

**2025**  
CATALOG

**40**  
years  
GASSERVEI

**GS**





# GS INDEX

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AND OUR BRANDS 04

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# NEW



**PÁG.37**  
THUNDER Motor fans



**PÁG.46**  
THUNDER Insulated copper coils: complies RITE



**PÁG.51**  
Copper accessory range CO<sub>2</sub> (R-744) Certified for 130 bar



**PÁG.56**  
Valve designed for R-290 (propane)



**PÁG.77**  
THUNDER-WASH-KIT



**PÁG.79**  
Cylinder 950cc with 145g Oxygen (O<sub>2</sub>) THUNDER



**PÁG.80**  
THUNDER OXYMAPRO Autogenus welding kit



**PÁG.85**  
Charging hoses LOCK-VALVE



**PÁG.85**  
1/2" High-flow vacuum hose (Reduces vacuum time by up to 50%)



**PÁG.87**  
2-way digital manifold gauge



**PÁG.90**  
2-way pressure gauge for CO<sub>2</sub> (R-744)



**PÁG.90**

CO<sub>2</sub> charging hose set (R-744)



**PÁG.90**

CO<sub>2</sub> manifold case with hoses (R-744)



**PÁG.105**

Li-Battery Portable Vacuum Pump



**PÁG.107**

Vacuum pump for flammable refrigerants with ATEX certification



**PÁG.110**

Flaring tool VFT-808L-I (new design)



**PÁG.115**

Hydraulic tube expander (new design)



**PÁG.117**

Tube bender kit 4 colours THUNDER



**PÁG.119**

Air quality meter (CO<sub>2</sub>, T<sup>°</sup>, humidity)



**PÁG.120**

Pressure reducers for nitrogen (N<sub>2</sub>), Nitrogen/Hydrogen mixture (N<sub>2</sub> + H<sub>2</sub>) and CO<sub>2</sub> (R-744)



**PÁG.124**

THUNDER Bottle adapters



**PÁG.131**

Eckerle condensate pump model PUMPKIN®10 (mini design)



**PÁG.136**

GS Flush Pressurized - Cleaning liquid for refrigeration circuits

**Innovation, European quality and the best customer service.**

These have been the three **hallmarks of Gas Servei** since it was founded 41 years ago in Barcelona, Spain. 4 decades later, **we are present in more than 20 countries and we have a leading position in southern Europe markets.** Furthermore, through our subsidiaries established in Mexico and Morocco, we distribute our products throughout America and Africa, collaborating with our partners and points of sale. In your hands you have more than 130 pages with a complete range of HVAC&R solutions, including refrigerant gases, lubricants, components for air conditioning and refrigeration installations and much more. This catalogue and everything we do has been made possible **thanks to our team of professionals**, without whom Gas Servei would be meaningless. We encourage you to consult these pages whenever you want and do not hesitate to contact us with any questions. We are at your disposal.



Lluís Giralt, CEO

- Spain:
  - Barcelona
  - Madrid
  - Saragossa
- Mexico:
  - Mexico City
  - Guadalajara
  - Tijuana
- Morocco:
  - Casablanca



# Our brands



ABOUT GAS SERVEI  
AND OUR BRANDS

**THUNDER** is a registered brand of Gas Servei widely recognised in the HVAC&R market, and always in constant growing.

**THUNDER** offers special lubricants for compressors, components for air conditioning and refrigeration systems, high quality copper tubes, copper and brass fittings and much more.



Refrigerants  
for a better  
world.

Under the **GS** brand, we offer our wide range of refrigerants and related services that have helped us to become one of the leading companies in Southern Europe.



Scan this QR to see our  
refrigerants range.



**VALUE** is a world leader in the production of service tools for HVAC&R sector.

**VALUE** specializes in the production of high-quality vacuum pumps for wide application and stations refrigerant recovery. In the company offer you will find also electronic scales, manifolds gauges and a wide range of tools for the processing of copper pipe.





## PAST

## PRESENT

**R-507**

kg  
1,8 / 5 / 12 / 20 / 50

OIL  
POE

TEMPERATURE  
M/L

GLIDE  
0 °C

APPLICATIONS  
- Refrigeration

GWP  
3985

SUBSTITUTE OF (Retrofit)  
From R-502

**R-428A (RS-52)**

kg  
1,8 / 5 / 12 / 20 / 50

OIL  
M / AB / POE

TEMPERATURE  
M/L

GLIDE  
0,2 °C

APPLICATIONS  
- Refrigeration  
- Refrigerated transport

GWP  
3607

SUBSTITUTE OF (Drop-in)  
From R-502

**R-426A (RS-24)**

kg  
2 / 5 / 14 / 25 / 60

OIL  
M / AB / POE

TEMPERATURE  
H/M

GLIDE  
0,5 °C

APPLICATIONS  
- A/C and Refrigeration  
- Auto A/C  
- Refrigerated transport

GWP  
1508

SUBSTITUTE OF (Drop-in)  
From R-12

**R-452A (XP44)**

kg  
5 / 12 / 20 / 50

OIL  
POE

TEMPERATURE  
M/L

GLIDE  
3,5 °C

APPLICATIONS  
- Commercial refrigeration  
- Refrigerated transport

GWP  
2139

SUBSTITUTE OF (Drop-in)  
From R-404A & R-507

**R-442A (RS-50)**

kg  
1,8 / 5 / 13 / 25 / 55

OIL  
POE

TEMPERATURE  
M/L

GLIDE  
4,6 °C

APPLICATIONS  
- Refrigeration

GWP  
1888

SUBSTITUTE OF (Drop-in)  
From R-404A & R-507

**R152a**

kg  
4 / 11 / 20 / 48

OIL  
POE

TEMPERATURE  
H/M

GLIDE  
0 °C

APPLICATIONS  
- A/C & Refrigeration

GWP  
124

ALTERNATIVE From R-134a

**NEW**

**R-600a**

kg  
0,42 / 3 / 12 / 30

OIL  
M/AB/POE

TEMPERATURE  
H/M

GLIDE  
0 °C

APPLICATIONS  
- Domestic Refrigerators  
- Commercial refrigeration

GWP  
3

**NEW**

**R-404A**

kg  
1,8 / 5 / 12 / 20 / 50

OIL  
POE

TEMPERATURE  
M/L

GLIDE  
0,5 °C

APPLICATIONS  
- Refrigeration  
- Refrigerated transport

GWP  
3922

SUBSTITUTE OF (Retrofit)  
From R-502

**R-434A (RS-45)**

kg  
1,8 / 5 / 12 / 20 / 50

OIL  
M / AB / POE

TEMPERATURE  
H/M/L

GLIDE  
1,5 °C

APPLICATIONS  
- A/C & Refrigeration  
- Flooded evaporators

EXPANSION  
- TXV Adjustable Valves

GWP  
3245

SUBSTITUTE OF (Drop-in)  
From R-22

**R-407C**

kg  
1,8 / 5 / 13 / 25 / 55

OIL  
POE

TEMPERATURE  
H/M

GLIDE  
7,4 °C

APPLICATIONS  
- A/C & Refrigeration

GWP  
1774

SUBSTITUTE OF (Retrofit)  
From R-22

**R-410A**

kg  
1,8 / 5 / 11 / 20 / 50

OIL  
POE

TEMPERATURE  
H

GLIDE  
0,5 °C

APPLICATIONS  
- Air conditioning

GWP  
2088

**R-453A (RS-70)**

kg  
1,8 / 5 / 12 / 20 / 50

OIL  
M / AB / POE

TEMPERATURE  
H/M/L

GLIDE  
4,2 °C

APPLICATIONS  
- A/C & Refrigeration

EXPANSION  
- Fixed orifice (capillary)  
- TXV adjustable valves

GWP  
1765

SUBSTITUTE OF (Drop-in)  
From R-22, R-417A, R-422D, R-424A, R-438A

**R-473A**

kg  
10

OIL  
POE

TEMPERATURE  
XL  
(ultra-low to -75°C)

GLIDE  
3,7 °C

APPLICATIONS  
- Refrigerated transport  
- Pharmaceutical sector

GWP  
1831

SUBSTITUTE OF (Drop-in)  
From R-23

**NEW**

**R-1234ze**

kg  
14 / 25 / 60

OIL  
POE

TEMPERATURE  
H/M

GLIDE  
0 °C

APPLICATIONS  
- A/C & Refrigeration

GWP  
7

ALTERNATIVE From R-134a

**NEW**

**R-1234yf**

kg  
5 / 10 / 50

OIL  
POE

TEMPERATURE  
H

GLIDE  
0 °C

APPLICATIONS  
- Auto A/C

GWP  
4

ALTERNATIVE From R-134a

**NEW**

### REFRIGERANTS HFC GWP > 2500

### REFRIGERANTS HFC & HFO + HFC 1500 < GWP < 2500

### REFRIGERANTS HFC, HFO, HFC + HFO & HC GWP < 150



Temperatures °C  
H=High  
M=Medium  
L=Low

Oils  
M=Mineral  
AB=Alkylbenzene  
POE=Polyolester

? : Product in development

GWP: AR4

Flammability  
A3  
A2  
A2L

Glide:  
The difference, expressed in °C, between the temperature at which a refrigerant begins to change phase and the temperature at which the phase change ends.

GWP:  
The ability of a substance to contribute to global warming through the known greenhouse effect. GWP CO<sub>2</sub>=1 (100 years).

Retrofit:  
Change of refrigerant gas in an installation. It can be direct (drop-in) or indirect depending on the compatibility of the lubricant and the components (expansion system, safety valve, etc.).

New equipment of:  
Air conditioning  
Refrigeration  
Auto A/C

SUPPLY AND DISTRIBUTION ANALYSIS

**TECHNICAL AND LEGAL ADVICE**

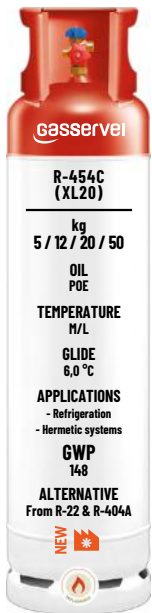


Refrigerants  
for a better  
world.

21st Edition

INFORMATION  
OF INTEREST

**FUTURE (new equipment/installations)**



REFRIGERANTS  
HFC, HFO, HFC + HFO & HC GWP < 150



REFRIGERANTS  
HFC & HFO + HFC 150 < GWP < 1500



Management System  
ISO 14001:2015  
ISO 9001:2015  
www.tuv.com  
ID: 9105070164



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

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Download data sheets, safety data sheets, retrofitting guifromines and much more on our website:

www.gas-servei.com

## REFRIGERANTS PRESSURE/TEMPERATURE TABLE

 °C	RELATIVE PRESSURE (GAUGE BAR)										
	HCFC's	R-22 DROP-IN SUBSTITUTES				R-22 SUBSTITUTES		OTHERS HFC'S		DROP-IN SUBSTITUTES FOR R-410A	
	R-22	R-434A (RS-45)		R-453A (RS-70)		R-407C		R-410A	R-32	R-470A (RS-53)	
											
-50	-0,36	-0,23	-0,33	-0,31	-0,54	-0,26	-0,50	0,12	0,10	0,80	-0,53
-48	-0,29	-0,15	-0,25	-0,24	-0,48	-0,19	-0,44	0,23	0,22	0,96	-0,47
-46	-0,21	-0,06	-0,17	-0,16	-0,42	-0,10	-0,38	0,36	0,34	1,13	-0,41
-44	-0,13	0,04	-0,09	-0,07	-0,36	-0,01	-0,31	0,49	0,47	1,31	-0,34
-42	-0,04	0,14	0,01	0,02	-0,29	0,09	-0,23	0,63	0,62	1,50	-0,27
-40	0,05	0,25	0,11	0,13	-0,21	0,19	-0,15	0,79	0,77	1,71	-0,19
-38	0,15	0,37	0,22	0,23	-0,13	0,31	-0,06	0,95	0,94	1,92	-0,10
-36	0,26	0,50	0,33	0,35	-0,04	0,43	0,03	1,13	1,12	2,15	-0,01
-34	0,38	0,63	0,46	0,48	0,06	0,56	0,13	1,32	1,31	2,39	0,09
-32	0,51	0,78	0,59	0,61	0,17	0,70	0,25	1,52	1,52	2,65	0,21
-30	0,63	0,93	0,74	0,75	0,28	0,85	0,36	1,74	1,73	2,91	0,32
-28	0,78	1,10	0,89	0,91	0,40	1,01	0,49	1,96	1,97	3,20	0,45
-26	0,93	1,27	1,05	1,07	0,54	1,18	0,63	2,21	2,22	3,49	0,59
-24	1,09	1,46	1,23	1,24	0,68	1,36	0,78	2,47	2,48	3,81	0,74
-22	1,26	1,66	1,41	1,43	0,83	1,56	0,94	2,74	2,76	4,13	0,90
-20	1,45	1,87	1,61	1,63	0,99	1,75	1,11	3,03	3,06	4,48	1,07
-18	1,64	2,09	1,82	1,84	1,16	1,98	1,29	3,34	3,37	4,84	1,25
-16	1,85	2,33	2,04	2,06	1,34	2,21	1,48	3,66	3,71	5,22	1,45
-14	2,07	2,57	2,28	2,29	1,54	2,46	1,68	4,01	4,06	5,61	1,66
-12	2,31	2,84	2,53	2,54	1,75	2,71	1,90	4,37	4,43	6,03	1,88
-10	2,54	3,11	2,79	2,80	1,97	2,99	2,13	4,75	4,83	6,46	2,11
-8	2,80	3,40	3,07	3,08	2,20	3,28	2,38	5,15	5,24	6,91	2,36
-6	3,07	3,71	3,36	3,37	2,45	3,58	2,64	5,58	5,68	7,38	2,63
-4	3,36	4,03	3,67	3,68	2,71	3,90	2,91	6,02	6,14	7,87	2,91
-2	3,66	4,33	3,99	4,00	2,99	4,24	3,20	6,49	6,62	8,38	3,21
0	3,97	4,73	4,33	4,34	3,28	4,60	3,51	6,98	7,13	8,91	3,52
2	4,31	5,10	4,69	4,70	3,59	4,97	3,84	7,49	7,66	9,46	3,85
4	4,66	5,49	5,06	5,07	3,92	5,36	4,18	8,03	8,22	10,03	4,21
6	5,02	5,90	5,46	5,47	4,26	5,77	4,54	8,61	8,81	10,62	4,58
8	5,40	6,33	5,87	5,88	4,62	6,20	4,92	9,18	9,43	11,24	4,97
10	5,80	6,77	6,30	6,31	5,00	6,66	5,32	9,81	10,07	11,88	5,38
12	6,22	7,24	6,76	6,76	5,40	7,13	5,74	10,44	10,74	12,54	5,81
14	6,66	7,73	7,23	7,23	5,82	7,62	6,18	11,12	11,45	13,23	6,27
16	7,12	8,24	7,72	7,72	6,26	8,14	6,65	11,82	12,18	13,94	6,75
18	7,60	8,77	8,24	8,24	6,72	8,67	7,13	12,55	12,95	14,67	7,25
20	8,10	9,33	8,78	8,78	7,20	9,24	7,64	13,31	13,75	15,43	7,78
22	8,62	9,90	9,34	9,34	7,71	9,82	8,17	14,11	14,58	16,21	8,33
24	9,16	10,50	9,93	9,92	8,24	10,43	8,73	14,92	15,45	17,02	8,91
26	9,72	11,13	10,54	10,53	8,79	11,06	9,31	15,78	16,35	17,85	9,52
28	10,31	11,78	11,17	11,16	9,37	11,72	9,92	16,67	17,30	18,71	10,16
30	10,92	12,45	11,83	11,81	9,97	12,41	10,56	17,59	18,28	19,60	10,82
32	11,55	13,15	12,52	12,50	10,60	13,12	11,23	18,55	19,29	20,51	11,52
34	12,21	13,88	13,24	13,21	11,26	13,86	11,92	19,55	20,35	21,45	12,25
36	12,89	14,64	13,98	13,94	11,94	14,63	12,64	20,58	21,45	22,42	13,01
38	13,60	15,42	14,75	14,71	12,65	15,43	13,39	21,65	22,60	23,42	13,80
40	14,33	16,23	15,56	15,50	13,40	16,26	14,18	22,76	23,78	24,44	14,63
42	15,09	17,08	16,39	16,32	14,17	17,11	15,00	23,91	25,01	25,49	15,50
44	15,88	17,95	17,25	17,17	14,97	18,01	15,84	25,09	26,29	26,57	16,40
46	16,70	18,86	18,15	18,06	15,81	18,92	16,73	26,32	27,62	27,68	17,34
48	17,54	19,79	19,08	18,97	16,68	19,87	17,65	27,58	28,99	28,81	18,32

GWP\*: AR4 IPCC Version

°C	SUSTITUTES R-502												DROP-IN SUSTITUTES R-404A, R-507		DROP-IN SUSTITUTES R-404A, R-507, R-407A/F/H, R-448A, R-449A		SUSTITUTES R-134a		MEDIUM AND HIGH TEMPERATURES		DROP-IN SUSTITUTES R-12	
	R-404A		R-507		R-442A (RS-50)		R-470B (RS-51)		R-456A		R-134a	R-152a	R-426A (RS-24)									
	●	☄	●	☄	●	☄	●	☄	●	☄			●	☄								
-50	-0,14	-0,12	-0,16	-0,42	0,71	-0,62							-0,66	-0,74								
-48	-0,05	-0,03	-0,07	-0,35	0,86	-0,58							-0,62	-0,71								
-46	0,04	0,07	-0,03	-0,27	1,02	-0,53							-0,57	-0,67								
-44	0,14	0,17	0,13	-0,19	1,19	-0,47							-0,53	-0,63								
-42	0,25	0,28	0,24	-0,10	1,37	-0,41							-0,47	-0,59								
-40	0,37	0,40	0,36	-0,01	1,56	-0,34				-0,49	-0,52	-0,42	-0,54									
-38	0,50	0,53	0,49	0,09	1,77	-0,27				-0,43	-0,47	-0,35	-0,49									
-36	0,63	0,67	0,63	0,21	1,98	-0,19				-0,37	-0,42	-0,29	-0,43									
-34	0,78	0,82	0,78	0,33	2,21	-0,11				-0,30	-0,36	-0,21	-0,37									
-32	0,93	0,98	0,94	0,46	2,44	-0,01				-0,23	-0,29	-0,14	-0,30									
-30	1,10	1,15	1,11	0,60	2,69	0,08				-0,16	-0,22	-0,05	-0,23									
-28	1,27	1,33	1,30	0,75	2,96	0,19				-0,07	-0,15	0,04	-0,15									
-26	1,46	1,52	1,50	0,91	3,24	0,31				0,02	-0,06	0,14	-0,07									
-24	1,66	1,66	1,70	1,09	3,53	0,43				0,11	0,02	0,24	0,02									
-22	1,87	1,87	1,92	1,27	3,83	0,57				0,22	0,12	0,35	0,12									
-20	2,09	2,16	2,15	1,47	4,15	0,71	1,60	1,29	0,33	0,22	0,47	0,23										
-18	2,33	2,41	2,40	1,68	4,49	0,86	1,74	1,40	0,45	0,32	0,60	0,34										
-16	2,58	2,66	2,66	1,90	4,84	1,03	1,88	1,52	0,57	0,44	0,74	0,46										
-14	2,84	2,93	2,94	2,14	5,21	1,20	2,03	1,66	0,71	0,56	0,88	0,59										
-12	3,12	3,22	3,24	2,40	5,59	1,39	2,19	1,80	0,85	0,69	1,04	0,72										
-10	3,41	3,52	3,55	2,65	5,99	1,58	2,36	1,94	1,01	0,82	1,20	0,87										
-8	3,72	3,83	3,87	2,94	6,41	1,80	2,55	2,10	1,17	0,97	1,37	1,03										
-6	4,04	4,16	4,22	3,24	6,84	2,02	2,74	2,27	1,34	1,13	1,56	1,19										
-4	4,39	4,51	4,58	3,55	7,30	2,26	2,94	2,45	1,53	1,29	1,75	1,37										
-2	4,74	4,88	4,96	3,89	7,77	2,51	3,15	2,64	1,72	1,46	1,96	1,56										
0	5,12	5,26	5,36	4,24	8,26	2,78	3,38	2,84	1,93	1,65	2,18	1,75										
2	5,52	5,67	5,78	4,64	8,77	3,06	3,62	3,05	2,15	1,84	2,41	1,96										
4	5,93	6,09	6,22	5,00	9,29	3,36	3,87	3,28	2,38	2,05	2,65	2,19										
6	6,36	6,53	6,68	5,42	9,84	3,68	4,13	3,51	2,62	2,26	2,91	2,42										
8	6,82	6,99	7,17	5,85	10,41	4,01	4,40	3,76	2,88	2,49	3,18	2,67										
10	7,29	7,48	7,68	6,30	11,00	4,36	4,69	4,02	3,15	2,73	3,46	2,93										
12	7,78	7,98	8,20	6,78	11,60	4,73	5,00	4,30	3,43	2,98	3,76	3,20										
14	8,30	8,51	8,75	7,28	12,23	5,12	5,32	4,59	3,73	3,24	4,07	3,49										
16	8,84	9,06	9,66	7,80	12,88	5,53	5,65	4,89	4,04	3,52	4,40	3,80										
18	9,40	9,63	9,93	8,36	13,56	5,96	6,00	5,21	4,37	3,81	4,74	4,12										
20	9,98	10,23	10,56	8,93	14,25	6,41	6,37	5,55	4,72	4,12	5,10	4,45										
22	10,59	10,85	11,21	9,53	14,97	6,89	6,75	5,90	5,08	4,44	5,48	4,81										
24	11,23	11,50	11,90	10,16	15,71	7,38	7,15	6,27	5,46	4,77	5,87	5,18										
26	11,88	12,17	12,60	10,81	16,47	7,90	7,57	6,66	5,85	5,12	6,28	5,56										
28	12,57	12,87	13,34	11,50	17,25	8,45	8,00	7,06	6,27	5,49	6,71	5,97										
30	13,28	13,59	14,10	12,22	18,06	9,02	8,45	7,48	6,70	5,87	7,16	6,39										
32	14,03	14,34	14,60	12,97	18,90	9,62	8,93	7,92	7,15	6,27	7,63	6,84										
34	14,78	15,12	15,73	13,74	19,75	10,25	9,42	8,38	7,63	6,68	8,11	7,30										
36	15,58	15,93	16,58	14,55	20,63	10,90	9,93	8,86	8,12	7,11	8,62	7,78										
38	16,40	16,77	17,47	15,39	21,54	11,58	10,46	9,36	8,63	7,57	9,15	8,29										
40	17,25	17,64	18,40	16,27	22,47	12,30	11,01	9,88	9,16	8,04	9,70	8,81										
42	18,13	18,54	19,35	17,18	23,42	13,04	11,59	10,43	9,72	8,52	10,27	9,36										
44	19,05	19,47	20,34	18,13	24,40	13,82	12,18	10,99	10,30	9,03	10,87	9,93										
46	19,99	20,43	21,36	19,12	25,40	14,63	12,80	11,58	10,91	9,56	11,48	10,52										
48	20,97	21,43	22,43	20,14	26,43	15,48	13,44	12,19	11,53	10,11	12,12	11,14										
50	21,98	22,46	23,52	21,21	27,49	16,36	14,10	12,83	12,18	10,68	12,79	11,78										
52	23,02	23,52	24,66	22,32	28,56	17,28	14,79	13,49	12,85	11,27	13,48	12,45										
54	24,09	24,62	25,83	23,47	29,67	18,24	15,51	14,17	13,55	11,89	14,20	13,15										
56	25,21	25,75	27,05	26,67	30,80	19,23	16,24	14,89	14,28	12,53	14,94	13,87										
58	26,35	26,92	28,30	25,91	31,95	20,27	17,01	15,63	15,03	13,19	15,71	14,62										

## NON-OZONE DEPLETING REFRIGERANTS. HFC



	ASHRAE Nº	COMPATIBLE OILS	TEMPERATURES	NEW INSTALLATION	RETROFIT	GWP (AR4)	GLIDE (KELVIN)	SUBSTITUTE OF
	<b>R-507</b>	POE	Medium Low	✓	✓	3985 (3990)	0	R-502 R-408A
	<b>R-404A</b>	POE	Medium Low	✓	✓	3922 (3940)	0,5	R-502 R-408A
	<b>R-428A</b>	POE Minerals AB	Medium Low	✗	✓ DROP-IN	3607 (3417)	0,25	R-502 R-408A
	<b>R-434A</b>	POE Minerals AB	High Medium Low	✗	✓ DROP-IN	3238 (3075)	1,5	R-22
	<b>R-410A</b>	POE	High	✓	✗	2088 (1920)	0,25	R-22
	<b>R-470A</b>	POE	High	✓	✓ DROP-IN	979 (909)	-	R-410A
	<b>R-32</b>	POE	High	✓	✗	675 (677)	0	R-410A
	<b>R-442A</b>	POE	Medium Low	✓	✓ DROP-IN	1888 (1754)	4,6	R-507 R-404A
	<b>R-470B</b>	POE	Medium Low	✓	✓ DROP-IN	746 (692)	-	R-507 R-404A R-407A/F/H R-449A R-448A
	<b>R-453A</b>	POE Minerals AB	High Medium Low	✓	✓ DROP-IN	1765 (1636)	4,2	R-22 R-417A R-422D R-424A R-438A...
	<b>R-407C</b>	POE	High Medium	✓	✓	1774 (1620)	7,4	R-22
	<b>R-426A</b>	POE Minerals AB	High Medium	✗	✓ DROP-IN	1508 (1371)	0,5	R-12 R-409A R-406A
	<b>R-134a</b>	POE	High Medium	✓	✓	1430 (1300)	0	R-12 R-409A R-406A

GWP\* IPCC AR4 (AR5)

DROP-IN DIRECT REPLACEMENT REFRIGERANTS									
COMPATIBLE OILS	TEMPERATURES	NEW INSTALLATION	RETROFIT	BENEFITS	APPLICATIONS	GLIDE AND GWP		SUBSTITUTE OF	
						GLIDE (KELVIN)	GWP*		
 RS-24 R-426A	POE Minerals AB	High Medium	✗	✓ DROP-IN	Drop-In with low GLIDE Low GWP	All	0,5	1508	R-12 R-409A R-406A
 RS-50 R-442A	POE	Medium Low	✓	✓ DROP-IN	High energy efficiency and cooling capacity Low GWP Great improvement in TEWI	Direct expansion	4,6	1888	R-507 R-404A
 RS-51 R-470B	POE	Medium Low	✓	✓ DROP-IN	Capacity and COP similar to R-404A	Direct expansion	-	746	R-507, R-404A, R-407A/F/H, R-448A, R-449A
 RS-70 R-453A	POE Minerals AB	High Medium Low Up to -30 °C T°C ev	✓	✓ DROP-IN	Lowest GWP on the market A single R-22 substitute for almost all applications, both with adjustable and capillary expansion	Direct expansion	4,2	1765	R-22, R-417A, R-417B, R-422D, R-424A, R- 427A, R-434A, R-438A
 RS-45 R-434A	POE Minerals AB	High Medium Low	✗	✓ DROP-IN	Drop-In with less GLIDE on the market	Direct expansion and flooded evaporators	1,5	3238	R-22
 RS-53 R-470A	POE	High	✓	✓ DROP-IN	Capacity and COP similar to R-410A	All	-	979	R-410A
 RS-52 R-428A	POE Minerals AB	Medium Low	✗	✓ DROP-IN	Drop-In with low GLIDE Higher capacity than R-502	All	0,25	3600	R-502 R-408A

**GLIDE:** The difference, expressed in Kelvin (K), between the temperature at which a refrigerant begins to change phase and the temperature at which the phase change ends.

**\*GWP:** Capacity of a substance to contribute to global warming through the known greenhouse effect.  $GWPCO_2=1$  (Referred to the global warming potential of  $CO_2$  in 100 years).

AR4 Version IV of the IPCC..

# GASSERVEI PACKAGING

## PACKAGING AVAILABLE FOR HFC, HFO AND HC REFRIGERANTS.

All cylinders from 6 to 61 L have a liquid probe (except 13.6 L).



**GAS SERVEI PACKAGING (kg refrigerant / package)**

REFRIGERANT	900 L CYLINDER	61 L BOTTLE	26 L BOTTLE	14,5 L BOTTLE	12 L BOTTLE	6 L BOTTLE	2,1L BOTTLE	1 L BOTTLE	13,6 L* DISPOSABLE BOTTLE
R-23	-	40 (50 L bottle)	-	11 (14 L bottle)	-	-	-	-	-
R-32	-	-	-	-	9 (48 bar bottle)	5 (7 L bottle)	1,80	0,78	3 7
R-134a	940	60	25	15	12	6	2	0,9	13,6
R-152a	-	48	21	11	-	-	-	-	-
R-290	400	25	10	6	-	2	-	0,37	-
R-404A	740	50	20	12	10	5	2	0,79	10,9
R-407C	855	55	25	13	10	5	2	0,85	11,3
R-407H	850	55	25	13	10	5	-	-	-
R-410A	790	50	20	11	10	5	2	0,8	11,3
R-426A (RS-24)	915	60	25	14	12	5	2	-	11,3
R-442A (RS-50)	860	55	23	13	10	5	2	0,8	10,9
R-448A	780	55	20	13	-	5	-	-	-
R-449A	780	55	20	13	-	5	2	-	-
R-450A	900	60	25	15	-	6	2	0,9	-
R-452A	790	50	20	12	-	5	-	-	-
R-452B	-	48	21	11	-	4	-	-	-
R-453A (RS-70)	900	50	20	12	10	5	2	0,8	10,9
R-454A	-	50	22	11	-	4	-	-	-
R-454B	-	48	21	11	-	4	-	-	-
R-454C	-	50	20	12	-	5	-	-	-
R-455A	800	50	20	12	10	-	-	-	-
R-456A	910	60	25	14	12	6	2	0,9	-
R-470A (RS-53)	810	55	20	13	-	5	2	-	-
R-470B (RS-51)	835	55	20	13	-	5	2	-	-
R-473A	-	-	-	10 (14 L bottle)	-	-	-	-	-
R-507	740	50	20	12	10	5	2	0,8	11,30
R-513A	840	60	25	14	-	6	-	-	-
R-600a	-	30	12	7	-	3	-	0,42	-
R-1234yf	-	50	-	10	-	5	-	-	4,5
R-1234ze	-	60	25	14	-	-	-	-	-

# 1 REFRIGERATION LUBRICANTS

## High-Quality Lubricants

Gas Servei S.A. offers a complete range of high-quality lubricants that meet the requirements of the most demanding brands of compressors for all kinds of AC and refrigeration units.

## Quality under Control

Gas Servei S.A. offers a complete range of products and services for lubricant quality control and installation over the years, from simple yet effective tests such as lubricant type identifier and acidity tests, to the more wide-ranging THUNDER analysis service conducted in a specialized laboratory.

## Technical Support

If you have any doubts, our technical department can recommend which level of viscosity is suitable according to the compressor model, refrigerant and application.

### SYNTHETIC POE LUBRICANTS

- THUNDER TL..... 14

### MINERAL LUBRICANTS

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### OILS FOR HYDROCARBONS (R-600a, R-290...)

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### LUBRICANTS FOR R-717 (NH<sub>3</sub>)

- THUNDER NXT-717 ..... 16

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### OILS FOR AUTO AC

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MADE IN EUROPE

LUBRICANTS COMPATIBLE WITH CFC, HCFC, HFC AND HFC+HFO REFRIGERANT GASES

**SYNTHETIC POE LUBRICANTS**  
**THUNDER POE TL**

**THUNDER POE TL** is polyolester-based (POE) refrigeration compressor lubricant, specially formulated to provide unbeatable performance in applications with HFC and HFC+HFO refrigerant gases. This advanced formulation provides superior protection from wear and tear and exceptional chemical and thermal stability. These characteristics make the equipment more reliable and give the lubricant a longer service life.

This combination creates an extra layer of protection and lubrication that radically reduces friction and wear, helping the compressor to perform better, saving energy and extending its useful life.

**THUNDER POE TL** use a patented combination of advanced friction modifiers and anti-wear additives that bond to metal surfaces inside the compressor.

**THUNDER POE TL** is compatible with most POE-based lubricants and no circuit cleaning is required.



**SPECIFICATIONS:**

- Excellent solubility in pure and mixed HFC refrigerant gases.
- High viscosity index.
- Reduces carbon and varnish deposits.
- Low temperature fluidity.
- Top-off compatible with common POE lubricants.
- High flammability and auto-ignition points.
- Thermal and oxidative stability.
- Low water content and slow water absorption rate.
- Enhanced wear protection.
- Non-toxic and non-hazardous.

COMPRESSOR MODEL LUBRICANT SELECTION TABLE			
REFRIGERATION TEMP.	< -20 °C	-20 °C - 0 °C	> 0 °C
COMPRESSOR MODEL	RECOMMENDED VISCOSITY		
Alternative	TL-22, TL-32	TL-46	TL-68
Centrifuge	TL-22	TL-32	TL-68
Rotation	TL-32	TL-46	TL-68
Scroll	TL-22, TL-32	TL-46	TL-68
Screw	TL-100	TL-170	TL-220

CODE	DESCRIPTION	CAPACITY (L)	VISCOSITY	
THUTL2201	THUNDER POE TL-22	1	22	12
THUTL2205		5		4
THUTL32001	THUNDER POE TL-32	1	32	12
THUTL32005		5		4
THUTL32020		20		1
THUTL32208		200		1
THUTL46005	THUNDER POE TL-46	5	46	4
THUTL46020		20		1
THUTL68001	THUNDER POE TL-68	1	68	12
THUTL68005		5		4
THUTL68020		20		1
THUTL68208		200		1
THUTL10001	THUNDER POE TL-100	1	100	12
THUTL10005		5		4
THUTL10020		20		1
THUTL100208		200		1
THUTL17005	THUNDER POE TL-170	5	170	4
THUTL17020		20		1
THUTL170208		200		1
THUTL22005	THUNDER POE TL-220	5	220	4
THUTL22020		20		1
THUTL220208		200		1

## MINERAL LUBRICANTS

### THUNDER MO

Mineral-oil-based refrigeration lubricants compatible with CFC and HCFC refrigerant gases.

- They are made with top-quality raw materials and offers optimum solubility in pure and mixed CFC and HCFC refrigerant gases.
- Offers chemical and thermal stability and provide a very long service life.
- It is compatible with most mineral-based lubricants. No circuit cleaning is required.



CODE	DESCRIPTION	CAPACITY (L)	VISCOSITY	
THUT3S0005	THUNDER T3S-32	5	32	4
THUT3S0020		20		1
THUT3S0208		200		
THUT4S0005	THUNDER T4S-68	5	68	4
THUT4S0020		20		1
THUT4S0208		200		

## OILS FOR HYDROCARBONS (R-600a, R-290...)

### THUNDER PAG-HRL

#### THUNDER PAG OIL FOR HYDROCARBONS

**THUNDER PAG-HRL** is composed of polyalkylene glycol (PAG) refrigerant oil bases designed specifically for use with natural hydrocarbon-based refrigerants (propane and butane).

**THUNDER PAG-HRL** is an ideal lubricant for these natural refrigerants due to its very low pour point, high viscosity index, excellent solubility and increased resistance to viscosity dilution.



#### TECHNICAL SPECIFICATIONS:

- Designed specifically for use in cooling systems requiring systems requiring PAG based lubricants.
- Creates a thin film that provides excellent resistance and anti-wear properties for better protection of moving compressor parts.
- Increased resistance to viscosity dilution.
- Reduces the potential for moisture absorption and hydrolysis.
- Provides excellent wear protection to help prolong equipment life.
- High viscosity index (IV) for higher pumpability at lower temperatures, and better lubrication at lower temperatures, and better lubrication and seal protection at extreme temperatures.
- Excellent thermal and oxidative stability translates into longer lubricant life and longer lubricant life and extended drain intervals.
- Increased protection against rust, corrosion, carbon and varnish.
- High flash and auto-ignition points for increased safety.
- Non-toxic / non-hazardous.

CODE	DESCRIPTION	CAPACITY (L)	VISCOSITY	
THUHC68001	THUNDER PAG-HRL-68	1	68	12
THUHC68005		5		4
THUHC10001	THUNDER PAG-HRL-100	1	100	12
THUHC10005		5		4

## OILS FOR R-717 (NH<sub>3</sub>) THUNDER NXT-717

**THUNDER NXT-717** is a high-quality lubricant for refrigerant compressors specifically design for installations with ammonia. It performs better than the requirements of the most demanding compressor manufacturers (OEM). **THUNDER NXT-717** offers excellent performance in installations with ammonia, with very low oil carry-over rates.

This advanced formula uses top-quality oil bases and unbeatable anti-wear and anti-rust additives to provide improved levels of protection and performance.

**THUNDER NXT-717** is compatible with most lubricants for ammonia

compressors with no need to clean the circuit or run a long replacement process.

**THUNDER NXT-717** is also completely top-off compatible with most common paraffinics, naphthenic, alkylbenzenes, PAO's and single-stage hydrocracked products.



### SPECIFICATIONS:

- Specifically formulated for ammonia compressors.
- Compatible for mixing with most other lubricants on the market; no circuit cleaning required.
- Very low oil carry-over, 50-80 % lower than other mineral lubricants.
- Meets manufacture specifications (OEM).
- Formulated with ArcticFlow improve fluidity in flash-freezing.
- Very low volatility.
- Very low solubility with ammonia.
- Lower viscosity dilution rate due to lower solubility with ammonia.
- Longer service life. Long-lasting formula that significantly increases the oil service life.
- Lower lubricant consumption to keep the optimum level of the compressor due to low migration.
- Ideal for dry and wet ammonia systems.
- High viscosity index.
- Excellent:
  - ▶ Film strenght and anti-wear properties.
  - ▶ Protection against carbon and varnish.
  - ▶ Control of corrosion and rust.
- Formulas available for very low-temperature applications with pour point up to -81 °F (-63° C).
- Low water content and slow water absorption rate.
- Improved wear protection.

### DESIGNED TO MEET YOUR NEEDS

**THUNDER NXT-717** is available in different types to meet your specific needs:

THUNDER NXT LUBRICANTS FOR AMMONIA		SPECIAL THUNDER NXT LUBRICANTS		SYNTHETIC THUNDER NXT LUBRICANTS
THUNDER NXT-717	THUNDER NXT-717-HP	THUNDER NXT-717-SC	THUNDER NXT-717-FG	THUNDER NXT-717-SY
Equivalent to Vilter-717, Frick#9, FES#1	For heat pumps	It conditions and restores hardened seals	With NSF H1 certification, suitable for food use	Synthetic PAO ISO 68 viscosity

CODE	DESCRIPTION	CAPACITY (L)	TYPE	VISCOSITY
THUNH3020	THUNDER NXT-717	20	SEMI-SYNTHETIC	68
THUNH3208		200		
THUNH3C020	THUNDER NXT-717-SC	20		
THUNH3C208		200		
THUNH3F020	THUNDER NXT-717-FG	20		
THUNH3F208		200		
THUNH3P020	THUNDER NXT-717-HP	20		100
THUNH3P208		200		
THUNH3S020	THUNDER NXT-717-SY	20	PAO	68
THUNH3S208		200		

## OILS FOR R-744 (CO<sub>2</sub>) THUNDER C55 AND C85

**THUNDER C55/C85** are formulated specifically for use in carbon dioxide refrigeration systems. Their advanced formulation provides superior miscibility and lubricity in high-pressure carbon dioxide refrigeration systems.

**THUNDER C55/C85** also provides excellent chemical and thermal stability, low-temperature fluidity and a long service life.



### SPECIFICATIONS:

- Optimised miscibility with refrigerant gas R-744 (CO<sub>2</sub>).
- Low volatility.
- Non-toxic/non-hazardous.
- It controls rust and corrosion to protect components better.
- Reduces carbon and varnish deposits. It keeps the system clean while operating.
- High flash and auto-ignition points for added safety.
- Their superior thermal and oxidative stability means the lubricant has a longer service life and longer drain intervals in carbon dioxide systems.
- It creates a thin film that provides excellent resistance and anti-wear protection for the moving parts in the compressor.
- High viscosity index (VI) for better compressor protection at high temperatures.

