

## Single Pack SC15CL 220-240V 50Hz CSIR

Single pack code number: **195B4021**

Position	Title	Code	Amount
1	Compressor SC15CL	104L2853	1
2	Starting relay	117U6019	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>SC15CL</b>	220-240V/50Hz 1~	Sales code:	<b>104L2853</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R404A, R452A, R507</b>
Oil viscosity	32cST	Displacement	15,28cm <sup>3</sup> / 0,93cu.in
Oil quantity	506cm <sup>3</sup> / 17,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1510cm <sup>3</sup> / 51,1fl.oz		
Weight	13,8kg / 30,4lbs		
Motor protection	1# internal		
Winding resistance main	3,7Ω (at 25°C)		
Winding resistance aux	14Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with SC15CL

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, CCC, EAC	VDE, CCC
Starting torque	HST	HST
Note	- / -	

## Applications with SC15CL

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R404A	R452A
Application	LBP+MBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

## Electrical data - Configurations with SC15CL

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	- / -	- / -
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s)	20,43A	20,43A
RLA (rated load amps / 1s)	3,9A	3,9A
Cut in current	20,43A	20,43A

## Model

Designation

**SC15CL**

220-240V/50Hz 1~

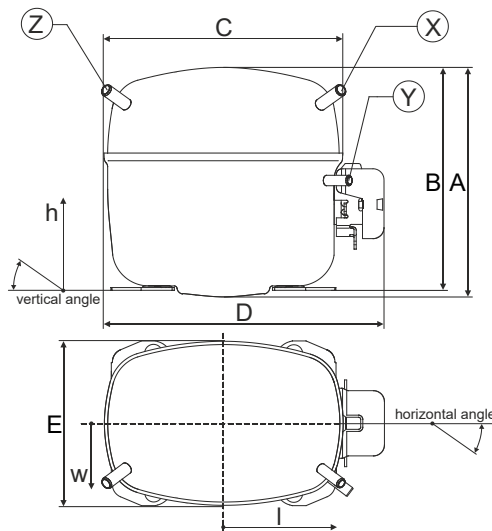
Sales code:

**104L2853**

## Compressor dimensions

Housing	A Height	219mm / 8,62in
	B Height	213mm / 8,39in
	C Length shell	218mm / 8,58in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l. [mm]	12	12	12
[in]	0,5	0,5	0,5

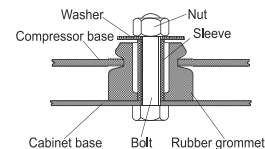


## Compressor fixation

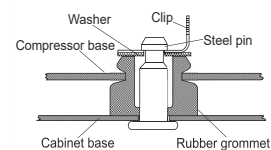


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

## Bolt joint



## Snap-on



## Mounting accessories

Mounting accessories	one comp.	multi pack
Bolt joint   M6   ø16mm	118-1917	118-1918
Bolt joint   ø1/4"   ø16mm	118-1946	
Bolt joint   ø1/4"   ø19mm	118-1949	
Snap-on   ø7,3   ø16mm	118-1947	118-1919

## Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

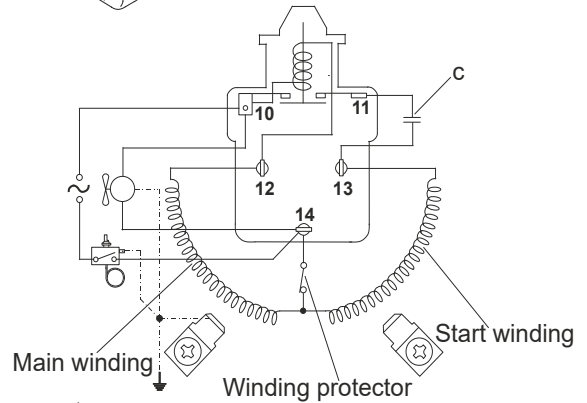
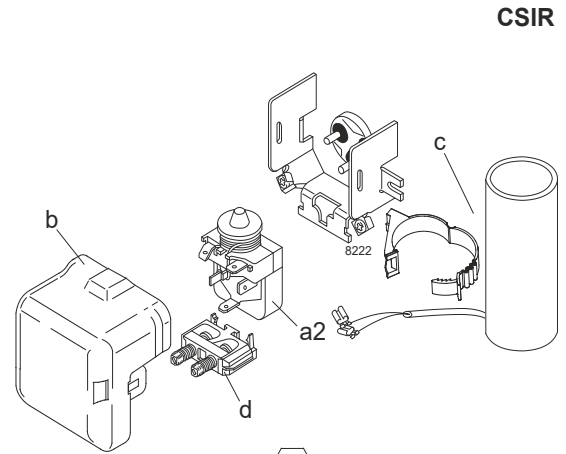
## Model

