

Project:	Data Sheet For Pakage Unit			Shahid Ghazi
Eq.Tag.No.: AHU-01	0303.TD.ME.01.00	Date: 1403/03/15	Rev 01	
General	Unit Location			Technical Floor
	Quantity			1
	Manufacturer			*
	Type			Hygienic Single zone/Horizontal
	Normal Capacity (CFM)			6500
Site Condition	Summer (F)	Dry bulb	104	
		Wet bulb	80.8	
	Winter(F)	Dry bulb	3.6	
		Wet bulb	2.6	
Elevation (Feet)			4480	
Air Flow Capacity (CFM)	Supply Air			6500
	Return Air			3900
	Fresh Air			2600
Supply Fan & Motor	Fan Type			Plug Fan
	Nominal Total Air Flow (CFM)			6500
	KW Input			*
	Nominal RPM			*
	Volt/Phase/Hertz			380/3/50
	External Head Loss(in.w.g)			3.2
	Internal Head Loss(in.w.g)			*
Noise Level (at 3 meter downstream)			70 db	
Return Fan & Motor	Fan Type			Plug Fan
	Nominal Total Air Flow (CFM)			3900
	KW Input			*
	Nominal RPM			*
	Volt/Phase/Hertz			380/3/50
	External Head Loss(in.w.g)			2.7
	Internal Head Loss(in.w.g)			*
Noise Level (at 3 meter downstream)			70 db	
Cooling Coil	Type			DX
	Quantity			1
	Coil ADP.(F)			32
	Total Coil Load (TR)			21.2
	Sensible Coil Load (TR)			12.5

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Cooling coil	ENT.Air Temp.(F)	Dry bulb	84.1	
		Wet bulb	71.8	
	LVG.Air Temp.(F)	Dry bulb	62.6	
		Wet bulb	61.5	
	By Pass Factor			0.1
	Coil Row/Fins(Material)			Copper/Aluminum
	Maximum Air Face Velocity (fpm)			500
	Coil Face Area(ft ²)			*
	Maximum Air Press.Drop(in.wg)			*
	ENT.Chilled Water Temp. (F)			*
	LVG.Chilled Water Temp. (F)			*
	Chilled Water Flow Rate (GMP)			*
Max Water Press.Drop (ft.wg)			*	
Pre-Heating Coil	Type			Water
	Heating Capacity (Btu/hr)			77300
	Air Side	ENT.Air Temp.(F)	43.5	
		LVG.Air Temp.(F)	55	
		Max.Press.Drop (ft.wg.)	*	
	Coil Face Area (ft ²)			*
	Minimum Number Of Rows/Fins			*
	Coil Row/Fins(Material)			Copper/Aluminum
	Water Side	ENT.Air Temp.(F)	180	
		LVG.Air Temp.(F)	160	
Hot Water Flow Rate (GMP)		7.73		
Max . Press.Drop (ft.wg)		*		
Heating Coil	Type			Water
	Heating Capacity (Btu/hr)			80200
	Air Side	ENT.Air Temp.(F)	55	
		LVG.Air Temp.(F)	66.1	
		Max.Press.Drop (ft.wg.)	*	
	Coil Face Area(ft ²)			*
	Minimum Number Of Rows/Fins			*
	Coil Row/Fins(Material)			Copper/Aluminum
	Water Side	ENT.Air Temp.(F)	180	
		LVG.Air Temp.(F)	160	
Hot Water Flow Rate (GMP)		8		
Max . Press.Drop (ft.wg)		*		

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Filters	Stage -1 Coarse Filter CEN EN 779 Class Before Fan			G4(Before Fan)
	Stage -2 Coarse Filter CEN EN 779 Class Before Fan			F7(Before Fan)
	Stage -2 Coarse Filter CEN EN 779 Class After Fan			F9(After Fan)
Return Air Damper Type				Motorized Damper
Fresh Air Damper Type				Motorized Damper
Mixing Air Damper Type				Motorized Damper
Exhaust Air Damper Type				Motorized Damper
Supply Air Damper Type				Motorized Damper
AHU Enclosure				
Dimension	Length			*
	Width			*
	Height			*
Insulation	Material			Mineral Wood Or PU
	Thickness			50mm
Interior Skin	Material			Stainless Steel
	Thickness			0.8mm
Exterior Skin	Material			Pre-Painted Galvanized Steel
	Thickness			0.8mm
Approximate Operating Weight (kg)				*

