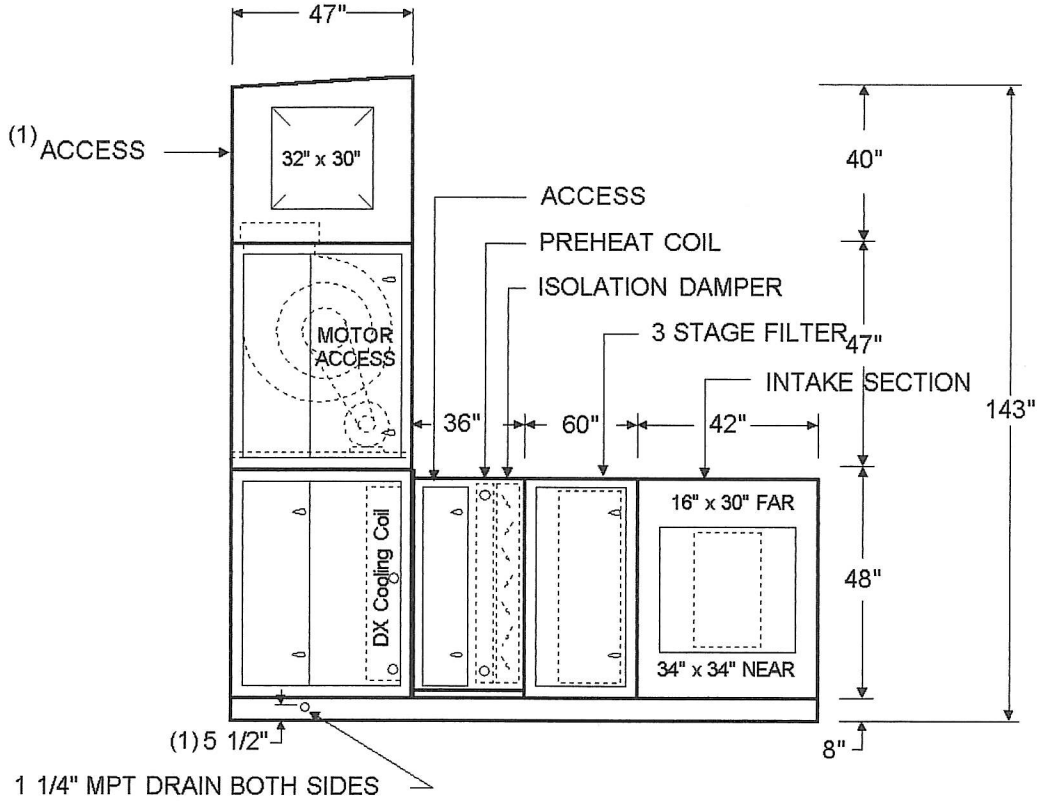

(1) Addes access doors to discharge plenum , added dimension to drain elevation.

AIR ZONE INDUSTRIES, INC. 2214 PECH HOUSTON, TEXAS 77055	DR-17/17-Dual Redundant AHU
	Drawn By: O. M. D. Date: 10/13/97 Dwg. No: 197-117A

AIR PRESSURIZATION UNIT SPECIFICATION
MODEL: TR-17/17-R

(Revised 9/22/98 to comply with Engineers comments)*

Unit Base is constructed of galvanized steel channels sized for the service intended reinforced and braced for rigidity with an all welded construction to form a unitized assembly. The unit base will serve as structural support during shipment and installation with lifting devices integral to the base for proper handling with appropriate spreader bar during installation. The base shall be designed to separate for shipment and bolt together in the field with ¾" zinc plated draw bolts. Each separation point shall join together with 5/16" bolts and locking nuts, on 12" centers with 2" x 2" galvanized angles located on all sides and 2" x 1/8" gaskets to provide a leak proof field assembly.

Unit Floor is constructed of properly sized galvanized double wall panels, minimum 14 gauge internal floor with a minimum 20 gauge sub floor, reinforced and supported to form a rugged platform for all components. The floor will be supported on 16" centers to prevent deflection, insulated with a 2" - 4# density sound absorbing thermal barrier in accordance with ASTM-E84, NFPA-255 and UL-723 with a Flame Spread of 15, Fuel Contribution of 0 and Smoke Development of 0.

Unit Panels are constructed as described for the floor with identical properties. All panels shall be constructed of minimum 14 gauge exterior with 18 gauge solid galvanized steel interior, fully framed, stiffened, welded and screwed with internal supports. The casing shall be designed with four formed corners, to insure a square assembly and safe operation up to 10" WG. Each panel shall be tongue and groove type with a fire retardant, industrial grade elastomer sealing compound. All casing joints are attached with #14 x 3/4" self tapping screws on 12" centers. Unit casing is designed in accordance with ASTM-E90-70, ASTM-C423-66 with structural properties computed in accordance with AISC S326 and AISI, deflection shall be designed not exceed 1/240 of the span when under design conditions.

Unit Roof is constructed as described above with standing seams and a 1" positive slope to prevent standing water. All roof panels have a 1" drip lip around the full perimeter and above all access doors.

