

INDUSTRIAL CHILLERS

With R22 and R407C refrigerant



About GENIUS...

GENIUS has been respected in industrial sector since 2012 for its adherence to strong values and virtuous business ethics. The GENIUS is one of the fastest growing businesses with a strong presence in the Environment protection, Energy audit- conservation and HVAC & Refrigeration sector.

While supporting to the Requirements of various industries since 2012, GENIUS developed itself in to total engineering solution provider for Environment protection through Energy Audit, Water Engineering services, Water & Energy conservation consultancy and manufacturing and erection of HVAC & Refrigeration Systems , entered in to the global industrial market with own brand name GENIUS, from 2012.

We are Small but Lean organization, committed to Sustainability and Energy efficiency in all our products and services.

Our focus always has been to improve energy efficiency and operational performance of our products.

As a Manufacturer we offer Wide range of Chillers for various industrial applications for Pharmaceutical, Chemical, Paint, Textile, manufacturing, Automobile, Food and Beverages Industry all over India. We are pioneer in manufacturing and erection of Industrial Chillers from 01 TR to 100 TR in both Air cooled as well as water Cooled models and having technology of Scroll as well as Screw compression.

Our core Values

Integrity : To be ethical, sincere and transparent in all respect

Excellence : Constantly improve ourselves as an individual and a team to become the best

Unity : Respecting each ones ability & supporting one another

Sensitivity : Building relations with the world we are living in and to be ready to renew ourselves with courage

VISION

We will be a worldwide respected organization for value service and products.

MISSION

Create an organization where people enjoy working for and doing business with

CODE OF CONDUCT

At GENIUS, we believe acting ethically and responsibly in our business. All the employees of GENIUSS should

- ✓ Act with integrity in all our business activities
- ✓ Perform work responsibly for our stakeholders
- ✓ Show respect in the work place

BENEFITS TO CLIENT..

- **Easy to install and To Operate**
- **Low Noise & Compact**
- **can Handle varying cooling requirements by adding multiple compressors**
- **absolute maintenance free**
- **energy efficient configuration of world class brands like EMERSON-COPLAND, DANFOSS, BITZER, ONDA, ALFA LAVAL**

APPLICATIONS...

- **RO water plant – Cool Jar application.**
- **DM water plant – Process water chilling.**
- **Soft Drink Plant – CSD /Carbonated Soft Drink chilling.**
- **Plastic Industry – Mold / Die Cooling.**
- **Plastic Industry – LDPE/HDPE, Drip pipe cooling.**
- **Chemical Industry – Jacketed cooling of storage tanks, reactors, kittles.**
- **Food Processing – ONLINE cooling of packed products / Bulk Stored products, Milk Processing, Meat Processing.**
- **Engineering Industry – Cooling of various hot raw material from Foundry Sand to Acids.**
- **Commercial Buildings – Chilled water plant for cooling of malls and corporate offices, Theaters, Hospitals etc as well as mushroom growing rooms and cold rooms.**

INDUSTRIAL WATER CHILLER

In many Industrial applications chilled water is used as second media to chill / cool main substance. Substance may be processed food/ water/ oil/coolant/ foundry sand/ chemical/ acid/ air/ gaseous substance etc.

GENIUS, offers standard as well as customized solutions to your all needs of chilling/cooling.

Our chiller are best suitable for air to fluid as well as fluid to fluid heat exchange.

Chiller are designed for the temperature range from -10°C to +25°C

State of the art, chillers comes with latest technology of Emerson- Copeland and Danfoss.

We have capacity to deliver chillers from 01TR to 100TR in both Air Cooled as well as Water Cooled Condensers.

APPLICATION

RO WATER
EVAPORATING COIL
PLASTIC MOULDING

FOOD PROCESSING
SOFT DRINK LINE
BLANCHING PROCESS

INDUSTRIAL CHILLING
BRINE CHILLER
CHEMICAL & ACID CHILLING

Water chiller comes in two pattern

1. Air Cooled Chiller

2. Water Cooled Chiller



INDUSTRIAL OIL CHILLER

Best Suitable for Hydraulic Spindle and Gear Box oil Cooling in various industrial machine tools like Machining centre & Press mc.

Hydraulic oil have various applications from cooling to lubrication and widely used to maintain productivity of any machining centre and press. It keeps cool and efficient, any gear box. Because of cool oil, energy efficiency increases, on the other hand, breakdown maintenance cost reduces.

