

**C7**

January 2009



## L'UNITE SEALED COMPRESSORS - INTRODUCTION



L'Unite Hermetique is 100% owned by Tecumseh, USA. Hermetic compressors are manufactured in Europe and marketed by Tecumseh Europe.

Where applicable all L'Unite compressors come complete with full electrics and rotalock valves included in cost. FH - TFH - TAG & \*TAGD compressors come complete with crankcase heaters and oil level sight glasses. NB. A/C compressors may not have accessories attached.

### Merits of TAGD

- capacity control according to the system demands
- reduced energy consumption due to low torque start and sequence starting
- reduced number of starts.

### Terminology

LT (LBP)	Low Temperature - Evaporating Temp Range -40°C / -10°C
HT (HBP)	High Temperature - Evaporating Temp Range -15°C / +15°C
HT W (M/HBP)	High Temperature Wide Range - Evaporating Temp Range -25°C / +15°C
AC	Air Conditioning - Evaporating Temp Range -10°C / +10°C
S/F	Static Cooled/Fan Cooled
F	Fan Cooled
SOC	Static with oil cooler
CAP	Capillary Controlled
CAP/TEV	Capillary or Expansion Valve Controlled

### For suitable compressor oils, please see Lubricants Section

M	Mineral Oil
AB	Alkylbenzene Oil
P	Polyolester Oil

**Warranty:** See Warranty section at front of catalogue for more details.

### TECUMSEH EUROPE RATING CONDITIONS

Applications	Ambient	Evaporator outlet and return gas super heated	Condensing	Entering exp. valve
Low Temperature domestic and commercial refrigeration (LBP)	+32°C	+32°C	+54.5°C	+32°C
Other Applications (M/HBP-AC)	+35°C	11K	+54.5°C	+46,1°C



T/FH



FH



RK



CAJ

TAGD  
\* Dual  
Compressor

Visit [www.tecumseh-europe.com](http://www.tecumseh-europe.com) for additional product information.



**L'UNITE SEALED COMPRESSORS**

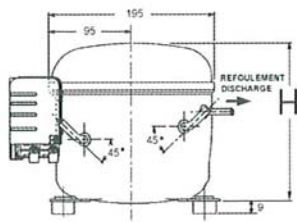


Figure One

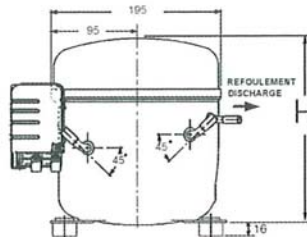


Figure Two

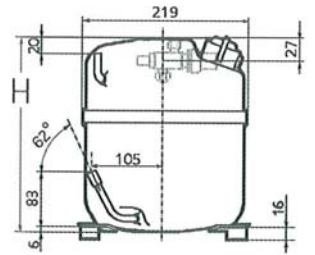


Figure Three

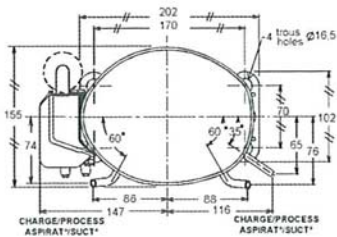


Figure Four

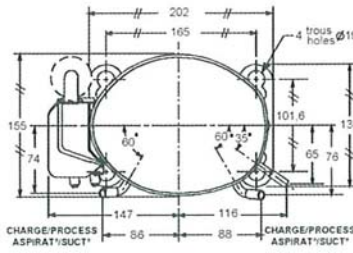


Figure Five

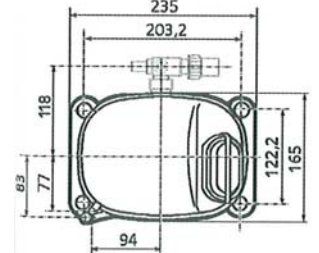


Figure Six

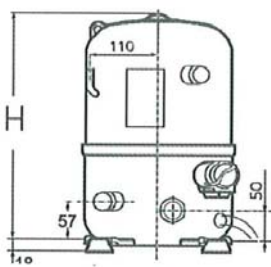


Figure Seven

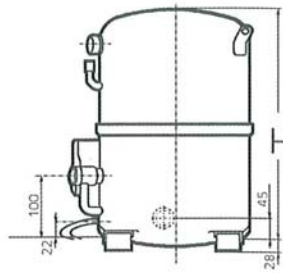
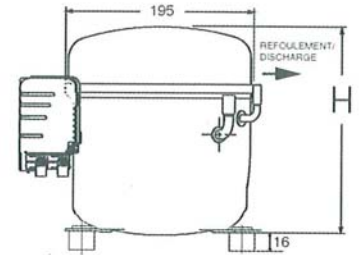


Figure Eight



Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial. Visit [www.tecumseh-europe.com](http://www.tecumseh-europe.com) for additional product information.

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**L'UNITE SEALED COMPRESSORS**

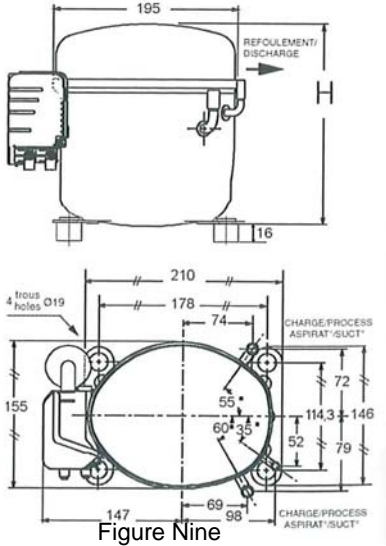


Figure Nine

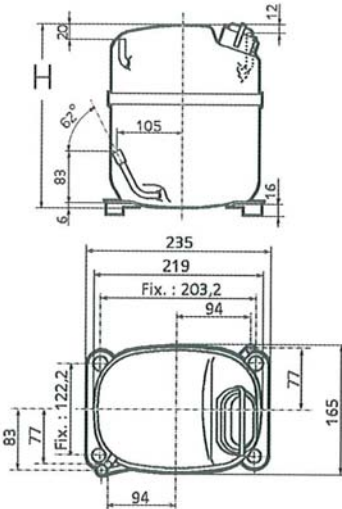


Figure Ten

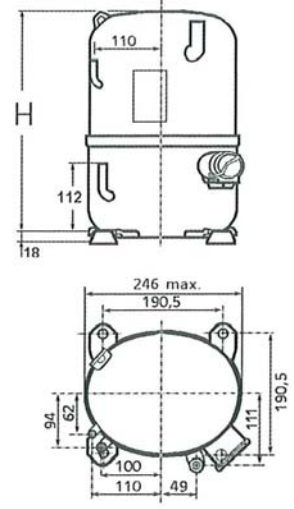


Figure Eleven

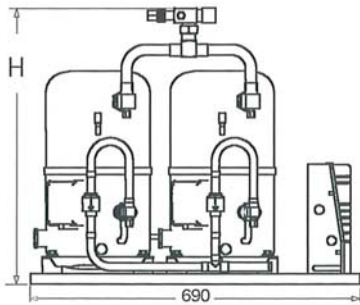


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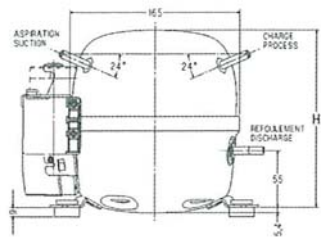


Figure Thirteen

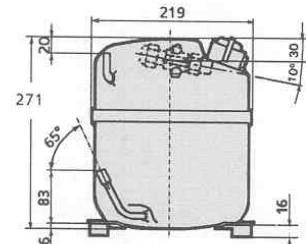


Figure Fourteen

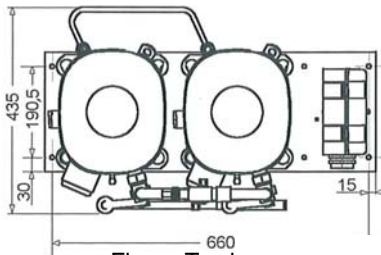


Figure Fifteen

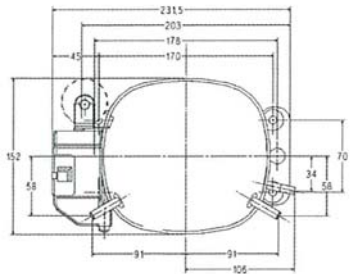
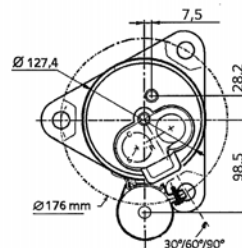
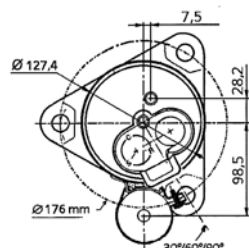
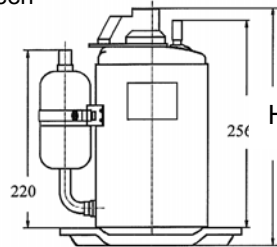
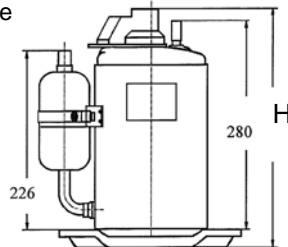
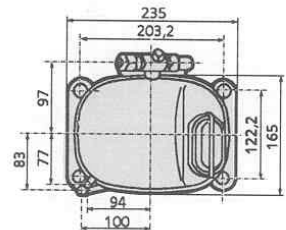


Figure Sixteen



Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial.



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THESE PRICES AND SPECIFICATIONS ARE SUBJECT TO ALTERATION WITHOUT NOTICE



**L'UNITE SEALED RECIPROCATING COMPRESSORS – R404A**

**L'UNITE SEALED R404A**

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	APPL	WATTS						H mm	D cm <sup>3</sup>	OC L	PRICE \$ excl GST
					-15°C	-10°C	-5°C	0°C	+7.2°C	+15°C				

Column Key: D = Displacement, OC = Oil Charge, FIG = Picture # Control = Cap/TEV for all models listed FIG = Picture # on page C8

**DOMESTIC – COMMERCIAL 220/240 Volt 50 Hz Single Phase**

C7010	AEZ4425Z	Fig 1	1/5	HT	198	263	341	432	587	787	186	4.50	.45	POA
C7012	AEZ4430Z	Fig 1	1/4	HT	258	346	441	550	741	1010	186	5.70	.45	
C7014	AEZ4440Z	Fig 1	1/3	HTW	357	462	590	743	1004	1342	199	7.55	.45	
C7016	CAE9450Z	Fig 2	3/7	HTW	434	567	731	927	1270	1729	212	9.40	.45	
C7020	CAE9460Z	Fig 2	1/2	HTW	546	711	908	1141	1545	2086	212	11.30	.45	
C7021	CAE9470Z	Fig 2	1/2	HTW	669	869	1109	1392	1878	2514	215	13.30	.45	
C7022	CAJ9480Z	Fig 3	5/8	HTW	774	1009	1284	1607	2172	2943	271	15.20	.89	
C7030	CAJ9510Z	Fig 3	1.0	HTW	970	1252	1583	1972	2650	3563	282	18.30	.89	
C7032	CAJ9513Z	Fig 3	1.1/8	HTW	1114	1501	1955	2485	3406	4646	282	24.20	.89	
C7036	CAJ4517Z	Fig 3	1.1/4	HT	1364	1776	2273	2857	3860	5173	282	25.95	.89	
C7038	CAJ4519Z	Fig 3	1.1/2	HT	1769	2353	3009	3756	5030	6735	282	34.45	.89	
*C7040	FH4524Z	Fig 4	2.0	HT	1964	2639	3395	4249	5682	7557	354	43.50	1.33	
*C7042	FH4531Z	Fig 4	2.1/2	HT	2449	3477	4505	5573	7266	9433	370	56.65	1.33	

\*C7040 and \*C7042 are available both single and three phase – please state when ordering.

