

## IJD SERIES – CHILLED WATER AIR HANDLING UNITS

### GENERAL

Air Handling units are an integral part of an overall air conditioning system where the energy transfer medium (i.e. chilled or hot water) is circulated by a central plant facility.

**temperzone** offers an extensive range of belt driven ducted air handling units. A variety of options and accessories are available to meet most air conditioning requirements.

Low operating cost, energy efficient fan motors are used in all units. Easy installation and maintenance add to the cost effectiveness of **temperzone** IJD Series air handling units.

All **temperzone** IJD air handling units are right handed, i.e. when facing the discharge side of the unit, the water and electrical connections are on the right hand side.

### TYPICAL APPLICATIONS

These belt driven units are ideal in situations where high static pressure and longer ductwork is a major consideration. They are designed to be sited in a separate plant room.

Typical applications include office buildings, hospitals, factory buildings, museums, airport terminals, etc.

### STANDARD FEATURES

#### Drain Tray

The drain trays are made of galvanised steel, powder coated for anti-corrosive protection. All have a built-in slope to ensure condensate water drains freely without ponding. A drain trap is required. On long drain lines an air vent should also be fitted.

#### Coils

Coils are manufactured in rifled copper tubing. All coils are thoroughly tested to 2100 kPa.

Coil rows are staggered for maximum heat exchange. Different coil configurations are available – refer table below.

The coil fins are manufactured as a continuous plate, die formed from aluminium with a smooth corrugated surface, specially designed to overcome and prevent lint build up. The coil fins are mechanically bonded to the copper tubing which results in a rigid assembly and provides a permanent metallic contact between fins and tube for maximum heat transfer.

### Motors

IJD units use TEFV fan motors, rated IP55. An adjustable pulley on each belt drive fan motor enables fine tuning to match the supply air requirements.

### Fans

Forward curved centrifugal type, double width, statically and dynamically balanced, multi-bladed impellers are used. The position and shape of the fan blades and housing has been developed after extensive testing to achieve minimum noise levels while maintaining a smooth pressure vs air flow curve. Supply air fan outlets are available in horizontal or vertical configurations.

### Insulation

Closed cell foam insulation has been used to ensure no particles are introduced into the air stream. The insulation is foil faced and meets fire test standards AS 1530.3 (1989) and BS 476 parts 6 and 7.

### Cabinet

The cabinet is manufactured from high quality galvanised steel and internally insulated. Full consideration has been given to making the unit weatherproof. As an option, the cabinet is available polyester powder coated Tampa Tan for all weather protection.

### Access Doors

Each main access door is hinged and secured to the casing with catches. Catches can be released using a 8 mm Allen key (not included).

### Mounting

Each IJD unit is supplied with mounting rails for rigid mounting, or spring mounting (springs not supplied).

### Electrical Box

Wiring from the motor terminates in a terminal block in a sheetmetal enclosed electrical box within the unit.

### OPTIONS

- Filters  
50 mm thick, pleated, disposable and rated EU4.
- Configuration  
Vertical (V) or Horizontal (H) supply air.
- Electric Heat  
Elements are factory mounted within the unit. A fan run-on timer (for heat dissipation) is included. These units are supplied complete with safety cutouts required to meet AS/NZS 3350.2.40 1997.

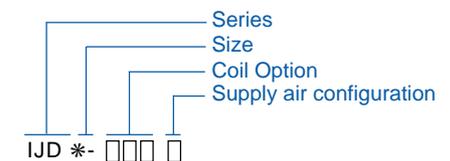


- Painted Cabinet  
The exterior of the unit is Tampa Tan polyester powder coated for increased durability.

### WIRING

The electrical supply required (including voltage fluctuation limits) is: 3 phase 342–436 V a.c. 50 Hz with neutral and earth. Each IJD unit is fully wired ready to accept the main power supply.