CODE	DESCRIPTION	CAPACITY (L)	VISCOSITY	
THUC025001	THUNDER C55	1	55	12
THUC025005		5		4
THUC025020		20		1
THUC025208		200		1
THUC02001	THUNDER C85	1	85	12
THUC02005		5		4
THUC02020		20		1
THUC02208		200		1

## OILS FOR AUTO AC THUNDER PAG-AUTO

**THUNDER PAG-AUTO** are high-quality synthetic polyalkylene glycol (PAG) refrigeration based lubricants specifically designed for use in automotive air conditioning systems.

Design to meet manufacturer specifications (OEM), **THUNDER PAG-AUTO** lubricants provide exceptional protection in automotive air conditioning systems with R-134a.

The advanced formula in **THUNDER PAG-AUTO** provides a lower humidity absorption capacity and excellent anti-wear, rust and corrosion protection.



### SPECIFICATIONS:

- Unbeatable solubility in R-134a refrigeration systems.
- Reduced hygroscopic tendencies.
- High viscosity index (VI) for better compressor protection at high temperatures.
- High flammability and auto-ignition points for better safety.
- Excellent fluidity at low temperatures.
- Long service life allows for long drain intervals.
- It creates a resistant film with excellent anti-wearing properties.
- Reduces carbon and varnish deposits.
- Excellent rust protection.

CODE	DESCRIPTION	CAPACITY (L)	VISCOSITY	
THUUAU46000	THUNDER PAG-46	0,25	46	24
THUUAU46001		1		12
THUUAU10000	THUNDER PAG-100	0,25	100	24
THUUAU10001		1		12

## ACIDITY TEST

### WHAT IS IT?

This is a crucial product for checking for the presence and formation of acid in refrigeration and air-conditioning systems. It is essential to use an ACID TEST in regular preventative maintenance checks. It quickly and precisely checks for the presence of acids in lubricants.

### ADVANTAGES:

- Precise visible results in a few seconds.
- Easy to use.
- Safe.
- Very cheap.
- Works with all lubricants. (mineral oils, ABZ, PAG, POE, PAO).
- Biodegradable.
- Non-flammable.
- Non-hazardous.
- Non-toxic.



### HOW DOES IT WORK?

ACID TEST contains synthetic chemical elements that react when they come into contact with acidity present in oils, changing colour and indicating the pH range present in the system.

### DOSE:

It is necessary to fill it with oil until 8mm under the bottle neck.



Gas Servei Code: EITACIDTEST  
Errecom Code: RK1349.S1  
Description: ACID TEST



## OIL TEST

### WHAT IS IT?

It is an innovative chemical device that allow the user to identify the type of oil in refrigeration and air-conditioning systems in a few seconds. In two quick steps, we can check if there are polyolester oils (POE), alkylbenzene (AB) or mineral oils.

### ADVANTAGES:

- Safe.
- It helps save time and money and means that there is no need for a refractometer.
- There is no need for expensive lab testing.
- It avoids the mixing of POE and mineral oils.
- Easy to use.
- Reliable results in seconds.
- Useful for verifying the type of lubricant in a system before using more lubricants.
- It contains two full tests.
- It is not recommended for use in vehicle air-conditioning system or portable air-conditioning system.

### DOSE:

It is necessary to partially fill the container with the same amount of oil it contains (5ml or around 180 drops) up to 8mm below its neck.

### HOW DOES IT WORK?

OIL TEST contains synthetic elements that react with the oil; a change in the transparency of the chemical substance will indicate the type of oil contained in the refrigeration system.



Gas Servei Code: EITOILTEST  
Errecom Code: RK1055  
Description: OIL TEST



## MANUAL MAX-FLOW CHARGING PUMP

Manual pump for charging or recovering refrigerant lubricant in a refrigeration system.

78 ml per pump.

CODE	DESCRIPTION	
RIT77940	Oil charging pump	1



## OIL CHARGING PUMP YD-250

Electric pump for transferring oils.

- Valid for all common oils in refrigeration systems.
- Ideal for filling and extracting oils in HVAC and AC systems.
- Includes suction and flushing hoses and adaptor kit.

CODE	DESCRIPTION	MAX PRESSURE (bar)	FLOW RATE (l/h)	POWER (W)	WEIGHT (KG)	
OXYYD250	Oil charging pump YD-250	20	160	248	5,5	1



# 2 SECONDARY REFRIGERANTS

## THUNDER and Zitrec glycols, safe installation!

Gas Servei S.A. offers complete range of heat transfer fluids:

- THUNDER EG: Mono ethylene glycol.
- THUNDER MPG: Mono propylene glycol.
- THUNDER FG: Mono propylene glycol for food use.
- Freezium: Pure potassium formate.
- Zitrec IC: Rust inhibitors.

Installations set up with indirect fluid such as glycols use products with low-quality rust inhibitors that leave deposits, lowering the heat transfer and causing the pumps and other elements to break. Sometimes the owners of the installations don't realise soon enough and have to reinstall it.

We supply it in concentrated or diluted form, in various formats (25L, 210L, 1000L and cisterns).

THUNDER HEAT TRANSFER FLUIDS.....	21
THUNDER EG .....	21
THUNDER MPG .....	21
THUNDER FG .....	21
FREEZIUM .....	22
ZITREC IC .....	22

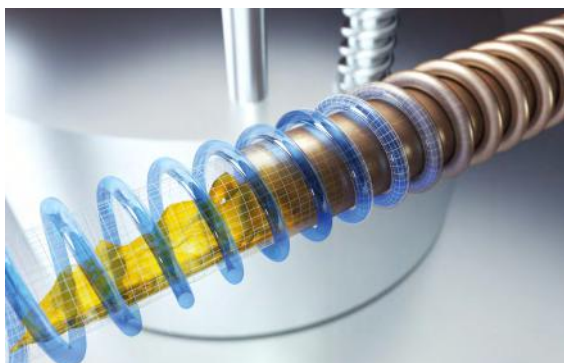
## THUNDER HEAT TRANSFER FLUIDS

THUNDER EG and MPG indirect fluids are formulated with organic OAT (organic acid technology) inhibitors and are designed to cope with the designed to cope with the most demanding conditions. They can be used in a wide variety of applications and offer excellent freeze point suppression as well as enhanced protection against corrosion, corrosion protection against corrosion, hard water fouling and bacterial growth.

In addition, THUNDER EG and MPG are free of phosphates, nitrites, primary/secondary amines, silicates and borates.

THUNDER FG indirect fluid is a heat transfer fluid based on MPG with a MPG-based heat transfer fluid with a specially formulated inhibitor package for use in food and food for use in food and beverage applications, containing only FDA approved components. THUNDER FG has been registered by US NSF and classified as a HT1 heat transfer fluid for possible incidental food contact.

Due to its low acute oral toxicity, THUNDER FG can be used in a wide range of food and beverage refrigeration food and beverage refrigeration applications where safety and certainty are and certainty are important.



All THUNDER indirect fluids are tested and pass the ASTM1384-05 corrosion test standard. The range also contains a highly advanced reserve alkalinity additive. This ensures longer and more efficient service life, limited process interruption, reduced maintenance costs and ultimately a higher return on investment.

### APPLICATIONS

PRODUCT	CHEMICAL BASE	WIND	SOLAR THERMAL	INDUSTRIAL COOLING	PROCESS COOLING	REFRIGERATION	A/C
THUNDER EG	MEG	✓		✓	✓	✓	✓
THUNDER MPG	MPG	✓	✓	✓	✓	✓	✓
THUNDER FG	MPG	✓		✓	✓	✓	✓

In solar thermal applications, THUNDER MPG has demonstrated excellent long term demonstrated excellent long-term thermal stability at temperatures up to 160 °C. It can also resist degradation at stagnation temperatures approaching 200 °C for short periods of time.

The longevity of a solar thermal heat transfer fluid depends on many variables, some of which are depends on numerous variables, some of which are not fluid-related. To ensure the longest possible, it must be ensured that stagnation is kept to a minimum. Any excessive and unnecessary period of fluid stagnation will lead to the degradation of any glycol-based heat transfer fluid.

### STORAGE

THUNDER indirect fluids are available in 1000 (IBC), 200 or 25 litre containers. All fluids have a shelf life of two years when kept in their original years provided they are kept in their original sealed containers and stored at room temperature and away from direct sunlight.

### SPECIFICATIONS

	UNITS	THUNDER EG	THUNDER MPG	THUNDER FG	TEST
Refractive index	N/A	1,429-1,433	1,430-1,435	1,430-1,435	ASTM D1747-09
Density	g/ml	1,105-1,115	1,040-1,050	1,048-1,058	ASTM D7042-11
pH range @50% v/v	N/A	7,5-10,0	7,5-10,0	7,5-10,0	ASTM E70-07

\*All properties measured at 20 °C and in concentrated form unless otherwise stated.

## PROPIEDADES FÍSICAS

	UNITS	THUNDER EG	THUNDER MPG	THUNDER FG	TEST
Chemical basis	N/A	MEG	MPG	MPG	N/A
Colour	N/A	On request	On request	On request	N/A
Temperature range	°C	-50 a +170	-45 a +160	-40 a +120	N/A
Boiling point	°C	174	160	160	ASTM D1120-11
Flash point	°C	124	115	110	ASTM D92
Kinematic viscosity	mm <sup>2</sup> /s	18	41	43 (25 °C)	ASTM D7042-11
Alkalinity	ml	>10	>10	>10	ASTM D1121

\*All properties measured at 20 °C and in concentrated form unless otherwise stated.

CODE	FREEZING POINT	CONCENTRATION % VOLUME	FORMAT (LITERS)
THUNDER MEG	On request	On request	25, 210, 1000
THUNDER MPG	On request	On request	25, 210, 1000
THUNDER FG	On request	On request	25, 210, 1000

## FREEZIUM

It is a heat transfer fluid, based on pure potassium formate. Freezium has a wide range of applications but because it is non-toxic and highly biodegradable, it is ideal for systems where health and environmental concerns are important are important such as indirect cooling systems and heat pumps.

It offers protection against corrosion and freezing. It is recommended not to be mixed with other secondary fluids not to be mixed with other secondary fluids or used in aluminium, zinc or galvanised steel installations.

CODE	FREEZING POINT	CONCENTRATION % VOLUME	FORMAT (LITERS)
Freezium Concentrate	- 60 °C	-	25, 210, 1000
Freezium-20 ready to use	- 20 °C	51 %	25, 210, 1000
Freezium-30 ready to use	- 30 °C	68 %	25, 210, 1000
Freezium-40 ready to use	- 40 °C	82 %	25, 210, 1000

## ZITREC IC

It is a highly concentrated aqueous base of organic inhibitors. We recommend dilutions of 6 % except for heating systems using cast iron, copper, steel and heating systems using cast iron, copper and steel and carbon where 3 % is sufficient. The small dosage applied, together with the complete protection that Zitrec IC provides, make it an excellent and economical an excellent and economical

solution. It can be used in a wide variety of of industrial and domestic heating and cooling applications diluted with water only or with a glycol/water mixture. It can also be used to inhibit fluids used in heat pumps, underfloor heating and air conditioning. It has an anti-foaming agent to minimise foaming during filling.

### ADVANTAGES:

- Complete corrosion protection.
- No deposits.
- No need for annual additions.
- Non-hazardous.
- Compatible with current seals.
- Stable in hard water.
- Borate-free and not classified under the criteria of Directive 1999/45/EC.

CODE	RECOMMENDED DILUTION (%)	FORMAT (LITERS)
Zitrec IC	3 - 6	25, 210, 1000

Up until now, our goal has been to provide our customers with the widest range of refrigerant gases and cylinders on the market in order to cover all of the sector's needs. Within the range of cylinders for small installations, we have:

- 1L BIB-1 and 2.1L BIB-2 for different HFC's.
- Disposable cylinder with:
  - 420 g of Isobutane (R-600a).
  - 370 g de Propane (R-290).
- Refillable cylinder with 2 kg of propane (R-290).
- R-32 0.78kg and 1.8 kg cylinders.

# 3 SMALL CYLINDERS AND ACCESSORIES

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<b>ACCESSORIES</b>	
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• THUNDER adapters and valves for R-32 .....	25

## REFILLABLE CYLINDERS FOR REFRIGERANTS

Gas Servei has a 1L cylinder in its range of refrigerant containers for small installations.

### BIB-1 DESCRIPTION:



- Steel cylinder (EN 13322-1).
- TT marking on the valve.
- Valve protection.
- 1/4" connection.
- Capacity: 1L.

### BIB-2 DESCRIPTION:



- Steel cylinder (EN 13322-1)
- TT marking on the valve.
- Valve protection.
- 1/4" connection.
- Capacity: 2.5 L.

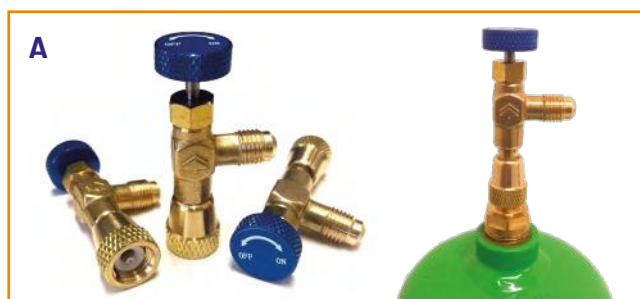


REFRIGERANT	KG BIB-1	KG BIB-2
R-134a	0,90	2,0
R-404A	0,79	2,0
R-407C	0,85	2,0
R-410A	0,80	2,0
R-507	-	2,0
R-417A	-	2,0
R-426A (RS-24)	-	2,0
R-442A (RS-50)	-	2,0
R-453A (RS-70)	0,80	2,0
R-470A (RS-53)	-	2,0
R-470B (RS-51)	-	2,0

## ACCESSORIES

CODE	DESCRIPTION	
<b>A. REFRIGERANT CHARGING CONTROL VALVE</b>		
OXY33002	Valve for BIB-2 1/4" H x 1/4" M	10
OXY33007	Valve for BIB-2 1/4" H x 5/16" M	
OXY330056	Valve for BIB-2 5/16" H x 1/4" M	
OXY33008	Valve for BIB-2 5/16" H x 5/16" M	
<b>B. CHARGING SUPPORT</b>		
OXY1020	BIB-2 - 1/4" SAE H x 1/4" SAE M Bracket	6
OXY1021	R-600a/R290 - 7/16" SAE H x 1/4" SAE M Bracket	6
TFRCAD100	100cm of 2mm hose , 1/4" straight+depressor X curve+depressor	5
<b>C. REDUCTIONS FOR BOTTLES</b>		
MVAUTY000125	Valve adapter 1/2" ACME DER. H X 1/4 SAE M (*)	10

NEW



\*ADAPTER FOR CHARGING 370 G R-290 CONTAINER WITH OXY1020 SUPPORT

**ISOBUTANE R-600a**  
IN A 420 g DISPOSABLE CYLINDER

 **12** UNIT/BOX

**Code: F600A001K**

**Description:**  
Cylinder with 420 g of R-600a  
With valve 7/16" SAE M.

Also available in refillable  
cylinder: 3/7/12/30 kg



**PROPANE R-290**  
IN A 370 g CYLINDER

 **12** UNIT/BOX

**Code: F290001BK**

**Description:**  
Cylinder with 370 g of R-290.  
With valve 1/2" ACME IZQ. M.

Also available in refillable  
cylinder: 2/6/10/25 kg.



**THUNDER VALVE FOR DISPOSABLE  
R-600a CYLINDERS**  
7/16" SAE F X 1/4" SAE M

**Code: OXY33004**

Necessary for 420 g cylinders of R-600a.



**R-290 AND R-600a REFILLABLE CYLINDERS**

Red band on top of cylinder.

Valve for flammable refrigerants  
with left thread.

Brass bottle adapter (left thread):  
MVAUTY000120.



**DIFLUOROMETHANE R-32**  
IN A 0.78 KG AND 1.8 KG CYLINDER

 **6** UNIT/BOX

**Code: F3200001K**

**Description:**  
Cylinder with 780 g of R-32  
with valve 1/2" ACME LEFT M

**Code: F3200002K**

**Description:**  
Cylinder with 1.8 kg of R-32  
with valve 1/2" ACME LEFT M



**THUNDER VALVES FOR R-32  
CYLINDERS**



**Code: OXYBVR5**

**Description:**  
1/2" ACME LEFT X 1/4" SAE M


**Code: OXYBVR6**

**Description:**  
1/2" ACME LEFT X 5/16" SAE M



 **4** UNIT/BOX

**ADAPTER AND VALVES FOR R-32, R-290 and R-600a CYLINDERS**

CODE	DESCRIPTION	
OXY33004	Valve for disposable R-600a cylinders	10
OXYBVR5	1/2" ACME LEFT X 1/4" SAE valve	
OXYBVR6	1/2" ACME LEFT X 5/16" SAE valve	
MVAUTY000120	Bottle adapter for cylinder 6-61L R-600a-R-290-R-32-R-1234yf (T21,8 IZQ. M 1/4")	

Our range of THUNDER copper and brass products is highly valued by industry professionals, complies with European regulations and is approved by various manufacturers of A/C equipment and refrigeration plants.

Gomax is the industry leader for flexible connections between pressure switches and oil returns. They provide us with extremely low permeability in a completely safe manner, thus avoiding CO<sub>2</sub> emissions as much as possible. No welding, quick to assemble and reliable.

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# COMPONENTS FOR AC AND REFRIGERATION INSTALLATIONS



## SOLENOID VALVE

### SOLENOID VALVE WITH COIL AND CONNECTOR

The Olab 30000 series normally closed solenoid valves are designed to be installed in refrigeration and air-conditioning system that use group 2 refrigerants (Article 9, Par. 2.2 of Directive 97/23/EC in reference to Directive 67/548/EEC).

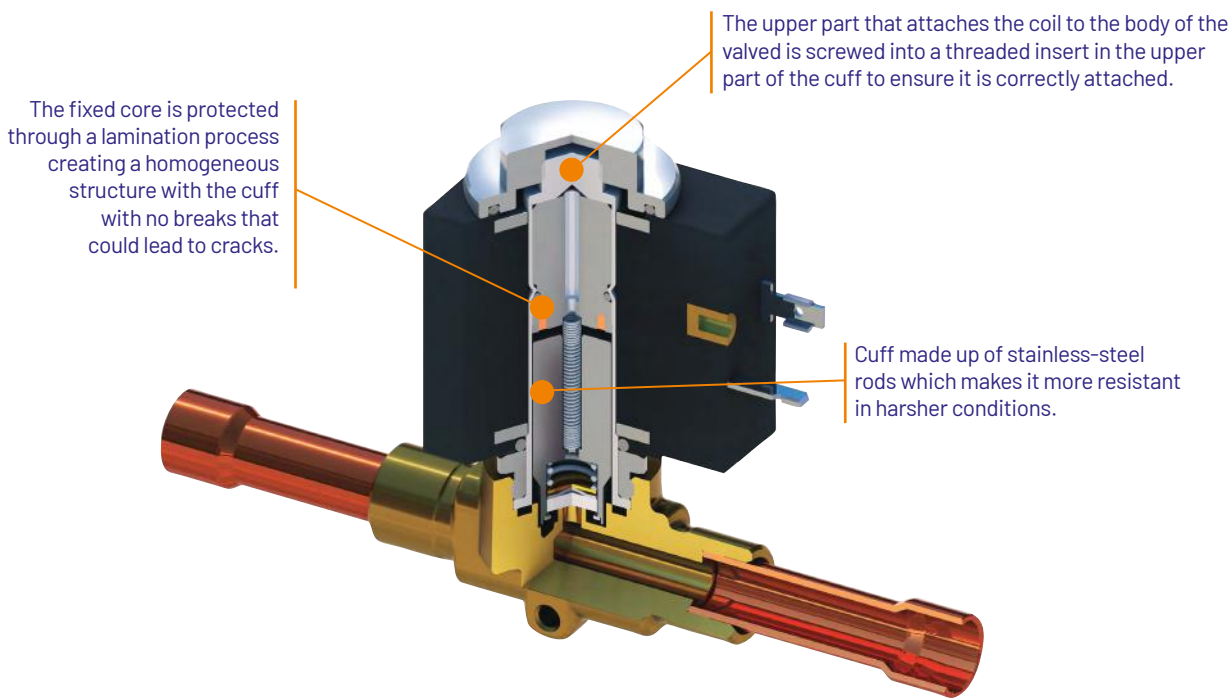


#### TECHNICAL DATA:

- Forged brass body EN12165 - CW617N.
- Stainless steel cuff AISI303.
- Stainless steel core.
- Stainless steel spring AISI 302
- Watertight neoprene external joints.
- Watertight joints with Teflon finish.
- Stainless steel screws to attach the lid and the body.

All of the coils are H class, with enamelled copper wire wrapping with 180 insulation class. The external case is made of resin with dielectric properties that provide watertight insulation. The coil has two O-ring seals on the upper and lower parts that protect the device from humidity.

The coils are designed to run constantly.



#### INSTALLATION:

The solenoid valves can be installed in any part of the system, as long as the cooling capacity of the different models is taken into consideration. The device must be installed in a way that ensure that the refrigerant will flow in the direction shown on the arrows on the body of the valve.

It should be welded using an alloy with a low melting point. To avoid damage, the flame should not be pointed towards the body when welding the pipes. Before connecting the device to a source of power, please ensure that the bobbin data matches the system data.

## ALL CODES INCLUDE:



### VOLAB NC SOLENOID VALVES (NORMALLY CLOSED) WITH SAE FLARE JOINTS + COIL + CONNECTOR

GS CODE	CAPACITY IN KW (1):						KV VALUE (M <sup>3</sup> /H)	CONNECTION: (2)	TYPE OF ACTION (3)	ORIFICE (mm)	MODEL
	R-134a	R-22	R-404A	R-407C	R-410A	R-507					
YGSVS1/4R2	2,98	3,20	2,08	3,00	3,00	2,00	0,175	1/4" R	D	2,5	30020-F-01-2.5-A
YGSVS3/8R3	3,90	4,20	2,74	3,95	3,95	2,65	0,23	3/8" R	D	3,0	30020-F-02-3.0-A
YGSVS3/8R6	13,50	14,60	9,50	13,80	13,70	9,20	0,80	3/8" R	M	6,5	30120-F-02-6.5-A
YGSVS1/2R6	13,50	14,60	9,50	13,80	13,70	9,20	0,80	1/2" R	M	6,5	30120-F-03-6.5-A
YGSVS5/8R12	44,40	47,80	31,10	45,00	44,80	30,00	2,20	5/8" R	M*	12,5	30220-F-04-12.5-A
YGSVS3/4R16	81,60	87,80	57,10	82,70	82,40	55,20	4,80	3/4" R	M*	16,5	30220-F-05-16.5-A

### OLAB NC SOLENOID VALVES

#### (NORMALLY CLOSED) WITH WELDED JOINTS (ODF) + COIL + CONNECTOR

GS CODE	CAPACITY IN KW (1):						KV VALUE (M <sup>3</sup> /H)	CONNECTION: (2)	TYPE OF ACTION (3)	ORIFICE (mm)	MODEL
	R-134a	R-22	R-404A	R-407C	R-410A	R-507					
YGSVS1/4S2	2,55	2,75	1,80	2,60	2,60	1,73	0,15	1/4" S	D	2,2	30020-T-01-2.2-A
YGSVS3/8S3	3,90	4,20	2,74	3,95	3,95	2,65	0,23	3/8" S	D	3,0	30020-T-02-3.0-A
YGSVS3/8S6	13,50	14,60	9,50	13,80	13,70	9,20	0,80	3/8" S	M	6,5	30120-T-02-6.5-A
YGSVS1/2S6	13,50	14,60	9,50	13,80	13,70	9,20	0,80	1/2" S	M	6,5	30120-T-03-6.5-A
YGSVS1/2S12	37,40	40,30	26,20	37,90	37,80	25,30	2,20	1/2" S	M*	12,5	30220-T-03-12.5-A
YGSVS5/8S12	44,40	47,80	31,10	45,00	44,80	30,00	2,60	5/8" S	M*	12,5	30220-T-04-12.5-A
YGSVS5/8S16	64,60	69,50	45,20	65,50	65,20	43,70	3,80	5/8" S	M*	16,5	30220-T-04-16.5-A
YGSVS3/4S16	81,60	87,80	57,00	82,70	82,40	55,20	4,80	3/4" S	M*	16,5	30220-T-05-16.5-A
YGSVS7/8S12	44,40	47,80	31,10	45,00	44,80	30,00	2,60	7/8" S	M*	12,5	30220-T-06-12.5-A
YGSVS7/8S16	97,00	104,30	67,80	98,20	98,00	65,60	5,70	7/8" S	M*	16,5	30220-T-06-16.5-A
YGSVS11/8S16	97,00	104,30	67,80	98,20	98,00	65,60	5,70	1 1/8" S	M*	16,5	30220-T-08-16.5-A
YGSVS11/8S25	170,00	183,00	119,00	172,30	171,70	115,00	10,00	1 1/8" S	M*	25,5	30220-T-08-25.5-A
YGSVS13/8S25	170,00	183,00	119,00	172,30	171,70	115,00	10,00	1 3/8" S	M*	25,5	30220-T-09-25.5-A

## CODES THAT END IN H CERTIFIED



YGSVS3/8S6H	13,50	14,60	9,50	13,80	13,70	9,20	0,80	3/8" S	M	6,5	30120-T-02-6.5-A-2
YGSVS1/2S12H	37,40	40,30	26,20	37,90	37,80	25,30	2,20	1/2" S	M*	12,5	30220-T-03-12.5-A-2
YGSVS5/8S16H	64,60	69,50	45,20	65,50	65,20	43,70	3,80	5/8" S	M*	16,5	30220-T-04-16.5-A-2
YGSVS3/4S16H	81,60	87,80	57,00	82,70	82,40	55,20	4,80	3/4" S	M*	16,5	30220-T-05-16.5-A-2
YGSVS7/8S16H	97,00	104,30	67,80	98,20	98,00	65,60	5,70	7/8" S	M*	16,5	30220-T-06-16.5-A-2
YGSVS11/8S25H	170,00	183,00	119,00	172,30	171,70	115,00	10,00	1 1/8" S	M*	25,5	30220-T-08-25.5-A-2
YGSVS13/8S25H	170,00	183,00	119,00	172,30	171,70	115,00	10,00	1 3/8" S	M*	25,5	30220-T-09-25.5-A-2

### ALL OF THE CODE INCLUDE A SOLENOID VALVE + COIL + CONNECTOR.

(1) Liquid line capacity in the following working conditions: Evaporation temp. = +4°C. T<sup>3</sup> condensation = +38°C. Pressure drop Δp = 0.15 bar. (2) Connection: "R" Thread / "S" Weld. (3) Type of action: "D" Direct / "M" Membrane / "M\*" Membrane with flange. Temperature limit range -35°C/+105°C. **Codes that end in H:** HNBR O-ring seal (temperature range -40°C/+150°C) A2L - A3 certificates. **Coil:** 220-230 V. 50/60 Hz. **Rated power:** 21 VA. **Certification:** VDE. **Maximum working pressure:** 45 bar. **Protection Level:** IP67.



CODE	MODEL	ACTION TYPE	
YGSBOBINA	30000BHFP/J1JI	Bobina 220/230 V	25

CODE	MODEL	ACTION TYPE	
YGSFIJACION	30000-15	Pieza de fijación	10



CODE	MODEL	ACTION TYPE	
YGS7000	7000/CON	Conector	25

## CHECK VALVES

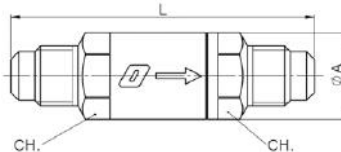
### SEMI-HERMETIC CHECK VALVES 33000 AND 33100 SERIES, STRAIGHT-THROUGH, WELD AND THREAD.

The Olab 33000 series check valves can work in any position, even better if they are installed vertically, in refrigeration and air-conditioning system that use group 2 refrigerants (Article 9, Par. 2.2 of Directive 97/23/EC in reference to Directive 67/548/EEC).



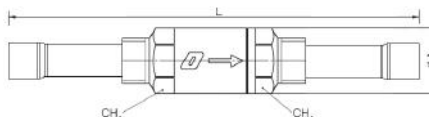
CODE	MODEL	CONNECTION	DROP IN PRESSURE MIN.	SIZE			KV VALUE (M <sup>2</sup> /H)	
				A (mm)	CH (mm)	L (mm)		
<b>SERIE 33000 STRAIGHT SAE FLARE</b>								
YGSVR2F	33000-MM-01-D	1/4"	0,1 bar	16	14	57	0,5	20
YGSVR3F	33000-MM-02-D	3/8"		20	18	69	1,5	
YGSVR4F	33000-MM-03-D	1/2"		22	20	73	1,8	
YGSVR5F	33000-MM-04-D	5/8"		28	25	87	3,3	
YGSVR6F	33000-MM-05-D	3/4"		33	30	100	5,0	

\*Temperature range -35/+105 °C. Maximum working pressure: 45 bar  
 \*It can be installed horizontally or vertically  
 \*Neoprene O-ring



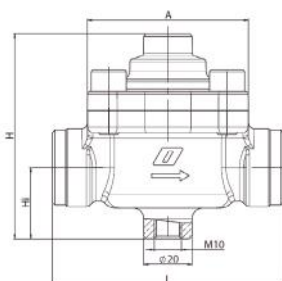
<b>SERIE 33000 STRAIGHT ODF</b>								
YGSVR2SE	33000-TS-01-D	1/4"	0,1 bar	16	14	113	0,5	12
YGSVR3SE	33000-TS-02-D	3/8"		20	18	122	1,5	
YGSVR4SE	33000-TS-03-D	1/2"		22	20	133	1,8	
YGSVR5SE	33000-TS-04-D	5/8"		33	30	159	3,3	
YGSVR6SE	33000-TS-05-D	3/4"		33	30	159	5,0	
YGSVR7SE	33000-TS-06-D	7/8"		33	30	166,5	5,0	

\*Temperature range -35/+105 °C. Maximum working pressure: 45 bar  
 \*It can be installed horizontally or vertically  
 \*Neoprene O-ring



<b>SERIE 33100 STRAIGHT ODF</b>								
YGSVR07S	33100-TNS-06-D	7/8"	0,1 bar	60	77	27	6,6	4
YGSVR09S	33100-TNS-08-D	1 1/8"		60	81	29	8,8	
YGSVR13S	33100-TNS-09-D	1 3/8"		68	99	34	15,2	
YGSVR15S	33100-TNS-10-D	1 5/8"		88	123	37	25,0	
YGSVR17S	33100-TNS-11-D	2 1/8"		104	139	42	40,0	

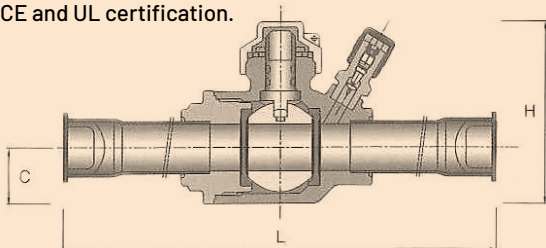
\*Temperature range -35/+105 °C. Maximum working pressure: 45 bar  
 \*Installed horizontally  
 \*Metal O-ring



**THUNDER BALL VALVES**

**TECHNICAL DATA:**

- Full flow through the valve (no reduced).
- Maximum working pressure: 60bar (870 PSIG) in sizes from 1/4" to 1-1/8"
- Maximum working pressure: 48 bar (700 PSIG) in sizes from 1-3/8" to 3-1/8"
- Working temperatures: -40 °C / + 150 °C.
- Two-way valve.
- Access valve located in the brass body, no leaks.
- Valves completely tested at maximum pressure for work with helium.
- Brass cap and body.
- Suitable for all CFC's, HCFC's, HFC's including R-410A/R-32, HFO's and HC's.
- Suitable for subcritical CO<sub>2</sub> in sizes from 1/4" to 1-1/8"
- CE and UL certification.



CODE	CONNECTION	SIZE (mm)			KV VALUE (M <sup>3</sup> /H)	MAX WORKING PRESSURE (bar)		
		L	H	C				
YGSRBV6	1/4"	165	54,4	16	2,1	60	40	
YGSRBV6C								
YGSRBV10	3/8"	165	54,4	16	4,3			
YGSRBV10C								
YGSRBV12	1/2"	165	54,4	16	7,0			
YGSRBV12C								
YGSRBV16	5/8"	165	54,4	16	13,9			
YGSRBV16C								
YGSRBV18	3/4"	184	66,9	21	21,0			
YGSRBV18C								
YGSRBV22	7/8"	184	66,9	21	30,3		48	12
YGSRBV22C								
YGSRBV28	1 1/8"	216	75,7	25,5	61,3			
YGSRBV28C								
YGSRBV35	1 3/8"	235	94	31	85,2	48		6
YGSRBV35C								
YGSRBV42	1 5/8"	254	109	39	212,4			
YGSRBV42C								
YGSRBV54	2 1/8"	290	131,5	47,5	284,7			
YGSRBV54C								
YGSRBV64	2 5/8"	327	131,5	47,5	237,5	1		
YGSRBV64C								
YGSRBV76	3 1/8"	365	154	60	324,4			
YGSRBV76C								

Codes that end with a "C" are models with access valve.

### THUNDER BALL VALVES FOR R-744 (CO<sub>2</sub>) TRANSCRITICAL

#### TECHNICAL DATA:

- Full flow through the valve (no reduced).
- Maximum working pressure: 120 bar (1740 PSIG).
- Working temperatures: -40 °C / + 150 °C.
- Two-way valve.
- Improved internal parts design to guarantee zero leaks.
- It prevents any risk of the axis exploding or being ejected.
- Robust brass cap and body.
- K-65 copper tube.
- EC and UL certification.



CODE	CONNECTION	SIZE (mm)			KV VALUE (M <sup>3</sup> /H)	MAX WORKING PRESSURE (bar)	
		L	H	C			
YGSCRBV06	1/4"	116	55	28	2.1	120	45
YGSCRBV10	3/8"	116	55	28	4.3		
YGSCRBV12	1/2"	116	55	28	7.0		
YGSCRBV16	5/8"	145	55	28	13.9		28
YGSCRBV18	3/4"	145	67	41	21.0		
YGSCRBV22	7/8"	200	67	41	30.3		12
YGSCRBV28	1 1/8"	185	76	50	61.3		
YGSCRBV35	1 3/8"	205	94	61	85.2		
YGSCRBV42	1 5/8"	240	109	73	212.4		8

### THUNDER HAND VALVES FLARE TO FLARE WITH NUTS

#### TECHNICAL DATA:

- Compatible refrigerants: HCFC's (ej. R-22), HFC's (e.g. R-32, R-404A, R-407C, R-410A, R-442A, R-449A, R-453A, R-452B, R-470A, R-470B, R-513A...), y HFO's (R-1234yf, R-1234ze...). Valid for A2L flammable refrigerants.
- MWP (maximum working pressure): 28 bar.
- Working temp.: -35 to 90°C.
- Closing shutter. Used for the connection of measured devices.



CODE	CONNECTION	KV VALUE (M <sup>3</sup> /H)	MAX WORKING PRESSURE (bar)	
YGS5101/4	1/4"	0.30	28	10
YGS5103/8	3/8"	0.90		
YGS5101/2	1/2"	1.40		5
YGS5105/8	5/8"	2.00		
YGS5103/4	3/4"	3.60		

## THUNDER FILTER DRIERS

The synthetic POE lubricants used with HFC or HFC+HFO refrigerants are very hygroscopic because they are made up of ester acid and alcohol. If the level of humidity is over 75 ppm, the mix of oil and water creates acid and alcohol, which is a reversible process. At the same time, the presence of humidity in the system also generates acid.

To avoid acid creation, chemical products are used:

- Molecular sieves to trap humidity in 3Å channels. The channels can only trap water molecules because they are the smallest molecules in the refrigerant. The molecular sieves make sure that there is a minimal amount of humidity in the system.



The molecular sieves are about three times more effective than activated aluminium.

- Activated aluminium is used to trap the acid and humidity in the oil but is less effective than a molecular sieve.

Humidity can get into the system if it is old, and the acids generated appear when a compressor has burnt out or when an incomplete vacuum has been created before starting up the system.

## TDML SERIES

### 100% MOLECULAR SOLID CORE FILTER DRIERS FOR HCFC, HFC AND HFO+HFC

The ceramic filters in the TDML series are made up of 100% 3Å molecular sieve, which is the best drying material for humidity absorption. Particularly recommendable for HFC (R-134a, R-404A, R-407C, R-407F, R-410A, R-442A, R-449A, R-453A...).

- High anti-humidity capacity.
- Maximum working pressure: 46 bars.
- It doesn't deteriorate the additives in the oil. Compatible with R-22.
- Corrosive resistance molded.
- SAE or ODF connection.
- Filtration: 20 micron.



The molecular sieve is made up of two balls, which remain completely compact since they are held by a strong spring; as such, because there's no binding agent use, they can trap more humidity.

CODE	CAPACITY VOL. cm³	SOLID CORE SUP. cm²	CONNECTION Ø	MODEL		
				SAE	ODF	
YGSDML032	41	82	1/4"	TDML-032		28
YGSDML032S					TDML-032S	
YGSDML052	67	95		TDML-052		
YGSDML052S					TDML-052S	
YGSDML082	104	131		TDML-082		
YGSDML082S					TDML-082S	
YGSDML162	234	220	TDML-162			
YGSDML162S				TDML-162S		
YGSDML053	67	95	3/8"	TDML-053		15
YGSDML053S					TDML-053S	
YGSDML083	104	131		TDML-083		
YGSDML083S					TDML-083S	
YGSDML163	234	220		TDML-163		
YGSDML163S					TDML-163S	
YGSDML303	494	378	TDML-303			
YGSDML303S				TDML-303S		
YGSDML084	104	131	1/2"	TDML-084		10
YGSDML084S					TDML-084S	
YGSDML164	234	220		TDML-164		
YGSDML164S					TDML-164S	
YGSDML304	494	378		TDML-304		
YGSDML304S					TDML-304S	
YGSDML165	234	220	5/8"	TDML-165		
YGSDML165S					TDML-165S	
YGSDML305	494	378		TDML-305		
YGSDML305S					TDML-305S	
YGSDML306S				3/4"	TDML-306S	
YGSDML307S				7/8"	TDML-307S	
YGSDML309S			1 1/8"	TDML-309S		

## TAD SERIES


### 80% MOLECULAR + 20% ALUMINA SOLID-CORE FILTER DRIERS FOR CFC, HCFC, HFC AND HFO+HFC

The TAD series ceramic filters are made up of 80% molecular sieve to absorb humidity and 20% alumina to neutralise acids. The TAD filters are compatible with CFC, HCFC, HFC, CO<sub>2</sub>, as well as their associated oils and additives.

- High drying and acid-neutralisation capacity.
- Maximum working pressure: 46 bar.
- Very low loss of charge to make the system perform better when in operation.
- Corrosive resistance molded.
- SAE or ODF connection.
- Filtration: 20 micron.



The molecular sieve is made up of two balls, which remain completely compact since they are held by a strong spring; as such, because there's no binding agent use, they can trap more humidity.

CODE	CAPACITY VOL. cm <sup>3</sup>	CONNECTION Ø	MODEL			
			THREAD	WELDING		
YGSAD032	41	1/4"	TAD-032		25	
YGSAD032S				TAD-032S		
YGSAD052	67		TAD-052			
YGSAD052S				TAD-052S		
YGSAD082	104		TAD-082			
YGSAD082S				TAD-082S		
YGSAD162	234		TAD-162			
YGSAD162S				TAD-162S		
YGSAD053	67	3/8"	TAD-053		25	
YGSAD053S				TAD-053S		
YGSAD083	104		TAD-083			
YGSAD083S				TAD-083S		
YGSAD163	234		TAD-163			
YGSAD163S				TAD-163S		
YGSAD303	494		TAD-303			
YGSAD303S				TAD-303S		
YGSAD084	104	1/2"	TAD-084		10	
YGSAD084S				TAD-084S		
YGSAD164	234		TAD-164			
YGSAD164S				TAD-164S		
YGSAD304	494		TAD-304			
YGSAD304S				TAD-304S		
YGSAD165	234		5/8"	TAD-165		
YGSAD165S						TAD-165S
YGSAD305	494	TAD-305				
YGSAD305S				TAD-305S		
YGSAD306S		3/4"	TAD-306S			
YGSAD307S		7/8"	TAD-307S			

**TEG SERIES**  
**100% MOLECULAR SOLID CORE FILTER DRIERS WITH AN INBUILT SIGHT GLASS FOR HCFC, HFC AND HFO+HFC**

The ceramic filters in the TEG series are made up of 100% 3Å molecular sieve and include a welded sight glass right at the outflow. Excellent humidity absorption capacity, particularly for HFC refrigerants (R-134a, R-404A, R-407C, R-407F, R-410A, R-442A, R-449A, R-453A, etc.).

