



**CE Made in Italy**  
DESIGNED AND MANUFACTURED  
AT RAASM - ITALY

## FLUIDS AND LUBRICATION EQUIPMENT

### Automotive Lubrication



### Industrial Hose reels



### Industrial Pumps



technology, quality, functionality

**Catalogue No 219**

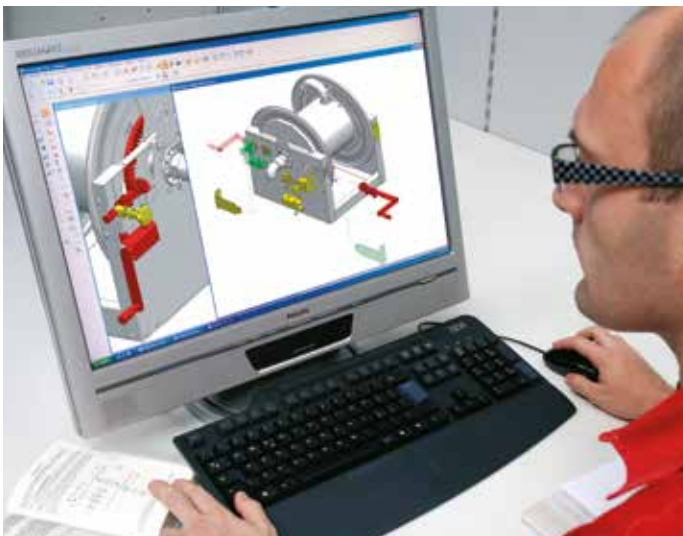
1<sup>st</sup> January 2011



General view of RAASM Area in San Zeno di Cassola - Vicenza



The starting point for the entire production cycle is the research and design of new solutions that will become cutting-edge products.





**PRODUCTS DEVELOPED AND TESTED IN EVERY SINGLE DETAIL**



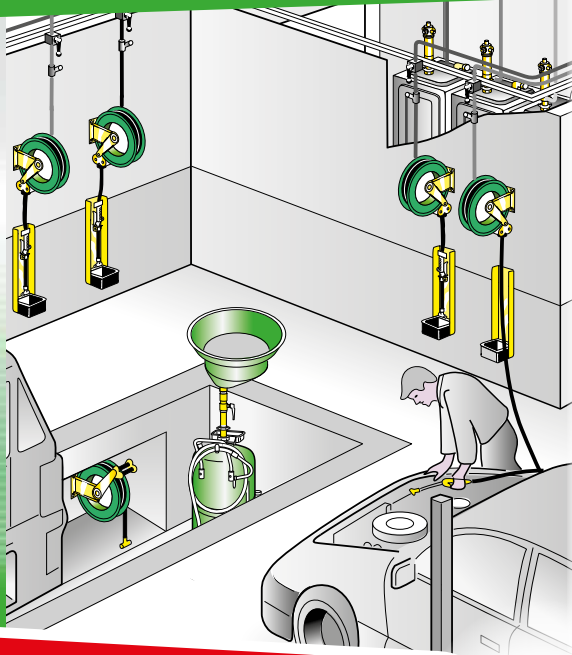


Pumps assembling with final control using a special software to verify pump's functionality.