**COMMERCIAL 400 Volt 50 Hz Three Phase**

*C7048	TFH4522Z	Fig 4	1.3/4	HT	1718	2303	2970	3734	5036	6761	354	39.95	1.33	POA
*C7050	TFH4524Z	Fig 4	2.0	HT	1964	2639	3395	4249	5682	7557	354	43.50	1.33	
*C7054	TFH4531Z	Fig 4	2.5	HT	2449	3477	4505	5573	7266	9433	354	56.65	1.33	
*C7058	TFH4540Z	Fig 4	3.0	HT	3445	4486	5635	6912	9013	11696	370	74.25	1.33	
*C7064P	TAGP4546Z	Fig 5	3.3/4	HT	3370	4646	6134	7867	10859	14861	368	90.20	1.96	
*C7070P^	TAG4553Z	Fig 5	4.5	HT	3868	5306	6957	8865	12151	16563	381	100.70	1.96	
*C7074P^	TAG4561Z	Fig 5	5.0	HT	4560	6133	7914	9953	13438	18100	381	112.50	1.96	
*C7082P^	TAG4573Z	Fig 5	6.1/4	HT	6155	8000	10122	12567	16755	22327	393	134.80	1.96	

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	APPL	WATTS						H mm	D cm <sup>3</sup>	OC L	PRICE \$ excl GST
					-35°C	-30°C	-23.3°C	-20°C	-15°C	-10°C				

**COMMERCIAL 220/240 Volt 50 Hz Single Phase**

C0532	AEZ2415Z	Fig 1	3/8	LT	160	231	355	429	556	703	199	8.10	.45	POA
C0545	CAE2417Z	Fig 6	1/2	LT	161	280	460	557	716	891	212	11.30	.45	
C0551	CAE2420Z	Fig 6	1/2	LT	232	357	547	654	836	1047	212	12.54	.45	
C0554	CAE2424Z	Fig 6	5/8	LT	291	442	664	783	981	1199	215	15.00	.45	
C0573	CAJ2432Z	Fig 3	3/4	LT	318	510	792	950	1227	1560	271	18.30	.89	
C0580	CAJ2446Z	Fig 3	1	LT	549	797	1194	1423	1821	2290	282	26.15	.89	
C0592	CAJ2464Z	Fig 3	1.1/2	LT	723	1076	1605	1902	2412	3012	282	34.45	.89	
*C0599	FH2480Z	Fig 4	2	LT	738	1319	2183	2662	3476	4419	370	53.20	1.625	

**COMMERCIAL 400 Volt 50 Hz Three Phase**

*C7120	TFH2480Z	Fig 4	2.0	LT	738	1319	2183	2662	3476	4419	354	53.4	1.625	POA
*C7122P^	TFH2511Z	Fig 4	3.0	LT	1380	2016	3135	3796	4931	6222	354	74.3	1.625	
*C7126P^	TAG2516Z	Fig 5	4.0	LT	1743	2704	4356	5335	7043	9038	381	112.5	1.96	
*C7128P^	TAG2522Z	Fig 5	5.0	LT	2378	3542	5522	6688	8711	11062	393	134.8	1.96	

All above compressors use Polyolester Oil and require fan cooling.

Refer to Realcold Technical Department for Tandem Compressor packages up to 12HP.

\* These items include crankcase heater and oil sight glass.

P^ These items include an oil level sight glass and connections for oil and pressure equalising lines.



**Use Acid-Away to solve burn-out and acid build up situations.**

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## L'UNITE SEALED RECIPROCATING COMPRESSORS R22 GREENLINE

REALCOLD STOCK NO.	MODEL	FIG	NOM HP	APPL	WATTS						H mm	D cm <sup>3</sup>	OC L	PRICE \$ excl GST
					-15°C	-10°C	-5°C	0°C	+7.2°C	+15°C				

Column Key: D = Displacement, OC = Oil Charge, C = Cooling Control = Cap/TEV for all models listed FIG = Picture # on page C8

### R22 DOMESTIC – COMMERCIAL 220/240 Volt 50 Hz Single Phase

C0320	AEZ4425E	Fig 1	1/5	HT	192	256	329	413	553	728	186	4.50	.45	POA
C0325	AEZ4430E	Fig 1	1/4	HT	255	336	430	538	718	945	186	5.70	.45	
C0333	AEZ4440E	Fig 8	1/3	HT	362	464	588	733	980	1298	199	7.55	.45	
C0339	CAE4450E	Fig 9	3/8	HT	426	554	710	896	1212	1623	212	9.40	.45	
C0351	CAE9460T	Fig 9	1/2	HTW	553	715	909	1134	1514	2000	212	11.30	.45	
C0360	CAJ9480T	Fig 3	5/8	HTW	786	1011	1278	1586	2103	2761	271	15.20	.89	
C0375	CAJ9510T	Fig 3	1.0	HTW	956	1229	1547	1909	2510	3266	282	18.30	.89	
C0390	CAJ9513T	Fig 3	1.1/8	HTW	1074	1451	1896	2411	3272	4366	282	24.20	.89	
C0392	CAJ4517E	Fig 3	1.1/4	HT	1233	1673	2171	2727	3629	4743	282	25.95	.89	
C0393	FH4522F	Fig 4	1.3/4	HT	1598	2202	2927	3774	5206	7042	354	39.95	1.33	
C0395	FH4524F	Fig 4	2.0	HT	1841	2456	3219	4131	5706	7759	354	43.50	1.33	
C0397	FH4531F	Fig 4	2.1/2	HT	2620	3504	4517	5659	7528	9854	370	56.65	1.33	

All above compressors use Mineral oil and require fan cooling.

### AIR CONDITIONING R22 220/240 Volt 50 Hz Single Phase

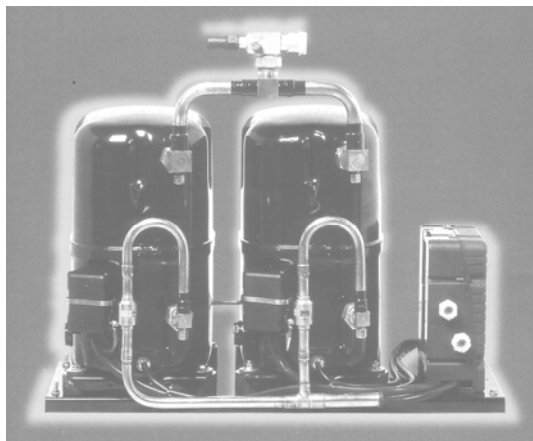
Rated in Watts at +7.2°C SST/+54.5°C SCT, for capillary use only

REALCOLD STOCK NO.	MODEL	FIG	WATTS	H mm	D cm <sup>3</sup>	OT	OC L	C	PRICE \$ excl GST
C0110	AJ5510F	Fig 10	2447	271	18.60	M	.89	F	POA
C0111	AJ5512E	Fig 10	2909	271	21.75	M	.89	F	
C0123	AJ5513E	Fig 10	3213	271	24.20	M	.89	F	
C0124	AJ5515E	Fig 10	3631	271	25.95	M	.89	F	
C0126	AJ5518E	Fig 10	4563	282	32.70	M	.89	F	
C0127	AJ5519E	Fig 10	4779	282	34.45	M	.89	F	
C0129	FH5524F	Fig 11	5929	330	43.50	M	1.33	F	
C0138	FH5527E	Fig 11	6811	330	49.00	M	1.33	F	

## L'UNITE SEALED TANDEM COMPRESSOR KIT COMMERCIAL MEDIUM TEMP

### L'UNITE TAGD TWIN COMPRESSORS R22/R404A 400 Volt 50Hz Three Phase

REALCOLD STOCK NO.	MODEL	FIG	WATTS @ -5°C SCT		H mm	D cm <sup>3</sup>	OT	OC L	C	PRICE \$ excl GST
			R22	R404a						
C7105	TAGD4612Z	Fig 12	21066	17760	565	225	POE	1.96	F	POA



#### Features of the Tandem System

- Twin compressor configuration enable a more precise control of the system capacity to match the cooling demand and thereby the number of starts to a minimum to improve reliability.
- Capacity control - cycle one compressor off at low load conditions for power saving.
- Sequence start up of compressors reducing start up current.
- 50% redundant capacity in the event of one compressor failing.



**L'UNITE SEALED RECIPROCATING COMPRESSORS - R134a GREENLINE**

REALCOLD STOCK NO.	MODEL	FIG	NOM HP	APP	WATTS						H mm	D cm <sup>3</sup>	OC L	C	CONTROL	PRICE \$ excl GST
					-35°C	-30°C	-23.3°C	-20°C	-15°C	-10°C						

Column Key: D = Displacement, OC = Oil Charge, FIG = Picture # Control = Cap/TEV for all models listed FIG = Picture # on page C8

**DOMESTIC - COMMERCIAL 220/240 Volt 50 Hz Single Phase**

C0501	AZ1335Y	Fig 13	1/8	LT	42	58	89	108	141	180	169	4.0	.40	S	Cap	POA
C0503	THB1340Y	Fig 13	1/8	LT	44	67	104	126	163	205	169	4.23	.25	S	Cap	
C0507	THB1360Y	Fig 5	1/5	LT	68	96	147	177	229	289	169	6.1	.25	S	Cap	
C0522	AEZ2380Y	Fig 1	1/4	LT	94	144	223	267	338	417	199	9.4	.45	SOC	Cap/TEV	
C0530	CAE2410Y	Fig 7	1/3	LT	92	151	259	324	436	566	199	12.05	.45	F	Cap/TEV	
C0534	CAE2412Y	Fig 7	3/8	LT	96	174	306	383	514	663	199	14.15	.45	F	Cap/TEV	

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	APP	WATTS						H mm	D cm <sup>3</sup>	OC L	C	CONTROL	PRICE \$ excl GST
					-15°C	-10°C	-5°C	0°C	+7.2°C	+15°C						

C0509	THB4415Y	Fig 13	1/6	HT	123	160	206	262	363	502	169	4.23	.25	S	Cap/TEV	POA
C0510	THB4419Y	Fig 13	1/5	HT	149	194	251	319	439	602	172	5.2	.25	S	Cap/TEV	
C0518	AEZ4425Y	Fig 1	1/5	HT	185	260	350	455	635	866	186	7.55	.45	F	Cap/TEV	
C0525	AEZ4430Y	Fig 1	1/4	HT	245	328	432	558	777	1065	199	8.85	.45	F	Cap/TEV	
C0535	CAE4440Y	Fig 7	1/3	HT	310	421	561	731	1026	1413	199	12.05	.45	F	Cap/TEV	
C0536	CAE4448Y	Fig 6	3/8	HT	403	530	693	892	1242	1705	212	14.15	.45	F	Cap/TEV	
C0537	CAE4456Y	Fig 6	3/7	HT	458	604	787	1009	1396	1904	212	16.10	.45	F	Cap/TEV	
C0550	CAJ4461Y	Fig 3	1/2	HT	475	642	856	1115	1569	2168	258	18.30	.89	F	Cap/TEV	
C0575	CAJ4492Y	Fig 3	3/4	HT	584	871	1215	1617	2295	3164	271	25.95	.89	F	Cap/TEV	
C0590	CAJ4511Y	Fig 3	1	HT	878	1227	1654	2160	3026	4148	282	32.70	.89	F	Cap/TEV	
**C0593*	FH4518Y	Fig 4	1.1/2	HT	1036	1650	2371	3200	4583	6333	330	53.20	1.33	F	Cap/TEV	
**C0595*	FH4525Y	Fig 4	2	HT	1667	2343	3201	4239	6053	8442	354	74.25	1.33	F	Cap/TEV	

**COMMERCIAL 400 Volt 50 Hz Three Phase**

**C0594*	TFH4518Y	Fig 4	1.1/2	HT	1036	1650	2371	3200	4583	6333	354	53.20	1.33	F	Cap/TEV	POA
**C0596*	TFH4525Y	Fig 4	2	HT	1667	2343	3201	4239	6053	8442	354	74.25	1.33	F	Cap/TEV	

All above compressors use Polyolester oil. \* Please state option when ordering, ie 1 phase or 3 phase.