The filter removes small particle up to 10 microns that may be present in the refrigerant to help to prevent blockages in the system. The pre-assembled combination of the filter and the sight glass mean there's no need for welding, saving time and reducing the risk of leaks.

The sight glass allows the installer to check the state of the refrigerant, identifying systems with a low charge and bad refrigerant flow through the capacitor or system. A system with these features will have an unusual drop in pressure caused by the "flash-gas" of the refrigerant and, as such, bubble will appear in the liquid line. The sight glass has a humidity indicator that changes from green to yellow when there is humidity in the refrigerant.



- A compact and easy to install unit made up of a filter drier and a liquid line sight glass with a humidity indicator.
- Cheaper than buying both products separately and quicker to install.
- Less connections, reducing the amount of leaks.
- Compact joint, spring design.
- Excellent anti-humidity capacity.
- Maximum working pressure: 46 bar.
- Very low loss of charge to make the system perform better when in operation.
- Corrosive resistance molded.
- SAE or ODF connection.
- Filtration: 10 micron.

**SIGHT GLASS INDICATIONS**

**Colour:**

- Green: There is no "dangerous" humidity in the refrigerant.
- Yellow: The level of humidity in the refrigerant is too high.

**Bubbles:**

- The charge leakage through the filter is too high.
- There is no subcooling.
- Lack of refrigerant in the entire system.


CODE	CAPACITY VOL. cm <sup>3</sup>	CONNECTION Ø	MODEL		
			SAE	WELDING	
YGSTEG052	82	1/4"	TEG-052		25
YGSTEG082	131		TEG-082		
YGSTEG082S	131			TEG-082S	
YGSTEG053	82		3/8"	TEG-053	
YGSTEG083	131	TEG-083			
YGSTEG083S	131			TEG-083S	
YGSTEG163	262	1/2"	TEG-163		
YGSTEG084	131		TEG-84		
YGSTEG164	262		TEG-164		
YGSTEG164S	262			TEG-164S	
YGSTEG165	262	5/8"	TEG-165		
YGSTEG165S	262			TEG-165S	

## TFK SERIES REVERSIBLE SOLID-CORE FILTER DRIERS FOR HCFC, HFC AND HFO+HFC

The TFK series ceramic filters are designed to filter and dry refrigerant gases and neutralise acids in the fluid system in reverse-cycle refrigeration and air-conditioning installations, heat pumps.

- Maximum working pressure: 46 bar.
- Two-way filtering and drying thanks to their internal check valves.
- High drying and acid-neutralisation capacity.
- Very low loss of charge to make the system perform better when in operation.
- There is no risk of releasing contaminants captured in the filter drier during the reverse cycle.
- Anti-rust paint.
- Thread connection (SAE) and welding (ODF).
- Filter threshold: 20 micron.



CODE	CONNECTION Ø	MODEL		CAPACITY VOL. cm <sup>3</sup>	
		THREAD	WELDING		
YGSFK163	3/8"	TFK-163		262	25
YGSFK163S			TFK-163S		
YGSFK083	3/8"	TFK-083		131	
YGSFK083S			TFK-083S		
YGSFK164	1/2"	TFK-164		262	
YGSFK164S			TFK-164S		
YGSFK084	1/2"	TFK-084		131	
YGSFK084S			TFK-084S		
YGSFK165	5/8"	TFK-165		262	
YGSFK165S			TFK-165S		
YGSFK306S	3/4"		TFK-306S	494	10
YGSFK307S	7/8"		TFK-307S		

## REMOVABLE FILTER DRIERS

### RELOADABLE CARTRIDGE FILTER DRIERS FOR LIQUID LINES AND SUCTION

The removable TPL-T filter driers are used in liquid lines and suction in installations with CFC, HCFC and HFC refrigerants.

- Steel case for a longer useful life of the equipment.
- Safe working pressure:
  - ▶ T - for tubes: 34 bar.
  - ▶ SV - for suction tube: 27 bar.
- Very few leaks at maximum flow pressure.
- Surface with good rust-resistance.

CODE	CONNECTION Ø	NUMBER OF CARTRIDGES
YGSPL485T	5/8"	1
YGSPL487T	7/8"	1
YGSPL489T	1 1/8"	1
YGSPL969T		2
YGSPL4811T	1 3/8"	1
YGSPL9611T		2
YGSPL14411T	1 5/8"	3
YGSPL4813T		1
YGSPL9613T	1 5/8"	2
YGSPL-14413T		3
YGSPL-19213T	2 1/8"	4
YGSPL-19217T		4
YGSPL-40021T	2 5/8"	4



## FILTER DRIER CARTRIDGES

Universal detachable cartridges for filters supplied in metal cans to ensure good performance in drying and filtering out other contaminants. Choose the solid core/filter that's best suited to the function you need:

- **DS SERIES:** Humidity/anti-acid. Cartridge made up of 80% molecular sieve and 20% activated aluminium for equipment that has been running with humidity, therefore, acids may have been generated.
- **HS SERIES:** Humidity. 100% molecular cartridge, ideal for maximum humidity prevention in new equipment.
- **DW SERIES:** Burnt-out compressor. Cartridge made up of 75% molecular sieve, 20% activated aluminium and 5% activated carbon, ideal for burnt-out equipment.
- **LX SERIES:** Metallic mesh for filtering out foreign bodies during suction.

CODE	FUNCTION	L. LIQUID OR SUCTION	SIZE		
			HEIGHT X Ø EXT. X Ø INT.		
YGSHS48	Humidity	L	140 x 45 x 94		12
YGSDS48	Humidity/anti-acid				
YGSHS100	Humidity		165 x 53 x 122		6
YGSDS100	Humidity/anti-acid				
YGSDW48	Burnt-out compressor	A	140 x 45 x 94		12
YGSLX48	Foreign bodies		165 x 53 x 122		6
YGSLX100					



## THUNDER COPPER FILTERS

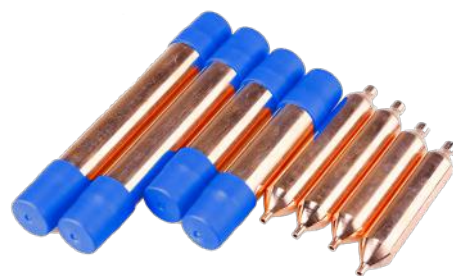
THUNDER copper filter driers are designed to absorb humidity and acid and filter out the foreign bodies. They are used as a component in a large number of applications in HVAC&R and are replaced during maintenance/repair operations for domestic and commercial fridges and freezers.

### APPLICATIONS:

The desiccant material of our THUNDER filters is ideally suited for A1, A2L, A2 & A3 refrigerant gases (e.g. R-12, R-22, R-134a, R-152a, R-290, R-600a, R-1234yf), including their corresponding mixtures and lubricants.

### TECHNICAL DATA:

- High water capacity.
- High resistance against crushing.
- Low wear.
- High resistance against high system pressures and vibrations.
- Excellent chemical compatibility.



CODE	DESCRIPTION		
YGSSD1820A	3/16"x2.5mm 20g copper filter drier	10	400
YGSSD1821A	1/4"x2.5mm 20g copper filter drier	10	
YGSSD1822A	1/4"x 1/4" 20g copper filter drier	10	
YGSSD1823A	1/4"x2.5mm 30g copper filter drier	5	250
YGSSD1824A	1/4"x 1/4" 30g copper filter drier	5	
YGSSD1825A	1/4"x2.5mm 40g copper filter drier	5	200
YGSSD1826A	1/4"x 1/4" 40g copper filter drier	5	

**NEW**

## THUNDER MOTOR FANS

### MULTI-ANCHORAGE MOTOR FANS

GAS SERVEI CODE	POWER (W)	DESCRIPTION
YGSVEM0005	5	5W-220V
YGSVEM0010	10	10W-220V
YGSVEM0016	16	16W-220V
YGSVEM0025	25	25W-220V
YGSVEM0034	34	34W-220V



### FAN GRILL

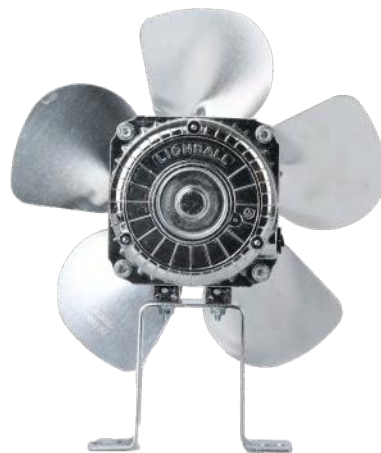
GAS SERVEI CODE	DESCRIPTION
YGSVER0005	200 mm (Motor 5W)
YGSVER0010	254 mm (Motor 10W and 16W)
YGSVER0025	300 mm (Motor 25W and 34W)

### FAN BLADE

GAS SERVEI CODE	DESCRIPTION
YGSVEA0005	Ø200-28° (Motor 5W)
YGSVEA0010	Ø254-22° (Motor 10W)
YGSVEA0016	Ø250-28° (Motor 16W)
YGSVEA0025	Ø300-23° (Motor 25W)
YGSVEA0034	Ø300-25° (Motor 34W)

### FAN SUPPORT

GAS SERVEI CODE	DESCRIPTION
YGSVES0005	72H (Motor 5W)
YGSVES0010	84H (Motor 10W and 16W)
YGSVES0025	109H-39 (Motor 25W)
YGSVEA0034	109H-49 (Motor 34W)



# CAPILLARY TUBE THERMO-PLASTIC



## WHAT IS IT?

These are flexible thermoplastic hose assemblies for connecting a wide range of a large number of pressurised elements of refrigeration and A/C installations.

## APPLICATIONS:

**QUADRA DN2** flexible hose is the most efficient solution to connect pressure gauges, pressure gauges, pressure switches, pressure switches, pressure switches, etc. The **QUADRA DN2** hose has an internal diameter of 2 mm and can therefore replace the rigid therefore can replace rigid copper capillary tubes.

**QUADRA DN4** flexible hose is the ideal solution for oil balancing and return lines. The **QUADRA DN4** hose has a internal diameter of 4 mm and can therefore replace rigid pipes with OD 6 mm or 1/4 6 mm or 1/4' OD rigid hoses.

The flexible **QUADRA DN6** hose is the perfect solution for oil return lines and balancing systems. The **QUADRA DN6** hose has an internal diameter of 6 mm and can therefore replace rigid can therefore replace rigid hoses of OD 8 mm or 5/16'.



## ADVANTAGES:

### CO<sub>2</sub> savings

**How much CO<sub>2</sub> equivalent, due to HFC emissions, have you introduced into our environment so far?**

We all need to reduce CO<sub>2</sub> emissions from HFCs to control our planet's warming potential.

The new **QUADRA** flexible hose is a 'CO<sub>2</sub>-equivalent saver', due to its low equivalent' due to its very low permeability with most refrigerant

gases of EN 1736 CLASS 1 refrigerant gases, and due to its ability to reduce to reduce vibrations and also because of its simplicity of installation.



Due to its FLEXIBILITY, introducing the range of **QUADRA** product range, brings the following advantages:

- **SPEED UP** the assembly process.
- **ABSORBING** the **VIBRATION** of the compressor.
- **REDUCING NOISE.**

The **QUADRA** system - consisting of the thermoplastic flexible capillary hose, brass and steel fittings and tooling - allows for quick allows rapid production, in a few simple steps, of quality connections for all quality connections for all refrigeration and air-conditioning applications in a few easy steps and air conditioning applications and guarantees the following key features:

- Exceeds EN 1736 CLASS 1.
- Compatible for working with CO<sub>2</sub> up to a pressure of 120 bar.
- UV resistant.
- RoHS compliant.

We recommend choosing the orange **QUADRA** hose for high pressure circuits and the orange **QUADRA** hose for high pressure circuits, making it circuits, making the identification of the two parts of the circuit unmistakable. In this way, we reduce the possibility of errors in the the two pressure lines of the installation during assembly and maintenance.

Directive 2002/95/EC: The materials used for the construction of the hose and the of the hose and fittings of the **QUADRA DN2, DN4** and **DN6** range are compatible with all HCFC, HFC, HC and CO<sub>2</sub> refrigerant fluids (up to 120 bar).

The **QUADRA** thermo-plastic hose consists of:

- An inner tube made of thermoplastic polymer.
- High tensile and stress resistant polyester.
- An outer tube made of thermoplastic polymer.

DESCRIPTION	INTERNAL DIAMETER (mm)	EXTERNAL DIAMETER (mm)	CONNECTIONS FITTINGS (SAE)	MAXIMUM ALLOWABLE PRESSURE (bar)	MINIMUM BURST PRESSURE (bar)	ALLOWABLE TEMPERATURE MIN °C/MAX °C	MINIMUM BENDING RADIUS (mm)
QUADRA DN2	2	5,9	1/4	120	600	-45 / +130	10
QUADRA DN4	4	6,1	1/4 Y 3/8	120	600	-45 / +130	25
QUADRA DN6	6	8,3	1/4 Y 3/8	120	600	-45 / +130	35



2 MM, 4 MM AND 6 MM MOUNTED THERMOPLASTIC TUBE.

CODE	DESCRIPTION		
<b>CAPILLARY TUBE DN2</b>			
TFRCCB040 TFRCAA040	1/4" straight x 1/4" straight (40 cm.)	5	
TFRCCB060 TFRCAA060	1/4" straight x 1/4" straight (60 cm.)		
TFRCCB080 TFRCAA080	1/4" straight x 1/4" straight (80 cm.)		
TFRCCB100 TFRCAA100	1/4" straight x 1/4" straight (100 cm.)		
TFRCCD040 TFRCAC040	1/4" straight x 1/4" elbow (40 cm.)		
TFRCCD060 TFRCAC060	1/4" straight x 1/4" elbow (60 cm.)		
TFRCCD080 TFRCAC080	1/4" straight x 1/4" elbow (80 cm.)		
TFRCCD100 TFRCAC100	1/4" straight x 1/4" elbow (100 cm.)		
<b>CAPILLARY TUBE DN4</b>			
TFRCCG060 TFRCAF060	1/4" straight x 1/4" straight (60 cm.)		5
TFRCCG090 TFRCAF090	1/4" straight x 1/4" straight (90 cm.)		
TFRCCG120 TFRCAF120	1/4" straight x 1/4" straight (120 cm.)		
TFRCCG030 TFRCAF030	1/4" straight x 1/4" elbow (30 cm.)		
TFRCCG040 TFRCAF040	1/4" straight x 1/4" elbow (40 cm.)		
TFRCCG050 TFRCAF050	1/4" straight x 1/4" elbow (50 cm.)		
TFRCCG060 TFRCAF060	1/4" straight x 1/4" elbow (60 cm.)		
TFRCCG080 TFRCAF080	1/4" straight x 1/4" elbow (80 cm.)		
TFRCCG100 TFRCAF100	1/4" straight x 1/4" elbow (100 cm.)		
TFRCCG120 TFRCAF120	1/4" straight x 1/4" elbow (120 cm.)		
TFRCCG140 TFRCAF140	1/4" straight x 1/4" elbow (140 cm.)		
<b>CAPILLARY TUBE DN6</b>			
TFRCEG040 TFRCDG040	3/8" straight x 3/8" elbow (40 cm.)	5	
TFRCEG060 TFRCDG060	3/8" straight x 3/8" elbow (60 cm.)		
TFRCEG080 TFRCDG080	3/8" straight x 3/8" elbow (80 cm.)		
TFRCEG100 TFRCDG100	3/8" straight x 3/8" elbow (100 cm.)		
TFRCEG120 TFRCDG120	3/8" straight x 3/8" elbow (120 cm.)		



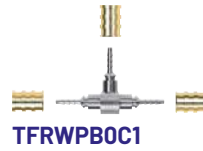
COMPONENTS FOR AC AND R. INSTALLATIONS

GOMAX® THERMOPLASTIC TUBES



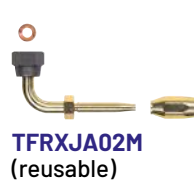
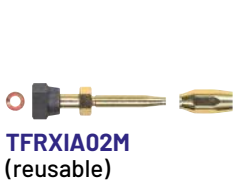
THERMOPLASTIC TUBE AND FITTINGS FOR 2MM TUBE (DN2)

50 UNIT/BOX



THERMOPLASTIC TUBE AND FITTINGS FOR 4MM TUBE (DN4)

50 UNIT/BOX



COMPONENTS FOR AC AND R. INSTALLATIONS

**THERMOPLASTIC TUBE AND FITTINGS FOR 6MM TUBE (DN6)**

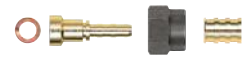
 **50** UNIT/BOX



**ROLL OF 50M OF 6MM Ø INT.**  
TFR0786C  
TFR0786BC



**TFRXCA02N**



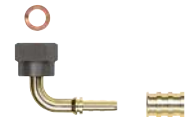
**TFRXBA04N (3/8")**



**TFRXBA02N**



**TFRWZE2N1**



**TFRXCA04N (3/8")**

**ACCESSORIES, COMPLEMENTS AND TOOLS**



**QUADRA ELECTRIC PLIER**  
TFRRXA011



**GOMAX EMPTY SUITCASE**  
TFRMR043



**GOMAX COMPLETE SUITCASE**  
TFRW00001

**QUADRA ELECTRIC PLIER COMPLETE**  
TFRRXA012 (Model with load bank)

TFRW00001 includes: 10m capillary tubing 2 mm orange and 10m black, 20 straight 1/4' fittings, 20 straight fittings 1/4' SAE with depressor, 10 fittings 90° 1/4' SAE, 10 tee 1/4' SAE 90° fittings, 10 tees, 10 tees + 1/4' SAE fitting in the centre, 50 1/4' SAE copper centre, 50 1/4' copper gaskets, 50 depressants, 1 clamp, 1 capillary tube cutter, 1 set of 2 replacement of 2 blades of the capillary cutter. All material in the case is for 2 mm. For other Please consult us for other combinations.



**QUADRA CAPILLARY TUBE CUTTER**  
TFRWXA004



**HYDRAULIC FIXING CLAMP FOR QUADRA CAPILLARY DN4 AND DN6**  
TFRRXA005



**FIXING CLAMP FOR QUADRA CAPILLARY DN2**  
TFRRXA003



**SHELL DEPRESSOR**  
TFRWTD2Z1



**BLADE REPLACEMENT FOR HAIR CUTTER**  
TFRWXB004



**COPPER GASKET FOR 1/4" AND 3/8" FITTINGS**  
TFRWRP502 (1/4")



**PLUG FOR 1/4" AND 3/8" FITTINGS**  
TFRWRW912 (1/4")

 **50** UNIT/BAG

TFRWRP504 (3/8")

TFRWRW914 (3/8")

 **50** UNIT/BAG

 **50** UNIT/BAG



# THUNDER

HVAC & R PRODUCTS



**MOTOR FANS**



**LUBRICANTS**



**REFRIGERANT CHARGING  
CONTROL VALVES**



**CO<sub>2</sub> CHARGING HOSES**



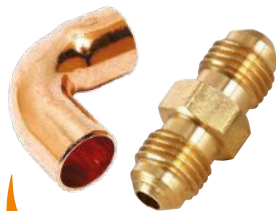
**THUNDER COPPER TUBES**



**SB1: QUICK COUPLINGS  
FOR HVAC & R**



**HAND VALVES FLARE TO  
FLARE**



**COPPER AND BRASS FITTINGS**



**GLYCOLS**

THUNDER is a Gas Servei trademark that is well-known on the HVAC&R market that is constantly growing by listening to the sector's needs.

Products selected from the best manufactures for their HVAC&R installations. THUNDER supplied special lubricants for compressors, components for AC and refrigeration installations, high-quality copper tubing, copper and brass accessories and chemical solutions.



**BALL VALVES**



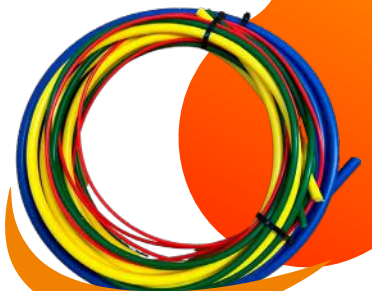
**VIBRATION ABSORBERS**



**FILTER DRIERS**



**COPPER FILTERS**



**INTERNAL TUBE BENDER**



**WELDING RODS**



**BRAZING PRODUCTS**



**BULLET PIERCING VALVES**



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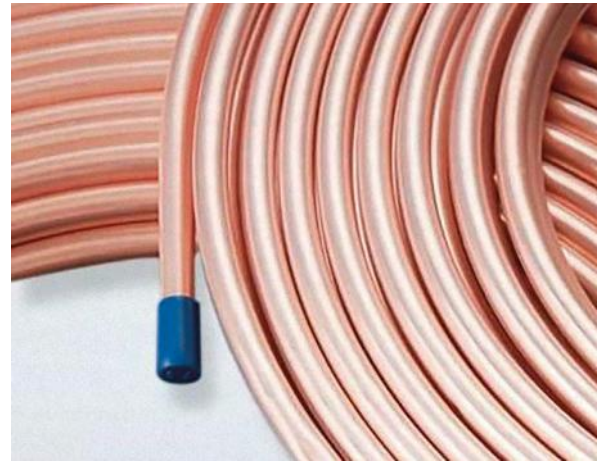


### THUNDER COPPER TUBES

Copper tubes with no welding for HVAC&R installations. Strictly complying with the Standard EN 12735-1. The raw material is phosphorus deoxidised phosphorous copper (Cu-DHP), with a 99.9% minimum purity of copper (Cu), which contains 0.015% - 0.04% of phosphorus (P)..

#### THUNDER PREMIUM ACR COPPER TUBES ARE:

- A first class solution for air conditioning and refrigeration installations. Safe solution in high, medium and low-pressure installations.
- Compatible with HFC and HFO refrigerant gases (R-134a, R-404A, R-410A, R-32, etc.).



#### STRAIGHT PIPES IN 5 M (R290 HARDNESS)

CODE	MEASUREMENTS (EXTERNAL Ø X WALL THICKNESS)		KG/M
	INCHES	mm	
	CRGEN03/8	3/8" x 0,0315"	
CRGEN01/2(0,8)	1/2" x 0,0315"	12,70 x 0,80	0,266
CRGEN01/2	1/2" x 0,040"	12,70 x 1,00	0,328
CRGEN05/8(0,8)	5/8" x 0,0315"	15,87 x 0,80	0,338
CRGEN05/8	5/8" x 0,040"	15,87 x 1,00	0,416
CRGEN03/4(0,8)	3/4" x 0,0315"	19,05 x 0,80	0,408
CRGEN03/4	3/4" x 0,040"	19,05 x 1,00	0,506
CRGEN07/8	7/8" x 0,040"	22,22 x 1,00	0,594
CRGEN1	1" x 0,040"	25,40 x 1,00	0,684
CRGEN11/8	1 1/8" x 0,040"	28,57 x 1,00	0,772
CRGEN13/8	1 3/8" x 0,049"	34,92 x 1,25	1,178
CRGEN15/8	1 5/8" x 0,049"	41,27 x 1,25	1,402
CRGEN21/8	2 1/8" x 0,049"	53,97 x 1,25	1,846
CRGEN25/8	2 5/8" x 0,065"	66,67 x 1,651	3,006
CRGEN31/8	3 1/8" x 0,065"	79,38 x 1,651	3,592
CRGEN35/8	3 5/8" x 0,065"	92,07 x 1,651	4,170

#### COPPER COILS IN 15 M (R220 HARDNESS)

CODE	MEASUREMENTS (EXTERNAL Ø X WALL THICKNESS)		KG/R	COIL/ BOX
	INCHES	mm		
	CHREN01/4	1/4" x 0,0315"		
CHREN03/8	3/8" x 0,0315"	9,52 x 0,80	2,93	10
CHREN01/2	1/2" x 0,0315"	12,70 x 0,80	4,00	5
CHREN05/8(0,8)	5/8" x 0,0315"	15,87 x 0,80	5,07	5
CHREN05/8	5/8" x 0,040"	15,87 x 1,00	6,25	5
CHREN03/4(0,8)	3/4" x 0,0315"	19,05 x 0,80	6,13	4
CHREN03/4	3/4" x 0,040"	19,05 x 1,00	7,58	4
CHREN07/8	7/8" x 0,040"	22,22 x 1,00	8,92	4

#### PACKAGING:

Both straight pipes and coils have caps on each end to avoid dust and moisture of getting inside.

- Straight pipes: in bales.
- Copper coils: individually shrink-wrapped and in cardboard boxes depending on the amounts stated for each size.



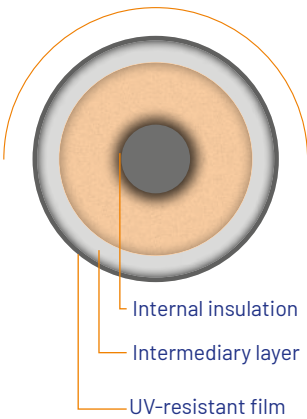
## INSULATED COPPER COILS

Copper coils with no welding and insulated in the factory for HVAC&R installations. Strictly complying with the Standard EN 12735-1. The raw material is phosphorus deoxidised phosphorous copper (Cu-DHP), with a 99.9% minimum purity of copper (Cu), which contains 0.015% - 0.04% of phosphorus (P).

The 3 layers of insulation on the THUNDER PREMIUM ACR COPPER TUBES™ is made out of reticulated polyethylene, inner extruded tube manufacture, without gaskets nor seams, which ensures an optimal thermal protection. An intermediary reticulated anti-radiation layer, and finally, and an outer anti-UV layer. All of the layers are made of high-quality polyethylene. The closed-cell bubble provides excellent thermal protection. According to standard EN-13501, its fire-retardant classification is BL-s1,d0 (Class B).



## TRIPLE-LAYER INSULATION



COMPONENTS FOR AC AND R. INSTALLATIONS



## COILS OF 25 M COPPER MONO-TUBE (R200 HARDNESS)

CODE	MEASUREMENTS (EXTERNAL Ø X WALL THICKNESS)		KG/R	ROLLS/PALLET
	INCHES	mm		
	CEAT0011	1/4" x 0,0315"		
CEAT0012	3/8" x 0,0315"	9,52 x 0,80	5,100	25
CEAT0013	1/2" x 0,0315"	12,70 x 0,80	6,900	20
CEAT00131	5/8" x 0,0315"	15,87 x 0,80	8,440	14
CEAT0014	5/8" x 0,040"	15,87 x 1,00	10,800	14
CEAT0015	3/4" x 0,040"	19,05 x 1,00	14,250	12
CEAT0016	7/8" x 0,040"	22,22 x 1,00	15,400	9

## COILS OF 20 M COPPER BI-TUBE (R200 HARDNESS)

CODE	MEASUREMENTS (EXTERNAL Ø X WALL THICKNESS)		KG/R	ROLLS/PALLET
	INCHES	mm		
	CEAT0001	1/4" x 0,0315"+ 3/8" x 0,0315"		
CEAT0002	1/4" x 0,0315"+ 1/2" x 0,0315"	6,35 x 0,80 + 12,70 x 0,80	8,150	20
CEAT00021	1/4" x 0,0315"+ 5/8" x 0,0315"	6,35 x 0,80 + 15,87 x 0,80	9,030	9
CEAT0003	1/4" x 0,0315"+ 5/8" x 0,040"	6,35 x 0,80 + 15,87 x 1,00	11,400	9
CEAT0004	3/8" x 0,0315"+ 1/2" x 0,0315"	9,52 x 0,80 + 12,70 x 0,80	9,600	18
CEAT00041	3/8" x 0,0315"+ 5/8" x 0,0315"	9,52 x 0,80 + 15,87 x 0,80	10,300	9
CEAT0005	3/8" x 0,0315"+ 5/8" x 0,040"	9,52 x 0,80 + 15,87 x 1,00	12,700	9
CEAT0006	3/8" x 0,0315"+ 3/4" x 0,040"	9,52 x 0,80 + 19,05 x 1,00	14,100	8
CEAT0007	1/2" x 0,0315"+ 3/4" x 0,040"	12,70 x 0,80 + 19,05 x 1,00	15,800	8

### PACKAGING:

The coils have caps on each end to stop dust and humidity getting inside.

### INSULATION TECHNICAL SPECIFICATIONS

Material	High-quality closed-cell polyethylene
Applications	AC and refrigeration
Colour	White
Number of layers	3 layers
Refrigerants	R-134a, R-404A, R-410A, R-32,...
Working temp.	-80 °C to +110 °C
Insulating thickness	9 mm (1/4", 3/8" y 1/2") and 11 mm (5/8", 3/4" y 7/8")
UV protection	Yes
Fire resistance	BL-s1,d0 (EN-13501). Class B
Thermal conductivity	0,031 W/m <sup>o</sup> K
Specifications	Complies with RITE regulations*

\*Complies with RITE specifications (in its section 8, of IT 1.2.4.2.1.1)



### THUNDER SPLIT HIGH QUALITY COPPER

The THUNDER SPLIT HIGH QUALITY COPPER range is manufactured from the highest purity by means of the highest purity of copper without soldering, in strict compliance with strictly in accordance with EN 12735.

The raw material used is deoxidised phosphorous copper (Cu-DHP), with 99.9 % of the copper being deoxidised, with a minimum copper (Cu) purity of 99,9 % and a phosphorous (P) content of phosphorus (P) content of 0,015 % - 0,04 %.

The EN 13501 standard certifies the fire resistance, with class B being the best for the material polyethylene (PE). Therefore the range THUNDER SPLIT HIGH QUALITY COPPER range with class B insulation is distinguished by its high performance and fire resistance.

#### CHARACTERISTICS:

- Fully recyclable.
- Excellent mechanical resistance.
- Excellent flame extinguishing properties.
- Excellent insulation properties.
- Semi-flexible thermoplastic foam.



#### 25M INSULATED MONOTUBE COPPER COIL

CODE	INCHES MEASUREMENTS	ROLLS/PALLET
CEAS0011	1/4"	27
CEAS0012	3/8"	23
CEAS0013	1/2"	21
CEAS0014	5/8"	16
CEAS0015	3/4"	13

#### 50M INSULATED MONOTUBE COPPER COIL

CODE	INCHES MEASUREMENTS	ROLLS/PALLET
CEAS5011	1/4"	18
CEAS5012	3/8"	16
CEAS5013	1/2"	13
CEAS5014	5/8"	11
CEAS0015	3/4"	9

#### 20M INSULATED COPPER COIL

CODE	INCHES MEASUREMENTS	ROLLS/PALLET
CEAS0001	1/4" + 3/8"	20
CEAS0002	1/4" + 1/2"	19
CEAS0003	1/4" + 5/8"	17
CEAS0004	3/8" + 5/8"	17
CEAS0005	3/8" + 3/4"	11
CEAS0006	1/2" + 3/4"	11

#### TECHNICAL SPECIFICATIONS:

Material	Closed cells made of high-quality polyethylene
Applications	A/C and refrigeration
Colour	White
Number of layers	2 layers
Refrigerants	R-134a, R-404A, R-410A, R-32,...
Working temperature	-80 °C a +95 °C
Coating thickness	9 mm
UV protection	YES
Fire resistance	BL-s1,d0 (EN-13501). Class B
Thermal conductivity	<0,035 W/m°K



90° ELBOW LONG RADIUS CXC



CODE	SIZE	
ACCCUR01/4	1/4"	25
ACCCUR03/8	3/8"	
ACCCUR01/2	1/2"	
ACCCUR05/8	5/8"	
ACCCUR03/4	3/4"	
ACCCUR07/8	7/8"	
ACCCUR1	1"	
ACCCUR11/8	1 1/8"	10
ACCCUR13/8	1 3/8"	
ACCCUR15/8	1 5/8"	
ACCCUR21/8	2 1/8"	5
ACCCUR25/8	2 5/8"	
ACCCUR31/8	3 1/8"	1

90° ELBOW LONG RADIUS FTGXC



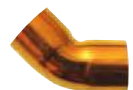
CODE	SIZE	
ACCCURM-H01/4	1/4"	25
ACCCURM-H03/8	3/8"	
ACCCURM-H01/2	1/2"	
ACCCURM-H05/8	5/8"	
ACCCURM-H03/4	3/4"	
ACCCURM-H07/8	7/8"	
ACCCURM-H1	1"	
ACCCURM-H11/8	1 1/8"	10
ACCCURM-H13/8	1 3/8"	
ACCCURM-H15/8	1 5/8"	
ACCCURM-H21/8	2 1/8"	5
ACCCURM-H25/8	2 5/8"	
ACCCURM-H31/8	3 1/8"	1

90° ELBOW SHORT RADIUS CXC



CODE	SIZE	
ACCCOD001/4	1/4"	50
ACCCOD003/8	3/8"	
ACCCOD001/2	1/2"	
ACCCOD005/8	5/8"	25
ACCCOD003/4	3/4"	
ACCCOD007/8	7/8"	20
ACCCOD011/8	1 1/8"	
ACCCOD013/8	1 3/8"	10
ACCCOD015/8	1 5/8"	5
ACCCOD021/8	2 1/8"	2
ACCCOD025/8	2 5/8"	1
ACCCOD031/8	3 1/8"	

45° ELBOW CXC



CODE	SIZE	
ACCCUR4501/4	1/4"	50
ACCCUR4503/8	3/8"	
ACCCUR4501/2	1/2"	
ACCCUR4505/8	5/8"	25
ACCCUR4503/4	3/4"	
ACCCUR4507/8	7/8"	20
ACCCUR451	1"	
ACCCUR4511/8	1 1/8"	10
ACCCUR4513/8	1 3/8"	5
ACCCUR4515/8	1 5/8"	2
ACCCUR4521/8	2 1/8"	
ACCCUR4525/8	2 5/8"	1
ACCCUR4531/8	3 1/8"	

90° ELBOW SHORT RADIUS FTGXC



CODE	SIZE	
ACCCODOMH01/4	1/4"	50
ACCCODOMH03/8	3/8"	
ACCCODOMH01/2	1/2"	
ACCCODOMH05/8	5/8"	25
ACCCODOMH03/4	3/4"	
ACCCODOMH07/8	7/8"	20
ACCCODOMH11/8	1 1/8"	
ACCCODOMH13/8	1 3/8"	10
ACCCODOMH15/8	1 5/8"	5
ACCCODOMH21/8	2 1/8"	2
ACCCODOMH25/8	2 5/8"	
ACCCODOMH31/8	3 1/8"	1

P-TRAP



CODE	SIZE	
ACCSIFON05/8	5/8"	5
ACCSIFON03/4	3/4"	2
ACCSIFON07/8	7/8"	
ACCSIFON11/8	1 1/8"	1
ACCSIFON13/8	1 3/8"	
ACCSIFON15/8	1 5/8"	
ACCSIFON21/8	2 1/8"	

U-BEND



CODE	SIZE	
ACCCUR18003/8	3/8"	50
ACCCUR18001/2	1/2"	25
ACCCUR18005/8	5/8"	20
ACCCUR18003/4	3/4"	10
ACCCUR18007/8	7/8"	10
ACCCUR18011/8	1 1/8"	5
ACCCUR18013/8	1 3/8"	
ACCCUR18015/8	1 5/8"	1
ACCCUR18021/8	2 1/8"	

CAP



CODE	SIZE	
ACCTAPON01/4	1/4"	100
ACCTAPON03/8	3/8"	
ACCTAPON01/2	1/2"	
ACCTAPON05/8	5/8"	50
ACCTAPON03/4	3/4"	
ACCTAPON07/8	7/8"	25
ACCTAPON11/8	1 1/8"	
ACCTAPON13/8	1 3/8"	10
ACCTAPON15/8	1 5/8"	
ACCTAPON21/8	2 1/8"	5
ACCTAPON25/8	2 5/8"	
ACCTAPON31/8	3 1/8"	2
		1

COUPLING ROUED STOP CXC



CODE	SIZE	
ACCMAN01/4	1/4"	50
ACCMAN03/8	3/8"	
ACCMAN01/2	1/2"	
ACCMAN05/8	5/8"	25
ACCMAN03/4	3/4"	
ACCMAN07/8	7/8"	10
ACCMAN1	1"	
ACCMAN11/8	1 1/8"	5
ACCMAN13/8	1 3/8"	
ACCMAN15/8	1 5/8"	1
ACCMAN21/8	2 1/8"	
ACCMAN25/8	2 5/8"	
ACCMAN31/8	3 1/8"	

REDUCING TEE



CODE	REDUCING TEE SIZE		
	1	2	3
ACCT13024	3/8"	3/8"	1/2"
ACCT13028	1/2"	1/2"	5/8"
ACCT13030	5/8"	5/8"	1/2"
ACCT13034	5/8"	5/8"	7/8"
ACCT13038	7/8"	7/8"	1 1/8"
ACCT13040	1 1/8"	1 1/8"	7/8"
ACCT13041	1 1/8"	1 1/8"	1 3/8"
ACCT13042	1 3/8"	1 3/8"	5/8"
ACCT13044	1 3/8"	1 3/8"	1 1/8"
ACCT13045	1 3/8"	1 1/8"	1 1/8"
ACCT13047	1 5/8"	1 3/8"	1 3/8"
ACCT13048	1 5/8"	1 5/8"	1 3/8"
ACCT13050	1 5/8"	1 5/8"	2 1/8"
ACCT13052	2 1/8"	2 1/8"	1 5/8"
ACCT13054	2 1/8"	1 5/8"	2 1/8"
ACCT13055	2 1/8"	2 1/8"	2 5/8"
ACCT13058	2 5/8"	1 5/8"	2 5/8"

TEE



CODE	SIZE	
ACCTE01/4	1/4"	50
ACCTE03/8	3/8"	
ACCTE01/2	1/2"	25
ACCTE05/8	5/8"	
ACCTE03/4	3/4"	
ACCTE07/8	7/8"	20
ACCTE1	1"	
ACCTE11/8	1 1/8"	10
ACCTE13/8	1 3/8"	
ACCTE15/8	1 5/8"	5
ACCTE21/8	2 1/8"	
ACCTE25/8	2 5/8"	2
ACCTE31/8	3 1/8"	
		1

REDUCING COUPLING FTGXC



CODE	SIZE	
ACCT24302	M-H 3/8" x 1/4"	25
ACCT24304	M-H 1/2" x 1/4"	
ACCT24306	M-H 1/2" x 3/8"	
ACCT24310	M-H 5/8" x 3/8"	
ACCT24312	M-H 5/8" x 1/2"	
ACCT24314	M-H 3/4" x 3/8"	
ACCT24316	M-H 3/4" x 1/2"	
ACCT24318	M-H 3/4" x 5/8"	
ACCT24320	M-H 7/8" x 3/8"	
ACCT24322	M-H 7/8" x 1/2"	
ACCT24324	M-H 7/8" x 5/8"	10
ACCT24326	M-H 7/8" x 3/4"	
ACCT24328	M-H 1 1/8" x 1/2"	
ACCT24330	M-H 1 1/8" x 5/8"	
ACCT24332	M-H 1 1/8" x 3/4"	
ACCT24334	M-H 1 1/8" x 7/8"	
ACCT24336	M-H 1 3/8" x 7/8"	
ACCT24338	M-H 1 3/8" x 1 1/8"	
ACCT24339	M-H 1 5/8" x 7/8"	
ACCT24340	M-H 1 5/8" x 1 1/8"	
ACCT24342	M-H 1 5/8" x 1 3/8"	5
ACCT24344	M-H 2 1/8" x 1 1/8"	
ACCT24346	M-H 2 1/8" x 1 3/8"	
ACCT24348	M-H 2 1/8" x 1 5/8"	
ACCT24349	M-H 2 5/8" x 1 3/8"	
ACCT24350	M-H 2 5/8" x 1 5/8"	1
ACCT24352	M-H 2 5/8" x 2 1/8"	
ACCT24354	M-H 3 1/8" x 2 1/8"	
ACCT24356	M-H 3 1/8" x 2 5/8"	

REDUCING COUPLING CXC



CODE	SIZE	
ACCT24002	H-H 3/8" x 1/4"	25
ACCT24004	H-H 1/2" x 1/4"	
ACCT24006	H-H 1/2" x 3/8"	
ACCT24008	H-H 5/8" x 1/4"	
ACCT24010	H-H 5/8" x 3/8"	
ACCT24012	H-H 5/8" x 1/2"	
ACCT24014	H-H 3/4" x 3/8"	
ACCT24016	H-H 3/4" x 1/2"	
ACCT24018	H-H 3/4" x 5/8"	
ACCT24019	H-H 7/8" x 3/8"	
ACCT24020	H-H 7/8" x 1/2"	10
ACCT24022	H-H 7/8" x 5/8"	
ACCT24024	H-H 7/8" x 3/4"	
ACCT24026	H-H 1 1/8" x 1/2"	
ACCT24028	H-H 1 1/8" x 5/8"	
ACCT24030	H-H 1 1/8" x 3/4"	
ACCT24032	H-H 1 1/8" x 7/8"	
ACCT24034	H-H 1 3/8" x 5/8"	
ACCT24036	H-H 1 3/8" x 3/4"	
ACCT24038	H-H 1 3/8" x 7/8"	
ACCT24040	H-H 1 3/8" x 1 1/8"	5
ACCT24042	H-H 1 5/8" x 5/8"	
ACCT24046	H-H 1 5/8" x 7/8"	
ACCT24048	H-H 1 5/8" x 1 1/8"	
ACCT24050	H-H 1 5/8" x 1 3/8"	
ACCT24052	H-H 2 1/8" x 1 1/8"	1
ACCT24054	H-H 2 1/8" x 1 3/8"	
ACCT24056	H-H 2 1/8" x 1 5/8"	
ACCT24058	H-H 2 5/8" x 1 1/8"	
ACCT24060	H-H 2 5/8" x 1 3/8"	
ACCT24062	H-H 2 5/8" x 1 5/8"	
ACCT24064	H-H 2 5/8" x 2 1/8"	
ACCT24066	H-H 3 1/8" x 2 1/8"	
ACCT24068	H-H 3 1/8" x 2 5/8"	

COMPONENTS FOR AC AND R. INSTALLATIONS

**COPPER-IRON FITTING CUFE2P  
FOR HIGH PRESSURE APPLICATIONS**



**TECHNICAL DATA:**

- **Service pressure:** 130bar.
- **Operating temperature:** -196 °C to +150 °C.

