



## Cooling Note Books

Turbocooler



Turbocooler Combi



Intercooler



Heat exchangers



TECNOLOGIA PER LA VITA  
  
 MACCHINE ENOLOGICHE SPA

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 **cadalpe**  
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# Cooling Cadalpe

**Cadalpe cooling:  
advantageous, up-to-date, reliable.**

The distinguishing feature of Cadalpe Spa on the national and international panorama is its commitment to constant research into technological innovation.

Our strength lies in our long experience and competence, which has made our company one of the most important in the sector. We specialize in designing wine processing machines that cover all aspects of production: cooling, filtering, heat exchange, stabilization, concentration and distillation.

Cadalpe Service, founded soon after the main company, meets the demand for tanks and fermenters for storage, conditioning and vinification. Cadalpe manufactures efficient avant garde machines that for years have made an important contribution to the evolution of the industry by constantly perfecting performance, adding exclusive elements often covered by international patents, and achieving new original solutions.

Characteristics of the company are customized design to meet all customers' requirements, the provision of an integral work cycle, from raw materials, selected and bought in directly, to assembly and the final approval testing stage, and the best quality: price ratio.

Our after-sales service, available throughout Italy and abroad, allows us to solve any problem promptly.

Cadalpe machines are at work all over the world: we export more than 50% of our production, to practically every country that grows grapes and produces good wine.

Even today the solutions Cadalpe has created and patented for its cooling units continue to represent the most advanced and sophisticated technology. Cooling units with potential from 10,000 to over 1,000,000 Kcal/hr work perfectly even in the most demanding conditions: the performance of our coolers is proverbial and customers have always preferred them for their safety and flexibility in operation.

Cadalpe is distinguished by its attention to the environment: low noise rating, use of refrigerating gas with low environmental impact, use of automatic gas leak detection systems, severe approval tests, objective performance testing and our ever-present high quality.



# Air-compact Turbocooler

# C6



# Air-compact Turbocooler

# C6

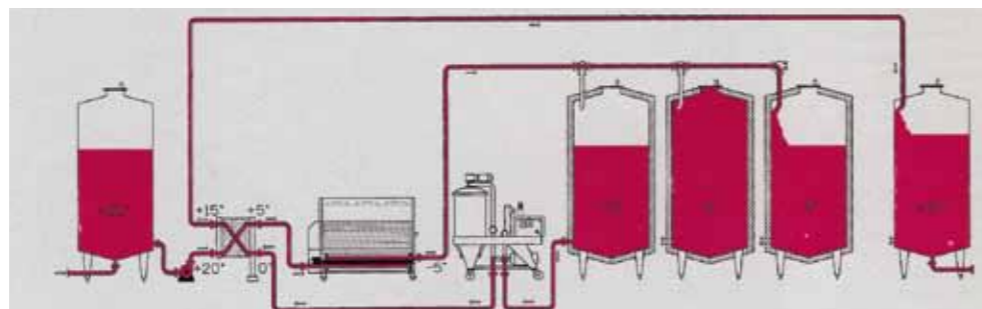


## Effective and versatile, grown out of vast experience

The design created and patented by Cadalpe for its C 6 Turbocooler unit remains the most advanced and sophisticated technology applied to oenology. Ideal for chilling must, juice and wine to freezing point, the C 6 is modular and can be combined in series of two or more units to meet the widest range of requirements.

It comes with motorized air condenser units with pairs of Scroll airtight compressors using environmentally friendly gas.

Especially economical to run, it also offers exceptional operating flexibility and excellent reliability even in the most demanding working conditions.



Model		20	30
Refrigerating gas	R404A	R404A	
Cooling capacity		Cond. +40° C	
from +3° to -5° C	Kcal/h	20.000	25.000
from +15° to -5° C	Kcal/h	22.000	30.000
from +20° to 0° C	Kcal/h	26.000	35.000
from +25° to +15° C	Kcal/h	36.000	50.000
Installed power	kW	19,5	25,5
<b>Dimensions</b>			
Length	mt	2,50	2,50
Width	mt	0,75	0,96
Height	mt	1,77	1,86
Net weight	Kg	700	920
Sound pressure level 1 m away	[dB(A)]	73	75

