

## MODULAR THERMOCONVECTORS



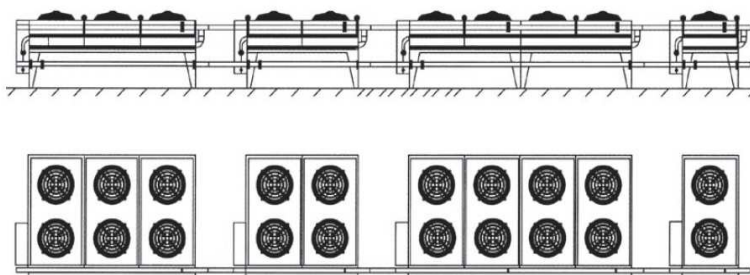
## Jolly TS



### PROFILE

The Jolly TS Modular Thermoconvectors have been designed to obtain closed circuit systems for the production of process cold water for the cooling of industrial plants with no water consumption and the lowest electric power use. They basically consist of an air/water (or water/glycol mixture) heat exchange battery, an hydraulic circuit complete with pump, electrofans and a refined microprocessor control panel.

Thanks to the very high heat exchange coefficient, result of the oversizing of the exchange surface, the water coming out of the thermoconvectors may reach temperatures close to the ambient air. Coupling of the Jolly TS Thermoconvectors with the Jolly RS/RC or Jolly NP chillers result in the RSTS/RCTS/NPTS energy saving systems.



### PATENTED COIL

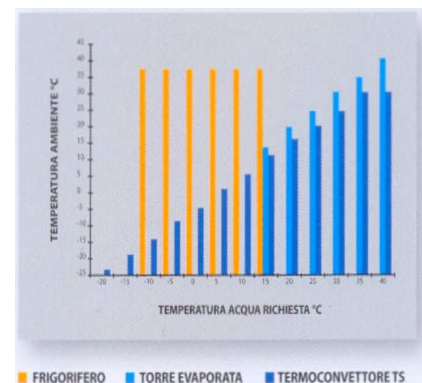
These products have been designed and manufactured according to an INDUSTRIAL PATENT deposited and certified in the most important countries all over the world. Such an invention, technologically in the lead, grants TOTAL MODULARITY which allows the cooling, hydraulic, mechanical and electric coupling of units even of different capacity.

### APPLICATION FIELD

The Jolly TS Modular Thermoconvector has been specifically designed for the closed circuit cooling of water or of water/glycol mixture thanks to the counter current heat exchange with the thermoconvector according to the required temperature. As shown into the diagram, its application field allows the use of the thermoconvector according to the required temperature. The essential concept of the Jolly TS thermoconvectors is the aim to supply the end-user not just with a machine but rather with a system.

**TS MODULAR SYSTEM FOR DIRECT HEAT DISPOSAL** : it replace the cooling tower for water temperature beyond the dry bulb ambient temperature.

**RSTS/RCTS/NPTS MODULAR ENERGY SAVING SYSTEM** : coupled to a traditional chiller and taking advantage of the low ambient temperature, it allows the so called "free cooling", i.e. it replaces the chiller reaching a very high, total energy saving.