**90° ELBOW CXC**



CODE	SIZE	
ACCKCUR03/8	3/8"	10
ACCKCUR01/2	1/2"	
ACCKCUR05/8	5/8"	
ACCKCUR03/4	3/4"	
ACCKCUR07/8	7/8"	
ACCKCUR11/8	1 1/8"	5
ACCKCUR13/8	1 3/8"	2
ACCKCUR15/8	1 5/8"	
ACCKCUR21/8	2 1/8"	
ACCKCUR25/8	2 5/8"	

**90° ELBOW FTGXC**



CODE	SIZE	
ACCKCURM-H03/8	3/8"	10
ACCKCURM-H01/2	1/2"	
ACCKCURM-H05/8	5/8"	
ACCKCURM-H03/4	3/4"	
ACCKCURM-H07/8	7/8"	
ACCKCURM-H11/8	1 1/8"	5
ACCKCURM-H13/8	1 3/8"	2
ACCKCURM-H15/8	1 5/8"	
ACCKCURM-H21/8	2 1/8"	
ACCKCURM-H25/8	2 5/8"	

**45° ELBOW CXC**



CODE	SIZE	
ACCKCUR4503/8	3/8"	10
ACCKCUR4501/2	1/2"	
ACCKCUR4505/8	5/8"	
ACCKCUR4503/4	3/4"	
ACCKCUR4507/8	7/8"	
ACCKCUR4511/8	1 1/8"	5
ACCKCUR4513/8	1 3/8"	2
ACCKCUR4515/8	1 5/8"	
ACCKCUR4521/8	2 1/8"	

**45° ELBOW FTGXC**



CODE	SIZE	
ACCKCUR45MH03/8	3/8"	10
ACCKCUR45MH01/2	1/2"	
ACCKCUR45MH05/8	5/8"	
ACCKCUR45MH03/4	3/4"	
ACCKCUR45MH07/8	7/8"	
ACCKCUR45MH11/8	1 1/8"	5
ACCKCUR45MH13/8	1 3/8"	2
ACCKCUR45MH15/8	1 5/8"	
ACCKCUR45MH21/8	2 1/8"	

**COUPLING ROUED STOP CXC**



CODE	SIZE	
ACCKMAN03/8	3/8"	10
ACCKMAN01/2	1/2"	
ACCKMAN05/8	5/8"	
ACCKMAN03/4	3/4"	
ACCKMAN07/8	7/8"	
ACCKMAN11/8	1 1/8"	5
ACCKMAN13/8	1 3/8"	2
ACCKMAN15/8	1 5/8"	
ACCKMAN21/8	2 1/8"	
ACCKMAN25/8	2 5/8"	

**LID**



CODE	SIZE	
ACCKTAPON03/8	3/8"	10
ACCKTAPON01/2	1/2"	
ACCKTAPON05/8	5/8"	
ACCKTAPON03/4	3/4"	
ACCKTAPON07/8	7/8"	
ACCKTAPON11/8	1 1/8"	5
ACCKTAPON13/8	1 3/8"	2
ACCKTAPON15/8	1 5/8"	
ACCKTAPON21/8	2 1/8"	

TEE



CODE	SIZE	
ACCKTE03/8	3/8"	10
ACCKTE01/2	1/2"	
ACCKTE05/8	5/8"	
ACCKTE03/4	3/4"	
ACCKTE07/8	7/8"	
ACCKTE11/8	1 1/8"	5
ACCKTE13/8	1 3/8"	2
ACCKTE15/8	1 5/8"	
ACCKTE21/8	2 1/8"	
ACCKTE25/8	2 5/8"	

REDUCING TEE



CODE	REDUCING TEE SIZE			
	1	2	3	
ACCKT13025	1/2"	3/8"	3/8"	10
ACCKT13026	1/2"	1/2"	3/8"	
ACCKT13029	5/8"	1/2"	1/2"	
ACCKT130291	5/8"	5/8"	3/8"	
ACCKT13030	5/8"	5/8"	1/2"	
ACCKT13035	3/4"	3/4"	1/2"	
ACCKT13033	3/4"	3/4"	5/8"	
ACCKT130381	7/8"	7/8"	1/2"	
ACCKT130382	7/8"	7/8"	5/8"	
ACCKT130383	7/8"	7/8"	3/4"	
ACCKT130391	1 1/8"	7/8"	1/2"	5
ACCKT130392	1 1/8"	1 1/8"	3/4"	
ACCKT13040	1 1/8"	1 1/8"	7/8"	
ACCKT130421	1 3/8"	1 3/8"	3/4"	2
ACCKT130422	1 3/8"	1 3/8"	7/8"	
ACCKT13044	1 3/8"	1 3/8"	1 1/8"	
ACCKT130471	1 5/8"	1 5/8"	3/4"	
ACCKT130472	1 5/8"	1 5/8"	7/8"	
ACCKT130477	1 5/8"	1 5/8"	1 1/8"	
ACCKT13048	1 5/8"	1 5/8"	1 3/8"	
ACCKT13052	2 1/8"	1 5/8"	2 1/8"	

REDUCING COUPLING FTGXC



CODE	SIZE	
ACCKT24306	M-H 1/2" x 3/8"	10
ACCKT24310	M-H 5/8" x 3/8"	
ACCKT24312	M-H 5/8" x 1/2"	
ACCKT24314	M-H 3/4" x 3/8"	
ACCKT24316	M-H 3/4" x 1/2"	
ACCKT24318	M-H 3/4" x 5/8"	
ACCKT24320	M-H 7/8" x 3/8"	
ACCKT24322	M-H 7/8" x 1/2"	
ACCKT24324	M-H 7/8" x 5/8"	
ACCKT24326	M-H 7/8" x 3/4"	
ACCKT24328	M-H 1 1/8" x 1/2"	5
ACCKT24330	M-H 1 1/8" x 5/8"	
ACCKT24332	M-H 1 1/8" x 3/4"	
ACCKT24334	M-H 1 1/8" x 7/8"	
ACCKT24338	M-H 1 3/8" x 1 1/8"	2
ACCKT24339	M-H 1 5/8" x 7/8"	
ACCKT24342	M-H 1 5/8" x 1 3/8"	
ACCKT24344	M-H 2 1/8" a x 1 1/8"	
ACCKT24346	M-H 2 1/8" a x 1 3/8"	
ACCKT24348	M-H 2 1/8" x 1 5/8"	
ACCKT24352	MH 2 5/8" a x 2 1/8"	

REDUCING COUPLING CXC



CODE	SIZE	
ACCKT24006	H-H 1/2" x 3/8"	10
ACCKT24012	H-H 5/8" x 1/2"	
ACCKT24018	H-H 3/4" x 5/8"	
ACCKT24024	H-H 7/8" x 3/4"	5
ACCKT24026	H-H 1 1/8" x 1/2"	
ACCKT24032	H-H 1 1/8" x 7/8"	2
ACCKT24034	H-H 1 3/8" x 5/8"	
ACCKT24036	H-H 1 3/8" x 3/4"	
ACCKT24038	H-H 1 3/8" x 7/8"	
ACCKT24040	H-H 1 3/8" x 1 1/8"	
ACCKT24046	H-H 1 5/8" x 7/8"	
ACCKT24048	H-H 1 5/8" x 1 1/8"	
ACCKT24050	H-H 1 5/8" x 1 3/8"	
ACCKT24056	H-H 2 1/8" x 1 5/8"	

COMPONENTS FOR AC AND R. INSTALLATIONS

NEW

NEW

NEW

NEW



REFRIGERATION NUTS



CODE	SIZE	
YFGNS4-04	1/4"	10
YFGNS4-05	5/16"	
YFGNS4-06	3/8"	
YFGNS4-08	1/2"	
YFGNS4-10	5/8"	
YFGNS4-12	3/4"	

REFRIGERATION REDUCED NUTS



CODE	SIZE	
YFGNRS4-064	3/8" x 1/4"	10
YFGNRS4-086	1/2" x 3/8"	
YFGNRS4-108	5/8" x 1/2"	
YFGNRS4-110	3/4" x 5/8"	

UNION SAE M



CODE	SIZE	
YFGU2-04	1/4"	10
YFGU2-05	5/16"	
YFGU2-06	3/8"	
YFGU2-08	1/2"	
YFGU2-10	5/8"	
YFGU2-12	3/4"	

REDUCTION M-M SAE



CODE	SIZE	
YFGUR2-064	3/8" x 1/4"	10
YFGUR2-084	1/4" x 1/2"	
YFGUR2-085	1/4" x 5/8"	
YFGUR2-086	1/2" x 3/8"	
YFGUR2-106	3/8" x 5/8"	
YFGUR2-107	3/8" x 3/4"	
YFGUR2-108	5/8" x 1/2"	
YFGUR2-128	1/2" x 3/4"	
YFGUR2-1210	3/4" x 5/8"	

UNION SAE F



CODE	SIZE	
YFGU4-04	1/4"	10
YFGU4-06	3/8"	
YFGU4-08	1/2"	
YFGU4-10	5/8"	
YFGU4-12	3/4"	

REDUCTION MALE SAE-NPT



CODE	SIZE	
YFGU1-04A	1/4" x 1/8"	10
YFGU1-04B	1/4" x 1/4"	
YFGU1-04C	1/4" x 3/8"	
YFGU1-06B	3/8" x 1/4"	
YFGU1-06C	3/8" x 3/8"	
YFGU1-06D	3/8" x 1/2"	
YFGU1-08B	1/2" x 1/4"	
YFGU1-08C	1/2" x 3/8"	
YFGU1-08D	1/2" x 1/2"	
YFGU1-10B	5/8" x 1/4"	
YFGU1-10C	5/8" x 3/8"	
YFGU1-10D	5/8" x 1/2"	
YFGU1-10E	5/8" x 3/4"	
YFGU1-12C	3/4" x 3/8"	
YFGU1-12E	3/4" x 3/4"	

REDUCTION M-F SAE



CODE	SIZE	
YFGUR3-0044	1/4" x 1/4"	10
YFGUR3-0045	1/4" x 5/16"	
YFGUR3-0046	1/4" x 3/8"	
YFGUR3-0048	1/4" x 1/2"	
YFGUR3-0049	1/4" x 5/8"	
YFGUR3-0050	5/16" x 1/4"	
YFGUR3-064	3/8" x 1/4"	
YFGUR3-065	3/8" x 3/8"	
YFGUR3-0068	3/8" x 1/2"	
YFGUR3-0069	3/8" x 5/8"	
YFGUR3-084	1/2" x 1/4"	5
YFGUR3-086	1/2" x 3/8"	
YFGUR3-087	1/2" x 1/2"	
YFGUR3-0810	1/2" x 5/8"	
YFGUR3-0811	1/2" x 3/4"	
YFGUR3-106	5/8" x 1/4"	
YFGUR3-107	5/8" x 3/8"	
YFGUR3-108	5/8" x 1/2"	
YFGUR3-109	5/8" x 5/8"	
YFGUR3-1012	5/8" x 3/4"	
YFGUR3-1209	3/4" x 1/2"	5
YFGUR3-1210	3/4" x 5/8"	

COMPONENTS FOR AC AND R. INSTALLATIONS

T SAE M



CODE	SIZE	
YFGT2-04	1/4"	10
YFGT2-05	5/16"	
YFGT2-06	3/8"	
YFGT2-08	1/2"	
YFGT2-10	5/8"	5
YFGT2-12	3/4"	

ELBOW SAE M



CODE	SIZE	
YFGE2-04	1/4"	10
YFGE2-06	3/8"	
YFGE2-08	1/2"	
YFGE2-10	5/8"	
YFGE2-12	3/4"	5

PLUG SAE M



CODE	SIZE	
YFGP2-04	1/4"	10
YFGP2-05	5/16"	
YFGP2-06	3/8"	
YFGP2-08	1/2"	
YFGP2-10	5/8"	2
YFGP2-12	3/4"	

3 WAY TUBE UNION WITH VALVE CORE



CODE	DESCRIPTION	JOINT	
OXYCT8	1/2" x 1/2"	1/4" SAE stem	10

PLUG SAE F



CODE	SIZE	
YFGN5-04	1/4"	10
YFGN5-05	5/16"	
YFGN5-06	3/8"	
YFGN5-08	1/2"	
YFGN5-10	5/8"	5
YFGN5-12	3/4"	

SERVICE VALVE



CODE	SIZE	NUM OF LINES	
YFGJF1/4-2	1/4"	2	25
YFGJF3/8-2	3/8"	2	
YFGJF1/4-3	1/4"	3	
YFGJF3/8-3	3/8"	3	20
YFGJF1/2-3	1/2"	3	
YFGJF5/8-3	5/8"	3	
YFGJF3/4-3	3/4"	3	
FOR R410A			
YFGJFR1/4-3	1/4"	3	25
YFGJFR3/8-3	3/8"	3	
YFGJFR1/2-3	1/2"	3	
YFGJFR5/8-3	5/8"	3	
YFGJFR3/4-3	3/4"	3	

CHARGING VALVE

CODE	REF.	DESCRIPTION	
YFGVAL0001	1	1/4" with complete 10cm tube	50
YFG888/4P46	2	1/4" body weld	10
YFG888/4P14	-	1/4" body complete weld	100
YFG886	-	1/4 SAE body x 1/8" NTP thread	
YFG888/C	-	1/4" SAE body x 1/8 NPT thread complete	
YFG885	-	1/4" SAE body thread	
YFG888/4P46MON	-	1/4" body thread complete	10
YFG900	8	Internal mechanism	200
YFG905/01	9	Brass cap with key	100

COPPER CAPILARY TUBE



CODE	DESCRIPTION	
OXY-900M15	1.5m, 2 nuts 1/4" SAE	25
OXY-900M15D	1.5m, 2 nuts 1/4" SAE with depressor	

1		2	
8		9	

INVERSION COUPLING M X F



CODE	SIZE	
YFGRX1058	1/4"	10
YFGRX1059	3/8"	
YFGRX1060	1/2"	5
YFGRX1061	5/8"	

COMPONENTS FOR AC AND R. INSTALLATIONS

**ELBOW MALE SAE-NPT**



CODE	SIZE	
YFGD01-03	1/4 SAE X 1/8 NPT	10
YFGD01-04	1/4 SAE X 1/4 NPT	

**T MALE SAE-NPT**



CODE	SIZE	
YFGD02-03	1/4 SAE X 1/8 NPT X 1/4 SAE	10
YFGD02-04	1/4 SAE X 1/4 NPT X 1/4 SAE	

**MALE SAE SOLDER UNION**



CODE	SIZE	
YFGD03-04	1/4	10
YFGD03-06	3/8	
YFGD03-08	1/2	
YFGD03-10	5/8	
YFGD03-12	3/4	

**COPPER SEAL CAP**



CODE	SIZE	
YFGD04-04	1/4	10
YFGD04-06	3/8	
YFGD04-08	1/2	
YFGD04-10	5/8	
YFGD04-12	3/4	

**COPPER GASKET**



CODE	SIZE	
YFGD05-04	1/4	10
YFGD05-06	3/8	
YFGD05-08	1/2	
YFGD05-10	5/8	
YFGD05-12	3/4	

**SAE TWIN NUTS**



CODE	SIZE	
YFGD06-04	1/4	10
YFGD06-06	3/8	
YFGD06-08	1/2	
YFGD06-10	5/8	
YFGD06-12	3/4	

**REDUCTION SAE TWIN NUTS**



CODE	SIZE	
YFGD06-086	1/2 X 3/8	10
YFGD06-108	5/8 X 1/2	
YFGD06-1210	3/4 X 5/8	

**HOWITZER VALVE DESIGNED FOR R-290 (PROPANE).**

**HIGH PERFORMANCE**

The hexagonal shape of the plug ensures that it can be closed by a simple the operator to refill the system and, above all, to close it again perfectly and above all to close it perfectly without any leakage thanks to the double seal.

**SPECIFICATIONS:**

- Brass body.
- Double HNBR O-ring.
- Plug with 45° conical seat.
- Designed for hydrocarbon (HC) cooling systems.
- PS: 120 bar.
- TS: -40 °C ÷ +150 °C.

Products with HNBR seals cannot be installed in systems using HCFC (ex. using HCFCs (e.g. R-22) or other refrigerants containing mineral or alkylbenzene oils.

**ADVANTAGES:**

- Perfect sealing.
- Double O-ring seal.
- Easy.
- Quick installation.
- 100% tested.

SAFE SEAL: guaranteed by two gaskets, one upper and one lower.

100 % tested, with a modern 100 % helium installation, every valve is each valve bears the date and the serial number, which proves that it has passed the test and allows that it has passed the test and allows the traceability of the performance data measured during the tests.

REF.	CODE	DESCRIPTION
1	YFGXK09323A	Cap for R-290
2	YFG31516/B	Internal valve mechanism for R-290
3	YFGK09332A	1/4" valve core with 9cm tube for R-290

**NEW**

**R-290**

**HNBR**



**HNBR DOUBLE O-RING**

COMPONENTS FOR AC AND R. INSTALLATIONS

# VALUE<sup>®</sup>

VALUE Creates Value

HEAVY DUTY TOOLS FOR PROFESSIONALS  
SUITABLE FOR FLAMMABLE GASES

**R-32**

2-WAY MANIFOLD FOR R-32, R-407C AND R-410A



RECOVERY MACHINE FOR R-32



R-32 IN 9, 5, 1,8 AND 0,78 KG PACKAGES



R-32 KIT: CASE + 3 HOSES + 2-WAY MANIFOLD FOR R-32



VACUUM PUMP FOR R-32



## SB1: QUICK COUPLINGS FOR AC AND REFRIGERATION INSTALLATIONS

### WHAT IS IT?

Developed by ESSEN, a specialist in manufacturing refrigeration components, these unions are quick and easy to install without welding or tools.

Special tool for dismantling. Reusable and recyclable.

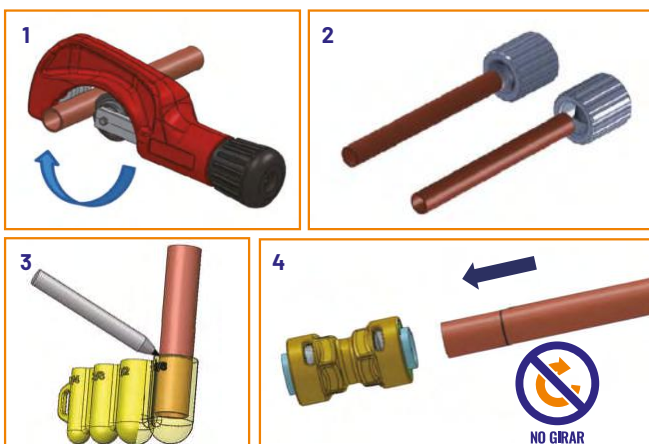


### TECHNICAL DATA:

- Suitable for all refrigerants: HCFC's, HFC's including R-410A/R-32, HFO's and HC's.
- Design pressure: 75 bar (1088 PSIG).
- Working temperatures: -40 °C / + 120 °C.
- Leak-proof seal with double O-ring (made out of high-performance elastomer).
- Robust brass body.
- CE and UL certification.
- It complies with European Directive 2014/68/EU.

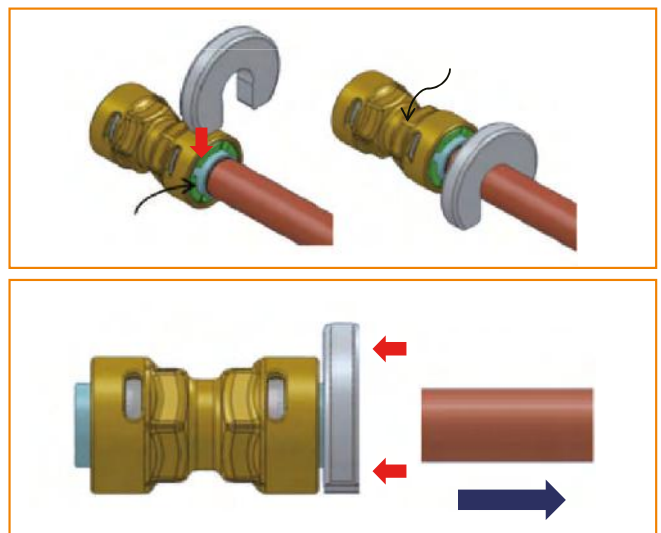
### ASSEMBLY STEPS:

- 1 - Tube cutting.
- 2 - Flash removal.
- 3 - Mark the insertion depth.
- 4 - Insert the tube into the accessory, pushing it without turning it.



### DISMANTLING STEPS:


- Press the release with the help of the disconnection clip to remove the tube.

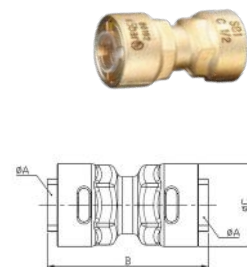



### SAFETY MEASURES:

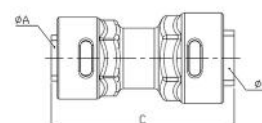
- Make sure that the accessory and the tube are in perfection condition.
- The accessory and the tube should not have any damage, foreign objects or marks on the outside.
- Do not put your finger in the grip ring of the accessory. If you have an accident, you will need immediate medical attention to remove it.


PUSH TO CONNECTING TYPE FITTINGS FOR REFRIGERANT

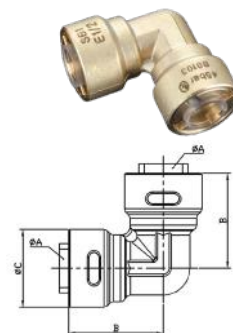
CODE	CONNECTION	SIZE (mm)			
		Ø A (mm)	B (mm)	Ø C (mm)	
<b>UNIONS</b>					
YFGSB1C1/4	1/4"	6,35	48	20	60
YFGSB1C3/8	3/8"	9,52	50	24	60
YFGSB1C1/2	1/2"	12,7	54	27	40
YFGSB1C5/8	5/8"	15,88	57	30	40
YFGSB1C3/4	3/4"	19,05	65,50	37	20
YFGSB1C7/8	7/8"	22,22	66,50	40	20




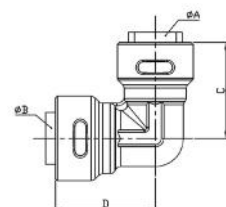
CODE	CONNECTION	SIZE (mm)			
		Ø A (mm)	Ø B (mm)	C (mm)	
<b>REDUCE UNIONS</b>					
YFGSB1CR1/4X3/8	1/4" x 3/8"	6,35	9,52	50	60
YFGSB1CR3/8X1/2	3/8" x 1/2"	9,52	12,7	55	40
YFGSB1CR1/2X5/8	1/2" x 5/8"	12,7	15,88	60	40




CODE	CONNECTION	SIZE (mm)			
		Ø A (mm)	B (mm)	Ø C (mm)	
<b>ELBOWS</b>					
YFGSB1E1/4	1/4"	6,35	29,5	20	60
YFGSB1E3/8	3/8"	9,52	32	24	60
YFGSB1E1/2	1/2"	12,7	36	27	40
YFGSB1E5/8	5/8"	15,88	39	30	40
YFGSB1E3/4	3/4"	19,05	65,50	37	20
YFGSB1E7/8	7/8"	22,22	66,50	40	20

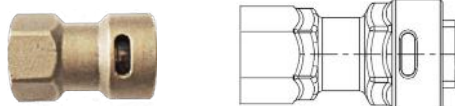


CODE	CONNECTION	SIZE (mm)				
		Ø A (mm)	B (mm)	Ø C (mm)	D (mm)	
<b>REDUCE ELBOWS</b>						
YFGSB1ER1/4X3/8	1/4" x 3/8"	6,35	29,5	26	30	40
YFGSB1ER3/8X1/2	3/8" x 1/2"	9,52	32	30	34	60
YFGSB1ER1/2X5/8	1/2" x 5/8"	12,7	36	34	35,5	40



ACCESSORIES FOR TUBE-CONDENSER JOINT

CODE	CONNECTION	
<b>SOCKET</b>		
YFGSB1S1/4	1/4"	60
YFGSB1S3/8	3/8"	60
YFGSB1S1/2	1/2"	40
YFGSB1S5/8	5/8"	40



ASSEMBLY ACCESSORIES

CODE	CONNECTION
<b>DISCONNECTION CLIP</b>	
YFGSB1D1/4	1/4"
YFGSB1D3/8	3/8"
YFGSB1D1/2	1/2"
YFGSB1D5/8	5/8"
<b>LINE MARKER</b>	
YFGSB1D1M	1/4" a 5/8"
<b>DISCONNECTION CLIP + LINE MARKER</b>	
YFGSB1D3/4	3/4"
YFGSB1D7/8	7/8"



COMPONENTS FOR AC AND R. INSTALLATIONS

Errecom is a manufacturer of additives for AC and refrigeration installations that operates in over 70 countries around the world thanks to good performance and ease of use of their products.

# CHEMICAL SOLUTIONS

# 5

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✓ **ULTRA RANGE**

✓ **LOWER DOSE**

✓ **MORE EFFECTIVE**



Cutting edge technology  
in just

# 6ml-0.2 fl oz

**For ten years, the ERRECOM labs have been trying to transform most of their additives into low-dose technologies: we call them "ULTRA".**

The 6ml dose of an ULTRA additive has been tested for use in automotive AC systems, refrigeration systems and air-conditioning systems of up to 21 kW.

This is an innovation that represents a truly decisive change for original equipment manufacturers (OEM) and maintenance technicians who work in the air-conditioning and refrigeration sector: now they can do their work by adding more additives to the circuit at the same time. This kind of operation is not possible with additives from the previous range because the dosage doesn't allow for it.

ERRECOM has a specific mission: to make systems maintenance easy, quick and as cheap as possible. The ULTRA additives perfectly understand the need to work on AC&R systems with more than one solution at once.

## LEAK STOP ADDITIVE FOR AC AND REFRIGERATION SYSTEMS



### WHAT IS IT?

EXTREME ULTRA is a leak stop that guarantees a permanent repair of micro leakages up to 0.3 mm in rubber and metal components of the Air conditioning and refrigeration systems.

It is a new step in the evolution of the leak stop Extreme. The new innovative formula made it more efficient and let reduce the dose: only 6 ml for all types of vehicles and for AC/R systems up to 21 KW.

### FEATURES:

- It is polymer-free.
- It is non-reactive to oxygen and moisture.
- It is compatible with every kind of lubricant.
- It repairs microleaks in rubber and metal components of AC/R systems.
- It is safe for A/C System components.
- It is compatible with any kind of Air Conditioning or Refrigeration - systems (Vehicle A/C or AC/R).
- It is visible to any UV Lamp.
- Its action is permanent over time.
- It is non-flammable.

### HOW DOES IT WORK?

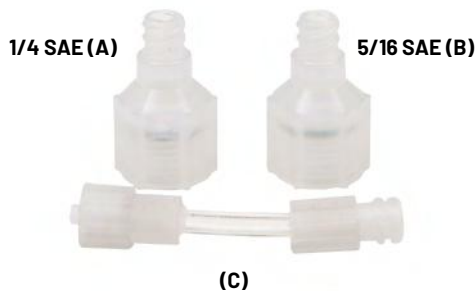
The action of EXTREME ULTRA is mechanical. It works in affinity with materials and components without creating any kind of chemical reaction. The product acts during the functioning of the Air Conditioning and Refrigeration system. Time needed for the complete sealing depends on dimensions and shape of the leakage.



**DOSE**  
**6 mL**  
from 0 to 21 kW

### A 6 ML DOSE CAN TREAT AC&R SYSTEMS OF UP TO 21 KW (6 TONS).

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>IN A CARDBOARD BOX</b>			
EITTR1163AL01S2	TR1163.AL.01.S2	6 ml cartridge (0.2 oz.)	30
EITTR1163ALH3S2	TR1163.AL.H3.S2	6 ml cartridge (0.2 oz.) with adapter (1/4 + 5/16 + FLEX)	
<b>BLISTER PACK</b>			
EITTR1163AL601	TR1163.AL6.01	Blister pack of 6 x 6 ml cartridges (6 x 0.2 oz.)	20
<b>ADAPTERS</b>			
EITRK1427	RK1427	Kit of 1/4 SAE + 5/16 SAE + FLEX adapters	1



## LEAK SEALANT FOR COOLING SYSTEMS REFRIGERATION SYSTEMS WITH R-600 - R-290

## **EWU** Extreme White Ultra

### WHAT IS IT?

EXTREME WHITE ULTRA is a product that is necessary and specifically designed to solve all the problems of small refrigerant gas losses that occur in refrigeration systems containing R-600 - R-290.

### FEATURES:

- Only 6 ml (0.20 fl oz).
- New advanced formula.
- Less product added to the added to the system.
- Permanently seals refrigerant gas leaks.
- Does not clog the refrigerant system and unit components of the recovery unit.
- Polymer-free, does not react with moisture and air.
- Non-flammable, non-irritant, safe for the operator.
- Specific for R-600 - R-290 refrigerants.
- Significantly reduces compressor noise.
- Ideal for preventive maintenance.

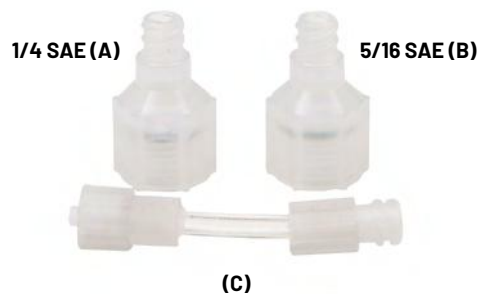
### HOW DOES IT WORK?

EXTREME WHITE ULTRA locates refrigerant gas leaks and seals them permanently, without reacting with moisture and humidity and seals them permanently, without reacting with moisture and oxygen. EXTREME WHITE ULTRA is a polymer-free solution solution that repairs leaks down to 0.3 mm.



### A 6 ML DOSE CAN TREAT AC&R SYSTEMS OF UP TO 21 KW (6 TONS).

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>IN A CARDBOARD BOX</b>			
EITTR1176AL01S2	TR1176.AL.01.S2	6 ml cartridge (0.2 oz.)	30
EITTR1176ALH3S2	TR1176.AL.H3.S2	6 ml cartridge (0.2 oz.) with adapter (1/4 + FLEX)	
<b>BLISTER PACK</b>			
EITTR1176AL601	TR1176.AL.6.01	Blister pack of 6 x 6 ml cartridges (6 x 0.2 oz.)	20
<b>ADAPTERS</b>			
EITRK1427	RK1427	Kit of 1/4 SAE + 5/16 SAE + FLEX adapters	1



## ANTI-HUMIDITY FOR A/C AND REFRIGERATION SYSTEMS

## Super-Dry Ultra

### WHAT IS IT?

SUPER-DRY ULTRA is a dehydrating additive which prevents the formation and/or elimination of moisture in A/C and refrigeration systems.

### HOW DOES IT WORK?

SUPER-DRY ULTRA contains special components which stabilise the lubricant and do not allow moisture to form in A/C and refrigeration systems.


### ADVANTAGES:

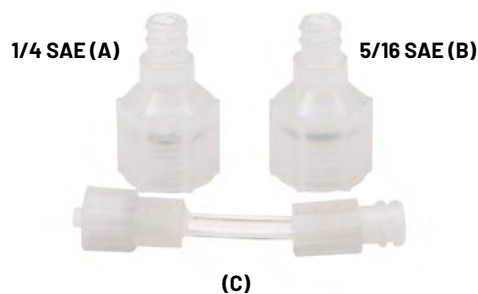
- Only 6 ml (0.20 fl oz).
- New advanced formula.
- Less product added to added to the system.
- Effective in all systems regardless of their dimensions.
- Compatible with all refrigerants, including CFCs, HCFCs and HFCs.
- Compatible with all lubricants.
- Added in the refrigerant circulates and mixes with with the coolant without affecting its characteristics.
- It does not damage seals and internal parts of cooling systems.
- Does not contain methanol.
- Does not weaken the power system power and does not alter performance.
- Contains no solid solid particles.
- Helps prevent acid acid formation.



**DOSE**  
**6 mL**  
from 0 to 21 kW

### A 6 ML DOSE CAN TREAT AC&R SYSTEMS OF UP TO 21 KW (6 TONS).

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>IN A CARDBOARD BOX</b>			
EITTR1174AL01S2	TR1174.AL.01.S2	6 ml cartridge (0.2 oz.)	30
EITTR1174ALH3S2	TR1174.AL.H3.S2	6 ml syringe (0.2 oz.) with adapter (1/4 + 5/16 + FLEX)	
<b>BLISTER PACK</b>			
EITTR1174AL601	TR1174.AL6.01	Blister pack of 6 x 6 ml cartridges (6 x 0.2 oz.)	20
<b>ADAPTERS</b>			
EITRK1427	RK1427	Kit of 1/4 SAE + 5/16 SAE + FLEX adapters	1



## ACID NEUTRALISER FOR AC AND REFRIGERATION SYSTEMS



### WHAT IS IT?

NO-ACID ULTRA is the acid neutralizer additive able to completely eliminate residues of acid in the lubricant or in the refrigerating gas of AC/R systems by reducing its acidity level.

### ADVANTAGES:

- Only 6 ml (0.20 fl oz).
- New advanced formula.
- Less product added to the system.
- Completely removes acid in refrigeration and A/C systems.
- Neutralizes acid residue caused by compressor breakdown.
- Neutralizes acid in recovery equipment.
- Safe - will not harm system components.
- Ideal for preventative maintenance.
- Works quickly.

### HOW DOES IT WORK?

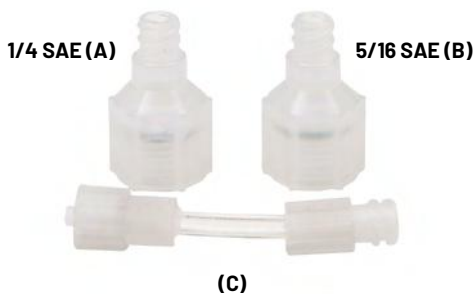
The chemical components in NO-ACID ULTRA stick to the acid residues in the system and eliminate them: these residues may be caused by the refrigerants or lubricants used, by humidity or a broken compressor. Once charged, NO-ACID ULTRA prevents acid build-up in the system.



**DOSE**  
**6 mL**  
from 0 to 21 kW

### A 6 ML DOSE CAN TREAT AC&R SYSTEMS OF UP TO 21 KW (6 TONS).

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>IN A CARDBOARD BOX</b>			
EITTR1175AL01S2	TR1175.AL.01.S2	6 ml cartridge (0.2 oz.)	30
EITTR1175ALH3S2	TR1175.AL.H3.S2	6 ml syringe (0.2 oz.) with adapter (1/4 + 5/16 + FLEX)	
<b>BLISTER PACK</b>			
EITTR1175AL601	TR1175.AL6.01	Blister pack of 6 x 6 ml cartridges (6 x 0.2 oz.)	20
<b>ADAPTERS</b>			
EITRK1427	RK1427	Kit of 1/4 SAE + 5/16 SAE + FLEX adapters	1



## SOLUTIONS FOR TOTAL MAINTENANCE OF A/C AND REFRIGERATION SYSTEMS

**KU Kit Ultra**

### WHAT IS IT?

KIT ULTRA is the innovative and essential pack, composed of the 4 additives of the ULTRA line (only 24 ml/0.8 fl oz in total), which can be inserted simultaneously in a single solution in the A/C and Refrigeration system.

### HOW DOES IT WORK?

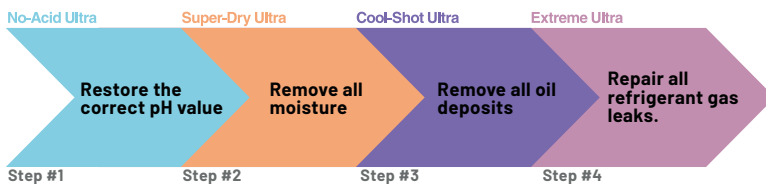
Thanks to KIT ULTRA, your A/C and R. system will be completely against refrigerant gas leaks and against damage caused by oil-fouling, humidity and caused by oil-fouling, humidity and acid formation.

### INSTRUCTIONS FOR USE IN A/C SYSTEMS:

- 01. Start the air conditioner and set the temperature to minimum.
- 02. Identify the low pressure charging valve of the A/C system.
- 03. Introduce NO-ACID ULTRA into the system using the appropriate adapter.
- 04. Keep the air conditioner on for 5 minutes.
- 05. Introduce SUPER-DRY ULTRA into the system.
- 06. Keep the air conditioner on for 6 minutes.
- 07. Introduce COOL-SHOT ULTRA into the system.
- 08. Keep the air conditioner on for 20 minutes.
- 09. Introduce EXTREME ULTRA into the system.
- 10. Keep the air conditioner on for 30 minutes.



**DOSE**  
**6 mL**  
from 0 to 21 kW



1/4 SAE (A)

5/16 SAE (B)



(C)

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>BLISTER</b>			
EITRK1421	RK1421	Blister pack of 4 x 6 ml cartridges (4 x 0.2 oz.)	20
EITRK1421H3	T RK1421.H3	Blister pack of 4 x 6 ml cartridges (4 x 0.2 oz.) with adapter (1/4 + 5/16 + FLEX)	
<b>ADAPTERS</b>			
EITRK1427	RK1427	Kit of 1/4 SAE + 5/16 SAE + FLEX adapters	1

## LEAK SEALER UP TO 5 MM FOR A/C AND COOLING SYSTEMS



### WHAT IS IT?

EXTERNAL is the leak sealant that is applied externally to the on refrigeration and A/C system components. Specifically designed to effectively seal all types of leaks occurring up to 5 mm on metal of leaks occurring up to 5 mm on metal and rubber components of refrigeration and rubber components of refrigeration equipment, EXTERNAL is resistant to lubricants, additives and refrigerant gases. It is resistant to temperature changes and can be used on both the high and low pressure side (hot and cold).

### ADVANTAGES:

- Can be used on metal circuit components, such as copper, aluminium and steel.
- Can be used on thermoplastic tubing.
- Resists mineral lubricants, POE, PAG, PAO and alkylbenzene.
- Resistant to refrigerant gases CFC, HCFC, HFC, R-32, CO<sub>2</sub>, and even R-1234yf.
- Resistant to cleaning liquids, including chlorinated.
- Resistant to a temperature range from -100 °C to +270 °C.

