



Parts Manual

2K Pumping System

Non-Heated

Issue 1.6 18/08/22
Ref. NR-00025-ENG



Before installing the unit and starting it up, carefully read all the technical and safety documentation included in this manual. Pay special attention to the information to know and understand the handling and the conditions of use of the unit. All of the information is aimed at enhancing User Safety and avoiding possible breakdowns derived from the incorrect use of the unit.



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 the 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.

All the information provided in this manual has been included in the confidence that it is true, although it does not constitute any responsibility or implicit or explicit guarantee. HI-TECH reserves the right at any time and without prior warning to make all improvements and modifications necessary to this manual, in order to rectify any possible typographical errors, increase the information contained or insert the changes caused to the characteristics and performance of the unit.



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)

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 2003/10/EC on noise level (UK The Control of Noise at Work Regulations 2005)

UNE EN ISO 3740 (BS EN ISO 3740:2019)

UNE EN ISO 3746 (BS EN ISO 3746:2010)

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.



PROPORTIONING UNIT novaG-2K MODEL

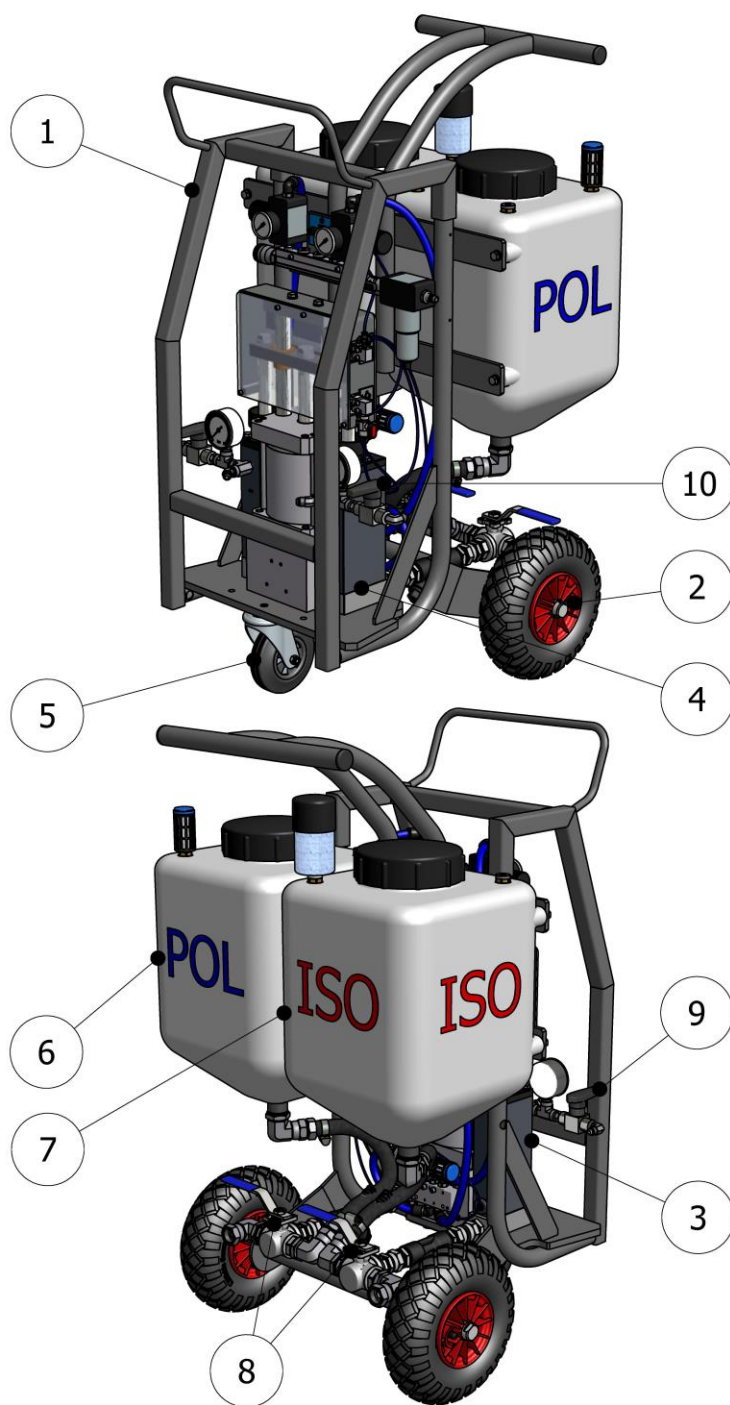


Figure 1. Proportioning Unit novaG-2K Model



Table 1. Proportioning Unit novaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	Framework	MQ-06032-00	1
2	Rear Wheel	MQ-06034	2
3	“A” Proportioning Pump Assembly	See Table 2	1
4	“R” Proportioning Pump Assembly	See Table 3	1
5	Front Wheel	MQ-06035	1
6	“R” Assy Product Tank	MQ-06012-00	1
7	“A” Assy Product Tank	MQ-06013-00	1
8	Inlet Selector	RA-00458	2
9	Recirculation ISO Key	RA-00189	1
10	Recirculation POL Key	RA-00189	1

Table 2. “A” Proportioning Pump Assy. NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	“A” Proportioning Pump Assembly	PU-02001-ESG

Table 3. “R” Proportioning Pump Assy. NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	“R” Proportioning Pump Assembly	PU-02001-ESG

Notes:

ISO and POL pump are the same and therefore, have the same code.



