



**ACP AIRCONDITIONING**

**AMBASSADOR**

A RANGE OF

SUPER QUIET EQUIPMENT

AIR COOLED WATER CHILLERS

## 'SUPER QUIET' EQUIPMENT INTRODUCTION

Optimum design dictates that two important considerations are addressed when selecting cooling products, these are minimum noise level and maximum equipment efficiency. Additionally a trend away from wet heat rejection systems has dictated that dry cooling equipment has an increasingly important role in today's environment.

To meet these challenges ACP have developed the Super Quiet range of equipment as a modular concept to be applied as Air Cooled Condensers, Dry

Air Coolers, and Air Cooled Condensing Units, as well as Air Cooled Fluid Chillers. The strategy applied to the range is for air to be passed very slowly at the lowest possible resistance over finned tube heat exchangers with wide fin spacing using low speed fans. In the Chiller Range compressors are housed in acoustically treated and ventilated compartments.

**If your noise limitations are less critical than the standard product can achieve, we can fit smaller, higher speed fans to reduce size and cost.**

Users can be confident that continued spares availability is assured as all component parts are selected from leading manufacturers standard range with distribution and stockists across Europe.

Operating and maintenance literature details major parts for each item of equipment supplied.

Many options can be incorporated into this range of equipment, and an indication of available extras can be found on page 7.

The Super Quiet range product codes are:

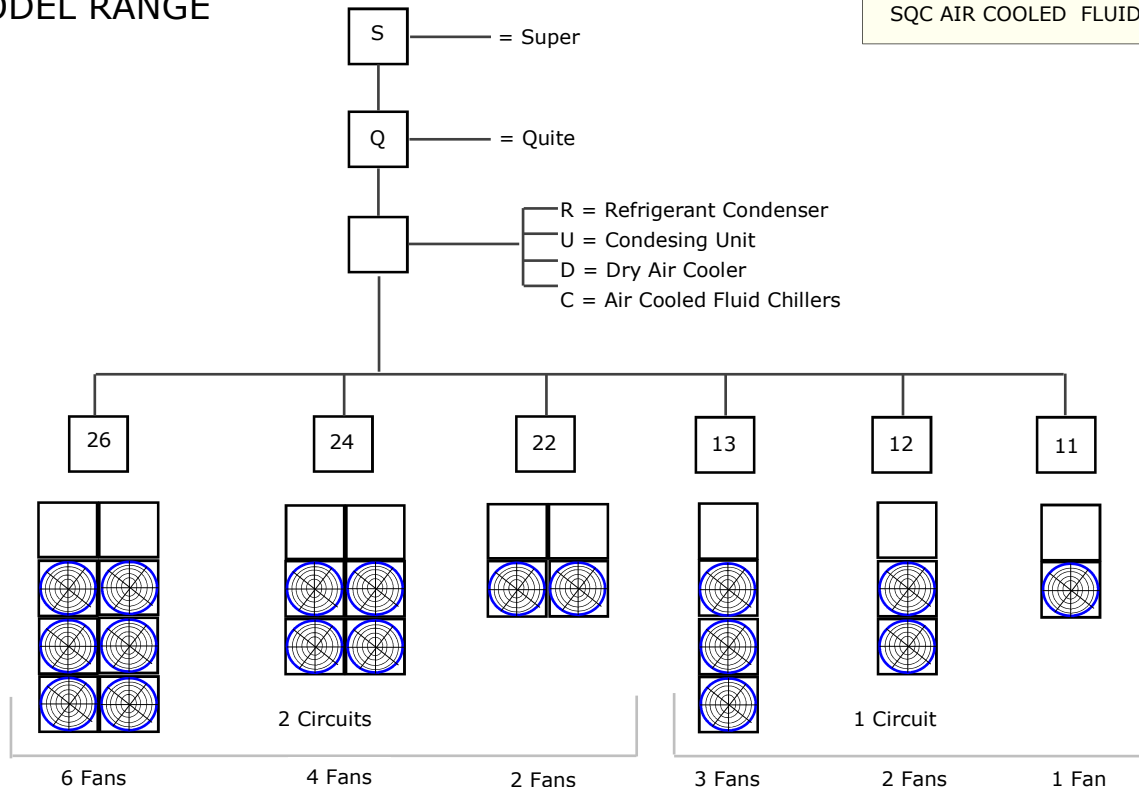
SQR REFRIGERANT AIR CONDENSERS

SQU AIR COOLED CONDENSING UNITS

SQD DRY AIR BLAST COOLERS

SQC AIR COOLED FLUID CHILLERS

### MODEL RANGE



## SQC 'SUPER-QUIET' CHILLERS

A continuous under frame is fitted beneath the assembly with the compressor, enclosed and all condenser supports fitted to form a complete unit for sling lifting.

