nVent | HOFFMAN

We connect and protect

Industrial Chiller Range

High-precision and high-energy efficiency industrial chillers

nVent.com/HOFFMAN

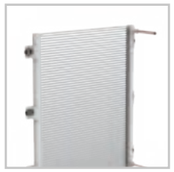
At The Heart of Technology

There are numerous reasons to choose nVent HOFFMAN cooling systems

An attention to detail, a huge range of optional accessories and impressive reliability are the key characteristics which set nVent HOFFMAN chillers apart.

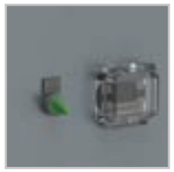
EC FANS

The entire standard chiller range can be provided with electronically commutated EC fans that ensure extremely high performance levels and low energy use.



MICROCHANNEL CONDENSERS

The standard chiller range was developed with the use of all-aluminium microchannel condensers, a technology that maximises efficiency and reduces the amount of refrigerant.



FLEXIBILITY

The standard chiller range is designed for over 40 configuration options, whether UL-certified electrical cabinet or stainless steel framework. We ensure customers maximum flexibility and customisation capabilities for the required solution.

SIMPLE AND COMPACT LAYOUT

The standard chiller range has been designed with a small footprint. By utilizing vertical space, it leaves customers more space for their application

COOLING PRECISION

Our experience in high-precision applications has led us to develop two kits, mainly created for laser applications, where a precision of ±1°F (±0.5°C) can be achieved.

NON-FERROUS LIQUID CIRCUIT (STAINLESS STEEL AND BRASS)

All the liquid circuits of our industrial chillers are equipped as standard with pumps, unions and collection tanks in materials not subject to corrosion, primarily stainless steel and brass. This allows us to guarantee the maximum cleanliness and protection of your cooling circuits.

TCW – TAL

Industrial water chillers

TCW-TAL water chillers provide precision and reliability in a compact and modular design. With outputs from 3,200 to 457,200 BTU/hr (900 W to 134 kW), there are a variety of options to meet a wide range of application requirements. The large range of accessories allows multiple chiller configurations.

Table of Contents

TCW08–19 Minichiller

Industrial water chillers

COOLING CAPACITY
900-1100 – 1600-1900 – 2200-2550 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic reciprocating compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, expansion valve, high and low pressure safety pressure switch, R134a refrigerant.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Finned high-efficiency copper tube condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with electrical protection and safety grille.

LIQUID CIRCUIT

Liquid circuit composed entirely of non-ferrous material in contact with the liquid to prevent contamination. Standard liquid circuit with open reservoir and pump, protective flow switch, pressure gauge, regulation sensor. Peripheral electric pump with 4.5 bar available head. Plastic storage tank complete with drain valve and visual level indicator.

ELECTRICAL PANEL

With main breaker, fused motor protection with LED visual fault indicator, voltage presence light.

MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or liquid circuit. An on-off contact allows the machine to be switched on remotely. Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

BM – Manual bypass valve protecting the pump

LE – Level indicator

LTA – Operation at low ambient temperatures

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

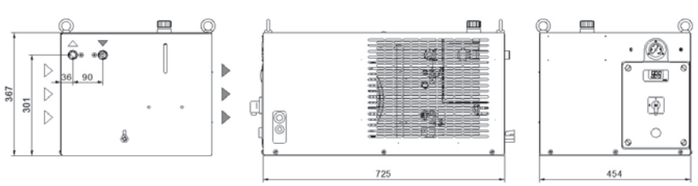
BGC – Hot gas bypass for +/ – 1 K temperature precision

LS – Liquid circuit for laser application

– HIGH-pressure pump

– Satin AISI 304 stainless steel framework

DIMENSIONS



TCW08–19 Minichiller

Industrial water chillers

Model	(Metric)	TCW08		TCW12		TCW19	
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	900	1100	1600	1900	2200	2550
Ambient temperature operating limits	°C	+15 – +45					
Settable fluid temperature range	°C	+8 – +25					
Fluid type		Water					
Temperature precision	K	+/–2					
Refrigerant gas	HFC	R134a					
Power supply							
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz					
Secondary supply voltage	V	230					
Digital thermostat		TX110					
Compressor							
Compressor type		Reciprocating					
Quantity – Number of circuits	no.	1 – 1					
Axial Fan							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	m^3/h	1000		1000		1000	
Max. power draw	W	150	190	150	190	150	190
Standard Pump							
Pump type		Peripheral					
Nominal/max fluid flow rate	l/min	3.0 – 20.0		5.0 – 20.0		6.5 – 20.0	
Nominal available head	bar	5.4	7.6	4.6	6.7	4	6
High-Presure Pump (optional)							
Pump type		Peripheral					
Quantity	no.	1		1		1	
Nominal available head	bar	6.5	8.4	6	7.9	5.8	7.6
Storage tank capacity	l	10					
IN/OUT liquid connections	in	1/2"					
Net weight	kg	52		54		55	
Width – Depth – Height	mm	725 – 454 – 367					
Sound pressure level**	dB(A)	56		56		56	

* Data relating to operation under the following conditions: intake/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

Correction factors for calculating the cooling power (Metric)													
Water outlet temperature	Fw	°C					8	10	**15**	20	25		
		factor					0.86	0.92	**1**	1.05	1.12		
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45
		factor					1.16	1.1	1.05	**1**	0.97	0.91	0.84
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.99	0.98	0.97	0.96	0.94	0.92	0.89			
Cooling power = Nominal cooling power x Fw x Fa x Fg													