FRAMEWORK NOVAG-2K MODEL



Figure 2. Framework novaG-2K Model, Exploded View

Table 4. Framework NovaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	Framework	MA-06032-00	1
2	Front Wheel	MQ-06035	1
3	Rear Wheel	MQ-06034	2
4	Nut Wheel	MQ-06033	2
5	Allen Screw	TN-00177	1
6	Plug	MQ-06017-03	2



SUPPLY SYSTEM novaG-2K MODEL

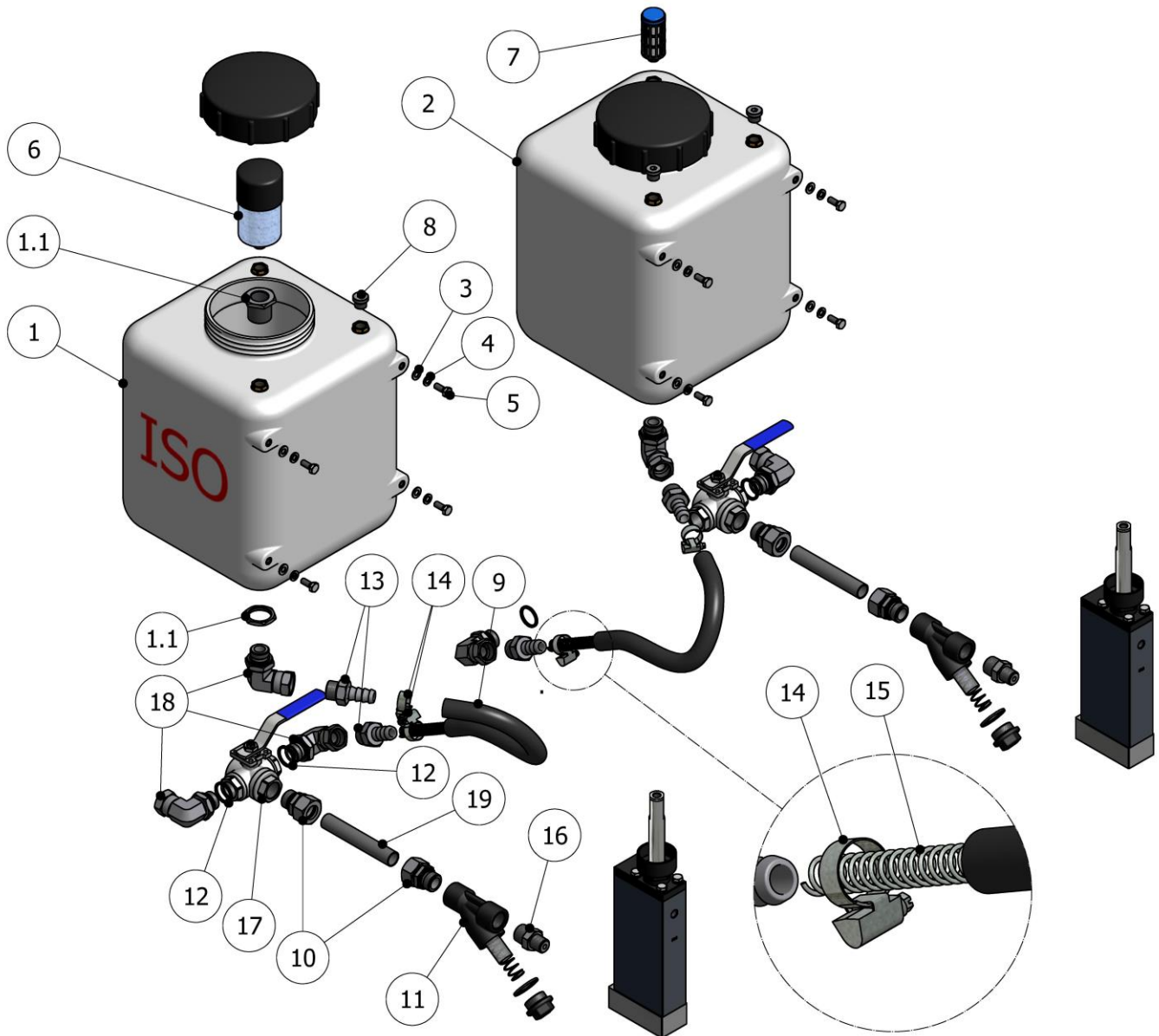


Figure 3. Supply System novaG-2K Model, Exploded View



Table 5. Supply System novaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	"A" Assy Product Tank	MQ-06013-00	1
1.1	Bulkhead Coupling	RA-00216	1(*) 1(#)
2	"R" Product Tank	MQ-06012-00	1
3	Washer	TN-00119	8
4	Lock Washer	TN-00028	8
5	Hex. Screw	TN-00187	8
6	Mini Disposable Breathers	NE-00045	1(*)
7	Muffler	NE-00056	1(#)
8	Plug	RA-00049	2(*) 2(#)
9	Hose	MA-00058	2
10	Tube to Swivel Fitting	RA-00468	4
11	Y-Strainer	RA-00074	2
11.1	Filter Plug (Included in Ref. 12) (*)	RA-00074-01	1
11.2	Filter Spring (Included in Ref. 12) (*)	SP-00017	1
11.3	Filter (Included in Ref. 12) (*)	RA-00074-03-30	1
11.4	Filter Gasket (Included in Ref. 12) (*)	OR-00061	1
12	O-Ring	OR-00082	4
13	Coupler Plug	RA-00219	4
14	Hose Bridle	TN-00364	4
15	Spring	SP-00019	2
16	Male Union	RA-00081	2
17	Ball Valve 3 Ways	RA-00458	2
18	Swivel Elbow	RA-00338	6
19	Hydraulic Tube 22x1,5x132	MA-	2

(*) Items included in ISO Tank Assy Ref. 1

(#) Items included in POL Tank Assy Ref. 2.