The compressor section is formed from our standard anodised aluminium frame with double skinned acoustic enclosure panels.

High efficiency compressors are mounted on anti-vibration fittings and are complete with crankcase heater, isolating valves and (where stated) cylinder unloading equipment.

All refrigeration circuits are brazed with best quality seamless copper tube and include all safety and ancillary components.

Hot gas injection can be included for supplementary capacity control and anti-freeze protection.

Evaporators are either the shell and tube or brazed plate type dependent on specification requirements and are fitted with trace heating as necessary, controlled by an ambient

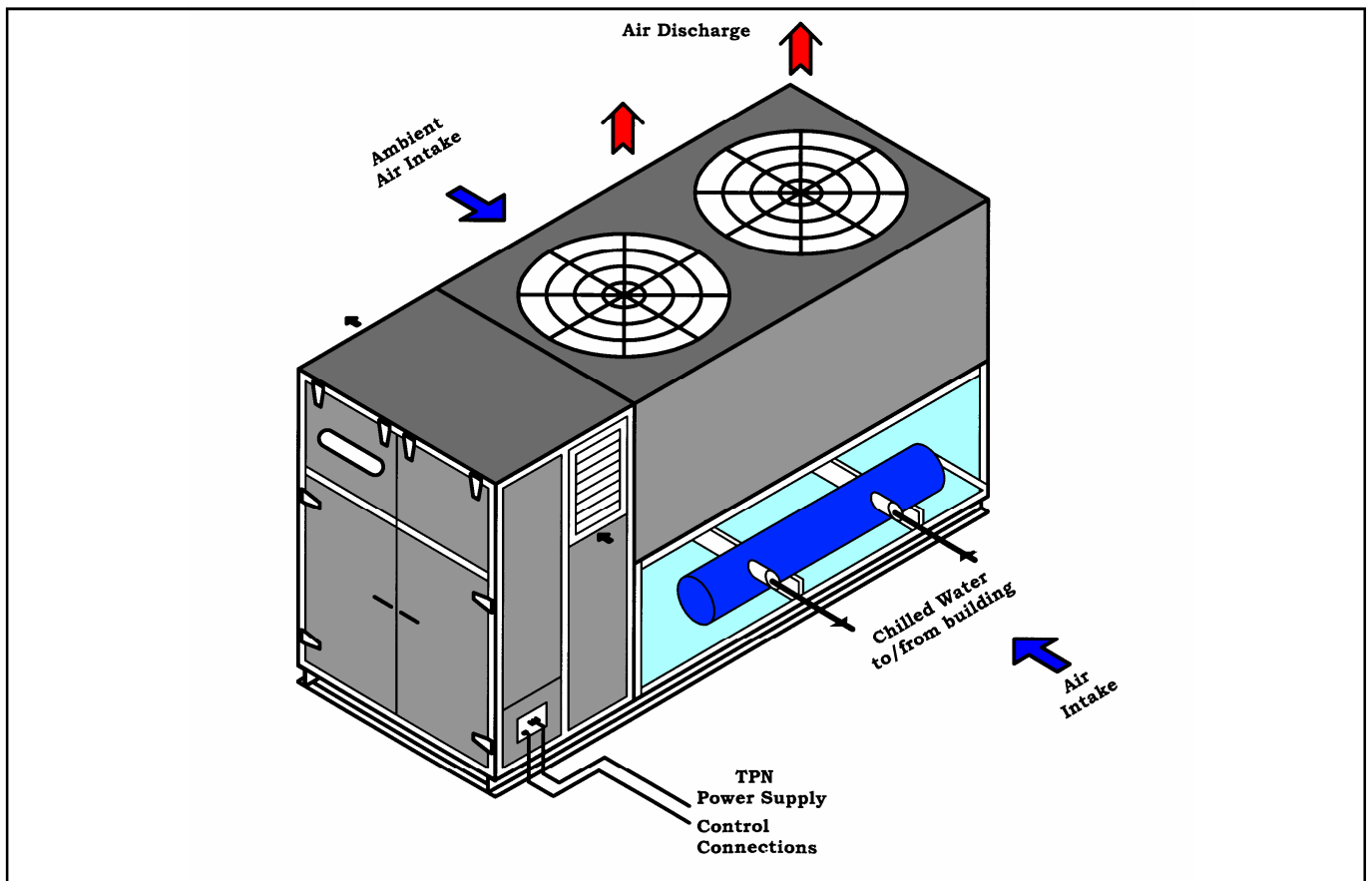
temperature sensor.