TCW08–19 Minichiller

Industrial water chillers

Model	(Imperial)	TCW08		TCW12		TCW19	
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	3070	3750	5460	6480	7500	8700
Ambient temperature operating limits	°F	+59 – +113					
Settable fluid temperature range	°F	+46 – +77					
Fluid type		Water					
Temperature precision	°F	+/–3.6					
Refrigerant gas	HFC	R134a					
Power supply							
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz					
Secondary supply voltage	V	230					
Digital thermostat		TX110					
Compressor							
Compressor type		Reciprocating					
Quantity – Number of circuits	no.	1 – 1					
Axial Fan							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	cfm	235		235		235	
Max. power draw	W	150	190	150	190	150	190
Standard Pump							
Pump type		Peripheral					
Nominal/max fluid flow rate	gpm	0.8 – 5.3		1.3 – 5.3		1.7 – 5.3	
Nominal available head	psi	78	110	66	97	58	87
High-Presure Pump (optional)							
Pump type		Peripheral					
Quantity	no.	1		1		1	
Nominal available head	psi	94	122	87	114	84	110
Storage tank capacity	gal	2.64					
IN/OUT liquid connections	in	1/2					
Net weight	lbs	114		119		121	
Width – Depth – Height	in	28.5 – 17.9 – 14.4					
Sound pressure level**	dB(A)	56		56		56	

* Data relating to operation under the following conditions: intake/outlet temperature 68/59°F, water without glycol, ambient temperature 90°F. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

Correction factors for calculating the cooling power (Imperial)													
Water outlet temperature	Fw	°F					40	50	**59**	68	77		
		factor					0.86	0.92	**1**	1.05	1.12		
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113
		factor					1.16	1.1	1.05	**1**	0.97	0.91	0.84
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.99	0.98	0.97	0.96	0.94	0.92	0.89			
Cooling power = Nominal cooling power x Fw x Fa x Fg													

TCW31–41 Minichiller HP

Industrial water chillers

COOLING CAPACITY
3000-3450 – 3900 – 4450 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic reciprocating compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, expansion valve, high – and low-pressure safety pressure switch, thermostatic valve. R134a refrigerant.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Finned high-efficiency copper tube condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with electrical protection and safety grille.

LIQUID CIRCUIT

Liquid circuit composed entirely of non-ferrous material in contact with the liquid to prevent contamination. Standard liquid circuit with open reservoir and pump, protective flow switch, pressure gauge, regulation sensor. Peripheral electric pump with 4.5 bar available head. Plastic storage tank complete with drain valve and visual level indicator.

ELECTRICAL PANEL

With main breaker, fused motor protection with LED visual fault indicator, voltage presence light.

MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or liquid circuit. An on-off contact allows the machine to be switched on remotely. Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

BM – Manual bypass valve protecting the pump

LE – Electrical level indicator

LTA – Operation at low ambient temperatures

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

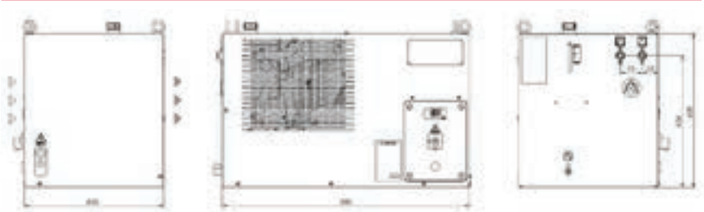
BGC – Hot gas bypass for +/ – 1 K temperature precision

– HIGH-pressure pump

– Non-standard paint/coating

– Satin AISI 304 stainless steel framework

DIMENSIONS



TCW31–41 Minichiller HP

Industrial water chillers

Model	(Metric)	TCW31		TCW41	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	3000	3450	3900	4450
Ambient temperature operating limits	°C	+15 – +45			
Settable fluid temperature range	°C	+8 – +25			
Fluid type		Water			
Temperature precision	K	+/–2			
Refrigerant gas	HFC	R134a			
Power supply					
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	230			
Digital thermostat		TX110			
Compressor					
Compressor type		Reciprocating			
Quantity – Number of circuits	no.	1 – 1			
Max. power draw	kW	1.15	1.5	1.6	1.92
Max. current draw	A	6.1	8.1	7.2	8.4
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	m^3/h	2300	2650	2300	2650
Max. power draw	W	180	250	180	250
Max. current draw	A	0.81	1.1	0.81	1.1
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal/max fluid flow rate	l/min	6.5 – 20		11 – 20	
Nominal available head	bar	4	6	2.8	4.0
Available power draw	kW	0.75	0.75	0.75	0.75
Max. current draw	A	2.8	3.7	2.8	3.7
High-Presure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal available head	bar	5.8	7.6	4.9	6.6
Max. power draw	kW	1.29	1.29	1.29	1.29
Max. current draw	A	5	6	5	6
Storage tank capacity	l	10			
IN/OUT liquid connections	in	1/2"			
Net weight (approximate)***	kg	74		75	
Width – Depth – Height	mm	800 – 450 – 495			
Sound pressure level**	dB(A)	57	60	57	60
IP rating	IP	44			

* Data relating to operation under the following conditions: intake/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans. The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	**15**	20	25		
		factor				0.86	0.92	**1**	1.05	1.12		
Ambient temperature	Fa	°C				15	20	25	**32**	35	40	45
		factor				1.16	1.1	1.05	**1**	0.97	0.91	0.84
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40		
		factor	**1**	0.99	0.98	0.97	0.96	0.94	0.92	0.89		
Cooling power = Nominal cooling power x Fw x Fa x Fg												

