

OPERATOR'S MANUAL

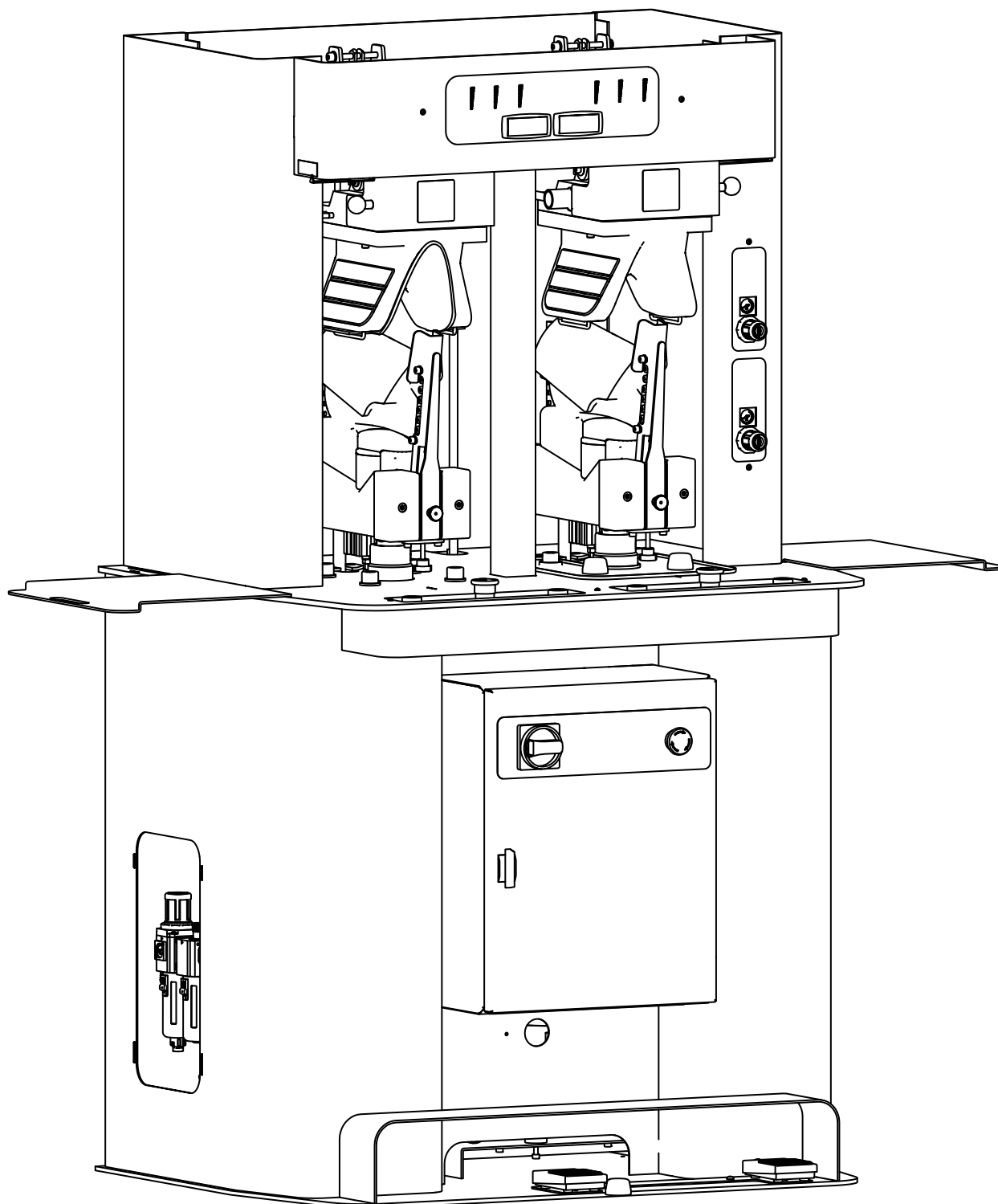


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Introduction

The purpose of this manual is to inform the owner of this machine for its operation, its maintenance and for all the safety regulations.

Please read carefully all the instructions and follow them in order to use the machine properly in the production and avoid any case of injuries.

Our company does not have any responsibility for any changes happened on the machine by the owner, or actions which are different to what this manual refers.

SAFETY REGULATIONS

This machine is intended for professional use only.



WARNING!

Only one operator may work on the machine at a time.



WARNING!

Read and follow carefully all the relative instructions to avoid serious injury.

Only qualified and authorized personnel must use the machine.

- Operators are expressly forbidden to use the machine under the influence of alcohol or drugs capable of affecting physical and mental capacity.
- Keep unauthorized persons away from the work area.
- Make sure that the machine has been installed in compliance with the established legislation and standards.
- Always keep this user manual in a place where it can be readily consulted when working on the machine. Consult it whenever you are in need of information or explanation.
- Do not remove or deface the safety, danger, warning or instruction signs. Replace any missing or illegible Danger, Warning or instructions signs.
- Never use the machine if you notice any damaged electric wires.
- Never install the machine outdoors or in any place with a lot of moisture.



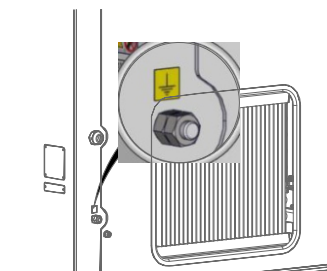
WARNING

Use only original spare parts, which can be supplied by the manufacturer or the local agent. Otherwise, your machine will not be a CE product.



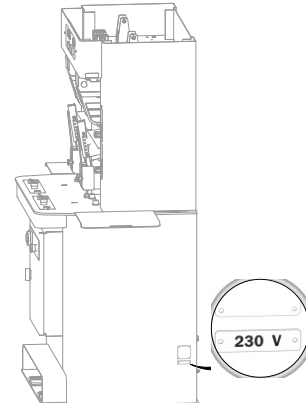
WARNING

The machine frame must be earthed using the outside connection point marked according to the CE norms.



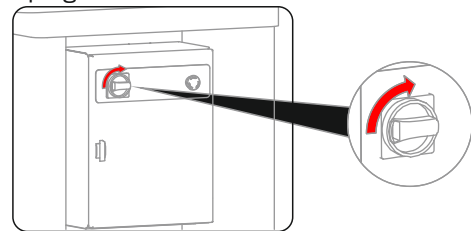
Electric and pneumatic connections

1. Connect the machine (SINGLE PHASE 220V - 50/60Hz).
2. Before plugging in the machine, check that the main supply voltage is the same as that indicated on the label situated on the back side of the machine.

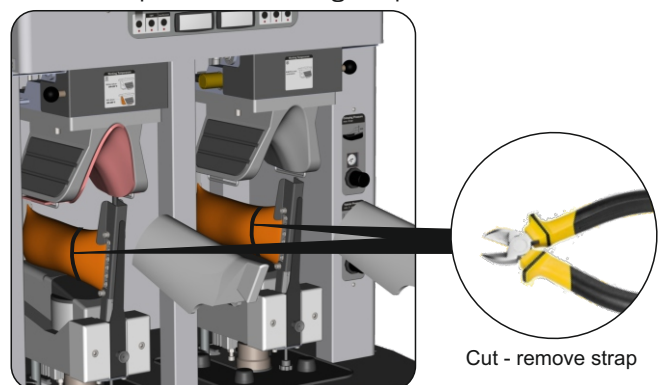


3. Check if the plug and socket have the same technical type. If not, use the suitable adapter after having consulted a certified electrician.

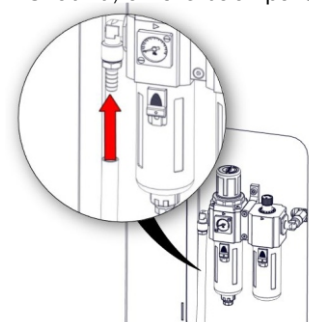
4. To disconnect the machine, turn the main switch off and remove the plug from the outlet.



5. Before connecting the machine to air pressure, cut the tubular transportation securing strap.

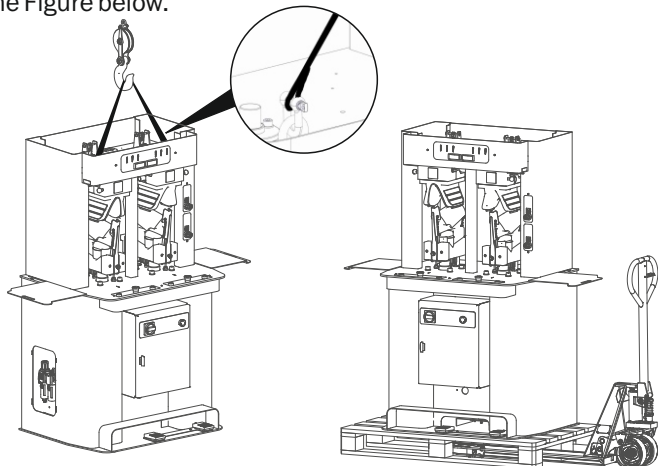


6. Connect the machine to air pressure 6 - 8bar.
7. Connect the proper pneumatic hose. Set the main pressure regulator, which is found, on the back part of the machine to 6 Bar.



