

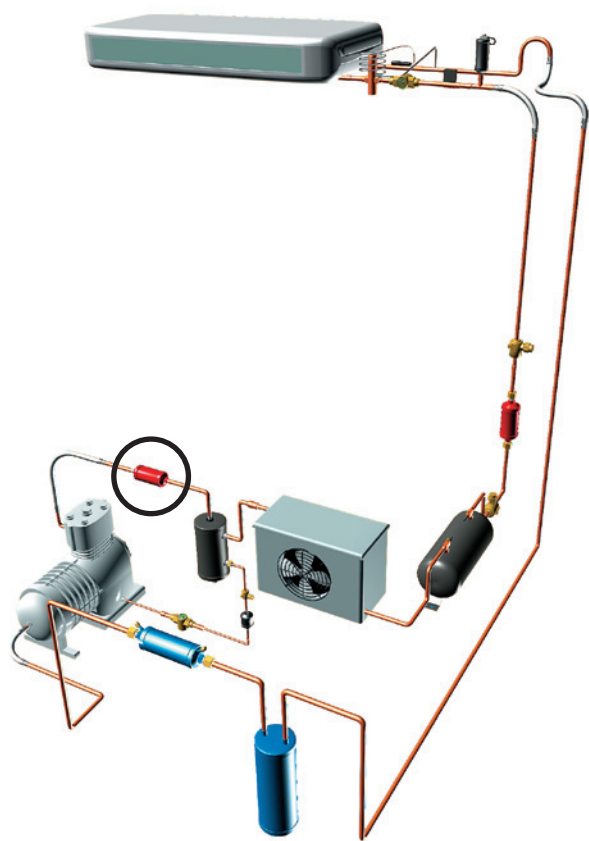


Discharge line mufflers

→ SCY

■ Applications

- Reduction of noise caused by gas pulses in the discharge lines of refrigerating and air conditioning installations. Those pulses generally come from reciprocating compressors or screw compressors. The mufflers have no effect on the mechanical vibrations transmitted to the pipes by the compressors; this is the role of the vibration eliminators EVCYAC or EVCYDEAC.



■ Functional features

- Products are compatible with CFCs, HCFCs, HFCs, CO₂s, as well as with their associated oils and additives. Products are designed for use of non-hazardous refrigerants from group 2 of PED 97/23/EC. To use CARLY components with fluids of the hydrocarbon group 1 – Propane R290, Butane R600, Isobutane R600a, Propylene R1270 – with HFOs and transcritical CO₂ and for a RANKINE organic cycle application, contact CARLY technical department.
- Product classification in CE categories is performed using the PED 97/23/EC table, corresponding to a volume-based selection.
- Hermetically sealed outer steel enclosure with paint to ensure a high resistance to corrosion.



Possible customization on demand :

- Specific connections (O-RING, ORFS, ...)
- Aluminium casing and connections (weight optimisation)
- Stainless steel casings and connections (resistance to corrosion and at low temperature)
- Connections to braze 100 % copper.

■ CARLY advantages

- Maximal working pressure: 46 bar.
- Design allows coverage of a wide range of frequencies.
- Discharge line muffler mounting is possible in vertical and horizontal positions. There is no oil trap whichever the position. The refrigerant can flow in both directions.
- Excellent distribution of the refrigerant in its gaseous phase, with minimum pressure drop.
- The copper-plated steel connections up to a diameter of 3/4"-18 mm facilitate the brazing and allow using brazing alloys with a low silver percentage.
- GOST certified products.



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■ Warning

Before selecting or installing any component, please refer to the chapter 0 - **WARNING**.

■ General assembly precautions

The installation of a component in a refrigeration system by a skilled professional, requires some precautions:

- Some are specific to each component, and in this case, they are specified in the

RECOMMENDATIONS SPECIFIC part defined hereafter ;

