

## Single Pack TL4CL 220-240V 50Hz CSIR

Single pack code number: **195B4130**

Position	Title	Code	Amount
1	Compressor TL4CL	102U2071	1
2	Starting relay	117U6000	1
3	Starting capacitor (60 $\mu$ F 220V, 6.3mm)	117U5014	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • [www.secop.com](http://www.secop.com)

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

**Model**

Designation	<b>TL4CL</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>102U2071</b>
-------------	--------------	-------------------------	-------------	-----------------

**Compressor design**

Oil type	Polyolester	Refrigerant(s)	<b>R404A, R452A, R507</b>
Oil viscosity	32cSt	Displacement	3,86cm <sup>3</sup> / 0,24cu.in
Oil quantity	280cm <sup>3</sup> / 9,5fl.oz	Compressors on pallet	125
Refr. charge - tech. limit	600g / 21,2oz		
Free gas volume comp.	1690cm <sup>3</sup> / 57,1fl.oz		
Weight	7,6kg / 16,8lbs		
Motor protection	1# internal		
Winding resistance main	14,5Ω (at 25°C)		
Winding resistance aux	14,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



**General - Configurations with TL4CL**

	<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	VDE
Starting torque	HST	HST
Note	- / -	

**Applications with TL4CL**

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

**Electrical data - Configurations with TL4CL**

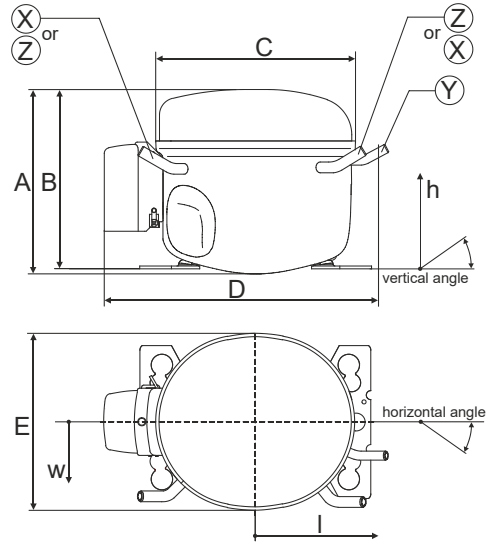
	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	- / -	- / -
Start capacitor	60μF	60μF
LRA (locked rotor amps / 4s)	5,7A	5,7A
RLA (rated load amps / 1s)	1,1A	1,1A
Cut in current	9,7A	9,7A
IP class	21	21

**Model**

Designation	<b>TL4CL</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>102U2071</b>
-------------	--------------	-------------------------	-------------	-----------------

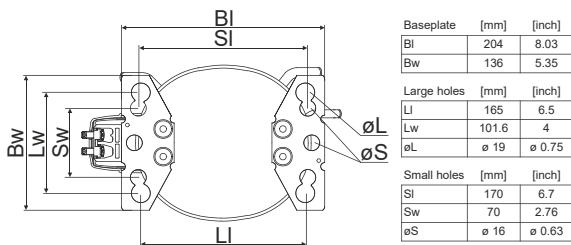
**Compressor dimensions**

<b>Housing</b>	A Height	174mm / 6,85in
	B Height	170mm / 6,69in
	C Length shell	176mm / 6,93in
	D Length w. cover	222mm / 8,74in
	E Width	157mm / 6,18in

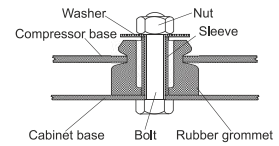


<b>Connectors</b>		<b>Suction</b>	<b>Discharge</b>	<b>Process</b>
		<b>X</b>	<b>Y</b>	<b>Z</b>
Diameter	[mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°
Position l/h/w	[mm]	-102/105/66	117/108/30	96/105/71
	[in]	-4/4,1/2,6	4,6/4,3/1,2	3,8/4,1/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

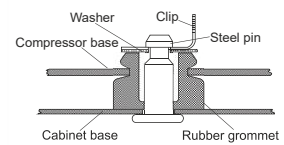
**Compressor fixation**



**Bolt joint**



**Snap-on**



<b>Mounting accessories</b>	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