## EFFICIENT AND WELL ORGANIZED ASSEMBLY LINES

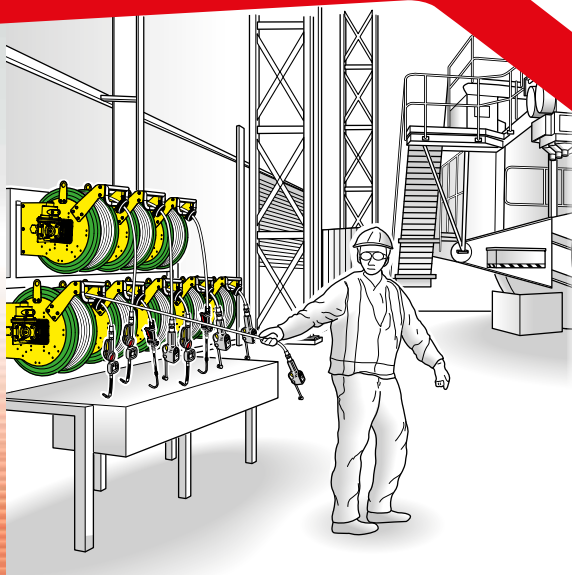


## Automotive lubrication



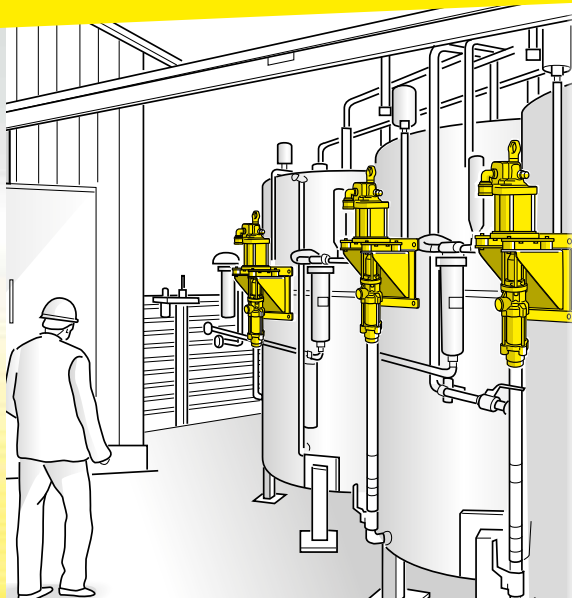
A wide variety of products for lubrication in the automotive, industrial, agricultural, marine and other sectors. Our products are designed to make work easier and quicker, according to the needs of our customers.

## Industrial hose reels



RAASM hose reels enable safe and practical management of any type of hose for use with all types of fluids.

## Industrial pumps



RAASM has created a wide range of industrial pumps to meet the most complex needs in application sectors such as industry, building, mining, shipyards, etc. This large range will certainly have the right pump for your application.



# AUTOMOTIVE LUBRICATION



# INDEX FAMILIES



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**3** MANUAL OIL AND GREASE PUMPS page 59



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# FLUIDS AND LUBRICATION EQUIPMENT



# Brake bleeding - washing - inflating



**BRAKE - CLUTCH BLEEDING**

page 32



**PRESSURE SPRAYERS**

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**WASHING TANK**

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**TYRE INFLATOR**

page 38

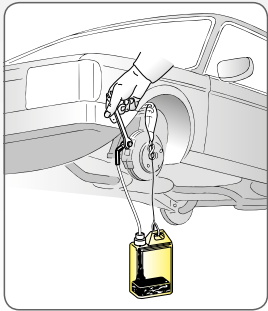


# Brake-clutch bleeding equipment

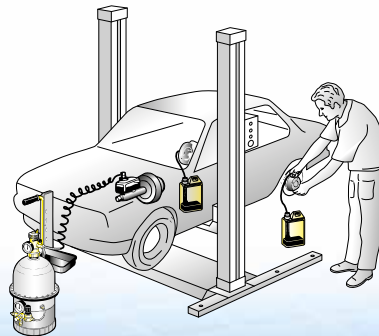
with 2 chambers

with 3 chambers

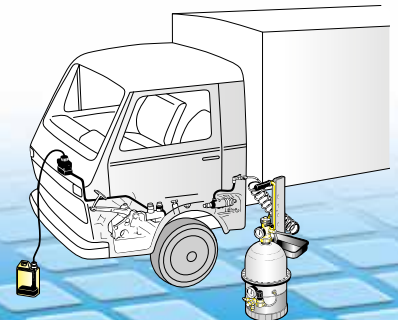
The simplified air-operated two-chamber or three chamber, brake bleeding device is suitable for bleeding the hydraulic brakes and clutches of all motor vehicles. Bleeding can be carried out in a few minutes by just one person. The brake-bleeding device is equipped with an elastic inner membrane which hermetically separates the oil from the air, thus avoiding the risk of emulsion. It is also suitable for systems with braking control and ABS (max. at 1 bar).



Article		10105	10205	10207	10705	10805	10807
<b>Tank capacity</b>	litres	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Set of plugs</b>	Art.	-	11001	11004	-	11001	11004
<b>clutch bleeding tube</b>	Art.	-	10802	10802	-	10802	10802
<b>2 collection containers</b>	Art.	10801	10801	10801	10801	10801	10801
<b>Filler funnel</b>		yes	yes	yes	yes	yes	yes
<b>Max working pressure</b>	bar	2	2	2	2	2	2
<b>Tank max pressure</b>	bar	2	2	2	10	10	10
<b>Delivery hose length</b>	m	3	3	3	3	3	3
<b>Safety valve</b>	bar	3	3	3	10	10	10
<b>Packing</b>	N° - m <sup>3</sup>	1 - 0,065	1 - 0,065	1 - 0,065	1 - 0,065	1 - 0,065	1 - 0,065
<b>Weight</b>	kg	8,5	9,5	9,7	10,2	11,2	11,4
<b>Dimensions (A - B - C)</b>	cm	43 - 25 - 65	43 - 25 - 65	43 - 25 - 65	45 - 25 - 65	45 - 25 - 65	45 - 25 - 65