Ref. Tank only with Cover; MQ-06012-01 (common for ISO & POL).



MOTOR GUIDE SYSTEM novaG-2K MODEL

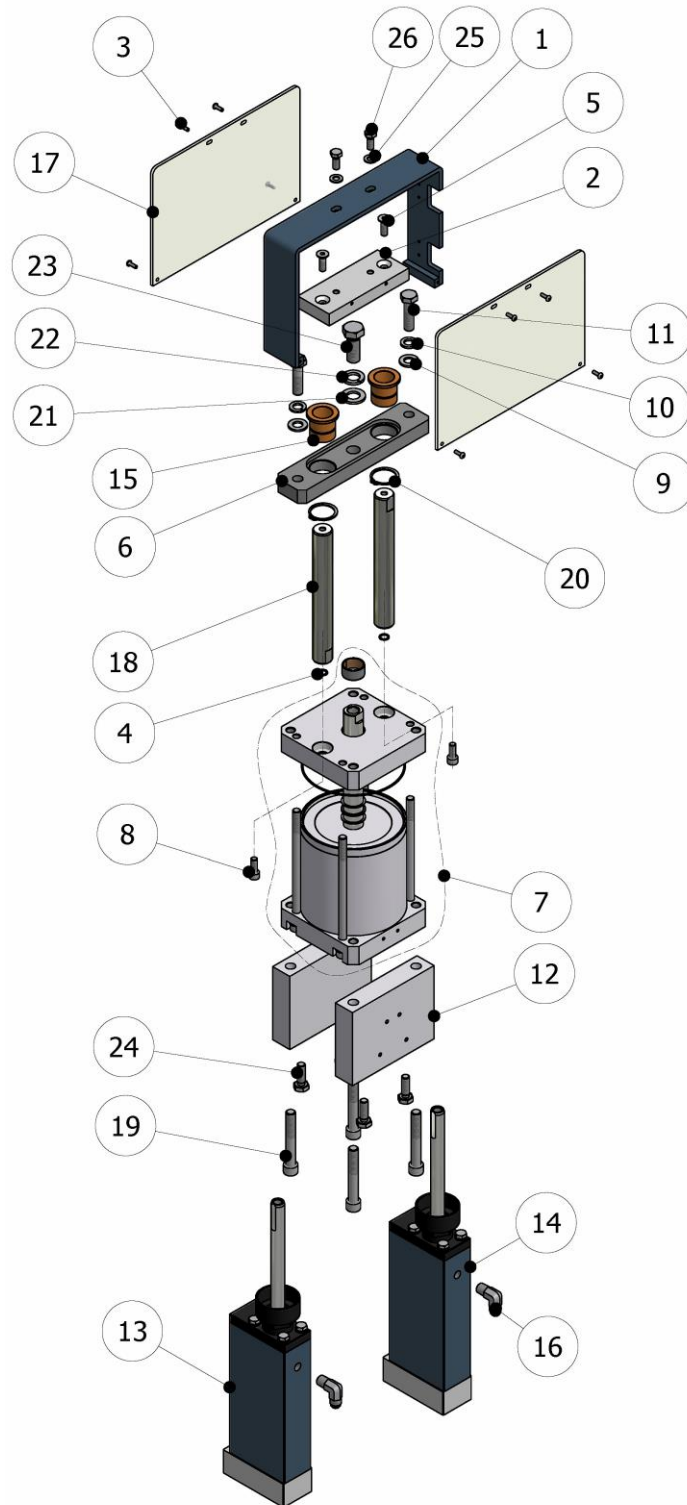


Figure 4. Motor Guide System novaG-2K Model, Exploded View



Table 6. Motor Guide System novaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	Protection Guide	MQ-06024-00	1
2	Upper Plate	MQ-06025	1
3	Screw	TN-00049	8
4	O-Ring	OR-00003	2
5	Screw	TN-00191	2
6	Puma Yoke	MQ-06023	1
7	Air Motor	NE-00062	1
8	Socket Head Cap Screw	TN-00176	2
9	Washer	TN-00040	2
10	Lock Washer	TN-00039	2
11	Hex Head Cap Screw	TN-00037	2
12	Air Motor Support	MQ-07007	2
13	"A" Proportioning Pump Assembly	PU-02001-ESG	1
14	"R" Proportioning Pump Assembly	PU-02001-ESG	1
15	Bearing	TN-00314	2
16	Hose 45° Elbow (ISO Pump)	RA-00017	1
	Hose 45° Elbow (POL Pump)	RA-00043	1
16.1	"T" Adapter	RA-00018	1-1
16.2	Fill Gauge	HI-00019	1-1
17	Cover	MQ-07008	2
18	Column	MQ-06026	2
19	Socket Head Cap Screw	TN-00201	4
20	Retainer Ring	TN-00070	2
21	Washer	TN-00045	1
22	Lock Washer	TN-00044	1
23	Hex Head Cap Screw	TN-00095	1
24	Hex Head Cap Screw	TN-00129	4
25	Washer	TN-00119	2
26	Screw	TN-00187	2

Note: ISO pump and the POL pump are exactly equal, as what they have the same Part Number. In this version, the original output elbows will be replaced by the items of this table (see Ref. 16, 16.1 & 16.2).



