Last Update: 07/07/10



# P.A. - S.p.A. - EQUIPAGGIAMENTI TECNICI DEL LAVAGGIO

VIA MILANO, 13 - CASELLA POSTALE 115 - 42048 RUBIERA (REGGIO EMILIA) - ITALY
Tel. +39 0522 623611 - Fax. +39 0522 629600 - R.E.A. RE 156319 - R. I. RE 11535 - Mecc. RE 013446
C.F. e P. IVA 01035950359 - Cap. Soc. i.v. € 750.000,00 - Codice Identificativo C.E.E. IT 01035950359
ART. 2497 - BIS C.C. DIREZIONE E COORDINAMENTO BENETTI srl R.I. TRIB. DI RE 01480690351
http://www.pa-etl.it - E-mail: info@pa-etl.it



# RL60 - Spray gun 60 bar - 6 MPa

Technical manual : E 122

Guns suitable for use up to 60 bar – 6 MPa rated pressure centrifugal pumps. Equipped with closure retarder device.

# **DN15**



- 30.3170.00 RL60 w/swivel G1/2 FF
   30.3170.90 RL60 w/swivel G1/2 FF
  - Covered by shockproof plastic semi-housings.
  - Gun with closure retarder to eliminate pressure spikes in systems without safety valves.
  - Built with wide internal passages
  - Teflon seat and Sst shutter
  - Internal structure in brass and Sst.
  - Ergonomic construction.
  - Minimum fatigue for trigger opening
  - Quick closure version (30.3170.90)

# **TECHNICAL SPECIFICATIONS**

P/N	RATED PRESSURE bar - MPa	PERMISSIBLE PRESSURE bar - MPa	MAX FLOW RATE I/min	(1) MAX TEMPERATURE ℃	INLET OUTLET	WEIGHT gr
30.3170.00	60 - 6	65 - 6.5	60	100	G1/2 FF	600
30.3170.90	60 - 6	65 - 6.5	60	100	G1/2 FF	600

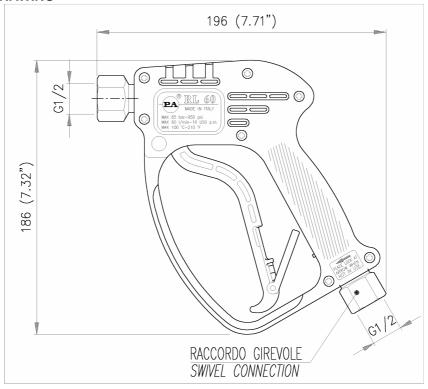
(1) The gun has been designed for continuous use, at a water temperature of  $60^{\circ}$ C (140°F). It can resist a t the max temperature of  $100^{\circ}$ C (210°F) for short periods only , as, when the gun shuts off, the heater continues to transmit the heat to the water, thus increasing both temperature and pressure up to high, dangerous values.

Using the gun at a water temperature higher than 60°C involves for the operator the use of adequate safety devices, such as gloves, glasses, etc.

Instruction manual, maintenance, installation, spare parts.	
For a correct utilization, follow the directions of this manual	n. 12.9122.00
Re-print them on the Use and Maintenance booklet of the machine.	

Last Update: 07/07/10

### **DIMENSIONAL DRAWING**



#### **INSTRUCTIONS**

This product is to be utilized with clean fresh water, even slightly additivated with normal detergents. For use involving different or corrosive liquids, contact the PA Technical department. Appropriate filtration should be installed when using unclean liquids. Choose the gun in line with the data of nominal running (system rated pressure, max flow and max temperature). In any case, the pressure of the machine should not exceed the permissible pressure rate imprinted on the gun.

## **INSTALLATION**

This gun was designed to operate with <u>hot water</u> (in compliance with the technical specs). Provide the plant generating <u>hot water</u> with an equipment limiting the incidental increase of the fluid temperature.

Always fit a safety valve to protect the delivery conduct when the latter is under pressure.

Choose a suitable nozzle and ad just the valve mounted in the front of the gun, thus obtaining a constant supply and avoiding unpleasant pressure spike when closing the system.

If the nozzle wears out, the pressure falls. When you install a new nozzle, adjust the system back to the original pressure.

## **OPERATIONS**

The gun opens and closes a high pressure conduct by means of a piston acting on a seat; the return is controlled by a spring which releases the trigger: ATTENTION: this gun is equipped with a retarder closing device in order to limit the pressure spikes on the pump and in particular conditions during the starting of the pump a pressure spout may arise for a few seconds even with the gun closed. In order to prevent injuries or damage see illustrated chart nr 10.9113.00 attached to the article.

#### **WATER HOSE FEED**

By high or very unsteady pressure values on delivery, it is necessary to mount a pressure reducer, both to level the flow rate on delivery and to protect the system components.

## PROBLEMS AND SOLUTIONS

PROBLEMS	PROBABLE CAUSES	SOLUTIONS					
Leakage from the nozzle	Presence of impurities	Clean					
	Gun seat worn out	Replace the seat					
		Fit adequate filters and/or check					
Leaking seals	Seals worn out	Replace seal					
Difficult trigger opening	High pressure inside circuit	Check the bypass valve and adjust it if necessary					

Last Update: 07/07/10

#### **REGULATIONS**

The design and construction of our products comply with: norm CEI EN 60335-2-79 first edition, published in 1999-03 and its respective variations on the project norm prEN 1829.