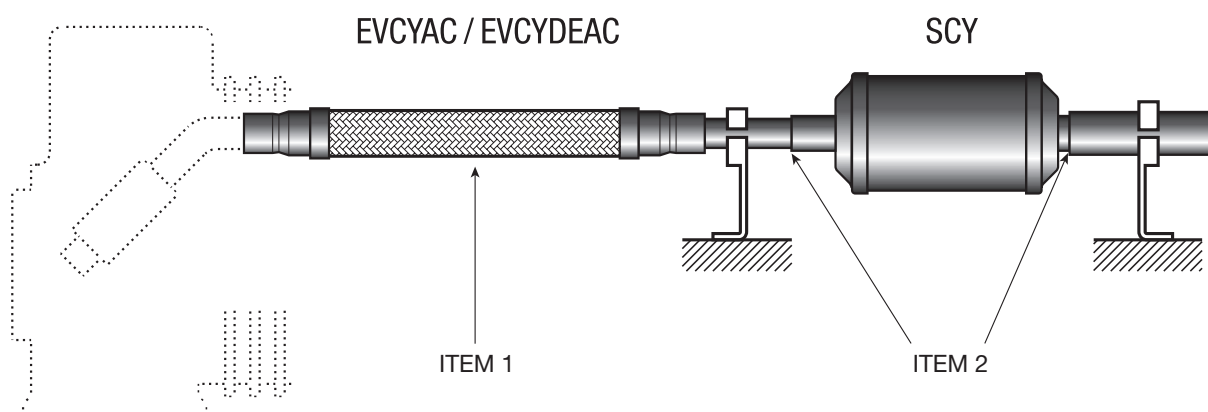
- Other are general to all CARLY components, they are presented in the chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

- The recommendations relating to the CARLY components for the subcritical CO₂ applications are also developed in chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

■ Recommendations specific to SCY mufflers

- The discharge line mufflers are to be mounted on the discharge gas line between the compressor and the condenser; the muffler's connections diameter must correspond to the discharges pipes diameter.
- The optimum muffler position will be determined according to your installation's features, by getting in touch with your distributor or with CARLY's technical services.
- It is recommended to perform an inner connection at the intake point, and an outer connection at the muffler outlet point (refer to drawing below, item 2).
- In case of vertical assembling, it is recommended not to place the muffler just over the compressor.
- Provide for efficient clamping before the intake and after the outlet of the mufflers (refer to drawing below).
- For increased efficiency, it is imperative

to install, upstream of the discharge mufflers, that is to say between the muffler and the compressor, an EVCYAC standard or EVCYDEAC double-effect vibration eliminator (see drawing below, item 1 and to chapters 22 & 23).





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■ Selection table

CARLY references	Connections To solder ODF pouce	CARLY references	Connections To solder ODF mm	Refrigerating capacity kW ⁽¹⁾				Refrigerating capacity kW Subcritical CO ₂ ⁽²⁾		
				R22 R407F	R134a	R404A R507	R407C R410A	0 °C	- 20 °C	- 40 °C
SCY 30 S	3/8	SCY 30 MMS	10	7,0	5,5	8,0	7,5	20,9	16,3	12,8
SCY 40 S	1/2	SCY 40 MMS	12	11,5	9,0	14,0	13,5	38,2	29,8	23,4
SCY 50 S/MMS	5/8	SCY 50 S/MMS	16	19,0	15,0	22,5	22,0	61,9	48,2	37,8
SCY 60 S	3/4	SCY 60 MMS	18	27,5	21,5	32,5	31,5	92,8	72,3	56,7
SCY 70 S/MMS	7/8	SCY 70 S/MMS	22	38,5	30,0	45,5	43,5	132,4	103,1	80,9
SCY 90 S	1 1/8	SCY 90 MMS	28	60,0	47,0	71,0	68,0	243,3	189,6	148,7
SCY 110 S/MMS	1 3/8	SCY 110 S/MMS	35	94,0	73,5	111,0	108,0	409,2	318,8	250,1
SCY 130 S	1 5/8	SCY 130 MMS	42	134,0	105,0	160,0	152,0	648,2	505,0	396,2
SCY 170 S/MMS	2 1/8	SCY 170 S/MMS	54	229,0	179,5	273,5	260,0	Refrigerating capacities Q _n for T _k = + 10 °C For T _k = 0 °C Q ₀ = Q _n - 22 %, For T _k = - 10 °C Q ₀ = Q _n - 41 %, For T _k = - 20 °C Q ₀ = Q _n - 56 %.		
SCY 210 S	2 5/8	SCY 210 MMS	67	350,5	274,5	418,5	398,0			
SCY 250 S	3 1/8	SCY 250 MMS	80	497,5	390,0	594,5	565,0			

⁽¹⁾ Refrigerating capacities for To = 4 °C, Tk = 32 °C and Δp = 0,21 bar.
If different conditions, refer to correction factors in chapter 112.