PROPORTIONING PUMP ASSEMBLY novaG-2K MODEL

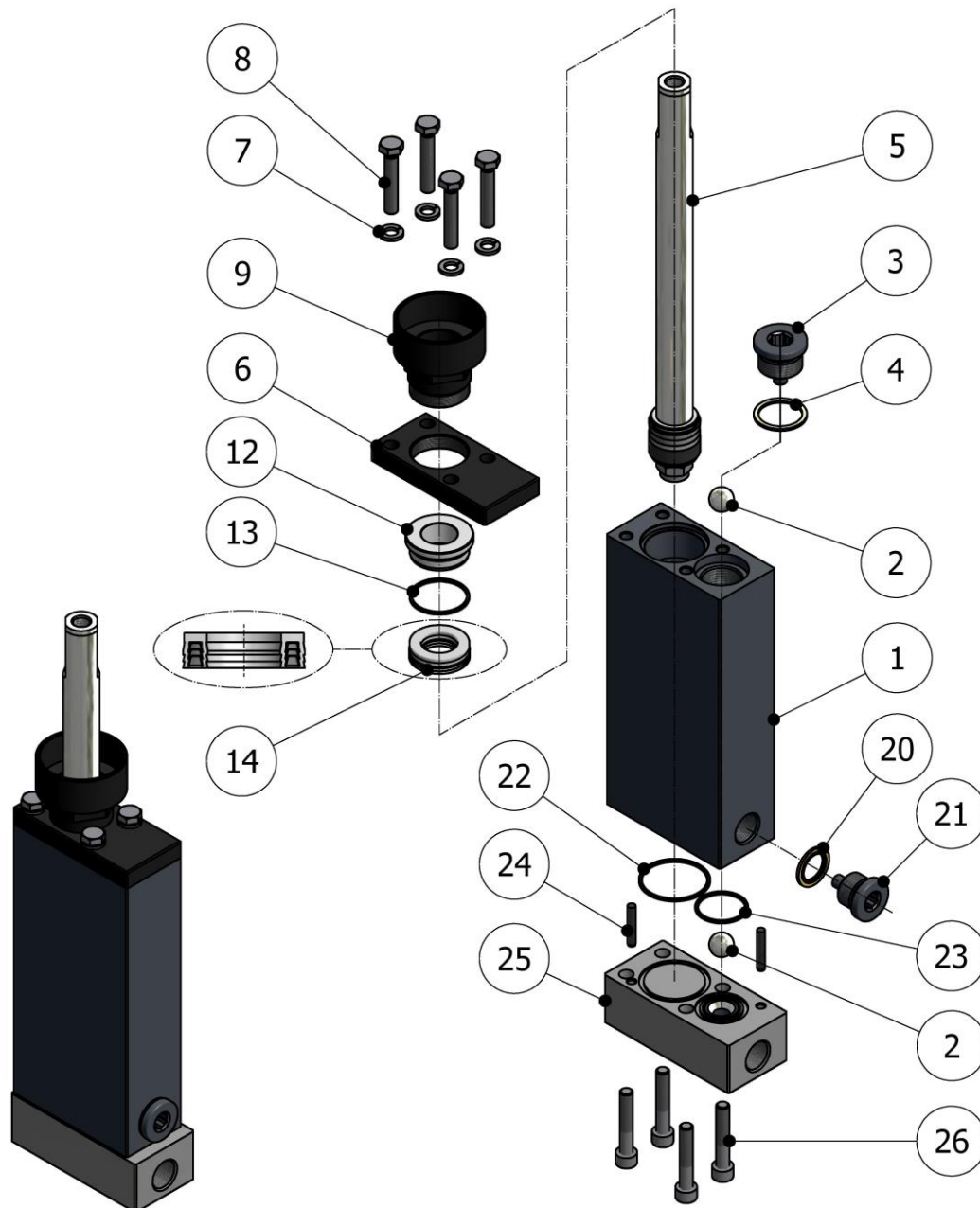


Figure 5. Proportioning Pump Assembly novaG-2K Model, Exploded View



Table 7. Proportioning Pump Assembly novaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	Pump Body With Check Valve Assembly	See Table 10	1
1.1	Pump Body	See Table 8	1
1.2	Check Valve Assembly	PU-02000-09	1
2	Valve Ball	TN-00012	2
3	Plug	PU-02000-21	1
4	Seal	PU-02000-27	1
5	Piston Rod Assembly	See pg. 14	1
6	Packing Retainer	PU-02000-03	1
7	Lock Washer	TN-00028	4
8	Socket Head Cap Screw	TN-00051	4
9	Parking Nut W/Lube Cup	See Table 9	1
12	Bearing (#)	See Table 11	1
13	O-Ring (#)	See Table 13	1
14	Cylinder Seal (#)	See Table 12	1
20	O-Ring	OR-00023	1
21	Plug	PU-02000-10	1
22	O-Ring	OR-00013	1
23	O-Ring	OR-00014	1
24	Dowel Pin	TN-00042	2
25	Pump Base With Check Valve Assembly	PU-02000-01A	1
25.1	Check Valve Assembly	PU-02000-09	1
25.2	Base Plate	PU-02000-01	1
26	Socket Head Cap Screw	TN-00046	4
27	Repair Seal Kit	See Table 16	1

(#) Parts Included in the Repair Seal Kit Ref. 27.

The Quantities indicated are for one pump.

ISO pump and the POL pump are exactly equal, as what they have the same Part Number. In this version, the original output elbows will be replaced by indicated items of Table 6 (see Ref.16, 16.1 & 16.2).