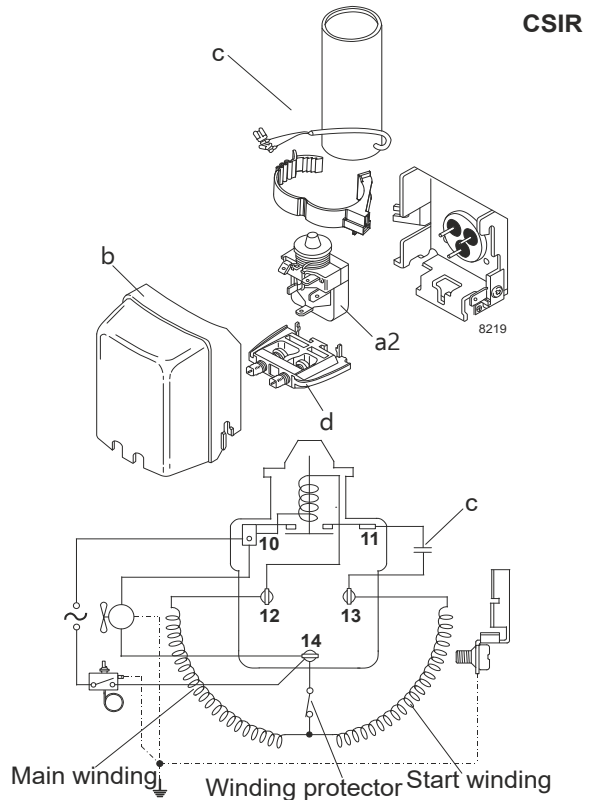
**Model**

Designation	<b>TL4CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>102U2071</b>
-------------	--------------	----------------------	----------------	-------------	-----------------

**Configuration**

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

**Electrical accessories / wiring diagram**

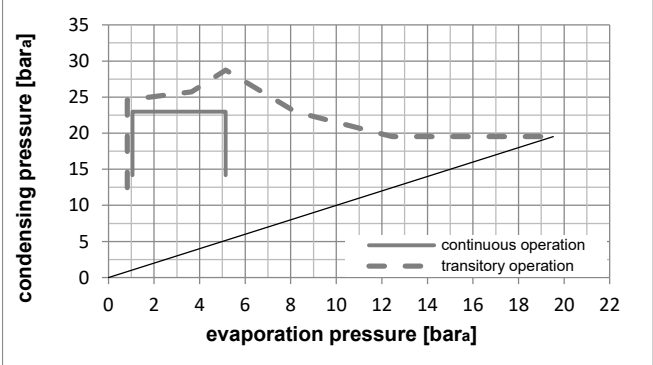
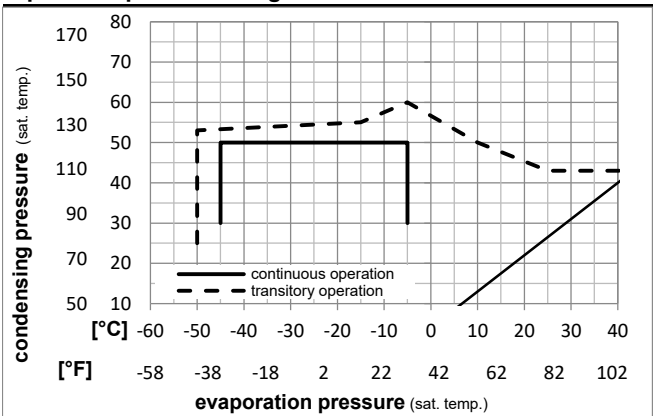


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

**Operation pressure range**



Components

a2	relay	117U6000
c	start capacitor (60µF)	117U5014
d	cord relief	103N1010
b	plastic cover	103N2010

Alternative components

b	plastic cover	103N2011
---	---------------	----------

**Model**

Designation **TL4CL 220-240V/50Hz** Conf. 1 Sales code: **102U2071**

**Optimization + standard conditions**

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

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	151,2	516	130,1	1,03	3,50	0,88	147,5	1,12	3,52	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	101,0	345	86,9	0,72	2,47	0,62	139,6	1,08	3,16	cecomaf LBP
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	94,1	321	80,9	0,90	3,07	0,77	104,7	0,90	2,56	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	310,7	1061	267,4	1,39	4,75	1,20	223,5	1,52	8,55	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	227,6	777	195,9	1,09	3,71	0,93	209,6	1,45	7,29	cecomaf MBP
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	269,7	921	232,1	1,36	4,65	1,17	198,1	1,39	8,12	EN12900 MBP
[°F]	14	113	68	113										