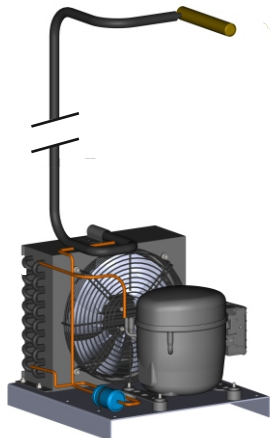
Holding - Transportation

1. Use the clevis's existed on the top of the machine with proper belts to lift the machine.
2. Pass the trans-pallet's forks under the pallet as shown in the Figure below.



Maintenance of cooling unit

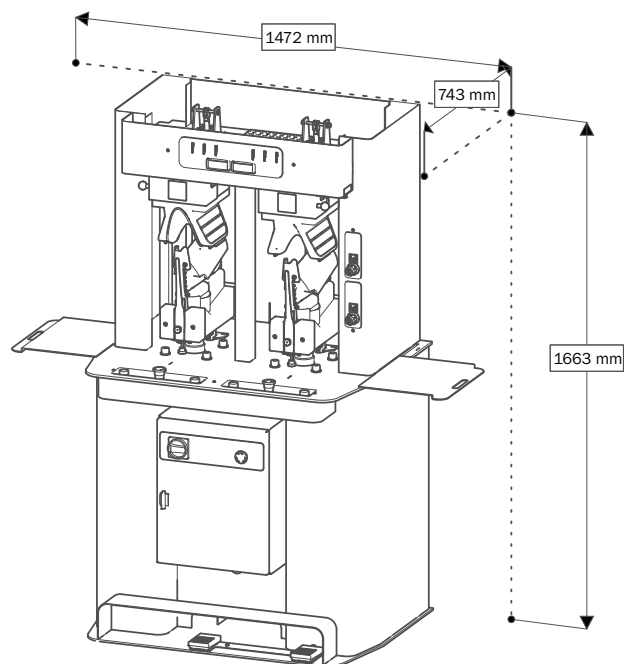
Clean the condenser (radiator) of the cooling unit once per month by using air pressure.



COOLING UNIT SPECIFICATIONS

Cooling gas type	R404A
Cooling gas qty	470gr
Compressor Power	1/3 Hp

Technical data & Dimensioning

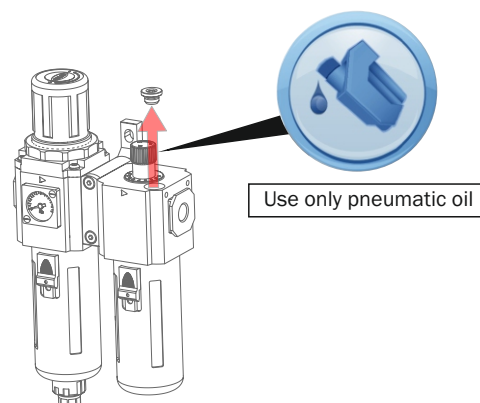


Technical Data

OPERATION	Electric - Pneumatic
PRESSURE	6 Bar
VOLTAGE	230V single phase 50Hz
POWER CONSUMPTION	1500 W
CAPACITY	150 pairs per hour
DIMENSIONS (mm)	743 X 1472 X 1663
DIMENSIONS (mm) - with tables folded	743 X 950 X 1663
WEIGHT	225Kgs

Lubrication

Keep the FRL (air-filter-regulator & lubricator) always filled with oil. We note that with 8 hours of work per day, the lubricator oil is consumed within 20-25 days approximately. If this does not occur, adjust the oil flow using the adjuster on upper part of lubricator. We recommend the use of pneumatic oil. Once per week lubricate all moving parts of the machine.



Panel Adjustments

1. Progressive Ironing /Step Operations

This is a two function selector and works with relation to **button 5** status (**Fig.1**).

a. If there is no value in selector 1 then the machine does normal operation, no matter if LED is ON or OFF (**Fig.1**).

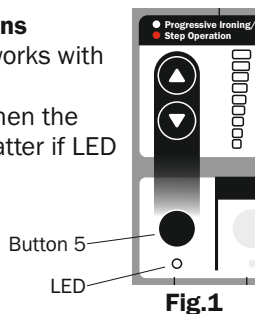


Fig.1

b. If there is no LED light on button 5 and there is a setting (some LED ON) in selector 1 (**Fig.2**), then the machine will start pulse ironing procedure (like hammering operation) during the end of the operating cycle.

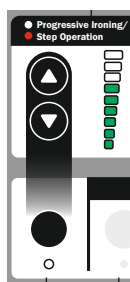


Fig.2

c. If button 5 is pressed and its relative LED is ON (**Fig.3**), then the machine again with the same conditions will do a step by step crimping from the beginning until the full pressing of the cycle.

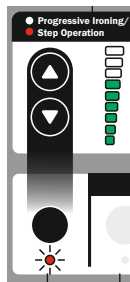


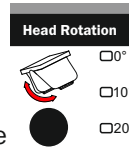
Fig.3

2. Head Rotation

a. Pressing the button once, will tilt the head 10°.

b. Pressing the button twice, will tilt the head 20°.

c. Pressing the button a third time, will put the head in normal level position.



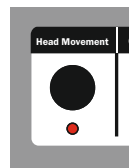
3. Hot station Time: Set the timer from 5 to 30 sec. By increasing the time a higher crimping is succeeded.

4. Cold station Time: Set the timer from 5 to 30 sec.

6. Light ON/OFF

7. Head Movement

Pressing the button releases the head for 3 seconds, allowing you its manual movement.



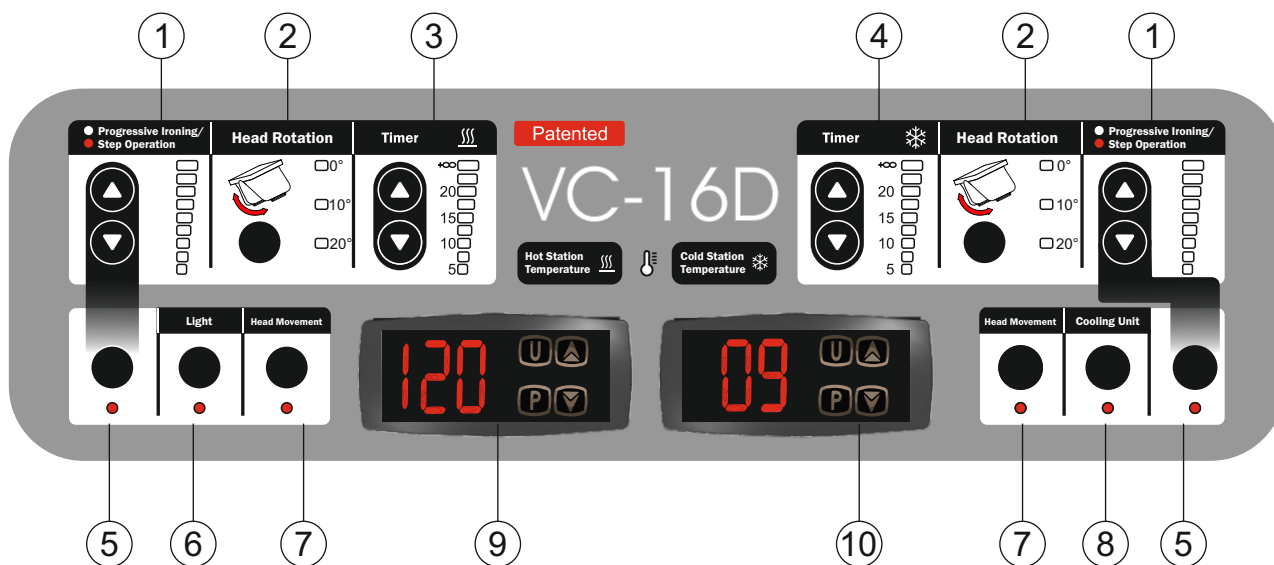
8. Cooling unit ON/OFF

9. Hot Station Temperature: Without silicon head protection, set the temperature from 100 to 120 °C. With silicon head protection, set the temperature from 160 to 180 °C. Temperature is a basic factor for the crimping. Choose the higher temperature (according the material you use) for higher crimping result. (Suggested Temperature 120 °C).

