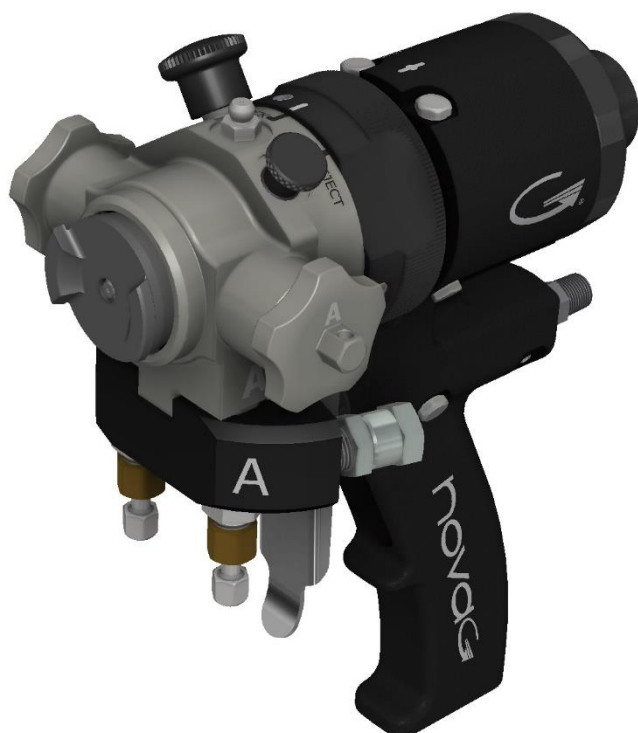


Parts Identification

HT BLACK GUN

Issue 1.4 27/10/2023

Ref. NR-00045-ENG



Before starting or doing maintenance on the HT BLACK GUN, carefully read all of the technical and safety documentation included in the Service Manual. Special attention should be paid to the information for knowing and understanding the handling and conditions of use of the gun. This information is aimed at USER SAFETY and the PREVENTION OF PROBLEMS.



WARRANTY

HI-TECH SPRAY EQUIPMENT, S. A. (hereinafter "HI-TECH") grants this Limited Guarantee to the original buyer (hereinafter the "Client") for the unit and the original accessories given with the unit (hereinafter the "Product") against any fault in the design, materials or manufacture of the Product at the time of the first purchase by the user and for a duration of two (2) years thereafter.

If during the guarantee period and under normal conditions of use, the Product should fail to work correctly due to defects of design, material or manufacture, the authorised distributor of the country where the HI-TECH Product or technical assistance service has been purchased shall repair or replace the Product in accordance with what is established in the following:

CONDITIONS

- a) The validity of this guarantee will be subject to the presentation of the original invoice issued by the HI-TECH authorised distributor for the sale of the Product along with the Product handed over for repair or replacement, which must show the date of purchase and the serial number. HI-TECH reserves the right to refuse to give the guarantee service when the indicated data fail to appear on the invoice or have been modified after the purchase of the Product.
- b) The repaired or replaced Product will continue to maintain the original guarantee for the time remaining until the end of the guarantee or for three (3) months from the repair date, if the remaining period of the original guarantee were shorter.
- c) This guarantee will not be applied to the faults in the Product caused by its faulty installation, the natural wear and tear of the components, any use other than that considered normal for this Product or which should fail to strictly comply with the instructions of use provided by HI-TECH; due to accident, carelessness, adjustments, alterations or modifications of the Product not authorised by HI-TECH or due to the use of accessories, heating devices, pumping equipment and/or dispensers that have not been approved or manufactured by HI-TECH.
- d) The guarantee applicable to the components and accessories forming part of the Product and which have not been made by HI-TECH will be limited to the guarantee offered by the original manufacturer thereof.

HI-TECH WILL NOT RECOGNISE ANY EXPRESS ORAL OR WRITTEN GUARANTEES OTHER THAN THIS PRINTED LIMITED GUARANTEE. ALL IMPLICIT GUARANTEES, INCLUDING, WITHOUT LIMIT, ADAPTATION FOR A SPECIFIC USE, ARE SUBJECT TO THE DURATION OF THIS WRITTEN GUARANTEE. HI-TECH DOES NOT ASSUME ANY KIND OF COMMITMENT OR RESPONSIBILITY FOR ALL POSSIBLE DAMAGE OR EXPENSE CAUSED BY FAULTS IN THE OUTPUT OF THE PRODUCT, ITS WORKING OR THE DISPENSING OF MATERIAL THROUGH THE PRODUCT, INCLUDING, WITHOUT LIMITATION, ALL EXPENSES CAUSED BY DAMAGE TO PEOPLE OR PROPERTY. EQUALLY, HI-TECH WILL IN NO CASE ACCEPT LIABILITY FOR THE LOSS OF SPECULATIVE PROFITS OR COMMERCIAL LOSSES. ALL REPAIRS OR REPLACEMENT OF FAULTY PRODUCTS WILL CONSTITUTE THE COMPREHENSIVE FULFILMENT OF HI-TECH'S OBLIGATIONS WITH RESPECT TO THE CLIENT. HI-TECH DOES NOT IN ANY WAY GUARANTEE THE SUITABILITY OR APTITUDE OF ITS PRODUCT FOR ANY PARTICULAR PURPOSE OR APPLICATION.

All information provided on components which have not been manufactured by HI-TECH and which is based on reports received from the original manufacturer, though considered precise and reliable, is provided without any guarantee or responsibility of any explicit or implicit kind.

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The restrictions on the guarantee suppose no limitation on the legal rights of the consumer established in applicable national legislation, nor do they affect any rights derived from the bargain and sale agreement between the consumer and supplier.



Parts Manual

All of the information provided in this manual has been included with the confidence that it is true, but this does not constitute any implicit or explicit guarantee. **HI-TECH** reserves the right to make, at any time and without prior notice, the necessary improvements and modifications to this manual in order to rectify possible typographical errors, expand the information provided, and introduce the changes in the characteristics and functions of the equipment.