Designation	<b>SC15CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>104L2853</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R404A
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC EAC

## Electrical accessories / wiring diagram

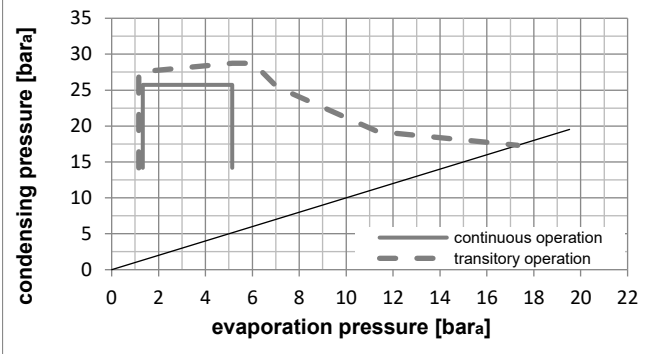
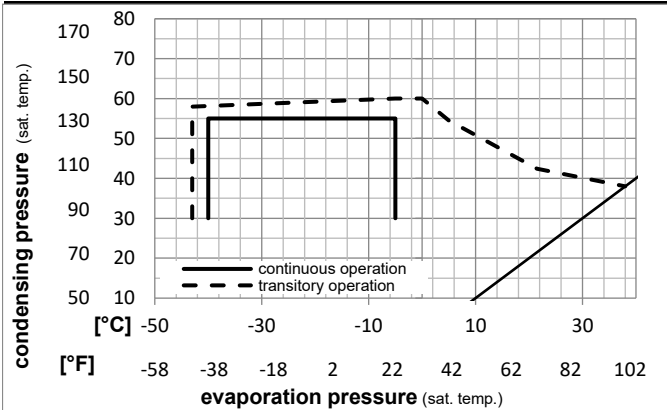


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	fan 3m/s

## Operation Limits

## Operation pressure range



## Components

a2	relay	117U6019
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

## Model

Designation **SC15CL** **220-240V/50Hz** Conf. 1 Sales code: **104L2853**

## Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow									
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]									
-23	-10	54	130	32	90	32	90	695,3	2375	598,4	1,19	4,08	1,03	582,2	3,55	16,20							ASHRAE LBP
-25	-13	55	131	32	90	55	131	455,8	1557	392,2	0,84	2,85	0,72	545,6	3,44	14,24							cecomaf LBP
-35	-31	40	104	20	68	40	104	354,2	1210	304,8	0,86	2,93	0,74	413,0	3,05	9,62							EN12900 LBP
-7	20	54	130	35	95	46	115	1351,3	4615	1163,0	1,50	5,12	1,29	902,2	4,63	37,18							ASHRAE MBP
-10	14	55	131	32	90	55	131	1014,9	3466	873,4	1,22	4,15	1,05	834,9	4,40	32,49							cecomaf MBP
-10	14	45	113	20	68	45	113	1138,7	3889	980,0	1,44	4,92	1,24	790,0	4,31	34,30							EN12900 MBP

## Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	151,1	516	130,1	0,51	1,73	0,44	298,4	2,83	4,03
cond. pressure	-35	-31	299,5	1023	257,7	0,75	2,56	0,64	400,3	3,05	8,01
pc= 45/113	-30	-22	452,5	1545	389,4	0,93	3,18	0,80	485,2	3,28	12,15
return gas temp.	-25	-13	615,0	2100	529,3	1,10	3,75	0,95	560,0	3,52	16,59
RGT= 32/90	-20	-4	791,9	2705	681,5	1,25	4,28	1,08	631,2	3,77	21,49
liquid temp	-15	5	988,1	3375	850,4	1,40	4,78	1,21	705,7	4,04	26,99
Tliq= 45/113	-5	23	1457,8	4979	1254,6	1,64	5,59	1,41	891,0	4,60	40,53
[°C / °F]	-40	-40	-44,2	-151	-38,0	-0,29	-1,00	-0,25	151,5	2,58	-1,36
cond. pressure	-35	-31	124,0	424	106,7	0,41	1,39	0,35	305,7	2,85	3,84
pc= 55/131	-30	-22	289,1	987	248,8	0,66	2,27	0,57	434,8	3,14	8,98
return gas temp	-25	-13	455,8	1557	392,2	0,84	2,85	0,72	545,6	3,44	14,24
RGT= 32/90	-20	-4	629,1	2148	541,4	0,98	3,33	0,84	644,7	3,75	19,79
liquid temp	-15	5	813,8	2779	700,4	1,10	3,76	0,95	738,9	4,07	25,81
Tliq= 55/131	-5	23	1237,2	4225	1064,7	1,32	4,50	1,13	939,4	4,74	40,04

## Model

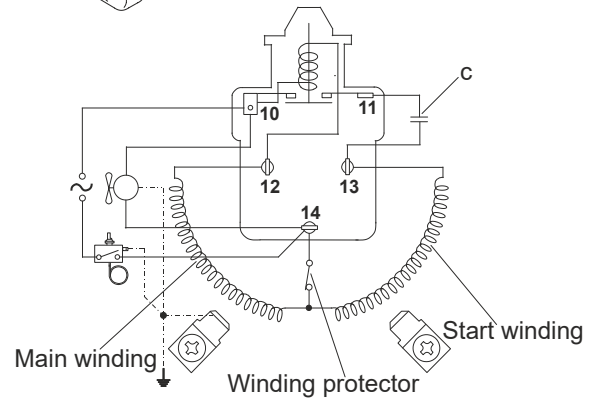
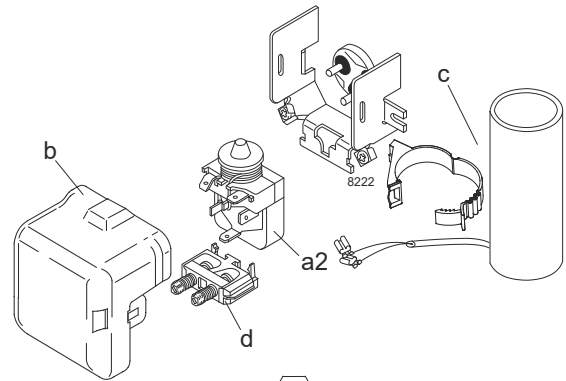
Designation	<b>SC15CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104L2853</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R452A
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC

## Electrical accessories / wiring diagram

CSIR

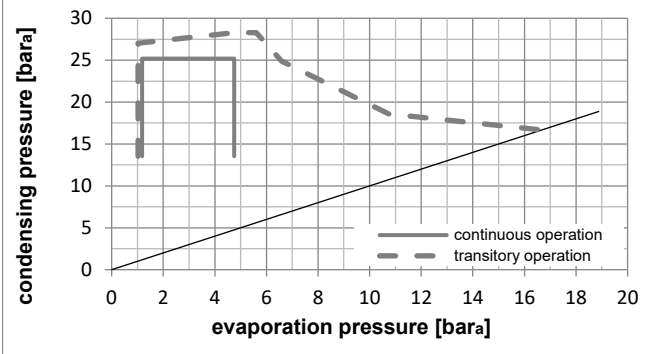
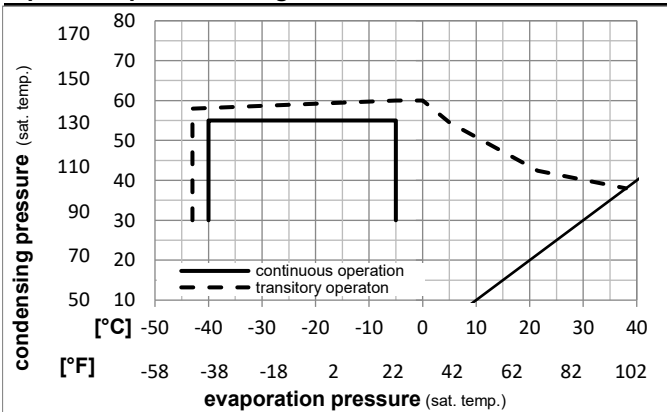