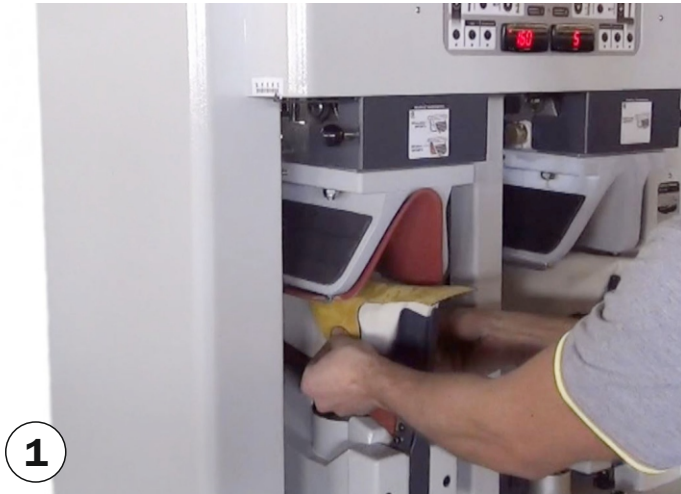
To adjust thermoregulator press the DOWN arrow. When the digits start blinking use the UP and DOWN arrows to adjust the temperature.

Then you press instantly the **P** button.

10. Cold Station Temperature: Set the temperature from 9 to 11 °C (find the suitable temperature for the minimum condensation).



Operation



Step 1. Place the vamp in the hot station mould as shown in Figure 1



Step 3. Press the START buttons simultaneously and release the pedal to complete the procedure. The machine will revert to its initial position after the end of the setting time.



Step 2. Press the pedal to hold the upper (Figure 2). Before continuing the procedure be sure that the upper is in the right crimping position.

For correct placing release the pedal, correct the place of the upper and press it again.

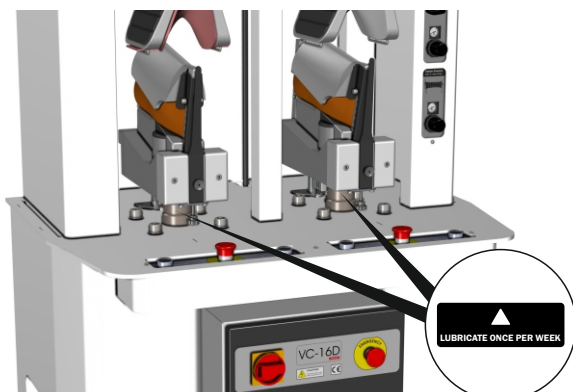


Repeat the procedure in the hot and cold station in order to stabilize the materials

Tip: Hot and cold is necessary either for leather or synthetic vamps and helps maximize and retain the final shape of the vamp and finally the shoe



Maintenance

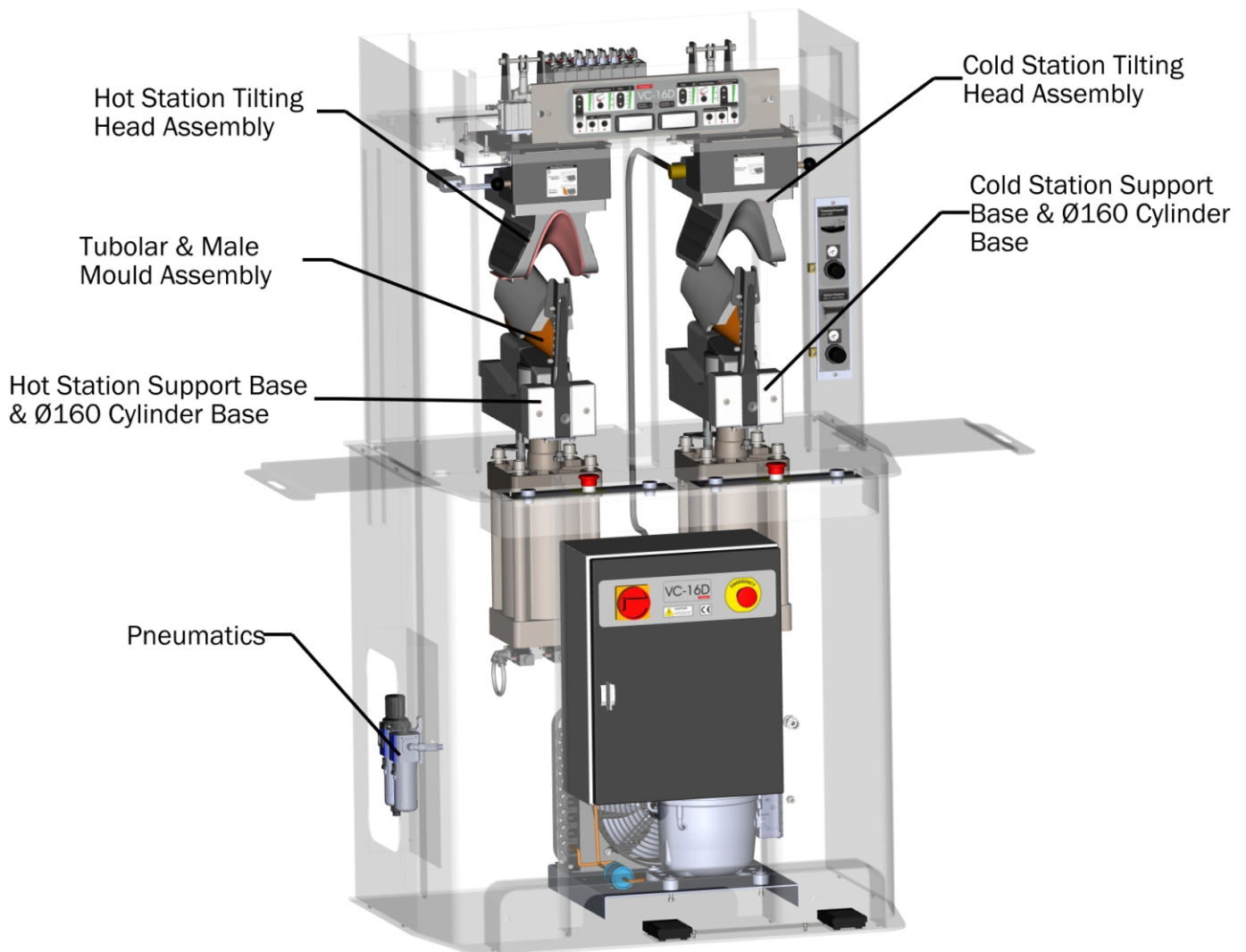


- Once a week lubricate the rod of the cylinders **PNE-00969** with oil type SAE 30
- Once a week check the oil level of the air pressure lubricator P1 and add oil type TELUS 32 (SHELL) or something similar.
- Once a week add a few drops of oil at the back part of the machine after you have taken off the red cap.