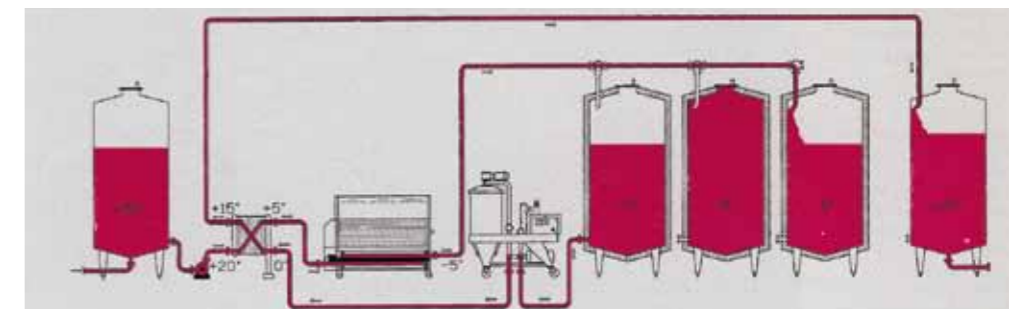


## Effective patented solutions

Exceptionally flexible in operation and extremely reliable even in the most demanding working conditions, this Air-compact Turbocooler is ideal for chilling must, juice and wine to freezing point.

The two versions available have different power ratings and capacity and are both modular to combine in two or more units.

Provided with motorized air condenser unit with semi-sealed compressor using R 404A environmentally friendly gas.



Model		45	60
Refrigerating gas	R404A	R404A	R404A
Cooling capacity		Cond. +40° C	
da +3° a -5° C	Kcal/h	41.000	52.000
da +15° a -5° C	Kcal/h	46.000	62.000
da +20° a 0° C	Kcal/h	58.000	78.000
da +25° a +15° C	Kcal/h	75.000	100.000
Installed power	kW	35	53
<b>Dimensions</b>			
Length	mt	3,65	3,65
Width	mt	0,95	0,95
Height	mt	2,04	2,04
Net weight	Kg	1.390	1.510
Sound pressure level 1 m away	[dB(A)]	75	75



## Air-compact Turbocooler

# C6

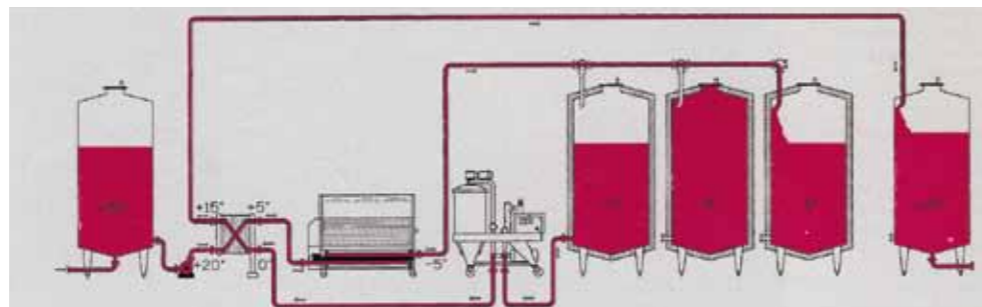


### High technology applied to oenology

The design created and patented by Cadalpe for its C 6 Turbocooler unit remains the most advanced and sophisticated cooling technology applied to oenology:

- ideal for chilling must, juice and wine to freezing point,
- on full production, one or two products can be treated simultaneously, either by direct passage or pumping over, with electronic stop system at the end of the cycle,
- provided with incorporated motorized air condenser units using R 404A environmentally friendly gas,
- exceptionally flexible in operation and highly reliable, even under the most demanding conditions.

Manufacturing standards coupled with top level finish are proof of a product in line with Cadalpe quality tradition.