The pressure resistance depends on the magnitude of the leakage:

- 5 mm = 40 bar.
- 2 mm = 50 bar.
- 1 mm = 57 bar.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITTR116601	TR1166.01	External leak sealant	60

## LEAK SEALANT FOR PLASTIC COMPONENTS

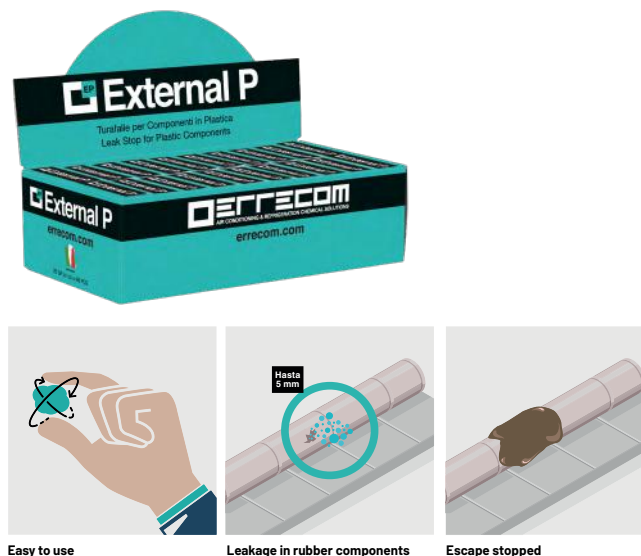


### WHAT IS IT?

EXTERNAL P is an externally applied leak stopper for plastic components of refrigeration and A/C systems. It is also recommended for plumbing applications. EXTERNAL P has been specifically designed to effectively seal all types of leaks that occur in all types of leaks occurring in the plastic components of the A/C and R system.

### ADVANTAGES:

- Can be used on plastic system components.
- Can be used in plumbing applications.
- Withstands a temperature range of -100°C to +270°C.
- Pressure resistance depends on the size of the leak.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITTR117201	TR1172.01	External leak sealant for plastic	60

## LEAK SEALANT FOR A/C AND REFRIGERATION SYSTEMS



### WHAT IS IT?

Indispensable product to solve all problems related to small refrigerant gas leaks in A/C and refrigeration systems.

### HOW DOES IT WORK?

EXTREME locates the refrigerant leak and permanently seals it permanently without causing any reaction with moisture and oxygen. EXTREME repairs leaks with a maximum dimension of 0.3 mm.

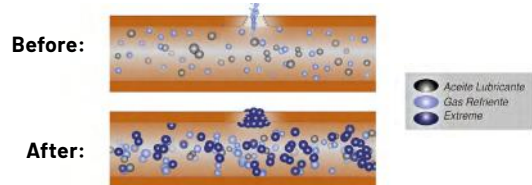
### DOSE:

	KW	BTU/H	TONS	OIL	EXTREME
Unfil	6	24.000	2	0.2L/ 7 FL OZ	12 ml/ 0.5 FL OZ
	15	48.000	4	0.5L/17FL OZ	30 ml/ 1 FL OZ
	21	72.000	6	0.7L/ 24FL OZ	42 ml/ 1.5 FL OZ
	30	96.000	8	1 L/ 34 FL OZ	60 ml/ 2 FL OZ
	45	144.000	12	1.5L/ 51 FL OZ	90 ml/ 3 FL OZ
	60	192.000	16	2L/ 68 FL OZ	120 ml/ 4 FL OZ
	75	240.000	20	2.5 L/ 85 FL OZ	150 ml/ 5 FL OZ

DILUTION IN LUBRICANT = 1:16

### ADVANTAGES:

- Permanently seals leaks.
- Compatible with all refrigerant gases such as CFC, HFC and HCFC.
- Visible to any U/V lamp.
- Significantly reduces compressor noise.
- Contains no polymers.
- Ideal product for preventive applications.
- Does not damage A/C compressor and recovery stations.
- Harmless to any system component.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>BOTTLES WITH DISPENSER</b>			
EITEXTREME100	TR1062.F.R1.P1	100ml (3,4 oz.) bottle	30
EITEXTREME250	TR1084.R1	250ml (8,5 oz.) bottle	13
EITEXTREME350	TR1100.R1	350ml (11,9 oz.) bottle	12
EITEXTREME1LT	TR1086.R1	1 L (34 oz.) bottle	4

## ACID NEUTRALISER FOR A/C AND REFRIGERATION SYSTEMS



### WHAT IS IT?

NO ACID is a neutraliser that completely eliminates acid residues in air conditioning and refrigeration systems and prevents refrigeration systems and thus avoids compressor breakdown.

### HOW DOES IT WORK?

The chemical components of NO ACID bind to the acid residues in the system and removes them: these residues can be caused by refrigerants or lubricants, moisture and compressor breakdown. Once NO ACID has been charged it prevents the acid formation.

### ADVANTAGES:

- Completely eliminates acid in refrigeration and air conditioning systems.
- Neutralises acid residues caused by compressor breakdown.
- Neutralises acid in recovery equipment.
- Safe: no damage to system components.
- Ideal for preventive maintenance.
- Works quickly.

### DOSE:

- Low or no acidity level (pH  $\geq 6.8$ ): add 30 ml (1.0 FL. OZ.) of NO ACID per 2 litres (64 FL. OZ.) of compressor lubricant.
- Medium acidity level - (6.8  $\geq$  pH  $\geq 5.2$ ): add 30 ml (1.0 FL. OZ.) of NO ACID per 1.5 litres (48 FL. OZ.) of compressor lubricant.
- -High acidity level - (pH  $\leq 5.2$ ): add 30 ml (1.0 FL. OZ.) of NO ACID to each 0.7 litres (24 FL. OZ.) of compressor lubricant



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
<b>BOTTLES WITH DISPENSER</b>			
EITNOACID100	TR1124.F.R1.P1	100ml (3,4 oz.) bottle	30
EITNOACID250	TR1124.Q.R1	250ml (8,5 oz.) bottle	13
EITNOACID1LT	TR1124.K.R1	1 L (34 oz.) bottle	4

## U/V LEAK DETECTOR FOR A/C AND REFRIGERATION SYSTEMS



### WHAT IS IT?

U/V leak detectors for A/C and refrigeration systems allow you to quickly and accurately locate small refrigerant gas leaks.

### HOW DOES IT WORK?

Brilliant has to be introduced to air conditioning and refrigeration systems; illuminating with any u/v lamp you will find the vanishing point.

### YOU HAVE TO KNOW THAT...

Leak tracers are specifically formulated to fluoresce in the presence of U/V fluorescent light rays. The method of searching for refrigerant gas micro-leaks through the use of fluorescent leak detectors is used by technicians in the HVAC&R sector around the world: this system allows the detection of refrigerant leaks in air conditioning systems quickly, easily and precision. However, not all U/V tracers perform the same function: there are different types of products on the market that also lead to different results. Many of the detectors are solvent-based products, chemical compounds in which the fluorescent pigment (chromophores) is readily soluble. This type of U/V tracer is also soluble in the lubricant. As a consequence of continuous applications, these solvents can damage the components of the A/C system. Tracer manufacturers use solvents such as Aromatic 200 and NMP (N-methylpyrrolidone) to make their products. Both are considered highly dangerous components according to the PAN (Pesticide Action Network) - an association that promotes the elimination of pesticides - due to their toxic and carcinogenic effect. The use of solvents can also be

### ADVANTAGES:

- Precisely locates refrigerant gas leaks in A/C and Refrigeration systems.
- Does not contain solvents.
- Compatible with all refrigerant gases such as CFC, HCFC and HFCs.
- Visible to any U/V lamp.
- Ideal product for preventive applications.
- Will not harm A/C compressor or recovery stations.

detrimental to aluminum, plastic and rubber components - which make up the majority of components in an air conditioning system. Therefore, continuous and prolonged use can lead to premature failure of the system. Also, many tracers can alter the properties of the lubricating oils contained in the system because they are not miscible with CFCs, HFCs, and HCFCs.

### DOSE

	LUBRICANT OIL	BRILLIANT HVAC&R
Until	0,5 L	7,5 ml
	1 L	15 ml
	2 L	3 ml
	4 L	50 ml

For larger quantities of lubricant, use a 1:60 dilution of the product.



**12** UNIT/BOX

**BLISTER OF 12 CARTRIDGES**

7.5ml (1/4oz)

**Gas Servei Code:**

EITBRILLIANT7,5

**Errecom Code:**

TR1068.A12.J9

Includes 1/4 and 5/16 adapters



**12** UNIT/BOX

**BOTTLE WITH DISPENSER**

250 ml (8.5 oz.)

**Gas Servei Code:**

EITBRILLIANT250

**Errecom Code:**

TR1003.R1.S1

## FAST LEAK KIT

- 12 cartridges of 7.5 ml of Brilliant.
- Identification labels.
- 400 ml spray bottle of Brilliant Remover.
- Adapter for vehicles with quick coupling on the low pressure side for R-134a.
- 1/4" SAE adapter with safety valves.
- 5/16" SAE (R-410A) adapter with safety valves.
- 9 LED UV leak tracer lamp.
- Protective glasses.



**1** UNIT/BOX

**FAST LEAK FINDER - BRILLIANT**

**Gas Servei Code:**

EITFASTLEAKIT

**Errecom Code:**

RK1241

## BRILLIANT REMOVER

Clean stains caused by fluorescent liquid on surfaces and equipment to avoid confusing them in future inspections that would lead to erroneous diagnoses.



**12** UNIT/BOX

**BRILLIANT REMOVER 400ML**

**Gas Servei Code:**

EITBRILLIANTREM

**Errecom Code:**

TR1004.01

## BEST BUBBLES



### WHAT IS IT?

Best Bubble is a simple and fast solution to detect leaks in refrigerating lines and in refrigeration and air conditioning system components.

### HOW DOES IT WORK?

Best Bubble must be sprayed close to the leak, thanks to its special formula, it adheres to surfaces, guaranteeing immediate detection of the leak through the formation of a thick and large bubble.

### ADVANTAGES:

- Ready for use.
- Use temperature -40°C +80°C.
- High level of adhesion to surfaces.
- 1 liter bottle.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION
EITBUBBLES1LT	TR1143.K.01	BEST BUBBLES Micro leak detector 1Lt.

## FLEXIBLE ADAPTERS

- For Cartridge and Push&Fill system.
- Safety valve.
- Hose burst pressure: 60 bar.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITADAPT1/4FLEX	TB5022.R1	Adapt. cart. 1/4 SAE proflex	20
EITADAP5/16FLEX	TB5023.R1	Adapt. cart. 5/16 SAE proflex	
EITADAPTKIT	RK1228	Kit adapt. proflex 1/4 & 5/16 SAE	

## PLASTIC ADAPTERS

For Cartridge and Push&Fill systems.

- Security valve.
- Adapter length: 30mm.



REF	GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
1	EITADAP1/4PLAS	RV2024.01	1/4" SAE adapter	20
2	EITADAP5/16PLAS	RV2025.01	Adapter 5/16" SAE (R410A)	
3	EITTB516601	TB5166.01	Plastic Mini Flex Adapter	10
1+2	EITADAPLASKIT	RK1289	1/4" SAE Adapter + 5/16" SAE Adapter (R410A)	20
1+2+3	EITRK1427	RK1427	Adapters 1/4" SAE + 5/16" SAE + Flexible	
4	EITRA105201	RA1064.01	Quick plastic adapter BP R-134a	10
5	EITRA106801	RA1068.01	Quick plastic adapter BP R-1234yf	

## FLEXIBLE BRIGHT TORCH

- Power supply: 3 "AA" 1.5 V batteries.
- 100% UV protection glasses.
- 5 Leds U/V 385 Head 380 Nm.
- Head of 5 White Leds.
- Aluminum body.


**5** UNIT/BOX

**Gas Servei Code:** EITUVTORCH

**Errecom Code:** RK1267

## MINI BRIGHT TORCH

- Power supply: 3 "AAA" 1.5 V batteries.
- 100% UV protection glasses.
- UV Light Frequency: 410 - 405 Nm.
- Aluminum body.


**14** UNIT/BOX

**Gas Servei Code:** EITRK1230

**Errecom Code:** RK1230

## BRILLIANT SET AUTO

- Brillant 250 ml bottle with dispenser.
- Identification tags.
- 50 ml refillable injector.
- Flexible adapter with plug fast for R-134a.
- Leak detector lamp with 9 UV leds.
- 00% UV protection glasses.



**8** UNIT/BOX

**Gas Servei Code:** EITRK1235

**Errecom Code:** RK1235

## SYRINGE REFILLABLE INJECTOR

- Rechargeable.
- 1/4" SAE 120 mm adapter with safety valve.
- 5/16" SAE (R410A) 120 mm adapter with safety valves.
- Hose burst pressure: 60 bar.
- Plastic suitcase.



**1** UNIT/BOX

**20ml REFILLABLE SYRINGE**
**Gas Servei Code:** EITINJECTOR20

**Errecom Code:** INI021.R1

## BRILLIANT SET

- 250 ml Brilliant bottle with dispenser.
- Identification labels.
- 50 ml refillable injector.
- 1/4 SAE flexible adapter.
- 5/16 SAE flexible adapter (R-410A).
- 9 LED UV leak detector lamp.
- UV protection glasses.


**8** UNIT/BOX

**Gas Servei Code:** EITRK1235R1

**Errecom Code:** RK1235.R1

## FOAM CLEANER FOR A/C SYSTEMS - NON BIOCIDAL

### WHAT IS IT?

EVAPORATOR CLEANER FOAM is a foamy evaporator cleaner that cleans, refreshes and purifies the A/C system. It is recommended for use in conjunction with INTERIOR PURIFIER - Indoor Purifier Treatment.

## NON-FOAMING CLEANER FOR A/C SYSTEMS - NON BIOCIDAL

### WHAT IS IT?

EVAPORATOR CLEANER is a liquid evaporator cleaner that cleans, refreshes and purifies the A/C system. It is recommended to use in conjunction with INTERIOR PURIFIER - Interior Purifier Treatment.



REF.	GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
1	EITAB1049N01	AB1049.N.01	Evaporator cleaner foam 400 ml	12
1	EITAB1049J01	AB1049.J.01	Evaporator cleaner foam 200 ml	24
2	EITAB1084N01	AB1084.N.01	Evaporator cleaner liquid 400 ml	12

## Evaporator Cleaner Foam Evaporator Cleaner



## PURIFYING TREATMENT FOR INDOOR USE - NON BIOCIDAL

### WHAT IS IT?

INTERIOR PURIFIER is a purifying treatment to clean and freshen your and freshen interiors, leaving a pleasant sensation of cleanliness. It is advisable to use this product in conjunction with EVAPORATOR CLEANER FOAM, a foaming cleaner for A/C systems.

### AVAILABLE IN:

- 2 formats: 200 and 400 ml.
- Fragrance: mint (other fragrances, please consult).



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1050N01	AB1050.N.01	Mint 400 ml	12
EITAB1050J01	AB1050.J.01	Mint 200 ml	24

## Interior Purifier



For other fragrances and formats, consult.

## SCENTED SANITISING CLEANER FOR AIR CONDITIONERS - READY TO USE



### WHAT IS IT?

LUXEDO is a perfumed sanitising cleaner for air conditioners. Its fast and effective action is optimal for the complete maintenance of internal units. LUXEDO removes organic residues and dirt accumulated over time, slowing down their reappearance.

It also has an intense purifying and reconditioning action, without being aggressive to the surfaces and the operator. The product does not require rinsing and is suitable for the HACCP plan.

### ADVANTAGES:

- Specifically designed for cleaning air conditioners.
- It has an intense purifying and reconditioning action.
- Suitable for HACCP plan.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1073K01	AB1073.K.01	1 L spray bottle	6
EITAB1073P01	AB1073.P.01	5 L canister	2
EITAB1073D01	AB1073.D.01	10 L canister	1

For other formats, consult.



## INTERNAL UNIT CLEANING COVER



### WHAT IS IT?

WALLY is a transparent polyethylene (PE) cover which guarantees complete protection of the area around the split during cleaning operations.

### SPECIFICATIONS:

- The bead guarantees a perfect adhesion. Disinfects any surface.
- The cleaner, rinse water and dirt will flow into the 20-litre bucket (included in the 15-unit box).

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITPM100601	PM1006.01	WALLY in bucket	15
EITTB102601	TB1026.01	Spare part Wally - Pipe drain	1

For the purchase of 15 Wally covers, a 20 L bucket is included as a gift.



## CONDENSER CLEANER BIODEGRADABLE - DILUTION 1:4

### WHAT IS IT?

ECORESTORE is a specific chemical product with fast and effective action, with a very high biodegradability factor, designed for the cleaning of condensers.

**pH**  
10 ↔ 12  
Alkaline  
Alcalino

OEM APPROVED  
**MODINE**  
Always innovating. Always improving.

Condenser    Frequent use    Severe dirt    Biodegradable    Dilute

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1072K01	AB1072.K.01	Eco restore spray 1 LT	6
EITAB1072P01	AB1072.P.01	Eco restore 5 LT - Dilution 1:4	2

For other formats, consult.

## CONCENTRATED DESCALER FOR CONDENSERS OF A/C&R SYSTEMS A/C&R SYSTEMS - DILUTION 1:6

### WHAT IS IT?

BEST ACID CC is a specific liquid treatment with an acid base that completely descaling the dirt that forms in the crevices of the finned coils of the condensing units found in vehicles and outside of buildings.

Condenser    Extreme incrustations    Dilute    Rinse

**pH**  
1 ↔ 2  
Acid  
Acido

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1044K01	AB1044.K.01	Eco restore spray 1 LT	6
EITAB1212P01	AB1212.P.01	Eco restore 5 LT - Dilution 1:6	2

For other formats, consult.

## SULPHATOR PUMP

### WHAT IS IT?

It is a manually pressurisable tank, also resistant to acids, with an adjustable nozzle that allows the distribution of any type of cleaner directly on the cleaner directly on evaporators and condensers.

Evaporator    Condenser    Interiors

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITPM100101	PM1001.01	2L spray pump	1
EITPM100301	PM1003.01	10L spray pump	1

## EcoRestore



## Best Acid CC



## Spray Pumps



## CORROSION PROTECTION SPRAY TREATMENT FOR CONDENSERS AND EVAPORATORS

### WHAT IS IT?

NO-AGE PLUS is an anti-corrosion and anti-rust treatment for external units. The liquid spray is applied on condensers and caps after cleaning operations.

### HOW DOES IT WORK?

Once applied, NO-AGE PLUS forms a thick, transparent protective film that resists thick, smog, salt, sand and dust.

### ADVANTAGES:

- Aerosol treatment for uniform application.
- Transparent.
- Easy to use.
- Prolongs condenser life.



Condenser



Ready to use



No-rinse



Anticorrosive

## CORROSION PROTECTION TREATMENT FOR CAPACITORS - READY TO USE

### WHAT IS IT?

NO-AGE is a protective treatment, designed for systems installed in highly oxidising areas (locations near the sea, heavily polluted locations), where salt and acid rain significantly reduce the life of a condenser.

### HOW DOES IT WORK?

Once the condenser has been cleaned with an acid or alkaline cleaner, it is advisable to spray NO-AGE directly onto the condenser. NO-AGE should be sprayed directly on the condenser: this solution generates a microfilm that does not limit the heat exchange, but reduces the ability of the dirt to cling to surfaces.

### ADVANTAGES:

- Easy to use.
- Safe for operator and materials.
- Prolongs condenser life.



Condenser



Ready to use



No-rinse



Anticorrosive

## No-Age Plus



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1103YW01	AB1103.YW.01	No Age Plus 750 ml	12

## No-Age



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITAB1100K01	AB1100.K.01	No-Age Spray 1 L	6
EITAB1100P01	AB1100.P.01	No-Age 5 L	2

For other formats, consult.

## STEAM CLEANER PCW-3V

Powerful steam, thorough cleaning.

- Heats up in just 30 seconds.
- Eliminates 99.99% of viruses and bacteria.
- High pressure and steam power.
- Physical sterilization.

### SPECIFICATIONS:

- INTELLIGENT SPRAY GUN**  
Remote control switch.
- INTEGRATED DESIGN**  
Steam, hot water and cold water in one circuit.
- LCD TOUCH SCREEN**  
With status indicator and voice reminder function.
- OZONE DISINFECTION**  
Safe and efficient sterilization.
- REEL STRUCTURE**  
Quick storage of inlet and outlet tubes (hoses).



MODEL	PCW-3V
CODE GS	GRTPCW3V
POWER SUPPLY	230 V / 50-60 Hz
STEAM PRESSURE	6 bar
STEAM TEMP.	140-160 °C
HOT WATER TEMP.	60-85 °C
FLOW RATE	3 L/min
POWER	3300 W
INLET HOSE	1.5 m
OUTLET HOSE	4.0 m

### ACCESSORIES INCLUDED IN THE EQUIPMENT:



## ADJUSTABLE HIGH PRESSURE CLEANING MACHINE PCW-6T

Variable pressure, fast cleaning.

- High-power motor.
- Variable pressure for optimal flexibility.
- Ceramic-coated piston for greater durability.
- Self-suction function for greater speed.
- Automatic On/Off switch.

### SPECIFICATIONS:

- PRESSURE ADJUSTMENT KNOB**  
Adjust pressure according to cleaning requirements.
- PRESSURE GAUGE**  
Easy to read exact pressure.
- INTEGRATED STORAGE**  
For accessories and to prevent them from being lost.
- CERAMIC COATED PISTONS**  
Long life, robust and reliable.
- QUICK CONNECT**  
All accessories are easy to install and remove.



### ACCESSORIES INCLUDED IN THE EQUIPMENT:



MODEL	PCW-6T
CODE GS	GRTPCW6T
POWER SUPPLY	230 V / 50-60 Hz
WORKING PRESSURE	10-40 bar (regulable)
FLOW RATE	6 L/min
POWER	750 W
WEIGHT	8 kg

**NEW**

## THUNDER-WASH-KIT WASHING KIT FOR INTERNAL A/C UNITS

### INCLUDES:

- 1 PCW-6T professional pressure washer
- 1 Spray gun + water lance, connection hoses and nozzles.
- 1 Protective cover for WALLY Split.
- 1 2-litre spray pump.
- 1 EVO ULTRA: Concentrated neutral evaporator cleaner. (dilute 1:20).
- 1 ALKALINE ULTRA: Concentrated alkaline condenser cleaner. (dilute 1:20).
- 1 ACID ULTRA: Concentrated acid condenser cleaner. (dilute 1:20).
- 1 Empty 25L plastic drum.



### ACCESSORIES INCLUDED IN THE EQUIPMENT:



CODE	DESCRIPTION
OXYTHWASH	THUNDER washing kit

Gas Servei S.A. presents new products in its complete range of products for welding **THUNDER BRAZING SOLUTIONS.**

With the highest quality for professionals in the sector.

# 6 BRAZING

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**MAPRO™**

**12** UNIT/BOX

MAPRO is 100% propylene gas of the utmost purity with a high calorific power, suitable for soft- and hard-metal brazing operations. The flame temperature can reach up to 1982 °C (3600 °F) and is 35 % faster than with propane. The MAPRO™ cylinders are made of steel (manufactured in line with Standard EN12205).

**FLAMMABILITY**

MAPRO™ is a highly flammable gas Contains pressurised gas; if it gets hot, it could explode. Keep far away from heat sources, sparks, flames and hot surfaces. Do not smoke. Store in a well-ventilated space, away from sunlight, at temperatures below 50 °C. Do not puncture, drill or burn. Do not transport in a car boot, train or plane.

**TECHNICAL FEATURES:**

- MAPRO™ has high calorific power when mixed with oxygen or air, which results in a higher heat-transfer speed to the metal, making brazing operations much quicker.
- The use of non-toxic components and the flashback arrestor ensure maximum safety for all technicians.
- Constant performance.

**BRAZING**

- Soft-metal brazing up to 450 °C.
- Hard-metal brazing from 450°C to 1100 °C.



GAS SERVEI CODE	DESCRIPTION	GAS/ CYLINDER (G)	VOLUME (L)	PRESSURE (bar)	CONNECTOR VALVE
SOLMAPRO	MAPRO in a box of 12 containers	400	0,95	28	CGA 600

**OXYGEN (O<sub>2</sub>) CONTAINER  
950 CC THUNDER OXYGEN**

**NEW**

THUNDER® OXYGEN is oxygen with a purity of at least 99.5%. Its high purity allows the combustion process to be optimised to the maximum in order to obtain high quality results in welding work.

Suitable for gas welding and brazing. It is ideal in combination with THUNDER® MAPRO 100% propylene. It is available in a container format that is resistant, safe and easy to transport.

THUNDER® OXYGEN contains oxidising gas, follow the instructions for use and read the hazard and caution phrases carefully.



**6** UNIT/BOX

GAS SERVEI CODE	DESCRIPTION	GAS/ CYLINDER (G)	PRESSURE (bar)
SOL0145	Cylinder 950 cc with Oxygen (O <sub>2</sub> )	145	110

**HAND TORCH**

**20** UNIT/BOX

**DESCRIPTION:**

- High-performance flame up to a temperature of 1650 °C.
- Piezo switch for an instant cyclone flame.
- Compatible with any combination of flammable gases: MAPRO™, Propane (R-290).
- With fine flame nozzle.

**FEATURES:**

- Hand torch/cylinder connection: CGA600.
- ø10 mm stainless steel burner.
- Flow control and gas temperature control valve.
- Trigger to stop the flame.
- Safety latch.
- Suitable for 360° use.
- Ergonomic handle.



REF.	GAS SERVEI CODE	DESCRIPTION
1	SOLTORCH	Hand Torch
2	SOLBN023	Replacement nozzle for fine flame torch
3	SOLBN024	Replacement nozzle for turbo flame torch

**BRAZING KIT**

Professional kit used for conducting maintenance on AC and refrigeration installations.

**INCLUDING:**

- 2 units MAPRO
- 1 unit SOLTORCH.

**5** UNIT/BOX



GAS SERVEI CODE	DESCRIPTION
SOLMAPKIT	Brazing kit (MAPRO with hand torch)

## THUNDER OXYMAPRO AUTOGENUS WELDING KIT

Autogenous welding equipment with non-refillable bottles (Oxygen & MAPRO) supplied with a small metal stand.

### TECHNICAL DATA:

#### THREADS

- Oxygen: M12 x 1.
- MAPRO: CGA600

#### WORKING P (BAR)

- Oxygen: 110 bar.
- MAPRO: 12 bar.

**T<sup>a</sup>: HIGHER THAN 3000 °C.**

#### GAS CONSUMPTION:

- Oxygen: 170 g/h.
- MAPRO: 95 g/h.

Two pairs of non-return valves placed between the hoses and regulators.



### INCLUDES:

- Oxygen reducer and gas valve with double protection non-return valves.
- 2 m hoses with double protection valves.
- Handle with regulation valves and lance.
- Protective glasses with adjustable temples.
- Lighter / spark gauge.
- Metal stand.

### SPARE PARTS AND ACCESSORIES:

- THUNDER Oxygen (O<sub>2</sub>) cartridge.
- THUNDER MAPRO propylene cartridge.
- Torch, consisting of:
  - Oxygen reducer.
  - Propane reducer.
  - Handle with lance and 80 L nozzle.
  - Hoses.
- Goggles.
- Spark gauge.

GAS SERVEI CODE	DESCRIPTION
SOLOXYMAPRO	THUNDER OxyMapro autogenous brazing kt
SOL0145	Cylinder 950cc with Oxygen (O <sub>2</sub> )
SOLMAPRO	Mapro cylinder 400 g with USA CGA 600 thread
SOLTORCH2	Spare part torch with reducers & hoses
SOLGLASSES	Spare parts glasses
SOLSPARKER	Spare parts sparker

## RODS

THUNDER BRAZING SOLUTIONS offers a wide range of rods for brazing, in different alloys and formats, to cover all market needs.

With our range of rods we guarantee a strong and safe weld, free of annoying flashes and spatters.

Even when overheated, the alloy does not bubble, flows smoothly and completely impregnates the surface to be welded.



- All our alloys are Cadmium (Cd) free.
- They do not pose health or safety risks.
- They comply with RoHS regulations.



- The coated rods have an innovative type of coating that protects the health of both the environment and the operators.
- Our Flux or stripper is non-toxic, does not contain boric acid and complies with the European REACH Regulation (1907/2006 / EC).

GAS SERVEI CODE	DESCRIPTION	SILVER (%)	Ø (mm)	DENSITY (G/CM <sup>3</sup> )	TENSILE STRENGTH (KG/mm <sup>2</sup> )	ISO 17672 STANDARD	EN1044 STANDARD	MELTING RANGE (°C)	PACKAGING (G)
<b>BARE RODS BASE CUP AND CUP AG</b>									
SOLVARCUP81000	Welding rod CuP 8 %	0	2	8	60	CuP 182	CP 201	710-770	1000
SOLVARAG051000	Welding rod CuPAg 5 %	5	2	8,2	55	CuP 281	CP 104	645-815	1000
SOLVARAG05500	Welding rod CuPAg 5 %	5	2	8,2	55	CuP 281	CP 104	645-815	500
SOLVARAG05250	Welding rod CuPAg 5 %	5	2	8,2	55	CuP 281	CP 104	645-815	250
<b>BARE RODS BASE AG</b>									
SOLVARAG20500	Welding rod Ag 20 %	20	2	8,7	43	-	AG 206	690-810	500
SOLVARAG20250	Welding rod Ag 20 %	20	2	8,7	43	-	AG 206	690-810	250
SOLVARAG25500	Welding rod Ag 25 %	25	2	8,8	48	Ag 125	AG 108	680-760	500
SOLVARAG25250	Welding rod Ag 25 %	25	2	8,8	48	Ag 125	AG 108	680-760	250
SOLVARAG34500	Welding rod Ag 34 %	34	2	9	48	Ag 134	AG 106	630-730	500
SOLVARAG34250	Welding rod Ag 34 %	34	2	9	48	Ag 134	AG 106	630-730	250
SOLVARAG40250	Welding rod Ag 40 %	40	2	9,1	44	Ag 140	AG 105	650-710	250

\*Coated Rod consult  
 \*\*For other alloys or formats, consult.

GAS SERVEI CODE	DESCRIPTION
<b>STRIPPERS POWDER</b>	
SOLFLUX250PO	Strippers powder FLUX 250 g

For other formats, consult.



## OXI-BUTANE EQUIPMENT

### PORTABLE WELDING EQUIPMENT

Portable stand-alone oxygen/butane welding equipment for welding and heating processes.

#### INCLUDES:

- B5 oxygen bottle (5 L water capacity).
- 2.8 kg butane bottle.
- 2.75 m long twin-tube hose.
- Regulator for the oxygen bottle.
- "Camping gas" type tap for the butane bottle.
- Light torch Mod. SB-19 (composed of handle, gas mixer, nozzle holder arm and Mod. 2N nozzle (and additional Mod.4N nozzle).
- Lightweight metal trolley with wheels, with bottle fixing.

#### NORMS/CERTIFICATIONS: CYLINDERS

- B5 oxygen cylinder with π marking, TPED, EN1964-1.
- With valve charged to 200 bar. Test pressure 300 bar.
- Flat base and valve protection cap.

#### NORMS/CERTIFICATIONS: REGULATORS

- EN-ISO2503 standard brass body, encapsulated valve.
- EN-ISO5171 standard Ø52 mm pressure gauges 1/4" thread.
- Equipped with safety valve and removable handwheel.
- Hose.
- EN-ISO-3821 standard parallel tube
- Ø6/6 x 12 mm.
- Blue (oxygen) / orange (butane) colour.
- Pressed connection fittings.



### MINI PORTABLE WELDING EQUIPMENT

Portable, stand-alone oxygen/butane welding equipment for welding and heating processes.

#### INCLUDES:

- B3 oxygen bottle (2.5 L water capacity).
- 0.5 kg butane bottle.
- 2.75 m long twin-tube hose.
- Regulator for the oxygen bottle.
- "Camping gas" type tap for the butane bottle.
- Light torch Mod. SB-19 (composed of handle, gas mixer, nozzle holder arm and Mod. 2N nozzle).
- Light polymer carrying stand.

#### NORMS/CERTIFICATIONS: CYLINDERS

- B3 oxygen cylinder with π marking, TPED, EN1964-1.
- With valve charged to 200 bar. Test pressure 300 bar.
- Flat base and valve protection cap.

#### NORMS/CERTIFICATIONS: REGULATORS

- EN-ISO2503 standard brass body, encapsulated valve.
- EN-ISO5171 standard Ø52 mm pressure gauges. 1/4" thread.
- Equipped with safety valve and removable handwheel.
- Hose.
- EN-ISO-3821 standard parallel tube Ø6/6 x 12 mm.
- Blue (oxygen) / orange (butane) colour.
- Pressed connection fittings.



GAS SERVEI CODE	DESCRIPTION
SOLKIT0B1	Oxi-butane welding equipment

GAS SERVEI CODE	DESCRIPTION
SOLKIT0B2	Mini portable Oxi-butane welding equipment

GAS SERVEI CODE	DESCRIPTION
SOLOB3	Oxygen bottle B3 - 2,5 L
SOLOB5	Oxygen bottle B5 - 5 L
SOLB05	Butane bottle 0,5 KG
SOLB28	Butane bottle 2,8 KG

GAS SERVEI CODE	DESCRIPTION
SOLOBSOP	Oxi-butane blowtorch spare
SOLOB2N	Spare filter oxi-butane 2n
SOLOB4N	Spare filter oxi-butano 4n
SOLOBMANG3	Spare hose oxi-butane 3 m.
SOLOBMANG5	Spare hose oxi-butane 5 m.
SOLOBREG	Oxygen regulator spare 200n 10 bar
SOLOBGRI	Camping bottle tap spare m-21,8, left
SOLOBCAM	Spare part mini portable oxi-butane
SOLOBCAG	Spare part oxi-butane

## PROTECTIVE BARRIER SPRAY FOR WELDING HEAT SINK GEL FOR WELDING

 **Shield-It**


### WHAT IS IT?

SHIELD-IT is an aerosol canister used as a protective barrier for the area being worked on during welding operations. By forming a protective film, SHIELD-IT prevents drops or spatter from adhering, also allowing easy removal of welding residues.

SHIELD-IT can be used in combination with PROTECT GEL (a product that prevents material burning near the welding area and reduces heat transmission).

### ADVANTAGES:

- Easy to use.
- Useful as temporary protection against splashes of filler material.
- Easily removed with a cloth at the end of the operation.

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITTR1165N01	TR1165.N.01	400 ml bottle	12



## GEL HEAT SINK FOR SOLDERING


 **Protect Gel**

### WHAT IS IT?

PROTECT GEL is a special gel-formulated product to protect surfaces surrounding the flame contact point used during welding operations from the effect of heat.

### ADVANTAGES:

- Easy to use.
- Safe and non-toxic.
- Absorbs heat, preventing surrounding parts from burning or deforming.
- Protects components and materials, and avoids costs of damage caused by heat.
- Protects painted or varnished surfaces from colour change.
- Formulated in gel, it adheres to the surface without dripping and leaves no residue.

GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITTR1141K01	TR1141.K.01	1L bottle with dispenser	6



## COMPLETE RANGE OF TOOLS FOR PROFESSIONALS

Precise and reliable for optimal assembly and maintenance of AC and refrigeration installations.

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# 7 TOOLS

## CHARGING HOSES

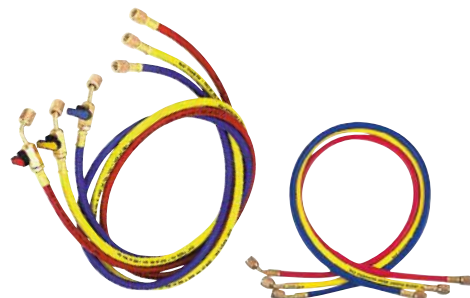
### PREMIUM - VALUE

High-quality charging hoses. They can be manufactured with different connections and lengths on order.

CODE	COLOUR	LENGTH	CONNECTION	SUIT FOR	VALVE	
OXY12236RYB	R Y B	0,9m	1/4"X 45° 1/4"	-	✗	10
OXY12260RYB	R Y B	1,5m	1/4"X 45° 1/4"	-	✗	
OXYBK225	R Y B	3,0m	1/4"X 45° 1/4"	-	✗	
OXY12236/SV	R Y B	0,9m	1/4"X 45° 1/4"	-	✓	
OXY12260/SV	R Y B	1,5m	1/4"X 45° 1/4"	-	✓	
OXYMANG200	R Y B	2,0m	1/4"X 45° 1/4"	-	✓	
OXYMANG400	R Y B	4,0m	1/4"X 45° 1/4"	-	✓	
OXY41036RYB	R Y B	0,9m	1/4"X 45° 5/16"	R410A/R32	✗	
OXY41060RYB	R Y B	1,5m	1/4"X 45° 5/16"	R410A/R32	✗	
OXY410RIT	R Y B	1,5m	5/16"X 45° 5/16"	R410A/R32	✗	
OXYBK226	R Y B	3,0m	1/4"X 45° 5/16"	R410A/R32	✗	
OXY41036/SV	R Y B	0,9m	1/4"X 45° 5/16"	R410A/R32	✓	
OXY41060/SV	R Y B	1,5m	1/4"X 45° 5/16"	R410A/R32	✓	
OXY41060/SOV	R Y B	1,5m	1/4" X 5/16" LOCK-VALVE	R410/R32	✓*	

Set of 3 Premium-VALUE model hoses.

- Maximum working pressure: 800 psi (55 bar).
- Maximum burst pressure: 4000 psi (276 bar).



\*The red and blue hoses have 5/16" shut-off valves and the yellow one has a 1/4" ball valve.

### MINI STANDARD WITH VALVE

Standard black hose with a shut-off valve.

- Length: 0.15m (6").
- Maximum working pressure: 600 psi (41 bar).
- Maximum burst pressure: 3000 psi (206 bar).
- Connection: 1/4" x 1/4" + valve.



CODE	CONNECTION	MODEL	LENGTH	VALVE	
OXY-HDSS6	1/4" x 1/4"	Standard	6" (0,15m)	✓	10

### HEAVY-DUTY

3/8" black hose.

- Lengths available: 0,90 m (36") and 1,5 m (60").
- Maximum working pressure: 460 psi (32 bar).
- Maximum burst pressure: 2300 psi (159 bar).
- Connection: 3/8" x 3/8".



CODE	CONNECTION	MODEL	LENGTH	VALVE	
OXY-VCH36Y	3/8" x 3/8"	Heavy-duty	36" (0,9m)	✗	5
OXY-VCH60Y	3/8" x 3/8"	Heavy-duty	60" (1,5m)	✗	5

## REPLACEMENTS FOR HOSES AND ADAPTERS

REF.	CODE	DESCRIPTION	FOR HOSES
1	OXYMANGJUNTA	Teflon joint 1/4" and 5/16" hose	VALUE
	OXYMANGJUNTA2	Teflon joint 3/8" hose	VALUE
2	OXYMANGDEP	Kit (3 units) hose depressor	VALUE
3	YFGAL0191	1/4" F X 5/16" M SAE, 2 depressors	-
	YFGAL0192	5/16" F X 1/4" M SAE 2 depressors	-



## VACUUM HOSES "HIGH-FLOW"

- 1/2" diameter for fast evacuation.
- 4-layer construction for low permeability.
- Burst pressure of 3200 psi (221 bar).
- Working pressure of 640 psi (44 bar).



Reduces vacuum time by more than 50%.



CODE	MODEL	CONEXIÓN	LONGITUD	Ø	
OXYVHB1	VHB-1	3/8" - 1/4" SAE	180 cm	1/2"	10
OXYVHB2	VHB-2	1/2" - 1/4" SAE	180 cm	1/2"	10

# HIGH-END SERIES

## WELCOME TO THE SMART AGE OF HVAC TOOLS



## NAVTEK MANIFOLD GAUGES

### 1-WAY AND 2-WAY NAVTEK MANIFOLD GAUGES

Advantages of the new Navtek Digital range:

- Best technology on the market and ergonomic design.
- Better precision: Class 0.4
- New controls with ball system.
- Better bump protection.
- It includes a fold-down hook to make it easier to transport.

#### Complete range of high-precision NAVTEK digital manifold gauges (class 0.4)

- Including 22 refrigerants:  
R-22, R-32, R-134a, R-290, R-32, R-407A, R-407C, R-410A, R-426A (RS-24), R-427A, R-434A (RS-45), R-442A (RS-50), R-448A, R-449A, R-450A, R-452A, R-453A (RS-70), R-507A, R-513A, R-600a, R-744 (CO<sub>2</sub>), R-922B (R-1234yf).
- Pressure units: psi, bar, KPa, MPa, kg/cm<sup>2</sup>.
- Temperature units: °C and °F.
- Vacuum units: inHg.
- Precision: 0.7%FS.
- Resolution: 1psi.
- Refrigerant temperature: -5 ~ 50 °C.
- Pressure range: -1 ~ 50 bar (-30 inHg ~ 725 psi)
- Connection: 1/4" SAE.
- Battery: 9V DC battery, 50 hours when on continuously.

