



USER MANUAL

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1 About DMS-30

1.1 Features




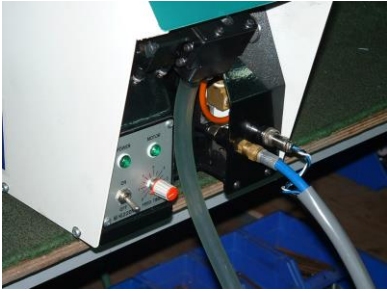

1. Designed for speed, stability, and convenience.
2. Improving screw driving speed and work efficiency by integrating pneumatic/ electrical screwdriver, high-tech automatic feeder, and high precision jaw.
3. The jaw is customized by particular screw and working environment to provide a stable operation.
4. Standard pneumatic screwdriver; optional models by customer also available.

2 Specifications

Model	L / W / H	Weight	Voltage	Air Pressure
DMS-30	35 / 25 / 38 (cm)	22 kg	220 V	5-6 kg / cm ²

3 installation

- Connect the screw delivery hose, air hose and signal cable to the feeder unit
 - Take a balance of the driver unit for easier fastening. While taking balance, make sure that the signal cable and air hose do not contact with hook or balancer wire. Care should be taken to prevent excessive bending or twisting of hoses and cables, since this can cause damage or disconnection.
 - Connect the screw delivery hose between the feeder and the driver as soon as possible. Make sure that it is not excessively bent or twisted after installation.

Delivery hose	Air hose
	
Signal Cable	
	
Correct Delivery hose connexion	Incorrect Delivery hose connexion
	

- Connect feeder unit to compressed air source with an air hose supplied.
 - Air pressure for the feeder unit is 5-6 Bar.



Since this unit has no provisions for adjusting air pressure, pressure must be controlled at the source. (PULL UP FIRST, AND ROTATE)



- Screw delivery timer check.
 - Check screw delivery timer setting on the front of the feeder unit.
 - Standard operation setting is between 0 to1.
- Connect power cord to a single-phase AC-220 wall outlet.