**Performance tables**

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

	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]	-45	-49	51,9	177	44,7	0,64	2,18	0,55	81,2	0,80	1,38			
cond. pressure	-35	-31	84,2	288	72,5	0,81	2,75	0,69	104,6	0,91	2,25			
pc= 45/113	-30	-22	109,7	375	94,4	0,90	3,09	0,78	121,3	0,99	2,95			
return gas temp.	-25	-13	142,1	485	122,3	1,02	3,47	0,87	140,0	1,08	3,83			
RGT= 32/90	-20	-4	182,0	622	156,6	1,14	3,89	0,98	159,7	1,19	4,94			
liquid temp	-15	5	229,9	785	197,8	1,28	4,38	1,10	179,4	1,29	6,28			
Tliq= 45/113	-5	23	351,7	1201	302,7	1,64	5,59	1,41	214,8	1,49	9,78			
[°C / °F]	-45	-49	35,8	122	30,8	0,51	1,74	0,44	70,2	0,73	1,10			
cond. pressure	-35	-31	55,4	189	47,7	0,56	1,93	0,49	98,1	0,87	1,71			
pc= 55/131	-30	-22	74,7	255	64,3	0,63	2,17	0,55	117,7	0,97	2,32			
return gas temp	-25	-13	101,0	345	86,9	0,72	2,47	0,62	139,6	1,08	3,16			
RGT= 32/90	-20	-4	134,9	461	116,1	0,83	2,83	0,71	162,9	1,20	4,25			
liquid temp	-15	5	177,0	604	152,3	0,95	3,24	0,82	186,5	1,33	5,61			
Tliq= 55/131	-5	23	287,5	982	247,4	1,24	4,25	1,07	231,0	1,56	9,30			

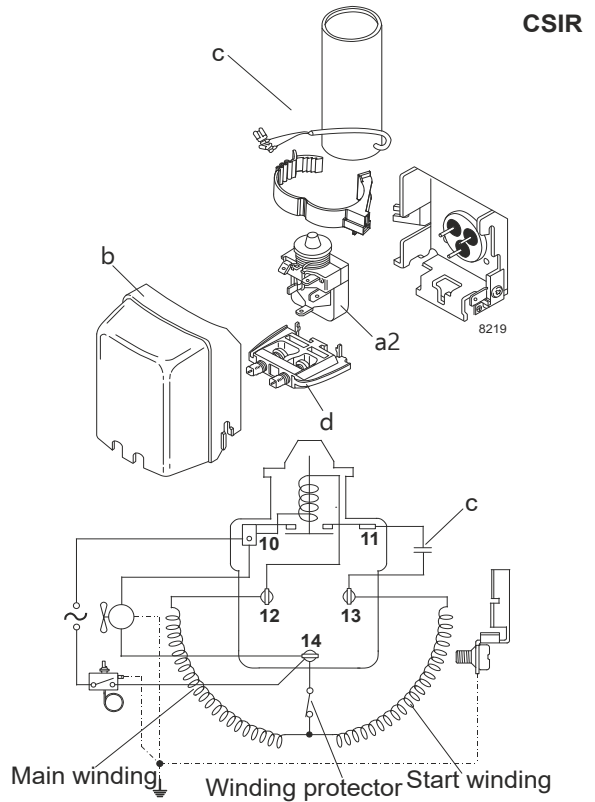
**Model**

Designation	<b>TL4CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>102U2071</b>
-------------	--------------	----------------------	----------------	-------------	-----------------

**Configuration**

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

**Electrical accessories / wiring diagram**

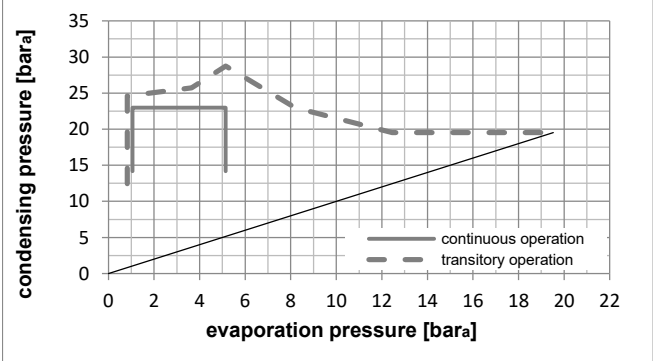
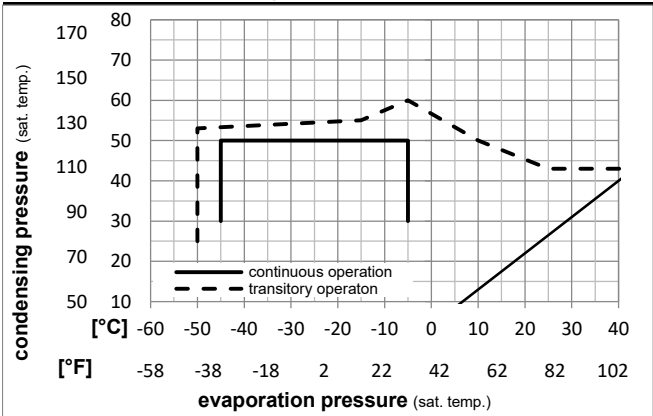