Access Doors are constructed similar to the above panels with a continuous stainless steel hinge and heavy duty latches with both external and internal handles. A full perimeter vinyl bulb seal gasket is installed for a tight seal. Full size access doors are installed where shown for proper service to each internal component.

Intake Section is double wall as described above and provided with opposite side intake for return air and outside air complete with opposed blade dampers, constructed of 100% stainless steel including all shafts, bearings, hardware, side and blade seals, frame and blades. Dampers are rated for a maximum of 2% leakage, in accordance with AMCA 500.

Filter Section is double wall construction as described above, side servicing, three stage type with a 30% pleated pre-filter, gas phase filter and 85% final filter with a minimum 12" down stream mixing section. The pre-filters shall be Class 2, pleated 30% according to ASHRAE Standard 52.1 mounted in a slide track. The Gas Phase Filters are Purafil chemical absorbent type consisting of a50/50 blend of Purekoal and Potassium Permanganate and shall be non-toxic, non-flammable, UL listed Class I. The final filter shall be 80-85% in accordance with ASHRAE Standard 52 and be class 2. A filter gauge is installed on both pre-filters and final filters at the factory in a weather proof cover with sun visor and drip lip.

Isolation Dampers as shown between the filter section and coil section are in a common double wall section, as described above with preheat coils and access section. Isolation dampers are complete with opposed blade dampers constructed of 100% stainless steel including all shafts, bearings, hardware, side and blade seals, frame and blades. Dampers shall be rated for a maximum of 2% leakage, in accordance with AMCA 500. *The isolation dampers upstream of the cooling coils and between sections are complete with locking quadrants for manual change over.*

Preheat coils are installed up stream of the isolation dampers and constructed as shown below.

Access Section is complete with double wall access doors located on both sides, as shown, constructed as described above providing a minimum of 18" access between preheat and cooling coils.

Drain Pan is a double pan design, constructed with a minimum 18 gauge, stainless steel liner adequately reinforced and continuously welded, sloped a positive 1" from all corners to the drain connection on both sides in accordance with current IAQ standards. The drain pan shall drain dry at all times and complete with stainless steel drain connection.

Coils are constructed of industrial quality with copper tubes on staggered centers with all joints brazed. Secondary fin material shall consist be aluminum fins for maximum efficiency and structural strength. All fins shall have full drawn collars to provide a continuous surface over the entire tube for maximum heat transfer. All tubes are mechanically expanded into the fins to provide a continuous primary surface and maximum heat transfer. Coils are tested with 315 pounds air pressure under warm water and suitable for operation at 250 psig working pressure. Casings are stainless steel with internal supports on all coils exceeding 48" fin length. Coil supports and flashing are stainless steel. All coils are epoxy coated for corrosion protection. Coils are tested and rated in accordance with ARI Standard 410 and Certified in the ARI Certification program. Complete ARI Certified performance calculations are included as a part of submittal data.

Fans are standard Arrangement 3, DIDW air foil type, sized as scheduled. All fans are statically and dynamically balanced with a solid type, high carbon steel shaft designed with the operating speed below the first critical speed. Bearings shall be self aligning pillow block type selected for an L 50 average life of 200,000 hours. Fans and motor are mounted on a common base complete with seismically designed spring vibration isolation designed to prevent the transmission of objectionable vibration to the building structure and withstand seismic forces in excess of 1G horizontally and 2/3 G vertically. Fan performance data is AMCA Certified by an independent laboratory and display the AMCA seal. Fans shall be AMCA B Spark proof and complete with inlet vane dampers, factory installed.

Motors and Drives are high efficiency TEFC type. All drives are selected for not less than 150% of design horsepower and variable pitch and shall be non-static conducting. The Electrical Classification is Class 1-Group D-Division II.

Discharge Section is double wall as described above with a common outlet for supply air. Each fan discharge is complete with automatic discharge dampers complete with parallel blade dampers constructed of 100% stainless steel including all shafts, bearings, hardware, side and blade seals, frame and blades. Dampers shall be rated for a maximum of 2% leakage, in accordance with AMCA 500.

Damper Actuator are part of the control specifications and may be furnished to the manufacturer for factory mounting on intake dampers and inlet vane dampers.

Exterior Finish is coated with Ameron PSX 700 Engineered Siloxane, 4-8 DFT, GR-3 Gray color.

PROJECT:	ARCO Refinery Long Beach, CA
CONTRACTOR:	Temp Air, Inc. LaHebra, CA
ENGINEER:	Jacobs Engineering Houston, Texas
SALES OFFICE:	S.C.A.C.D. - Ravi Chopra City of Industry, CA

TAG:	AHU-1A/1B
MODEL:	TR17/17R
CFM:	8250

Mixing Section:	0.15
Isolation Dampers:	0.10
Pre Filter Allowance:	0.50
Chemical Filter Allowance:	1.50
Final Filter Allowance:	1.00
Pre-Heat Coil:	0.09
Cooling Coil:	0.66
Discharge Dampers:	0.15
Discharge Section:	0.10
Internal Static Press:	4.25
External Static Press:	2.75
Total Static Press:	7.00