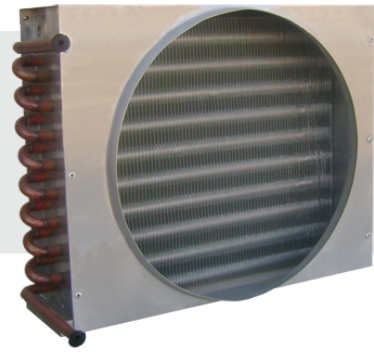




## Air-Cooled Condenser



Condensing units incorporated in displays, islands, counters, beer coolers, among others.



# INTENSE

## Air Cooled Condenser

### Benefits

- Mechanically bored copper tubes with a diameter of 3/8"
- Inlet and outlet in smooth copper tube
- Condenser with or without hood
- Aluminum structure and galvanized steel cover
- Capacities indicated in the table apply to the condensation temperature of +55°C and air inlet temperature of +35°C (DT=10°C)
- Aluminum fins spaced at 3,63mm with high heat exchange coefficient
- Mechanically expanded copper tubes
- In models without a hood, the side ends and the upper closing plate are extended in front of the condenser, in order to increase the efficiency of the fan propeller replacing the hood
- Connection positions: (seen from the fan side) on models: 308 / 310 / 312 / 316 are on the right. Other models are on the left

### Applications

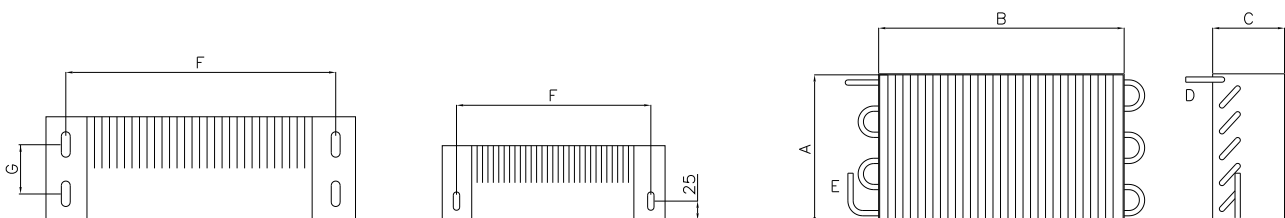
Condensing units incorporated in displays, islands, counters, beer coolers, among others.

### Capacities and Features

Models with hood												
Ref. Commercial	Capacity	Area	Tubes	Propeller	A	B	C	D	E	F	G	
HP	Kcal/h	m <sup>2</sup>	3/8"	Ø	mm	mm	mm	Ø	Ø	mm	mm	
412	1/4	930	1,44	12	1x8"	218	286	83	3/8"	3/8"	316	-
416	1/3	1050	1,44	16	1x8"	218	286	83	3/8"	3/8"	316	-
418	1/2	1280	1,89	18	1x10"	269	305	93	3/8"	3/8"	335	45
430	3/4	1800	2,84	30	1x10"	269	305	93	3/8"	3/8"	335	45
440	1	4000	6,84	40	2x10"	269	560	136	5/8"	3/8"	600	65
448	1 1/2	4650	8,20	48	2x10"	318	560	136	5/8"	3/8"	600	65

Models without hood												
Ref. Commercial	Capacity	Area	Tubes	Propeller	A	B	C	D	E	F	G	
HP	Kcal/h	m <sup>2</sup>	3/8"	Ø	mm	mm	mm	Ø	Ø	mm	mm	
308	1/8	660	1,08	8	1x8"	207	210	80	1/4"	1/4"	234	-
310	1/6	710	1,08	10	1x8"	207	210	80	1/4"	1/4"	234	-
312	1/5	760	1,08	12	1x8"	207	210	80	1/4"	1/4"	234	-
316	1/4	870	1,08	16	1x8"	207	210	80	1/4"	1/4"	234	-
322	1/3	1050	1,62	22	1/8"	207	210	100	1/4"	1/4"	234	-
324	1/2	1200	1,81	24	1/8"	207	240	100	1/4"	1/4"	264	-
332	3/4	1500	2,41	32	1/8"	207	240	120	1/4"	1/4"	264	-



Mipal Indústria de Evaporadores Ltda., (Mipal), warrants its product for workmanship and material for a period of three years from time of purchase, for the first buyer (user). In no circumstances that period will be longer than forty two months from manufacture time, there included the legal period, taken that the product has not been misused, abused, correctly installed and that its operational condition fits Mipal's technical recommendations.

This guaranty prevails if the equipment is to be operated in full conformity with Mipal's installation and/or maintenance instructions. Warranty rules out equipment repair or installation by others or outside Mipal's premises (except for jobs executed by Mipal itself) or inappropriately operated or subjected to misuse, negligence, imprudence or lack of expertise.