\*\* Includes crankcase heater.

**L'UNITE SEALED RECIPROCATING COMPRESSORS- R12 LOW TEMPERATURE**

REALCOLD STOCK NO.	MODEL	FIG	NOM HP	APP	WATTS						H mm	D cm <sup>3</sup>	OC L	C	CONTROL	PRICE \$ excl GST
					-35°C	-30°C	-23.3°C	-20°C	-15°C	-10°C						

**COMMERCIAL 220/240 Volt 50 Hz Single Phase**

C0058	CAJ2T12	Fig 14	1/2	LT	255	386	613	746	976	1239	271	26.15	.89	F	CAP/TEV	512.00
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Try Acid-Away today- your solution for burn outs and acid build up!



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January 2009



**L'UNITE SEALED ROTARY COMPRESSORS - VERTICAL**

L'UNITE SEALED R22 220/240 Volt 50Hz Single Phase									
REALCOLD STOCK NO.	MODEL	FIG	WATTS	H mm	D cm <sup>3</sup>	OT	OC L	C	PRICE \$ excl GST
C7210	RK5512E	Fig 16	2771	290	16.3	M	0.422	F	POA
C7216	RK5515E	Fig 15	3601	312	21.4	M	0.452	F	
C7218	RK5518E	Fig 15	4196	312	24.4	M	0.452	F	

**L'UNITE SEALED ROTARY HGA COMPRESSORS - HORIZONTAL**

REALCOLD STOCK NO.	MODEL	NOM HP	APPL	WATTS						D cm <sup>3</sup>	PRICE \$ excl GST
				-15°C	-10°C	-5°C	0°C	+5°C	+10°C		

Column Key: D = Displacement

L'UNITE SEALED R404A 220/240 Volt 50 Hz Single Phase												
C7304*	HGA4467Z	3/7	MT	679	847	1047	1283	1557	1872	2231	9.5	POA
C7308*	HGA4480Z	1/2	MT	825	1017	1252	1530	1851	2212	2613	11.5	
C7312*	HGA4492Z	1/2	MT	905	1133	1398	1706	2060	2468	2932	12.7	
C7316*	HGA4512Z	5/8	MT	1163	1438	1770	2160	2609	3118	3689	16.1	

L'UNITE SEALED R134A 220/240 Volt 50 Hz Single Phase												
C7320*	HGA4445Y	1/4	MT	392	493	618	770	954	1173	1430	9.5	POA
C7324*	HGA4450Y	1/3	MT	501	625	778	963	1184	1445	1749	11.5	
C7328*	HGA4460Y	1/3	MT	537	677	844	1045	1287	1576	1920	12.7	
C7332*	HGA4476Y	3/7	MT	696	870	1086	1349	1662	2030	2457	16.1	

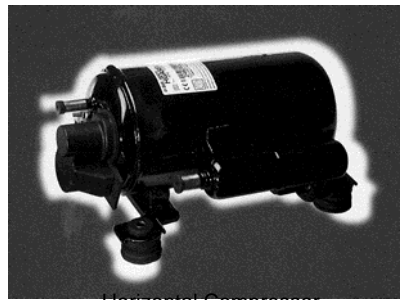
REALCOLD STOCK NO.	MODEL	NOM HP	APPL	WATTS						D cm <sup>3</sup>	PRICE \$ excl GST
				-35°C	-30°C	-23.3°C	-20°C	-15°C	-10°C		

L'UNITE SEALED R404A 220/240 Volt 50 Hz Single Phase												
C7336*	HGA2426Z	3/8	LT	375	474	590	726	888	1080	1300	9.5	POA
C7340*	HGA2432Z	1/2	LT	451	567	707	872	1065	1290	1550	11.5	
C7344*	HGA2436Z	1/2	LT	508	643	804	994	1219	1483	1780	12.7	
C7348*	HGA2446Z	5/8	LT	630	800	1000	1235	1512	1835	2200	16.1	

\*INDENT



Vertical Compressors



Horizontal Compressor



Horizontal Compressor cross section

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## L'UNITE SEALED COMPRESSOR ACCESSORIES

### L'UNITE SEALED

REALCOLD STOCK NO.	DESCRIPTION	PRICE \$ excl GST
C1900	Terminal box cover to suit AEZ compressor	POA
C1901	Overload cover to suit CAJ compressor	
C1902	Terminal box to suit CAJ compressor	
C1903	Electrical Box for TAGD Packs	
C1930	Sight Glass Kit to suit FH, TFH, TAG & TAN compressors	

### ROTALOCK VALVES

C	REALCOLD STOCK NO.	SIZE	DESCRIPTION	PRICE \$ excl GST
C1922	8.683.063	1/4 OD	-suits UL-Listed L'Unite Receivers (was 683067)	POA
C1923	8.683.068	3/8 OD	-suits UL-Listed L'Unite Receivers (was 683067)	
C1908	8.683.060	1/4 OD	-suits CE L'Unite Receivers	
C1909	8.683.053	3/8 OD	-suits CE L'Unite Receivers	
C1911	8.683.049	1/2 OD	-suits FH/TFH/CAJ/TAJ	
C1912	8.682.059	5/8 OD	-suits CAJ/TAJ	
C1913	660062	5/8 OD	-suits FH/TFH/TAG	
C1914	660066	3/4 OD	-suits TAN	
C1916	660063	7/8 OD	-suits CAH/TAH/TAG	
C1917	660064	1.1/8 OD	-suits TAG/TAH	

- Teflon Seal 11.1 mm x 14.3 mm # H1103 in valve section
- Teflon Seal 15.9 mm x 19.1 mm # H1104 in valve section
- Teflon Seal 22.2 mm x 25.4 mm # H1105 in valve section

### CRANKCASE HEATERS

REALCOLD STOCK NO.	MODEL	DESCRIPTION	PRICE \$ excl GST
C1001	H-101	54 W 240 Volt Suitable for <b>L'Unite</b> AH and TAH compressors Suitable for <b>Kirby</b> AH, AG and CL compressors	POA
C1003	H-102	60W 240 Volt Suitable for <b>L'Unite</b> AJ and CAJ compressors Suitable for <b>Kirby</b> AJ compressors	
C1005		Crankcase Heater to suit FH, TFH & TAG Series	
C1007		Crankcase Heater to suit TAN Series - 2 per kit	

#### MAXIMUM TORQUE SETTINGS

##### Valve Spindle

- Small Valves	11.7	(115)
- 19mm square body	14	(138)
- 22mm square body	21	(207)
- 28mm square body	35	(344)

##### Valve cap on Rotalock

- 1/4" (7/16" thread)	14	(138)
- 3/8" (5/8" thread)	30.5	(300)
- 1/2" (3/4" thread)	45	(442)
- 3/4" (7/8" thread)	59	(580)

##### Rotalock valves on compressors and receivers (with joint)

- 3/4" thread	56.5	(553)
- 1" thread	84.5	(829)
- 1 1/4 " thread	141	(1382)
- 1 1/2 " thread	197	(1935)
- 1 3/4" thread	317	(3110)

##### Connections on parallel mounted versions

- 1 3/4" thread	107	(1050)
- 5/8 " thread	45	(442)

##### Sight Glass

- 1 1/8"	51	(500)
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THESE PRICES AND SPECIFICATIONS ARE SUBJECT TO ALTERATION WITHOUT NOTICE



Visit [www.tecumseh-europe.com](http://www.tecumseh-europe.com)  
for additional product information.



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# SUPCO SEALED COMPRESSOR ACCESSORIES

## SOLID STATE RELAYS

REALCOLD STOCK NO.	MODEL	DESCRIPTION	HP/VOLTAGE	PRICE \$ excl GST
C4000	ICG 220	220 V Solid State Relay	1/12 HP through 1/2 HP	POA
C4005	PO 230	230 V Solid State Relay	1/12 HP through 1/2 HP	
C4020	RO-82	220 V Relay & Overload	1/12, 1/10, 1/8 HP	
C4015	RO-62	220 V Relay & Overload	1/6, 1/5 HP	
C4010	RO-42	220 V Relay & Overload	1/4, 1/3 HP	
C4025	RSC-20	220 V Solid State Start Relay & Capacitor (43 - 52MFD)		
C4030	RCO-820	230 V 3 n' 1 Start Relay	1/12, 1/10, 1/8 HP	
C4035	RCO-620	230 V 3 n' 1 Start Relay	1/6, 1/5 HP	
C4040	RCO-420	230 V 3 n' 1 Start Relay	1/4, 1/3 HP	
C4050	SPP-5	230 V Starter Pow-R-Pak	PSG A/C 4000-120000 BTU	
C4062	APR-5	Universal Replacement Relay	Pick up voltage 130V-370V	



RO



RSC



RCO



RO

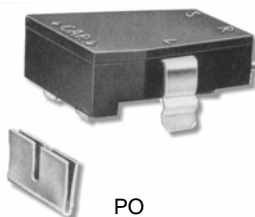


### APPLICATIONS FOR SOLID STATE RELAYS

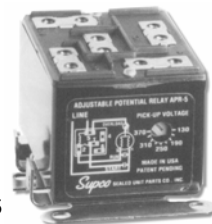
<b>ICG Series:</b>	<ul style="list-style-type: none"> <li>• One size for all compressors 1/12 through 1/2 HP.</li> <li>• Will replace most current relays.</li> <li>• Can be used with or without start capacitor.</li> </ul>
<b>PO Series:</b>	<ul style="list-style-type: none"> <li>• One size for all compressors 1/12 through 1/2 HP.</li> <li>• Replaces all push-on current type relays.</li> <li>• For use on compressors with "pin type" terminals.</li> <li>• Can be used on all capacitor and non-capacitor start motors.</li> <li>• Lowest resistance solid state relay.</li> <li>• Will restart a balanced system within one minute.</li> </ul>
<b>RO Series:</b>	<ul style="list-style-type: none"> <li>• Relay and overload in one combination unit.</li> <li>• Pre-wired for fast, simple installation.</li> <li>• Superior locked rotor protection eliminates start winding overheating.</li> <li>• Replaces all hermetic compressor relay and overload units 1/12 through 1/3 HP.</li> <li>• Can be used in conjunction with a start capacitor.</li> </ul>
<b>RSC Series:</b>	<ul style="list-style-type: none"> <li>• One size for all compressors 1/12 through 1/2 HP both domestic and commercial.</li> <li>• A combined solid state starting relay and capacitor.</li> <li>• Completely pre-wired.</li> <li>• Replaces current type relays.</li> <li>• Provides added boost for hard start and unbalanced systems.</li> <li>• Prevents low voltage starting problems. (No additional wires required.)</li> </ul>
<b>RCO Series:</b>	<ul style="list-style-type: none"> <li>• The 3 n' 1 Start Relay replaces all three electrical components, Relay, Overload, and Start Capacitor, on all capillary systems.</li> <li>• Completely pre-wired.</li> <li>• Installs quickly and easily, simply by pushing on 3 female pin terminals.</li> </ul>



ICG



PO



APR5



## COPELAND SCROLL™ COMPRESSORS - INTRODUCTION



**Copeland Scroll™ Compressors are manufactured by Emerson Climate Technologies.**

With its European Headquarters based in Germany and manufacturing plants all around Europe, Emerson Climate Technologies is the world's largest provider of HVAC/R solutions, delivering simple answers for commercial, industrial, and residential applications.