Any Hydraulic oil chiller is normally connected parallel to oil tank through dedicated oil circulation pump.

Precise temperature regulation through out a year is the most important requirement of any hydraulic or gear box oil. And oil chiller is the only suitable solutions for the same.

APPLICATION

PRESS	CUTTING	GRINDING	THREAD CUTTING	SPINDLE COOLING
TURNING	BROACHING	SLOTING	SHAPING	MOULDING
MILLING	HOBGING	REAMING	JIG BOARING	EDM

Oil chiller comes in two pattern

1. Immersion oil chiller

2. Parallel Oil Chiller



INDUSTRIAL WATER CHILLER

SPECIAL FEATURES

1. Designed for durability and Stability
2. Precise control and monitoring
3. Environmentally- Friendly Refrigerant R407c or equivalent
4. Low Noise System
5. Easy for preventive Maintenance through Local technicians
6. Compact design

TECHNICAL DATA SHEET

Classification	Unit	GIOC110	GIOC220	GIOC330	GIOC550
Nominal Cooling Capacity	Kcal/hr	3500	7000	10000	17000
Compressor	kW	1.1	2.2	3.3	5.5
Pump Flow rate	LPM	25	40	70	100
Temp range	°C	+5 to +50°C offline			
Power	V/Hz	210-230/50		380-415/50	
Circuit breaker capacity	Amp	10	16	25	32
Refrigerant		R407/R22			
Pipe Connections	mm	12 OR 22		25	
Oil Tank		Not available (Optional with revised price)			
Overall size & weight	Inch kg	Standard			
Safety protection		HP-LP, Current, Voltage, temp, Oil level, Flow			

Before placement of work order, Need to confirm the Oil density, Viscosity and temperature.

MODEL NOMENCLATURE

GC WC T S 40 C A S 1 X A

GENIUS INDUSTRIES
CHILLER

WC Water Chiller
BC Brian Chiller
OC Oil Chiller
AC Acid Chiller

TX Thermal Expansion
DX Direct Expansion

S Scroll
R Reciprocating
C Screw
F Centrifugal

Capacity
10/20/50/100 TR

C Copland Compressor
D Danfoss Compressor
B Bitzer Compressor

A Air Cooled
W Water Cooled

1 One Ref Circuit
2 Two Ref Circuit
3 Three Ref Circuit

S Standard Control Panel
M Microprocessor based
C Customized

A R22 / R407a
B 134a
C 404
D R508 / Other

TECHNICAL DATA SHEET A/C SCROLL CHILLER (R407C)

Model	Unit	GCWCDS TR30CAS 1A	GCWCDS TR50CAS 1A	GCWCDS TR100CA S1A	GCWCDSTR 140CAS1A	GCWCDS TR160CA S1A	GCWCDS TR200CA S1A
Nom Capacity	TR	02	03	05	07	08	10
Compressor							
Comp Qty	No	1	1	1	1	1	1
Power	V/Hz	210-230/50Hz		380-440/50Hz			
Operating current per comp	A	09	11	11	16	19	22
Compressor							
Make		Emerson – Copland					
Type		, Reciprocating-CR / Scroll-ZR			Scroll – ZR/ZB		
Evaporator							
Type		BPHE– DX – ALFA LAVAL, DRY ALL, SWEP, KAORI					
Condenser							
Type		Air Cooled Fin and Tube Type					
No of Cooling Fan	PC	01	01	02	02	02	02
Cooling fan Size	mm	300	350	400	350	400	450
Unit Dimensions							
Overall size	mm	610	710	610	810	810	910
L		760	760	810	1220	1420	1520
W		790	790	1170	990	1120	1120
H							