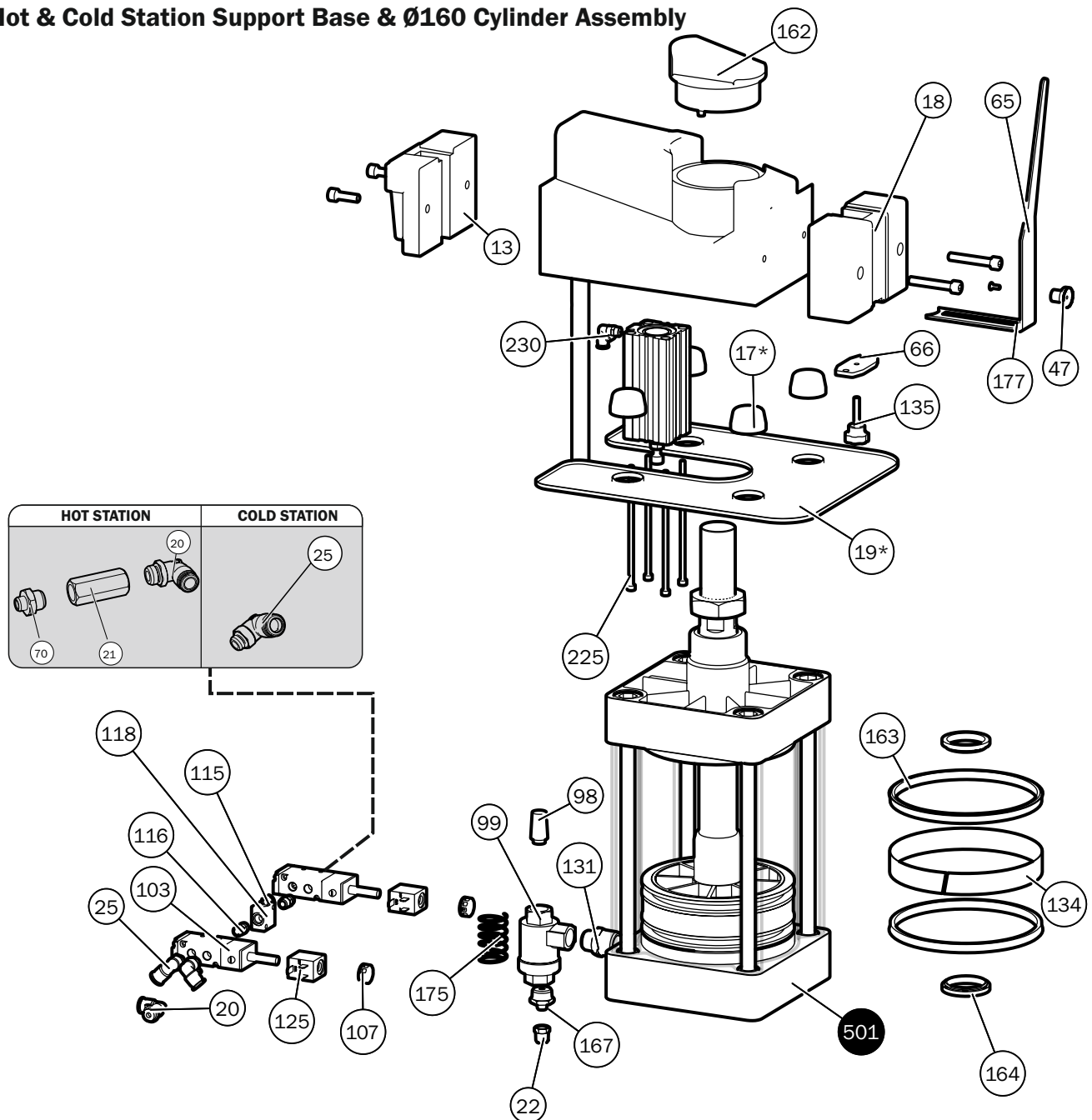
Every six months check the good operation of the lubricator.
Note:
The lubricator must drip one drop every 20 operation cycles.

ASSEMBLING VC-16D

Cold Station Support Base & Ø160 Cylinder Assembly (page 9)
Cold Station Tilting Head Assembly (page 10)
Cold Station Support Base & Ø160 Cylinder Assembly (page 11)
Cold Station Tilting Head Assembly (page 12)
Tubular & Male Mould Assembly (Page 13)
Side Tables Assembly (Page 13)
Top Valve Pneumatic Assembly (Page 15)
Rest of Pneumatic Assemblies (Pages 16)



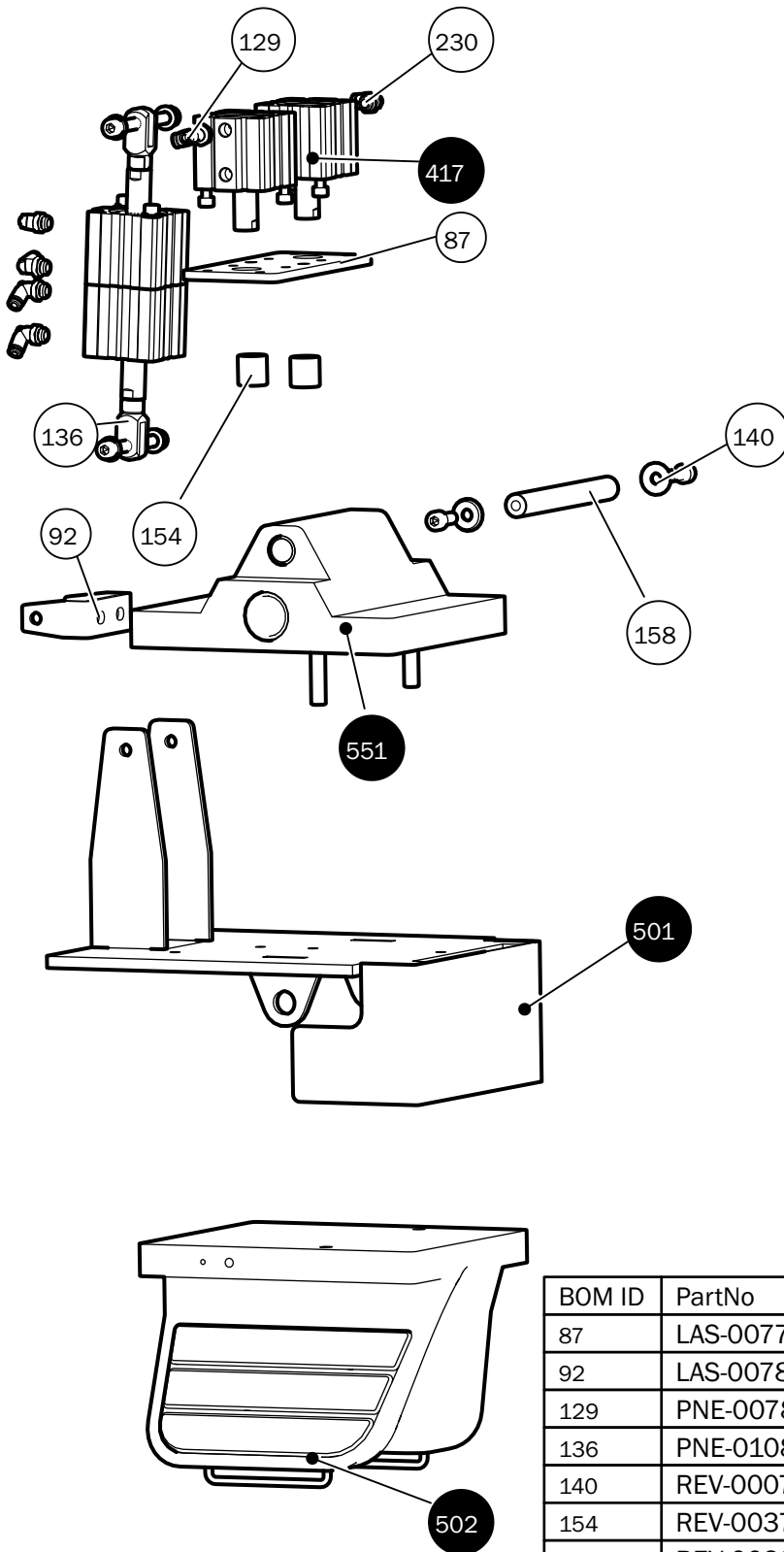
VC-16D Hot & Cold Station Support Base & Ø160 Cylinder Assembly



BOM ID	PartNo	Description	Qty
13	CAS-00003	GUIDE BLOCK	1
17*	RUB-00131	RUBBER CAP (COLD STATION ONLY)	4
18	CAS-00125	CASTED CAP	1
19*	LAS-00822	VC-16 LIQUID HOLDER (COLD STATION ONLY)	1
20	PNE-09925	ORIENTING ELBOW MALE ADAPTOR Ø8-1/4	1
21	PNE-00074	NON-RETURN VALVE, 1/4	1
22	PNE-00083	REDUCER, 1/4(M) - 1/8(F)	1
23	PNE-00093	ALUMINIUM TEE, Rx, 1/8, NO MID HOLE	1
25	PNE-01064	ADAPTOR, ELBOW MALE, 1/8-Ø8	5
26	PNE-00752	COIL Ø9 - 24VAC, 5W	2
27	PNE-00021	COIL NUT, G1/8	2
28	PNE-00073	NIPPLE, TAPER, THICK HEXAGON, 1/8 (M) - 1/8 (M)	1
47	GEN-00393	KNURLED KNOB M4	1
65	LAS-00710	UPPER GUIDE	1
66	LAS-00711	HOLDING PLATE	1
70	PNE-00101	NIPPLE, TAPER, 1/4 (M) - 1/8 (M)	1
98	PNE-00002	SILENCER, BRASS, CONIC, 1/2	1
99	PNE-00003	QUICK EXHAUST VALVE 1/2"	1