**Table 8. Pump Body Size NovaG-2K Model, Parts List**

Proportioning Pump Size	Description	Part Number
4,5	Pump Body	PU-02001-02

Table 9. Packing Nut Size NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	Packing Nut	PU-02001-31

Table 10. Pump Body with Check Valve Assembly Size NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	Pump Body with Check Valve Assembly	PU-02001-02A

Table 11. Bearing Size NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	Bearing (#)	PU-02001-30G

Table 12. Seal Size NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	Seal (#)	OR-00117G

Table 13. O-Ring Size NovaG-2K Model, Parts List

Proportioning Pump Size	Description	Part Number
4,5	O-Ring (#)	OR-00125

(#) Parts included in Repair Seal Kit, see Table 16.

PISTON ROD ASSEMBLY

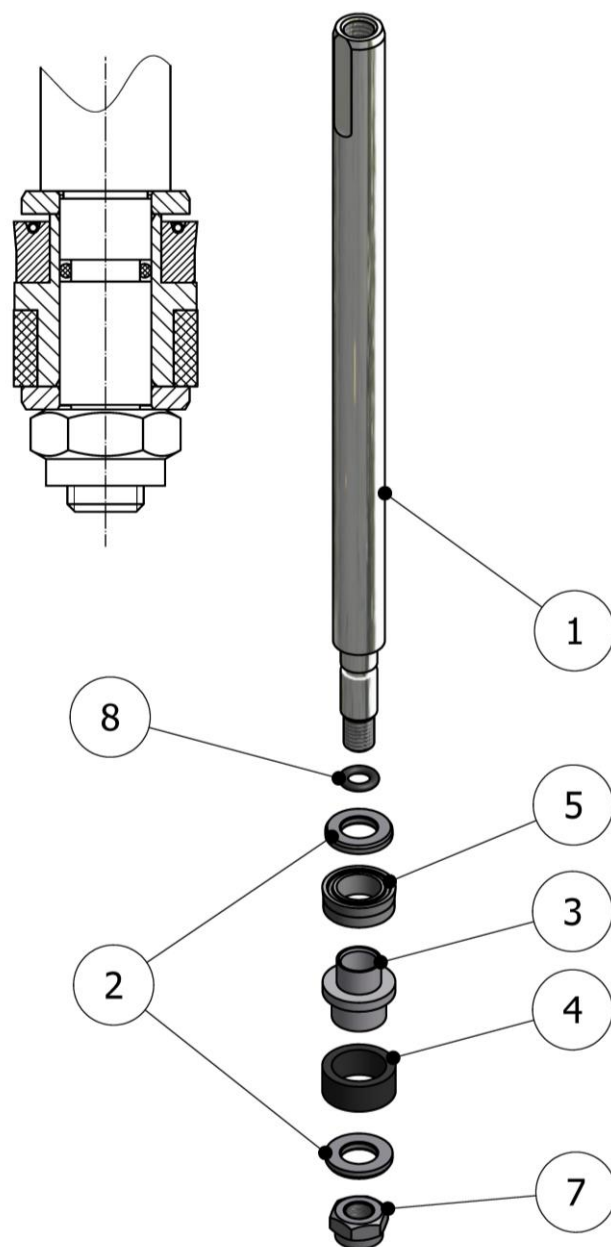


Figure 6. Piston Rod Assembly, Exploded View

**Table 14. Piston Rod Assembly, Parts List**

Ref.	Description	Part Number	Qty.
1	Pump Piston Rod	See Table 15	1
2	Washer	See Table 15	2
3	Piston Seal Support	See Table 15	1
4	Piston Seal (#)	See Table 15	1
5	O-Ring (#)	See Table 15	2
6			
7	Nut	See Table 15	1
8	O-Ring (#)	See Table 15	1
9	Repair Seal Kit	See Table 16	1

(#) Parts are included in the Repair Seal Kit Ref. 9.

Table 15. Piston Rod Size, Parts List

Proportioning Pump Size	Ref. 1	Ref. 2	Ref. 3	Ref. 4
4,5	PU-02001-06	PU-02001-08	PU-02001-07R	OR-00050

Pump Size	Ref. 5	Ref. 6	Ref. 7	Ref. 8
4,5	OR-00151		TN-00165	OR-00049

Table 16. Repair Seal Kit, Parts List, NovaG-2K

Proportioning Pump Size	Description	Ref.
4,5	Repair Seal Kit	KT-00153

The Repair Seal Kit Include the parts for 1 set of pump.