Standard Copeland Scroll™ Compressor unit includes:

- Compressor filled with ester oil
- Rotalock connections
- Oil sight glass
- Schraeder connection for oil fill or drain
- Rubber mountings
- Electronic protection module on all compressors from 7.5 to 15hp

### Features

- Designed to meet the specific needs in refrigeration (medium and low temperature applications)
- Wide range of operations (2 to 15hp for all R404A, R134s and R22 applications)
- High efficiencies all year round (continuous scroll flank contact maintained by centrifugal force minimizing gas leakage, maximising efficiency)
- Capacity control (modulation range is continuous from 10 to 100%)
- Compactness (Small footprint with reduced weight by up to 50% compared to standard semi-hermetic compressors)
- Robustness and reliability (Stringent qualification tests ensure maximum reliability, Teflon coated bearings, fewer parts)
- Compressor protection (All 2 to 6HP compressors are supplied with internal thermal protectors and all 7.5hp to 15hp models feature an electronic module)
- Smooth operation (Designed with a discharge check valve)
- Asercom certified performance data (Compressor delivers performance defined and published by the manufacturer via simulative data testing performed by experts and regular measurement at independent bodies)



ZB11MCE

ZB92KCE

ZB38KC

ZB19KC

ZBD45



## COPELAND SCROLL™ COMPRESSORS

### COPELAND SCROLL™

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	NOM. RATING (W)						D m <sup>3</sup> /hr	W Kg	PRICE \$ excl GST
				R22			R134A					
				-5°C	0°C	+5°C	-5°C	0°C	+5°C			

Column Key: FIG = Picture #, D = Displacement, W = Weight for all models listed

#### AIR CONDITIONING – 220/240 Volt 50 Hz Single Phase

CS0044	ZR28K3E-PFJ	Fig 2	2.5	4620	5620	6790	2920	3630	4470	6.80	27	POA
CS0047	ZR36K3E-PFJ	Fig 2	3.0	6100	7500	9050	-	-	-	8.60	29	
CS0049A	ZR42K3E-PFJ	Fig 2	3.5	7100	8700	10500	-	-	-	9.90	30	
CS0050	ZR47K3E-PFJ	Fig 3	4.0	8200	9900	11850	5550	6750	8300	11.0	31	
CS0054	ZR68KCE-PFJ	Fig 3	5.5	11850	14350	17100	7650	9500	11650	16.1	40	

#### AIR CONDITIONING – 380/420 Volt 50 Hz Three Phase

CS0052	ZR61KCE-TFD	Fig 3	5.0	9500	11700	14150	6290	7810	9600	14.4	36	POA
CS0060	ZR68KCE-TFD	Fig 3	5.5	11600	14250	17200	7650	9500	11650	16.2	39	
CS0062	ZR72KCE-TFD	Fig 3	6.0	11950	14400	17150	7420	9270	11450	17.06	39	
CS0064	ZR81KCE-TFD	Fig 3	6.5	13250	16150	19400	8420	10400	12750	18.75	39	
CS0065	ZR94KCE-TFD	Fig 4	8.0	15350	18850	22700	9610	11900	14600	22.12	57	
CS0067	ZR108KCE-TFD	Fig 4	9.0	17800	21500	25100	11000	13650	16700	24.87	60	
CS0069	ZR125KCE-TFD	Fig 4	10.0	20900	25300	30200	12600	15600	19150	29.08	61	
CS0071	ZR144KCE-TFD	Fig 4	12.0	23900	28900	34600	15750	19100	22900	33.20	61	

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	NOM. RATING (W)						D m <sup>3</sup> /hr	W Kg	PRICE \$ excl GST
				R410A								
				-15°C	-10°C	-5°C	0°C	+7.2°C	+15°C			

#### AIR CONDITIONING – 380/420 Volt 50 Hz Three Phase – R410A\*

CS0220	ZP235KCE-TWD-522	Fig 5	20.0	25100	31300	38400	46600	60100	78900	36.30	140	POA
CS0230	ZP385KCE-TWD-522	Fig 5	30.0	41600	51400	62800	76000	97700	128000	66.70	176	

\* A full range of R410A Scroll Compressors is available on indent

REALCOLD STOCK NO.	MODEL	FIG	NOM. HP	NOM. RATING (W)						D m <sup>3</sup> /hr	W Kg	PRICE \$ excl GST
				R404A								
				-35°C	-30°C	-23.3°C	-20°C	-15°C	+7.2°C			

#### REFRIGERATION 380/420 Volt 50 Hz Three Phase

CS0017	ZF18K4E-TFD	Fig 6	6.0	3350	4250	5740	6620	8160	-	17.06	39	POA
CS0020	ZF24K4E-TWD	Fig 7	7.5	4130	5280	7110	8180	10050	-	20.86	100	
CS0024	ZF33K4E-TWD	Fig 7	10.0	5650	7210	9790	11300	13950	-	28.78	102	
CS0028	ZF40K4E-TWD	Fig 8	13.0	7010	8970	12100	13950	17150	-	35.55	112	
CS0032	ZF48K4E-TWD	Fig 8	15.0	8450	10800	14650	16950	20900	-	42.76	120	
CS0118	ZB30KCE-TFD	Fig 9	4.0	-	2550	3590	4210	5290	12550	11.68	35	
CS0120	ZB38KCE-TFD	Fig 9	5.0	-	3230	4510	5270	6600	15700	14.37	37	
CS0122	ZB45KCE-TFD	Fig 9	6.0	-	3810	5320	6210	7770	18400	17.06	39	
CS0126	ZB58KQE-TFD	Fig 10	8.0	-	-	7120	8450	10800	24400	22.12	59	
CS0130	ZB76KQE-TFD	Fig 11	10.0	-	-	10250	11800	14600	32300	28.82	65	
CS0136	ZB92KCE-TWD	Fig 1	13.0	-	-	11550	13400	16550	38000	35.55	96	
CS0138	ZB11MCE-TWD	Fig 1	15.0	-	-	13850	16150	20100	46000	42.76	112	

\* Duty ratings based on 45°C condensing temp & 2K sub-cooling

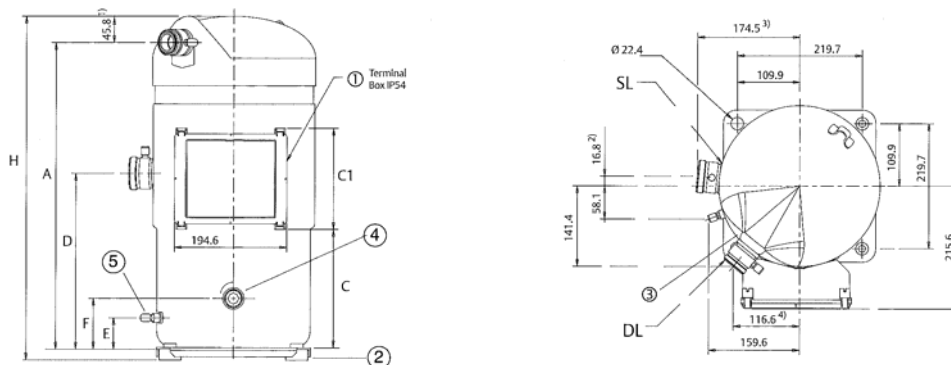


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**COPELAND SCROLL™ COMPRESSORS**

**FIGURE ONE**



**FIGURE ONE DIMENSIONS**

MODEL	A±3 (mm)	C (mm)	C1 (mm)	D (mm)	E (mm)	F (mm)	H (mm)
ZB92KCE	492	209	176	306	55	88	551
ZB11MCE	533	209	176	306	55	88	596

**COPELAND SCROLL™ COMPRESSORS ACCESSORIES**

REALCOLD STOCK NO.	DESCRIPTION	PRICE \$ Excl GST
CCS1000	Start Capacitor ZR68	POA
CCS1001	Start Capacitor ZR28 - 47	
CCS1002	Run Capacitor ZR68	
CCS1003	Run Capacitor ZR28	
CCS1004	Run Capacitor ZR42 - 47	
CCS1005	Run Capacitor ZR36	
CCS1006	C/Case Heater ZR84 -144, ZB58-76	
CCS1007	C/Case Heater ZR22 - 81, ZB30-45	
CCS1008	Crankcase Heater ZR16 - 19M	
CCS1009	Suction Rotalock Seal	
CCS1010	Suction Rotalock Seal	
CCS1011	Potential Relay ZR68	
CCS1012	Current Relay ZF	
CCS1013	Potential Relay ZR28 - 42	
CCS1014	Summit Temp T/Stat	
CCS1017	Valve Kit ZB58	
CCS1018	Valve Kit ZF18	
CCS1019	Valve Kit ZF24	
CCS1020	Valve Kit ZF33 - 40, ZB92	
CCS1021	Valve Kit ZF48, ZB11	
CCS1023	CC Heater ZF40 – 48, ZB92	
CCS1024	Crankcase Heater ZP385	
CCS1025	Crankcase Heater ZP235	

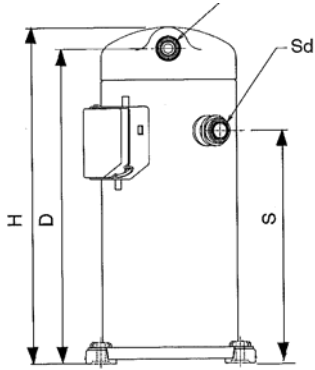
Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial.