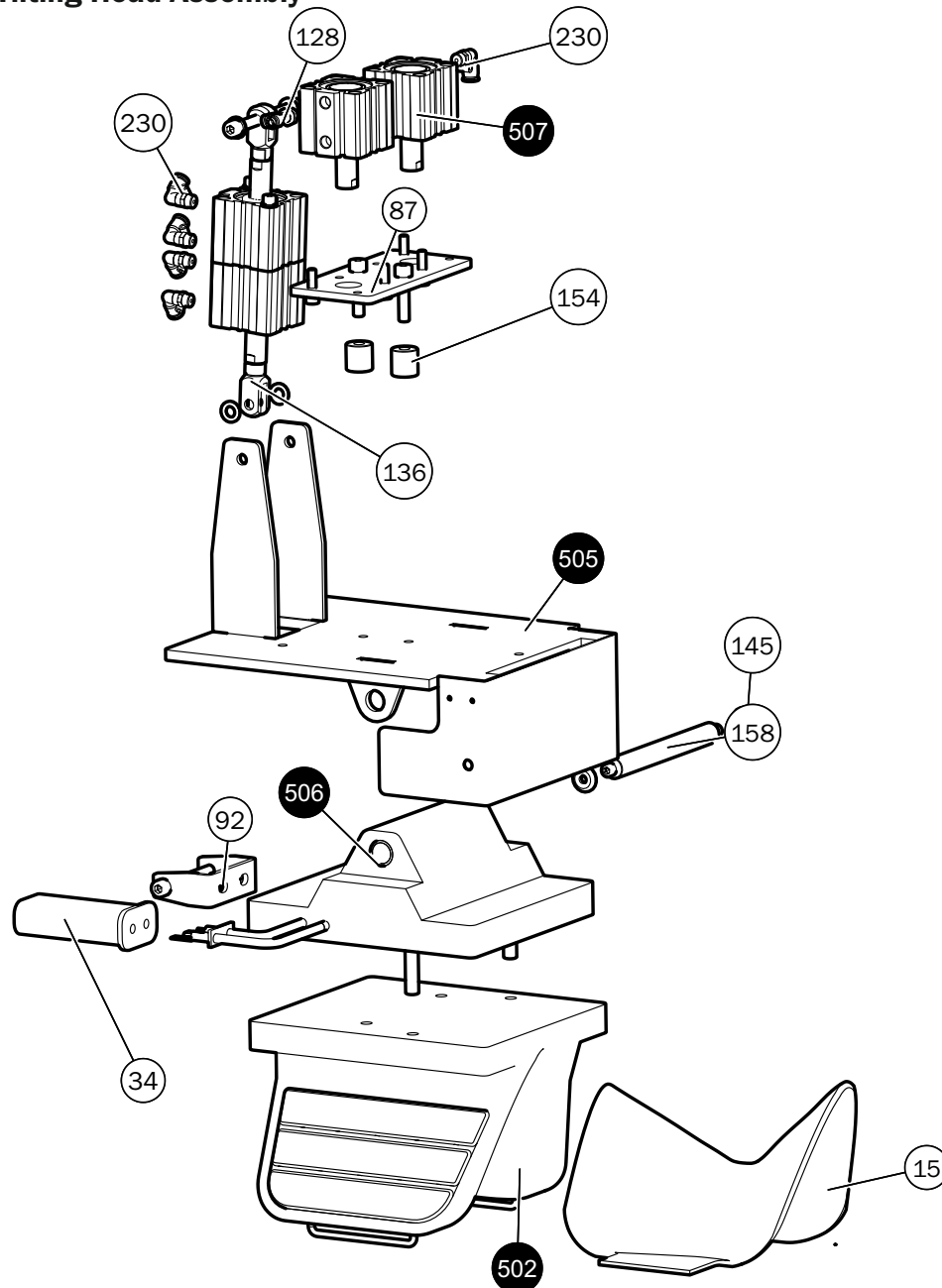
BOM ID	PartNo	Description	Qty
103	PNE-00016	VALVE BODY ELECTRIC PILOT 5/2 G1/8, NO COIL	4
107	PNE-00021	COIL NUT, G1/8	2
115	PNE-00072	PLUG, MALE, PARALLEL, 1/8	7
116	PNE-00073	NIPPLE, TAPER, THICK HEXAGON, 1/8 (M) - 1/8 (M)	2
118	PNE-00093	ALUMINIUM TEE, Rx, 1/8, NO MID HOLE	1
125	PNE-00752	COIL Ø9 - 24VAC, 5W	2
131	PNE-00948	NIPPLE, CONIC, REDUCING, 1/2 - 3/4	1
134	PNE-00985	INTERNAL RING, 159x157x10.4	1
135	PNE-01082	LOBE KNOB, MALE, 7-LOBE, Ø25, M6x30	1
162	RUB-00094	VC-2014 RUBBER CAP	1
163	RUB-00104	PISTON SEAL FOR Ø160	2
164	RUB-00105	CAP SEAL FOR PISTON Ø160	2
167	PNE-00079	NIPPLE, TAPER, 1/2 (M) - 1/8 (M)	1
175	SPR-00005	QUICK EXHAUST VALVE'S SPRING	1
177	STK-00057	STICKER, TPA-11, SCALE A-F	1
225	FAS-00052	SCREW DIN912 M5 x 130	4
230	PNE-09916	ORIENTING ELBOW MALE ADAPTOR Ø4 - 1/8	1
501	ASM-00694	CYLINDER Ø160x240	1

VC-16D Cold Station Tilting Head Assembly



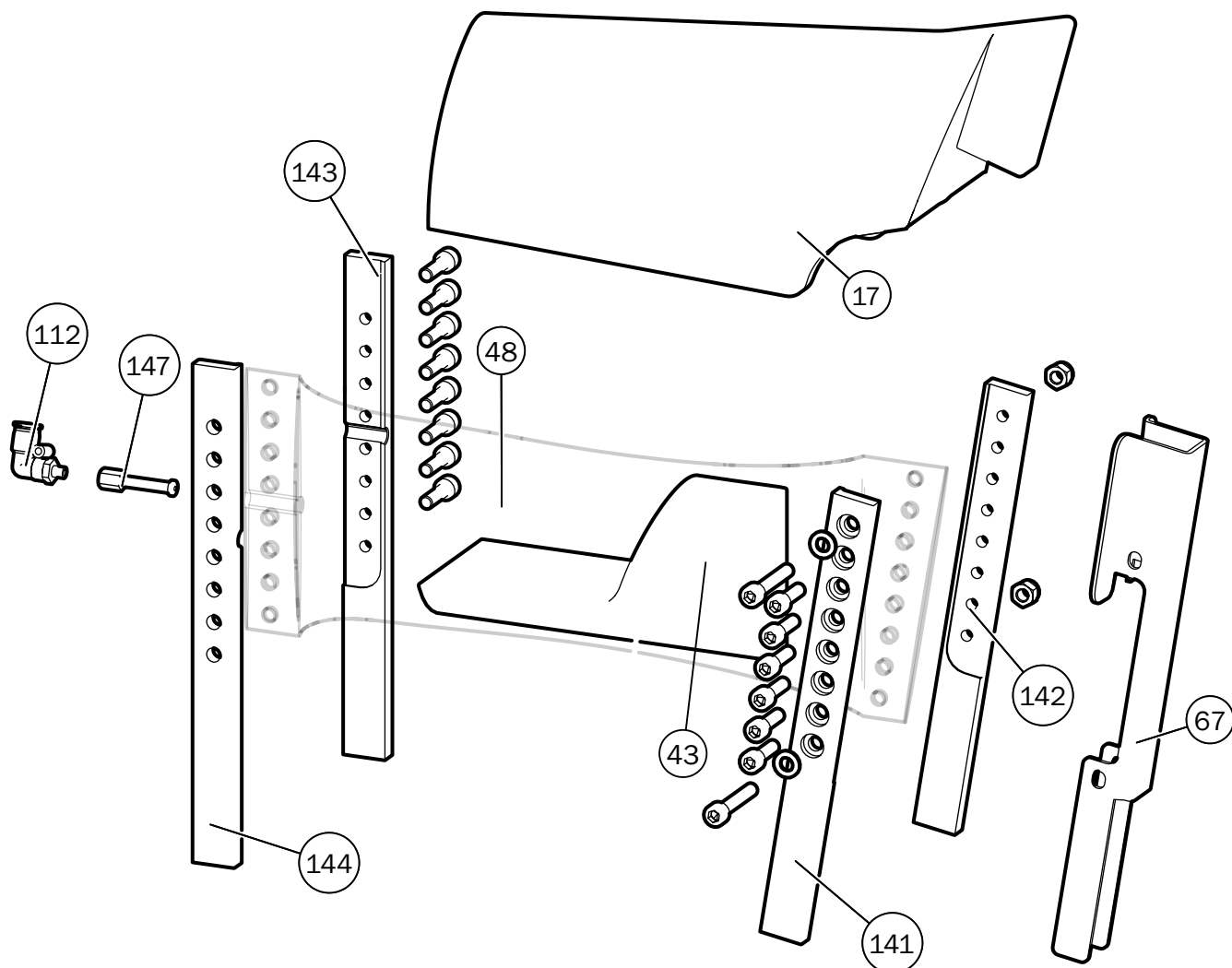
BOM ID	PartNo	Description	Qty
87	LAS-00772	CYLINDER FLANGE	1
92	LAS-00787	CYLINDER MOUNTING FLANGE	1
129	PNE-00788	FITTING, TEE, 1/8 (M) - Ø4 (F) - Ø4 (F)	1
136	PNE-01087	Y JOINT FOR CYLINDER Ø20	2
140	REV-00079	WASHER, CUSTOM, FOR Ø8	2
154	REV-00375	SPACER- GUIDE	2
158	REV-00386	Ø16 AXLE WITH M8 THREADS	1
230	PNE-09916	ELBOW MALE ADAPTOR Ø4-1/8"	5
417	PNE-00897_	PISTON Ø40	12
501	ASM-00918	COLD STATION MECHANISM SUPPORT	1
502	ASM-00854	CASTED HEAD WITH ISOLATOR	1
551	ASM-00840	COLD STATION COOLING ELEMENT	1