Model		90T	120T
Refrigerating gas		R404A	R404A
Cooling capacity		Cond. +40° C	
from +3° to -5° C	Kcal/h	82.000	104.000
from +15° to -5° C	Kcal/h	92.000	124.000
from +20° to 0° C	Kcal/h	116.000	156.000
from +25° to +15° C	Kcal/h	150.000	200.000
Installed power	<b>kW</b>	<b>70</b>	<b>106</b>
<b>Dimensions</b>			
Length	mt	3,65	3,65
Width	mt	1,84	1,84
Height	mt	2,20	2,20
Net weight	<b>Kg</b>	<b>2.880</b>	<b>3.120</b>
Sound pressure level 1 m away	[dB(A)]	80	80



## Air-remote Turbocooler

# C6

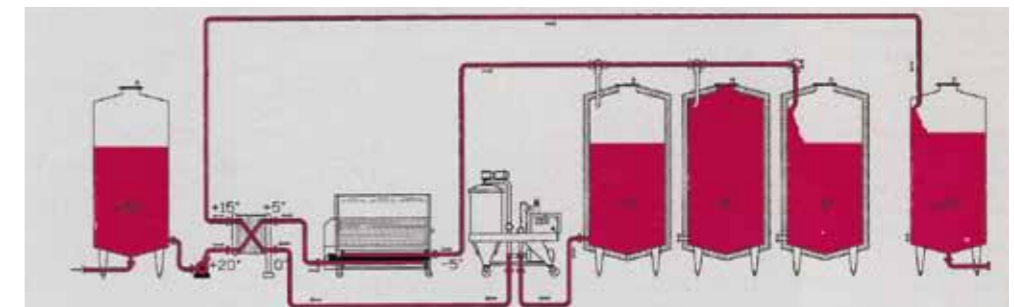


### Excellent flexibility and reliability

The patented Cadalpe C 6 Turbocooler unit remains the most advanced and sophisticated technology applied to oenology. Ideal for chilling must, juice and wine to freezing point, the C 6 is modular and can be combined in series of two or more units to meet the widest range of requirements.

It comes with remote controlled motorized air condenser unit with semi-sealed compressor using R 404A environmentally friendly gas.

Especially economical to run, it also offers exceptional operating flexibility and excellent reliability even in the most demanding working conditions.



Model		45	60
Refrigerating gas		R404A	R404A
Cooling capacity		Cond. +40° C	
from +3° to -5° C	Kcal/h	41.000	52.000
from +15° to -5° C	Kcal/h	46.000	62.000
from +20° to 0° C	Kcal/h	58.000	78.000
from +25° to +15° C	Kcal/h	75.000	100.000
Installed power	<b>kW</b>	<b>33</b>	<b>51</b>
<b>Dimensions</b>			
Length	mt	3,70	3,70
Width	mt	0,85	0,85
Height	mt	1,60	1,60
Scrapped cylinder net weight	<b>Kg</b>	<b>1.055</b>	<b>1.175</b>
Condenser net weight	<b>Kg</b>	<b>220</b>	<b>300</b>
Sound pressure level 1 m away	[dB(A)]	71	71



# Air-remote Turbocooler

# C6



# Combi Turbocooler

# C6



## High technology applied to oenology

The design created and patented by Cadalpe for its C 6 Turbocooler unit remains the most advanced and sophisticated cooling technology applied to oenology:

- ideal for chilling must, juice and wine to freezing point,
- on full production, one or two products can be treated simultaneously, either by direct passage or pumping over, with electronic stop system at the end of the cycle,
- provided with remote controlled motorized air condenser units using R 404A environmentally friendly gas,
- exceptionally flexible in operation and highly reliable, even under the most demanding conditions.

Manufacturing standards coupled with top level finish are proof of a product in line with Cadalpe quality tradition.



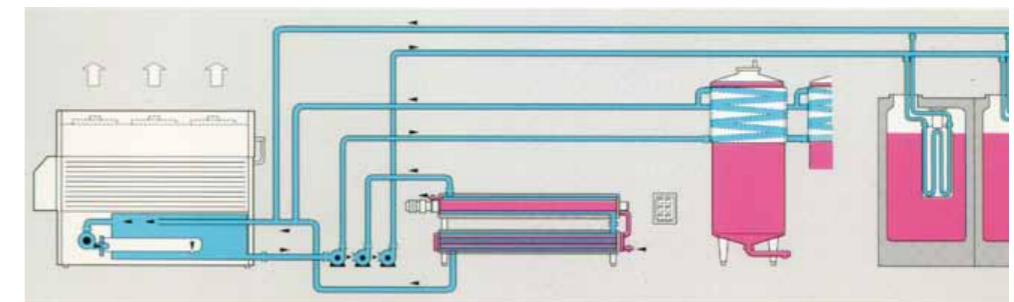
The unit is prepared to go into a soundproofed cabin.