Braking system bleeding phase

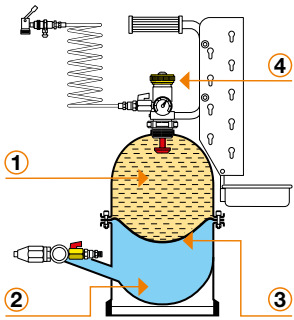


Truck clutch system bleeding phase



# Brake bleeder operation

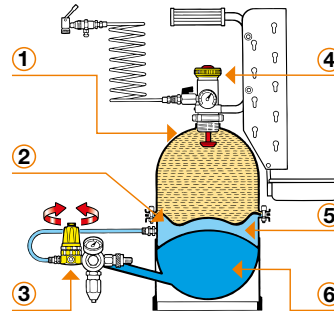
## 2 chambers operation



The brake-bleeding device is equipped with an elastic inner membrane (3) which hermetically separates the oil contained in the oil tank (1), from the air contained in the air "expansion" tank (2), thus avoiding the risk of emulsion (working pressure 1 - 2 bar controllable on the upper pressure gauge).

The oil tank (4) filler cap is equipped with a "reserve indicator" that signals when the fluid is finishing, and an air venting valve to be used in the device activation phase.

## 3 chambers operation



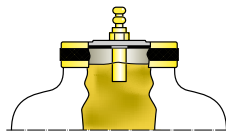
The brake-bleeding device is equipped with an elastic inner membrane (2) which hermetically separates the oil contained in the oil tank (1), from the air contained in the air "expansion" tank (5), thus avoiding the risk of emulsion. It is also equipped with a third air reserve tank (high pressure air 8-10 bar) (6) which, delivered by means of a pressure regulator (3), enables several bleeding operations to be carried out at a constant pressure without having to recharge the device.

The oil tank (4) filler cap is equipped with a "reserve indicator" that signals when the fluid is finishing, and an air venting valve to be used in the device activation phase.

## Procedures for applying the connection plugs



Before bleeding it is important to fill the brake fluid reservoir by means of the brake bleeder quick-release connector.



The extended nozzle of the plug must be immersed in the fluid to avoid sprays or air and oil emulsions.



Connect the brake bleeding device to the reservoir by means of the quick-release connector.

### 11000/ LIST OF SCREW PLUGS FOR CARS

ALFA.....	A-D-L	JEEP.....	W	PEUGEOT.....	D-F-M
AUDI.....	D	KIA.....	D	PORSCHE.....	C-D
AUSTIN MORRIS.....	A-D-T	LAMBORGHINI.....	D-H-W	RENAULT.....	D-G-I-M
AUTOBIANCHI.....	B-H	LADA.....	H	ROVER.....	A-D-W
BMW.....	D-W	LANCIA.....	D-H	SAAB.....	D
CITROËN.....	D-E-I	LAND ROVER.....	T-W	SEAT.....	D-H
CHRYSLER.....	W	LEYLAND.....	A	SUBARU.....	U-W
DAEWOO.....	D-W	MASERATI.....	D-G-L	SUZUKI.....	D-W
FERRARI.....	D-G-H	MITSUBISHI.....	K-U	TALBOT.....	D-F
FIAT.....	A-B-D-H-I	MAZDA.....	D-W	TOYOTA.....	W
FORD.....	A-D-T	MERCEDES.....	D	TRIUMPH.....	T
HYUNDAI.....	W	MG.....	W	VAUXHALL.....	A
INOCENTI.....	A-D-L	NISSAN.....	W	VOLKSWAGEN.....	C-D
JAGUAR.....	L	OPEL.....	D-F	VOLVO.....	D-G-U

### 11000/ LIST OF SCREW PLUGS FOR TRUCKS

ASTRA.....	H	FIAT.....	A-B-D-F-H-I-P	RENAULT.....	D-F-I-X-Z
BEDFORD.....	A-G-L	FORD.....	D-G	SCANIA.....	D-G
BERLIET.....	D-F-T-X-Z	IVECO.....	D-H-L	VOLVO.....	R
DAF.....	D	MERCEDES.....	D		