⁽²⁾ Nota: the diameter of connections must not be inferior to the diameter of the main pipe.



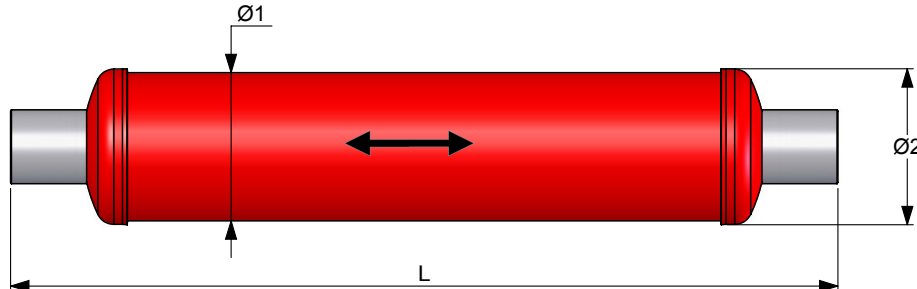
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■ Technical features

CARLY references		Connections types ⁽¹⁾	Dimensions mm		
			Ø1	Ø2	L
SCY 30 S	SCY 30 MMS	2	50	55	161
SCY 40 S	SCY 40 MMS	2	50	55	161
SCY 50 S/MMS		2	50	55	165
SCY 60 S	SCY 60 MMS	2	89	96	168
SCY 70 S/MMS		2	89	96	182
SCY 90 S	SCY 90 MMS	3	89	96	282
SCY 110 S/MMS		3	89	96	302
SCY 130 S	SCY 130 MMS	3	89	96	302
SCY 170 S/MMS		3	121	128	675
SCY 210 S	SCY 210 MMS	3	152	156	624
SCY 250 S	SCY 250 MMS	3	152	156	871

⁽¹⁾ Chapter «Connection features and drawings» (refer to chapter 114).



CARLY references		Volume	Maximal working pressure	Working pressure ⁽¹⁾	Maximal working temperature	Minimal working temperature	Working temperature ⁽¹⁾	CE Category ⁽²⁾
SCY 30 S	SCY 30 MMS	0,19	46	15	120	-40	-30	Art3§3
SCY 40 S	SCY 40 MMS	0,19	46	15	120	-40	-30	Art3§3
SCY 50 S/MMS		0,19	46	15	120	-40	-30	Art3§3
SCY 60 S	SCY 60 MMS	0,56	46	15	120	-40	-30	Art3§3
SCY 70 S/MMS		0,57	46	15	120	-40	-30	Art3§3
SCY 90 S	SCY 90 MMS	1,09	46	15	120	-40	-30	I
SCY 110 S/MMS		1,10	46	15	120	-40	-30	I
SCY 130 S	SCY 130 MMS	1,12	46	15	120	-40	-30	I
SCY 170 S/MMS		5,59	46	15	120	-40	-30	II
SCY 210 S	SCY 210 MMS	7,90	46	15	120	-40	-30	II
SCY 250 S	SCY 250 MMS	12,57	46	15	120	-40	-30	II

⁽¹⁾ The working pressure is limited to the PS BT value when working temperature is lower than or equal to TS BT value.

⁽²⁾ Classification by volume, according to PED 97/23/EC (refer to chapter 0).



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■ Weights and packaging

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
SCY 30 S & MMS	0,38	0,35	24
SCY 40 S & MMS	0,38	0,35	24
SCY 50 S/MMS	0,38	0,35	24
SCY 60 S & MMS	1,02	0,95	6
SCY 70 S/MMS	1,12	1,05	6
SCY 90 S & MMS	1,57	1,50	6

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
SCY 110 S/MMS	1,72	1,65	6
SCY 130 S & MMS	1,82	1,75	6
SCY 170 S/MMS	6,55	6,20	1
SCY 210 S & MMS	10,25	9,85	1
SCY 250 S & MMS	14,10	13,70	1