## Ideal for small producers

The "Combi" air-compact Turbocooler with double cooler has been created and patented by our company.

Advanced technology is applied to cool the product directly using a scraped body or cooling liquid (glycol solution) and a suitably insulated brazed plate evaporator. This is a compact unit operating on R407C environmentally friendly gas with incorporated air condenser; it comes with paired Scroll airtight compressors and is exceptionally flexible in use, giving maximum reliability even in demanding conditions.



Model	90T	120T
Refrigerating gas	R404A	R404A
Cooling capacity	Cond. +40° C	
from +3° to -5° C	Kcal/h 82.000	104.000
from +15° to -5° C	Kcal/h 92.000	124.000
from +20° to 0° C	Kcal/h 116.000	156.000
from +25° to +15° C	Kcal/h 150.000	200.000
Installed power	kW 66	102
<b>Dimensions</b>		
Length	mt 3,70	3,70
Width	mt 2,05	2,05
Height	mt 1,60	1,60
Scraped cylinder net weight	Kg 2.110	2.350
Condenser net weight	Kg 440	600
Sound pressure level 1 m away	[dB(A)] 76	76



Model	20	30
Refrigerating gas	R404A	R404A
Cooling capacity	Cond. +40° C	
Wine		
from +15° to -5° C	Kcal/h 22.000	30.000
from +25° to +15° C	Kcal/h 36.000	50.000
Glycol		
from -3° to -8° C	Kcal/h 19.500	29.000
from +10° to +5° C	Kcal/h 28.500	40.500
Installed power	kW 19,5	25,5
<b>Dimensions</b>		
Length	mt 2,50	2,50
Width	mt 0,75	0,96
Height	mt 1,77	1,86
Net weight	Kg 740	970
Sound pressure level 1 m away	[dB(A)] 73	75



## Air-monobloc Intercooler

# C10



### Avant garde features and performance

Monobloc design, incorporated buffer tank and pump, safe silent operation, possibility for indoor installation are the main advantages of this Intercooler using environmentally friendly gas and air condensation.

It comes with Scroll airtight compressors of well-known make and oversize condensation unit to achieve  $\Delta t$  of 12°C between air and condensation temperatures, and dry expansion plate evaporator insulated with Neoprene padding.

It also has a wide range of accessories and automatic devices, with high pressure gas safety valve. The control panel provides integral control and regulation by micro processor, including display of operating conditions and alarm warnings.

On request all C 10 models can be supplied with a heat pump for the production of hot water.

Model		4	7	10	12
<b>Cooling capacity</b>		External air +30° C			
from +10° to +5° C	Kcal/h	8.600	16.300	23.000	27.500
from +5° to 0° C	Kcal/h	7.500	13.400	19.500	23.500
from -4° to -8° C	Kcal/h	5.400	9.200	14.000	16.600
<b>Max absorbed power</b>	<b>kW</b>	<b>4,6</b>	<b>8,4</b>	<b>9,3</b>	<b>14,4</b>
<b>Dimensions</b>					
Length	mt	0,95	1,51	1,51	1,51
Width	mt	0,45	0,55	0,55	0,55
Height	mt	1,43	1,39	1,89	1,89
<b>Net weight</b>	<b>Kg</b>	<b>175</b>	<b>298</b>	<b>378</b>	<b>383</b>
Sound pressure level 1 m away	[dB(A)]	58	65	65	65

## Air-monobloc Intercooler

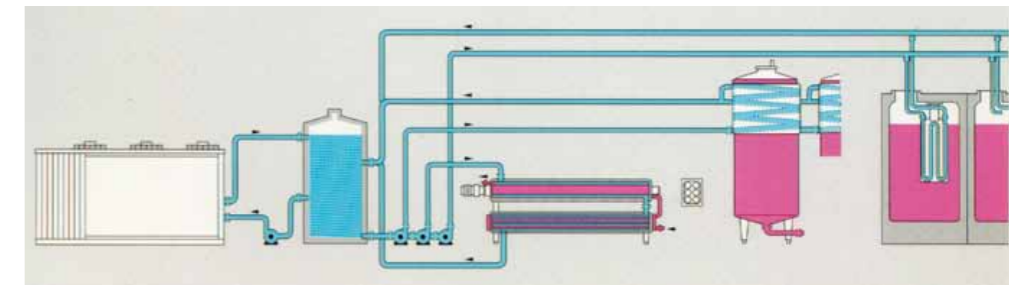
# C10



### Increased capacity and greater satisfaction

Greater cooling potential, the same exclusive features, and the same important advantages. Besides safe operation, the equipment provides high energy efficiency aimed at the most economical operation, especially with partial loads.