### ORDER DETAIL



#### Coil Options:

- 1 - One row coil for heating
- 4 - Four row coil for cooling
- 4/1 - Four row cooling / one row heating
- 4/E - Four row cooling + electric heat
- 6 - Six row coil for cooling or heating
- 6/1 - Six row cooling / one row heating
- 6/E - Six row cooling + electric heat
- E - Electric heat only

#### Supply Air Configuration:

- H - Horizontal
- V - Vertical

**Note:** Please specify on your order the size and coil option using the above codes.

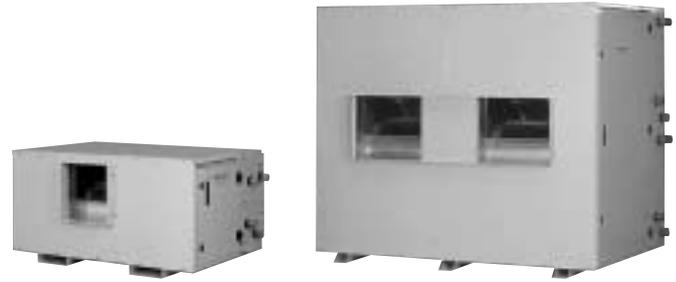
#### Examples:

- IJD 450-4/1 H
- IJD 450-4E V

### SUMMARY OF CHOICES

Size :	370/450/620/950/1400/2000/2400
Coil :	1 row Heating
	4 rows Cooling
	4 rows Cooling + 1 row Heating
	4 rows Cooling + Electric Heat
	6 rows Cooling
	6 rows Cooling + 1 row Heating
	6 rows Cooling + Electric Heat
	No Coil - Electric Heat Only
Filters:	Yes / No
Supply Air:	Horizontal / Vertical
Painted Exterior:	Yes / No

**NOTE:** Specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.

**SPECIFICATIONS**

**IJD Series**

Model		IJD 370	IJD 450	IJD 620	IJD 950	IJD 1400	IJD 2000	IJD 2400
Nominal Air Flow	l/s	1500	1800	2400	3600	5500	7200	8600
Fan Type		forward curved centrifugal - double inlet double width						
No. of scrolls		1	1	1	1	1	2	2
Fan Motor Type		belt drive, aluminium totally enclosed fan ventilated, IP 55						
Power Source *		3 phase 400 V a.c. 50 Hz						
No. Motors		1	1	1	1	1	1	1
Motor Poles		4	4	4	4	4	4	4
Motor Rating	kW	2.2	2.2	3.0	4.0	7.5	11	11
Full Load Amps	A	4.8	4.8	6.4	8.3	14.7	21	21
Heat Exchange Type		aluminium corrugated plate fins to expanded rifled copper tube						
Source		chilled water or hot water						
Coil Rows		[ 1 row heating ] or [ 4 rows cooling ] or [ 4 rows cooling + 1 row heating ] or [ 4 rows cooling + electric heat ] or [ 6 rows cooling ] or [ 6 rows cooling + 1 row heating ] or [ 6 rows cooling + electric heat ] or [ no coil - electric heat only ]						
Finish		zinc galvanised steel						
Test Pressure		2100 kPa						
Water Connection Sizes (mm): (Cooling or Heating)	1 row coil	32 BSPM (1 1/4")	32 BSPM (1 1/4")	32 BSPM (1 1/4")	40 BSPM (1 1/2")	50 BSPM (2")	50 BSPM (2")	50 BSPM (2")
	4 row coil	32 BSPM (1 1/4")	32 BSPM (1 1/4")	32 BSPM (1 1/4")	40 BSPM (1 1/2")	50 BSPM (2")	50 BSPM (2")	50 BSPM (2")
	6 row coil	32 BSPM (1 1/4")	40 BSPM (1 1/2")	40 BSPM (1 1/2")	40 BSPM (1 1/2")	50 BSPM (2")	50 BSPM (2")	50 BSPM (2")
	No. of connections per coil	2	2	2	2	2	4	4
Optional Air Filter	Type	disposable, pleated, rated EU 4						
	No.	2	3	3	3 + 3	8	12	12
	Thickness (mm)	50	50	50	50	50	50	50
	Size (mm)	600 x 500	400 x 625	500 x 625	3 @ 400 x 500 3 @ 500 x 500	500 x 500	500 x 500	500 x 600
Optional Electric Heating	kW	12	18	18	27	36	48	54
Weight (4/1 row unit, incl. water)	kg	180	217	245	316	445	657	809
Net Weight (4/1 row unit, excl. water)	kg	166	201	224	285	398	583	723
Shipping Weight (approx.)	kg	184	218	242	315	428	620	760

**Notes:**

\* Voltage fluctuation limits 342–436 V.

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