SAFETY AND HANDLING

The equipment described in this manual has been designed and manufactured in compliance with the following European Directives, following as application guide the harmonized standards detailed and in conformity with the relevant UK Statutory Instruments (and their amendments):

Directive 2006/42/EC on machinery (UK Supply of Machinery (Safety) Regulations 2008)

UNE EN 12100:2012 (BS EN ISO 12100:2010)

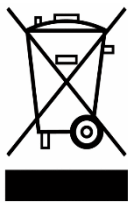
UNE EN 1953:2013 (BS EN 1953:2013)

Directive 2014/68/EU on pressure equipment (UK Pressure Equipment (Safety) Regulations 2016)

UNE EN 809:1999 +A1 (BS EN 809:1998 +A1:2009)

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment with amendment 2015/863/EU (UK The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012)

Directive 2012/19/EU on waste electrical and electronic equipment (UK The Waste Electrical and Electronic Equipment Regulations 2013)



Electrical products cannot be thrown out with the rubbish. They must be taken to a dedicated collection point for an environmentally sound disposal in accordance with local regulations. You must contact your local collective or retailer for information about recycling. Before leaving WEEE at appropriate collection facilities, batteries must be removed and disposed of separately for proper recycling. The packaging materials are recyclable. Dispose of packaging materials in an environmentally sound manner and place them at the disposal of recycling sectors.

TRANSPORT AND STORAGE

Proper precautions must be taken so that the equipment can withstand the effects of transport and storage temperatures between -25°C and +55°C or up to +70°C for short periods that do not exceed 24 hours. Also, appropriate means to prevent damage from moisture, vibrations or shocks must be foreseen.

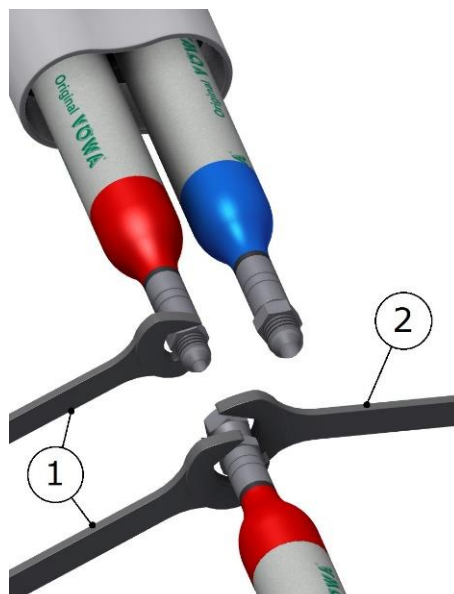


METHOD OF THREADED UNION OF THE HOSES

Follow the torques for threaded joints listed in **Table 1** according to thread sizes of hose fittings to ensure their proper assembly.

There is also an alternative procedure to obtain an equivalent torque without using special tools: joint both ends of the hoses to be connected, tighten a swivel nut by hand (without using spanner) until there is resistance on the nut. Fit two spanners (1) on the fixed ends of the hoses and turn the swivel nut with a third spanner (2) as many flats from wrench resistance (FFWR) as indicated in **Table 1**.

Table 1. Tightening Threaded Joints		
THREAD SIZE	TORQUE Nm	FFWR
1/2"-20	23	2 (or 120°)
9/16"-18	30	1-1/2 (or 90°)



NOTE: 1 FFWR corresponds to one complete shear of a flat marked with red between swivel and fitting or else 60°.





ASSEMBLY ADDITIONAL COMPONENTS

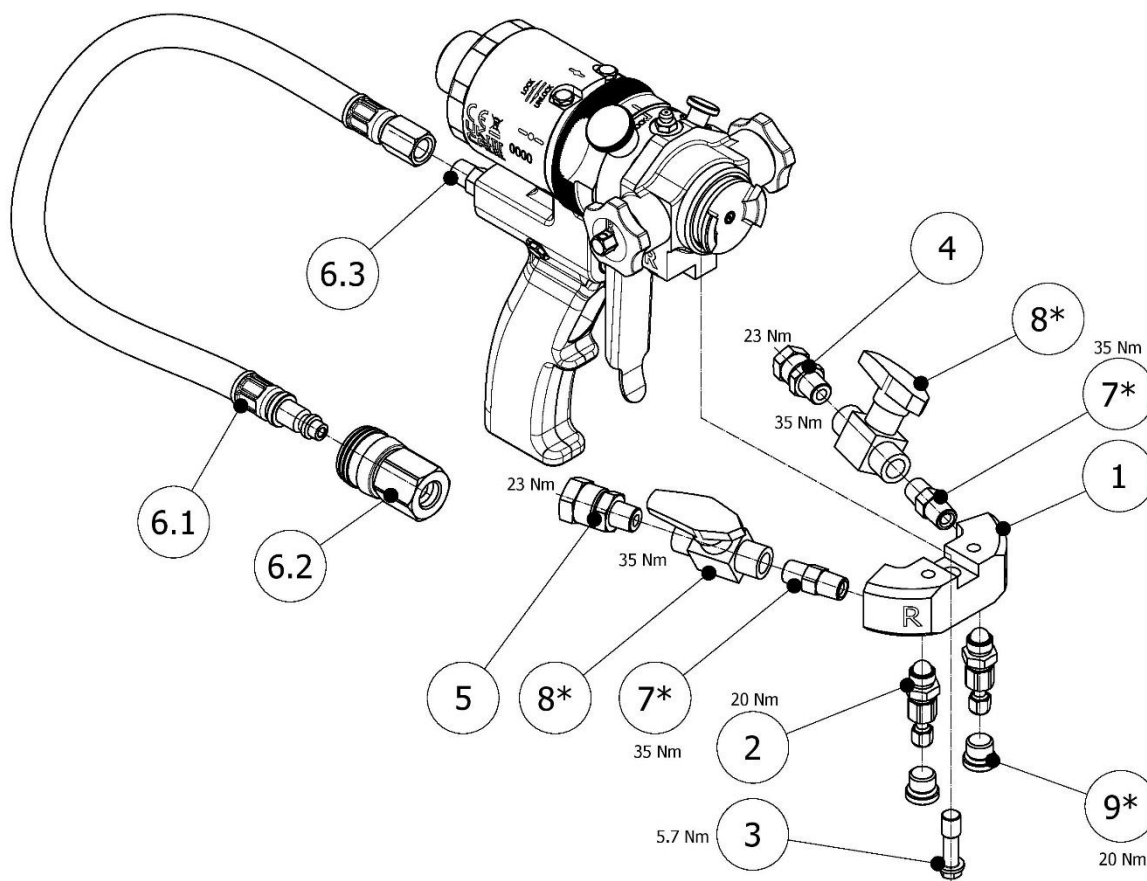


Figure 1. Assembly Additional Components, HT Black Gun

(*) Parts marked, correspond to the optional version with ball valves.