### 1-WAY AND 2-WAY NAVTEK ANALOGUE MANIFOLD GAUGES

Advantages of the new Navtek analogue range:

- Best technology on the market and ergonomic design
- Better precision: 1.0
- New controls with ball system
- Better bump protection
- It includes a fold-down hook to make it easier to transport.



1-WAY & 2-WAY DIGITAL NAVTEK CLASS 0.4			
REF.	CODE	SIGHT GLASS	DESCRIPTION
	OXY13100	✓	No pressure gauge
1	OXYVRM10101		1-way digital manifold gauge
2	OXYVRM20101	✓	2-way digital manifold gauge

#### THE 1-WAY DIGITAL MANIFOLD GAUGE INCLUDES:

- Hoses: One 1/4" - 5/16" red hose. One 1/4" - 1/4" yellow hose.
- 1 x connector 1/4" F rotary x 5/16" M for R-410A.
- Robust case.

#### THE 2-WAY DIGITAL MANIFOLD GAUGE INCLUDES:

- Hoses: One red hose and one blue hose, both 1/4" - 5/16". One 1/4" - 1/4" yellow hose.
- 2 x connector 5/16" F rotary x 1/4" M for R-410A.
- Robust case.



1-WAY NAVTEK CLASS 1					
REF.	CODE	Ø	PRESSURE	REFRIGERANT	PACKAGING
1	OXYVRM1B403	68	A	R-32, R-410A, R-407C, R-134a	Blister
1	OXYVRM1B404		B		

2-WAY NAVTEK CLASS 1					
REF.	CODE	Ø	SIGHT GLASS	REFRIGERANT	PACKAGING
	OXY13001	-	✓	No pressure gauge	
2	OXYVRM2B401V	68	✓	R-410A, R-407C, R-134a, R-22	Case*
2	OXYVRM2B601V	68		R-32, R-410A, R-407C, R-134a	Case*
2	OXYVRM2B501V	68	✓	R-22, R-407C, R-134a, R-404A	Case**
2	OXYVRM2A801V	80	✓	R-32, R-410A, R-407C, R-134a	Case*

\* Includes hoses with valve and 2 1/4" F swivel x 5/16" M connectors for R-410A.  
\*\* Includes hoses with valve.

## DIGITAL MANIFOLD GAUGES

### VDG-1 DIGITAL MANIFOLD GAUGE

• Including 51 refrigerants:

R-11, R-12, R-13, R-22, R-23, R-32, R-113, R-114, R-123, R-124, R-134a, R-290, R-401A, R-401B, R-402A, R-402B, R-404A, R-406A, R-407A, R-407C, R-408A, R-409A, R-410A, R-413A, R-414B, R-416A, R-417A, R-420A, R-422A, R-422B, R-422D, R-424A (RS-44), R-426A (RS-24), R-427A, R-428A (RS-52), R-434A (R-S45), R-437A, R-442A (RS-50), R-448A, R-449A, R-450A, R-452A, R-453A (RS-70), R-502, R-507A, R-508B, R-513A, R-600a, R-728, R-744 (CO<sub>2</sub>), R-922B (R-1234yf).

Including:

- Clip to measure temperature.
- Quick coupling for AUTO (High and Low, 1/4" SAE M).
- Charging hoses.
- 2 x connector 5/16" F rotary x 1/4" M for R-410A.
- Battery: 4 x 1.5V AA batteries.
- Robust case.
- Measuring range: -1 - 50 bar (-30 inHg - 725 psi)
- Vacuum measurement.
- Working temperature: 10 - 90 % RH.
- Weight: 1.2 kg



CODE

DESCRIPTION

OXYVDG1

VDG-1 digital manifold gauge

OXYVDG1PT

Clamp probe for VDG-1

## ANALOGIC MANIFOLD GAUGES

Very precise manifold gauge with no vibrations in the needle for better performance and a longer useful life of the gauge. Pressure gauges with crash protection.

### VALUE 1-WAY

VALUE 1-way manifold gauge. Available with or without sight glass. Class 1.6 pressure gauges.



CODE	Ø	PRESSURE	SIGHT GLASS	REFRIGERANT	
OXY-467-ALA	-	A	✓	No pressure gauge	20
OXY-467-ALB		B			
OXYALA1V	68	A	✗	R-410A, R-407C, R-404A and R-134a	
OXYALB1V		B			
OXYALA1VCV	68	A	✓	R-410A, R-407C, R-404A and R-134a	
OXYALB1VCV		B			
OXY-467-ALARS	70	A	✓	R-424A, R-426A, R-434A, R-428A	
OXY-467-ALBRS		B			
OXYALA1V32	68	A	✓	R-32, R-410A, R-407C and R-134a	
OXYALB1V32		B			
OXY-467-ALA6	68	A	✓	R-600a	10
OXY-467-ALB6		B			
OXY-467-ALA2	68	A	✓	R-600, R-600a and R-290	
OXY-467-ALB2		B			
OXY-467-ALAISC	80	A	✓	R-417A, R-422D, R-422A	
OXY-467-ALBISC		B			
OXYALA32	80	A	✓	R-32, R-410A, R-407C and R-134a	
OXYALB32		B			
OXYALAXP	80	A	✓	R-449A, R-404A, R-452A, R-134a	
OXYALBXP		B			

### VALUE 4-WAY KIT

Case with 4-way VALUE manifold gauge with anti-collision protection and charging hoses.

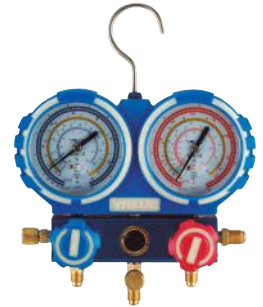
- Aluminium manifold gauge.
- Controls with strong bump resistance.
- Robust case.
- Set of 4 hoses.
- Back connections for hanging hoses.



CODE	Ø	SIGHT GLASS	REFRIGERANT	
OXY83603	80	✓	R-32, R-410A, R-407C, R-134a	5

### VALUE 2-WAY

2-way manifold gauge with anti-collision protection. Class 1.6 pressure gauges. Supplied in blister packs.



- Aluminium manifold gauge.
- Controls with strong bump resistance.

CODE	Ø	SIGHT GLASS	REFRIGERANT	
OXY13000	68	✓	No pressure gauge	12
OXY13600	68	✓	R-600, R-600a, R-290	
OXY13601	68	✓	R-404A, R-407C, R-134a, R-22	
OXY13601-410	68	✓	R-134a, R-410A, R-407C, R-22	
OXY13601-32	68	✓	R-32, R-410A, R-407C, R-134a	
OXY13605	80	✓	RS-70 (R-453A), RS-50 (R-442A), R-134a, R-407F	
OXY13606	80	✓	R-404A, R-407C, R-134a, R-22	
OXY13607	80	✓	R-449A, R-404A, R-452A, R-134a	

### VALUE 2-WAY KIT

Case with 2-way VALUE manifold gauge with anti-collision protection and charging hoses.

- Aluminium manifold gauge.
- Controls with strong bump resistance.
- Robust case.
- Set of 3 hoses.



CODE	Ø	SIGHT GLASS	REFRIGERANT	INCLUDING	
OXYKIT	68	✓	R-22, R-404A, R-407C, R-134a		5
OXYKITR32B	68	✓	R-32, R-410A, R-407C		
OXYKIT600	68	✓	R-600, R-600a, R-290		
OXYKIT2	80	✓	R-22, R-407C, R-404A, R-134a		
OXYKITR32	80	✓	R-32, R-410A, R-407C, R-134a		
OXYKIT1234	80	✓	R-1234yf	Quick coupling systems OXYVHF1234	
OXYKIT449	80	✓	R-449A, R-404A, R-452A, R-134a		
OXYKIT2410V	80	✓	R-410A, R-407C, R-134a, R-404A	Hoses with valve	
OXYKIT2V	80	✓	R-22, R-407C, R-404, R-134a	Hoses with valve	
OXYKITR32V	80	✓	R-32, R-410A, R-407C, R-134a	Hoses with valve	
OXYKIT449V	80	✓	R-449A, R-404A, R-452A, R-134a	Hoses with valve	

VALUE PRESSURE GAUGES

CASES AND REPLACEMENT PARTS FOR VALUE MANIFOLD GAUGES



CODE	Ø	PRESSURE	REFRIGERANT	
OXY25022G	68	B	R-404A, R-407C,	20
OXY50022G		A	R-134a, R-22	
OXY250410G		B	R-410A, R-407C,	
OXY500410G		A	R-404A, R-134a	
OXY251410G		B	R-410A, R-407C, R-404A,	
OXY501410G		A	R-134a NAVTEK	
OXY25032G		B	R-32, R-410A,	
OXY50032G		A	R-407C, R-134a	
OXY250RSG		B	R-424A, R-426A,	
OXY500RSG		A	R-434A, R-428A	
OXY56001	63	B	R-600a (Class 1)	
OXY56006		A		
OXY25029G	68	B	R-600, R-600a, R-290	
OXY50029G		A		
OXY25022G80	80	B	R-410A, R-407C,	
OXY50022G80		A	R-134a, R-22	
OXY25013603		B	R-410A, R-407C,	
OXY50013603		A	R-404A, R-134a	
OXY25032G80		B	R-32, R-410A,	
OXY50032G80		A	R-407C, R-134a	
RIT49114		B	R-417A, R-422A,	
RIT49113		A	R-422D (Class 1)	
OXY250449G80		B	R-449A, R-404A,	
OXY500449G80		A	R-452A, R-134a	

2-WAY PRESSURE GAUGE FOR CO<sub>2</sub> (R-744)

2-way pressure gauge bridge with anti-collision protection.

Class 1.6 pressure gauges

- Scale in psi and MPa.
- MPa pressure range: 0 +10 / 0+16.
- Suitable for subcritical and transcritical CO<sub>2</sub>.
- Brass bridge and 1/4" SAE connections.



CODE	Ø	REFRIGERANT	
OXY13744	80	R-744 (CO <sub>2</sub> )	10

KIT 3 THUNDER HOSES FOR CO<sub>2</sub> CHARGING (R-744)

Polyamide interior, high-strength steel mesh reinforcement and abrasion-resistant polyurethane outer coating

- Maximum working pressure 300 bar.
- Working temperature -40 °C to +100 °C.



CODE	Ø	CONEXIONS	
OXY74460	5/16"	1/4" SAE	10

CASES AND REPLACEMENT PARTS FOR MANIFOLD GAUGES



CODE	DESCRIPTION	
OXY012	436 X 338 x 103 mm case	1
OXY003	VALUE case for 2-way manifold gauge (68 mm)	
OXY004	VALUE case for 2-way manifold gauge (80 mm)	
OXY005	Case for VDG1 VALUE manifold gauge	
OXY140A	Piston control valve (red) for 2-way (68 mm)	6
OXY140B	Piston control valve (blue) for 2-way (68 mm)	
OXY140C	Piston control valve (red) for 2/4-way (80 mm)	
OXY140D	Piston control valve (blue) for 2/4-way (80 mm)	
OXY140E	Piston control valve (yellow) for 4-way (80 mm)	
OXY141A	Piston control valve (aluminium) high for 2-way (68 mm)	
OXY141B	Piston control valve (aluminium) low for 2-way (68 mm)	
OXY142A	Piston control valve (aluminium) high for 2-way (80 mm)	
OXY142B	Piston control valve (aluminium) low for 2-way (80 mm)	

2-WAY KIT FOR CO<sub>2</sub> (R-744)

Briefcase with pressure gauge bridge for CO<sub>2</sub> with anti-collision protection and set of 3 charging hoses.

INCLUDES:

- Brass bridge.
- Anti-collision protection.
- Robust case.
- Set of 3 hoses.



CODE	Ø	REFRIGERANT	INCLUDE	
OXYKIT744	80	R-744	Mangueras	5



Refrigerants  
for a better  
world.

Now available!  
**A2L, A2 & A3**

- R-32
- R-452B
- R-454C
- R-455A
- R-1234yf
- R-1234ze
- R-152a
- R-290
- R-600a



Environmentally  
friendly



High energy  
efficiency



Innovative  
products



Refrigerants for the future, available today.

Ask for more information by scanning the QR code.



SCAN ME

# TOOLS KITS

## VTB-5A R-32 COMPLETE BASIC INSTALLER KIT

Including:

- VH-215SV vacuum pump.
- VFT-808-I flaring tool.
- VTC-32C tube cutter.
- VTT-5 inner-outer reamer.
- VST-22 tube expander.
- 2-way manifold gauge for: R-32, R-410A, R-407C, R-134a. 80mm.
- Set of 3 hoses 1/4" x 45° 5 /16".
- Aluminium case.



CODE	DESCRIPTION
GRTVTB5AR32	VTB -5A R-32 Complete tools kit

## VTB-8C R-32 / R-449A TOOL KIT

Including:

- VFT-808-MI flaring tool.
- VTC-32C tube cutter.
- VMC-1 digital current clamp.
- VST-22 tube expander.
- VTT-5 inner-outer reamer.
- VRT-201 ratchet wrench.
- VRT-202 ratchet wrench.
- Set of 3 hoses 1/4" x 45° 5 /16".
- Water-proof nylon backpack.
- 2-way manifold gauge for: R32, R410A, R407C de 68mm in model GRTVTB8CR32.
- 2-way manifold gauge for: R-449A, R-404A, R-452A, R-134a de 80 mm in model GRTVTB8CR449.



CODE	DESCRIPTION
GRTVTB8CR32	Installer's tool backpack
GRTVTB8CR449	Installer's tool backpack

**VTB-5D R-32 TOOL KIT**

Including:

- VFT-808-MI flaring tool.
- VTC-32C tube cutter.
- Set of 3 hoses 1/4" x 45° 5/16".
- VST-22 tube expander.
- VTT-5 inner-outer reamer.
- Water-proof nylon carry case.
- 2-way manifold gauge for: R-32, R-410A, R-407C, R-134a 80mm.



CODE	DESCRIPTION
GRTVB5DR32	VTB-5D R-32 Tools kit

**VTB-5B-I R-32 TOOL KIT**

Including:

- VFT-808-I flaring tool.
- VTC-32C and VTC-19 tube cutters.
- VTT-5 inner-outer reamer.
- 2-way manifold gauge for: R-32, R-410A, R-407C, R-134a. 80mm.
- Set of 3 hoses 1/4" x 45° 5/16" with valve.
- Plastic case.



CODE	DESCRIPTION
GRTVB5BIR32V	*VTB-5B-I R-32 Tools kit (Case)


\*Hoses with valve

**NAVTEK**<sup>™</sup>

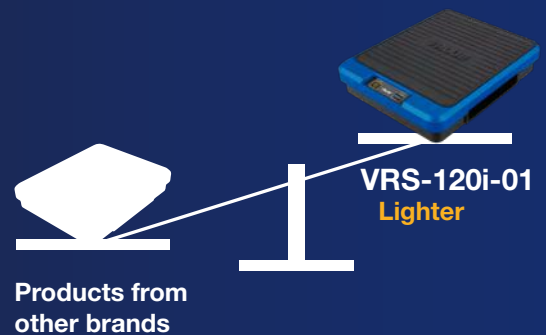
# VRS-120i-01 DIGITAL SCALE

With larger platform suitable for large cylinders of refrigerant gas (50-60 kg load).



 Magnesium-alloy weighing platform

 Wireless Bluetooth control



## WIRELESS DIGITAL SCALES

The NAVTEK wireless digital scale with Bluetooth has been designed and reinforced with advanced technology, providing the highest precision in refrigerant gas charging.

Through a Bluetooth connection between the remote control and the solenoid valve in the container of refrigerant gas, the charging/emptying of the container can be controlled and stopped automatically once it reaches the pre-set level of charge.

The surface is a magnesium alloy and the single-piece ergonomic design make it lighter and easier to transport.



FEATURES	VRS-50I-01	VRS-100I-01	VRS-120I-01
MAXIMUM WEIGHT (KG)	50	100	120
RESOLUTION (G)	2	5	10
PRECISION	±0,05 %		
POWER SUPPLY (SCALE BATTERIES)	4xAA		
POWER SUPPLY (REMOTE BATTERIES)	4xAAA		
PLATFORM SIZE (CM)	22 x 19,5		28 x 25,5
WEIGHT (KG)	2		4,7

CODE	DESCRIPTION
OXYVRS50	VRS-50i-01 50kg digital scale
OXYVRS100	VRS-100i-01 100kg digital scale
OXYVRS120	VRS-120i-01 120kg digital scale

## DIGITAL SCALES

Electronic scale that allows you to make precision charges with extraordinary quality that has been proven the world over. It is sold in a high-consistency case that protects the sensor from bumps when being transported.

FEATURES	VES-50A	VES-100A	VES-50B	VES-100B
MAXIMUM WEIGHT (KG)	50	100	50	100
RESOLUTION (GR)	2	5	2	5
PRECISION	± 0,05 %			
POWER SUPPLY (BATTERIES)	1 x 9V			
WORKING TEMP. (°C)	-10 ~ 40			
PLATFORM WEIGHT (KG)	5		6,5	
PLATFORM SIZE (CM)	24 x 24			
ANTI-COLLISION		✓		
AUTO POWER-OFF	✓			✓
AUTOMATIC CHARGING	-			✓



CODE	DESCRIPTION	
OXY-36565-50	VES-50A digital scale (50kg)	4
OXY-36565-50B	Programmable VES-50A digital scale (50kg)	4
OXY-36565-100	VES-100A digital scale (100kg)	4
OXY-36565-100B	Programmable VES-100A digital scale (100kg)	4

# VRDDF DIGITAL RECOVERY UNIT FOR FLAMMABLE REFRIGERANTS WITH ATEX CERTIFICATION

Suitable for working with A2L, A2 & A3 (R-290, R600a, R-32, R1234yf...)



ATEX-Certified



## QUICK · COMPACT · ATEX

### ATEX certification, no sparks

- Designed and tested in accordance with Standards UL 121201, CSA C22.2 No. 213 and EN60079-7.
- Suitable for flammable refrigerants A2L, A2 & A3.

### Micro channel capacitor

- Quicker recovery.
- Better performance compared to traditional capacitors.

### Brushless DC motor

- More efficient.
- Light.

### Oil-free compressor

- Suitable for most refrigerants.

### Large backlit display

- Large, easy-to-read LCD display.
- Backlit for greater clarity.

### Auto-purge function

- Prevent refrigerants from mixing.

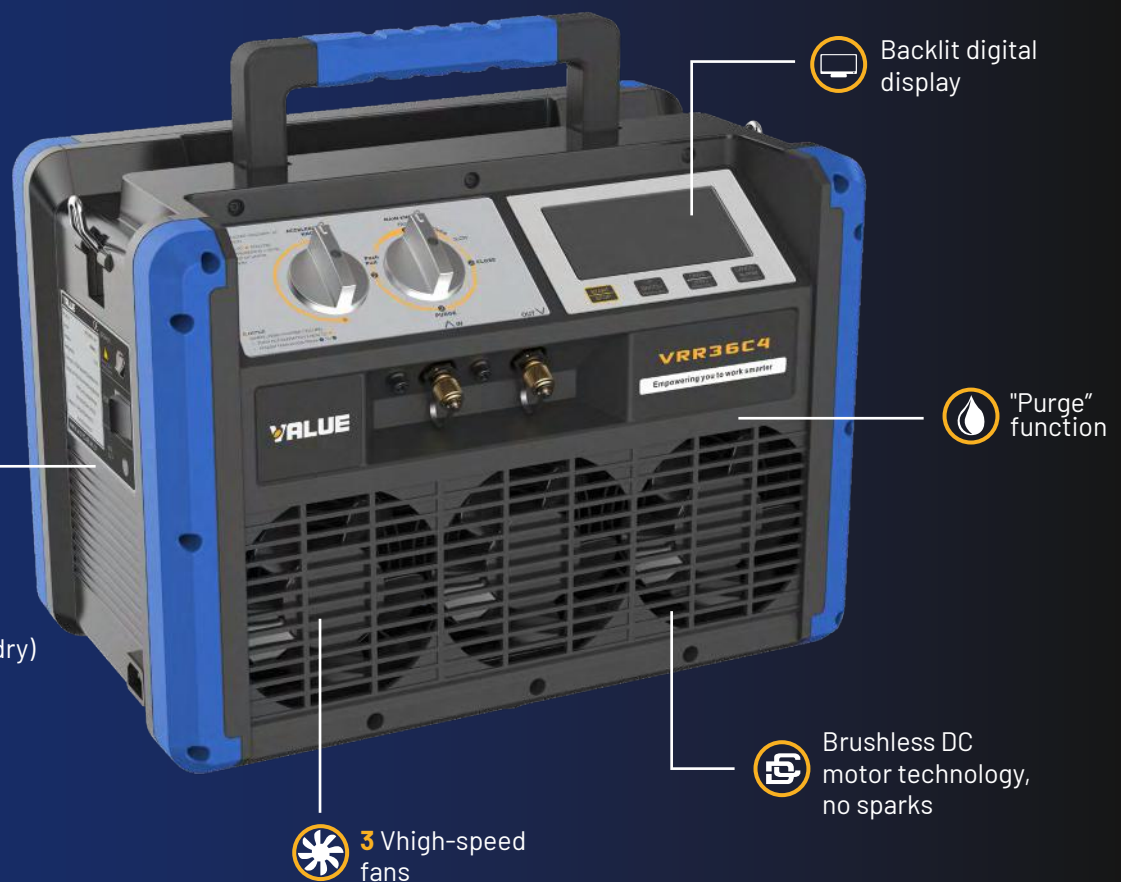
**NAVTEK™**

# VRR36C4 1.5HP 4-PISTON RECOVERY UNIT

Suitable for working with R-32, R-1234yf



**4** Cylinders



**Oil-free compressor (dry)**

**3 High-speed fans**

**Backlit digital display**

**"Purge" function**

**Brushless DC motor technology, no sparks**

## QUICKER - MORE POWERFUL

### 4 cylinders

- Greater power.

### Large display

- Large, easy-to-read LCD display.
- Backlit for greater clarity.

### Super-efficient capacitor

- Oversized micro channel capacitor.
- 3 cooling fans.

### Oil-free dual compressor

- Valid for CFC, HCFC, HFC and HFO refrigerants.

### Brushless DC motor

- More efficient.

The VRR12M and VRR24M-C include the most advanced technology on the market in recovery machines since they include a brushless compressor as well as digital pressure gauges. Ideal for use with refrigerants such as R-32/R-1234yf and R410A, R134a, R404A, etc.

All of the models include:

- Automatic stop when recovery is over.
- Overpressure.
- 1 single functioning valve for greater ease of use.
- One filter drier.



YGSAD032

Advantages of the brushless motor:

- Safer: It doesn't produce sparks.
- Less wear, longer useful life.
- Lighter.
- One filter drier.

## 4 Cylinders 1.5 HP

VRR36C4



- DIGITAL
- NO SPARKS
- LIGHT
- R-32

## ATEX 1 HP

VRDDF



- DIGITAL
- NO SPARKS
- LIGHT
- ATEX

## 1 HP

- DIGITAL
- LIGHT
- NO SPARKS
- R-32

VRR24M-C



- FOR RECYCLING
- R-32

VRR24L-OS-R32



- R-32

VRR24L-R32



Micro-channel double capacitor:

- Better performance
- Greater recovery rate in gas phase

## 3/4 HP

- FOR RECYCLING
- R-32

VRR12LOS-R32



- DIGITAL
- LIGHT
- NO SPARKS
- R-32

VRR12M



- R-32

VRR12L-R32



MODEL	VRR12L-R32	VRR12LOS-R32	VRR12M	VRR24L-R32	VRR24-OS-R32	VRR24M-C	VRRDF	VRR36C4							
Code	GRTRECVR12LR32	GRTVRR12LR32OS	GRTRECVR12M	GRTRECVR24LR32	GRTVRR24LR32OS	GRTRECVR24MC	GRTRECVRDF	GRTRECVR36C4							
Motor	3/4 HP			1 HP				1.5 HP							
Compressor	1 piston, dry	3/4 HP	No brushes, 1 piston	2 pistons, dry		No brushes, 2 pistons		No brushes, 4 pistons							
Analogue/Digital	Analogue	Analogue	Digital	Analogue	Analogue	Digital		Digital							
Auto stop when the recovery has finished (LP)				✓											
Recovery rate (kg/hora)	Gas type	BP*	MP*	AP*	BP*	MP*	AP*	BP*	MP*	AP*					
	Vapour	12	15	15	24	30	30	26	32	32	32	36	48	51	
Liquid	96	108	132	198	210	231	216	240	252	240	252	240	270	279	
Push/pull	276	336	378	450	510	570	450	510	570	450	510	570	516	588	660
Size	400 x 250 x 355 mm		304 x 202 x 260 mm	450 x 250 x 355 mm		370 x 250 x 297 mm		370 x 250 x 297 mm		410 x 275 x 300 mm					
Weight	13,00 kg	14,20 kg	7,80 kg	13,50 kg	14,70 kg	11,00 kg	11,00 Kg	19,00 kg							
Suitable for flammables	✗	✓	✓	✓	✓	✓	✓ ATEX	✓							
Recycling system	✗	✓	✗	✗	✓	✗	✗	✗							

\* LP: Low Pressure (R-12, R-134a, R-152a, R-450A, R-513A, R-1234yf, R-1234ze...)

\* MP: Medium Pressure (R-22, R-407C, R-422D, R-434A, R-453A...)

\* HP: High Pressure (R-404A, R-448A, R-449A, R-452A, R-507, R-410A, R-32...)

RECOVERY CYLINDERS

Cylinders for recovering refrigerant gases. Gas and liquid valve and safety system.

- Capacities (L): 14,5, 27,2, 61 and 930.



CODE	CAPACITY (L)	PH (bar)	WEIGHT (KG)	CONNECTION VALVE
ENV12LY	12	48	8,12	M21,7 (IZQ)
ENV15Y	14,5	42	8,5	1/4" SAE
ENV25Y	27,2	42	14,3	M21,7
ENV61,1LY	61	42	27,9	M21,7

FILTER/SIGHT GLASS FOR RECOVERY

By connecting this tool to the inlet of your recovery equipment, you will be able to filter and view the contaminating particles present in the refrigerant gas during the recovery process.



CODE	DESCRIPTION
OXY46511	1/4" SAE filter/sight glass for recovery

ELECTRIC HEATING JACKET THERMOSTAT

Heating jacket with thermostat for cylinders.

- Size: 700x80mm.
- The heating jacket is supplied with two springs.



CODE	DESCRIPTION
WIGRSF400	Heating jacket with thermostat for containers
WIG23015	Spring for cylinders

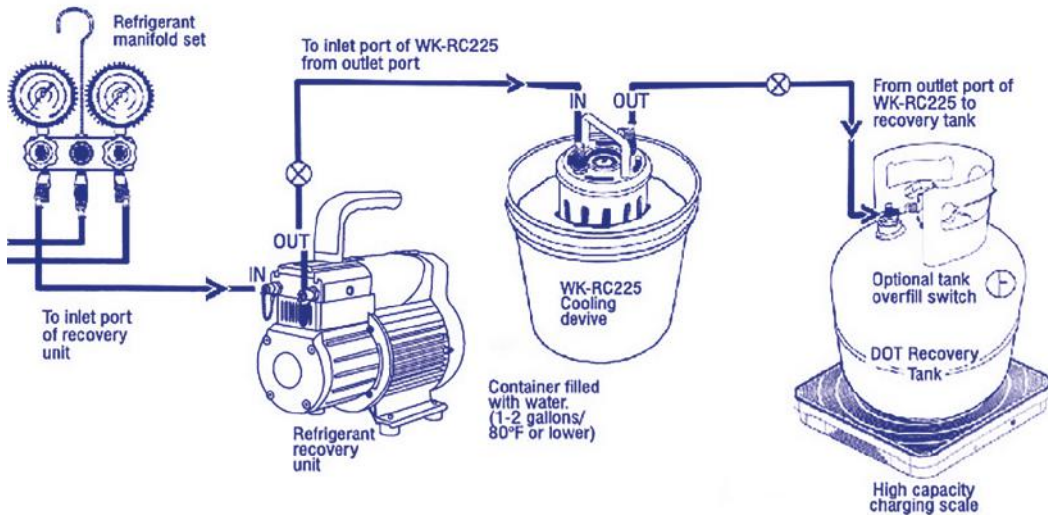
SUB-COOLER MOLECULAR TRANSFORMATOR

As the temperature/pressure increases in the recovery cylinder, the speed of the recovery process will fall until it stops due to high stop pressure.

The RC225 Molecular Transformator truly helps in the transformation of high-temperature/pressure vapour refrigerant into low temperature/pressure liquid refrigerant, dramatically improving the recovery speed and efficiency.

Designed for use with all the brands of recovery equipment available. It is extremely easy to use and saves time and money.

CODE	DESCRIPTION	
OXYRC225	Sub-Cooler RC225 Molecular Transformator	1



**NEW**

# VA3-P7-EX VACUUM PUMP FOR FLAMMABLE REFRIGERANTS WITH ATEX CERTIFICATION

Suitable for working with A1, A2L, A2 & A3 (R-290, R-600a, R-32, R-1234yf...)



## SAFETY · RELIABILITY

### Sparkless, Ignition-Proof Design

- Conform to ATEX CSANe 22ATEX1160X.
- Suitable for R-290, R600a.

### Internal Check Valve

- Prevent oil backflow.

### Dual-Stage Integrated Cylinder Design

- High ultimate vacuum.
- High reliability.

### Forced Oil Circulation

- Improved efficiency and durability.

### Lifting Hook

- Safe & convenient for rooftop use.

Model	VA3-P7-EX
Flow Rate (L/min)	198
Ultimate Vacuum (micron)	15
Pump Design	Dual stage
Moto Power 50/60 HZ (w)	560
Inlet Port	1/4" - 3/8" SAE
Oil Capacity (ml)	426
Dimensions (mm)	346x130x287
Wheight (Kg)	11.8
ATEX N°	CSANe 22ATEX1160X

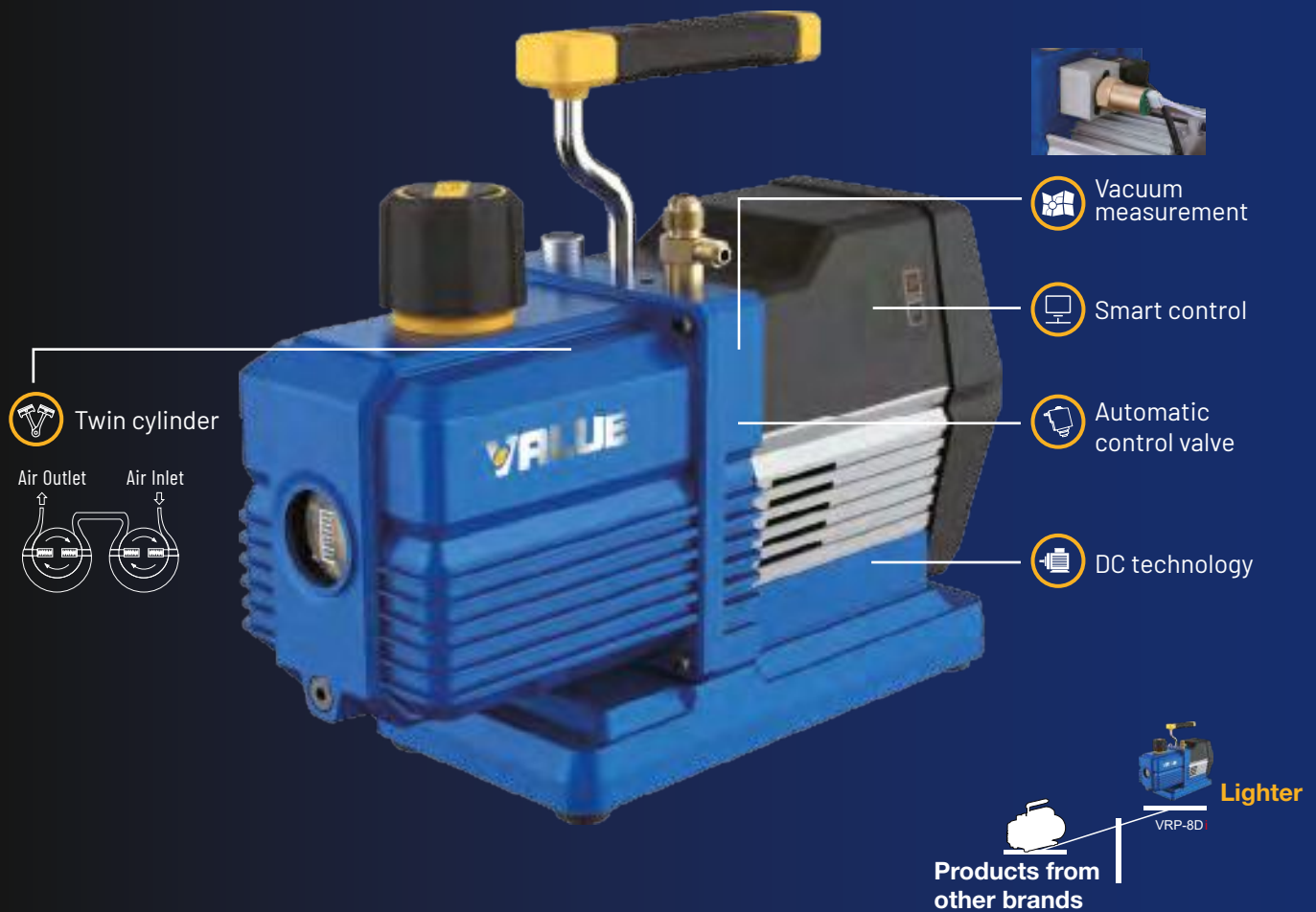
**VRP-6Di | VRP-8Di**

170 L/min

226 L/min

**SMART VACUUM PUMP**

Suitable for working with R-32 Y R-1234yf



**SMART CONTROL TECHNOLOGY**

**DC technology**

- Lighter.
- More efficient.

**Smart Control**

- Extended evacuation for a better vacuum.
- Automatic Control.
- Task reminder.

**Vacuum measuring technology**

- Precise micron measurement.
- Vacuum digital display.

**Dual Stage**

- Higher ultimate vacuum.

**Automatic Control Valve**

- Prevents oil backflow.
- Preserves the vacuum.

## DUAL STAGE VACUUM PUMP R-32 PUMP SERIES

### V-H215S-V MINISERIES

- THE SMALLEST AND LIGHTEST, SUITABLE FOR R-32
- Suitable for work with A2L gases (e.g., R-32, R-1234yf...)
- High-performance mini vacuum pump.




CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS	SIZE	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVH215SV	42	150	15	1/4"	240 x 88 x 183	5,10	110	1

### V-I YR32 SERIES

- Suitable for work with A2L gases (e.g., R-32, R-1234yf...)
- Includes solenoid valve and vacuum gauge.
- Dual stage, high pump speed, greater final vacuum (15 microns).
- Vacuum gauge included in the case for better protection.
- No-return valve, stops oil from getting back into the system.
- Gas ballast that prevents humidity condensation and keeps the oil pure in the pump.
- Suction filter that stops foreign substances getting into the pumping chamber.
- Heat protection on the motor.
- Robust and comfortable handle.



CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS	SIZE	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVI220YR32	51	248	15	1/4"	318 x 124 x 265	9	200	1
GRTVI240YR32	100	373	15	1/4"	338 x 138 x 248	11	325	1
GRTVI260YR32	142	560	15	1/4"	395 x 145 x 270	16,6	460	1
GRTVI280YR32	198	746	15	1/4"	395 x 145 x 270	17	500	1

### MAXIMUM POWER AND SAFETY. EXCEPTIONALLY LIGHT

- Suitable for work with A2L gases (e.g., R-32, R-1234yf...)
- Brushless motor, no sparks.
- Integrated cylindrical structure that ensures a high final vacuum level (15 microns).
- Forced lubrication, more reliable.
- Large oil level sight glass.
- Lighter, compact and comfortable.



CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS	SIZE	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVI2120	340	746	15	1/4" - 3/8"	345 x 135 x 280	11.5	500	1

**NAVTEK**<sup>™</sup>

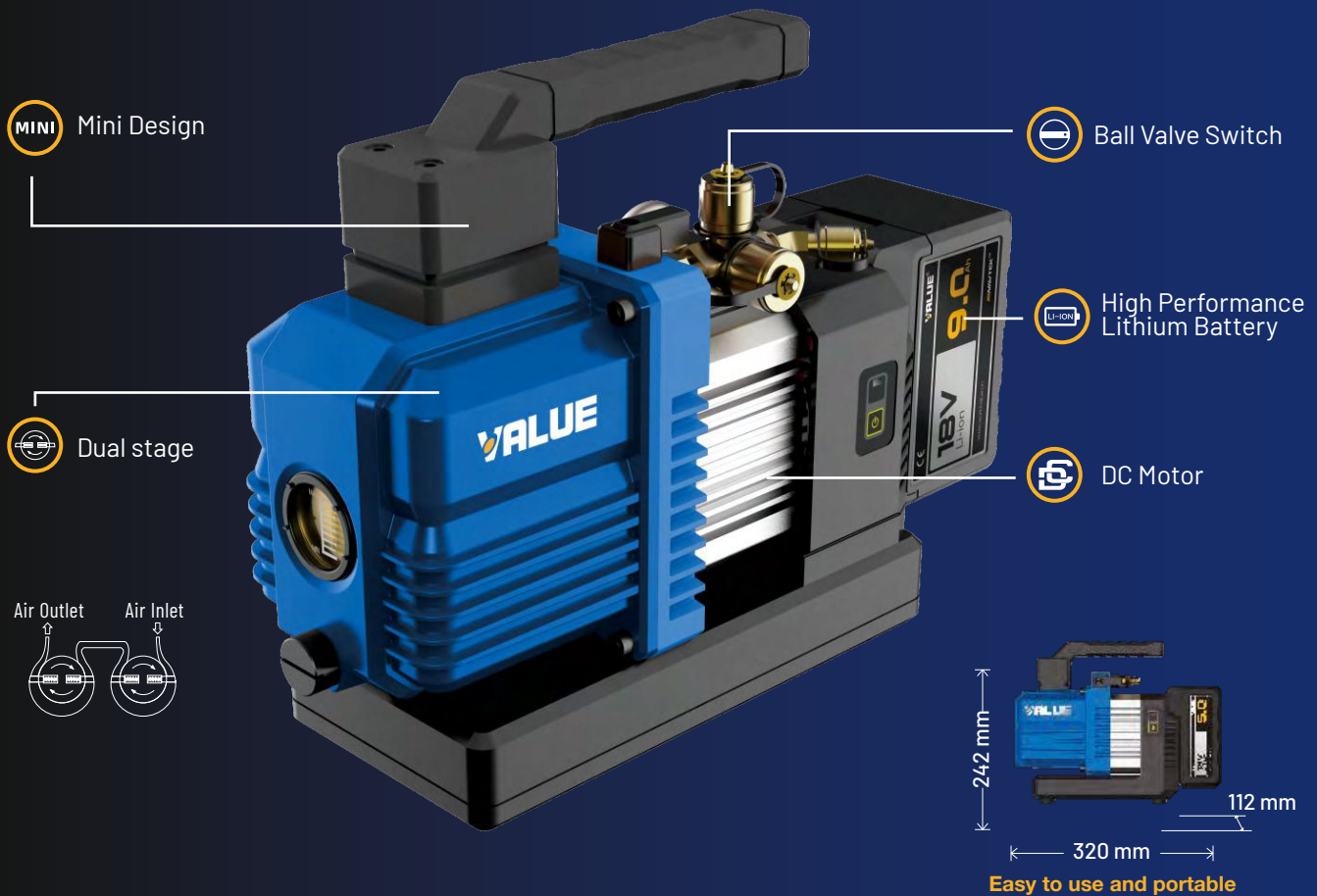
**VRP-4DLi**

114 L/min

**LI-BATTERY VACUUM PUMP**

Suitable for working with A2L gases (R-32, R-1234yf...)

**NEW**  
**R-32**



**LITHIUM-POWERED, PORTABLE AND LIGHT**

**DC Motor**

- Lighter weight, more powerful, Faster evacuation.