5.Connect power cord

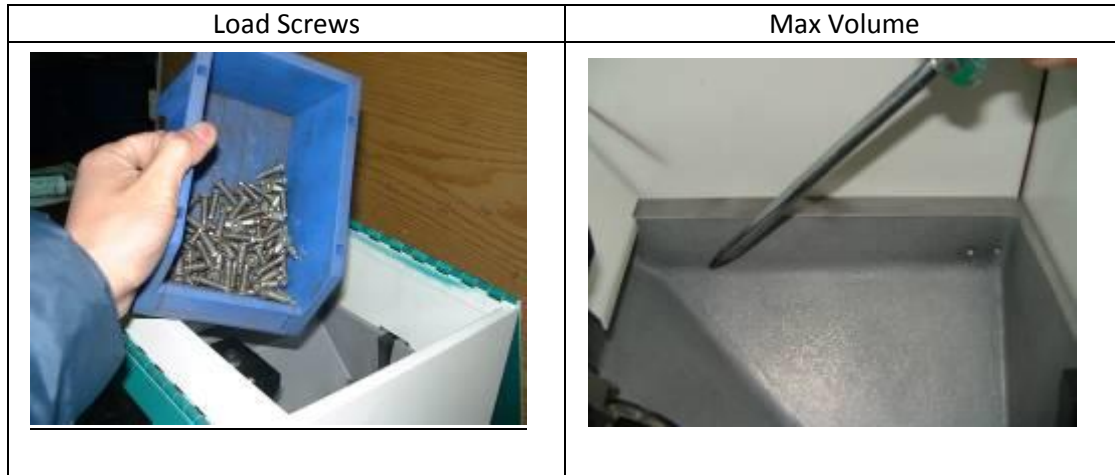


5.Connect power cord

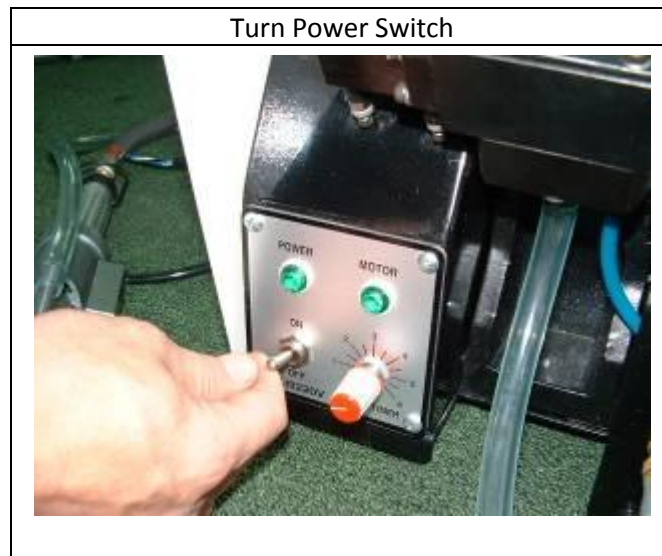


4 Start up

- Open the hopper and cover and load hopper with a small quantity of screw.



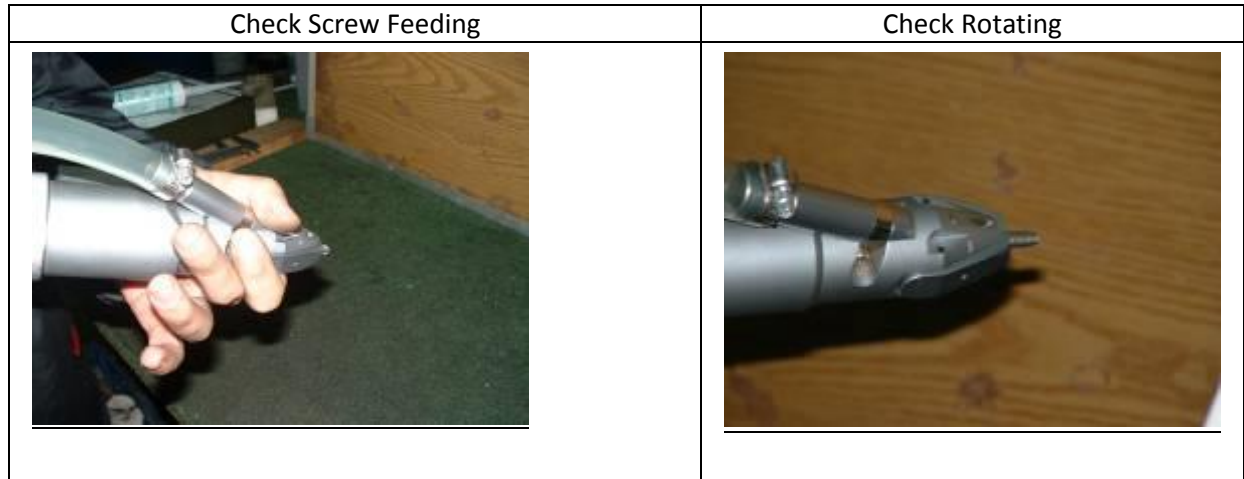
- Turn power switch on.
 - The power and motor pilot lamps will light, the feeding track will start reciprocating and screw will be fed into the chute. Once the chute is filled, the rotary drum automatically stops and the motor pilot lamp will go off.



- While holding the driver unit, telescope the Y-pipe manually.
 - One cycle will send a signal to the feeder from the driver unit and the escapement will release one screw from the chute for delivery to the driver's tip by compressed air. First cycle has a 3~5 seconds delay of feeding.

⊘ Never point the driver tip toward a person since a screw might shot out accidentally, causing possible injury.

- Confirmation of driver bit rotation.
 - The driver should rotate when the bit is pressed against a flat surface while the Y-pipe is compressed. Check for any abnormal sounds during rotation.
 - The driver rotates clockwise only.