### 11003/ LIST OF PRESSURE PLUGS FOR CARS

HONDA.....	Art. 11003/4, /6	MAZDA.....	Art. 11003/5, /9	SUZUKI.....	Art. 11003/7
KIA.....	Art. 11003/5, /8	OPEL.....	Art. 11003/3	TOYOTA.....	Art. 11003/1, /2
LEXUS.....	Art. 11003/1	ROVER.....	Art. 11003/6		



# Screw connection plugs

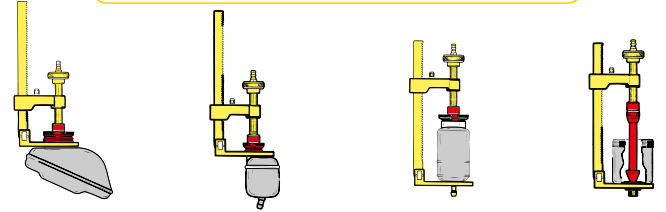


## Art. 11001

**Series of standard screw connection plugs**, supplied with Art. 10205 or Art. 10805 (refer to page 32), consisting of:  
 - 5 screw plugs: 11000/A/D/F/I/T  
 - 1 universal plug 11000/W

**Note:** the above plugs can also be supplied individually. The universal plug 11000/W can be used on many types of cars and trucks in addition to those given in the plug list (refer to page 33)

### Application examples of universal plug 11000/W

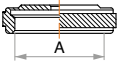




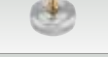




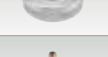










## Art. 11002

**Series of special screw connection plugs**, consisting of:  
 11000/B/C/E/G/H/K/L/M/P/R/U/X/Y/Z

**Note:** the series of special plugs is only supplied by request

### List of screw plugs supplyable individually

	Article	Plug series	Diameter (A) mm		Article	Plug series	Diameter (A) mm
	11000/A	type A	25		11000/M	type M	68,5
	11000/B	type B	21,5		11000/P	type P	77
	11000/C	type C	26,5		11000/R	type R	33,5
	11000/D	type D	43		11000/T	type T	44
	11000/E	type E	48		11000/U	type U	76
	11000/F	type F	52,5		11000/X	type X	44,5
	11000/G	type G	64		11000/Y	type Y	34,5
	11000/H	type H	41,5		11000/Z	type Z	58,5
	11000/I	type I	59		<b>11000/W</b> <b>Universal plug W with 3 tapered plugs:</b>	<ul style="list-style-type: none"> <li> 1) <math>\varnothing</math> 20 mm</li> <li> 2) <math>\varnothing</math> 28 mm</li> <li> 3) <math>\varnothing</math> 45 mm</li> </ul>	
	11000/K	type K	61,5				
	11000/L	type L	76,5				

**Note:** to choose the connection plug see the "Brake bleeder plug list" tables (refer to page 33)



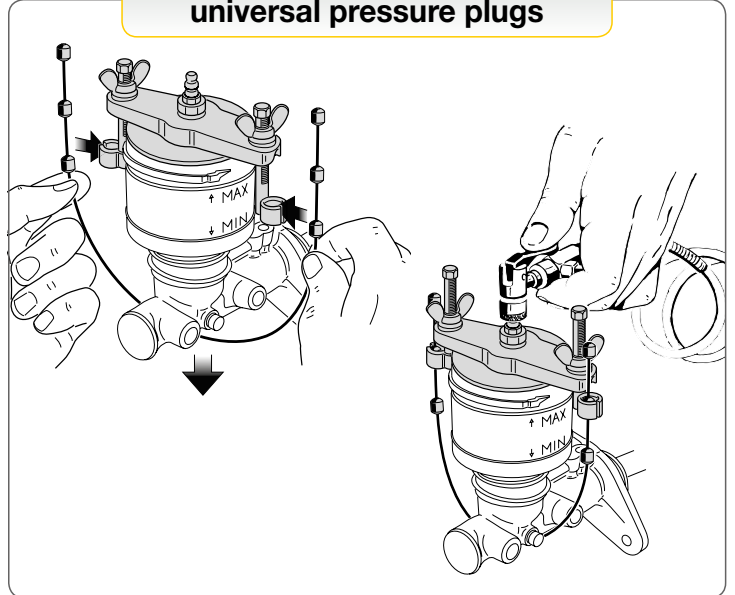
# Pressure connection plugs



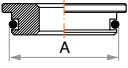












## Art. 11004

Adjustable universal bracket (Art.11003) with series of pressure plugs 11003/1/2/3/4/5/6/7/8/9