The C 10 Intercooler operating on environmentally friendly gas is suitable for installation outdoors and guarantees a high degree of reliability even in the most demanding conditions, due to the strict approval tests and objective performance testing. It can be employed when cold must be centralized and stored in order to serve a number of different outputs simultaneously, as shown in the diagram.



Model		15/d2	18/d2	25/d2	40/d2	50/d2
<b>Cooling capacity</b>		External air +30° C				
from +10° to +5° C	Kcal/h	33.000	38.800	49.700	84.000	103.000
from +5° to 0° C	Kcal/h	27.400	32.400	41.400	70.100	85.900
from -4° to -8° C	Kcal/h	18.800	22.500	28.600	49.000	57.200
<b>Max absorbed power</b>	<b>kW</b>	<b>19</b>	<b>21,2</b>	<b>27,4</b>	<b>46,1</b>	<b>57,3</b>
<b>Dimensions</b>						
Length	mt	1,70	1,70	1,70	2,75	3,25
Width	mt	1,12	1,12	1,12	1,12	1,12
Height	mt	1,42	1,42	1,42	1,42	1,62
<b>Net weight</b>	<b>Kg</b>	<b>370</b>	<b>410</b>	<b>420</b>	<b>730</b>	<b>940</b>
Sound pressure level 1 m away	[dB(A)]	71	71	71	74	76

## Air-monobloc Intercooler

# C10



### Extremely safe, highly effective

Its numerous advantages, which include monobloc design, low noise rating, safety in use, make these coolers favourites; they can also be easily installed outdoors.

The unit guarantees a high degree of reliability even in the most demanding working conditions, due to strict approval tests and objective performance testing.

It can be employed when cold must be centralized and stored in order to serve a number of different outputs simultaneously.

Load-bearing structure in galvanized sheet metal and external panels in Peraluman; compressor housing lined with sound-proofing open-cell material.

Comes with four highly efficient compressors of well-known make, condensation units with copper tubes and aluminium fins, complete with sub-cooling circuit; copper tube evaporator, with two independent cooling circuits, each of which complete with all the necessary components.

Control panel with microprocessor control and display of all functions.

Model		60/d4	80/d4	100/d4	110/d4	120/d4
<b>Cooling capacity</b>		<b>External air +30° C</b>				
from +10° to +5° C	Kcal/h	133.500	172.600	220.200	252.900	280.600
from +5° to 0° C	Kcal/h	110.900	142.500	184.000	209.300	232.500
from -4° to -8° C	Kcal/h	73.500	93.200	128.700	137.400	152.600
<b>Max absorbed power</b>	<b>kW</b>	<b>76</b>	<b>98</b>	<b>122</b>	<b>139</b>	<b>156</b>
<b>Dimensions</b>						
Length	mt	3,11	3,11	4,11	4,11	4,11
Width	mt	2,22	2,22	2,22	2,22	2,22
Height	mt	1,77	2,15	2,15	2,15	2,15
<b>Net weight</b>	<b>Kg</b>	<b>1.620</b>	<b>1.890</b>	<b>2.220</b>	<b>2.380</b>	<b>2.530</b>
Sound pressure level 10 m away	[dB(A)]	63	63	65	65	65