TCW31–41 Minichiller HP

Industrial water chillers

Model	(Imperial)	TCW31		TCW41	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	10230	11770	13310	15180
Ambient temperature operating limits	°F	+59 – +113			
Settable fluid temperature range	°F	+46 – +77			
Fluid type		Water			
Temperature precision	°F	+/–3.6			
Refrigerant gas	HFC	R134a			
Power supply					
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	230			
Digital thermostat		TX110			
Compressor					
Compressor type		Reciprocating			
Quantity – Number of circuits	no.	1 – 1			
Max. power draw	kW	1.15	1.5	1.6	1.92
Max. current draw	A	6.1	8.1	7.2	8.4
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	cfm	1350	1560	1350	1560
Max. power draw	W	180	250	180	250
Max. current draw	A	0.81	1.1	0.81	1.1
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal/max fluid flow rate	gpm	1.7 – 5.3		2.9 – 5.3	
Nominal available head	psi	58	87	40	58
Available power draw	kW	0.75	0.75	0.75	0.75
Max. current draw	A	2.8	3.7	2.8	3.7
High-Presure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal available head	psi	84	110	71	96
Max. power draw	kW	1.29	1.29	1.29	1.29
Max. current draw	A	5	6	5	6
Storage tank capacity	gal	2.64			
IN/OUT liquid connections	in	1/2"			
Net weight (approximate)***	lbs	163		165	
Width – Depth – Height	in	31.5 – 17.7 – 19.5			
Sound pressure level**	dB(A)	57	60	57	60
IP rating	IP	44			

* Data relating to operation under the following conditions: intake/outlet temperature 68/59°F, water without glycol, ambient temperature 90°F. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans. The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)												
Water outlet temperature	Fw	°F				46	50	**59**	68	77		
		factor				0.86	0.92	**1**	1.05	1.12		
Ambient temperature	Fa	°F				59	68	77	**90**	95	104	113
		factor				1.16	1.1	1.05	**1**	0.97	0.91	0.84
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40		
		factor	**1**	0.99	0.98	0.97	0.96	0.94	0.92	0.89		
Cooling power = Nominal cooling power x Fw x Fa x Fg												

TAL24–37 Size 1

Industrial water chillers

COOLING CAPACITY
2300-2700 – 3600 – 4200 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic reciprocating compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, expansion valve, high-pressure pressure switch, R134a refrigerant.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of peripheral electric pump, storage tank made of plastic material complete with integrated visual level indicator, pressure gauge, protective flow switch, regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, fused motor protection.

MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or liquid circuit. An on-off contact allows the machine to be switched on remotely (pump included). Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

LTA – Operation at low ambient temperatures

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

BGC – Hot gas bypass for +/ – 1 K temperature precision

BGP – Hot gas bypass for +/ – 0.5 K temperature precision

LS – Liquid circuit for laser application

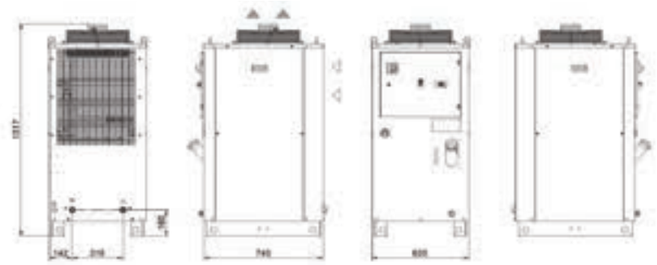
UL1 – Electrical panel and UL-certified components

LTW – Water temperature range –10/+5°C

– HIGH-pressure pump version "H" – 5 bar, version "R" – 7 bar.

– Outdoor installation options

DIMENSIONS



TAL24–37 Size 1

Industrial water chillers

Model	(Metric)	TAL24		TAL37	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	2300	2700	3600	4200
Ambient temperature operating limits	°C	+15 – +45			
Settable fluid temperature range	°C	+8 – +25			
Fluid type		Water			
Temperature precision	K	+/–2			
Refrigerant gas	HFC	R134a			
Power supply					
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	230 V AC			
Digital thermostat		TX110			
Compressor					
Compressor type		Reciprocating			
Quantity – Number of circuits	no.	1 – 1			
Nominal power draw	kW	0.84	1.04	1.16	1.5
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	m^3/h	1250 – 1650		1550 – 2050	
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	m^3/h	2100 – 2400		2100 – 2400	
Available head	Pa	250			
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	7 – 18		10 – 18	
Nominal available head	bar	3.8	5.8	3.1	4.5
High-Presure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1			
Nominal available head	bar	5.6	7.5	5	6.8
Storage tank capacity	l	50			
IN/OUT liquid connections	in	3/4"			
Net weight (approximate)***	kg	151		153	
Width – Depth – Height	mm	600 – 740 – 1317			
Sound pressure level**	dB(A)	57	60	57	60

* Data relates to operation under the following conditions: inlet/outlet temp. 20/15°C, water without glycol, ambient temperature 32°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)

Water outlet temperature	Fw	°C					8	10	**15**	20	25		
		factor					0.69	0.77	**1**	1.22	1.44		
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45
		factor					1.26	1.2	1.11	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg

*4200 W is the maximum achievable cooling capacity for Size 1 single phase chillers.