***Table 2. Additional Components of HT Black Gun, Parts List***

Item.	Description	Part Number	Qty.
1	Coupling Block	GU-02115-00	1
2	Manual Valve	GU-02020-00G	2
3	Coupling Block Screw	GU-04036	1
4	“A” Swivel Union	RA-00005	1
5	“R” Swivel Union	RA-00006	1
6.1	Air Hose	MA-00027	1
6.2	Fast Plug	RA-00109	1
6.3	Male Adapter	RA-00112	1
7 *	Male Adapter	RA-00112	2
8 *	Ball Valve	RA-00070H	2
9 *	Plug	RA-00242	2

(*) Parts marked, correspond to the optional version with ball valves.



HANDLE AND AIR CYLINDER ASSEMBLY

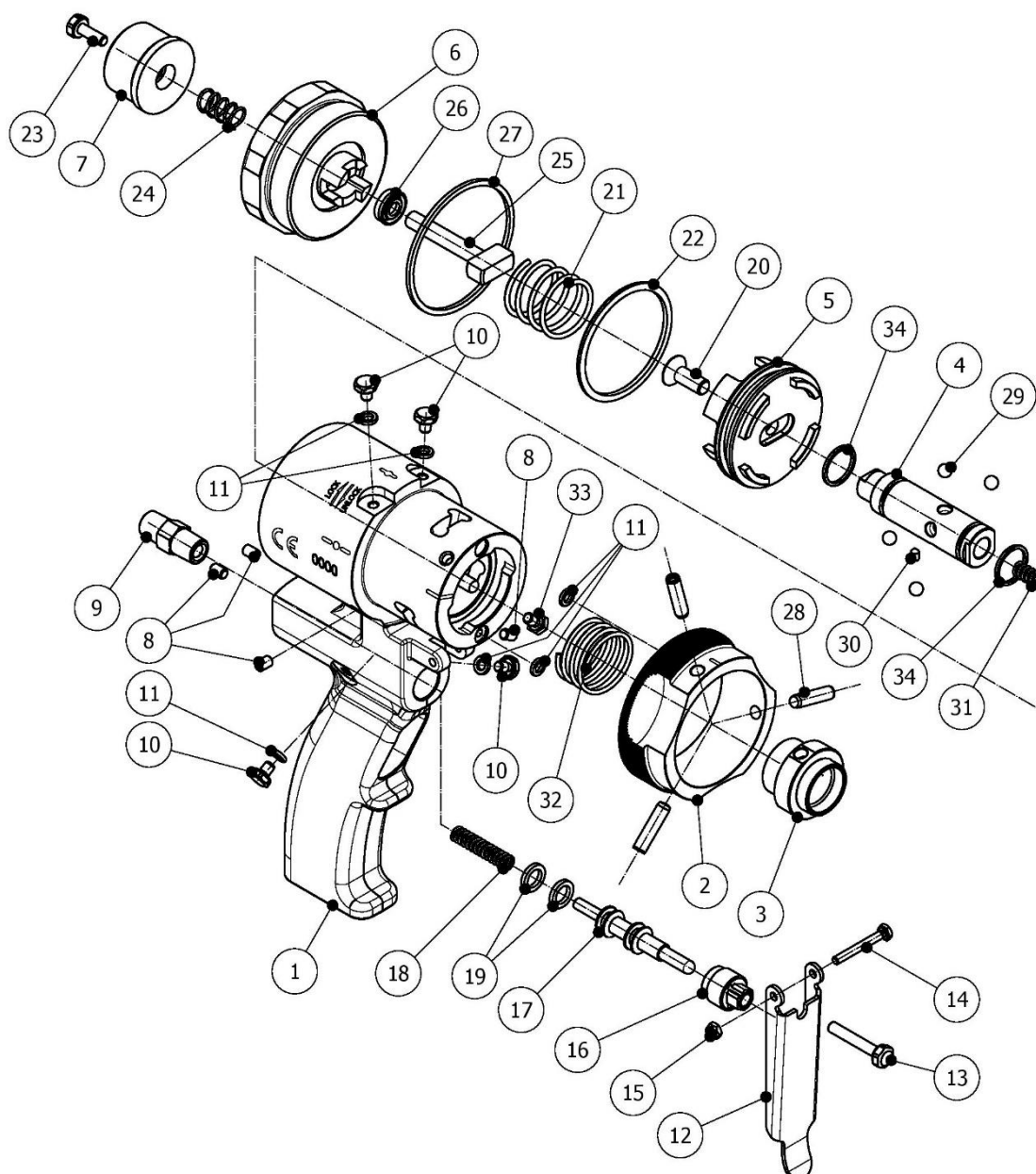


Figure 2. Handle and Air Cylinder Assembly of HT Black Gun

***Table 3. Handle and Air Cylinder Assy of HT Black Gun, Parts List***

Item.	Description	Part Number	Qty.
1	Handle with integral Barrel (novaG version)	NGU-09002-I	1
2	Ejection Ring Actuator	GU-09008-I	1
3	Ejection Ring	GU-09010	1
4	Plunger Shaft	GU-09004-I	1
5	Plunger	GU-09009	1
6	Cylinder Block	GU-07209	1
7	Lock Actuator	GU-07217	1
8	Plug	TN-00246	4
9	Male Adapter	RA-00112	1
10	Special Plug	GU-07216T	4
11	O-Ring	OR-00001	6
12	Trigger	GU-02132	1
13	Special Hex. Screw	GU-07221	1
14	Hexagonal Screw	TN-00459	1
15	Self-locking Nut	TN-00460	1
16	Trigger Nut	GU-07214	1
17	Trigger Shaft	GU-02130	1
18	Trigger Spring	SP-00022	1
19	O-ring	OR-00079	2
20	Flat-head Screw	TN-00322	1
21	Plunger Spring	SP-00007	1
22	Plunger Seal	OR-00176	1
23	Special Hex. Screw	GU-07220	1
24	Locking Spring	SP-00008	1
25	Locking Screw	GU-07224	1
26	Collar	OR-00027	1
27	Cylinder Head Seal	OR-00159	1
28	Cylindrical Pin with Inside Thread	TN-00468	3

HT BLACK GUN



Parts Manual

Item.	Description	Part Number	Qty.
29	Ball	TN-00470	5
30	Threaded Rod with Point	TN-00471	1
31	Chamber Ejection Spring	SP-00040	1
32	Actuator Spring	SP-00041	1
33	Hex. Screw	TN-00316	1
34	O-Ring	OR-00181	2
35	Screw	TN-00316	1