**Ball Valve Switch**

- Easy operation, better experience.
- Easy-to-turn off.

**High Performance Lithium Battery**

- Running time reaches 50 minutes.

**Big Sight Glass**

- Easy-to-see.
- Ensuring high-reliability operation.

**Mini Design**

- Easy-to-use & portable.

### VRP SERIES

#### LIGHT AND PORTABLE LI-ION BATTERY

Suitable for work with A2L gases (e.g., R-32, R-1234yf...)

- High-performance Li-ion battery. Usage time up to 50 minutes.
- Easy to use, compact and portable.
- DC motor. Lightest technology, greatest power.
- Dual-stage. Better final vacuum.
- Ball valve switch. Easy to switch off.



CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS (SAE)	SIZE (mm)	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVRP2DLI	57	18 V / 5 Ah (50 min)	23	7/16"	233x90x190	3,2	160	1
GRTVRP4DLI	114	18 V / 9 Ah (50 min)	15	1/4" - 3/8"	320x112x242	7	260	1

#### SMART CONTROL TECHNOLOGY

Suitable for working with R-32 and R-1234yf.

- Digital display, automatic control and sound alert for the final vacuum.
- Brushless motor, no sparks (DC technology).



CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS (SAE)	SIZE (mm)	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVRP6DI	170	560	15	1/4" - 3/8"	346 x 145 x 302	11,5	600	1
GRTVRP8DI	226	560	15	1/4" - 3/8"	346 x 145 x 302	11,5	600	1

#### DOUBLE, SPEED, ROBUSTNESS AND POWER

Suitable for working with R-32, R-1234yf and R-717 (NH<sub>3</sub>).

- Brushless motor, no sparks!
- Light and quick.
- Suitable for industrial use: reaches a vacuum of 5 microns.
- Integrated automatic non-return valve.



CODE	RATED FLOW (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS (SAE)	SIZE (mm)	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVRP15DN	425	560	5	1/4" - 3/8"-1/2"	561,5 x 230,5 x 356	14,5	880	1
OXYKF25	-	-	-	KF25 - 12 mm - G1/2	-	-	-	1

\*XYKF25 output accessory set for R-717 (NH<sub>3</sub>), not included.

**NAVTEK**<sup>™</sup>

**VRP-15DN  
 PORTABLE INDUSTRIAL VACUUM PUMP**


Suitable for working with R-32, R-1234yf and R-717 (NH<sub>3</sub>)


**425 L/min**      **5 micron**

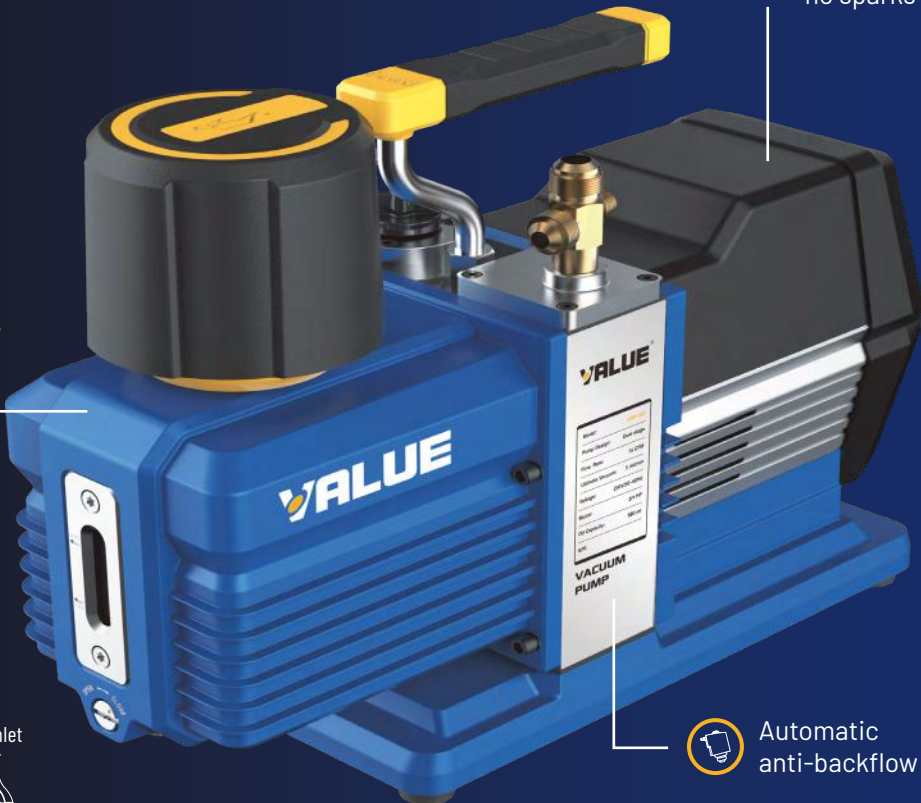
**Anti-backflow**      *In-built automatic non-return valve*


**Double speed, robustness and power**

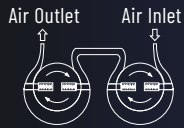


 Twin cylinder

 DC technology  
 Brushless motor,  
 no sparks



 Automatic anti-backflow valve



Products from other brands

## VACUUM PUMP FOR FLAMMABLE REFRIGERANTS WITH ATEX CERTIFICATION



### VA3-P7-EX

- Suitable for working with A1, A2L, A2 & A3 (R-290, R-600a, R-32, R-1234yf...)
- Sparkless, Ignition-Proof Design.
- Conform to ATEX CSANe 22ATEX1160X.
- Internal Check Valve:
  - Prevent oil backflow.
- Dual-Stage Integrated Cylinder Design
- High ultimate vacuum.
- High reliability.
- Improved efficiency and durability.



CODE	MODEL	DESCRIPTION
GRTVA3P7EX	VA3-P7-EX	Vacuum pump for flammable refrigerants

## DUAL-ACTION VACUUM PUMPS | PUMP SERIES

Vacuum pumps for demanding professional that want a high-performance yet competitive vacuum pump.

- Innovative design with a solenoid valve** that completely prevents oil backflow. Specifically designed for working with R410A.
- High-precision vacuum gauge** that shows us the level of vacuum reached.
- Large oil screen.** Force-feed lubrication design even at very low levels, avoiding work without oil for long-lasting and reliable usage.
- Body structure with integrated pump.** Final vacuum 15 micron.

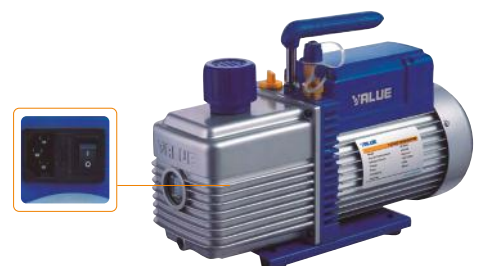
CODE	NOMINAL CAPACITY (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS (SAE)	SIZE (mm)	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVI220SV	51	248	15	1/4"	318 x 124 x 265	9	200	1
GRTVE245NSV	128	373	15	1/4"	338 x 138 x 244	10.4	325	1
GRTVI280SV	198	746	15	1/4" - 5/16"	395 x 145 x 318	17	500	1

## VE N SERIES

Dual-stage DUAL-VOLTAGE vacuum pump. You can change the power supply from 110V to 220V at the press of a button.


### DUAL VOLTAGE: POWER SUPPLY CONVERTER SWITCH.

- Make sure the switch is on the right setting, 110V or 220V, before use.



CODE	NOMINAL CAPACITY (L/MIN)	POWER 50/60 HZ (W)	FINAL VACUUM (MICRON)	CONNECTIONS (SAE)	SIZE (mm)	WEIGHT (KG)	OIL CHARGE (ML)	
GRTVE245ND	128	373	15	1/4" - 3/8"	338 x 138 x 244	10.4	325	1

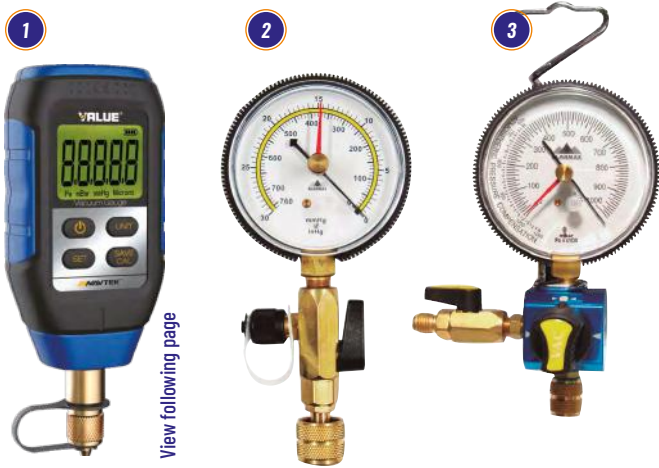
LUBRICANTS FOR VACUUM PUMPS

CODE	MODEL	VISCOSITY	CAPACITY (L)	TYPE	
OXYOILVI2120		68	0,25	Mineral	20
RIT93092/1		68	1	Mineral	12
THUTL68001	TL-68	68	1	Ester	12



VACUUM GAUGES AND MANIFOLD VACUUM GAUGE

CODE	DESCRIPTION	MODEL
OXYVMV1	VMV-1 NAVTEK digital vacuum gauge	1
OXY50208	Vacuum gauge with ball valve	2
OXY83980	Vacuum gauge with ball valve and leak test	3



View following page

VACUUM PUMP REPLACEMENT PARTS

CODE	DESCRIPTION	MODEL
OXYVAC	1/8" NPT M radial connection vacuum gauge	4
OXYVAC215	Vacuum gauge for V-i215	
OXYVAC220	Vacuum gauge for V-i220YR32	
OXYVAC240	Vacuum gauge for V-i240YR32	
OXYSOLVAC	Vacuum gauge with solenoid valve	
OXYSOLVAC215	Vacuum gauge with solenoid valve for VH-215	
OXYRECRE010	Replacement solenoid valve for vacuum pump	
OXYRECRE031	Replacement battery for VRP-2DLi vacuum pump	

Pressure gauge



Pressure gauge



Pump

Turn the dial to 9 o'clock - drainage

Turn the dial to 12 o'clock - system leak test



TECHNICAL DATA:

- Diameter: Ø68mm.
- Connection: Vertical port 1/8" NPT Male.
- Units: mbar.

VACUUM HOSES "HIGH-FLOW"

NEW

Reduces vacuum time by more than 50%.



See page 85.



# VMV-1 DIGITAL VACUUM GAUGE

Traditional measuring instruments are generally bulky, heavy and awkward to transport. The **NAVTEK** digital vacuum gauge uses precision technology with a cutting-edge light and ergonomic design.

The VMV-1 uses a high-precision Pirani sensor. It has a large digital display to make it easy to read. When reaching the pre-set vacuum level, it will buzz as a reminder. When the

vacuum level decreases from the pre-set vacuum level, it will buzz again rapidly, and the display light will flash to alert the user the presence of leaks.

**Making your job more enjoyable!**



- INCLUDES:**  
1/4" SAE M Tee (2) x 1/4" SAE H  
1/4" SAE HH 45° Elbow



Large backlit display to make it easy to read



**SUPPLIED WITH PRACTICAL CARRYING BAG**

Buzz alert



High-precision vacuum sensor



## PRECISE MEASUREMENT

### Ergonomic Design

- Easy to carry.

### Buzz alert

- Alert for the desired vacuum level.
- Loss of vacuum alert.

### Precision vacuum sensor

- More precise professional vacuum sensor.

Model	VMV-1
Maximum pressure	72PSI/0.5Mpa
Measurement range	0~10000 Pa, 0~100.00 mbar, 0~75.000 mmHg, 0~75000 Microns
Resolution	0.01 (<10 Pa), 0.0001 (<10 mbar), 0.0001(<10mmHg), 1 (<30000 Microns)
Precision	2~100Pa:±5 % of reading (at 20 °C)
Working temp.	0~50 °C
Vacuum units	Pa, mbar, mmHg, Microns
Sensor	Pirani
Buzz alert	90 db that stops after 10 seconds
Power supply	1.5V AAX3 (included)
Weight	Just 125 g

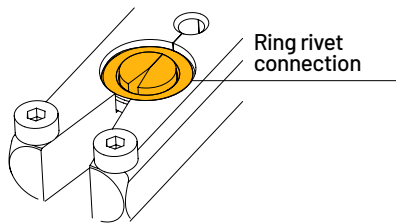
**FLARING TOOLS**

**VFT-808L**

VALUE's VFT-808L 45° Eccentric Flaring Tool is forged from high strength materials, offering a high performance tool.

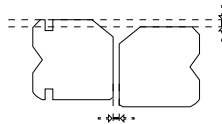
Low torque technology to reduce effort by up to 50%.

Thanks to its special mechanical design, manually applied torque is transferred directly onto the copper tube with minimal waste.



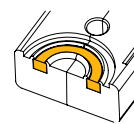
**Possible defects**

Uneven dimensions in the flare make it unusable.



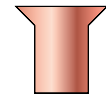
**Causes**

In traditional tools there is a lot of space between the upper and lower clamps, and between the left and right bars.



**Solutions**

The ring rivet connection ensures that the left and right bars never come out of engagement.



**Results**

Smooth and uniform flaring with precise dimensions.

CODE	MODEL	FOR DIAMETERS	INCLUDING	PACKAGING	
OXYVFT808IN	VFT-808L-I-N	1/4" - 5/16" - 3/8"	-	Blister	10
OXYVFT808I	VFT-808L-I	1/2" - 5/8" - 3/4"	-	Case	
OXYVFT808IS	VFT-808L-IS		VTC-32C tube cutter	Case	

**VFT-808E**

The 45° VFT-808E eccentric flaring tool from VALUE is designed to be used with a drill or manually. Quick, high-quality and minimal effort.



CODE	MODEL	FOR DIAMETERS	INCLUDING	PACKAGING	
OXYVFT808EI	VFT-808E-I	1/4" - 5/16" - 3/8" - 1/2"	-	Case	10
OXYVFT808EIS	VFT-808E-IS	5/8" - 3/4"	VTC-32 tube cutter VTT-5 reamer	Case	

# VET-19Li BATTERY-POWERED ELECTRIC FLARING TOOL



## QUICK AND ACCURATE FLARING

### Simple flaring

- Li-ion battery - wireless.
- One-key operation, high performance.

### 45° eccentric design

- Point contact reaming, accurate flaring.

### Innovative clamp

- Quick assembly.
- Accurate positioning, perfect flaring.

### Ergonomic handle

- Compact, just 1.3kg.
- Comfortable and effortless grip.

### Long-life battery

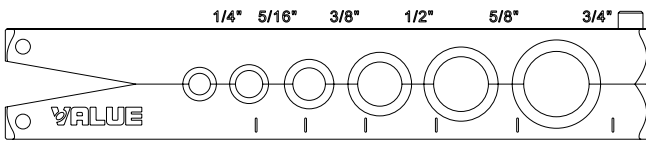
- 2000mAh Li-ion battery.
- Valid for 90 flaring tools (3/8").
- 50W fast charging. Fully charged in 35 min.

**VFT-808-U-I**

VALUE 45° VFT-808-U-I eccentric flaring tool. Quick attachment and position of the tube in an exact and reliable way for better flaring.

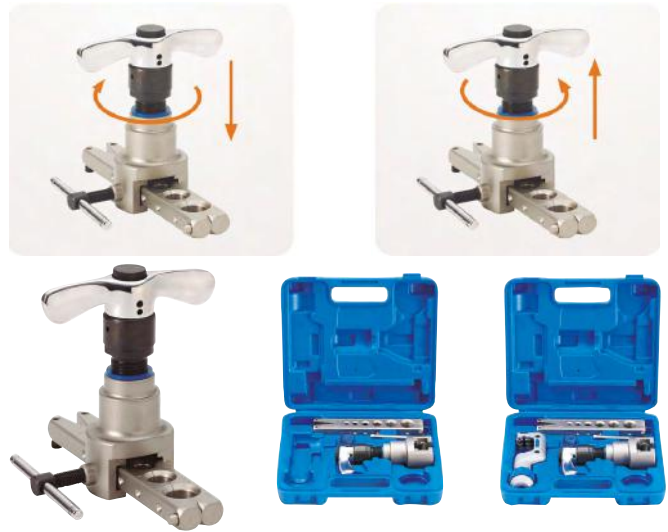


CODE	MODEL	FOR DIAMETERS	PACKAGING	
OXYVFT808UI	VFT-808-U-I	1/4" - 5/16" - 3/8" 1/2" - 5/8" - 3/4"	Case	10



**VFT-809**

VALUE 45° VFT-809 eccentric ratcheting flaring tool. Quick to use when flaring and loosening.



CODE	MODEL	FOR DIAMETERS	INCLUDING	PACKAGING	
OXYVFT809I	VFT-809-I	1/4" - 5/16" 3/8" - 1/2" 5/8" - 3/4"	-	Case	10
OXYVFT809IS	VFT-809-IS	1/4" - 5/16" 3/8" - 1/2" 5/8" - 3/4"	VTC-28B pipe cutter	Case	

CODE	DESCRIPTION
OXYRECAMBIO88	Replacement guide clamp for VFT-808 and VFT-809 flaring tools.

**VET-19LI ELECTRIC**

VALUE VET-19Li Battery-powered electric flaring tool. Quick and accurate flaring.



CODE	DESCRIPTION
OXYRECRE026	VET-19Li, VTE-29D and VTB-22L battery replacement
OXYRECRE003	1/4 VET-19Li clamp replacement
OXYRECRE004	3/8 VET-19Li clamp replacement
OXYRECRE005	1/2 VET-19Li clamp replacement
OXYRECRE006	5/8 VET-19Li clamp replacement
OXYRECRE007	3/4 VET-19Li clamp replacement

CODE	MODEL	BATTERY	FOR DIAMETERS	SIZE (mm)	WEIGHT	PACKAGING	
OXYVET19LI	VET-19Li	7.4V Li-ion battery	1/4" - 3/8" - 1/2" 5/8" - 3/4"	252 x 101 x 100	1.3 kg	Case	5

**DRILL HEADS**

**OXYE900F**

Set of 5 flaring tools for drill.



CODE	MODEL	FOR DIAMETERS	
OXYE900F	E900F	1/4"-3/8"-1/2"-5/8"-3/4"	10

**OXYE900S**

Set of 6 swaging tools for drill.



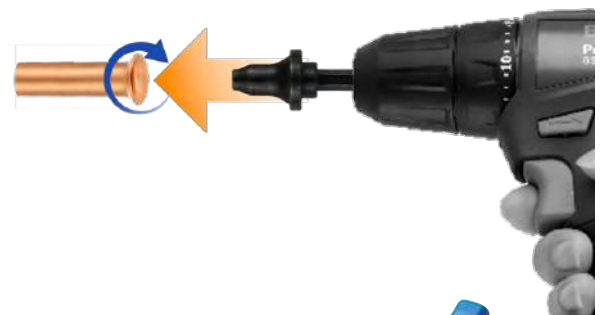
CODE	MODEL	FOR DIAMETERS	
OXYE900S	E900S	1/4"-3/8"-1/2"-5/8"-3/4"-7/8"	10

**OXYE9004S**

4-In-1 tube expander for drill.



CODE	MODEL	FOR DIAMETERS	
OXYE9004S	E9004S	1/4"-3/8"-1/2"-5/8"	10



**525-AM UNIVERSAL**

525-AM universal flaring tool



CODE	MODEL	FOR DIAMETERS	
OXY525AM	525-AM	3/16" a 5/8"	12

**VST-22B TUBE EXPANDER**



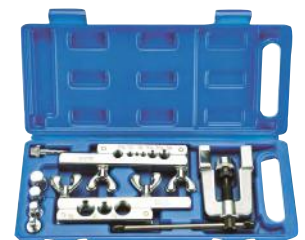
CODE	MODEL	FOR DIAMETERS	PACKAGING	
OXYVST22B	VST-22B	1/4" - 3/8" - 1/2" 5/8" - 3/4" - 7/8"	Blister	10

**HYDRAULIC TUBE EXPANDER**



REF	CODE	MODEL	FOR DIAMETERS	
1	OXY-193S	CT-193	1/4" - 5/16"	20
2	OXY-95S	CT-95	3/8" 1/2" - 5/8"	20

**FLARING TOOL  
TUBE EXPANDER**



CODE	MODEL	FOR DIAMETERS	PACKAGING	
OXY275AL	CT-275	1/8" - 3/16" - 1/4" 5/16" - 3/8" - 7/16" 1/2" - 5/8" - 3/4"	Case	12

# VTE-29D / VTE-42D POWER TUBE EXPANDER

**NEW**



## EFFORTLESS, QUICK & ACCURATE EXPANDING

- One-button operation.
- Automatic pressure relief.
- Quick connect heads.
- Large capacity lithium battery.
- Complete an expansion in 10 seconds.
- Up to 220 expansions per charge.
- Quick charge in 35 minutes.
- Innovative head design minimizing 3/8" tube splitting.
- Battery power indicator.
- LED Flash light.

Model	VTE-29D	VTE-42D
Battery	7.4 V Li-battery	7.4 V Li-battery
Applicable Pipe	Copper pipe	Copper pipe
For diameters	3/8" - 1/2" - 5/8" - 3/4" - 7/8" - 1" - 1 1/8"	3/8" - 1/2" - 5/8" - 3/4" - 7/8" - 1" - 1 1/8" - 1 1/4" - 1 3/8" - 1 1/2" - 1 5/8"
Dimensions (mm)	209x67x249	209x67x249
Weight	1.5 kg	1.5 kg
Includes	VTC-32C pipe cutter VTT-5 pencil reamer	VTC-42 pipe cutter VTT-5 pencil reamer
Packaging	Case	Case

**HYDRAULIC TUBE EXPANDER  
VHE-29E**



**NEW**

CODE	MODEL	FOR DIAMETERS	PACKAGING	INCLUDE
OXYVHE29A	VHE-29E	3/8" - 1/2" - 5/8" - 3/4" - 7/8" - 1" - 1 1/8"	Case	-
OXYVHE42B	VHE-29E	3/8" - 1/2" - 5/8" 3/4" - 7/8" - 1" - 1 1/8" - 1 3/8" - 1 5/8"	Case	VTC-42 Tube Cutter Reamer

**ELECTRIC PIPE EXPANDER  
VTE-29D / VTE-42D**

Electric battery-powered pipe expander VTE-29D y VTE-42D. Effortless, fast and accurate.

- Single button operation.
- Automatic pressure relief.
- Quick-connect heads.
- High-performance lithium battery.
- Complete an expansion in just 10 seconds.
- Up to 220 expansions per battery charge.
- Fast charge in 35 minutes.
- Innovative 3/8" head design minimizes defects.
- Battery power indicator.
- LED light.

CODE	MODEL	FOR DIAMETERS	DESCRIPTION
OXYVTE29D	VTE-29D	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8"	Power tube expander VTE-29D + pipe cutter VTC-32 + reamer
OXYVTE42D	VTE-29D	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 1/4", 1 3/8", 1 1/2", 1 5/8"	Ensanchatubos eléctrico VTE-29D + pipe cutter VTC-42 + reamer

CODE	DESCRIPTION
OXYRECRE026	Battery replacement for VET-19Li, VTE-29D & VTB-22L



Cabezal de conexión rápida

HEAD REPLACEMENT FOR VHE AND VTE	
CODE	DIAMETER
OXY2000E-3/8	3/8"
OXY2000E-1/2	1/2"
OXY2000E-5/8	5/8"
OXY2000E-3/4	3/4"
OXY2000E-7/8	7/8"
OXY2000E-1	1"
OXY2000E-1 1/8	1 1/8"
OXY2000E-1 1/4	1 1/4"
OXY2000E-1 3/8	1 3/8"
OXY2000E-1 1/2	1 1/2"
OXY2000E-1 5/8	1 5/8"

**VALUE TUBE CUTTER**

The VALUE VTC tube cutter is quick, precise and strong! Designed with bearings High quality alloy and blade.



VTC-32C/42/70

VTC-19

CODE	MODEL	FOR DIAMETERS	PACKAGING	
OXYVCT19	VTC-19	1/8" ÷ 3/4" (3-19 mm)	Blister	20
OXYVCT32C	VTC-32C	1/8" ÷ 1 1/4" (4-32 mm)	Blister	10
OXYV312	VTC-42	1/4" ÷ 1 5/8" (6-42 mm)	Blister	5
OXYVCT70	VTC-70	1/4" - 2 5/8" (6-67 mm)	Blister	6
OXY-CTB-002	-	Blade for VTC-19	-	
OXY-CTB-28	-	Blade for VTC-28 / VTC-28B	-	
OXY-CTB-003	-	VTC-42	-	
OXY-CTB-004	-	VTC-70	-	
OXY-CTB-32	-	Blade for VTC-32C	-	

**NEW**

# VTB-22L POWER TUBE BENDER



## INDUSTRY'S FIRST POWER TUBE BENDER

### Battery-Driven Effortless Bending

- Powerful for large size tubing.
- Push and hold for 90° bending.
- Automatic tube release.

### Large Lithium Battery

- Around 90 bends per charge.
- Quick charge in 35 minutes.

### Patented Tubing Size Selector

- 7 sizes in one selector.
- Easy switch to different tubing size setting.

### Other Features

- Quick connect mandrel and crossbar.
- Battery power indicator.

### Easy Operation

- Ergonomic handle design.
- Stop any time for customized angles.

Model	VTB-22L
Battery Type	7.2V 2Ah 14.4Wh
Tubing Type	Soft (HVACR) Copper
Tube OD	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8"
Weight (g)	2,8 kg (with battery)
Accessory	Carry Case

### VALUE VTB-22L BATTERY-POWERED ELECTRIC PIPE BENDER

VTB-22L Battery-powered electric pipe bender. The industry's first electric pipe bender.



- One-button operation.
- Quick-connect frame.
- 7-in-1 pipe size selector.
- Easy removal.
- High-capacity lithium battery.
- Battery charge indicator



CODE	MODEL	FOR DIAMETERS	
OXYVTB22L	VTB-22L	1/4" - 5/16" - 3/8" - 1/2" 5/8" - 3/4" - 7/8"	1
OXYNTBRK	-	-	1

\*OXYNTBRK Reverse Bending Kit (not included, sold separately)

CODE	DESCRIPTION
OXYRECRE026	Battery replacement for VET-19Li, VTE-29D & VTB-22L

### SPRING TUBE BENDER



CODE	FOR DIAMETERS	
OXY102F04	1/4"	20
OXY102F06	3/8"	
OXY102F08	1/2"	10
OXY102F10	5/8"	
OXY102F12	3/4"	
OXY102F13	3/8" - 1/2" - 5/8"	

### LEVER-STYLE TUBE BENDER



CODE	MODEL	FOR DIAMETERS	
OXY-369A	CT368A-90	1/4" - 5/16" - 3/8"	6
OXY-364-06	VBT-1	3/8"	
OXY-364-08	VBT-2	1/2"	
OXY-364-10	VBT-3	5/8"	
OXY-364-12	VBT-4	3/4"	
OXY-364-14	VBT-5	7/8"	

### RATCHET TUBE BENDER

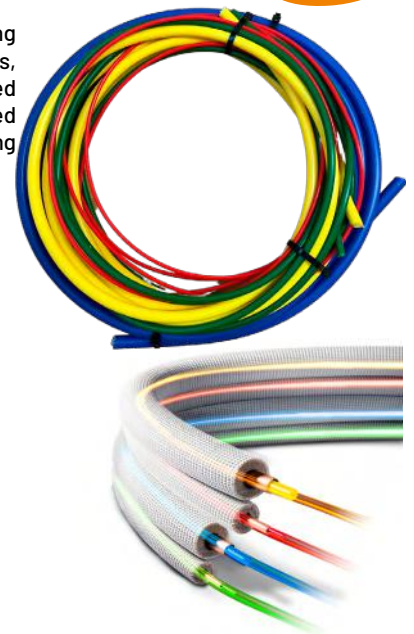


CODE	MODEL	FOR DIAMETERS	INCLUDING	
OXYWK666	WK666	1/4" - 5/16" 3/8" - 1/2"	Tube cutter	5
OXYCT999F	CT999F	1/4" - 5/16" - 3/8" 1/2" - 5/8" - 3/4" 7/8"	Tube cutter with reamer	

### THUNDER INTERNAL TUBE BENDER KIT

Pipe bender kit for air conditioning of various sizes, in 4 colours.

Facilitates the bending of air conditioning pipes, especially for insulated pipes, without the need to remove the insulating sheath.




CODE	FOR DIAMETERS	LENGTH	
OXYKITBENDER	1/4" - 3/8" - 1/2" 5/8" (4 colours)	4 m	5

# VMA-1 ANEMOMETER

The VMA-1 anemometer, with magnetic sensor technology and a precision computing amplifier chip allows users to directly convert the air-flow rate into electric signals; through the microprocessor chip it processes data and provides precise measurements on the digital display.

**Making your job more enjoyable!**



 High-sensitivity wind rotor

 Large Backlit Display

## PRECISE MEASUREMENT

### Ergonomic Design

- Easy to handle and transport.

### Large Backlit Display

- Large, easy-to-read digital display.
- Backlit display for greater clarity.

### High-sensitivity wind rotor

- 6-blade rotor.
- Low-friction bearing technology.

Model	VMA-1
<b>WIND SPEED</b>	
Measuring range (m/s)	0.0 ÷ 12
Wind-speed measurement accuracy	± (5 %rdg+0.5)
Wind-scale accuracy	±1
Wind-speed resolution (m/s)	0.1
<b>TEMPERATURE</b>	
Temperature accuracy (°C/°F)	±2
Resolution	0.1
Sampling rate (ms)	500
Battery (V)	1.5V AAAx3 (included)
LCD size (mm)	32 x 26
Weight (g)	95
Size (mm)	160 x 50 x 28

## THERMOMETERS

### INFRA-RED THERMOMETER

- Measurement accuracy:  $\pm 2^{\circ}\text{C}$  or 2%.
- Resolution: 0.1.
- Response time: 500ms.
- Weight: 185 g.
- Power supply (batteries): 1 x 9V included.



### VIT-300S

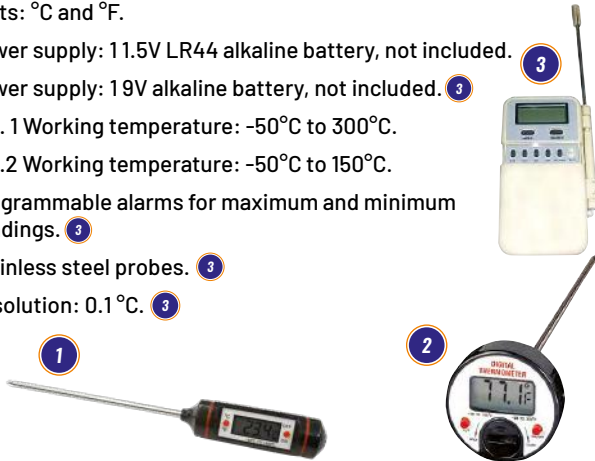
- Emissivity: 0.10 - 1.00 (adjustable).
- Temperature Range:  $-32^{\circ}\text{C}$  -  $400^{\circ}\text{C}$ .

CODE	MODEL	DESCRIPTION	
OXYVIT300S	VIT-300S	VIT300S infra-red thermometer	6

### DIGITAL POCKET THERMOMETER

Digital pocket thermometer.

- Units:  $^{\circ}\text{C}$  and  $^{\circ}\text{F}$ .
- Power supply: 11.5V LR44 alkaline battery, not included.
- Power supply: 19V alkaline battery, not included.
- Ref. 1 Working temperature:  $-50^{\circ}\text{C}$  to  $300^{\circ}\text{C}$ .
- Ref.2 Working temperature:  $-50^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ .
- Programmable alarms for maximum and minimum readings.
- Stainless steel probes.
- Resolution:  $0.1^{\circ}\text{C}$ .



REF.	CODE	DESCRIPTION	
1	OXYWTB1	Digital pocket thermometer	20
2	OXY36569	Digital pocket thermometer	20
3	OXYSA880SSX	Pocket thermometer	10

### DIGITAL TABLE-TOP THERMOMETER/HYGROMETER

- Clock and hygrometer function.
- $^{\circ}\text{C}$  and  $^{\circ}\text{F}$  units.
- Internal temperature range:  $-30^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ .
- External temperature range:  $-50^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ .
- Internal humidity range: 20% to 99%.
- Resolution:  $0.1^{\circ}\text{C}$  (temp.) / 1.0 (hum.).
- Automatically saves the Max./Min temperature and humidity values.
- Size: 111 x 101 x 21.5 mm.
- Power supply: a 1.5V battery (not included).



CODE	DESCRIPTION	
OXYWBT3	Tabletop thermometer	10

## CLAMP MULTIMETER

### VMC-1 DIGITAL CLAMP MULTIMETER

- Suitable for measuring AC/DC voltage, AC current, resistance, diode, continuity, capacitance, temperature  $^{\circ}\text{C}/^{\circ}\text{F}$  and data retention, measuring minimum/maximum values, relative value, NCV, etc.
- Low battery alert.
- 250V surge protection.
- Maximum voltage measurement: 600V.
- Maximum AC measurement: 400A
- Temperature measurement range:  $-40^{\circ}\text{C}$  ~  $1000^{\circ}\text{C}$ .
- Weight: 272g



CODE	MODEL	DESCRIPTION	
OXYVMC1	VMC-1	Digital clamp	5

## DIGITAL MULTIMETER

### VDM-151 DIGITAL MULTIMETER

- Max Voltage between neutral and ground: 1000Vrms
- Surge protection
- Function to keep the number of all the turns.
- Working temperature:  $0^{\circ}\text{C}$  -  $40^{\circ}\text{C}$
- Storage temperature:  $-10^{\circ}\text{C}$  -  $50^{\circ}\text{C}$
- DC: 1000V - 20A
- AC: 750V - 20A
- Resistance ( $\Omega$ ): 60M $\Omega$
- Capacitance (F): 100mF
- Frequency (Hz): 10MHz
- Size: 183x88x56 mm
- Weight: 346g (with batteries)
- Battery: 2 x 1.5V (AAA)



CODE	MODEL	DESCRIPTION	
OXYVDM151	VDM-151B	Digital multimeter	5

### AIR QUALITY METER (CO<sub>2</sub>, T<sup>a</sup>, HUMIDITY)

- Repeatability:  $\leq \pm 1\%$ .
- Response time: 1.5 s.
- Conditions of use:
  - $0^{\circ}\text{C}$  ~  $40^{\circ}\text{C}$
  - 20 % ~ 90 %
- Storage conditions:
  - $-10^{\circ}\text{C}$  ~  $60^{\circ}\text{C}$
  - 20 % ~ 90 %
- Power supply: 5V 1A
- Maximum consumption: 5V 1A
- Dimensions: 360 x 228 x 45 mm.
- Weight: 0.97 kg.

**NEW**



### MEASUREMENT DATA

	CONCENTRATION CO <sub>2</sub>	TEMPERATURE	HUMIDITY
MEASURING RANGE	400-5000 ppm	$-10^{\circ}\text{C}$ ~ $50^{\circ}\text{C}$	20 %-90 % RH
ACCURACY	$\pm 50$ ppm $\pm 5$ %	$\pm 1^{\circ}\text{C}$	$\pm 5$ %
RESOLUTION	1 ppm	$1^{\circ}\text{C}$	1 % RH

CODE	MODEL	DESCRIPTION	
OXYDM1307	DM1307	Carbon dioxide detecto	5

## INSTRUMENTATION AND LEAK DETECTION

### DIGITAL SONOMETER VALUE VMS-1

- Quick response.
- Efficient and precise.
- LCD display: 32 x 26 mm.
- Mode selector: Fast / Slow.
- Update time: Quick 125ms / Slow 1000ms.
- MAX and HOLD keys.

#### TECHNICAL DATA:

- Measuring range: 30~130 dB.
- Resolution: 0.1 dB.
- Precision: ±1.5 dB.
- Frequency (Hz): 31.5 Hz ~ 8 KHz.
- Compliance with regulations: EN61326 - EN61672-1.
- Battery: 3 x 1.5V (AAA).
- Size: 155 x 57 x 35 mm.
- Weight: 88 g.



CODE	MODEL	DESCRIPTION	
OXYVMS1	VMS-1	VMS-1 digital sonometer	12

### VALUE VMA-1 THERMOMETER-ANEMOMETER TECHNICAL DATA:

#### AIR SPEED

- Measurement range (m/s): 0.0 ÷ 12.
- Air speed accuracy: ±(5 % rdg + 0.5).
- Air scale accuracy: ±1.
- Air speed resolution (m/s): 0.1.

#### TEMPERATURE

- Accuracy (°C/°F): ±2.
- Resolution: 0.1.
- Sampling rate (ms): 500.
- Power supply (V): 1.5 V AAAx3 (included).
- LCD size (mm): 32 x 26.
- Weight (g): 95.



CODE	MODEL	DESCRIPTION	
OXYVMA1	VMA-1	Anemometer VMA-1	12

## PRESSURE REDUCERS

Applications in HVAC systems:

- Leak control.
- Leak testing.
- Circuit washing.
- Welding with nitrogen pressure.



### FOR NITROGEN (N<sub>2</sub>), NITROGEN/HYDROGEN MIXTURE (95 % N<sub>2</sub> + 5 % H<sub>2</sub>) AND CO<sub>2</sub>

REF.	CODE	GAS	CONNECTION		PRESSURE UP TO (bar)		INCLUDES ADAPTERS	FLOW RATE AT 60 bar (m <sup>3</sup> /h)
			INLET	OUTLET	INLET	SALIDA		
1	OXYMRN300200	N <sub>2</sub> , N <sub>2</sub> + H <sub>2</sub> & CO <sub>2</sub>	W21,8 x 1/14" RH	1/4" SAE M	300	200		
2	OXYMRN300601	N <sub>2</sub> & N <sub>2</sub> + H <sub>2</sub>	W21/8 x 1/14"RH	G3/8	300	60	G3/8 H x 1/4" SAE M 1/4" SAE H x 5/16" SAE M	150
3	OXYMRN300602	N <sub>2</sub> & N <sub>2</sub> + H <sub>2</sub>	W21/8 x 1/14"RH + M10 x 1	1/4" SAE M	300	60		50
4	OXYMRC30040	CO <sub>2</sub>	W21,8 x 1/14" H	G3/8	300	40	G3/8 H x 1/4" SAE M 1/4" SAE H x 5/16" SAE M	



INLET CONNECTION SUITABLE FOR REFILLABLE BOTTLES AND DISPOSABLE CONTAINERS

### KITS

REF.	CODE	GAS	CONNECTION		PRESSURE UP TO (bar)		INCLUDE	FLOW RATE AT 60 bar (m <sup>3</sup> /h)
			INLET	OUTLET	INLET	OUTLET		
1	OXYKITMRN1	N <sub>2</sub> , N <sub>2</sub> + H <sub>2</sub> & CO <sub>2</sub>	W21,8 x 1/14" RH	1/4" SAE M	300	200	Case and hoses	
3	OXYKITMRN2	N <sub>2</sub> & N <sub>2</sub> + H <sub>2</sub>	W21/8 x 1/14"RH + M10 x 1	1/4" SAE M	300	60	Case and hoses	50

### SPARE PARTS

REF.	CODE	DESCRIPTION
5	OXYMRNPLACA	Protection plate for OXYMRN300602
-	OXYMRN0400	Gauge spare part HP 0-400 bar
-	OXYMRN0100	Gauge spare part LP 0-100 bar
-	OXYMRN0060	Gauge spare part LP 0-60 bar
-	OXYTLP250	Heavy duty hose 2,5 m, 60 bar, connection 1/4" SAE



## PRESSURIZATION KIT FOR A/C AND REFRIGERATION

Allows pressurization of A/C and Refrigeration systems; it works by simulating the operating pressure reached by the systems under standard operating conditions.

The technician will be able to pressurize the system to the correct pressure, for a given refrigerant; The operating pressure of each refrigerant is shown on the gauge dial (each refrigerant is identified with different colors).

Once the operating pressure has been reached, the technician will be able to detect leaks in the systems (e.g. defective components, poorly made welds or flares) with the gauge included in the kit.

### APPLICATIONS:

- Pressure test for leak control.
- Checking pressure switches and pressure gauges in the installation.
- Welding with Nitrogen pressure.
- Cleaning the installation with Nitrogen.