VC-16D Hot Station Tilting Head Assembly

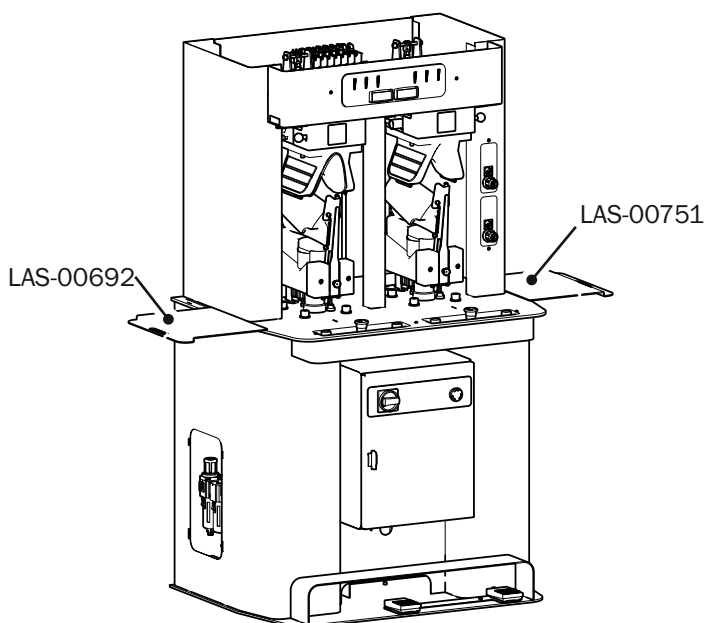


BOM ID	PartNo	Description	Qty
15	CAS-00036.	VITON HEAD JACKET	1
34	ELE-00016	ELECTRIC ELEMENT ISOLATOR	1
87	LAS-00772	CYLINDER FLANGE	1
92	LAS-00787	CYLINDER MOUNTING FLANGE	1
128	PNE-00788	FITTING, TEE, BACK SIDE, 1/8 (M) - Ø4 (F) - Ø4 (F)	1
136	PNE-01087	Y JOINT FOR CYLINDER Ø20	2
145	REV-00082	WASHER, CUSTOM	2
154	REV-00375	SPACER- GUIDE	2
158	REV-00386	Ø16 AXLE WITH THREAD	1
230	PNE-09916	ELBOW MALE ADAPTOR 1/8 - Ø4	5
502	ASM-00854	CASTED HEAD WITH ISOLATOR	1
505	ASM-00899	PLATE WITH COVER	1
506	ASM-00874	HOT STATION HEATING ELEMENT	1
507	ASM-00417	PISTON Ø40X20	4

VC-16D Tubular & Male mould assembly

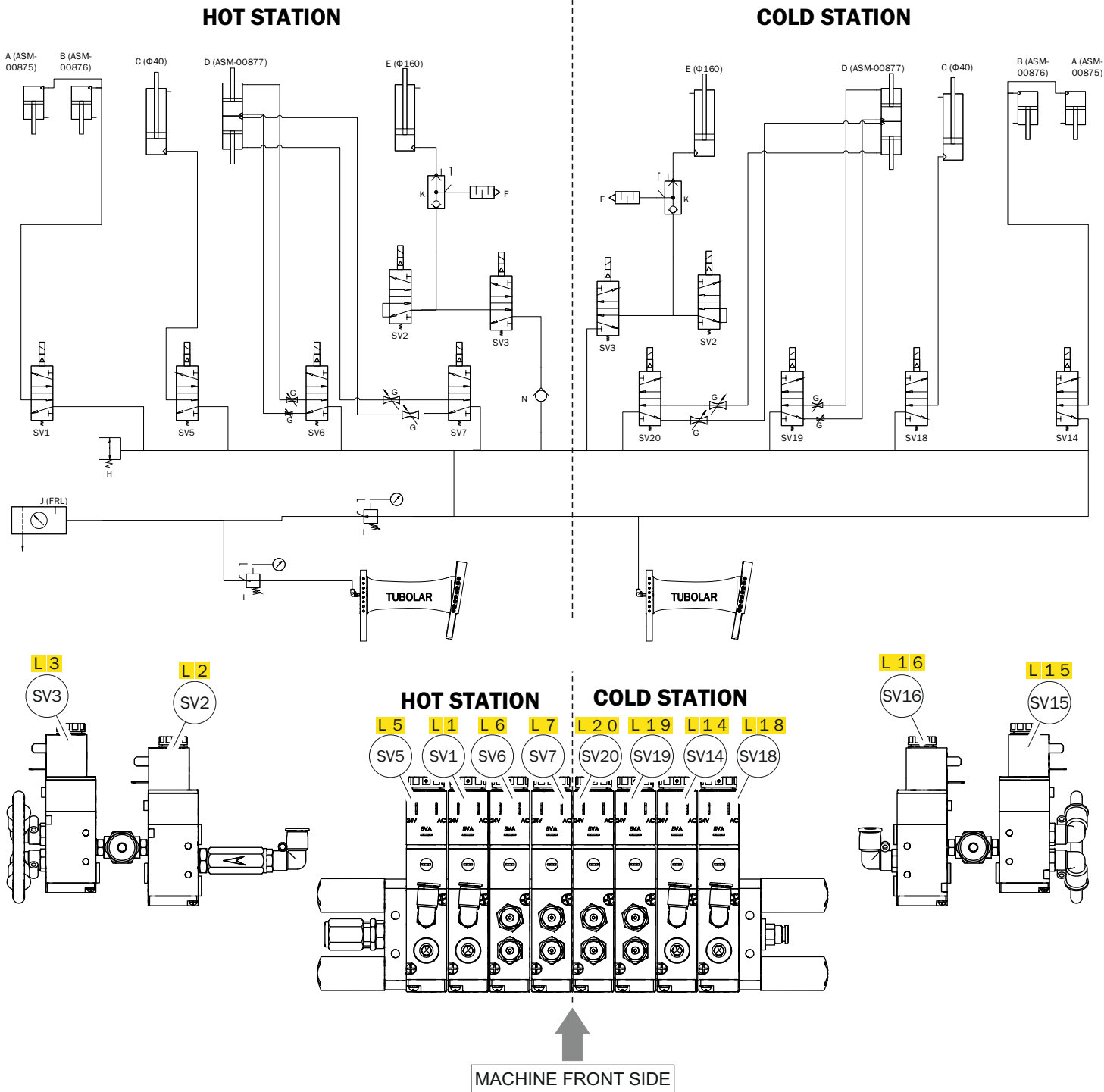


VC-16D Side Tables



BOM ID	PartNo	Description	Qty
17	CAS-00124	VC-16 SILICON MALE MOULD	1
43	GEN-00003	VC-2001 VULCOLAN STUFFING	1
48	GEN-00397	TUBULAR BODY - VC16 SERIES	1
67	LAS-00713	HOLDING FLANGE	1
112	PNE-00030	FITTING, ANGLE, M5 - Φ4	1
141	REV-00007	RIGHT FRONT GUIDE	1
142	REV-00008	LEFT FRONT GUIDE	1
143	REV-00009	RIGHT REAR GUIDE	1
144	REV-00010	LEFT REAR GUIDE	1
147	REV-00098	TUBULAR VC-2001 M5 FITTING	1