TAL24–37 Size 1

Industrial water chillers

Model	(Imperial)	TAL24		TAL37	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	7850	9210	12280	14330
Ambient temperature operating limits	°F	+59 – +113			
Settable fluid temperature range	°F	+46 – +77			
Fluid type		Water			
Temperature precision	°F	+/–3.6			
Refrigerant gas	HFC	R134a			
Power supply					
Supply voltage	V ph Hz	230 V (+/–10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	230 V AC			
Digital thermostat		TX110			
Compressor					
Compressor type		Reciprocating			
Quantity – Number of circuits	no.	1 – 1			
Nominal power draw	kW	0.84	1.04	1.16	1.5
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	cfm	735 – 970		910 – 1200	
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	cfm	1230 – 1410		1410	
Available head	psi	0.036			
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	1.8 – 4.8		2.6 – 4.8	
Nominal available head	psi	55	84	45	65
High-Presure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1			
Nominal available head	psi	81	109	73	99
Storage tank capacity	gal	13.2			
IN/OUT liquid connections	in	3/4"			
Net weight (approximate)***	lbs	332		337	
Width – Depth – Height	in	23.6 – 29.1 – 51.9			
Sound pressure level**	dB(A)	57	60	57	60

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.
** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.
*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.
The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)												
Water outlet temperature	Fw	°F					46	50	**59**	68	77	
		factor					0.69	0.77	**1**	1.22	1.44	
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113
		factor					1.26	1.2	1.11	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg
*14.300 BTU/hr is the maximum achievable cooling capacity.

TAL29–A0 Size 1 Three-phase

Industrial water chillers

COOLING CAPACITY
2900 – 3600 – 4550 – 6000
8100 – 9550 – 10900 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPOSITOR
Hermetic Reciprocating or Scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, expansion or thermostatic valve, high-pressure pressure switch, R134a refrigerant.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of centrifugal electric pump, storage tank made of plastic material complete with integrated visual level indicator, bar pressure gauge, protective flow switch, regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or liquid circuit. An on-off contact allows the machine to be switched on remotely (pump included). Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

LTA – Operation at low ambient temperatures

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

BGC – Hot gas bypass for +/ – 1 K temperature precision

BGP – Hot gas bypass for +/ – 0.5 K temperature precision

LS – Liquid circuit for laser application

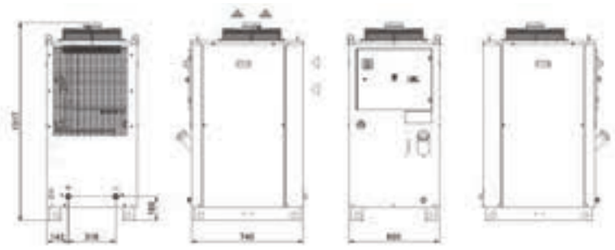
UL1 – Electrical panel and UL-certified components

LTW – Water temperature range –10/+5°C

– HIGH-pressure pump version "H" – 5 bar, version "R" – 7 bar.

– Outdoor installation options

DIMENSIONS



TAL29–A0 Size 1 Three-phase

Industrial water chillers

Model	(Metric)	TAL29	TAL37	TAL46	TAL57	TAL76	TAL93	TALA0
Rated Cooling Capacity*	W	2900	3600	4550	6000	8100	9550	10900
Ambient temperature operating limits	°C	+15 – +45						
Settable fluid temperature range	°C	+8 – +25						
Fluid type		Water						
Temperature precision	K	+/–2						
Refrigerant gas	HFC	R134a						
Power supply								
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz						
Secondary supply voltage	V	230 V AC						
Digital thermostat		TX110						
Compressor								
Compressor type		Reciprocating				Scroll		
Quantity – Number of circuits	no.	1 – 1						
Nominal power draw	kW	0.78	1.16	1.42	2.42	2.21	2.60	2.73
Axial Fan								
Fan type		Axial						
Quantity	no.	1						
Air flow rate	m³/h	1550	1550	1800	1800	3150	3350	4400
Centrifugal Fan (optional)								
Fan type		Centrifugal						
Quantity	no.	1						
Air flow rate	m³/h	2100 – 2400						
Available head	Pa	250						
Standard Pump								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal/max fluid flow rate	l/min	8 – 40	10 – 40	12.5 – 40	16 – 40	21 – 70	26 – 70	31.5 – 70
Nominal available head	bar	3	2.9	2.8	2.7	3.1	3	2.8
High-Presure Pump (optional)								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal available head	bar	5.1	4.9	4.8	4.6	5.5	5.3	5.1
Storage tank capacity	l	50						
IN/OUT liquid connections	in	3/4"						
Net weight (approximate)***	kg	151	153	155	160	165	170	175
Width – Depth – Height	mm	600 – 740 – 1317						
Sound pressure level**	dB(A)	57						

* Data relates to operation under the following conditions: inlet/outlet temp. 20/15°C, water without glycol, ambient temperature 32°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	**15**	20	25		
		factor				0.69	0.77	**1**	1.22	1.44		
Ambient temperature	Fa	°C				15	20	25	**32**	35	40	45
		factor				1.26	1.2	1.11	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40		
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88		

Cooling power = Nominal cooling power x Fw x Fa x Fg

*10.900 W is the maximum achievable cooling capacity for Size 1 three phase chillers.