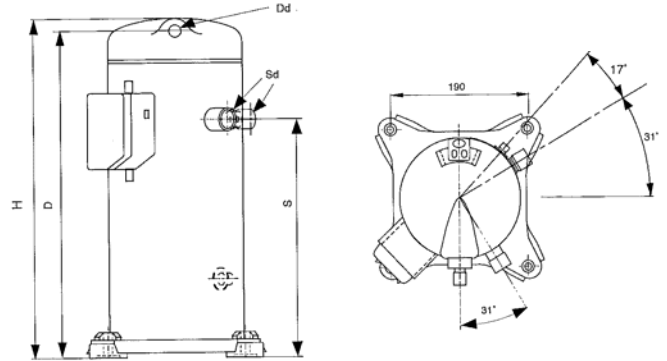


**COPELAND SCROLL™ COMPRESSORS (Air Conditioning)**

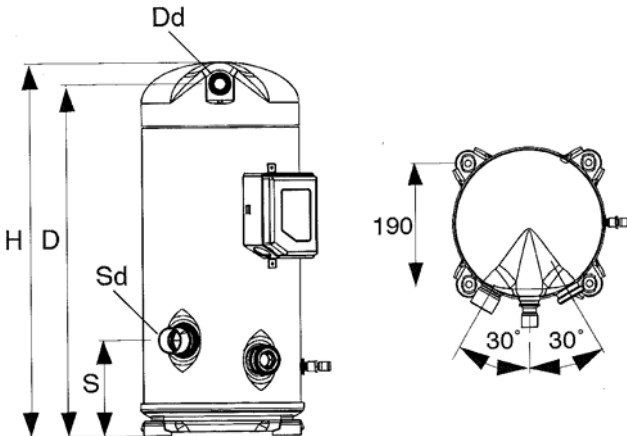
**FIGURE TWO**



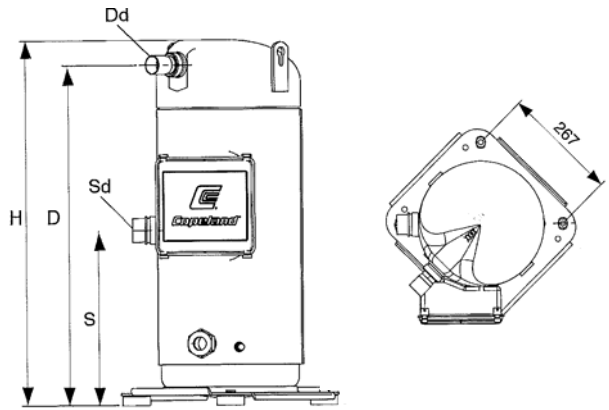
**FIGURE THREE**



**FIGURE FOUR**



**FIGURE FIVE**



<b>FIGURE TWO</b>			
MODEL	H (mm)	D (mm)	S (mm)
ZR28K3E	383	357	264
ZR36K3E	406	380	283.5
ZR42K3E	419	393.8	296.3

<b>FIGURE THREE</b>			
MODEL	H (mm)	D (mm)	S (mm)
ZR47K3E	436		
ZR61KCE	476	429	316
ZR68KCE	476	429	316
ZR72KCE	476	429	316
ZR81KCE	462	433	316

<b>FIGURE FOUR</b>			
MODEL	H (mm)	D (mm)	S (mm)
ZR94KCE	495	463	113
ZR108KCE	552	520	141
ZR125KCE	552	520	141
ZR144KCE	552	520	141

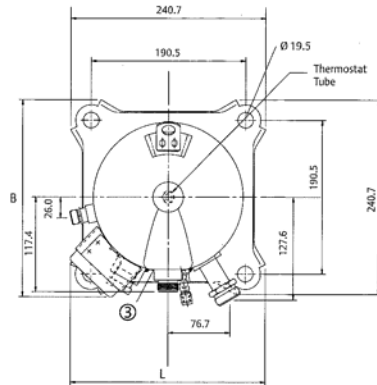
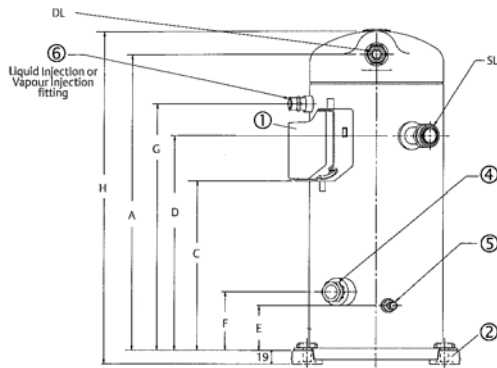
<b>FIGURE FIVE</b>			
MODEL	H (mm)	D (mm)	S (mm)
ZP235KCE	713	685	352
ZP385KCE	716	678	394

Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial.

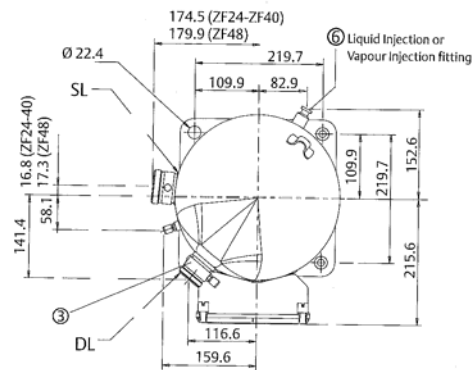
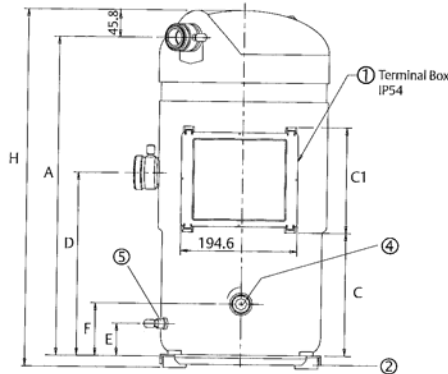


**COPELAND SCROLL™ COMPRESSORS (Refrigeration)**

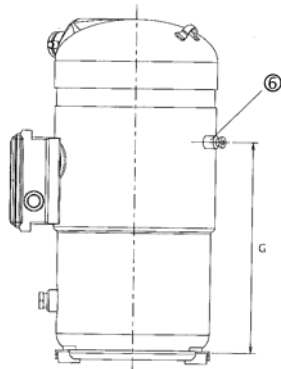
**FIGURE SIX**



**FIGURE SEVEN**



**FIGURE EIGHT**



**FIGURE SIX DIMENSIONS**

MODEL	A <sub>±3</sub> (mm)	C <sub>±3</sub> (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
ZF18K4E	410	233	297	48	81	341	489

**FIGURE SEVEN DIMENSIONS**

MODEL	A <sub>±3</sub> (mm)	C (mm)	C1 (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
ZF24K4E	496	209	176	306	55	88	359	561
ZF33K4E	496	209	176	306	55	88	359	561

**FIGURE EIGHT DIMENSIONS**

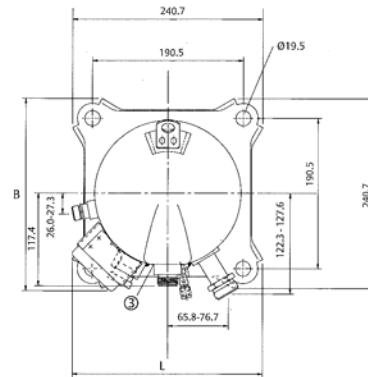
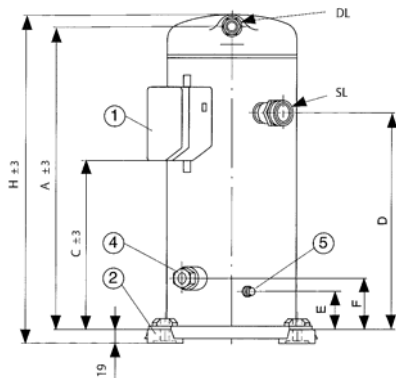
MODEL	A <sub>±3</sub> (mm)	C (mm)	C1 (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
ZF40K4E	504	209	176	306	55	88	366	569
ZF48K4E	533	209	176	306	55	88	366	598

Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial.

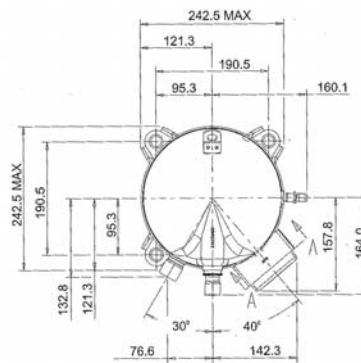
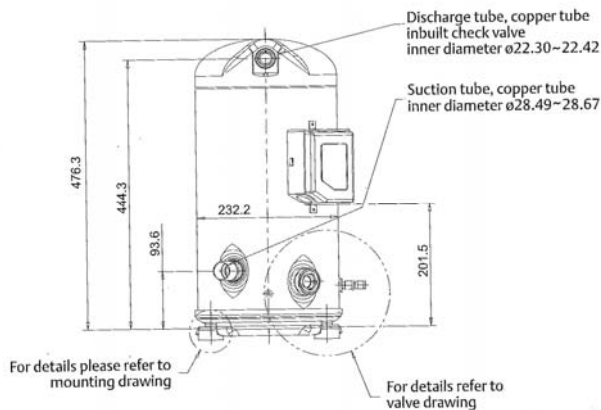


**COPELAND SCROLL™ COMPRESSORS (Refrigeration)**

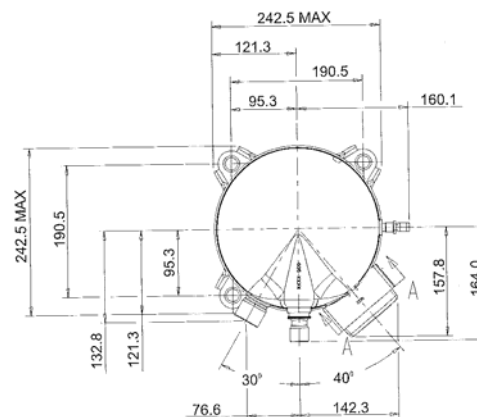
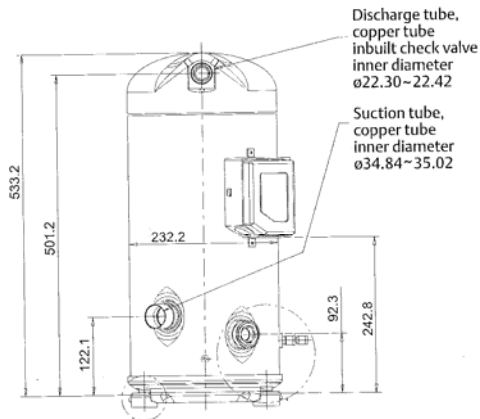
**FIGURE NINE**



**FIGURE TEN**



**FIGURE ELEVEN**



**FIGURE NINE DIMENSIONS**

MODEL	A $\pm 3$ (mm)	C (mm)	C1 (mm)	D (mm)	E (mm)	F (mm)	H (mm)
ZB30KCE	410	233	-	297	48	81	457
ZB38KCE	410	233	-	297	48	81	457
ZB45KCE	410	233	-	297	48	81	457

**FIGURE TEN DIMENSIONS**

MODEL	H (mm)	W (mm)	L (mm)
ZB58KQE	477	284.2	263.6

**FIGURE ELEVEN DIMENSIONS**

MODEL	H (mm)	W (mm)	L (mm)
ZB76KQE	546.1	284.2	263.6

Specified compressor heights are indicative of series dimensions. Certain model heights vary from specification. Please consult RE if the compressor height is crucial.