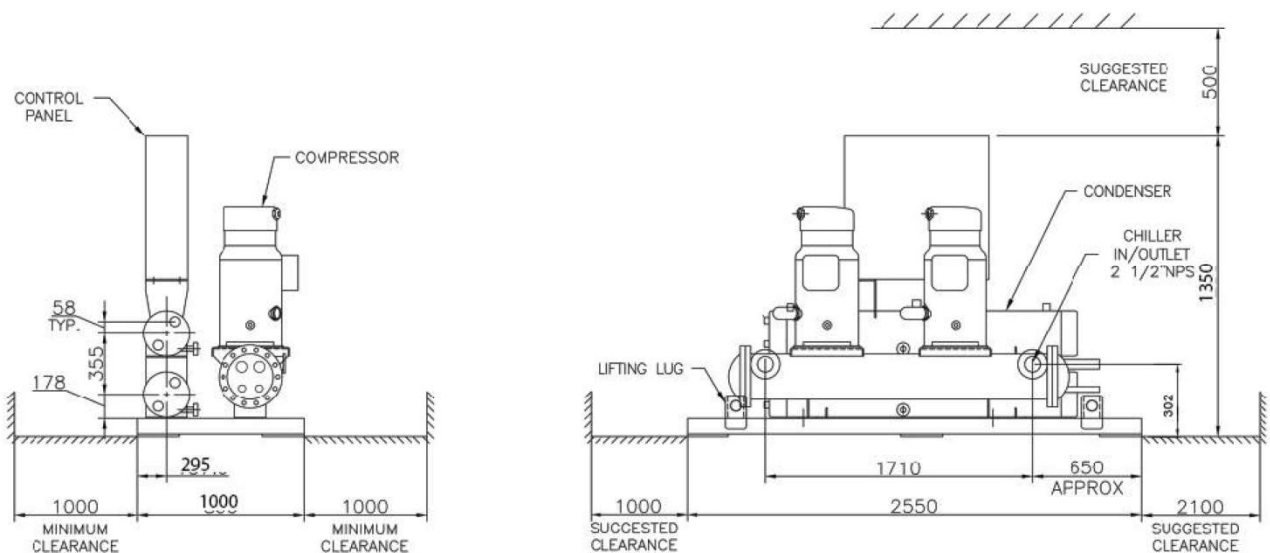
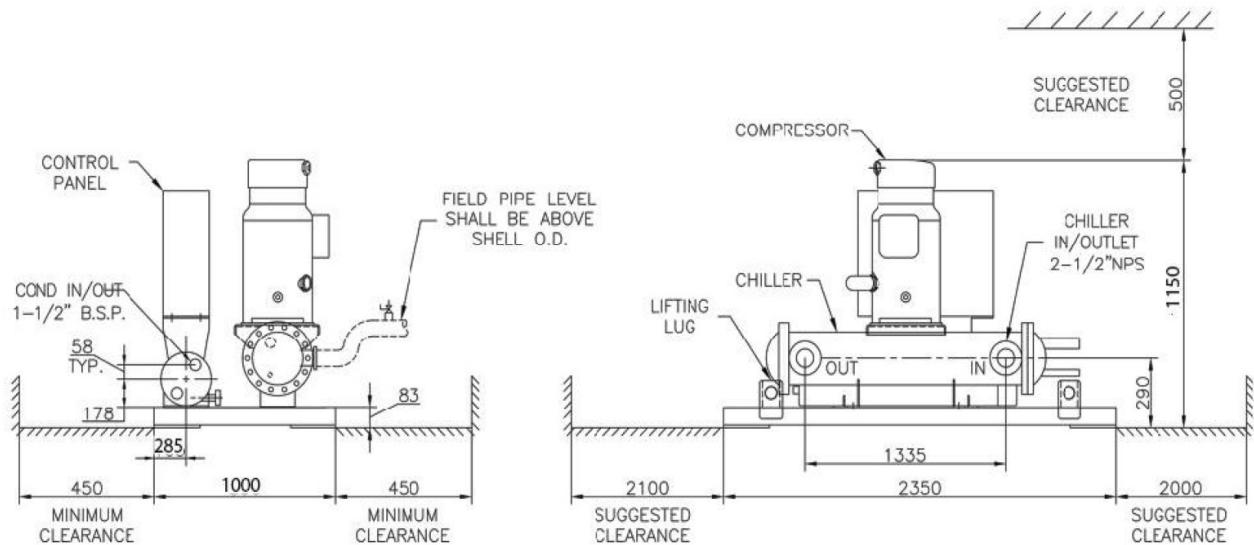
1. Evap inlet water temp 12°C & Leaving water temp 7°C & design at Cond Inlet water temp of 30°C
2. Water piping size will be done at site based on actual Tr capacity & available pump head
3. Allowable temp range for chilled water will be 5°C to 12°C
4. Ambient conditions considered to be max temp up to +38°C (+/-4°C)
5. Design and Parameters may change because of continuous in-house R & D.