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## Operation Limits

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## Components

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c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

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Designation **SC15CL** **220-240V/50Hz** Conf. 2 Sales code: **104L2853**

## Optimization + standard conditions

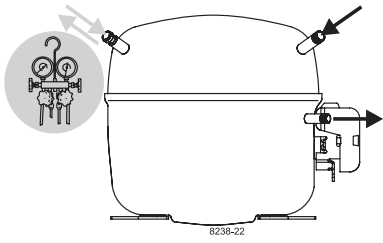
R452A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]										
-23	54	32	32	635,6	2171	547,0	1,17	4,00	1,01	542,1	3,35	15,28	ASHRAE LBP		
-10	130	90	90												
-25	55	32	55	420,2	1435	361,6	0,83	2,83	0,71	506,8	3,23	13,37	cecomaf LBP		
-13	131	90	131												
-35	40	20	40	319,3	1090	274,8	0,84	2,87	0,72	380,1	2,86	8,92	EN12900 LBP		
-31	104	68	104												
-7	54	35	46	1278,2	4365	1100,0	1,49	5,09	1,28	857,4	4,54	35,96	ASHRAE MBP		
20	130	95	115												
-10	55	32	55	961,3	3283	827,3	1,22	4,15	1,05	790,5	4,26	31,24	cecomaf MBP		
14	131	90	131												
-10	45	20	45	1075,0	3671	925,1	1,44	4,90	1,24	748,9	4,08	33,03	EN12900 MBP		
14	113	68	113												

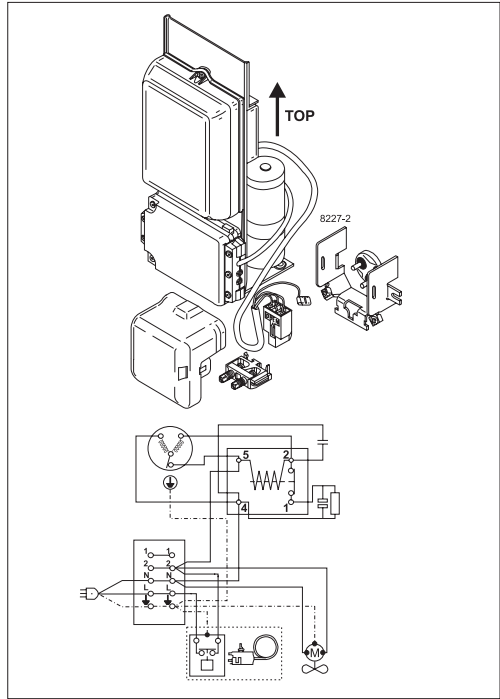
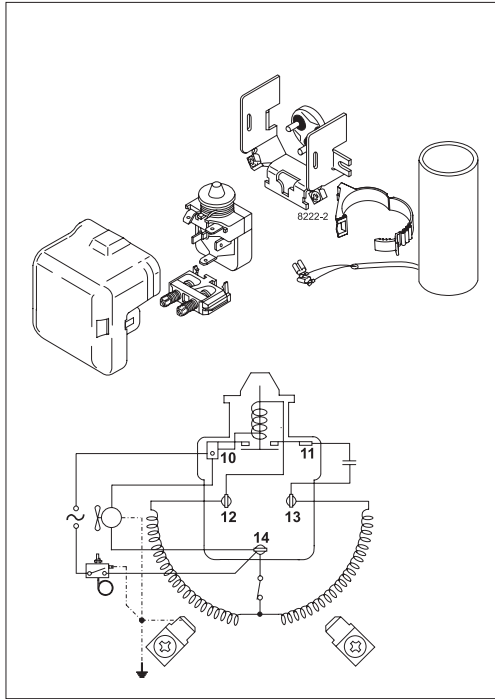
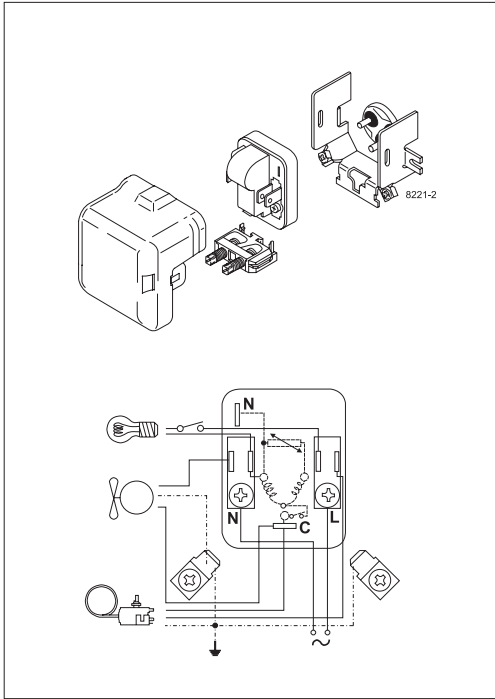
## Performance tables