MICRO MAGNETIC ASSEMBLY (OPTIONAL)

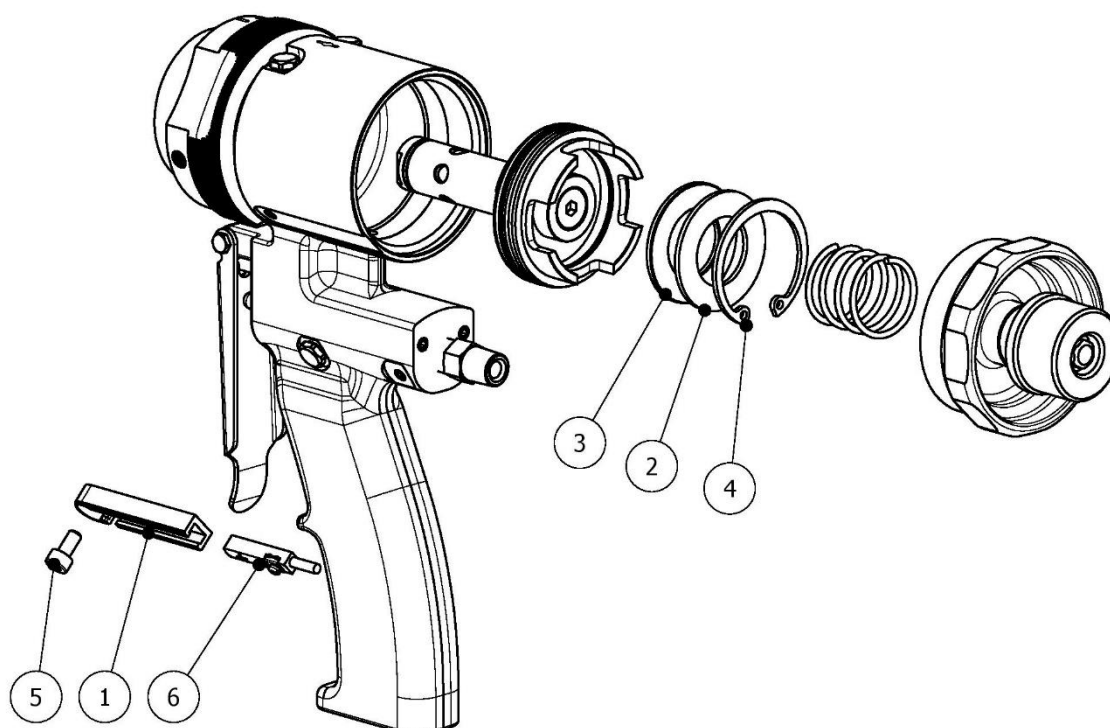


Figure 3. Micro Magnetic Assembly (OPTIONAL)

Table 4. Micro Magnetic Assembly, Parts List (OPTIONAL)

Item.	Description	Part Number	Qty.
1	Integrated Barrel Micro Support	GU-09016-I	1
2	Magnet Cover	GU-09018	1
3	Neodymium magnet	GU-09017	1
4	Seeger Ring	TN-00477	1
5	Allen Screw	TN-00018	1
6	Magnetic detector - cable 2.5 m + 1 square connector	EL-00136-04	1

TIMER ASSEMBLY (OPTIONAL)

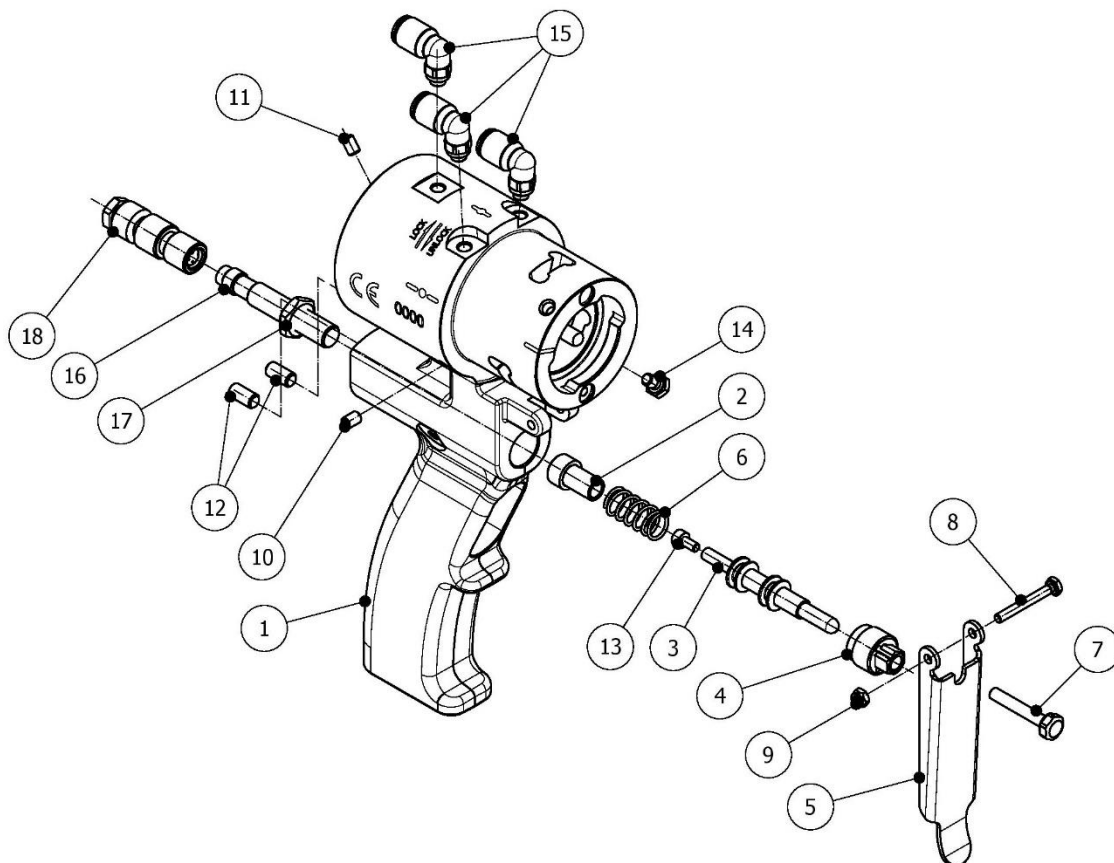


Figure 4. Timer Assembly (OPTIONAL)