## Air-monobloc Intercooler

# C10

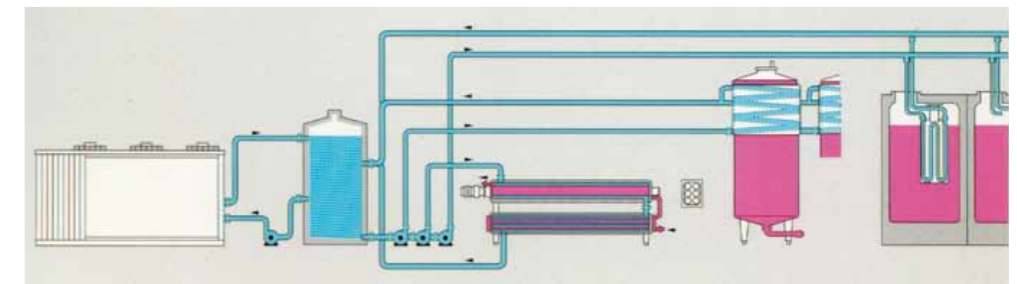


### A range of highly efficient machines

Ideal for centralizing and accumulating cold, the C 10 Intercooler is a monobloc; silent in operation and easily installed outdoors, it is very safe in use. Operating on environmentally friendly gas with air condensation, it comes with two or more highly efficient screw compressors of well-known make; condensation units with copper tubes and aluminium fins, complete with sub-cooling circuit; dry expansion evaporator with copper tubing in a steel shell, including two or more independent cooling circuits insulated with Armaflex padding and aluminium shell.

Load-bearing structure and external panels in painted galvanized sheet metal; compressor housing lined with sound-proofing open-cell material.

The unit guarantees a high degree of reliability even in the most demanding working conditions, due to the strict approval tests and objective performance testing.



Model		1960/d2	2640/d2	2700/d2	3600/d2	4200/d2	5000/d2
<b>Cooling capacity</b>		<b>External air +30° C</b>					
from +10° to +5° C	Kcal/h	323.600	423.400	513.200	671.300	774.200	954.200
from +5° to 0° C	Kcal/h	269.400	349.100	420.600	550.900	632.400	778.200
from -4° to -8° C	Kcal/h	182.900	234.400	271.800	333.300	406.800	496.900
<b>Max absorbed power</b>	<b>kW</b>	<b>177</b>	<b>241</b>	<b>269</b>	<b>359</b>	<b>403</b>	<b>487</b>
<b>Dimensions</b>							
Length	mt	4,61	5,61	4,90	5,80	7,00	8,50
Width	mt	2,22	2,22	2,26	2,26	2,26	2,26
Height	mt	2,42	2,43	2,43	2,43	2,43	2,43
<b>Net weight</b>	<b>Kg</b>	<b>4.100</b>	<b>5.340</b>	<b>6.030</b>	<b>7.810</b>	<b>8.750</b>	<b>11.210</b>
Sound pressure level 10 m away	[dB(A)]	65	67	67	69	70	71

# Heat exchangers

Unbeatable flexibility, effectiveness and safety perfected over the years.

Cadalpe Spa is particularly expert at designing and producing heat exchangers with renowned efficiency. The range, designed to meet all needs with special exclusive models, in some cases unique on the market, guarantees exceptional operating flexibility and maximum reliability even in the heaviest working conditions.

All in certified top quality stainless steel, our heat exchangers are particularly suitable for processing food products with low or medium viscosity, also with small suspended particles, such as wine, wine must, beer, fruit juice and dairy products.



## Heat Exchangers

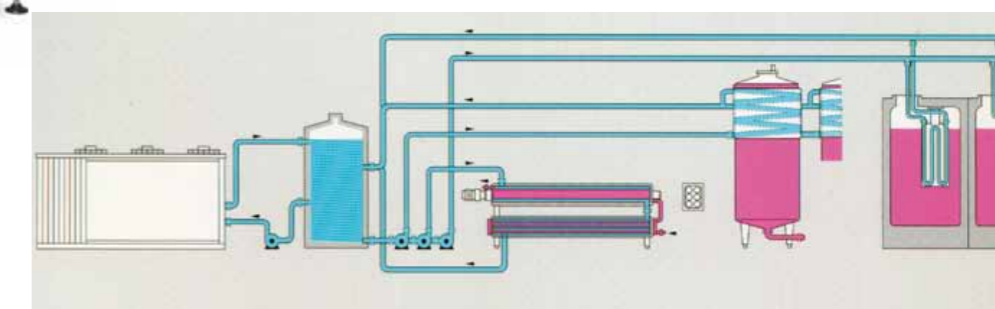
# C9



### The best solution for forced cooling

Scraped body heat exchanger with pre-stamped double sides for forced circulation of the cooling liquid. It provides an excellent solution to problems of forced refrigeration and is used when there is a need to reach a product temperature close to freezing point (preservation of juices and must - tartaric stabilization of wines).