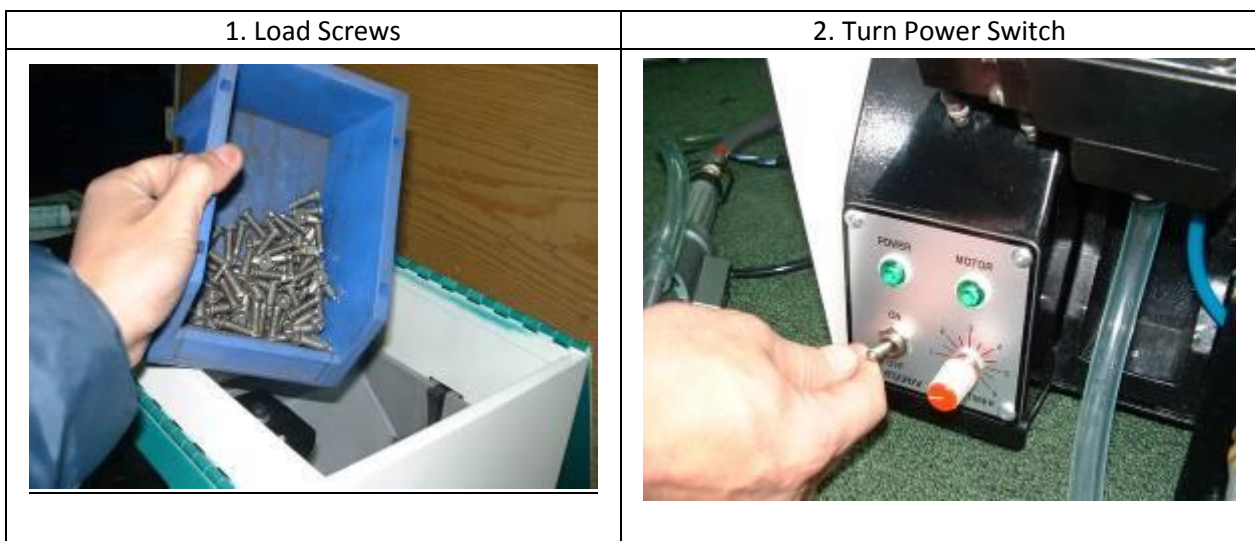
- Tighten torque check
 - Fit the driver tip over the hole of screw to be tightened and perform test fastening.
 - The screw is driven into the hole when the driver bit is pressed against the screw.
 - Check that the screw is fastened to the specified torque.
 - If not, adjust fastening torque. (See item 8 "Tightening torque adjustment" on page 14 for adjustment).

***Make sure that the driver is vertical to the work surface and the delivery hose is free of twists and bent.
Lift the driver only after the whirring noise indicating clutch release is heard.***

- After completing installation and test operation, switch power off once before beginning normal operation.

5 Normal Operation

- After all preparatory steps have been completed, load screw into the hopper.
- Turn power switch on.



- Hold the driver unit and press the Y-pipe manually to confirm that a screw is seen at the tip of the driver at the first time.
- Align the screw at the driver tip vertically with the screw hole of the work-piece.
- When the driver bit is pressed against the screw, the screw will be tightened.

Operation Demonstration



6 After Operation

- Lubrication (*only for pneumatic driver whose pneumatic supply is made on the feeder*)
Loosen the needle valve of the oiler while idling the driver. After confirming oil flow of 3 to 5 drops through the window, retighten the needle valve. Then, idle the driver unit alone for one or two minutes to allow oil to circulate.
- Chute cleaning
With a brush, remove dust and metal fragments from sliding surface of chute. Remove any grease with a cloth soaked in alcohol.
Be sure power switch is turned off. Do not scratch or bruise the chute-sliding surface during cleaning.
- Power
Turn power switch off after completing operations.

7 Maintenance

- Cleaning hopper interior
 - Clean the hopper interior once a week. Remove any remaining screw and dust. If the interior is extremely dirty, wipe thoroughly with a clean
- Oiler oil level check (*only for pneumatic driver whose pneumatic supply is made on the feeder*)
 - Check that oil level is between the top and bottom marks.
 - Supply oil if oil is running low.



- Draining water from filter Water accumulated in the filter should be drained by loosening the drain cock.



8 Adjustment and Replacement

8.1 Air Pressure Adjustment

Air pressure supply to feeder unit must be within 5-6 Bar.



8.2 Screw Deliver time Adjustment

Screw delivery time is the time for the screw to pass through the screw delivery hose to the driver jaw. Adjust screw delivery time by setting the timer on front of the feeder. 0 on the dial indicates the shortest time (approx. 0.1 sec.) and 10 indicates the maximum time (approx. 2 sec.) Standard operation setting is 1 to 2.

If the time is too short, screw may sometimes not be delivered.

The screw delivery time will vary depending upon the type of screw and length of screw delivery hose. Determine the most appropriate level by trial-and-error. Confirm that screws are delivered to the driver jaw.