The evaporator is insulated.

Chilled water pipe connections terminate on the evaporator with BSP screwed connections.

Condenser coils are constructed from copper tubes and headers with aluminium plate fins mechanically bonded to the tubes.

Fans are slow speed, weather protected and fitted with safety guards.



**MODEL SELECTION**

	SQC	Cooling KW	Nominal KG	Electrical 400/3/50	
				F.L.C a/p	Start C.* a/p
1 Circuit	<b>11</b>	44	1250	32	155
	<b>12</b>	88	1700	76	174
	<b>13</b>	132	2100	210	287
2 Circuit	<b>22</b>	88	2100	63	184
	<b>24</b>	176	3300	160	259
	<b>26</b>	264	4300	252	420

Table is based on C.W 5.5/11°C operating in an ambient temperature of 30°C.

\* Data for standard starting method - Reduced starting currents available.

**THE ABOVE TABLE GIVES  
NOMINAL MAXIMUM DATA  
FOR EACH MODEL SIZE.**

Many intermediate duties available for a particular application, advise ACP of full design requirements and a detailed estimate can then be provided.

SOUND DATA for the above is shown on page 5 opposite. For less critical applications more economical selections are available using higher speed axial or propeller fans. Full sound data available on request.

## Super Quiet Equipment

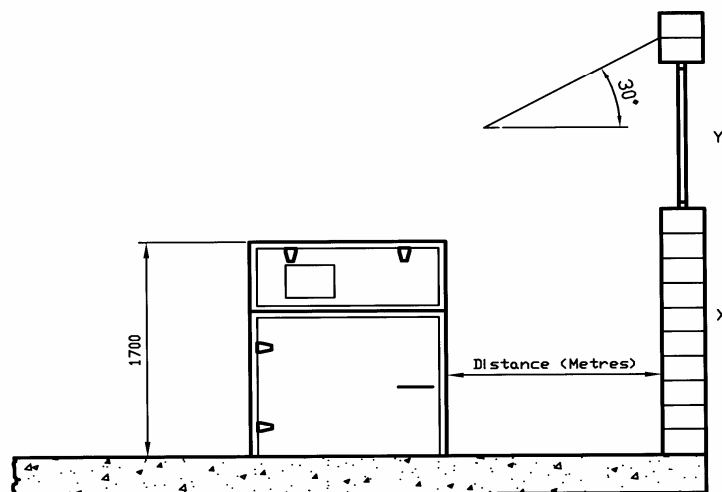
Horizontal X

### SOUND DATA

Model Ref	3.0 m		5.0 m		10.0 m		20.0 m	
	dB A	NR	dB A	NR	dB A	NR	dB A	NR
11	47	40	42	35	36	30	30	30
12	51	45	47	40	40	35	34	30
13	52	45	47	40	41	35	35	30
22	51	45	47	40	40	35	34	30
24	54	50	49	45	43	40	37	30
26	55	50	50	45	44	40	38	35

30° Angle Y

Model Ref	3.0 m		5.0 m		10.0 m		20.0 m	
	dB A	NR	dB A	NR	dB A	NR	dB A	NR
11	52	45	47	40	41	35	35	30
12	56	50	51	50	44	40	38	30
13	57	55	52	50	46	40	40	35
22	56	50	51	50	44	40	38	30
24	59	55	53	50	47	40	41	35
26	60	55	55	50	49	45	43	35