## COPELAND SEMI-HERMETIC COMPRESSORS AND ACCESSORIES

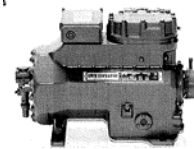
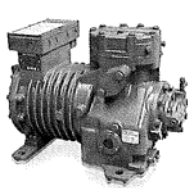
### Features

- High efficiency energy saving compressor technology  
New Delta Reed plate design with all Discus® compressors except D2D
- The Discus® valve plate allows gas to flow into the cylinders with a minimum heat gain, while suction cavities are designed to smoothly route the gas to minimize losses.
- These effects lead to:
  - Superior cooling capacity due to no reexpansion volume
  - Up to 10% higher efficiency compared to conventional "cost-effective" reed type compressors
  - Lower operating costs for the end-user.

### COPELAND DISCUS®

REALCOLD STOCK NO.	MODEL	NOM. HP	NOM. RATING (Kw)					D m <sup>3</sup> /hr	W Kg	PRICE \$ excl GST
			R22		R404A		R134a			
			-25°C	-5°C	-25°C	-5°C	-5°C			
CC1207	D2DB-050X-AWM	5.0	6.5	-	7.2	-	10.7	28.0	131	POA
CC1211	D2DB-075X-AWM	7.5	-	17.2	7.4	18.1	-	28.0	136	
CC1223	D2DL-075X-AWM	7.5	-	14.3	6.0	15.1	-	23.7	136	
CC1231	D3DA5-050X-AWM	5.0	7.3	-	8.0	-	12.0	32.2	146	
CC1235	D3DA5-075X-AWM	7.5	-	20.0	8.3	20.3	-	32.2	152	
CC1239	D3DC5-075X-AWM	7.5	8.9	-	9.7	-	14.6	38.0	150	
CC1243	D3DC5-100X-AWM	10.0	-	23.7	10.2	24.2	-	38.0	164	
CC1247	D3DS5-100X-AWM	10.0	12.3	-	14.0	-	19.1	49.9	162	
CC1251	D3DS5-150X-AWM	15.0	-	31.5	14.0	32.0	-	49.9	166	
CC1259	D4DF-100X-AWM	10.0	12.6	-	14.9	-	-	56.0	179	
CC1263	D4DA-200X-AWM	20.0	-	36.0	14.7	36.5	-	56.0	196	
CC1267	D4DL-150X-AWM	15.0	18.0	-	20.0	-	-	70.8	195	
CC1271	D4DH-250X-AWM	25.0	-	45.5	18.7	46.0	-	70.8	209	
CC1275	D4DT-220X-AWM	22.0	21.1	-	22.5	-	-	84.7	195	
CC1279	D4DJ-300X-AWM	30.0	-	53.0	23.2	55.5	-	84.7	214	
CC1287	D6DL-270X-AWM	27.0	23.8	-	28.2	-	-	106.0	222	
CC1291	D6DH-350X-AWM	35.0	-	67.5	29.5	69.5	-	106.0	226	
CC1295	D6DT-320X-AWM	32.0	29.8	-	34.0	-	-	127.0	241	
CC1299	D6DJ-400X-AWM	40.0	-	79.0	35.0	81.5	-	127.0	277	
CC1315	D8DH-500X-AWM	50.0	-	92.0	40.0	94.0	-	151.0	331	
CC1319	D8DJ-600X-AWM	60.0	-	110.0	46.5	110.0	-	181.0	331	

\* Duty ratings based on 45°C condensing temp



### COPELAND SEMI-HERMETIC ACCESSORIES

REALCOLD STOCK NO.	DESCRIPTION	PRICE \$ excl GST
CCS1026	CRANKCASE HEATER 70W INT DK	POA
CCS1027	C/CASE HEAT 70W IN DL DLHA D2S	
CCS1028	CRANKCASE HEATER 70W INT D3S	
CCS1029	C/CASE HEAT 100W INT	
CCS1030	C/CASE HEAT 200W INT	
CCS1031	HEAD COOLING FAN LESS BRACKETS	
CCS1032	D2S BRACKET	
CCS1033	D3S BRACKET	
CCS1034	D4S BRACKET	
CCS1035	D6S BRACKET	
CCS1036	D8SJ BRACKET	
CCS1037	CAP CONTROL SOL VALVE, COIL, GASKET	
CCS1038	OPS1 OIL PRESS SWITCH	



## FRASCOLD SEMI SEALED COMPRESSORS - INTRODUCTION



### Frascold History

The Fraschini Company was founded in 1936 to produce open drive compressors. Renamed Frascold in 1965, the company continued to develop its range of open drive compressors, adding a semi-hermetic reciprocating range by 1975. Since 1987 the factor production line has been continually upgraded with computer controlled machining processes, and this has enabled Frascold to increase production and maintain very high manufacturing standards. Quality control procedures conform to EN ISO 9001 standard.

Frascold's initiative and technology has led to the development of its low clearance high capacity design, where the piston head is shaped to suit the suction valve reed profile. This results in very low clearance, which is a major factor in improving performance and efficiency in respect to standard compressors.

The process of continual improvements has made Frascold a world leader as a manufacturer and supplier of semi-hermetic compressors throughout the world. Its modern, high performance range of semi-hermetic compressors is suitable for Refrigeration and Air Conditioning applications. Ranging from 3.93 cubic metres per hour through to 205.80 cubic metres per hour and with refrigeration capacities from 200 watts through to 280,000 watts, Frascold's semi-hermetic compressors are able to run on a large range of modern refrigerants.

### Notes on the Frascold Range

Please note that the superheat of the suction vapour entering the compressor must not exceed the values stated by the manufacturer. Failure to adhere to this will void any warranty or performance claims.

Frascold offers a range of CO2 compressors, suitable for sub-critical system from 1.5HP to 9HP and trans-critical 10HP to 25HP.

#### Evaporating Range – Guideline Only

All compressors are suction vapour cooled. Refer to Compressor Data Book for individual operating ranges for above compressors.

H +10°C/0°C                      M 0°C/-15°C                      L -15°C/-30°C

See Warranty section at the front of catalogue for Warranty details

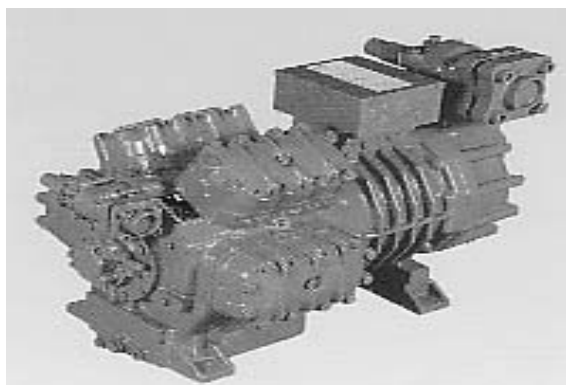
Single Phase: Protection with thermal Klixon.

Three Phase: Inherent protection, thermistor with control relay.

**All Frascold compressors are charged with Polyolester oils. Please refer to our Technical Department for refrigerant blend applications.**

Our Technical Department is only too happy to select equipment and provide quotations for all your requirements.

Refer to Spares Section at the rear of this catalogue, for Frascold Compressor Spares.





**SEMI-SEALED RECIPROCATING COMPRESSORS**

**FRASCOLD SEMI SEALED**

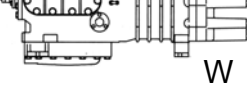
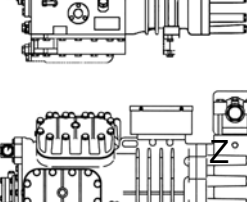
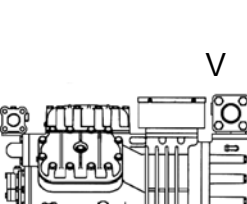
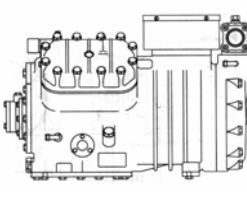
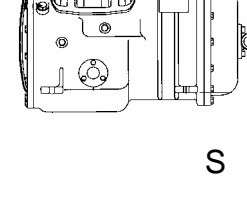
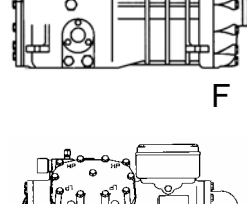
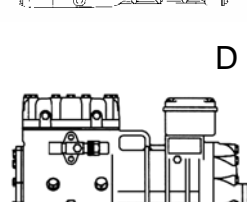
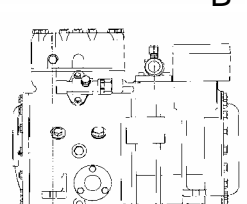
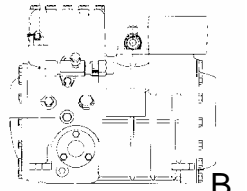
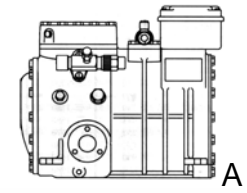
REALCOLD STOCK NO	MODEL (COMP)	HP/KW NOM.	DISP. M <sup>3</sup> /HR	OIL CHARGE LITRES	APPLICATION			PRICE \$ excl GST
					R22	R404a	R134a	
<b>Single Phase 220/240 Volt 50 Hz</b>								
C5016	A16	1.0/0.75	5.47	1.25	ML	ML	HM	POA
C5033	A157	1.5/1.1	6.91	1.25	ML	ML	HM	
C5038	B159	1.5/1.1	8.96	1.25	L	ML	HM	

**Three Phase 380/415 Volt 50 Hz**

C5031	A157	1.5/1.1	6.91	1.25	ML	ML	HM	POA
C5036	B159	1.5/1.1	8.96	1.25	L	ML	HM	
C5046	B210	2.0/1.5	9.84	1.25	HML	ML	HM	
C5051	D213	2.0/1.5	13.84	1.50	ML	L	HM	
C5061	D313	3.0/2.2	13.84	1.50	HML	ML	HM	
C5071	D318	3.0/2.2	17.93	1.50	L	L	HM	
C5078	D418	4.0/3.0	17.93	1.2	HML	ML	HM	
C5086	F424	4.0/3.0	23.60	2.60	L	L	HM	
C5095	F524	5.0/3.7	23.60	2.60	HML	ML	HM	
C5096	Q528Y	5.0/3.7	27.88	1.8	ML	L	HM	
C5097	Q533Y	5.0/3.7	32.66	1.8	ML	L	HM	
C5098	Q728	7.5/5.5	27.31	2.60	HML	ML	HM	
C5124	S733	7.5/5.5	32.80	3.30	HML	ML	HM	
C5127	S739	7.5/5.5	38.25	3.30	L	ML	HM	
C5129	S1039	10/7.5	38.25	3.30	HML	ML	HM	
C5133	S1051	10/7.5	50.43	3.30	ML	ML	HM	
C5137	S1551	15/11	50.43	3.30	HML	ML	HM	
C5155	V1559	15/11	58.48	4.25	ML	ML	HM	
C5160	V1571	15/11	70.77	4.25	L	L	HM	
C5165	V2059	20/15	58.84	4.25	HML	ML	HM	
C5172	V2084	20/15	83.81	4.25	ML	L	HM	
C5185	V2571	25/18.5	70.77	4.25	HM	HM	HM	
C5187	V25103	25/18.5	102.90	4.25	ML	L	HM	
C5190	Z25106	25/18.5	106.16	5.00	HML	ML	HM	
C5192	V3084	30/22	83.81	4.25	HM	HM	HM	
C5198	Z30126	30/22	125.72	7.50	ML	L	HM	
C5200	Z35106	35/26	106.16	5.00	HML	ML	HM	
C5206	Z40126	40/30	125.72	7.50	HML	ML	HM	
C5210	Z40154	40/30	154.38	7.50	ML	ML	HM	
C5215	Z50154	50/37	154.38	7.50	HML	ML	HM	
C5233	W50187	50/37	186.10	8.00	ML	ML	HM	
C5234	W60187	60/44.5	186.10	8.00	HM	HM	HM	
C5235	W60206	60/44.5	205.80	8.00	ML	ML	HM	
C5238	W70206	70/52	205.80	8.00	ML	ML	-	

**NOTE: FRASCOLD** offers a range of –

- i) R410A semi-hermetic compressors from 7.5 HP to 15 HP
- ii) CO<sup>2</sup> sub-critical Semi-hermetic compressors from 1.5 HP to 10 HP
- iii) CO<sup>2</sup> trans-critical semi-hermetic compressors from 10 HP to 25 HP



Realcold offer equipment selection services. Please feel free to use this service.  
**REFER TO SPARES SECTION AT REAR FOR FRASCOLD COMPRESSOR SPARES.**



Visit [www.frascold.com](http://www.frascold.com) for additional product information.