### Application examples of universal pressure plugs



### List of pressure plugs suppliable individually

	Article	Plug series	Diameter (A) mm	Article	Description
	11003/1	pressure	42,2 42,5		11003 Adjustable universal bracket for pressure plugs.
	11003/2	pressure	42,8		
	11003/3	pressure	53,8 54		
	11003/4	pressure	56		
	11003/5	pressure	65,7		10801 Brake fluid collection containers, complete with transparent tube and 90° flexible attachment for connection to the bleeder valve.
	11003/6	pressure	74,2		
	11003/7	pressure	58,8		
	11003/8	pressure	33,7		10802 Clutch bleeding connection tube, length 600 mm.
	11003/9	pressure	35,8		

Note: to choose the connection plug see the "Brake bleeder plug list" tables (refer to page 33)



# Non-toxic pressure sprayers

Painted carbon steel

Stainless steel AISI 304

Devices for the **non-toxic spraying** of low viscosity detergent liquids, such as lubrication oils and similar. Suitable for washing motor vehicles, graphiting, lubricating, delivering dismantling oils, etc. Filled to 3/4 their capacity with the required liquid and pressurised with air at 6 - 8 bar, they work independently without requiring continuous connection to the compressed air line.



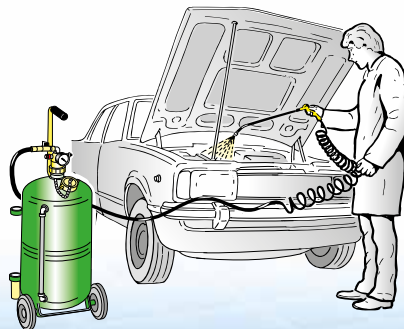
Art. 24891  
Antisplash  
funnel



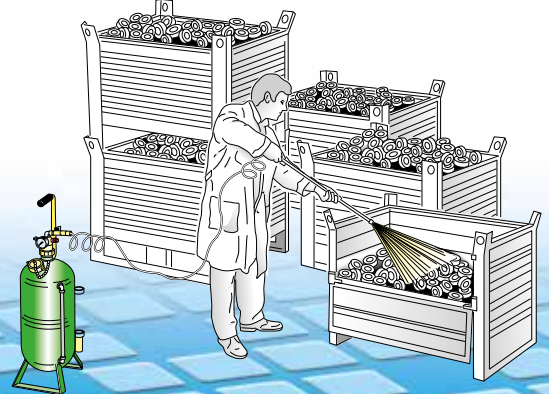
Article		22017	22024	23024	23025
<b>Tank capacity</b>	litres	<b>16</b>	<b>24</b>	<b>24</b>	<b>24</b>
<b>Delivery hose length</b>	m	5	5	5	5
<b>Max working pressure</b>	bar	10	8	8	8
<b>Gun length</b>	m	0,65	0,65	0,65	0,65
<b>Safety valve</b>	bar	10	8	8	8
<b>Level gauge</b>		yes	yes	yes	yes
<b>Spray gun</b>	Art.	24805	24805	24806	24806
<b>Spray nozzle</b>	Art.	24801	24801	24801	24801
<b>Antisplash funnel</b>	Art.	24891	24891	24891	24891
<b>Packing</b>	N° - m <sup>3</sup>	1 - 0,080	1 - 0,090	1 - 0,090	1 - 0,090
<b>Weight</b>	kg	9,8	13	12,8	12,8
<b>Dimensions (A - B - C)</b>	cm	25,5 - 22,5 - 95	28 - 33 - 92	28 - 33 - 92	28 - 33 - 92

Attention: do not use with flammable or corrosive liquids

Attention: stainless steel pressure sprayers may also use aggressive fluids (such as some acid solutions) if only compatible with the materials composing the device



Spraying of detergent for washing engines



Spraying antioxidant, oil, diesel oil on mechanical parts

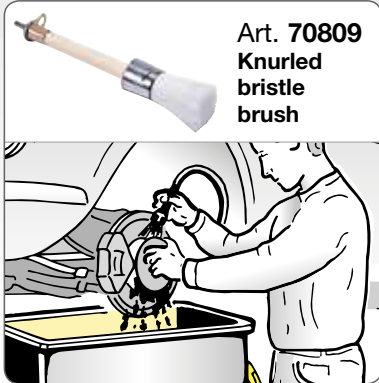


# Washing tank

**Universal washing tank for quick washing of mechanical parts** and components in general.

The low-pressure pneumatic system enables:

- continuous liquid detergent flow with brush for thorough washing
- washing by dipping, with the parts dipped in the liquid detergent in the tank.



