



# Ultimate Airflow Solutions

## Industrial Air-conditioning

Pharmaceutical  
Biotechnology  
Microelectronics etc

## Commercial Air-conditioning

Large commercial complexes  
Multiplex  
Big shopping malls etc

## Comfort Air-conditioning

Residential Skyscrapers  
Individual Houses/Apartments



**Air handling at its versatile best !**



INTEGRATED CLEANROOM TECHNOLOGIES LTD



Our IAH series air handling units feature flexible assembly, novel structure, operational stability, total function and easy installation & maintenance. Ideal for industrial air-conditioning, commercial air-conditioning and comfort (residential) air-conditioning and other related applications. Designed to meet Indoor Air Quality requirements, our AHUs provide dust-free cooling, heating, ventilation, dehumidification and air distribution to the conditioned areas.

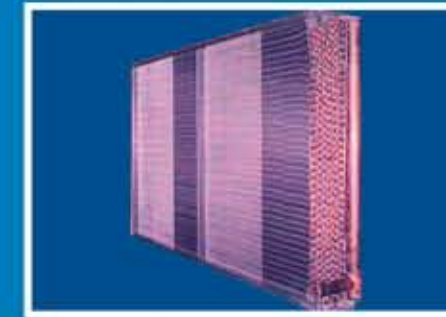
### Panels

ASTM standards are followed strictly in the making of our pre-painted, galvanized steel panels. There is a special gasket for air tightness between the frame and the fixed panels. Hot dip galvanized steel is used for making inner panel for double skin panels. To achieve uniformity, access doors & fixed panels are made with similar material.



### Cooling / Heating Coils

Standard Cooling & Heating coils are made in galvanized steel frame with seamless copper tubes with aluminum fins, MS headers with threaded connection & copper return bends. They are arranged in a staggered form in the direction of airflow. Copper tubes are mechanically expanded into continuous corrugated aluminum fins. Coils are assembled in slide-in guides for easy removal for maintenance or replacement. For water coils, air vents & drain plugs are the standard ones. Moisture eliminator can also be provided for the coils according to air velocities & conditions. Insulated drain pan & drain connection are provided for the cooling coil section. Copper fins or blue fins are optional.



### Fan & Drive

Depending on the static pressure or requirement, DIDW centrifugal fan impellers have forward or backward curved blades. Forward curved blade impellers are made of galvanized steel, whereas backward curved impellers are made of mild steel and given a coat of paint. The fan scrolls are made of hot dip galvanized steel. All the impellers are keyed to the shafts. The shafts are made of C-45 carbon steel and given a coat of anti-corrosive paint. They are operated by an automatic process to close tolerance. Another prominent feature of fan impellers is that they are statically & dynamically balanced. Fans use self-aligning ball bearings that are greased for life. Pillow block bearings are provided with re-greasing nipple. Fans used in our Air Handling Units conform to AMCA norms. Plug fans are also available as an added option.



Fan motors are totally enclosed, fan cooled (TEFC) & foot mounted with IP-55 protection, Class-F insulation, thermal overload protection, star/delta connection and they are designed to maintain max ambient temperature of 60° C. The motor is mounted on an adjustable base, so that the belt tension can be easily adjusted. The power transmission from motor to fan is provided by a set of pulleys and matching V-belts.

### Filters

Indoor air quality or the size of the particle to be arrested influence the selection of suitable filter. Efficiency, pressure drop and saturation time are the main features of our well-designed filters. The most commonly used filters are 2" thick 20/10-micron pre-filters, 12/6 deep pleated or 21" deep pocket type 5-micron filters, 12"/6" deep 3-micron filters, 12"/6" deep 0.3-micron high efficiency plenum or terminal mounted type HEPA filters.



## Meeting diverse airflow requirements

Iclean (Integrated Cleanroom Technologies Limited)'s Air Handling Units Division is the fastest growing manufacturing facility in HVAC field known for its high quality AHUs for various HVAC applications. Our AHUs are ideally suited for industrial air-conditioning, commercial air-conditioning and comfort (residential) air-conditioning and other related applications. Our IAH series Double Skin Modular Air Handling Units are extremely quiet and elegant. They are designed to high engineering standards to meet Indoor Air Quality (IAQ) requirements and provide cooling, heating, ventilation, dehumidification and air distribution (humidity & temperature control) to the conditioned area.

## Dedicated to the detail !

Our AHUs are designed keeping in view the unique striking features our customers expect from our products in strict compliance with global quality parameters and production standards. The following are various components & accessories of our IAH series AHUs:

### Corner Profile

Our Corner Profiles are very sturdy as they are made of extruded aluminum and connected by nylon corners. For specific applications, aluminum profiles with thermal brake and internal coving are also available. This type of frame construction facilitates complete dismantling of the unit sections and reassembling them at the site of installation wherever access becomes difficult.