Comprising two or more units to combine as required, it meets a wide range of needs with exceptional working flexibility and great reliability, even in the most demanding working conditions. All the components are in AISI 304 stainless steel, insulated with injected high density expanded polyurethane.



Model		1,5	4,5	9T
<b>Heat exchange capacity</b>				
from +25° to +10° C (Glycol +5)	Kcal/h	18.000	53.000	106.000
from +25° to 0° C (Glycol -5)	Kcal/h	23.000	69.000	138.000
from +15° to -5° C (Glycol -8)	Kcal/h	16.000	48.000	96.000
<b>Scraper power</b>	<b>KW</b>	<b>0,37</b>	<b>1,1</b>	<b>2,2</b>
<b>Dimensions</b>				
Length	mt	2,38	3,46	3,46
Width	mt	0,50	0,70	1,18
Height	mt	0,66	0,90	1,77
<b>Net weight</b>	<b>Kg</b>	<b>160</b>	<b>560</b>	<b>1.120</b>
Sound pressure level 1 m away	[dB(A)]	72	73	76



# Heat Exchangers

# C21



## Effective and safe

Our C 21 tube coil heat exchanger operates by counter flow with cooling or heating fluid and is the ideal solution for cooling unprocessed juice or must. The special shape of the labyrinth heads makes it possible to process must from normal pressing output, rich in suspended solids (skins and pips) without using a preliminary filter.

When combined with the C 9 scraped cylinder heat exchanger it solves the problems involved in forced cooling and can be used when product temperatures close to freezing point are required.

Entirely in AISI 304 stainless steel, it is built for a working pressure of 4 bar on the product side and 2 bar on the cooling or heating fluid side.

Minimum heat dispersion is ensured by effective insulation of the whole cylinder, by means of injected expanded polyurethane in a satin-finish stainless steel shell.

Model		1	2	3	4	5	6
<b>Exchange capacity with water at +5° C</b>							
Product from +25° C to +10° C	Kcal/h	45.000	90.000	135.000	180.000	225.000	270.000
Exchange surface	m <sup>2</sup>	10	20	30	40	50	60
<b>Dimensions</b>							
Length	mt	3,50	3,50	3,50	6,55	6,55	6,55
Width	mt	0,41	0,55	0,66	0,55	0,66	0,66
Height	mt	0,65	0,65	0,85	0,65	0,85	0,85
<b>Net weight</b>	<b>Kg</b>	<b>320</b>	<b>510</b>	<b>730</b>	<b>850</b>	<b>1.100</b>	<b>1.250</b>

# Helicoid Monotube

# C24



## Unique exclusive features

Operating by counter flow of cooling or heating fluids, this equipment has exceptionally high heat exchange due to the special corrugated profile of the two concentric stainless steel tubes. This provides a considerably reduced exchange surface, compared to conventional tubular heat exchangers with smooth tubes.

Performance and applications are multiple and original. This is the only tubular heat exchanger for the homogeneous cooling or heating of crushed de-stemmed grapes, with or without stalks, fruit pulp, or other products with suspended solids or fibres (up to 25-30%).

It is therefore ideal for:

- in-line cooling to 15°C of crushed de-stemmed white grapes to stop fermentation before pressing;
- immediate blast chilling to 25°C of crushed red grapes;
- heat regulation by recycling of crushed red grapes during maceration-fermentation.

Entirely in AISI 304 stainless steel.

On request, can be supplied with efficient insulation in injected expanded polyurethane and steel shell.



Model		50/6	65/6	80/6	80/8	100/10	100/14
<b>Exchanger capacity</b>							
<b>Glycol from +5° C to +10° C</b>							
Mash from +25° to +15° C	Kcal/h	-	76.000	122.000	182.000	270.000	414.000
Must from +25° to +15° C	Kcal/h	74.000	85.000	138.000	270.000	395.000	-
<b>Dimensions</b>							
Length	mt	6,22	6,28	6,32	6,32	6,40	6,40
Width	mt	0,55	0,66	0,66	0,66	0,69	0,69
Height	mt	0,76	1,00	1,10	1,28	1,95	2,52
<b>Net weight</b>	<b>Kg</b>	<b>300</b>	<b>450</b>	<b>500</b>	<b>690</b>	<b>1.200</b>	<b>1.800</b>