TAL29–A0 Size 1 Three-phase

Industrial water chillers

Model	(Imperial)	TAL29	TAL37	TAL46	TAL57	TAL76	TAL93	TALA0
Rated Cooling Capacity*	BTU/hr	9900	12300	15500	20500	27600	32600	37200
Ambient temperature operating limits	°F	+59 – +113						
Settable fluid temperature range	°F	+46 – +77						
Fluid type		Water						
Temperature precision	°F	+/–3.6						
Refrigerant gas	HFC	R134a						
Power supply								
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz						
Secondary supply voltage	V	230 V AC						
Digital thermostat		TX110						
Compressor								
Compressor type		Reciprocating				Scroll		
Quantity – Number of circuits	no.	1 – 1						
Nominal power draw	kW	0.78	1.16	1.42	2.42	2.21	2.60	2.73
Axial Fan								
Fan type		Axial						
Quantity	no.	1						
Air flow rate	cfm	910	910	1060	1060	1850	1970	2590
Centrifugal Fan (optional)								
Fan type		Centrifugal						
Quantity	no.	1						
Air flow rate	cfm	1230 – 1410						
Available head	in. H_2O	1						
Standard Pump								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal/max fluid flow rate	gpm	2.1 – 10.5	2.6 – 10.5	3.3 – 10.5	4.2 – 10.5	5.5 – 18.5	6.8 – 18.5	8.3 – 18.5
Nominal available head	psi	43	42	40	39	45	43	40
High-Presure Pump (optional)								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal available head	psi	74	71	70	67	80	77	74
Storage tank capacity	gal	13.2						
IN/OUT liquid connections	in	3/4"						
Net weight (approximate)***	lbs	333	337	342	353	364	375	386
Width – Depth – Height	in	23.6 – 29.1 – 51.9						
Sound pressure level**	dB(A)	57						

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)												
Water outlet temperature	Fw	°F				46	50	**59**	68	77		
		factor				0.69	0.77	**1**	1.22	1.44		
Ambient temperature	Fa	°F				59	68	77	**90**	95	104	113
		factor				1.26	1.2	1.11	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40		
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88		

Cooling power = Nominal cooling power x Fw x Fa x Fg

*37.200 BTU/hr is the maximum achievable cooling capacity for Size 1 three phase chillers.

TALA1–A8 Size 2

Industrial water chillers

COOLING CAPACITY
11400 – 20100 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, liquid receiver, drier filter, thermostatic valve, high – and low-pressure switch.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of stainless steel centrifugal electric pump, storage tank made of plastic material complete with integrated visual level indicator, electrical level indicator, pressure gauge, differential pressure switch protecting the water flow, regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL

THE TX200 control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

FL – Flow switch with alarm contact

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

BGC – Hot gas bypass for +/ – 1 K temperature precision

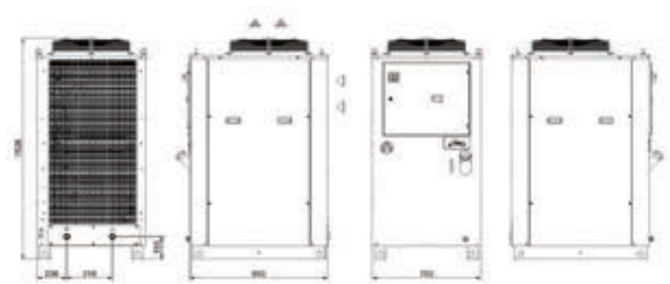
LS – Liquid circuit for laser application

HP/HS – Harting-type connector

– HIGH-pressure pump version “H” – 5 bar, version “R” – 7 bar

– Outdoor installation options

DIMENSIONS



TALA1–A8 Size 2

Industrial water chillers

Model	(Metric)	TALA1	TALA3	TALA5	TALA8
Rated Cooling Capacity*	W	11400	12400	17800	20100
Ambient temperature operating limits	°C	+15 – +45			
Settable fluid temperature range	°C	+8 – +25			
Fluid type		Water			
Temperature precision	K	+/–2			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz			
Secondary supply voltage	V	24 V AC			
Digital thermostat		TX200			
Compressor					
Compressor type		Scroll			
Quantity – Number of circuits	no.	1 – 1			
Nominal power draw	kW	3.03	3.12	4.08	4.91
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	m³/h	6500	6500	6500	6500
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	m³/h	6500	6500	6500	6500
Available head	Pa	250			
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	31 – 70	35 – 70	50 – 70	58 – 70
Nominal available head	bar	3.7	3.5	2.8	2.5
High-Presure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	bar	5.2	5	5	4.2
Storage tank capacity	l	130			
IN/OUT liquid connections	in	1"			
Net weight (approximate)***	kg	200	200	235	235
Width – Depth – Height	mm	750 – 950 – 1526			
Sound pressure level**	dB(A)	67			

* Data relates to operation under the following conditions: inlet/outlet temp. 20/15°C, water without glycol, ambient temperature 32°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)													
Water outlet temperature	Fw	°C					8	10	**15**	20	25		
		factor					0.76	0.82	**1**	1.22	1.43		
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45
		factor					1.26	1.2	1.12	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg

*20.100 W is the maximum achievable cooling capacity for Size 2 chillers.