**SEMI-SEALED RECIPROCATING UNIT ACCESSORIES**

**CAPACITY CONTROL**



REALCOLD STOCK NO.	DESCRIPTION	PRICE \$ excl GST
C5221	To suit "T" & "S" Series (Mk II) 1 cylinder head c/w solenoid 50% control	POA
C5225	To suit "Z" & "V" & "W" Series 1 head only. 1 head for "V"=50% control. 1 head for "Z" = 33% control 2 heads for "Z"=33% & 66% control (Z:33%+66% = 2 x C5225) 2 heads for "W"=50% & 75% control (W:50%+75% = 2 x C5225)	

**ACCESSORIES**



R0316	Rubber Mounts 40 x 40 mm	2 - 3 HP		POA
R0552	Crankcase Heater F, S, T Series	70 Watt	Fitted	
R0553	Crankcase Heater A, B, D Series	50 Watt	Fitted	
R0555	Crankcase Heater (to suit V, W, Z Series) MK 2	150 Watt Plain Shank	Fitted	
C5805	Head Cooling Fan (to suit A, B, D, F Series)		Fitted	
C5808	Head Cooling Fan to suit S, T, V, Z Series		Fitted	
R0824	Delta-P Oil Differential Pressure Switch suits V, Z and W Series The Delta-P is easy and fast to mount, with no mounting bracket required. The electric component can be removed without refrigerant leakage. Includes a reset push button.			

**OGURA MAGNETIC CLUTCHES**

(suitable for Tecumseh, Blissfield, York)



REALCOLD STOCK NO.	MODEL	DIAMETER	VOLTS	DRIVE PROFILE	STATIC TORQUE	PRICE \$ excl GST
C0240	MA-6A	6"	12 Volt	Twin 'A' Section	72 ft lbs	POA
C0241	MA-7A	7"	12 Volt	Twin 'A' Section	72 ft lbs	
C0242	MA-7A	7"	24 Volt	Twin 'A' Section	72 ft lbs	
C0243	MA-6A	6"	24 Volt	Twin 'A' Section	72 ft lbs	

**Higher efficiency with Low Clearance High Capacity (LCH)**



LCH design, distinguished the piston-valve plate assembly, is the final result of a close research in order to reduce clearance, the most important reason of loss of computer efficiency. To considerably restrict such efficiency loss, FRASCOLD has shaped the head of the piston so that it matches suction valve reed profile.

In the compressor with LCH design, contoured piston lower cylinder clearance and an increase in capacity and efficiency it results respect to the performance of a standard compressor.



Visit [www.frascold.com](http://www.frascold.com) for additional product information.



## SEMI-HERMETIC SCREW COMPRESSOR INTRODUCTION

Frascold started manufacturing a range of twin screw compressors in 1995.

The twin screw compressor range comprises twenty four models across three ranges.

**C-TSH Range:** This range of compact twin screw compressors comprises eight models from a nominal 40HP to 120HP, with displacements from 120 to 360 cubic meters per hour at 50Hz. The C-TSH range is suited to applications in the operating temperature range from +12.5°C to -15°C on R22/ R407C/ R134A/ R404A. Compressors are fitted with integral oil separator / reservoir.

**C-XH0 Range:** This range of compact twin screw compressors comprises twenty seven models from a nominal 50HP to 300HP, with displacements from 199 to 912 cubic meters per hour at 50Hz. The C-XH0 range is suited to applications in the operating temperature range from +12.5°C to -15°C on R407C/R134A; +0°C to -25°C on R404A/R507. Compressors are fitted with integral oil separator / reservoir.

**R-TSH Range:** This range comprises eight models from nominal 40HP to 120HP, with displacements from 120 to 360 cubic meters per hour at 50Hz. The R-TSH range is suited to air conditioning and medium/ high temperature applications, in the temperature operating range from +7. °5C to -20°C on R404A/R507A; +12.5°C to -20°C on R22; +20°C to -10°C on R134A.

**R-TSL Range:** This range comprises eight models from nominal 30HP to 100HP, with displacements from 120 to 360 cubic meters per hour at 50Hz. The R-TSL range is suited to low temperature applications, in the temperature operating range from -20°C to -45°C on R404A/R507A.

### OUTSTANDING FEATURES

**Screw Profiles:** The compressors are two-shaft rotary displacement design, with innovative profiles of the screws.

(Ratio 5:6 between male & female screw). The shafts are fitted with large roller bearings sized to bear both radial and axial loads, resulting in reduction of friction, vibration and lower noise levels. Discharge check valve, located in the service valve prevents counter rotation when compressor stops operating.

**High Efficiency Electric Motor:** High efficiency electric motor is two-pole, three phase asynchronous type. The rotor is fitted to the shaft of the male screw. Cooling of the motor is carried out by the suction gas flowing through slots in the rotor, also causing any liquid refrigerant to be separated due to the centrifugal action.

Power Supply: 400/3/50

Connection: Part Winding Start (PWS) 50% + 50% current distribution

**Capacity Control:** All compressors are fitted with capacity control, which operates by means of a three-way solenoid valve, directing the flow of oil under pressure, to a slide piston mechanism. At full load, oil under pressure pushes against the piston, opposing the spring and closing the capacity control device. At reduced load conditions, the oil is diverted to the suction side of the compressor, and the spring forces the piston to open the capacity control device, which reduces the displacement and consequently reduces the capacity of the compressor.



### CAPACITY CONTROL STEPS

Model Number	% of full capacity – Steps
R-TSH8 40 120Y; R-TSL8 30 120Y	100 – 50; one stage capacity control
R-TSH8 50 150Y; R-TSL8 40 150Y	100 – 50; one stage capacity control
R-TSH8 60 186Y; R-TSL8 50 186 Y	100 – 50; one stage capacity control
R-TSH8 70 210Y; R-TSL8 60 210Y	100 – 50; one stage capacity control
R-TSH8 80 240Y; R-TSL8 70 240Y	100-75-50; two stage capacity control
R-TSH8 90 270Y; R-TSL8 80 270Y	100-75-50; two stage capacity control
R-TSH8 100 300Y; R-TSL8 90 300Y	100-75-50; two stage capacity control
R-TSH8 120 360Y; R-TSL8 100 360Y	100-75-50; two stage capacity control

**Electronic Protection Device:** All screw compressors are equipped with electronic protection called KRIWAN NT 68 FRY, complete with thermistor sensors, performing the following functions:

- Control of maximum temperature of the electric motor +120°C, through six PTC thermistors, fitted to the stator winding.
- Control of the maximum discharge temperature +120°C through PTC sensor placed on compressor discharge side.
- Control of rotation direction of the electric motor and phase sequence.
- Protection of phase and voltage failures.
- Control of breakage and short circuit in chain of PTC sensors.

Screw compressors can be installed in parallel configurations and the R series are well suited to two-stage systems.



## SEMI-HERMETIC SCREW COMPRESSORS



REALCOLD STOCK NO.	MODEL	DESCRIPTION	HP/kW	DISP m3/HR	PRICE \$ excl GST
<b>COMPACT TWIN SCREW COMPRESSOR</b>					
Medium Temperature					
C5251	C-TSH8 40 120Y	COMPRESSOR MBP-HBP	40/30	120	POA
C5252	C-TSH8 50 150Y	COMPRESSOR MBP-HBP	50/37	150	
C5253	C-TSH8 60 186Y	COMPRESSOR MBP-HBP	60/45	186	
C5254	C-TSH8 70 210Y	COMPRESSOR MBP-HBP	70/52	210	
C5255	C-TSH8 80 240Y	COMPRESSOR MBP-HBP	80/60	240	
C5256	C-TSH8 90 270Y	COMPRESSOR MBP-HBP	90/67	270	
C5257	C-TSH8 100 300Y	COMPRESSOR MBP-HBP	100/75	300	
C5258	C-TSH8 120 360Y	COMPRESSOR MBP-HBP	120/90	360	



### Standard equipment

Note that these Compressors are available as Indent stock

**Screw compressor is supplied complete with:**

- oil separator directly assembled with flange to the compressor body
- oil demister inside the separator
- oil strainer
- discharge connection complete with valve and check valve
- suction valve
- internal relief valve
- capacity control device
- electronic protection device
- electric box with IP65 protection
- oil heater
- vibration absorbers

## CXHO COMPACT TWIN SCREW COMPRESSORS



<b>R134A</b>					
CFS0020	CXH0 50 199Y	COMPRESSOR CXH0	50/37	199	POA
CFS0022	CXH0 60 230Y	COMPRESSOR CXH0	60/45	230	
CFS0024	CXH0 70 264Y	COMPRESSOR CXH0	70/52	264	
CFS0026	CXH0 80 298Y	COMPRESSOR CXH0	80/60	298	
CFS0028	CXH0 90 340Y	COMPRESSOR CXH0	90/67	340	
CFS0030	CXH0 100 370Y	COMPRESSOR CXH0	100/75	370	
CFS0034	CXH0 110 398Y	COMPRESSOR CXH0	110/81.5	398	
CFS0036	CXH0 125 468	COMPRESSOR CXH0	125/93.8	468	
CFS0038	CXH0 140 538Y	COMPRESSOR CXH0	140/104	538	
CFS0042	CXH0 160 620Y	COMPRESSOR CXH0	160/118.8	620	
CFS0044	CXH0 180 702Y	COMPRESSOR CXH0	180/133.7	702	
CFS0046	CXH0 210 810Y	COMPRESSOR CXH0	210/156	810	
CFS0048	CXH0 240 912Y	COMPRESSOR CXH0	240/178.3	912	
<b>R407C &amp; R404A</b>					
CFS0060	CXH0 70 199Y	COMPRESSOR CXH0	70/52	199	POA
CFS0062	CXH0 80 230Y	COMPRESSOR CXH0	80/60	230	
CFS0064	CXH0 90 264Y	COMPRESSOR CXH0	90/67	264	
CFS0066	CXH0 100 298Y	COMPRESSOR CXH0	100/75	298	
CFS0068	CXH0 120 340Y	COMPRESSOR CXH0	120/88	340	
CFS0072	CXH0 110 316Y	COMPRESSOR CXH0	110/81.5	316	
CFS0074	CXH0 125 372Y	COMPRESSOR CXH0	125/93.8	372	
CFS0076	CXH0 140 428Y	COMPRESSOR CXH0	140/104	428	
CFS0078	CXH0 160 468Y	COMPRESSOR CXH0	160/120	468	
CFS0082	CXH0 180 545Y	COMPRESSOR CXH0	180/133.7	545	
CFS0084	CXH0 210 620Y	COMPRESSOR CXH0	210/156	620	
CFS0086	CXH0 240 702Y	COMPRESSOR CXH0	240/178.3	702	
CFS0088	CXH0 280 810Y	COMPRESSOR CXH0	280/208	810	
CFS0090	CXH0 300 912Y	COMPRESSOR CXH0	300/222.9	912	