#### NOTES

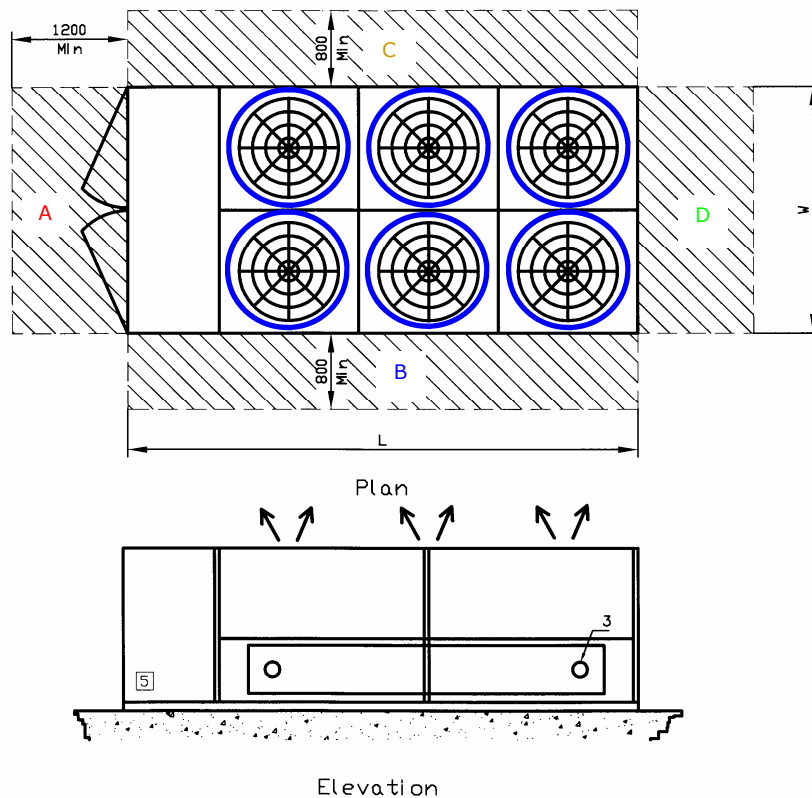
1. dbA is 'A' weighted overall sound pressure level at distances as above.
2. NR level is approximate equivalent noise rating.  
NB. Data assumes Unit operating at maximum duty in free field conditions (except floor)
3. 1000 mm high cylindrical discharge silencers can be fitted. The basic dbA rating is then reduced by 4 in all cases.

## DIMENSIONAL DATA

**NOTES:-**

1. Model 26 illustrated below.
  2. All Units may be handed as required.
  3. C W connections horizontal B S P male approx 400mm high from base.
  4. Welded 100 x 50 M S channel base suitable for lifting and positioning on solid base, steelwork or anti-vibration mountings.
  5. Power and control entry position.
- A. Access area required to service compressor and control panel.
  - B. Minimum air entry space, access to pipe connections and electrical isolator.
  - C. Minimum air entry space.
  - D. No space necessary if B and C are clear on single section units D may be alternative to C.

MODEL	L	W
11	2430	1360
12	3850	1360
13	5280	1360
22	2430	2580
24	3850	2580
26	5280	2580



## POPULAR OPTIONAL EXTRAS

The standard basic unit is as shown on Page 3 and full detailed specification is issued with quotations. A whole range of popular extra's and modifications are available; the most common listed as follows.

Many construction and specification variations are available and 20 popular items are listed below.

1	Pump housing	Matching housing for pumps and accessories with pipework
2	Heat reclaim	Heat reclaim water condenser(s) fitted
3	Minimum start current in-rush	Fitted with soft start kit(s)
4	Lead / Lag selection	Selector switch fitted for 2 circuit units
5	Vinyl / Polycoated fins	Condensor coil with vinyl/polycoated aluminium fins
6	Crankcase heater supply	Terminals for separate single phase site supply to crankcase heaters
7	Gauges	Suction and discharge gauges with isolating valves fitted on each circuit
8	Flow switch	Flow switch supplied loose for installation by others
9	Galvanised base frame	Unit base frame hot dip galvanised after manufacture
10	Capacity steps	Additional capacity control steps fitted (when available)
11	A.V. Mounts	Spring A.V. Mounts supplied with pre-drilled base frame
12	Hour-run meters	H.R. meters included in compressor(s) circuitry
13	Summer only operation	Unit designed for operation only in ambient temperatures above 10°C
14	Low temperature water	Modifications for C.W. below 5°C
15	Ammeters	Ammeter included in compressor(s) circuitry
16	Colour	Special unit colour or paint treatment
17	Power factor correction	P.F.C capacitors included in compressor(s) circuit
18	Remote B.M.S	Contacts/terminals provided for link to remote B.M.S with run/fault
19	Silencers	Cylindrical discharge silencers fitted for additional noise reduction
20	M and E 1000	Modifications to M and E 100 specification

All units can be constructed from full height pentapost section all round to mask fans and produce a 'cleanline' appearance. Condenser air intakes fitted with frameless grilles and pipework and electrical connections can be arranged to pass vertically downwards within the plan area of the unit.

## NOTES

The technical data presented within this publicity is for guide purposes only. Certified performance and running data is confirmed only by way of dedicated quotation.

PRESENTED BY



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