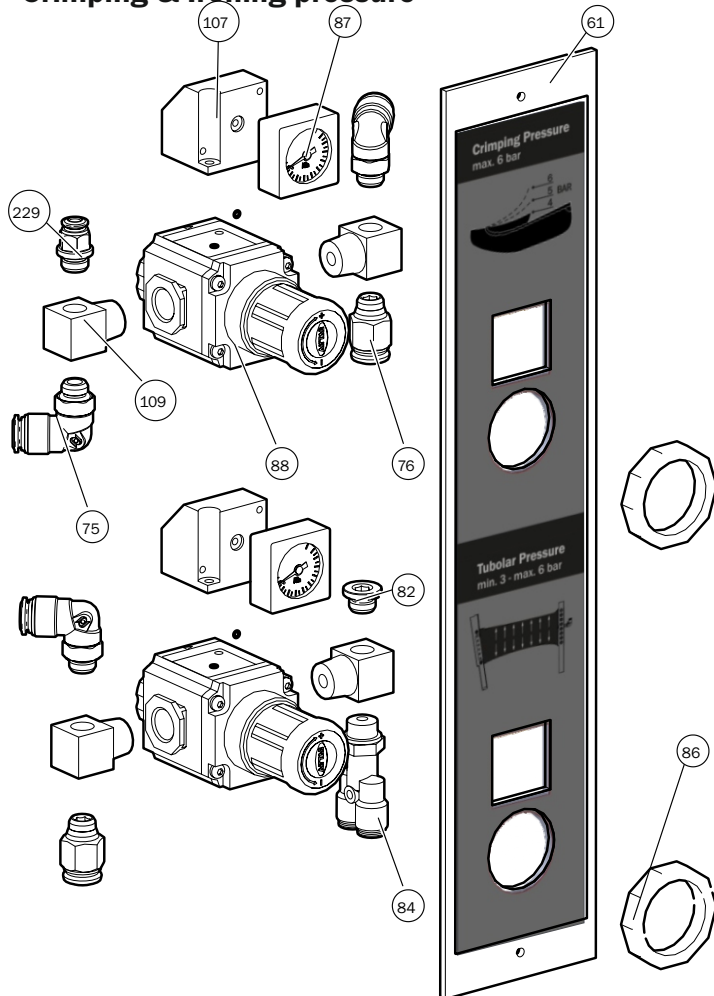
Pneumatic Diagram



SYMBOL	P/N	DESCRIPTION
A	ASM-00875	CYLINDERS SYSTEM $\Phi 40 \times 20$
B	ASM-00876	CYLINDERS SYSTEM $\Phi 40 \times 20$
C	PNE-00968	CYLINDER ACQ 40x75 G
D	ASM-00877	ROTATION CYLINDERS SYSTEM $\Phi 40 \times 20$
E	PNE-00969	CYLINDER $\Phi 160 \times 150$
F	PNE-00002	SILENCER 1/2
G	REV-00097	FITTING 1/8 (M) - 1/8 (F) - $\Phi 1.5$
H	ASM-00096	IRONING PRESSURE ADJUSTMENT

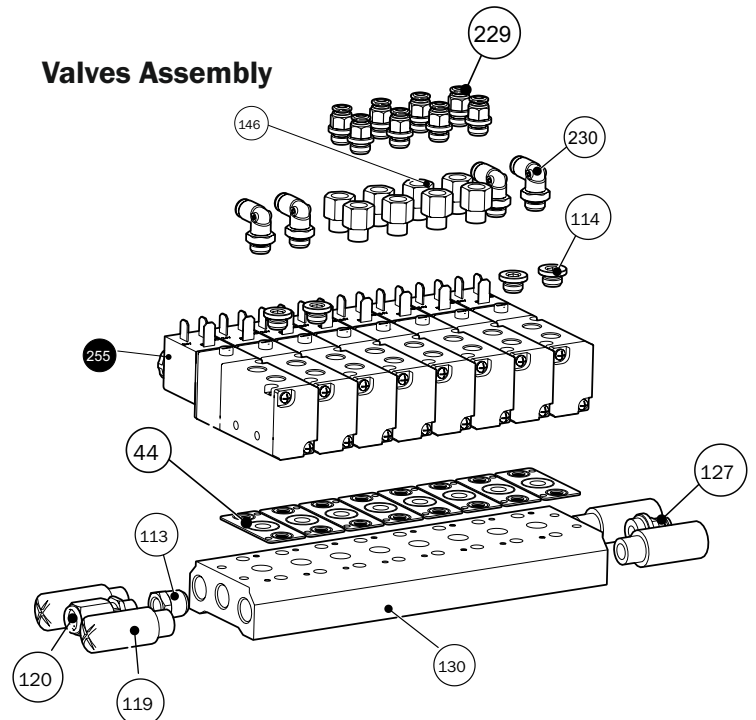
SYMBOL	P/N	DESCRIPTION
I	ASM-00846	CRIMPING PRESSURE ADJUSTMENT
J	ASM-00761	FRL WITH FITTINGS
K	ASM-00849	QUICK EXHAUST VALVE 1/2 ASSEMBLY
SV1, SV5, SV14, SV18	ASM-00867	VALVE WITH PNEUMATICS
SV6, SV7, SV19, SV20	ASM-00892	VALVE WITH PNEUMATICS
SV2, SV16	ASM-00882	VALVE WITH PNEUMATICS
SV3, SV15	ASM-00878	VALVE WITH PNEUMATICS

Crimping & Ironing pressure



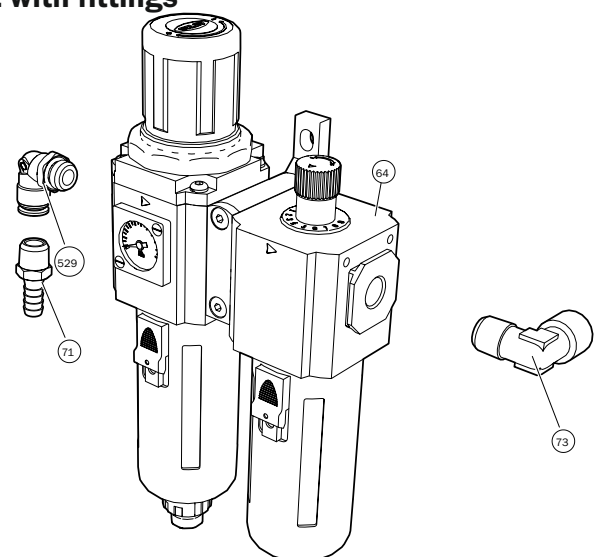
BOM ID	PartNo	Description	Qty
61	LAS-00781	PLATE	1
75	PNE-01064	ADAPTOR, ELBOW MALE	4
76	PNE-01001	FITTING, STRAIGHT, 1/8-Ø8	2
82	PNE-00072	PLUG, MALE, PARALLEL, 1/8	1
84	PNE-00096	CONNECTOR, Y, MALE, 1/8 - Ø4	1
86	PNE-00543B	PRESSURE REGULATOR PLASTIC NUT	2
87	PNE-00543C	REGULATOR GAUGE	2
88	PNE-00543D	PRESSURE REGULATOR 1/4 BODY	2
107	REV-00380	BASE	2
109	REV-00389	FITTING, CUSTOM, 1/4 TAPER	4
229	PNE-09919	STRAIGHT MALE ADAPTOR 4-1/8	1