### Standard equipment

- Discharge valve & integrated check valve
- Suction flange with solder busching
- Integrated pressure relief valve
- Capacity control (step or step less)
- Motor with ptc-temperature sensors
- Electronic control unit (temperature and phase sequence monitoring auto reset)
- Terminal box enclosure class IP65
- Oil service valve, oil filter, sight glass & oil charge
- Start unloading
- Discharge temperature sensor
- Protective charge



## SEMI-HERMETIC SCREW COMPRESSORS

### TWIN SCREW COMPRESSORS



#### Medium Temperature

REALCOLD STOCK NO.	MODEL	DESCRIPTION	HP/kW	DISP m3/HR	PRICE \$ excl GST
C5261	R-TSH8 40 120Y	COMPRESSOR MBP	40/30	120	POA
C5262	R-TSH8 50 150Y	COMPRESSOR MBP	50/37	150	
C5263	R-TSH8 60 186Y	COMPRESSOR MBP	60/45	186	
C5264	R-TSH8 70 210Y	COMPRESSOR MBP	70/52	210	
C5265	R-TSH8 80 240Y	COMPRESSOR MBP	80/60	240	
C5266	R-TSH8 90 270Y	COMPRESSOR MBP	90/67	270	
C5267	R-TSH8 100 300Y	COMPRESSOR MBP	100/75	300	
C5268	R-TSH8 120 360Y	COMPRESSOR MBP	120/90	360	

#### Low Temperature

C5271	R-TSL8 30 120Y	COMPRESSOR LBP	30/22	120	POA
C5272	R-TSL8 40 150Y	COMPRESSOR LBP	40/30	150	
C5273	R-TSL8 50 186Y	COMPRESSOR LBP	50/37	186	
C5274	R-TSL8 60 210Y	COMPRESSOR LBP	60/45	210	
C5275	R-TSL8 70 240Y	COMPRESSOR LBP	70/52	240	
C5276	R-TSL8 80 270Y	COMPRESSOR LBP	80/60	270	
C5277	R-TSL8 90 300Y	COMPRESSOR LBP	90/67	300	
C5278	R-TSL8 100 360Y	COMPRESSOR LBP	100/75	360	

Note that these Compressors are available as Indent stock only



#### Standard equipment

##### Standard equipment mounted on the compressor

- capacity control device
- integral electronic protection, includes:
  - sensor for maximum discharge temperature
  - sensor for maximum temperature of electric motor
  - electronic module
- suction valve
- discharge valve with check valve

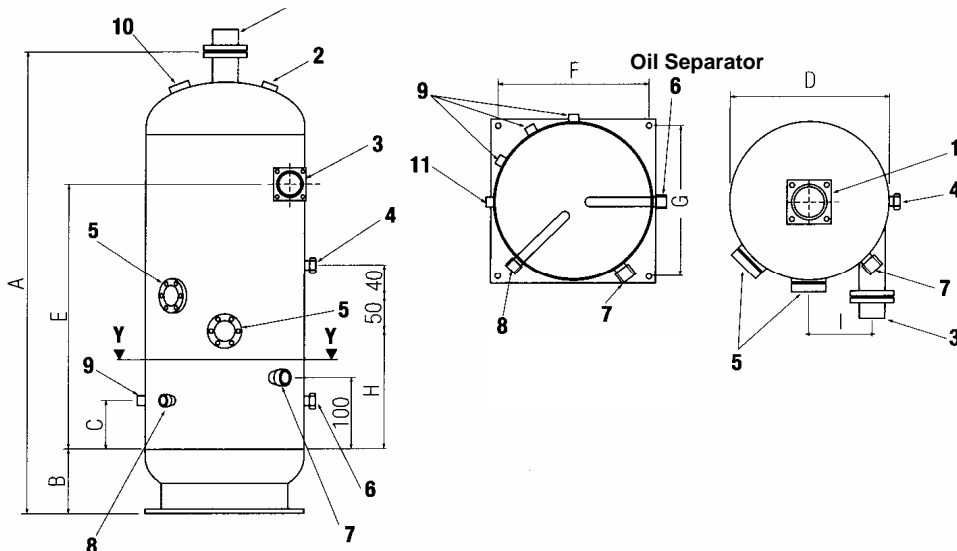
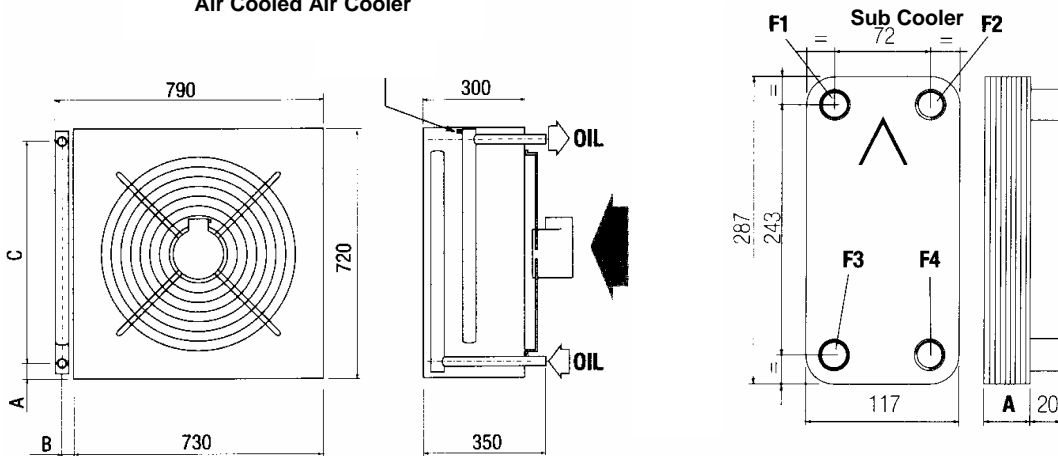
##### Standard equipment supplied loose with compressor.

- vibration absorbers
- components for external oil piping, includes:
  - oil strainer with core
  - solenoid valve with coil and plug
  - oil flow switch
  - electronic module for oil flow switch
  - oil sight glass

**SEMI-HERMETIC SCREW COMPRESSOR ACCESSORIES**

REALCOLD STOCK NO.	MODEL	DESCRIPTION	PRICE \$ excl GST
C5820	TOOWK150	VISUAL INDICATOR	POA
C5822	TOOWK151	VISUAL INDICATOR	
C5824	SZ-WOC1	WATER COOLED OIL COOLER	
C5826	SZ-WOC2	WATER COOLED OIL COOLER	
C5828	SZ-WOC3	WATER COOLED OIL COOLER	
C5830	SZ-AOC1	AIR COOLED OIL COOLER	
C5832	SZ-AOC2	AIR COOLED OIL COOLER	
C5834	SZ-AOC3	AIR COOLED OIL COOLER	
C5836	TOOWK200	REMOTE OIL SEPARATOR	
C5838	TOOWK201	REMOTE OIL SEPARATOR	
C5840	TOOWK202	REMOTE OIL SEPARATOR	
C5842	TOOWK300	ECONOMIZER R22	
C5844	TOOWK301	ECONOMIZER R404A	
C5846	TOOWK302	ECONOMIZER R23	
C5848	TOOWK303	ECONOMIZER R404A	
C5850	TOOWK304	ECONOMIZER R24	
C5852	TOOWK305	ECONOMIZER R404A	
C5854	TOOWK306	ECONOMIZER R25	
C5856	TOOWK307	ECONOMIZER R404A	
C5858	TOOWK400	LIQUID INJECTION VALVE	
C5860	SZ-OIL1	FC300 19 LITRE OIL (M/T R404)	
C5862	SZ-OIL3	FC170 19 LITRE OIL (L/T R404A)	
C5864	SZ-OIL2	FC170 25 LITRE OIL (L/T, M/T R22)	
C5866	T00WK110	OIL FILTER KIT	

**Air Cooled Air Cooler**





**SEMI-HERMETIC SCREW COMPRESSOR ACCESSORIES**

	Compressor Model															
	R-TSH1 40 120 Y	R-TSH1 50 150 Y	R-TSH1 60 186 Y	R-TSH1 70 210 Y	R-TSH1 80 240 Y	R-TSH1 90 270 Y	R-TSH1 100 300 Y	R-TSH1 120 360 Y	R-TSL1 30 120 Y	R-TSL1 40 150 Y	R-TSL1 50 186 Y	R-TSL1 60 210 Y	R-TSL1 70 240 Y	R-TSL1 80 270 Y	R-RSL1 90 300 Y	R-TSL1 100 360 Y
<b>remote oil separator</b>																
TOOWK200	•	•	•	•					•	•	•	•	•	•		
TOOWK201					•	•	•	•							•	•
TOOWK202																
<b>visual indicator for oil strainer clogging</b>																
TOOWK150	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>electric indicator for oil strainer clogging</b>																
TOOWK151	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>water cooled oil cooler</b>																
SZ-WOC1	•	•	•	•	•	•			•	•	•	•	•	•		
SZ-WOC2							•	•							•	•
SZ-WOC3																
<b>air cooled oil cooler</b>																
SZ-AOC1	•	•	•	•	•	•			•	•	•	•	•	•		
SZ-AOC2							•	•							•	•
SZ-AOC3																
<b>economizer kit for R22</b>																
TOOWK300									•	•						
TOOWK302											•	•				
TOOWK304													•	•		
TOOWK306															•	•
<b>economizer kit for R404a-R507a</b>																
TOOWK301									•	•						
TOOWK303											•	•				
TOOWK305													•	•		
TOOWK307															•	•
<b>lubricant for R22 (19 l can)</b>																
SZ-OIL2 (FCH)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>lubricant for R404a, 507a, R143a (19 l can)</b>																
SZ-OIL3 (FCL)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

**Diagram Legend** (see opposite page)

**Sub Cooler**

- F1 = Economiser Outlet
- F2 = Liquid Inlet for Sub Cooling
- F3 = Refrigerant Inlet for TEV
- F4 = Liquid Outlet – Subcooled Liquid

**Oil Separator**

- 1 = Refrigerant Outlet
- 2 = Service Valve Connection
- 3 = Refrigerant Inlet
- 4 = Connection for Oil Charge Valve
- 5 = Oil Level Sight Glass
- 6 = Parallel Compressors Oil Outlet
- 7 = Oil Level Control
- 8 = Oil Outlet
- 9 = Oil Heater
- 10 = Safety Valve Connection
- 11 = Thermostat Sensor