### THE 3 KITS INCLUDE:

- 1 Flexible tube with ball valve and pressure gauge Ø80 class 1 (colour-coded sections).
- 1 Flexible hose 1/4" SAE 1000 mm (275 bar).
- 1 Adapter 1/4" SAE F x 5/16" SAE M.
- 1 Adapter 1/4" SAE M x 5/16" SAE F.
- 1 Nitrogen pressure regulator:
  - Input pressure: 200 bar.
  - Maximum output pressure: 0.5 ÷ 60 bar.
- 1 Plastic base for 950 cc container.
- 1 Sturdy case.

### THE NITROGEN/HYDROGEN MIXTURE KIT INCLUDES:

- 1 950 cc Nitrogen/Hydrogen mixture container (contains 105L / 114 gr of Nitrogen/Hydrogen mixture).

### THE NITROGEN KIT INCLUDES:

- 1 950 cc Nitrogen container (contains 105L / 121 gr of N<sub>2</sub>).

### THE AUTO NITROGEN/HYDROGEN MIXTURE KIT INCLUDES:

- 1 950 cc Nitrogen/Hydrogen mixture container (contains 105L/114 gr of Nitrogen/Hydrogen mixture).
- 1 High pressure quick coupling for R-134a.
- 1 High pressure quick coupling for R-1234yf.
- 1 adapter for R-134a hose (1/4" M SAE X 14 mm M).
- 1 adapter for R-1234yf hose (1/4" SAE M X 12 mm - 1.5 M).

## MINI PRESSURE REGULATOR

It is a mini pressure reducer for disposable nitrogen and nitrogen/hydrogen cylinders. It supports a maximum input pressure of 150 bar and has a maximum output pressure of 10 bar.

- Includes a 2 m hose with ball valve and 1/4 SAE connection.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITMN1020	MN1020	Mini pressure regulator	1



**Nitrogen/Hydrogen mixture (95 % N<sub>2</sub> + 5 % H<sub>2</sub>)**  
**200 bar cylinder + Nitrogen/Hydrogen mixture charge**  
 Cylinder in accordance with regulation 99/36/EC

GAS SERVEI CODE	DESCRIPTION	
OXYKITN2H2	Pressurization kit mix (N <sub>2</sub> /H <sub>2</sub> )	1
OXYKITN2	Pressurization kit (N <sub>2</sub> )	
OXYKITAUTN2H2	Pressurization kit for AUTO mix (N <sub>2</sub> /H <sub>2</sub> )	12
OXYGTXN2H2	Cylinder 950 cc mix (N <sub>2</sub> /H <sub>2</sub> )	
OXYGTXN2	Cylinder 950 cc Nitrogen (N <sub>2</sub> )	
SOLO145	Cylinder 950 cc with Oxygen (O <sub>2</sub> )	1
OXYN2H21MC	Cylinder 5L, (N <sub>2</sub> /H <sub>2</sub> ) mix	
OXYN2H23MC	Cylinder 14L, (N <sub>2</sub> /H <sub>2</sub> ) mix	

## INSTALLATION TEST PRESSURE GAUGE

### TECHNICAL DATA:

- Ball valve.
- Ø 80 mm, class 1.0 pressure gauge with defined sectors, with position meter and regulator.
- With black or green protection depending on the model.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITMAN1062	MN1062	1/4" SAE test pressure gauge	1
EITMAN1063	MN1063	5/16" SAE test pressure gauge for R-410A	

# VML-1 LEAK DETECTOR

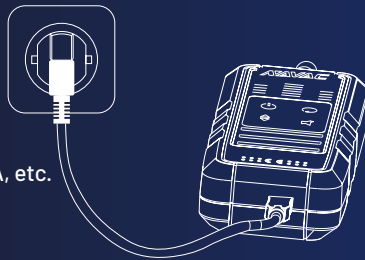


The new VML-1 leak detector with a semi-conductor is precise and has a long useful life. It includes a rechargeable Li-on battery and is easy to carry and use..

## Making your job more enjoyable!

### TECHNICAL DATA:

- Light and ergonomic.
- Re-chargeable Li-on battery.
- It detects all CFCs, HCFCs and HFCs.
- Suitable for A2L gases such as R-454C, R-455A, etc.
- Sensitivity 3g/year.
- Useful life of the sensor: 1 year of normal use.
- Probe length: 40cm.
- Response time: Instant.
- Calibration: automatic.
- Battery life: 8 hours.
- Weight (with battery/without): 380/280g.



Hot-wire semiconductor sensor



Li-on battery



External power source



CODE	DESCRIPTION
GRTVML1	VML-1 Leak detector

### UNIVERSAL EXTRACTOR TOOL

Universal access valve removal tool.



CODE	DESCRIPTION	
EITEXTOBUS	Universal valve stem removal tool (RL1001.R1)	10

### RATCHET WRENCHES

VRT-202



CODE	MODEL	FOR DIAMETERS	
OXY-H122	VRT-201	1/4" - 3/16" - 3/8" - 5/16"	25
OXY-H222	VRT-202	1/4" - 3/16" - 9/16" - 1/2"	

### FULL KIT OF TORQUE WRENCHES

Full kit of torque wrenches with adjustable tightening torque.



CODE	FOR DIAMETERS	PACKAGING	
OXY71300	17 - 22 - 24 - 26 - 27 -29	Case	1

### TUBE REAMERS

1



2



\*Includes one replacement head.

REF	CODE	DESCRIPTION	
1	OXY-208	Tube reamer	12
2	OXY-207	Inner-outer reamer	20

### INSPECTION MIRROR



CODE	DESCRIPTION	
OXYCT502	Ø5, 20 to 41cm inspection mirror	5

### VALVE CORE REMOVER/INSTALLER SCREWDRIVER

It allows you to remove access valve without losing refrigerant. In this way, we can load or recover refrigerant gas much quicker.

- Connection: 1/4" and 5/16" (R-410A).



CODE	MODEL	DESCRIPTION	
OXY41550	VCR1	Valve access removal/installer screwdriver 1/4" and 5/6"	10

### WRENCHES AND CUTTING PLIERS

1



2



3



4



REF	CODE	MODEL	DESCRIPTION	
1	OXY-128	VRT-101	Capillary tube cutter	12
2	OXY-201	VRT-102	Tube crimper	
3	OXY70075	70075	Tubing hole punch	5
4	OXY70950	70950	Plastic tube cutter	

### FIN STRAIGHTENER

1



2



REF	CODE	DESCRIPTION	
1	OXY-351	Plastic fin straightener	20
2	OXY-352	Metal fin straightener	10

**BOTTLE ADAPTERS**

REF.	CODE	DESCRIPTION	
1	MVAUTY000112	Freon H 21,8 x M 1/4" SAE cylinder adapter	10
3	MVAUTY000113	Freon H 21,8 x M 3/8" SAE cylinder adapter	
2	MVAUTY000114	Freon H 21,8 x M 5/16" SAE cylinder adapter	
3	MVAUTY000120	R600a, R290, R32, (H 21,8 IZQ. x M 1/4" SAE) cylinder adapter	
4	MVAUTY000121	Valve adapter R410A, R32 (H 21,8 IZQ. x M 5/16" SAE)	
5	MVAUTY000122	Adaptor H 21.8 IZQ. x quick coupling system R-1234yf	
6	MVAUTY000123	Adaptor H 7.9 IZQ. x quick coupling system R-1234y	
7	MVAUTY000124	M 1/2" SAE IZQ x H 1/4" SAE R-1234yf adapter	
8	MVAUTY000125	Valve adaptor H 1/2" ACME IZQ x M 1/4" SAE	
9	MVAUTY000126	Gasket for couplings	
10	YFGUR3-064	Bottle adapter M-H 3/8" X 1/4" SAE	



**QUICK COUPLERS FOR R-134a AND R-1234yf**

**QUICK COUPLER**

CODE	DESCRIPTION	
OXY-1305-H	High quick coupler, 1/4" SAE M	10
OXY-1305-L	Low quick coupler, 1/4" SAE M	
OXYVHFSA	Low and High Quick Couplers, 1/4" SAE M	5
OXYVHFSB/H	High Quick couple M14x1.5 F	10
OXYVHFSB/L	Low Quick couple M14x1.5 F	
OXYVHFSB	Low and Quick High and Low M14x1.5F	5
OXYVHF1234/H	High Quick couple M12x1.5 F for R1234yf	10
OXYVHF1234/L	Low Quick couple M12x1.5 F for R1234yf	
OXYVHF1234	Low and Quick High and Low M12x1.5F for R1234yf	5



**HOSE ADAPTERS**

CODE	DESCRIPTION	
YFGAL0191	1/4" F X 5/16" M SAE, 2 depressors	10
YFGAL0192	5/16" F X 1/4" M SAE 2 depressors	
YFGAL0180	1/4" F X 45° rotary 1/4" F SAE	
YFGAL0181	1/4" F X 45° rotary 5/16" F SAE	
<b>FOR R-134a</b>		
YFGLX1304H	1/4" SAE M x 14mm M	10
YFGAL0182	1/2" ACME H X 45° swivel 1/4" H SAE	
<b>FOR R1234YF</b>		
YFG33120	1/4" SAE (M) x 12mm-1.5 (M)	10



**LIQUID PHASE CHARGING ADAPTER**

Since most new refrigerants are non-azeotropic mixtures and must be charged via the liquid phase, it may be the case that when charging the product via the suction line, a liquid shock may occur in the compressor. This valve expands the liquid before the refrigerant enters the system, preventing the liquid shock.



CODE	DESCRIPTION	
RIT41123	1/4" liquid phase charging adapter	10

## BALL VALVES

### 1/2"- 16 ACME CONNECTORS



CODE	DESCRIPTION	
WIG121RGA	1/2"-16ACME F x 1/2"-16ACME M	12

### MALE X MALE (SAE)



CODE	DESCRIPTION	
OXY33011	1/4" SAE - M x M	12
OXY33013	5/16" SAE - M x M	
OXY33017	3/8"FL SAE - M x M	

### 1/4" FEMALE X MALE (SAE)



CODE	DESCRIPTION	
OXY33014	1/4"H x 5/16"M	12
OXY33021	1/4"H x 1/4"M	
OXY33038	1/4"H x 3/8" M	

### 3/8" FEMALE X MALE (SAE)



CODE	DESCRIPTION	
OXY33029	3/8"H x 1/4"M	12
OXY33027	3/8"H x 3/8"M	

## SHUT-OFF QUICK CONNECTIONS

Quick connection to the service valve. When disconnecting, it retains the coolant in the hose. Avoid loss of coolant and burns when disconnecting.

CODE	DESCRIPTION	
OXY30035	Auto shut-off adapter, 1/4" F x M straight	6
OXY30045	Auto shut-off adapter, 5/16" F x M straight	
OXY30033	Auto shut-off adapter, 1/4" F X M 90°	
OXY30034	Auto shut-off adapter, 5/16" F X M 90°	



## IMPERIAL QUICK CONNECTIONS FULL AND AUTOMATIC

### DEPRESSURE OF SERVICE VALVES.

CODE	DESCRIPTION	
OXY16-C	Straight quick coupling 1/4" SAE FTG x 1/4 C	5
OXY17-C	90° quick coupling 1/4" SAE FTG x 1/4 C	
OXY26-C	Straight quick coupling FTGXC 5/16" SAE	
OXY27-C	90° quick coupling FTGXC 5/16" SAE	



## THUNDER BULLET PIERCING VALVE

### BULLET PIERCING VALVES FOR COPPER TUBE FROM 1/4" TO 5/8".

CODE	FOR TUBE SIZE	CONNECTION	
OXY041-04	1/4" - 5/16" - 3/8"	1/4" SAE	10
OXY041-08	1/2" - 5/8"	1/4" SAE	



Eckerle condensate pumps are pumps manufactured in Germany and are highly regarded internationally due to their reliability, quality and low noise level.

The Eckerle condensate pump range covers all the applications found in A/C and heating installations.

# 8 CONDENSATE PUMPS

VALUE CONDENSATE PUMPS.....	128
ECKERLE CONDENSATE PUMPS.....	130
• PUMPKIN®10.....	131

# M1/M2 (WALL MODEL)

## S1/S2

FOR AC UNITS UP TO 9/13KW

In the past, gravity drainage was used in AC units to eliminate condensates. This method has many restrictions on installation, and once the drainage is blocked, it will inevitably damage the building wall surface, and it may also endanger the health and safety by accumulating bacteria and fungi.


To solve these problems, VALUE has developed a range of M1/M2 and S1/S2 condensate pumps to achieve cutting-edge technology in terms of function and structure with a very small size.

The electrode water level sensor can solve the problem of the traditional float water level sensor, such as water absorption and stagnation. The inlet and outlet pipes are made of silicone and have a service life of up to 10 years.

It's excellent appearance and ultra-silent design make it perfect for domestic use. The industry's favourite highly reliable condensate pump.

**MINI**  
 COMPACT

  
 QUIET OPERATION

  
 ELECTRODE WATER  
 LEVEL SENSOR

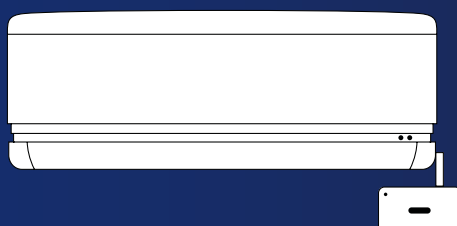
  
 24 H AUTOMATIC  
 DRAINAGE

  
 BUILT-IN FILTER NET

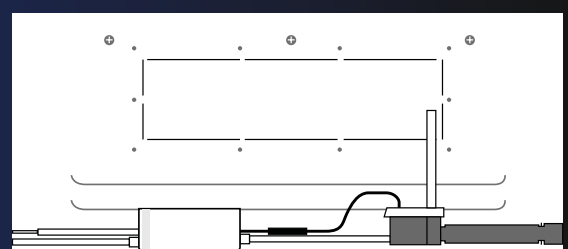


### Installation

M1 / M2

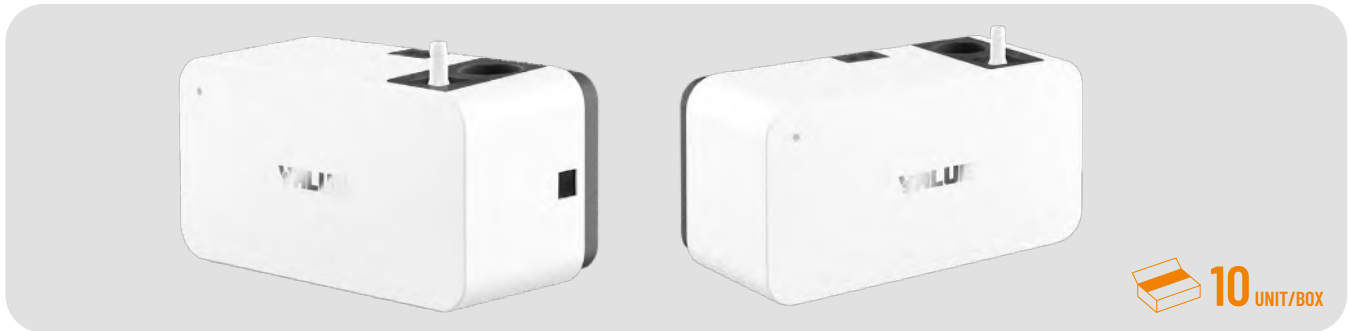
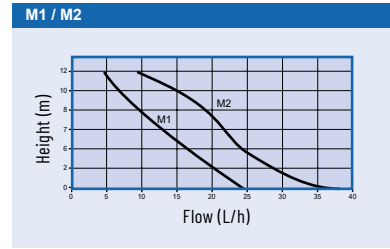


S1 / S2



M1/M2 FOR AIR-CONDITIONING EQUIPMENT UP TO 9/13KW

VALUE CONDENSATE PUMPS

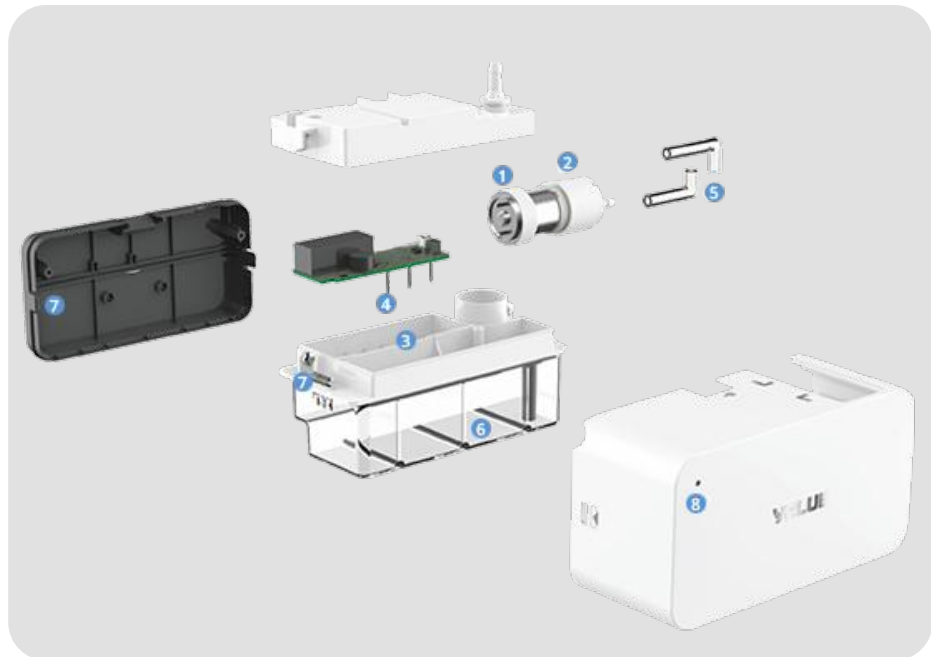


FEATURES:

- ① DC motor, quiet operation.
- ② Motor with silicone sleeve, effective shock absorption, ultra low noise.
- ③ Water pipe isolates from PCB, anti-leakage & anti-short circuit.
- ④ Electrode water level sensor, solving water absorption and clamping stagnation problem of traditional float water level sensor.
- ⑤ Internal silicon hose, life up to 10 years.
- ⑥ Large capacity water tank, reducing work times and extending life.

EASY MAINTENANCE

- ⑦ Snap-on structure, easy disassembling and cleaning of water tank.
- ⑧ LED light display, effectively monitor product running condition



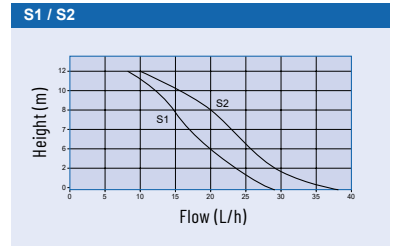
MODEL	M1	M2
GS CODE	OXYM124LH	OXYM240LH
MAXIMUM POWER (KW / BTU/H)	9 / 30.000	13 / 45.000
MAXIMUM FLOW RATE (L/H)	24	40
MAXIMUM IMPULSION (M)	12	12
TANK CAPACITY (ml)	200	200
LEVEL SOUND AT 1 M (DB)	19	19
LEVEL SENSOR	Electrode	Electrode
ELECTRICAL DATA	100-240 V / 50-60 Hz	100-240 V / 50-60 Hz
DIMENSIONS (mm) (LENGTH X WIDTH X HEIGHT)	164 x 85 x 95	164 x 85 x 95
AMBIENT TEMPERATURE (°C)	0 ~ 50	0 ~ 50



\* Electrode level sensor

**S1/S2** FOR AIR-CONDITIONING EQUIPMENT UP TO 9/13KW

**VALUE MINI CONDENSATE PUMPS**

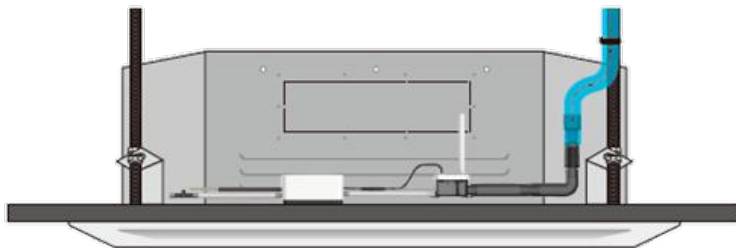


**FEATURES:**

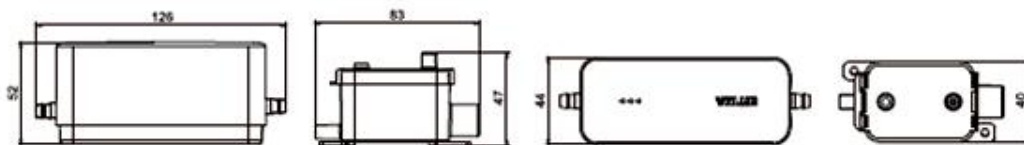
- DC motor (ULTRA SILENT).
- Compact (MINI).
- Electrode water level sector.
- 24/7 automatic drainage.
- In-built filter.



**INSTALLATION:**



**DIMENSIONS:**



MODEL	S1	S2
GS CODE	OXYS124LH	OXYS240LH
MAXIMUM POWER (KW / BTU/H)	9 / 30.000	13 / 45.000
MAXIMUM FLOW RATE (L/H)	24	40
MAXIMUM IMPULSION (M)	10	10
TANK CAPACITY (ml)	50	50
LEVEL SOUND AT 1 M (DB)	19	21
LEVEL SENSOR	Electrodo	Electrodo
ELECTRICAL DATA	100-240 V / 50-60 Hz	100-240 V / 50-60 Hz
AMBIENT TEMPERATURE (°C)	0 ~ 50	0 ~ 50



\* Electrode level sensor

**EE 600** FOR AIR CONDITIONING EQUIPMENT UP TO 7.5 KW

**MINI PUMP WITH DETECTION BLOCK WITH FLOAT WITH 2 DETECTION LEVELS**

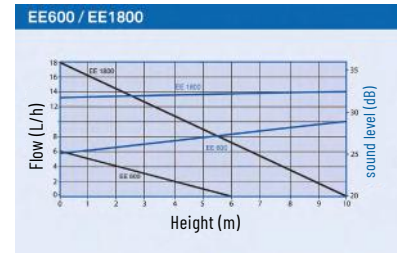
This condensate pump is normally used in wall and ceiling type air conditioning equipment that has limited space. The detection block, which is small in size, can easily be adapted to the equipment drain hose.

**DESCRIPTION:**

The EE600 condensate pump consists of a pump block and a detection block that includes a float with 2 detection levels. The pump has 2 self-adhesive sheets to easily fix the pump block and the detection block.

**TECHNICAL DATA:**

- Pump block: (length x width x height): 77 x 32 x 50 mm.
- Electrical data: 230 V, 50/60 Hz, 18 VA.
- Detection block: (length x width x height): 82 x 39 x 39 mm.
- Maximum flow rate: 6 l/h.
- Maximum discharge: 6 m.
- Maximum suction: 1,5 m.
- Code: BCEEE0600.



**EE 1000** FOR AIR CONDITIONING EQUIPMENT UP TO 10 KW

**MINI PUMP WITH DETECTION BLOCK WITH FLOAT WITH 3 DETECTION LEVELS**

This condensate pump is normally used in wall and ceiling type air conditioning equipment which have limited space. The detection block, which is small in size, can easily be adapted to the equipment's drain hose.

**DESCRIPTION:**

The EE1000 condensate pump consists of a pump block and a detection block which includes a float with 3 detection levels. In addition to the ON/OFF function, the pump has a voltage-free alarm contact (240 volts / 8 A resistive). The pump has 2 self-adhesive sheets to easily fix the pump block and the detection block.

**TECHNICAL DATA:**

- Pump block: (length x width x height): 77 x 37,5 x 62 mm.
- Electrical data: 230 V, 50/60 Hz, 18 VA.
- Maximum flow rate: 10 l/h.
- Detection block: (length x width x height): 82 x 39 x 39 mm.
- Delivery: 10 m.
- Maximum suction: 1,5 m.
- Alarm contact: max 230 V, 8 Amps NO/NC.
- Code: BCEEE1000.



**EE 1800** FOR AIR CONDITIONING EQUIPMENT UP TO 18 KW

**MINI PUMP WITH DETECTION BLOCK**

This condensate pump is normally used in wall and ceiling type air conditioning equipment that has limited space. The detection block, which is small in size, can be easily adapted to the equipment's drain hose

**DESCRIPTION:**

The EE 1800 condensate pump consists of a pump block and a detection block that includes a float with 3 detection levels. In addition to the ON/OFF function, the pump has a voltage-free alarm contact (240 volts / 8 A resistive). The pump has 2 self-adhesive sheets to easily fix the pump block and the detection block.

**TECHNICAL DATA:**

- Electrical data: 230 V, 50/60 Hz, 18 VA.
- Maximum delivery height: 10 m.
- Maximum flow rate: 18 l/h.
- Maximum suction: 2,5 m.
- Pump block (length x width x height): 77 x 37,5 x 62 mm.
- Pump block (length x width x height): 82 x 39 x 39 mm.
- Alarm contact: 230 V, 50/60 Hz, 18 VA.
- Code: BCEEE1800.



**PUMPKIN®10** FOR AIR CONDITIONING EQUIPMENT UP TO 10 KW.

Affordable. Compact. Orange. The new PUMPKIN®10 condensate pump is the ideal solution for use in air conditioning systems. With its slim design and low noise level, it is the perfect choice for air conditioning units with limited space. Made in Germany ensures that PUMPKIN®10 is a reliable, durable and quality product.

The PUMPKIN®10 is specifically developed for use in A/C systems with limited space. It fits perfectly into either a wall split or ceiling A/C. The small, transparent float-type sensor can be easily connected to the drain hose using the tube included.

**INCLUDES:**

Condensate pump unit, 2-stage independent float switch and mounting accessories, i.e. double-sided adhesive tape, an anti-vibration mount and an inlet pipe.

**TECHNICAL DATA:**

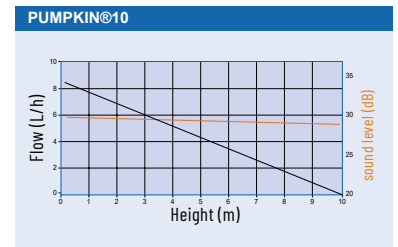
- Pump block (length x width x height): 178 x 33 x 34 mm.
- Detection block (length x width x height): 82 x 39 x 39 mm.
- Electrical data: 230 V, 50/60 Hz.
- Power consumption: 16 W (Standby: 1 W).
- Maximum flow rate: 9 l/h.
- Impulsion: 10 m.
- Maximum suction: 1,5 m.
- Code: BCEE10.

**PUMPKIN®10** **NEW**



**LOW NOISE LEVEL.**  
**SUITABLE FOR 80 mm GUTTERS.**

**6** UNIT/BOX



**EE 1200<sup>K</sup>** FOR AIR CONDITIONING EQUIPMENT UP TO 30 KW  
**CONDENSATE PUMP WITH CHANNEL WITH FLOAT WITH 3 DETECTION LEVELS**

The EE1200 condensate pump is mounted directly on a cover-type channel also manufactured by Eckerle. Like the rest of the Eckerle volumetric pumps, the EE1200 incorporates a very high quality piston pump made in Switzerland.

The valves that the pump incorporates are of the "duck bill" type, which allow a maximum opening of the pump, and keep the pump safe from contaminants that the water may carry. This facilitates a very silent operation and a long useful life. Thanks to its high discharge height, it avoids the use of several tank pumps installed in series.

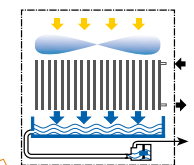
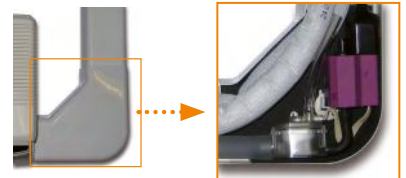
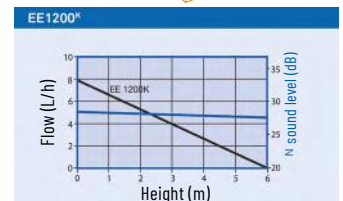
**DESCRIPTION:**

The EE1200 is mounted on the elbow of a cover-type channel, which also includes a piece of channel, and all the accessories for its installation. On request you can also request a special rigid foam that allows the pump to be mounted on existing channels.

**TECHNICAL DATA:**

- Electrical specifications: 230 V, 50 Hz, 18 VA.
- Maximum discharge height: 6 m.
- Maximum flow rate: 8 l/h.
- Maximum suction: 2,5 m.
- Dimensions (length x width x height): 78 x 42 x 46 mm.
- Alarm contact: max 230 V, 8 Amp.
- Channel dimensions: 82 x 39 x 39 mm.
- Code: BCEE1200 (with channel) / BCEE1200REC.

**1** UNIT/BOX



Also available without channel.

**10** UNIT/BOX

**EE 1750<sup>M</sup>** FOR AIR CONDITIONING EQUIPMENT UP TO 30 KW  
**CONDENSATE PUMP WITH CHANNEL WITH FLOAT WITH 3 DETECTION LEVELS**

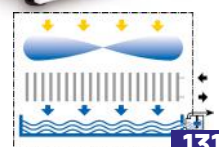
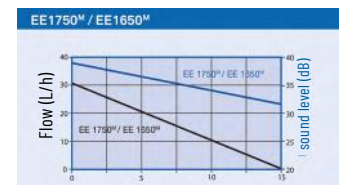
This condensate pump is normally used in air conditioning equipment that has condensate trays, with an outlet to a drain pipe: cassette, ceiling units, split, etc.

**DESCRIPTION:**

The EE1750M condensate pump consists of a Pump block and a Detection block which includes a float with 3 detection levels: start, stop of the pump and alarm level. The Detection block is fixed to the outlet of the condensate tray or to the end of the drain pipe, and then connected to the Pump block by a 1.5 m plastic pipe.

**TECHNICAL DATA:**

- Pump block: (length x width x height): 100 x 81,5 x 67 mm.
- Electrical data: 230 V, 50/60 Hz, 40 VA.
- Detection block: (length x width x height): 82 x 39 x 39 mm.
- Maximum flow rate: 32 l/h.
- Impulsion: 15 m.
- Maximum suction: 3 m.
- Alarm contact: max 230 V, 8 Amp resistive, NO/NC.
- Code: BCEE1750.



**6** UNIT/BOX

**EE 900<sup>M</sup>** FOR AIR CONDITIONING EQUIPMENT UP TO 10 KW.  
**SUPER SILENT CONDENSATE PUMP**

The EE900M has been designed to evacuate condensate from very noise-sensitive places, e.g. hotel rooms, meeting/conference rooms and bedrooms.

**DESCRIPTION:**

In contrast to conventional peristaltic pumps, the new EE900M works on the same principle as piston pumps, without a peristaltic tube. In this way, we avoid maintenance and replacement costs caused by wear or breakage of the peristaltic tube. A world innovation, the EE900M is programmed to work with 2 detection options in a single pump:

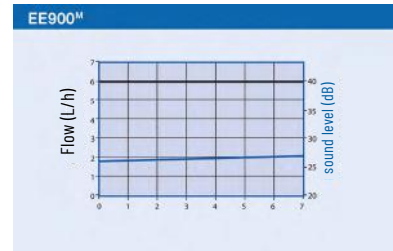
- By temperature difference (8 kelvin).
- By float with 3 detection levels.

The pump includes both detection options, thus reducing the number of pumps and storage costs.

The float or the temperature sensor can be sold separately. These elements are not part of the delivery content.

**TECHNICAL DATA:**

- Electrical data: 230 V, 50/60 Hz, 10 VA.
- Pump dimensions (length x width x height): 152 x 85 x 114 mm.
- Float dimensions (length x width x height): 82 x 39 x 39 mm.
- Maximum delivery height: 7 m.
- Maximum flow rate: 6 l/h.
- Maximum suction: 2 m (4 m on demand).
- Alarm contact: 48 V, 1.5 A (ohmic load)
- NO normally open (only when a float switch is used).
- Code: BCEEE900.



2 UNIT/BOX

**EE 1650<sup>M</sup>** FOR AIR CONDITIONING EQUIPMENT UP TO 30 KW  
**CONDENSATE PUMP**

**HIGH DELIVERY HEIGHT!**

This compact condensate pump with integrated detection block is used in systems equipped only with a condensate tray or tanks, such as fan coils, refrigerated display cabinets, etc.

**DESCRIPTION:**

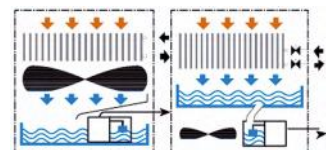
The pump is equipped with two independent floats. One of them starts and stops the condensate pump depending on the condensate water level, and the other acts as an alarm float and isolates the electrical parts of the pump.

**TECHNICAL DATA:**

- Pump (length x width x height): 244 x 174 x 144 mm.
- Electrical data: 230 V, 50/60 Hz 40 VA.
- Maximum flow rate: 32 l/h.
- Maximum discharge: 15 m.
- Alarm contact: max 230 V, 8 Amps resistive, NO / NC.
- Detection block (length x width x height): 82 x 39 x 39 mm.
- Tank capacity: 2 l.
- Code: BCEEE1650.



1 UNIT/BOX



**EE 150 / EE 300 / EE 400** CENTRIFUGAL CONDENSATE PUMP WITH TANK

The Eckerle EE150, EE300, EE400 condensate pumps are used to remove condensate from air conditioners, evaporators or condensing boilers. The pump body is made of ABS plastic, which is highly resistant to impact and corrosion.

The EE150 includes a heavy-duty square cover and mounting accessories to be able to install it under the Split.

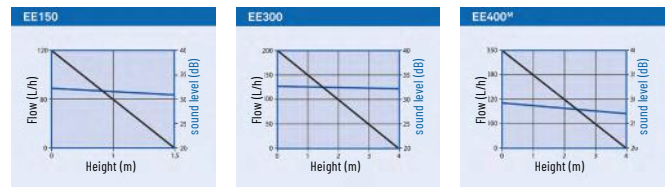
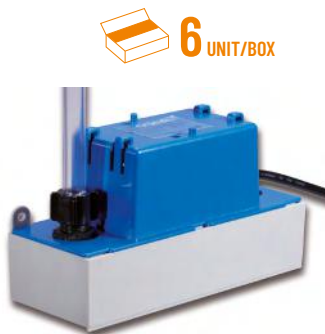
**EE 150 & EE 300:**

- Silent centrifugal pump with 1.5 m power cable.
- Built-in check valve.
- Overflow safety alarm.
- Attractive and compact design.
- Cover designed for mounting under the Split (EE150 only).
- Safety alarm switch.

**FOR AIR CONDITIONING EQUIPMENT UP TO 10 KW**

**TECHNICAL DATA EE 150:**

- Electrical data: 230 V, 50/60 Hz, 48 VA.
- Dimensions (length x width x height): 165 x 65 x 85 mm.
- Maximum discharge height: 1,5 m.
- Maximum flow rate: 120 l/h.
- Tank capacity: 0,2 l.
- Tube dimensions: 8 x 2 mm.
- Code: BCEEE0150.



**EE 400<sup>M</sup>:**

- Extremely quiet and vibration-free.
- IP55 protection class.
- Liquid-cooled.
- Maximum average working temperature: 70 °C.
- Compact design.
- Independent alarm contact.
- Built-in check valve.
- The pump can be used directly in the condensate tray without its tank.

**TECHNICAL DATA EE 400:**

- Electrical data: 230 V, 50/60 Hz, 65 VA.
- Dimensions (length x width x height): 185 x 85 x 100 mm.
- Maximum discharge height: 4 m.
- Maximum flow rate: 350 l/h.
- Tank capacity: 0,5 l.
- Alarm contact: 230 V, 8 A resistive, NO (normally open) / NC (normally closed).
- Pipe dimensions: 8 x 2 mm.
- Code: BCEEE0400.



**FOR AIR CONDITIONING EQUIPMENT UP TO 50 KW**

**TECHNICAL DATA EE 300:**

- Electrical data: 230 V, 50/60 Hz, 65 VA.
- Dimensions (length x width x height): 200 x 105 x 160 mm.
- Maximum discharge height: 4 m.
- Maximum flow rate: 200 l/h.
- Tank capacity: 1 l.
- Pipe dimensions: 8 x 2 mm.
- Code: BCEEE0300.



**RETENTION VALVE**

- Code: BCE22011.



# 9 FLUSHING

Professionals in the sector often aren't satisfied with many of the products on the market for cleaning cooling circuits. The products available on the market often meet some of these aspects: flammable, possible carcinogenic properties (Dichloromethane), high evaporation temperatures (+40 °C) that make them difficult to extract, abrasive on joints, etc.

THUNDER GREENFLUSH is a mix of solvents developed especially for cleaning, degreasing and drying cooling circuits or similar installations.

THUNDER GREENFLUSH can spread and penetrate into the pores and cracks in the material thanks to its low surface tension, which allows it to get humidity and residues out. Its volatility means that it is easy to remove from the circuits using a vacuum or flushing with nitrogen.

It is ideal for recirculating with transfer pumps.

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• Valve for Belnet Aerosol .....	136
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• GS Flush Pressurized and GS Flush XL Pressurized .....	136
• Flush gun kit .....	136

**GS Flush**  
Pressurized

**GS Flush XL**  
Pressurized

**THE NEW HIGH-PERFORMANCE CLEANING  
AGENT REPLACEMENT FOR R-141B**



ODP=0



PCA=0



NON-FLAMMABLE



CIRCUIT CLEANING



**SPECIFIC LIQUID FOR INTERNAL CLEANING  
OF AIR CONDITIONING AND REFRIGERATION  
SYSTEMS**

## CLEANING FLUIDS BELNET AEROSOL

It is the most direct, simple and quick solution for cleaning small refrigeration and AC circuits and components in refrigeration systems.

### HOW DOES IT WORK?

The BELNET cleaning liquid is pressurised with CO<sub>2</sub> in aerosol tanks for direct use in a clean and safe way using the special flushing gun.

### ADVANTAGES:

- Ready to use.
- High cleaning pressure.
- Constant precision until the tank is completely empty.
- There is no need to use other equipment.



GAS SERVEI CODE	ERRECOM CODE	DESCRIPTION	
EITRP104601	RP1046.01	Gun	1
EITRP104801	RP1048.01	Cleaning gun with hose and ball valve	

## VALVE FOR BELNET AEROSOL 7/16" SAE F X 1/4" SAE M



Code: OXYBVR4

## CIRCUIT WASHING – FLUIDS AND WASHING EQUIPMENT

### GS FLUSH PRESSURIZED AND GS FLUSH XL PRESSURIZED

Cleaning agent substitute for HCFC-141B.

- Moisture removal.
- Low viscosity.
- High solvent power.
- Great penetration power in cracks and pores.
- Non-explosive.
- Non-flammable.
- High stability.

Fluid for washing all types of refrigeration lines (Refrigeration and A/C). Its composition is based on a mixture of solvents developed especially for cleaning, degreasing and removing moisture in circuits.

It penetrates the pores and cracks of the material thanks to its low surface tension, which allows it to remove moisture and residue. To remove it, carry out a drag with dry nitrogen, followed by a vacuum.

Environmentally friendly because it does NOT damage the ozone layer (ODP=0) and because it has no global warming potential (GWP=0), as well as being a safe-to-use refrigeration circuit washing fluid (NON-explosive, NON-flammable).



NEW



GAS SERVEI CODE	DESCRIPTION
OXYGSFP01	GS FLUSH Pressurized 800 ml / 640 g in 1 L container
OXYGSFPXL	GS FLUSH XL Pressurized 10 L / 8 kg in 13.4 L container

## FLUSH GUN KIT

Economic equipment for cleaning AC systems:

- Ball valve.
- Bottle volume: 893ml.
- 1/4" female connection.

CODE	DESCRIPTION	
OXYRP1027	Pressurisable tank with gun	1



# GENERAL SALES TERMS AND CONDITIONS

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## EXEMPTION

Gas Servei S.A. reserves the right to make any changes to the information and features that appear in this tariff at any given time with no prior warning in order to improve and update its content.

The prices that appear on the tariff are valid, unless there is a typo.

## CLAIMS

Once two days have elapsed after the delivery date, no claims for differences in quantities or goods will be admitted.

The goods leave the warehouses of Gas Servei S.A. in perfect condition, as such, if battered or broken goods are received, a claim must be sent in writing to the shipping agency within a term of 48 hours after receiving them so that it will be covered by the insurance. Unless this procedure has been completed, Gas Servei S.A. will not accept any claims.

## RETURNS

If there is a shipping error on our part, the goods will be accepted and charged to Gas Servei S.A. with prior notice, as long as the shipping agency is the one that we indicate.











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for a better  
world.



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