***Table 5. Timer Assembly, Parts List (OPTIONAL)***

item.	Description	Part Number	Qty.
1	Handle with Integrated Barrel for Timer	NGU-09002T-I	1
2	Timer Spring Seat	GU-02135	1
3	Trigger Shaft for Timer	GU-02130-A	1
4	Trigger Nut	GU-07214	1
5	Trigger	GU-02132	1
6	Timer Shaft Spring	SP-00023	1
7	Special Hex. Screw	GU-07221	1
8	Hex. Screw	TN-00459	1
9	Self-locking Nut	TN-00182	1
10	Plug	TN-00246	1
11	Plug	TN-00246	1
12	Plug	TN-00437	2
13	Allen Screw	TN-00020	1
14	Hex. Screw	TN-00316	1
15	Adjustable 90° Elbow Connector	RA-00088	3
16	Induction Detector	EL-00136-02	1
17	Nut (Included in item. 16)	TN-00270	1
18	Straight Connector	EL-00137-02	1



ASSEMBLY FOR AUTO VERSION (OPTIONAL)

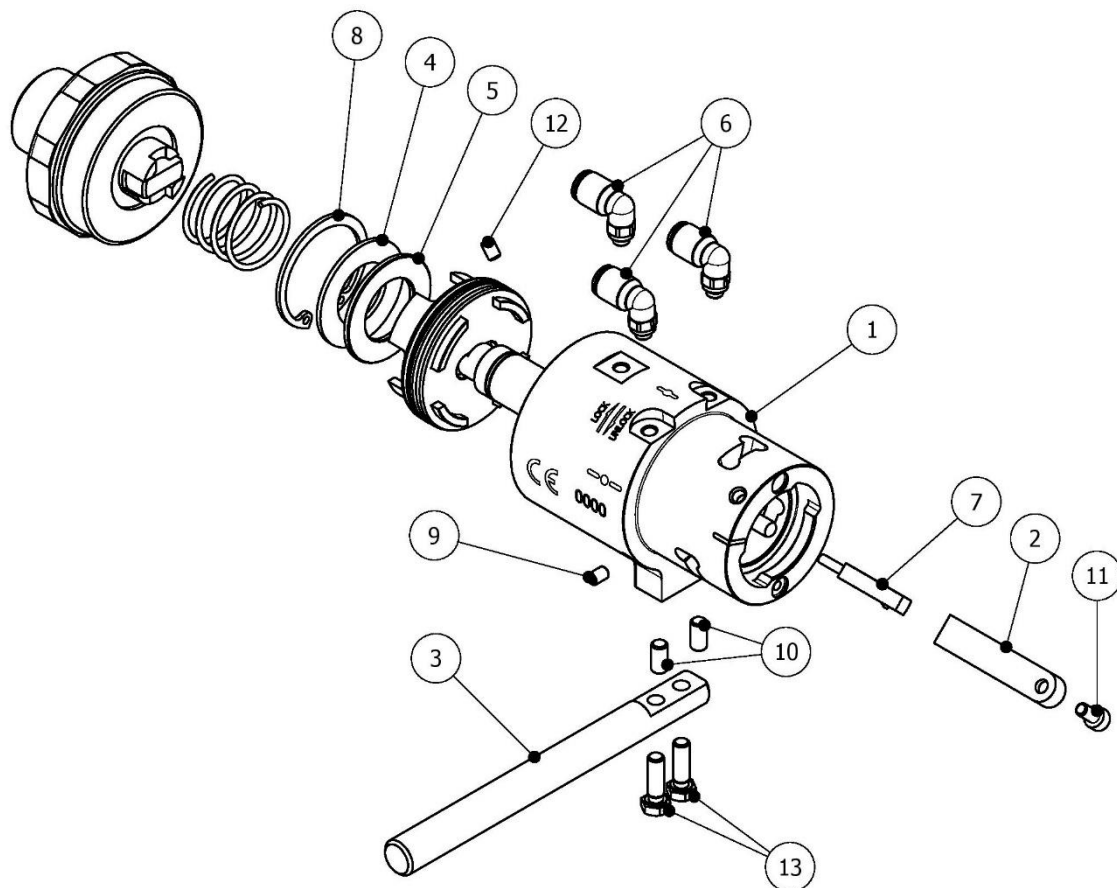


Figure 5. Assembly for Auto Version (OPTIONAL)

***Table 6. Assembly for Auto Version, Parts List (OPTIONAL)***

item.	Description	Part Number	Qty.
1	Barrel without Handle Auto Version	NGU-09002AT-I	1
2	Micro Support Auto Version	GU-09016-I	1
3	Gun Support Auto	GU-09022AT	1
4	Magnet Cover	GU-09018	1
5	Neodymium magnet	GU-09017	1
6	Adjustable 90° Elbow Connector	RA-00088	3
7	Magnetic detector with cable 2.5m + 1 connection 3-pole	EL-00136-04	1
8	Seeger Ring	TN-00477	1
9	Plug	TN-00246	1
10	Plug	TN-00437	2
11	Allen screw	TN-00018	1
12	Plug	TN-00246	1
13	Hexagonal Screw	TN-00478	2