## MODULAR THERMOCONVECTORS

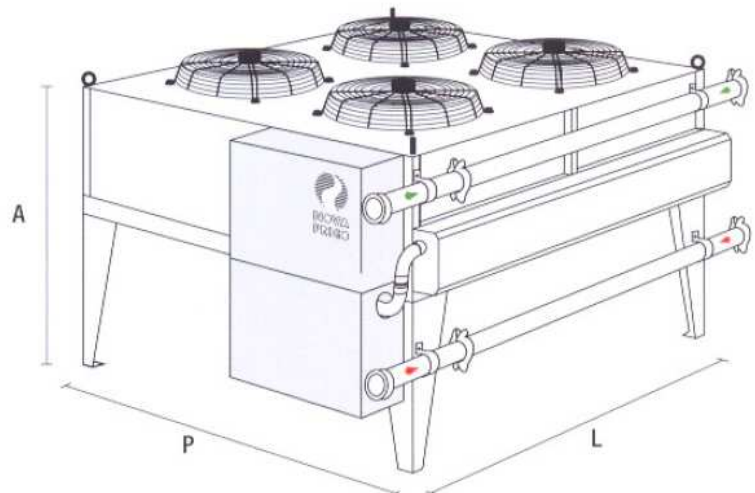
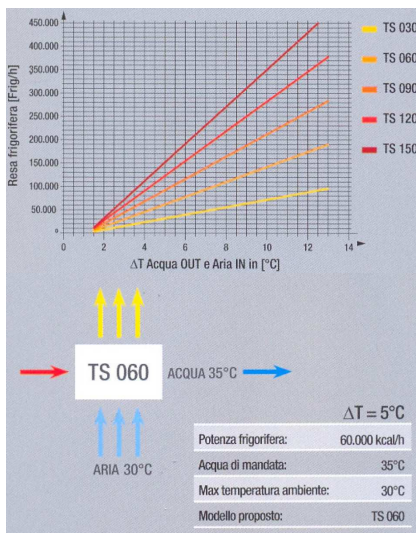
### TECHNICAL DATA

Model (1)	Cooling (2)		Efficiency	Cooling (3)		Efficiency	Pump			Fans			Internal volume	Pipe connection	Sound level (4)	Dimensions			Net weight
	kW	kcal/h		kW/kW	kW		kcal/h	kW/kW	kW	m <sup>3</sup> /h	bar	n°				kW tot.	m <sup>3</sup> /h	l	
TS 030	35,0	30.000	39,0	81,0	70.000	90,0	1,2	5,4	3,1	2	0,9	16.000	50	3"	55	1.580	2.190	1.400	320
TS 060	70,0	60.000	39,0	162,0	140.000	90,0	1,9	10,8	3,1	4	1,8	32.000	95	3"	58	2.650	2.190	1.400	560
TS 090	105,0	90.000	39,0	244,0	210.000	90,0	3,0	16,2	3,1	6	2,7	48.000	140	3"	60	3.730	2.190	1.400	800
TS 120	140,0	120.000	39,0	325,0	280.000	90,0	3,9	21,6	3,1	8	3,6	64.000	185	3"	62	4.800	2.190	1.400	1.110
TS 150	175,0	150.000	39,0	407,0	350.000	90,0	4,8	27,0	3,1	10	4,5	80.000	230	3"	64	5.880	2.190	1.400	1.350

- (1) - Standard electric alimention 400V-3Ph-50Hz - Special on request  
 (2) - With 5°C between ambient temperature and outlet water temperature  
 (3) - With 10°C between ambient temperature and outlet water temperature  
 (4) - Sound pressure level at 10 metres

**CAUTION** - Should temperature drop below 0 °C it will be necessary to introduce antifreeze mixture. - Guarantee won't be applied in the event of damages deriving from the freezing of the fluid into the system..

### COOLING CAPACITY DIAGRAM



### ADVANTAGES

**Reduced energy consumption:** working at its full capacity, the TS energy consumption is approximately 10 times lower than that of a traditional chillers. When the external temperature drops, such consumption reduces still further due to the automatic reduction of the fans revs.

**Automatic continuous adjustment:** the microprocessor keeps the working temperature steady (set-point) by the continuous reduction of the fans revs, thus removing the temperature swings and the startings, reaching moreover a precision at a tenth of degree.

**No water consumption:** as the TS thermoconvector is a closed system, the cooling water is always the same and, as a consequence, there are: no water consumption, no limestone deposits and no bacterial pollution, resulting in the best performance without any maintenance.

**Modularity:** such features, originated from an industrial patent already to Nova Frigo chillers, allows the coupling in series of units even of different capacity.

**Cheap installation and reliability:** the hydraulic system, the electric one of adjustment and control, the circulation pump are preassembled and tested for each single module.



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