**Art. 70809**  
Knurled  
bristle  
brush

**Important:** do not use corrosive liquids with flashpoint below 55°C, that can give off toxic and harmful fumes. Use specific chemical products for washing mechanical parts, according to the instructions supplied by the manufacturer

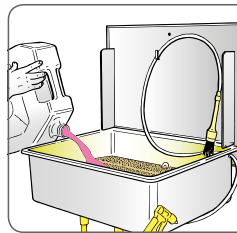
removable  
cover



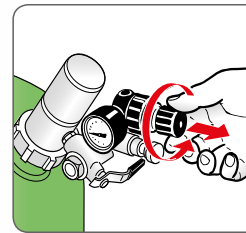
<b>Article</b>		<b>70365</b>
<b>Tank capacity</b>	litres	<b>65</b>
<b>Washing tank capacity</b>	litres	50
<b>Max working pressure</b>	bar	0,5
<b>Required quantity of liquid</b>	litres	50
<b>Max blowing gun pressure</b>	bar	12
<b>Knurled bristle brush</b>	Art.	70809
<b>Packing</b>	N° - m <sup>3</sup>	2 - 0,290
<b>Weight</b>	kg	47,1
<b>Dimensions (A - B - C)</b>	cm	51 - 67 - 107



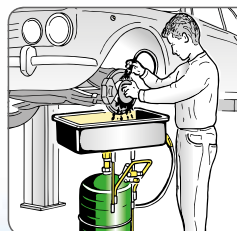
## Details and advantages



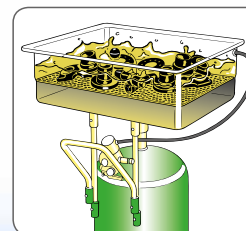
For correct use, add 48 - 52 litres of detergent liquid



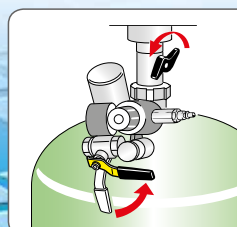
The pneumatic systems works at low pressure **0,5 bar**, consuming very little air



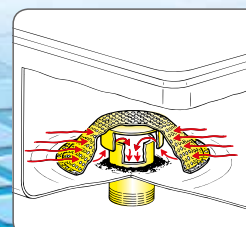
Washing with brush, with continuous liquid flow



Dip washing, with parts placed in the tank



Brush or dip wash management unit



Decanting filter/screen





# Portable tyre inflator

automatic charging

standard charging

Type-approved tyre inflator for checking and restoring the pressure of any type of tyre.

**13 litres** tank is available with standard or automatic charger, whereas **24 litres** tank is available only with standard charger.

Tyre pressure checking and inflation operations are carried out with the gun equipped with pressure gauge  $\varnothing$  60 mm with scale 0 - 10 bar.



Article		52013	52015	53016	52024	53024
Tank capacity	litres	13	13	13	24	24
Max tank pressure	bar	10	10	10	8	8
Calibrated safety valve	bar	10	10	10	8	8
Manometer $\varnothing$ 50 tank pressure	bar	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Max working pressure	bar	7	7	7	7	7
Manometer working pressure		0 - 10 bar supplied with the inflating group	0 - 10 bar supplied with the inflating gun	0 - 10 bar supplied with the inflating gun	0 - 10 bar supplied with the inflating gun	0 - 10 bar supplied with the inflating gun
Working temperature	$^{\circ}\text{C}$	$-20^{\circ} +60^{\circ}$	$-20^{\circ} +60^{\circ}$	$-20^{\circ} +60^{\circ}$	$-20^{\circ} +60^{\circ}$	$-20^{\circ} +60^{\circ}$
Inflating hose length	m	1,2	1,2	1,2	1,2	1,2
Inflating gun		with twin air valve	standard	standard	standard	standard
Automatic charger	Art.	52020	-	-	-	-
Packing	$\text{N}^{\circ} - \text{m}^3$	1 - 0,088	1 - 0,088	1 - 0,088	1 - 0,090	1 - 0,090
Weight	kg	8,8	6,5	6,5	10	10
Dimensions (A - B - C)	cm	31 - 31 - 75	31 - 31 - 60	31 - 31 - 60	28 - 33 - 86	28 - 33 - 86