AIR CONTROL ASSEMBLY novaG-2K MODEL

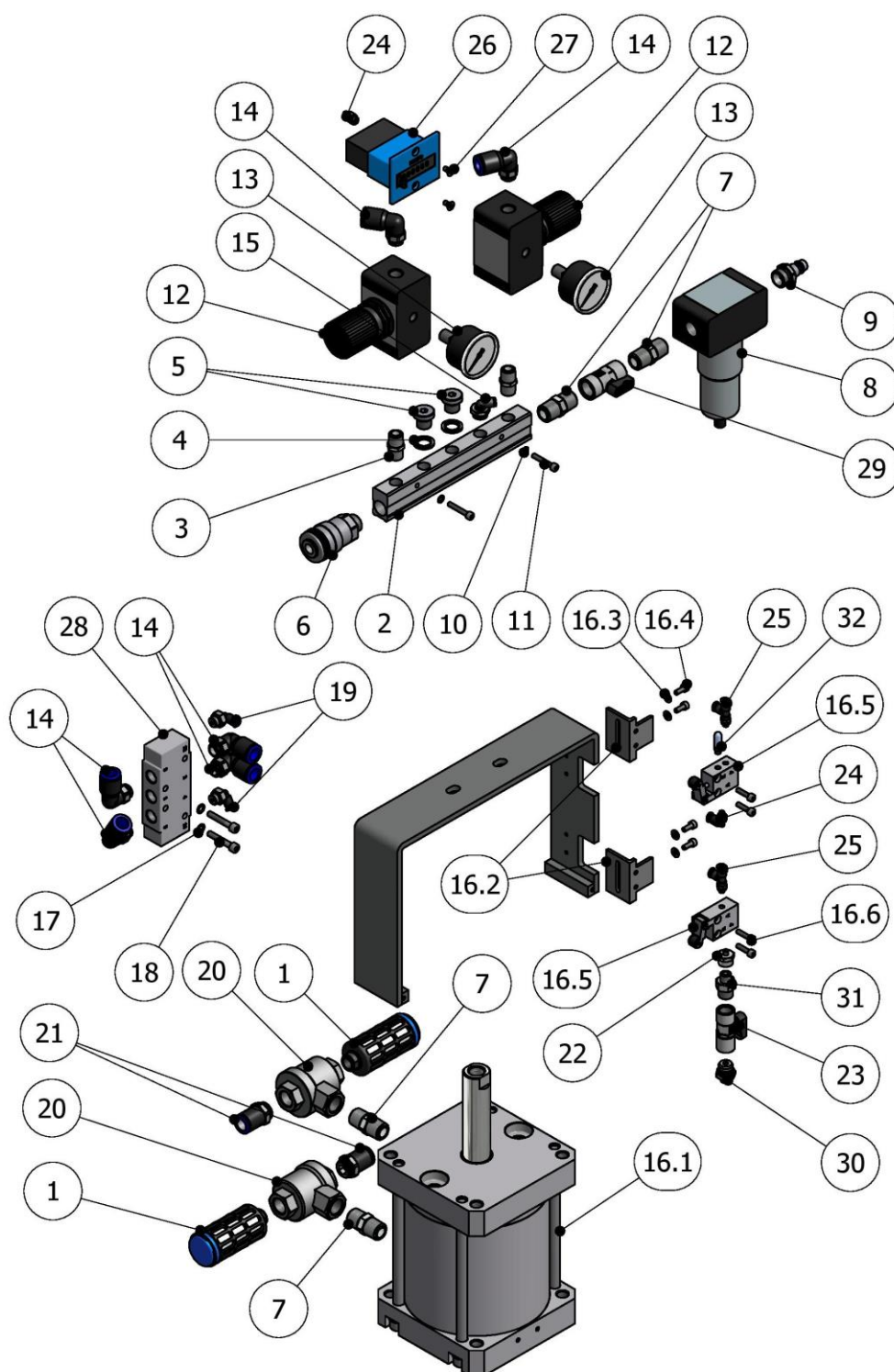


Figure 7. Air Control Assembly novaG-2K Model, Exploded View



Table 17. Air Control Assembly novaG-2K Model, Parts List

Ref.	Description	Part Number	Qty.
1	Muffler	NE-00056	2
2	Air Manifold	NE-00038	1
3	Union	RA-00048	2
4	Metal Ring	OR-00054	2
5	Plug	RA-00013	2
6	Quick connection	RA-00207	1
7	Union	RA-00054	4
8	Air Filter	NE-00034	1
9	Coupler	RA-00096	1
10	AET Washer	TN-00019	2
11	Allen Screw	TN-00117	2
12	Pressure Regulator	NE-00032	2
13	Manometer	NE-00033	2
14	Elbow	RA-00046	7
15	Elbow	RA-00233	1
16.1	Pneumatic Cylinder	NE-00062	1
16.2	Switch Support	MQ-06009	2
16.3	Washer	TN-00104	4
16.4	Allen Screw	TN-00002	4
16.5	Pneumatic Switch	NE-00031	2
16.6	Allen Screw	TN-00001	4
17	AET Washer	TN-00017	2
18	Allen Screw	TN-00148	2
19	Elbow	RA-00222	2
20	Fast Socket	NE-00060	2
21	Union	RA-00156	2
22	Adapter	RA-00227	1
23	Ball Valve	RA-00133	1
24	Elbow	RA-00223	2
25	Elbow TL	RA-00512	2



Ref.	Description	Part Number	Qty.
26	Cycler Counter	NE-00070	1
27	Screw	TN-00121	2
28	Pneumatic Valve	NE-00030	1
29	Ball Valve with Exhaust	RA-00513	1
30	Tube Fitting	RA-00557	1
31	Male Adapter	RA-00556	1
32	Muffler	NE-00037	1

Table 18. Pneumatic Tubes List, novaG-2K model

Ref.	Description	Part Number (*)	Qty.
	Blue Polyamide Tube Ø12xØ10	MA-00069	
	Blue Polyamide Tube Ø8xØ6	MA-00072	
	Blue Polyamide Tube Ø6xØ4	MA-00071	
	Blue Polyamide Tube Ø4xØ2.7	MA-00070	