Mipal, at its exclusive judgment, will repair or otherwise replace at no charge to the original buyer a product or any product component which was or has been impaired due to faulty manufacture, project or inadequate choice of material, except those due to regular operation. And this will prevail if none of the below described actions may have been discarded:

- Product application according to original prescriptions;
- Every installation instruction and product prescribed operative condition has been abided to;
- Installation components and piping system kept in pace with the latest state of the art as to HVAC concepts;
- Every brazed junction has been carried out along with nitrogen or inert gas flow inside the pipework or product mounting.

In every case modern industrial installation, maintenance and operation practices shall have been effectively employed by certified technicians, engineers, designers and every personnel involved in the job.

Regular product, or its moving parts, repair, maintenance and installation correction will not be covered by this guaranty, and neither will it cover damages incurred during transport or movement of the product once out of Mipal's hands.

Third party components and parts such as: valves, motors, resistors and electrical accessories that integrate Mipal's products will be generally warranted by their respective suppliers or manufacturers usually for a year period in the case of mechanical parts or a semester for electrical, if that be the case.

Products guaranties will be suspended should there be any misuse or maltreat, electrical voltage fluctuation, aggressive environment, pressure in excess, accidental crash, mechanical damages (internal or external) due to irregular operation or installation or other inadequacies or even if simply operated out of Mipal's recommendations. Mipal will also waive guaranty in the case of defaced or removed product or part serial number.

And again, Mipal will not be deemed responsible for caused damages due to an unauthorized third party job our unauthorized job serviced on its products or even if not genuine parts have been mounted in the product.

If a product is to be sent for re-servicing, a document called: "call back authorization" must be issued by Mipal prior to its dispatch. Transport should be CIF Mipal, back and forth, totally on Client's expenses. Mipal will analyze the damage, or Client's complaint, and in the case that the fault stems from manufacture causes, the product will be repaired, or replaced, free from charge to the first buyer, except for transportation charges as stated above.

The problem report, must be sent by mail, phone or fax, sent to Mipal, not later than two days after the event has taken place and time must be granted to Mipal so that its support team may properly define the procedure that best sorts out the matter.

As pointed out above there must be a "call back authorization" document accompanying the cargo so that things will be readily attended by the factory.

Every cost involved in the repair or replacement of the product, such as freight, customs, exchange, will be at customer's expense.

Mipal will also not be held responsible for any cost incurred to remove, reinstall or whatever to have the product brought to any point which is made necessary.

After product reception and inspection, Mipal will at its discretion decide which steps to take in order to solve the situation, be it replacement or repair. At the time the product is ready for dispatch Mipal will advise the customer who from then on will provide for the return of the product to its premises at its own cost. This encompasses Mipal's warranty fulfillment.

In case of no inherent fault due to factory or any other cause described in the conditions of purchase, Mipal may send quotation for its repair or else ask the sender to retrieve the product at its expenses.

Mipal will not accept any responsibility regarding resultant consequences due to alteration on or repair of its product either by the purchaser or a third party, without previous Mipal's acknowledgement.

Mipal reserves its right to inspect the product during the guarantee period in case there have been hints of equipment irregular operation or installation not in accordance with the state of the art. Also in the case of alleged faulty operation or misunderstanding over the correct expectation over the equipment result, Mipal will intercede over the matter.

### Disclaimer

Every Mipal's intervention on a purchaser's complaint of any equipment or part supplied will encompass exclusively either replacement or repair of the supplied item, FOB Cabreúva, SP, Brazil, at its own convenience. In no circumstance will Mipal be liable to any further claim on losses which may be deemed to have arisen from causes linked with its products or parts. These losses may be taken as, but not limited to, because unpredictable by Mipal: refrigerant, stored goods, sales, unfulfilled orders, profits, incomes, and all items that represent marginal financial losses, each or all of them might be conceived as stemming directly, or indirectly, from the fault occurred in Mipal's product or part thereof, or even from its alleged inefficacy.

Since 1956 Mipal are writing the history of refrigeration. With a complete line of condensers, evaporators and fins for the most varied commercial and industrial applications, stands out in the market by the high quality and efficiency in our products.

That's why it's growing in large scale our presence in other countries.

This is the result of dedication for innovation and attention to our customers. That's why the Mipal brand it's too strong, becoming a synonym of technology and reliability.

## INTENSE

Mipal developed the Intense system with electronic motor fans and the concept of intense thermal exchange, improving the efficiency in finned equipments. This represents one more innovation from Mipal, aligned with world trends for maximum performance and low energy consumption.