# Read this manual before starting the assembly.

For a correct utilization, follow the directions described in this manual and re-print them on the <u>Use and maintenance</u> manual of the <u>machine</u>.

The present manual is valid for all the guns named RL 60.

## **SPARES**

Use original PA spares only in order to get both a correct operation and a long lasting, reliable product.

## **MAINTENANCE**

Maintenance has to be carried out by Specialized Technicians.

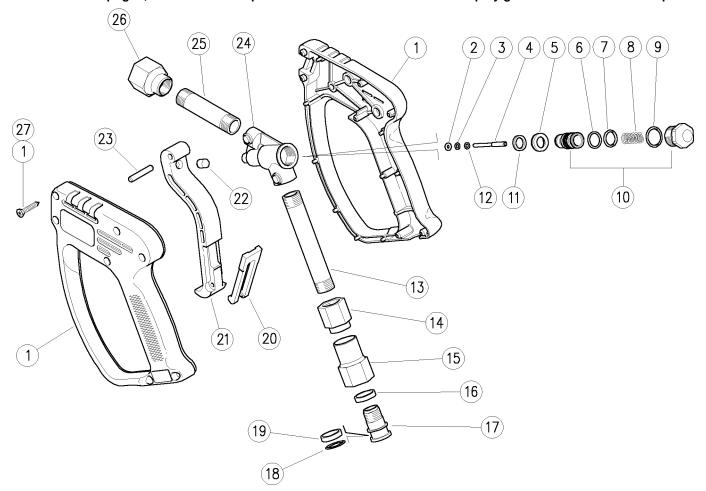
STANDARD: every 400 working hours (circa 10,000 cycles), check and lubricate the seals with water resistant grease.

SPECIAL: every 800 working hours (circa 20,000 cycles), check the wear of the seals and internal parts and if necessary, replace with original PA parts, taking care during installation to lubricate with water resistant grease.

**CAUTION:** re-assemble the gun restoring the original conditions.

The manufacturer is not to be considered responsable for damage as a result from incorrect fitting and maintenance.

Technical data, descriptions and illustrations are indicative and liable to modification without notice.



Р	0S.	P/N	Description	Q.ty	Κ1	K2	K3	K4	
	1	30.3188.24	Casing-kit -RL60 +screws, Sst.	1					1
	2	10.4018.00	Back-up ring, 3,2x7,5x1,2 mm	1	•				10
	3	10.3165.00	O-ring, 2,62x2,84 mm Vi 70	1					10
	4	30.2516.51	Piston, 3 mm Sst.	1	•				10
	5	30.3179.85	Seat, 10x16,3x4,5 mm PTFE	1	•				5
	6	10.4157.00	Stem seal, 12,4x14x2 mm	1	•				10
	7	10.3020.10	O-ring, 1,5x10 mm Vi 70	1	$ \cdot $				10
	8	30.1507.51	Spring, 1,4x9x21 mm Sst.	1					10
	9	10.3003.10	O-ring, 1x15 mm Vi 70	1	•				10
	10	30.3185.24	Spares kit -RL60, Plug+Piston (1)	1					1
	10	30.3189.24	Spares kit -RL60, Plug+Piston 1 mm (2)	1					1
	11	30.3178.51	Spacer ring, Sst.	1					3
	12	14.3511.00	Washer, 3,2x7x0,5 mm sst.	1					10
	13	30.3173.56	Tube, M16x1 MM 96mm Sst.	1					5
	14	30.3181.51	Coupl., M16x1F-M15x1F Sst.	1					3

Kit	P/N	Description	1
K1	30.3183.24	Repair kit -RL60+sw, 11x1pcs.	1

(1) 30.3170.00 (2) 30.3170.90

Pos.	P/N	Description	Q.ty	Κ1	K2	К3	K4	
15	30.3182.51	Coupl., 1/2F Bsp Sst.	1					3
16	26.1074.85	Bushing, 15,5x19x4 mm PTFE	1	•				5
17	26.1072.51	Pin, M15x1-19 mm Sst.	1	•				5
18	10.3092.10	O-ring, 2x15 mm Vi 70	1	•				10
19	26.1075.85	Bushing, open 15,5x19x4 mm PTFE	1	•				5
20	30.1510.84	Safety latch, PA red (1)	1					10
20	30.1515.84	Safety latch, PA blue (2)	1					10
21	30.2506.84	Trigger -RL31, PA black	1					10
22	30.0675.51	Stop pin, 8x7,1mm Sst.	1					10
23	30.2517.31	Parallel pin, 5x27,5 mm brass	1					10
24	30.3175.55	Housing -RL60, Sst.	1					3
25	30.3180.56	Tube, M16x1 MM 57mm Sst.	1					3
26	30.3171.51	Coupl., M16x1F-1/2F Bsp Sst.	1					3
27	16.3075.51	S/tapping screw, DIN7981 3,5x18 mm Sst.	7					10