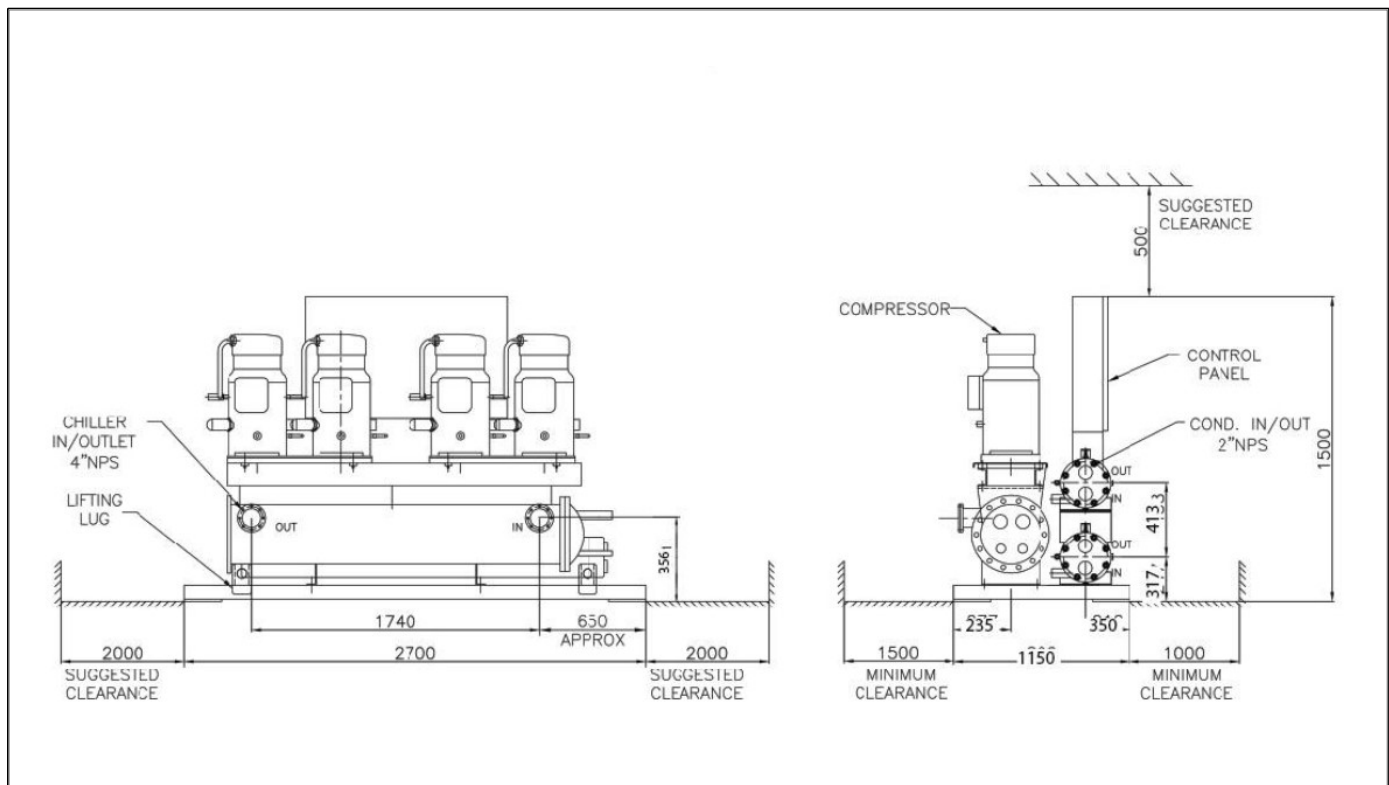
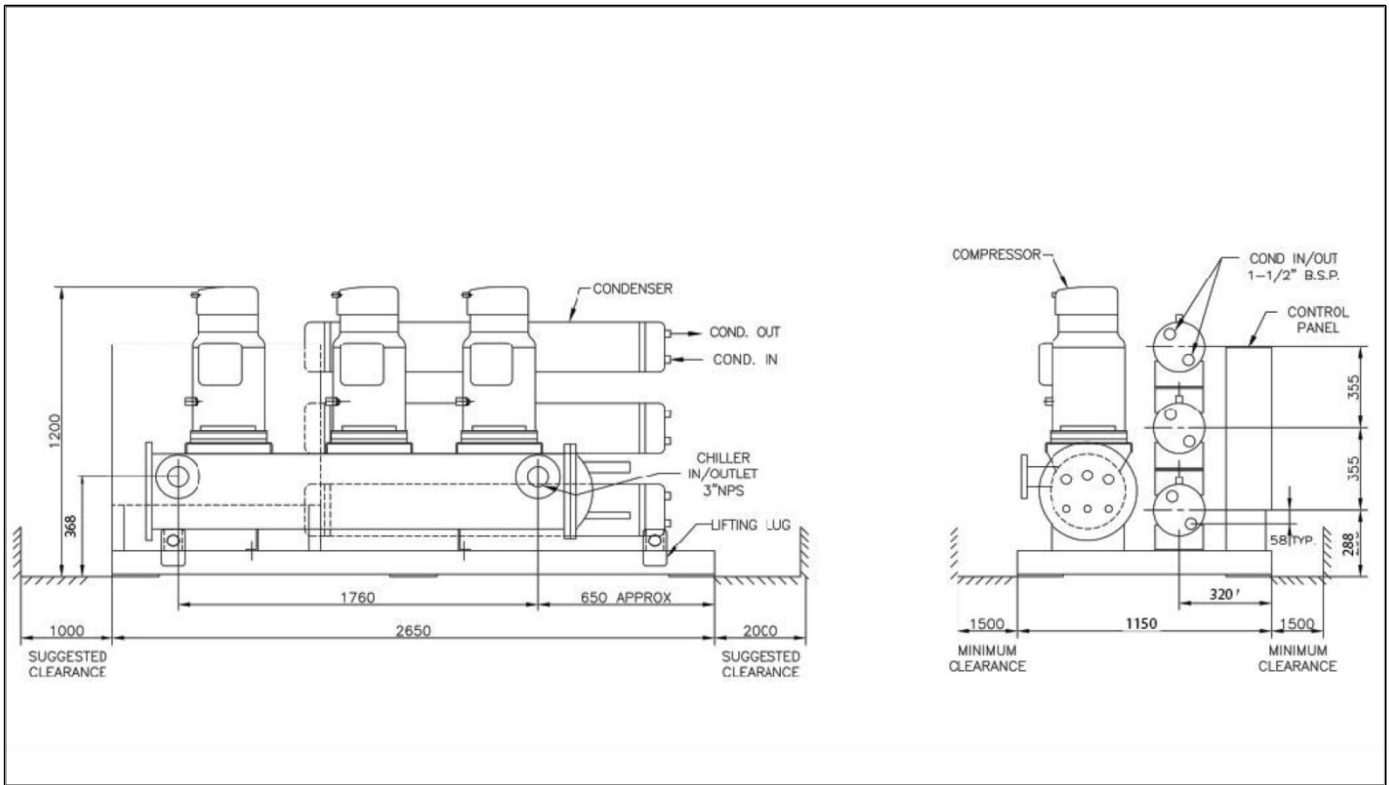
TECHNICAL DATA SHEET W/C SCROLL CHILLER (R407C)