TALA1–A8 Size 2

Industrial water chillers

Model	(Metric)	TALA1	TALA3	TALA5	TALA8
Rated Cooling Capacity*	BTU/hr	38900	42300	60700	68600
Ambient temperature operating limits	°F	+59–+113			
Settable fluid temperature range	°F	+46–+77			
Fluid type		Water			
Temperature precision	°F	+/–3.6			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz			
Secondary supply voltage	V	24 V AC			
Digital thermostat		TX200			
Compressor					
Compressor type		Scroll			
Quantity – Number of circuits	no.	1 – 1			
Nominal power draw	kW	3.03	3.12	4.08	4.91
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	cfm	3820	3820	3820	3820
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	cfm	3820	3820	3820	3820
Available head	in. H_2O	1			
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	8.2 – 18.5	9.2 – 18.5	13.2 – 18.5	15.3 – 18.5
Nominal available head	psi	54	51	41	36
High-Presure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	psi	75	72	72	61
Storage tank capacity	gal	34.3			
IN/OUT liquid connections	in	1"			
Net weight (approximate)***	lbs	441	441	518	518
Width – Depth – Height	in	29.5 – 37.4 – 60.1			
Sound pressure level**	dB(A)	67			

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)													
Water outlet temperature	Fw	°F					46	50	**59**	68	77		
		factor					0.76	0.82	**1**	1.22	1.43		
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113
		factor					1.26	1.2	1.12	**1**	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			
Cooling power = Nominal cooling power x Fw x Fa x Fg													
*68.600 BTU/hr is the maximum achievable cooling capacity for Size 2 Chillers.													

TALB5–C5 Size 3

Industrial water chillers

COOLING CAPACITY
24800 – 29000 – 35800 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, liquid receiver, drier filter, thermostatic valve, high – and low-pressure pressure switch, R410A refrigerant.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of stainless steel centrifugal electric pump, storage tank made of plastic material complete with integrated visual level indicator, electrical level indicator, bar pressure gauge, differential pressure switch protecting the water flow, automatic by-pass and regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL

The TX200 control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA – Mechanical bypass valve protecting the pump

FL – Flow switch with alarm contact

FP – Polyurethane air filter

RU – Castors

TD – Differential fluid temperature management (two sensors)

BGC – Hot gas bypass for +/ – 1 K temperature precision

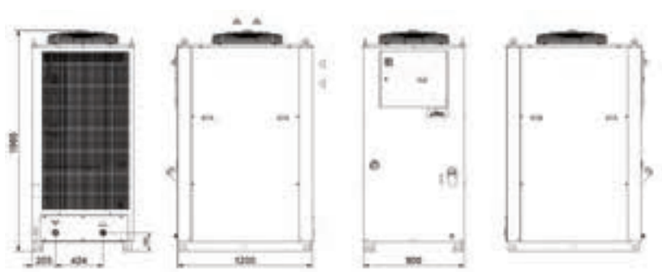
LS – Liquid circuit for laser application

HP/HS – Harting-type connector

– HIGH-pressure pump version “H” – 5 bar, version “R” – 7 bar.

– Outdoor installation options

DIMENSIONS



TALB5–C5 Size 3

Industrial water chillers

Model	(Metric)	TALB5	TALB9	TALC5
Rated Cooling Capacity*	W	24800	29000	35800
Ambient temperature operating limits	°C	+15 – +45		
Settable fluid temperature range	°C	+8 – +25		
Fluid type		Water		
Temperature precision	K	+/–2		
Refrigerant gas	HFC	R410A		
Power supply				
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz		
Secondary supply voltage	V	24 V AC		
Digital thermostat		TX200		
Compressor				
Compressor type		Scroll		
Quantity – Number of circuits	no.	1 – 1		
Nominal power draw	kW	6.4	7.4	8.6
Axial Fan				
Fan type		Axial		
Quantity	no.	1		
Air flow rate	m^3/h	8300	9700	11500
Centrifugal Fan (optional)				
Fan type		Centrifugal		
Quantity	no.	1		
Air flow rate	m^3/h	8300	9700	11500
Available head	Pa	370	180	100
Standard Pump				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal/max fluid flow rate	l/min	79 – 150	92 – 150	100 – 150
Nominal available head	bar	3.5	3.2	3.0
High-Presure Pump (optional)				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal available head	bar	5.4	5.1	4.9
Storage tank capacity	l	130		
IN/OUT liquid connections	in	1 1/2"		
Net weight (approximate)***	kg	260	260	260
Width – Depth – Height	mm	900 – 1200 – 1965		
Sound pressure level**	dB(A)	67		

* Data relates to operation under the following conditions: inlet/outlet temp. 20/15°C, water without glycol, ambient temperature 32°C.
** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.
*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.
The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)

Water outlet temperature	Fw	°C					8	10	**15**	20	25		
		factor					0.79	0.84	**1**	1.18	1.37		
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45
		factor					1.25	1.2	1.09	**1**	0.97	0.91	0.87
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg
*35.800 W is the maximum achievable cooling capacity for Size 3 chillers.

TALB5–C5 Size 3

Industrial water chillers

Model	(Imperial)	TALB5	TALB9	TALC5
Rated Cooling Capacity*	BTU/hr	84600	99000	122100
Ambient temperature operating limits	°F	+59 – +113		
Settable fluid temperature range	°F	+46 – +77		
Fluid type		Water		
Temperature precision	°F	+/–3.6		
Refrigerant gas	HFC	R410A		
Power supply				
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz		
Secondary supply voltage	V	24 V AC		
Digital thermostat		TX200		
Compressor				
Compressor type		Scroll		
Quantity – Number of circuits	no.	1 – 1		
Nominal power draw	kW	6.4	7.4	8.6
Axial Fan				
Fan type		Axial		
Quantity	no.	1		
Air flow rate	cfm	4880	5710	6770
Centrifugal Fan (optional)				
Fan type		Centrifugal		
Quantity	no.	1		
Air flow rate	cfm	4880	5710	6770
Available head	in. H_2O	1.5	0.7	0.4
Standard Pump				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal/max fluid flow rate	gpm	20.1 – 39.6	24.3 – 39.6	26.4 – 39.6
Nominal available head	psi	51	46	44
High-Presure Pump (optional)				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal available head	psi	78	74	71
Storage tank capacity	gal	34.3		
IN/OUT liquid connections	in	1 1/2"		
Net weight (approximate)***	lbs	573	573	573
Width – Depth – Height	in	35.4 – 47.2 – 77.4		
Sound pressure level**	dB(A)	67		