Note: type-approved for public use

Note: not type-approved for public use

Note: not type-approved for public use

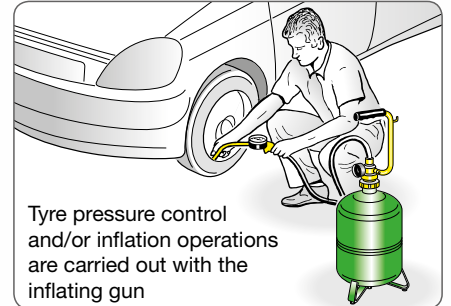
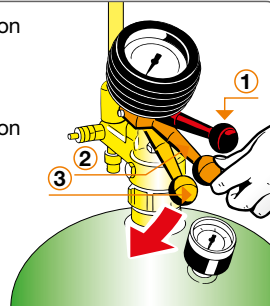


Art. 52020 Automatic charger supplied with Art. 52013

## Details and advantages

The tyre inflation and deflating operations are done with single 3-position lever

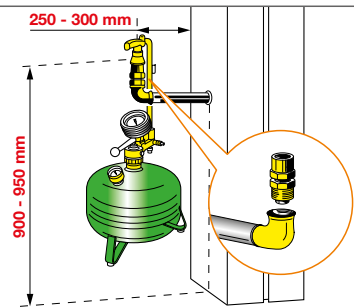
- ① idle
- ② deflation
- ③ inflation



Tyre pressure control and/or inflation operations are carried out with the inflating gun

### INSTALLATION MEASURES for Art. 52013

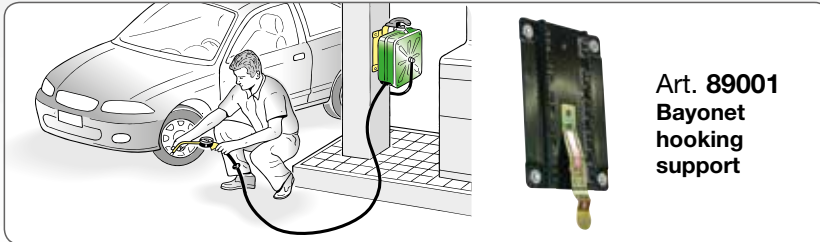
In order to have the tyre inflator always ready for use, just place it on the automatic charger as shown in the illustration





# The inflator hose reel

**Inflation system with hose reel** for checking and restoring the pressure of any type of tyre by means of the inflation gun equipped with pressure gauge  $\varnothing$  60 mm with scale 0 - 10 bar. Constant connection to the compressed air system makes the inflation system always ready for use. The hose reel is equipped with a system for quick hooking to the wall support to facilitate possible moving.