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

**Operation pressure range**



Components

a2	relay	117U6000
c	start capacitor (60µF)	117U5014
d	cord relief	103N1010
b	plastic cover	103N2010

Alternative components

b	plastic cover	103N2011
---	---------------	----------

**Model**

Designation **TL4CL 220-240V/50Hz** Conf. 2 Sales code: **102U2071**

**Optimization + standard conditions**

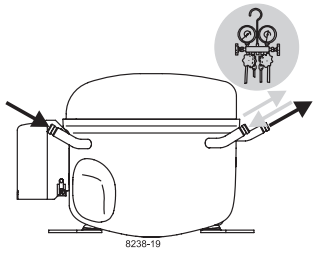
220V/50Hz, CSIR, fan 3m/s, VDE

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	138,1	472	118,9	1,00	3,43	0,86	137,7	1,08	3,32	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	93,0	318	80,0	0,72	2,44	0,62	130,0	1,03	2,96	cecomaf LBP
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	84,8	290	73,0	0,87	2,99	0,75	96,9	0,86	2,37	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	294,0	1004	253,0	1,38	4,72	1,19	212,9	1,47	8,27	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	215,8	737	185,7	1,09	3,71	0,93	198,8	1,40	7,01	cecomaf MBP
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	254,7	870	219,2	1,35	4,62	1,17	188,1	1,34	7,83	EN12900 MBP
[°F]	14	113	68	113										

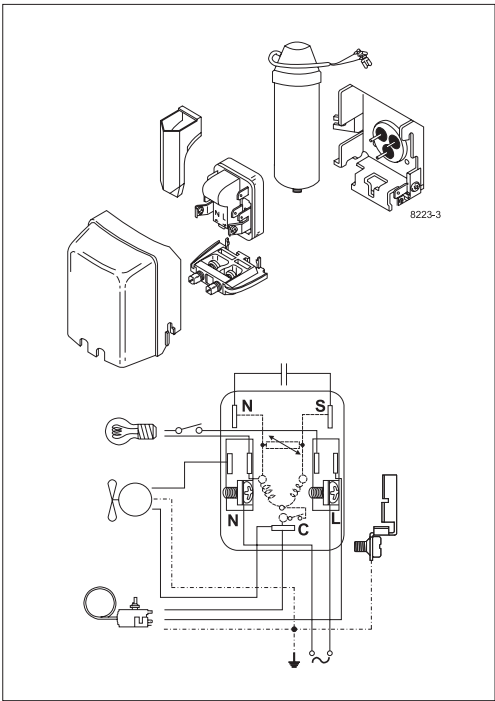
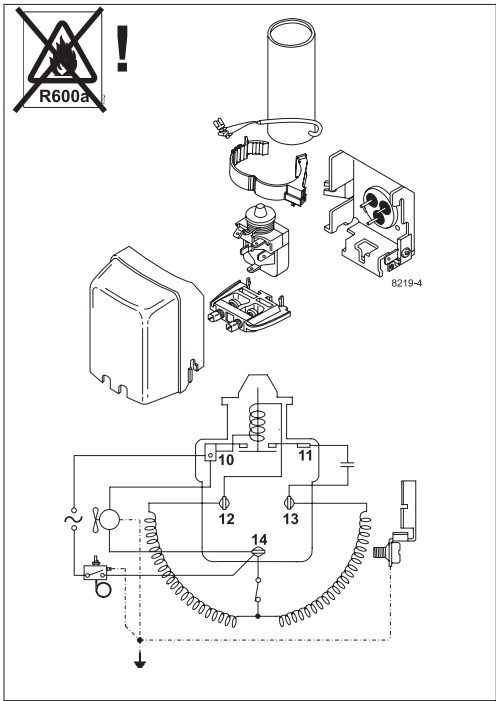
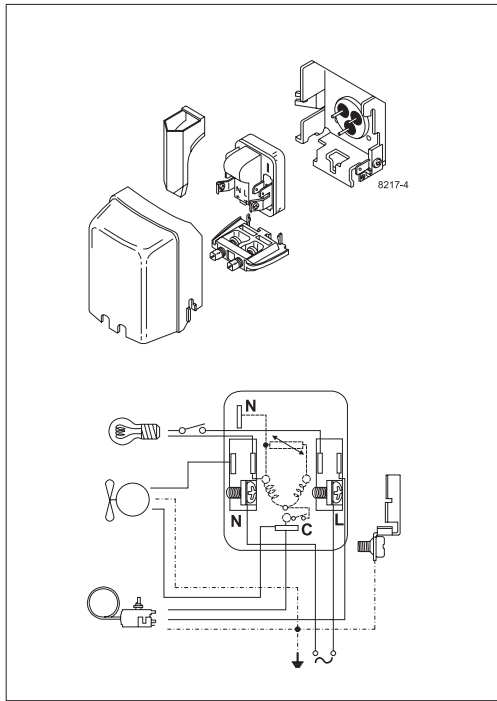
**Performance tables**