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.
** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.
*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.
The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)

Water outlet temperature	Fw	°F					46	50	**59**	68	77		
		factor					0.79	0.84	**1**	1.18	1.37		
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113
		factor					1.25	1.2	1.09	**1**	0.97	0.91	0.87
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg
*122.100 BTU/hr is the maximum achievable cooling capacity for Size 3 chillers.

TALD0–F8 Size 4

Industrial water chillers

COOLING CAPACITY
40000 – 47000 – 55000 – 67000 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panel

COMPRESSOR
Hermetic scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, liquid receiver, drier filter, thermostatic valve, high – and low-pressure pressure switch, R410A refrigerant. Optional 2-step cooling power regulation.

EVAPORATOR
Brazed stainless-steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of stainless steel centrifugal electric pump, storage tank made of plastic material complete with drain valve, electrical level indicator, bar pressure gauge, differential pressure switch protecting the water flow, automatic by-pass and regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL

The TX350C control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. RS485 connection. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

FL – Flow switch with alarm contact

HR – Fluid heating element

OM – Unit built for outdoor operation down to –10°C ambient temp.

OML – Unit built for outdoor operation down to –20°C ambient temp.

FP – Polyurethane air filter

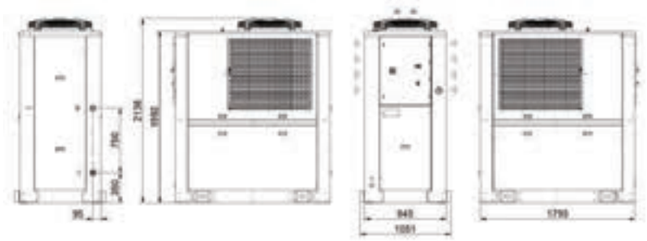
TD – Differential fluid temperature management (two sensors)

BGC – Hot gas bypass for +/ – 1 K temperature precision

LS – Liquid circuit for laser application

– HIGH-pressure pump version “H” – 5 bar

DIMENSIONS



TALD0–F8 Size 4

Industrial water chillers

Model	(Metric)	TALD0	TALD9	TALE6	TALF8
Rated Cooling Capacity*	W	40000	47000	55000	67000
Ambient temperature operating limits	°C	+15 – +45			
Settable fluid temperature range	°C	+8 – +25			
Fluid type		Water			
Temperature precision	K	+/–2			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz			
Secondary supply voltage	V	24 V AC			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity – Number of circuits	no.	1 – 1			2 - 1
Nominal power draw	kW	9.4	10.4	12.1	25.0
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	m^3/h	12600	14400	16000	24000
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	m^3/h	12600	14400	16000	24000
Available head	Pa	570	350	200	150
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	115 – 230	135 – 230	158 – 230	200-230
Nominal available head	bar	3.8	3.6	4.6	3.8
High-Presure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	bar	6.5	6.2	6.7	5.7
Storage tank capacity	l	200			
IN/OUT liquid connections	in	1 1/2"			
Net weight (approximate)***	kg	580	600	600	600
Width – Depth – Height	mm	945 – 1795 – 2138			
Sound pressure level**	dB(A)	75			78

* Data relates to operation under the following conditions: inlet/outlet temp. 20/15°C, water without glycol, ambient temperature 32°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)													
Water outlet temperature	Fw	°C					8	10	**15**	20	25		
		factor					0.77	0.83	**1**	1.2	1.41		
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45
		factor					1.27	1.2	1.13	**1**	0.95	0.86	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			
Cooling power = Nominal cooling power x Fw x Fa x Fg													

TALD0–F8 Size 4

Industrial water chillers

Model	(Imperial)	TALD0	TALD9	TALE6	TALF8
Rated Cooling Capacity*	BTU/hr	136500	160400	187700	228600
Ambient temperature operating limits	°F	+59 – +113			
Settable fluid temperature range	°F	+46 – +77			
Fluid type		Water			
Temperature precision	°F	+/–3.6			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3 ph 50/60 Hz			
Secondary supply voltage	V	24 V AC			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity – Number of circuits	no.	1 – 1			2 - 1
Nominal power draw	kW	9.4	10.4	12.1	25.0
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	cfm	7420	8480	9420	14130
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	cfm	7420	8480	9420	14130
Available head	in. H_2O	2.3	1.4	0.8	0.6
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	30.4 – 60.8	35.7 – 60.8	41.7 – 60.8	52.8-60.8
Nominal available head	psi	55	52	66	55
High-Presure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	psi	94	90	97	83
Storage tank capacity	gal	52.8			
IN/OUT liquid connections	in	1 1/2"			
Net weight (approximate)***	lbs	1279	1323	1323	1323
Width – Depth – Height	in	37.2 – 70.7 – 84.2			
Sound pressure level**	dB(A)	75			78

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)												
Water outlet temperature	Fw	°F					46	50	**59**	68	77	
		factor					0.77	0.83	**1**	1.2	1.41	
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113
		factor					1.27	1.2	1.13	**1**	0.95	0.86	0.8
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40			
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88			
Cooling power = Nominal cooling power x Fw x Fa x Fg													

TALG9–O6 Size 5

Industrial water chillers

COOLING CAPACITY
80,000 – 134,000 W

STRUCTURE
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panels.