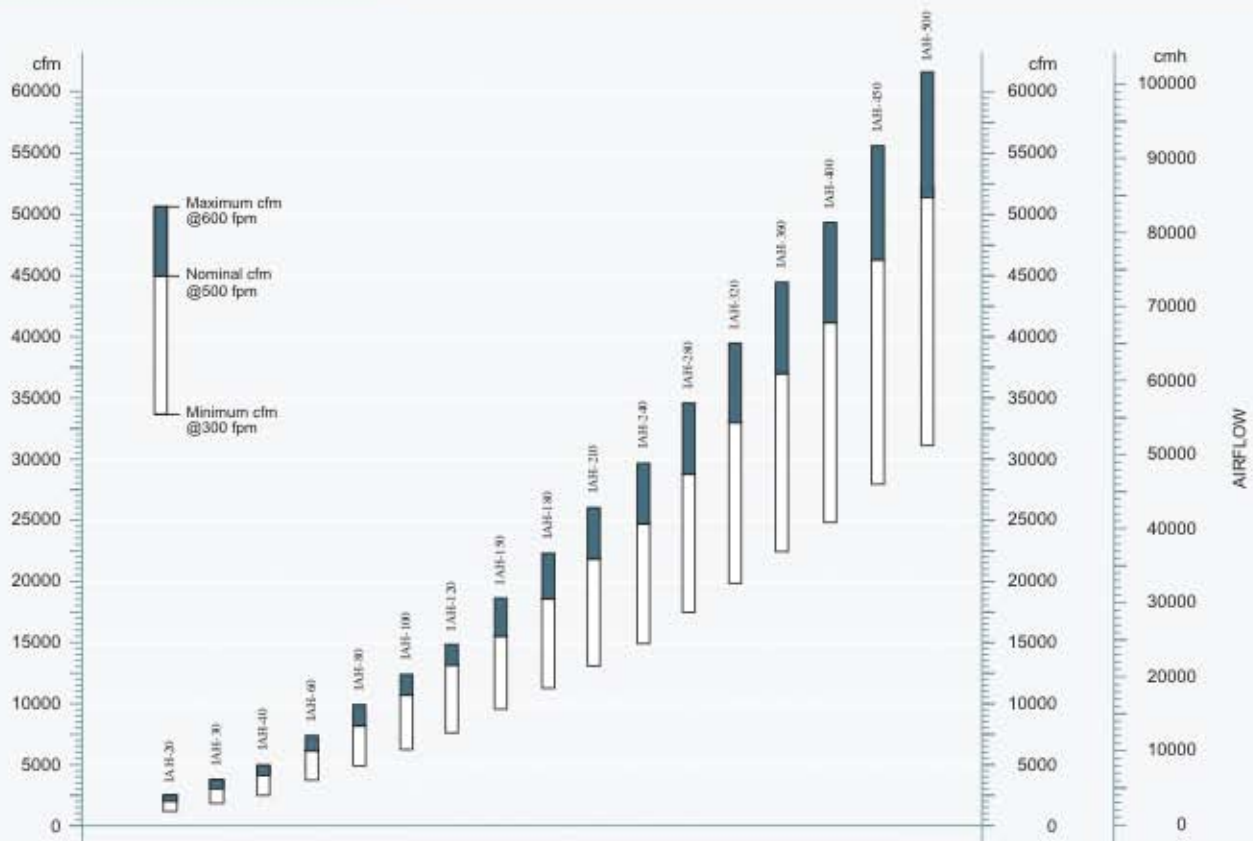
### Dampers

To control airflow, dampers are used, with the blades closing & opening alternately. Our heavy-duty aluminum dampers have airfoil blade with rubber seal at the blade edges. The blades are inter-connected by gear system.

Our GI dampers have opposing stiffened GI blades with bushes and a lever to close / open the blades. The blades are carried on round steel rod & steel bearing and linked by galvanized steel links. Moreover, all dampers are provided with open / close indication and manual or automatic control facility.



# Quick selection chart



## Unit dimensions

Unit Model	Airflow @ 500 FPM	Width	Height	Mixing Box with F/A & R/A dampers	Pre Filter Section	Pleated Fine Filter 12" deep	6 Row Chilled Water Coil	2 Row Hot Water Coil	Electric Heating Coil	Spray type Humidifier	Drip/Mist eliminator	Fan section	Hepa filter	Supply Plenum section
	cfm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
IAH-020	2080	880	780	450	75	305	400	250	300	980	250	800	305	350
IAH-030	3125	1180	780	450	75	305	400	250	300	980	250	1000	305	350
IAH-040	4375	1180	1080	450	75	305	400	250	300	980	250	1100	305	350
IAH-060	5833	1480	1080	550	75	305	500	250	300	980	250	1200	305	450
IAH-080	7917	1480	1380	550	75	305	500	250	300	980	250	1400	305	450
IAH-100	9896	1780	1380	550	75	305	500	250	300	980	250	1500	305	450
IAH-120	12500	1780	1780	550	75	305	500	250	300	980	250	1600	305	450
IAH-150	15000	2080	1780	650	75	305	600	250	300	1280	250	1700	305	450
IAH-180	17500	2080	2080	650	75	305	600	250	300	1280	250	1900	305	450
IAH-210	20416	2380	2080	650	75	305	600	250	300	1280	250	1900	305	450
IAH-240	24791	2380	2380	650	75	305	600	250	300	1280	250	2100	305	450
IAH-280	28038	2680	2380	850	75	305	700	250	300	1580	250	2100	305	550
IAH-320	31336	2680	2680	850	75	305	700	250	300	1580	250	2400	305	550
IAH-360	35625	2980	2680	850	75	305	700	250	300	1580	250	2400	305	550
IAH-400	39375	2980	2980	850	75	305	700	250	300	1580	250	2600	305	550
IAH-450	43750	3280	2980	950	75	305	700	250	300	1580	250	2600	305	650
IAH-500	50000	3280	3280	950	75	305	700	250	300	1580	250	2800	305	650



INTEGRATED CLEANROOM TECHNOLOGIES LTD

An ISO 9001-2000 Certified Company



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