(*) Raw Material Reference



KT-00038 RECIRCULATION DETAIL

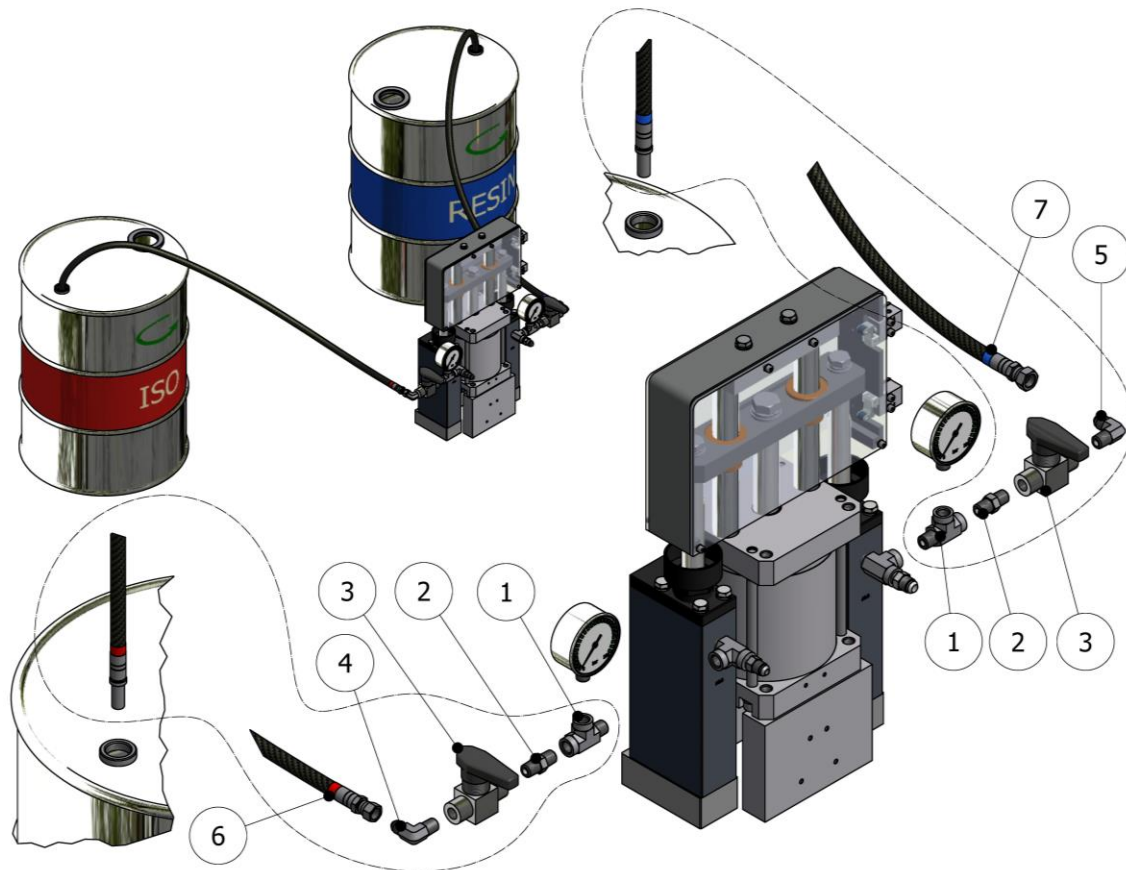


Figure 8. Air Control Assembly novaG-2K Model, Exploded View

Table 19. Air Control Assembly novaG-2K Model, Parts List

Ítem	Description	Part Number	Qty.
1	"T" Union	RA-00018	2
2	Union	RA-00188	2
3	Ball Valve	RA-00217	2
4	Elbow 90° ISO	RA-00254	1
5	Elbow 90° PO	RA-00044	1
6	ISO Hose 3.5 mts	MA-00050-01	1
7	POL Hose 3.5 mts	MA-00050-00	1