R452A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

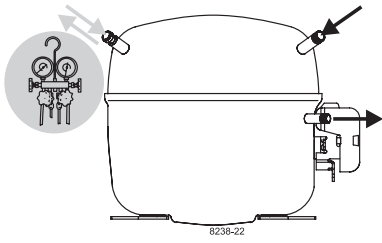
	pe		Cooling capacity			COP	EER	P1			I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-40	-40	132,3	452	113,9	0,49	1,66	0,42	272,2	2,65	3,62	
cond. pressure	-35	-31	269,3	920	231,8	0,73	2,50	0,63	367,7	2,84	7,39	
pc= 45/113	-30	-22	412,3	1408	354,8	0,92	3,14	0,79	448,7	3,03	11,36	
return gas temp.	-25	-13	566,1	1933	487,2	1,09	3,71	0,93	521,1	3,23	15,66	
RGT= 32/90	-20	-4	735,3	2511	632,8	1,24	4,25	1,07	591,2	3,46	20,45	
liquid temp	-15	5	924,8	3158	795,9	1,39	4,75	1,20	665,1	3,74	25,87	
Tliq= 45/113	-5	23	1383,1	4724	1190,3	1,63	5,57	1,40	848,6	4,50	39,30	
[°C / °F]	-40	-40	-44,6	-152	-38,4	-0,33	-1,12	-0,28	135,6	2,27	-1,40	
cond. pressure	-35	-31	109,7	375	94,4	0,39	1,34	0,34	279,2	2,61	3,46	
pc= 55/131	-30	-22	263,1	898	226,4	0,66	2,24	0,56	400,9	2,93	8,33	
return gas temp	-25	-13	420,2	1435	361,6	0,83	2,83	0,71	506,8	3,23	13,37	
RGT= 32/90	-20	-4	585,8	2001	504,1	0,97	3,32	0,84	602,9	3,55	18,75	
liquid temp	-15	5	764,6	2611	658,0	1,10	3,75	0,95	695,5	3,88	24,65	
Tliq= 55/131	-5	23	1180,6	4032	1016,1	1,32	4,51	1,14	894,2	4,69	38,75	



# SC Compressors

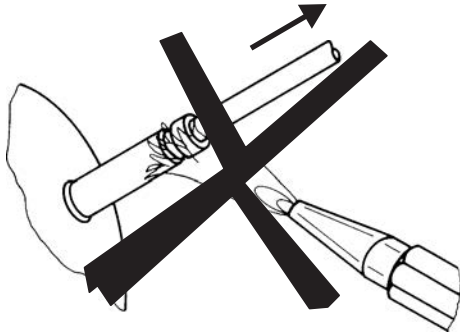




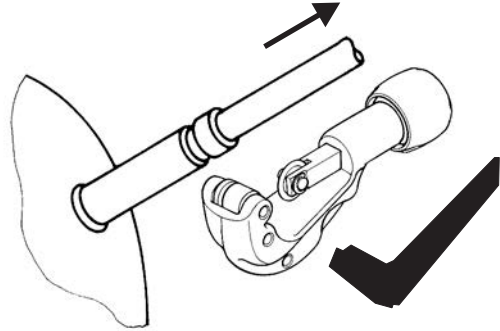


# SC Compressors

## Service/Repair – R290



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