SPRAY HEAD ASSEMBLY

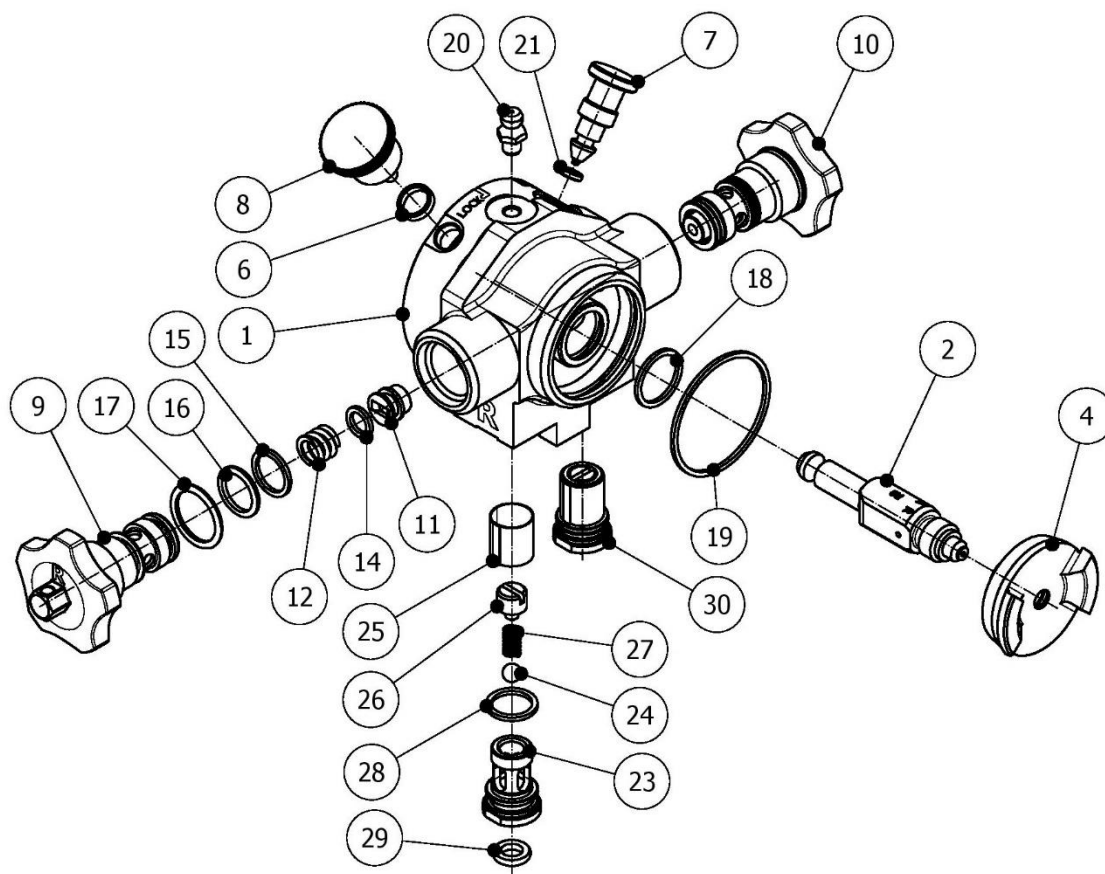


Figure 6. Spray Head Assembly

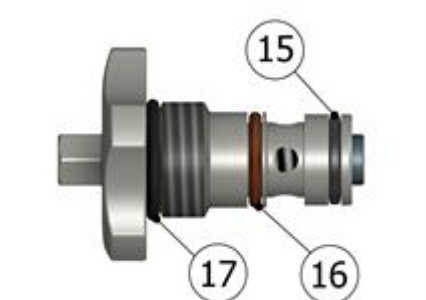


Figure 7. O-Rings Assembly Detail



Table 7. Mixing Head Assembly, Parts List

Item.	Description	Part Number	Qty.
1	Mixing Head	GU-09003	1
2	Mixing Chamber Assy, Round Version	See Table 8	1
3			
4	Round Diffuser	GU-09014	1
5			
6	Positioner Supplement	GU-09007B	1
7	Air Regulator	GU-09012	1
8	Retractable Positioner	TN-00473	1
9	“R” Resin Cartridge Holder	GU-09005	1
10	“A” Isocyanate Cartridge Holder	GU-09006	1
11	Side Seal Bushing	GU-02049-02	2
12	Spring	SP-00005	2
13			
14	O-ring	OR-00024	2
15 ©	O-ring (black color)	OR-00119	2
16 ©	O-ring (brown color)	OR-00118	2
17	O-ring	OR-00177	2
18	O-ring	OR-00025	1
19	O-ring	OR-00124	1
20	Grease Fitting	TN-00483	1
21	O-ring	OR-00001	1
22			
23	“R” Resin Check Valve Cartridge	GU-07206	1
24	Ball	TN-00228	2
25	Filter 40 Mesh (80 Mesh) (60 Mesh)	GU-02063-40 (GU-02063-80) (GU-02063-60)	2
26	Plug Check Valve Cartridge	GU-07222	2
27	Check Valve Spring	SP-00039	2

© Do not interchange these o-rings during assembly (see Figure 7, page 15)



Item.	Description	Part Number	Qty.
28	O-ring	OR-00119	2
29	O-ring	OR-00120	2
30	"A" Isocyanate Check Valve Cartridge	GU-07205	1
*	"A" Isocyanate Check Valve Assy	GU-07203	1
#	"R" Resin Check Valve Assy	GU-07204	1

Notes:

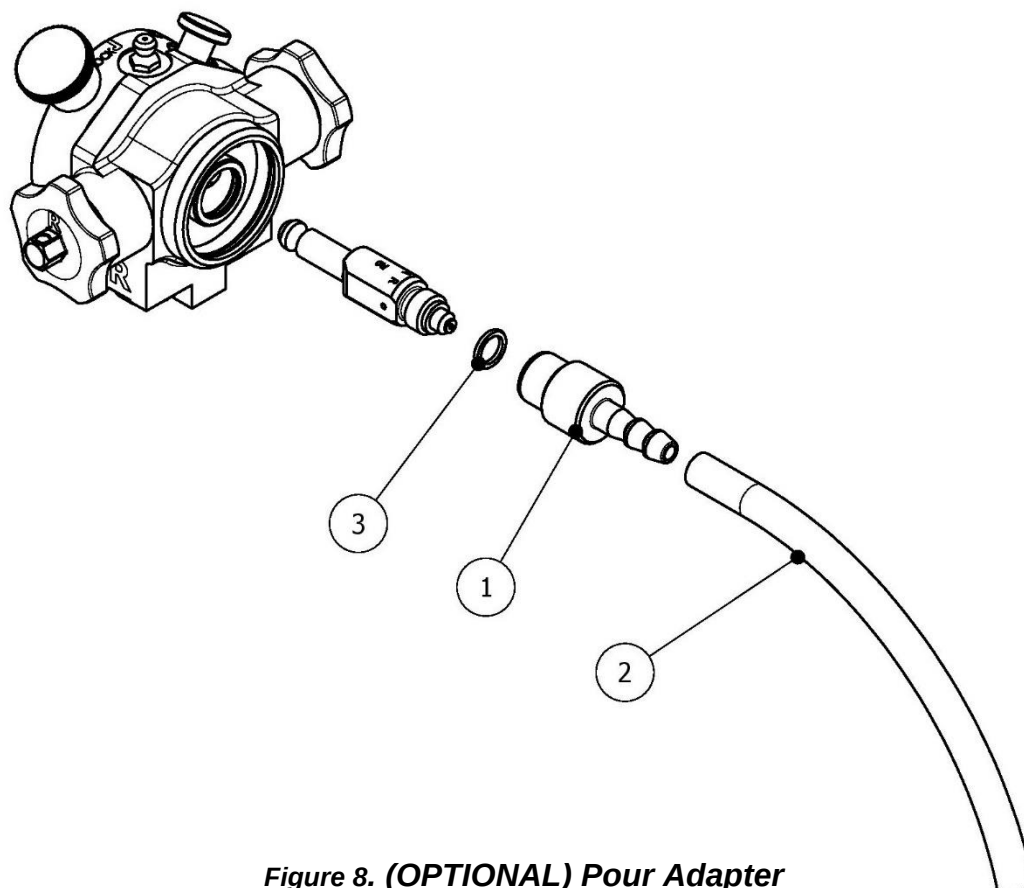
(*) Contains 1 unit of each part between Pos. 23 to 29