Model	Unit	GCWCDS 20CAS1X 1	GCWCDS 30CAS1X 2	GCWCDS 40CAS1X 4	GCWCDS 50CAS1X 3	GCWCDS 80CAS1X 4	GCWCDS 100CAS1 X5
Nom Capacity	TR	20	30	40	50	80	100
Compressor							
Comp Qty	No	1	2	4	3	4	4
Power	V/Hz	380-440/50Hz					
Max allowable current per comp	A	35	35	35	35	70	75
Operating current per comp	A	18	18	20	20	32	40
Compressor							
Make		Emerson – Copland					
Type		Scroll – ZR series					
Evaporator							
Type		Shell and Tube Type – DX					
Water Flow rate	LPM	200	280	375	500	790	980
Water nozzle size	NB (mm)	65	65	65	100	125	150
Condenser							
Type		Shell and Tube Type					
Water Flow rate	LPM	260	380	500	620	970	1200
Water nozzle size	NB(mm)	40	40	40	50	150	150
Unit Dimensions							
Overall size							
L	mm	2500	2600	2700	2700	2700	3000
W		1000	1150	1150	1150	1400	1400
H		1350	1350	1500	1500	1500	1600

1. Evap inlet water temp 12°C & Leaving water temp 7°C & design at Cond Inlet water temp of 30°C
2. Water piping size will be done at site based on actual Tr capacity & available pump head
3. Allowable temp range for chilled water will be 5°C to 12°C
4. Ambient conditions considered to be max temp up to +38°C (+/-4°C)
5. Design and Parameters may change because of continuous in-house R & D.

G A Drawing for Scroll Chiller







Our Expertise...

**Technically Sound Team
Optimum Production Set-up**



Genius Industries

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