Valves Assembly



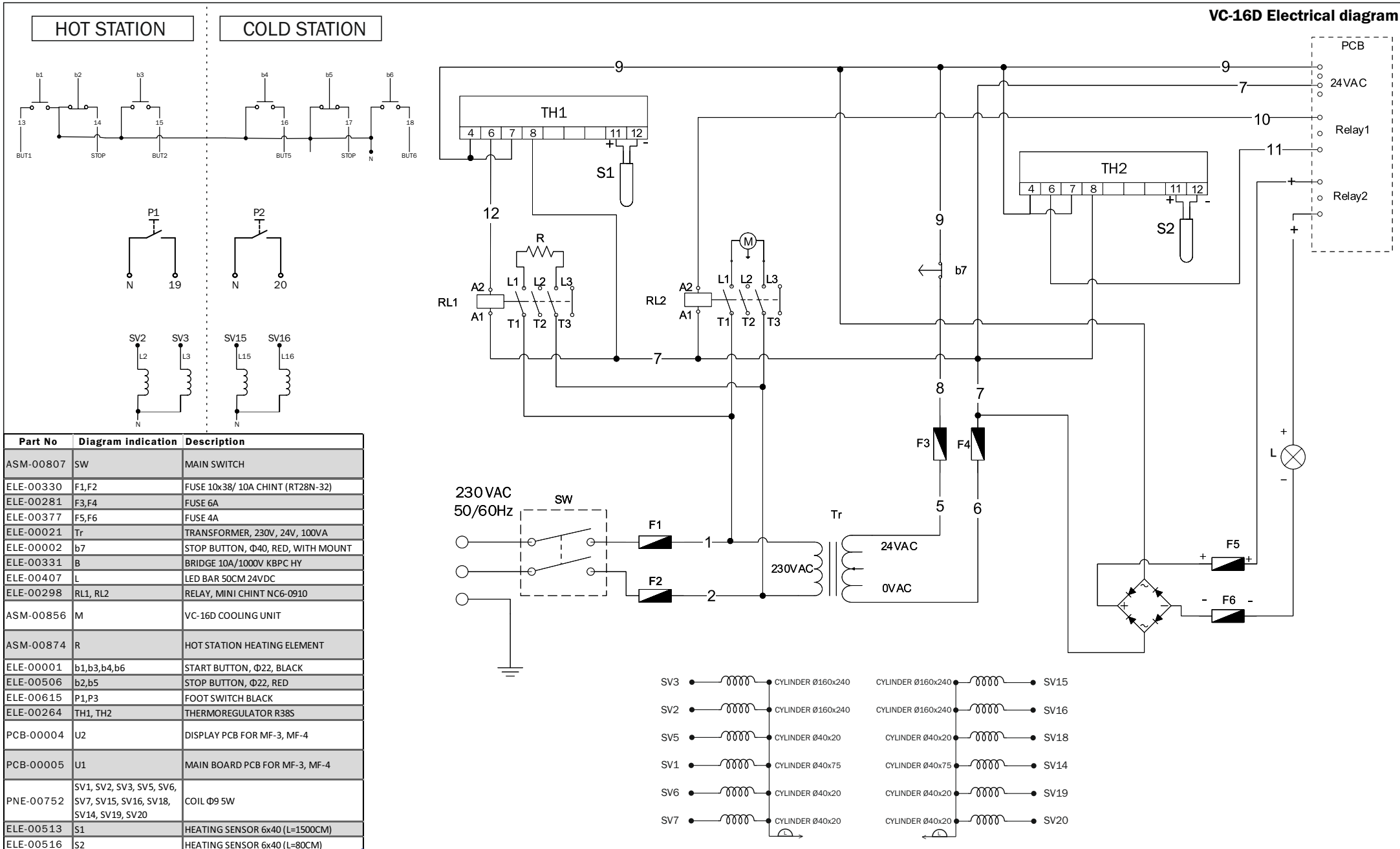
BOM ID	PartNo	Description	Qty
44	GEN-00093	PNEUMATIC MANIFOLD CAP RUBBER BOTTOM	8
113	PNE-00037	ADAPTOR, 1/4(M) - 1/8(F)	1
114	PNE-00072	PLUG, MALE, PARALLEL, 1/8	4
119	PNE-00094	SILENCER, 1/4, PLASTIC, BLUE	4
120	PNE-00114	SAFETY VALVE, 1/8, P.T. 6bar	1
127	PNE-00776	FITTING, STRAIGHT, 1/4 - Ø4, SMALL HEXAGON	1
130	PNE-00898	MANIFOLD, 1/4, 8 STATION, BM8F	1
146	REV-00097	REDUCTOR, 1/8 (M) - 1/8 (F) - HOLE Ø1.5	8
229	PNE-09919	STRAIGHT MALE ADAPTOR (PARALLEL) 4-1/8"	8
230	PNE-09916	ORIENTING ELBOW MALE ADAPTOR (PARALLEL) 4-1/8"	4
255	ASM-00461	VALVE BODY ELECTRIC PILOT 5/2 G1/8, WITH 24V COIL	1

FRL with fittings

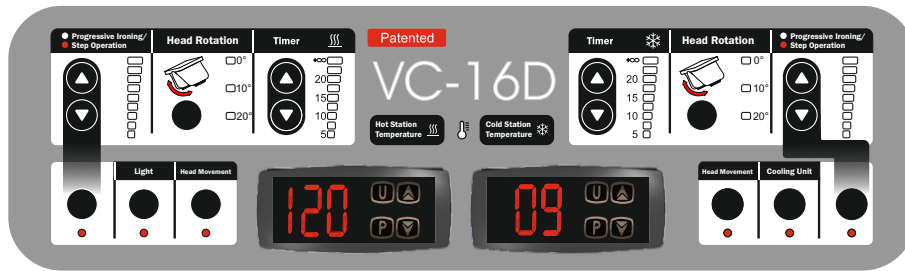


BOM ID	PartNo	Description	Qty
64	PNE-00001	FRL G1/4 SIZE 300	1
71	PNE-00020	HOSE ADAPTER, RG, MALE, TAPER, 1/4 - Ø8	1
73	PNE-00023	MALE-FEMALE ELBOW 1/4"	1
529	PNE-09925	ELBOW MALE ADAPTOR Ø8-1/4"	1

VC-16D Electrical diagram

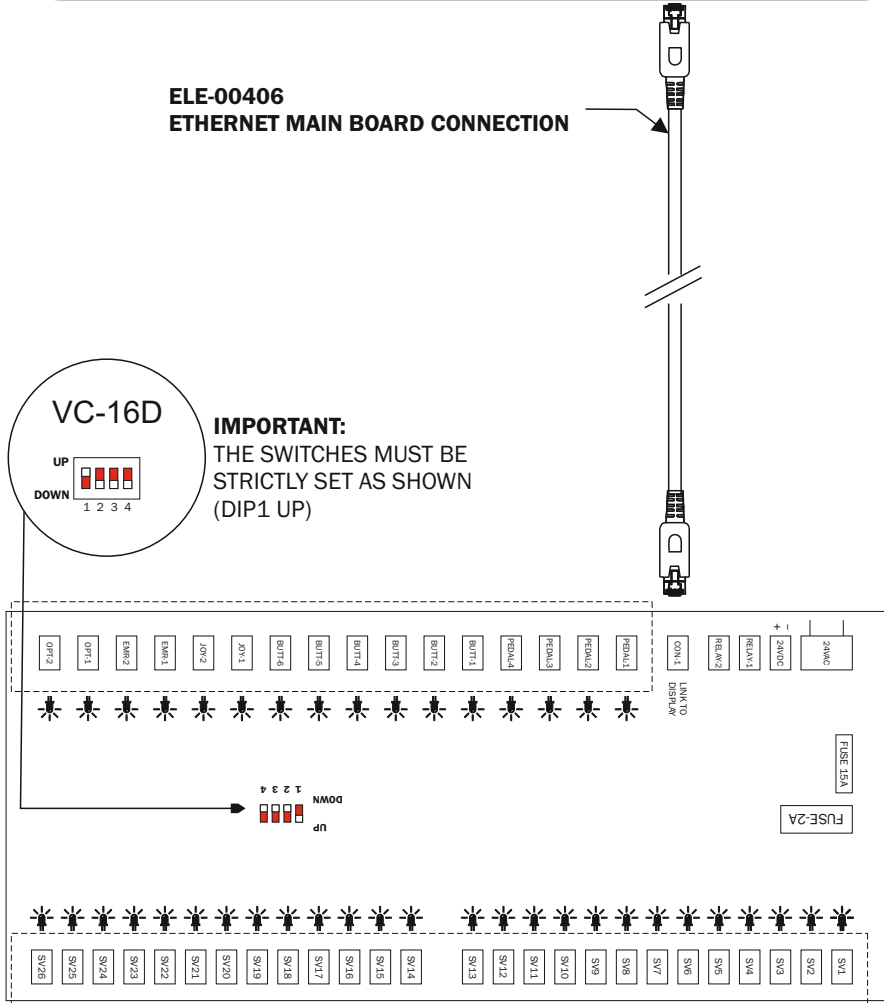


PCB Diagram



PCB-00004: DISPLAY BOARD

ELE-00406 ETHERNET MAIN BOARD CONNECTION



PCB-00005 : MAIN BOARD

OUTPUTS	
LEFT SIDE	
SV1	CYLINDERS ACQ 40x75
SV2	CYLINDER ACQ 160x240
SV3	CYLINDER ACQ 160x240
SV4	<N/A>
SV5	CYLINDER ACQ 40x20
SV6	CYLINDERS ACQ 40x20
SV7	CYLINDERS ACQ 40x20
SV8	<N/A>
SV9	<N/A>
SV10	<N/A>
SV11	<N/A>
SV12	<N/A>
SV13	<N/A>
RELAY 1	COOLING UNIT
RELAY 2	LED BAR
RIGHT SIDE	
SV14	CYLINDERS ACQ 40x75
SV15	CYLINDER ACQ 160x240
SV16	CYLINDER ACQ 160x240
SV17	<N/A>
SV18	CYLINDER ACQ 40x20
SV19	CYLINDERS ACQ 40x20
SV20	CYLINDERS ACQ 40x20
SV21	<N/A>
SV22	<N/A>
SV23	<N/A>
SV24	<N/A>
SV25	<N/A>
SV26	<N/A>

INPUTS			
HOT STATION		COLD STATION	
PEDAL1	CYLINDER Ø40	PEDAL3	CYLINDER Ø40
BUTTON1	CYLINDER Ø160	BUTTON4	CYLINDER Ø160
BUTTON2	CYLINDER Ø160	BUTTON5	CYLINDER Ø160
JOY1	<N/A>	JOY2	<N/A>
EMR1	CANCEL	EMR2	CANCEL

VC-16D Troubleshooting



Notes

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Notes

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