(#) Contains 1 unit of each piece between Pos. 24 to 30

Table 8. Component List according to production, Round Chambers

Production (Kg/min.)	Mixing Chamber Assy, Round Version	Cleaning Drill Bit 1 (*)	Cleaning Drill Bit 2 (*)
0,56 – 3,8	GU-09011-000	HT-00074 + HT-00066	HT-00065
2 – 7,5	GU-09011-00	HT-00068 + HT-00066	HT-00062
2,2 - 9	GU-09011-0	HT-00063	HT-00062
2,4 – 11,2	GU-09011-1	HT-00065	HT-00066
3,5 – 17	GU-09011-2	HT-00062	HT-00029
	GU-09011-A000	HT-00015 + HT-00066	HT-00024
2 – 7,5	GU-09011-A00	HT-00079	HT-00064
2,2 - 9	GU-09011-A1	HT-00065	HT-00064
2,1 – 6,7	GU-09011-A0	HT-00087	HT-00066

(*) Included with the Mixing Chamber Assy

**ASSEMBLY FOR POUR ADAPTER (OPTIONAL)***Figure 8. (OPTIONAL) Pour Adapter***Table 9. Pour Adapter Version, Parts List**

Item.	Description	Part Number	Qty.
1	Pour Adapter	GU-07026	1
2	Tube Ø 1/4 interior	NE-00043-SIZE	1
3	O-ring	OR-00057	1

Notes:

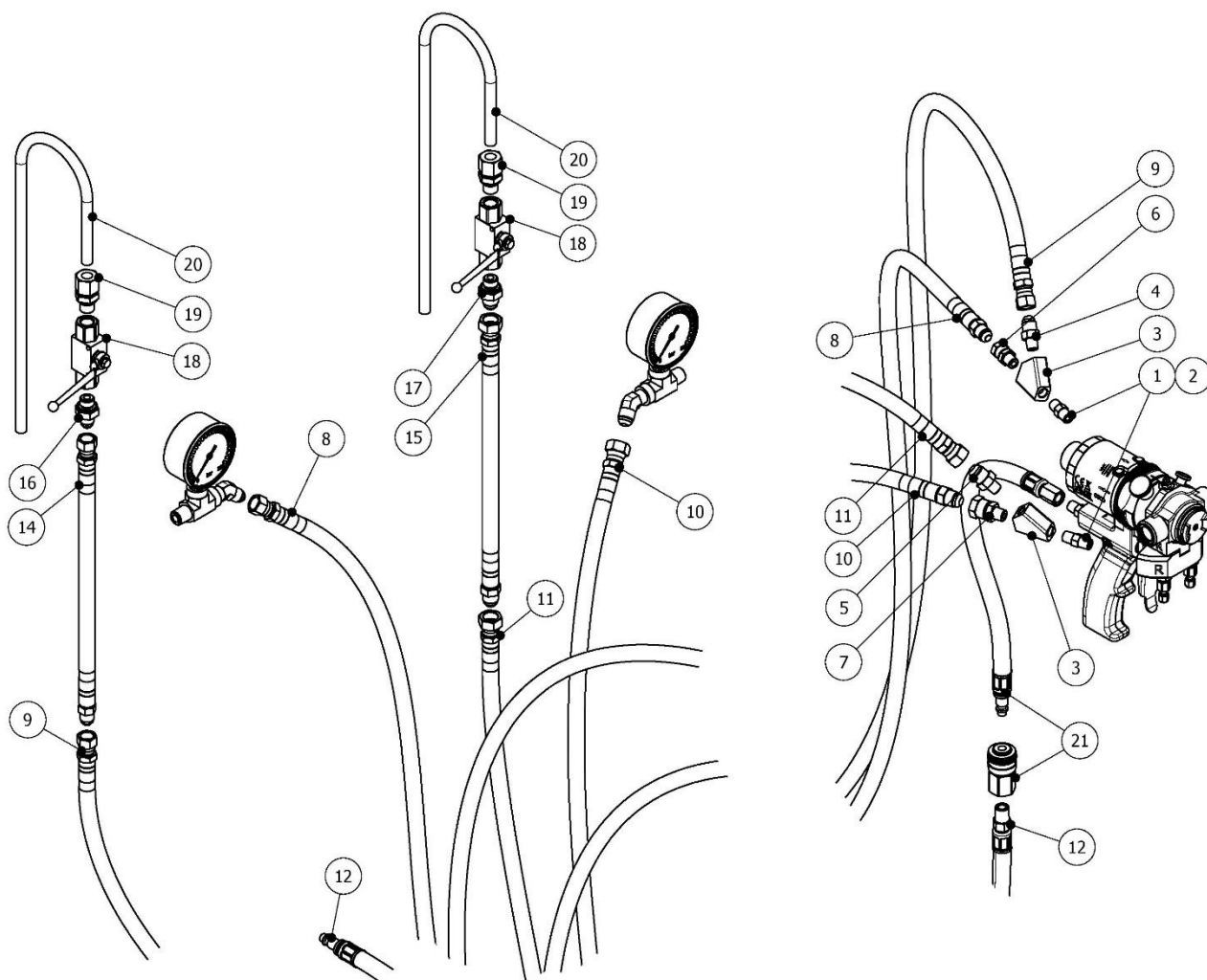
The SIZE nomenclature in item 3 indicates the required hose length.

This adapter can be used for any size of round chambers.

When using this assembly, remember to close the Air Regulator GU-09012 (see ¡Error! No se encuentra el origen de la referencia. on page 16).