REMARKS :

1. (*) compiled by manufacturer.
2. Shop drawings and components specification of ordered equipment should be approved by Purchaser prior to construction
3. The total air leakage rate from the casing may be specified at no greater than 0.5 % of rated air flow at 150% of design pressure or 85m³/h, whichever is greater.(According to EUROVENT standard L1)
4. The cooling coil condensate drain pan (upstream and downstream) should be of 304L SS. The length should be extended beyond the coils downstream face a minimum (300 mm) or half the height of the coil, whichever is greater, and a minimum of (150 mm) beyond the upstream face.
5. Access doors should be installed on each section of AHU (Coil, Filters, fan, eliminator, Etc.)

6. *For visually inspect the interior, clear view ports such as with 300 mm double pan wire Mylar-backed glass.*
7. *Section with fan and moving parts should have warning sign, such as isolate before entry, affixed to door.*
8. *Coil performances should be rated in accordance with ARI Std & Tube sheets and coil frames must be made of S.S304 & all the collector in/out pipes must be made of copper & coils outer surface involving all the fins and pipes must be covered by antibacterial coating (According to VDI 6022)*
9. *Direct drive fan must be utilized for supply and return air.*
10. *Air handler coil tubing should be of nominal (0.5 mm) thick seamless copper with aluminum fins of at least (0.24mm) thickness.*
11. *Dampers of the Air Handling Units should be opposed blade type. (Class 4 Acc. to DIN EN 1751)*
12. *Air vent connections for inlet & outlet of coils should be provided.*
13. *Hosing connection of filter manometers should be provided according to standard installation of magnetic gage.*
14. *Due to use of variable speed drive in control panel, fan electromotor KW should be selected with 20% margin over design criteria*
15. *The noise limit in operating condition must be less than 60 dB where in emergency condition it up to 85 dB, could be accepted.*
16. *All welded parts must be passivized.*
17. *All components and parts must be long term corrosion free, especially in areas under high contamination.*
18. *All applied materials must be free from asbestos and chlorine & all the units must have hygienic certificate (According to VDI 6022)*
19. *Gaskets, sealing materials should be resistant against condensate solvent, and vaporization.*
20. *The interior of all air handling units should be withstood decontaminated.*
21. *Outside installed components should be long term UV resistant.*
22. *Dampers shown below are schematic; they must be installed according to direction of duct section*
23. *Internal joints between adjacent sections should be smooth and level. Maximum concentration of fins in cooling coils should be 10 fins per inch*
24. *Section with fan and moving parts should have warning signs, such as "ISOLATE BEFORE ENTRY" affixed to door.*
25. *Filter seats/casings should be made of stainless steel. (According to VDI 6022)*
26. *Hosing connection of filter manometers should be made of copper, according to standard installation of DPI.*
27. *Due to use of variable speed drive in control panel, Fan electromotor KW should be selected with 25% margin over design criteria.*
28. *The selection of fan & motor must be in a way that fan operating point stands on 80% of maximum motor frequency & fan rpm.*

REQUIRED ITEMS	
Execution :	Hygienic Indoor Unit
Termal Class Acc. to EN1886	T2-TB2 Insulation :PU Foam Fire Class B1/Rockwool(Min Requirement)
Energy Efficiency :	Min. Class B / V4 Acc.to RLT01, DIN EN13053
Leakage Classification	L1 Acc. to VDI 3803-EN1886 Filter Leakage F9
Mechanical Strength Classification	D1 Acc. to DIN 1886
Specific Fan Power (W/m³/s) :	Acc.to DIN EN13779
Cross Section & Filter face Air Velocity:	2.5 m/s Class(Max)
Casing Panel	Min. 48 to 50 mm Thic.
Panel Inside Surface:	0.8 mm S.st 304,V2A
Inside Bottom Surface	0.8 mm S.st 304,V2A
Panel Outside Surface:	1 mm Galvanized Steel + Colored PVC coating
Drain Pan: Inclined Center+ Utrap	1mm S.st 316L Acc.to VDI -6022
Air Dampers	Opposed blade Gearwheels / Class 4 Acc.to DIN EN 1751
Fan + motor Accessories	Pressure tapping on fan inlet cone/Connection for airflow determination on access side/Flexible connection fan/casing(AISI 304)/ Antivibration insulators
Requirement certificate	(EUROVENT , VDI 6022 , CE) MIN