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

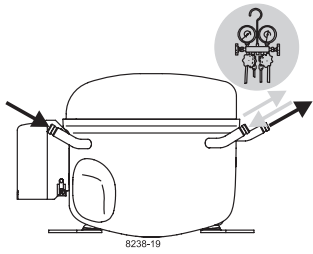
	pe		Cooling capacity			COP		EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-45	-49	44,9	153	38,6	0,61	2,08	0,52	73,8	0,74	1,22	
cond. pressure	-35	-31	75,6	258	65,1	0,78	2,68	0,67	96,5	0,86	2,08	
pc= 45/113	-30	-22	99,9	341	86,0	0,89	3,03	0,76	112,7	0,94	2,75	
return gas temp.	-25	-13	130,9	447	112,6	1,00	3,41	0,86	130,9	1,04	3,62	
RGT= 32/90	-20	-4	169,1	578	145,6	1,13	3,85	0,97	150,1	1,14	4,70	
liquid temp	-15	5	215,3	735	185,3	1,27	4,34	1,09	169,5	1,24	6,02	
Tliq= 45/113	-5	23	333,6	1139	287,1	1,63	5,56	1,40	205,1	1,43	9,48	
[°C / °F]	-45	-49	30,7	105	26,4	0,49	1,67	0,42	62,7	0,68	0,96	
cond. pressure	-35	-31	49,3	168	42,4	0,55	1,88	0,47	89,7	0,82	1,56	
pc= 55/131	-30	-22	67,7	231	58,3	0,62	2,13	0,54	108,7	0,92	2,14	
return gas temp	-25	-13	93,0	318	80,0	0,72	2,44	0,62	130,0	1,03	2,96	
RGT= 32/90	-20	-4	125,7	429	108,2	0,82	2,81	0,71	152,7	1,15	4,02	
liquid temp	-15	5	166,4	568	143,2	0,95	3,23	0,81	175,9	1,28	5,36	
Tliq= 55/131	-5	23	274,4	937	236,1	1,25	4,25	1,07	220,3	1,51	9,01	



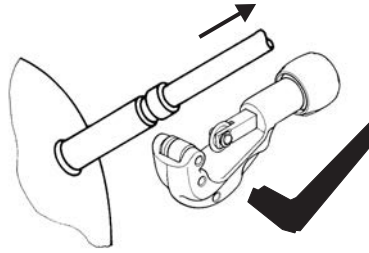
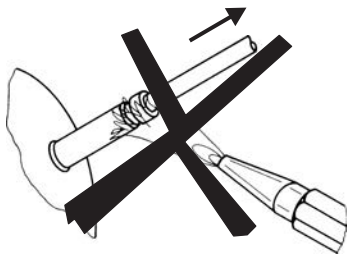
# TL Compressors







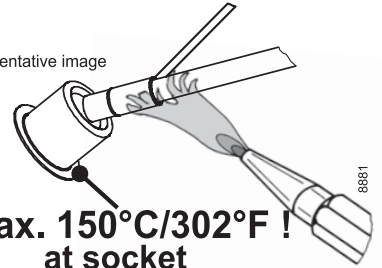
## Service/Repair – R600a, R290



8545

## Brazing on Suction Connectors (Direct Intake)

representative image



**! max. 150°C/302°F !  
at socket**  
brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:  
**Brazing on Suction Connectors  
(Compressors with Direct Suction Intake)**

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. [www.secop.com](http://www.secop.com)