RECIRCULATION KIT (OPTIONAL)



Item 21 are included in the standard air supply kit of the gun.

Figure 9. Recirculation Kit (OPTIONAL)
KT-00059-9



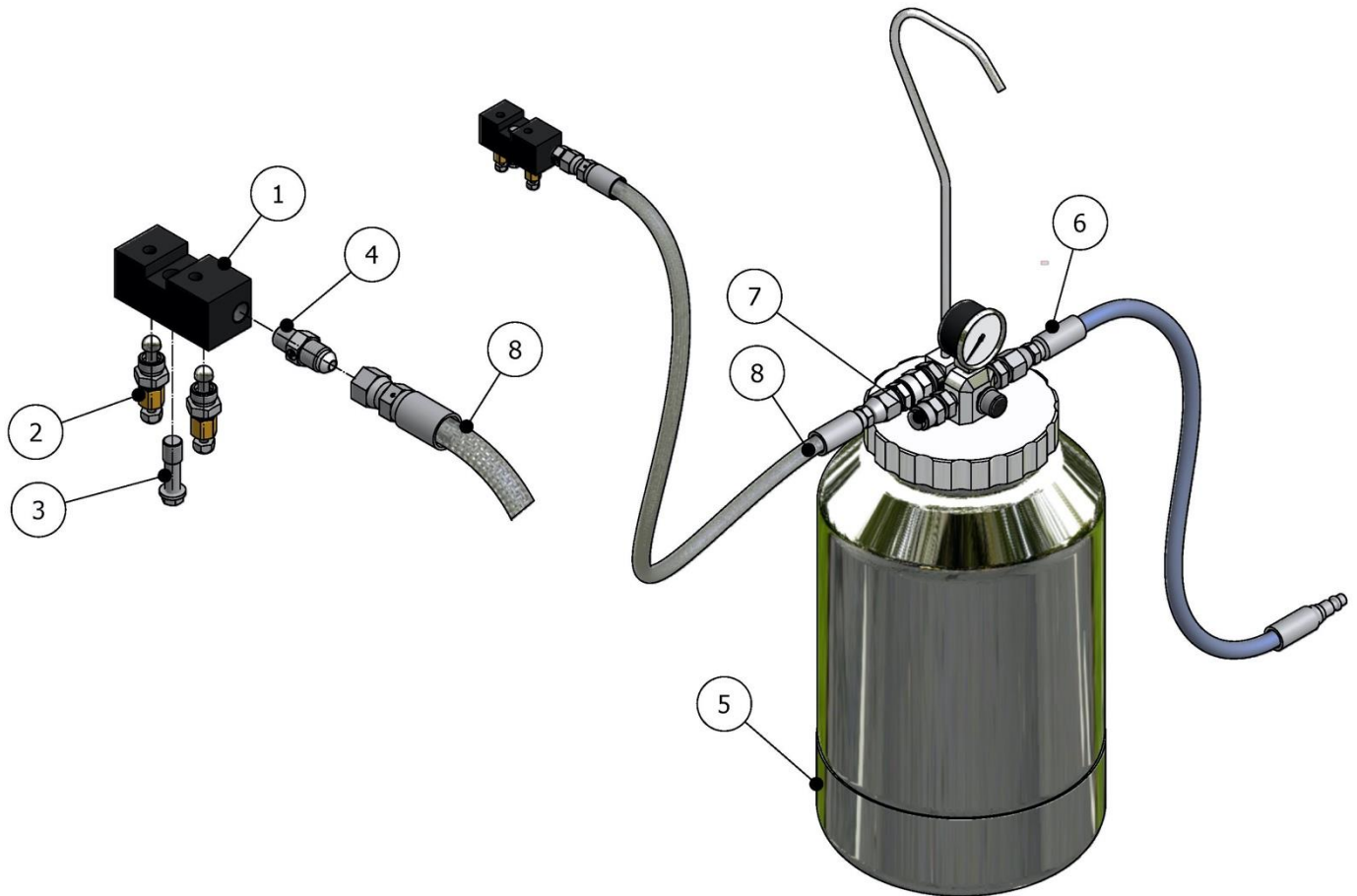
Table 10. Recirculation Kit (OPTIONAL), Parts List
KT-00059-9

Item.	Description	Part Number	Qty.
1	Straight Connector	RA-00112	2
2	90° Elbow	RA-00205	2
3	Distributor	RA-00464	2
4	Male Adapter	RA-00238	1
5	Male Adapter	RA-00237	1
6	Swivel Nut (*)	RA-00005	1
7	Swivel Nut (*)	RA-00006	1
8	Flexo 10000 mm ISO (Pressure Inlet)	MA-00060-3	1
9	Flexo 10000 mm ISO (Pressure Return)	MA-00060-2	1
10	Flexo 10000 mm POL (Pressure Inlet)	MA-00059-3	1
11	Flexo 10000 mm POL (Pressure Return)	MA-00059-2	1
12	Air Hose	MA-00194	1
13			
14	Flexo 1000 mm Hose Extension ISO (Pressure Return)	MA-00177	1
15	Flexo 1000 mm Hose Extension POL (Pressure Return)	MA-00178	1
16	Male Adapter	RA-00144	1
17	Male Adapter	RA-00145	1
18	Ball Valve	RA-00217	2
19	Tube Connector	RA-00218	2
20	Curved Tube	MQ-06016	2
21	Air Connection Kit (included with gun)		
	Hose Cover 10000 mm	MA-00123	
	Insulating Jacket 10000 mm	MA-00099	
	Insulating Jacket 8000 mm	MA-00099-1	

(*) Parts included in standard gun assembly

IMPORTANT NOTE:

Check prices and delivery times with the Marketing Department for all OPTIONAL assemblies.



KT-00072



***Table 11: Cleaning Kit (OPTIONAL), Parts List
KT-00072***

item.	Description	Part Number	Qty.
1	Gun Adapter	GU-02138-00	1
2	Manual Valve Assembly	GU-02020-00G	2
3	Intake Block Screw	GU-04036	1
4	Male Adapter	RA-00108	1
5	Pressurized Tank 2 Lts. (Standard)	BI-00007-2	1
	Pressurized Tank 10 Lts. (Optional)	BI-00007-10	1
6	Air Hose 0.5 mts	MA-00097	1
7	Plug	RA-00328	1
8	Cleaning Hose 10 mts.	MA-00063	1

Notes:

Delivery time for this assembly, consult with the Marketing department.



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