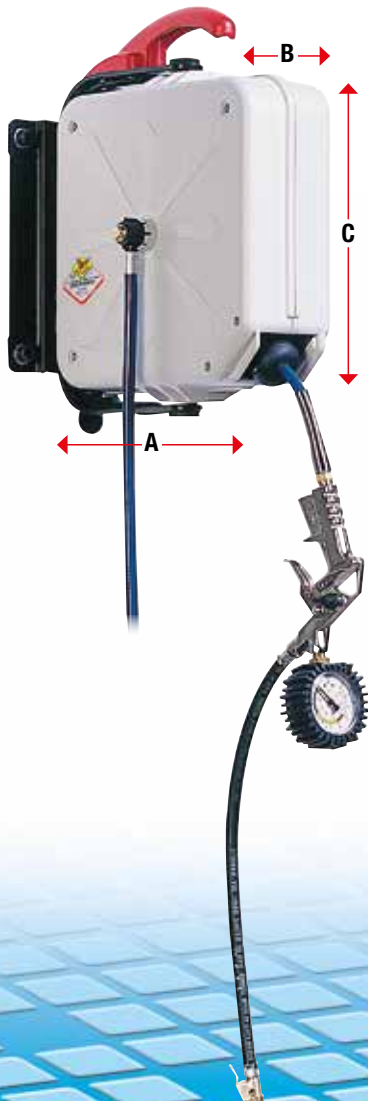


Art. 89001  
Bayonet  
hooking  
support

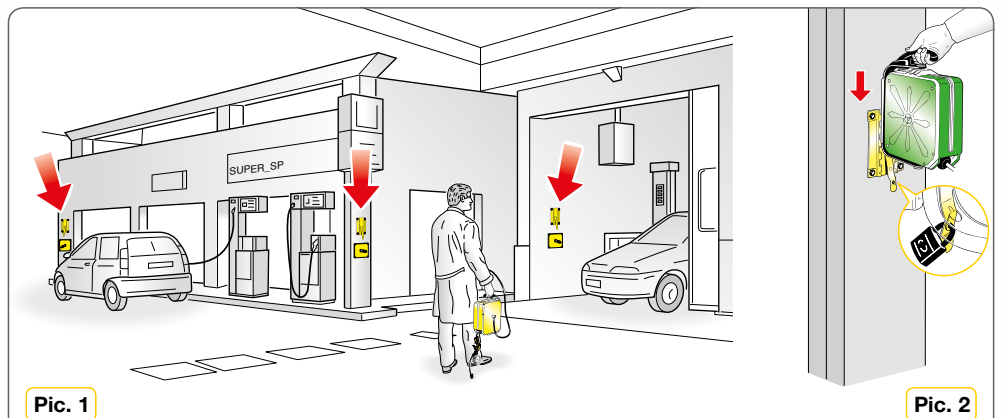


type-  
approved

<b>Article</b>		<b>52010</b>
<b>Length tube</b>	m	11
<b>Length tube connection</b>	m	1,5
<b>Diameter of tube</b>	mm	8 x 12
<b>Inlet connection thread</b>		M 1/4" G
<b>Max working pressure</b>	bar	10
<b>Manometer <math>\varnothing</math> 60 working pressure</b>	bar	0 - 10
<b>Working temperature</b>	$^{\circ}$ C	-20° +60°
<b>Packing</b>	N° - m <sup>3</sup>	1 - 0,019
<b>Weight</b>	kg	6,8
<b>Dimensions (A - B - C)</b>	cm	31 - 11,5 - 39



## Details and advantages



Pic. 1

Pic. 2

**Pic. 1** The inflation hose reel is provided with a **wall bracket** with automatic bayonet hooking (Art. 89001) enabling **very quick and easy** installation or shifting.

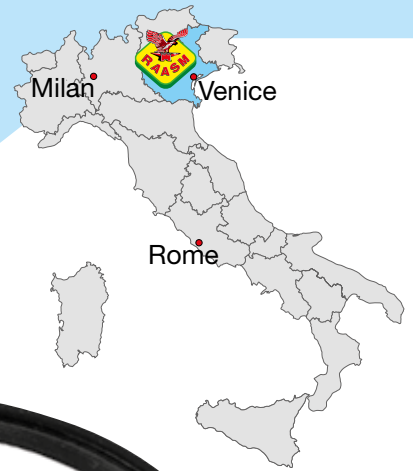
The ease of this operation enables - also for safety reasons - the hose reel to be put away in a closed place at the end of the working day.

Also, the application of a wall support for every service point, either inside or outside, facilitates quick shifting and application of the hose reel in the workstation required by the operator.

**Pic. 2** To prevent removal or theft of the hose reel it can be locked with a bolt or padlock.



# How to reach RAASM



## by plane

With regular flights, the nearest airports are those Venice Tessera, Verona Villafranca and Treviso.

- **FROM VENICE TESSERA**  
Bassano can be reached by train:  
Venice - Padova - Cittadella  
Bassano del Grappa.
- **FROM VERONA VILAFRANCA**  
Bassano can be reached by train:  
Dossobuono - Verona - Vicenza  
Cittadella - Bassano del Grappa.
- **FROM TREVISO**  
Bassano can be reached by train:  
Treviso - Castelfranco - Cassola.



## by train

RAASM can be reached also by train, getting off at Bassano del Grappa station.

- **BOLZANO:** Bolzano - Verona  
Vicenza - Cittadella - Bassano del  
Grappa.
- **MILAN:** Milan - Verona - Vicenza  
Cittadella - Bassano del Grappa.
- **BOLOGNA:** Bologna - Padova  
Cittadella - Bassano del Grappa.
- **TRIESTE - UDINE:** Trieste - Udine  
Codroipo - Treviso - Castelfranco  
Bassano del Grappa.

**RAASM is approx. 3 km  
from the Train Station.**



## by own transport

Arriving by car from the north or west, with Verona as the reference point take the A4 Motorway towards Vicenza - Valdastico. At the Dueville exit head for Bassano del Grappa.

If arriving from the south, with Padova as the reference point take State Road 47 towards Cittadella Bassano del Grappa.



## THREE WORDS TO DESCRIBE RAASM

### ■ Technology

The starting point for the entire production cycle is the research and development of cutting-edge new solutions which lead to the development of **high quality products, fully produced in Italy.**



### ■ Quality

The quality of our product manufacturing has always been our absolute priority. To reach this goal rigorous testing accompanies every phase of the manufacturing process.



### ■ Functionality

RAASM offers the most complete range of lubrication products suited to many sectors. Our aim is to always be available to provide solutions to our customers.



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