PNEUMATIC SCHEMATIC DIAGRAM

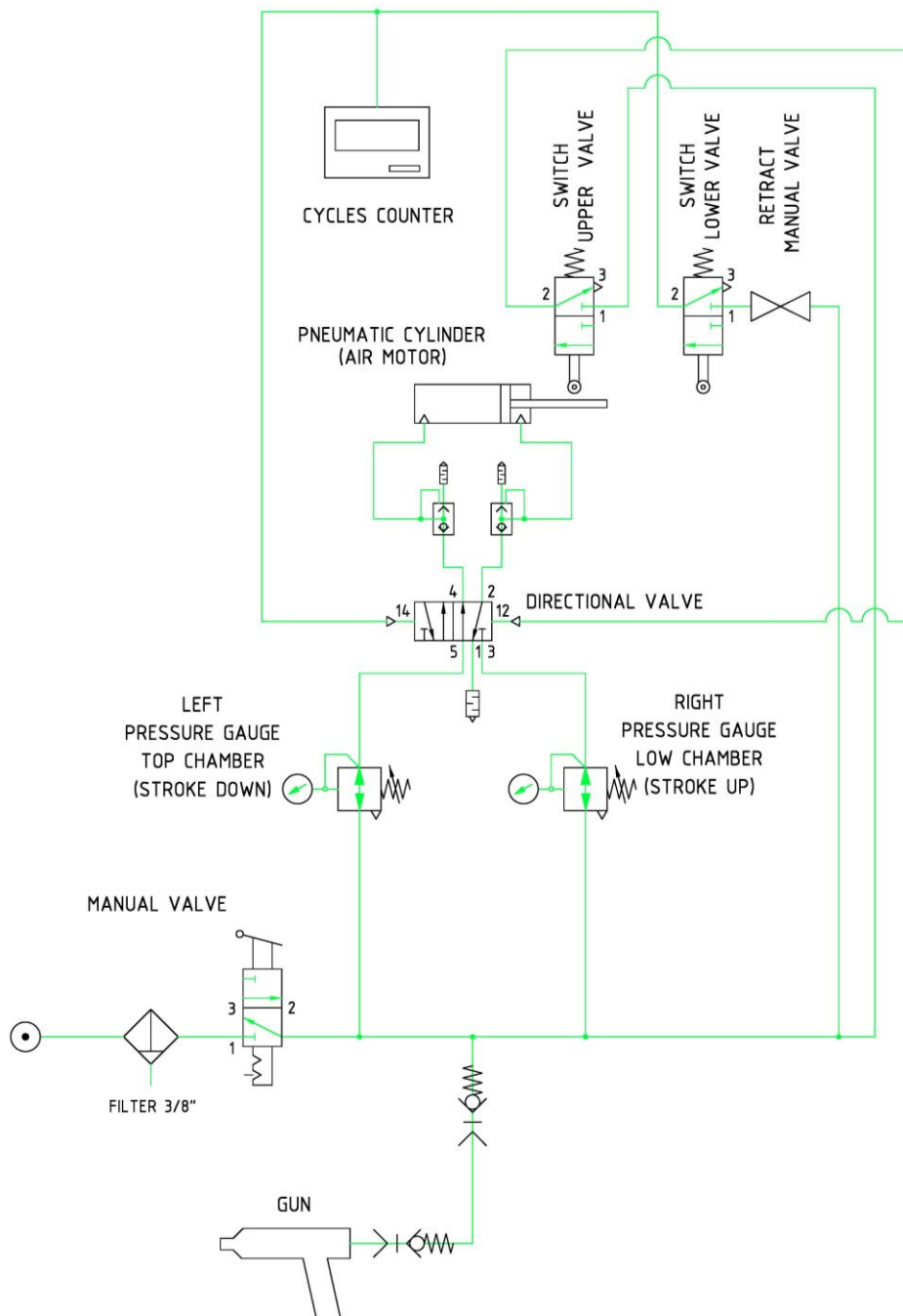


Figure 9. Pneumatic Schematic Diagram



FUNCTIONING SCHEMATIC DIAGRAM

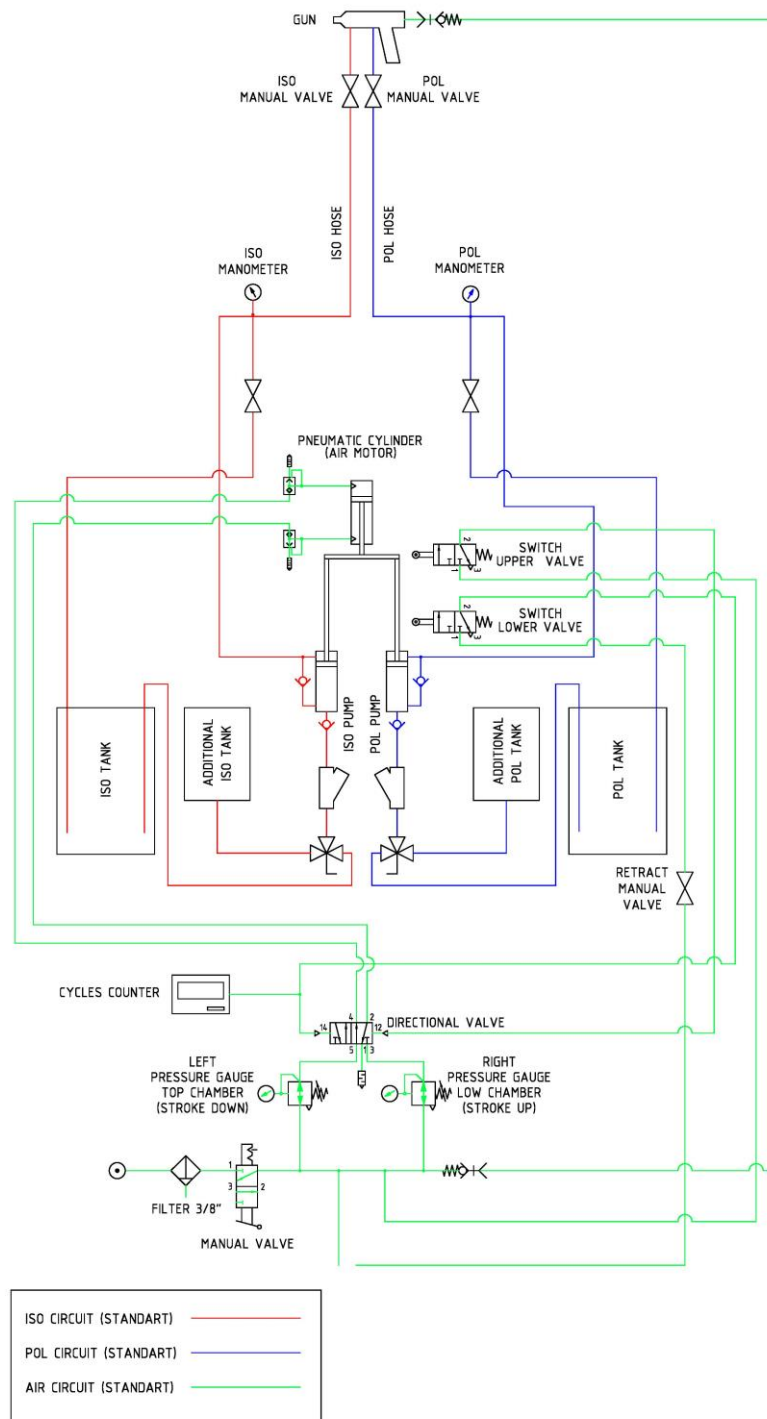


Figure 10. Functioning Schematic Diagram



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