COMPRESSOR
Hermetic scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT
Complete with charging port, liquid receiver, drier filter, thermostatic valve, high – and low-pressure switch. Stepped cooling power regulation.

EVAPORATOR
Brazed stainless steel plate model.

AIR CONDENSER
Microchannel condensing coil, complete with safety grille.

AXIAL FAN
Axial fan, complete with thermal cut-out and safety grille.

LIQUID CIRCUIT

Non-ferrous liquid circuit composed of stainless steel centrifugal electric pump, storage tank made of plastic material complete with drain valve, electrical level indicator, electrical level indicator, pressure gauge, differential pressure switch protecting the water flow, automatic bypass and regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL

THE TX350C control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. RS485 connection. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

FL – Flow switch with alarm contact

FP – Polyurethane air filter

HR – Fluid heating element

TD – Differential fluid temperature management (two sensors)

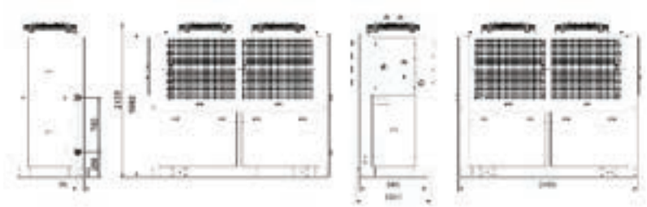
BGC – Hot gas bypass for +/ – 1 K temperature precision

LS – Liquid circuit for laser application

– HIGH-pressure pump version “H” – 5 bar, version “R” – 7 bar

– Outdoor installation options

DIMENSIONS



TALG9–O6 Size 5

Industrial water chillers

Model	(Metric)	TALG9	TALI4	TALM0	TALO6
Rated Cooling Capacity*	W	80000	94000	110000	134000
Ambient temperature operating limits	°C	+15 – +45			
Settable fluid temperature range	°C	+8 – +25			
Fluid type		Water			
Temperature precision	K	+/–2			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3ph 50/60 Hz			
Secondary supply voltage	VAC	24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity – number of circuits	no.	2 – 2			4 – 2
Nominal power draw	kW	18.8	20.8	24.2	50.0
Axial Fan					
Fan type		Axial			
Quantity	no.	2			
Air flow rate	m^3/h	25200	28800	32000	48000
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	2			
Air flow rate	m^3/h	25200	28800	32000	48000
Available head	Pa	570	350	200	150
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	230-400	270-400	316-400	400-400
Nominal available head	bar	4.7	4.4	4	3.6
High-Pressure Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	bar	6	5.5	5	5
Storage tank capacity	l	300			
IN/OUT liquid connections	in	2 1/2"			
Net weight	kg	730	750	750	750
Width – Depth – Height	mm	945 – 2495 – 2139			
Sound pressure level**	dB(A)	75	75	75	78

*Data relates to operation under the following conditions: inlet/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C.

**Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

***Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Metric)

Water outlet temperature	Fw	°C					8	10	**15**	20	25			
		factor					0.77	0.83	**1**	1.2	1.41			
Ambient temperature	Fa	°C					15	20	25	**32**	35	40	45	
		factor					1.27	1.2	1.13	**1**	0.95	0.86	0.8	
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40				
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88				

Cooling power = Nominal cooling power x Fw x Fa x Fg

TALG9–O6 Size 5

Industrial water chillers

Model	(Imperial)	TALG9	TALI4	TALM0	TALO6
Rated Cooling Capacity*	BTU/hr	273000	286600	375300	457200
Ambient temperature operating limits	°F	+59 – +113			
Settable fluid temperature range	°F	+46 – +77			
Fluid type		Water			
Temperature precision	°F	+/–3.6			
Refrigerant gas	HFC	R410A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/–10%) 3ph 50/60 Hz			
Secondary supply voltage	VAC	24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity – number of circuits	no.	2 – 2			4 – 2
Nominal power draw	kW	18.8	20.8	24.2	50.0
Axial Fan					
Fan type		Axial			
Quantity	no.	2			
Air flow rate	cfm	14800	16900	18800	28200
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	2			
Air flow rate	cfm	14800	16900	18800	28200
Available head	in. H^2O	2.3	1.4	0.8	0.6
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	60.8-105.7	71.3-105.7	83.5-105.7	105.7-105.7
Nominal available head	psi	68	64	58	52
High-Pressure Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	psi	87	80	73	73
Storage tank capacity	gal	79.3			
IN/OUT liquid connections	in	2 1/2"			
Net weight	lbs	1609	1653	1653	1653
Width – Depth – Height	in	37.2 – 98.2 – 84.2			
Sound pressure level**	dB(A)	75	75	75	78

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power (Imperial)

Water outlet temperature	Fw	°F					46	50	**59**	68	77			
		factor					0.77	0.83	**1**	1.2	1.41			
Ambient temperature	Fa	°F					59	68	77	**90**	95	104	113	
		factor					1.27	1.2	1.13	**1**	0.95	0.86	0.8	
Percentage glycol by weight	Fg	%	**0**	10	15	20	25	30	35	40				
		factor	**1**	0.96	0.95	0.94	0.93	0.91	0.9	0.88				

Cooling power = Nominal cooling power x Fw x Fa x Fg

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