Screw delivery time adjustment



8.3 Screw Deliver air Volume Adjustment

If satisfactory screw delivery cannot be obtained by time adjustments, the screw delivery air volume must be reset by turning the switch rod adjustment screw on right of the feeder escapement. The volume of air supplied to screw delivery hose increases when the lock nut is loosened and the switch rod adjustment screw is turned *counter clockwise*. This operation also increases screw delivery speed. Turn screw *clockwise* to decrease air volume and slow delivery. After adjustment, tighten the nut securely.

Screw delivery air volume adjustment



8.4 Bit Replacement

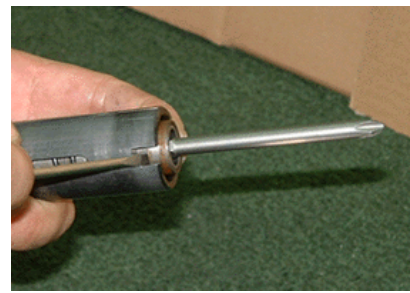
To release the nut.



Re-assembly the front part.



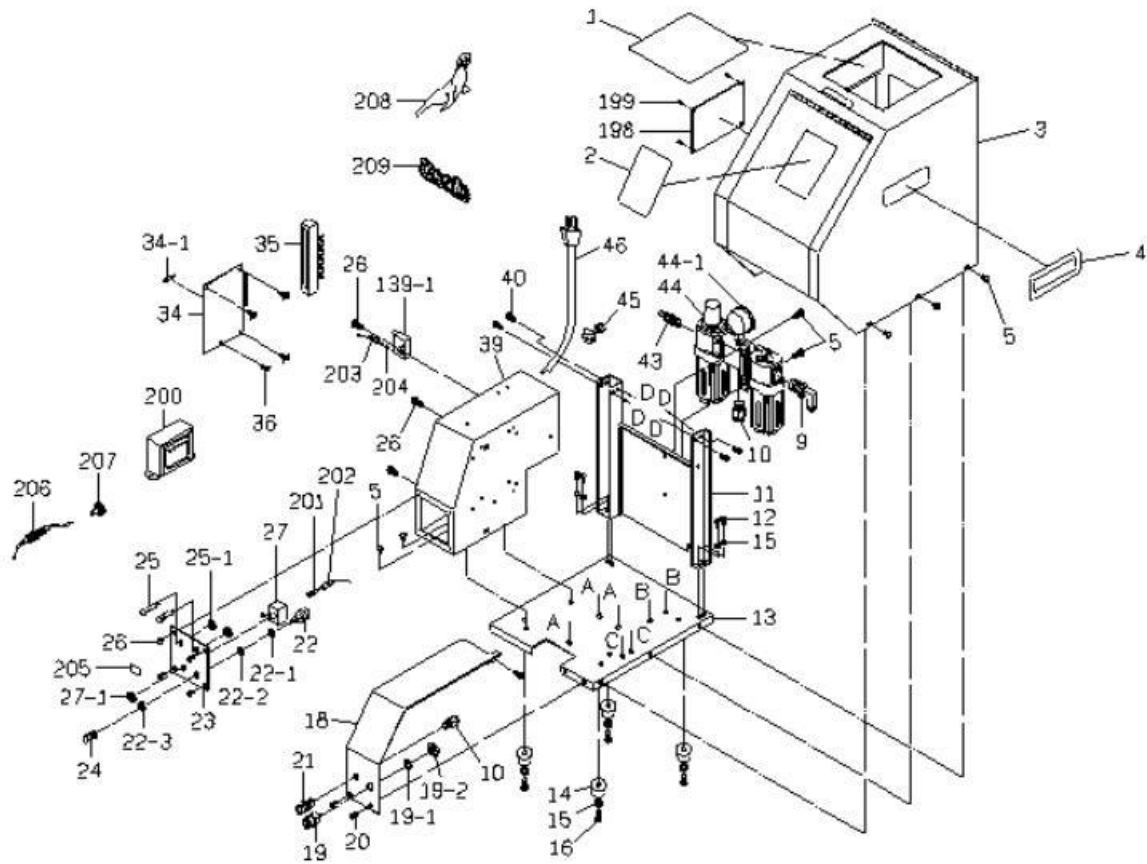
Use a negative driver and push the ring forward.
Keep pushing the ring forward and pull the bit out.
And, still keep pushing the ring forward and insert
the new bit.



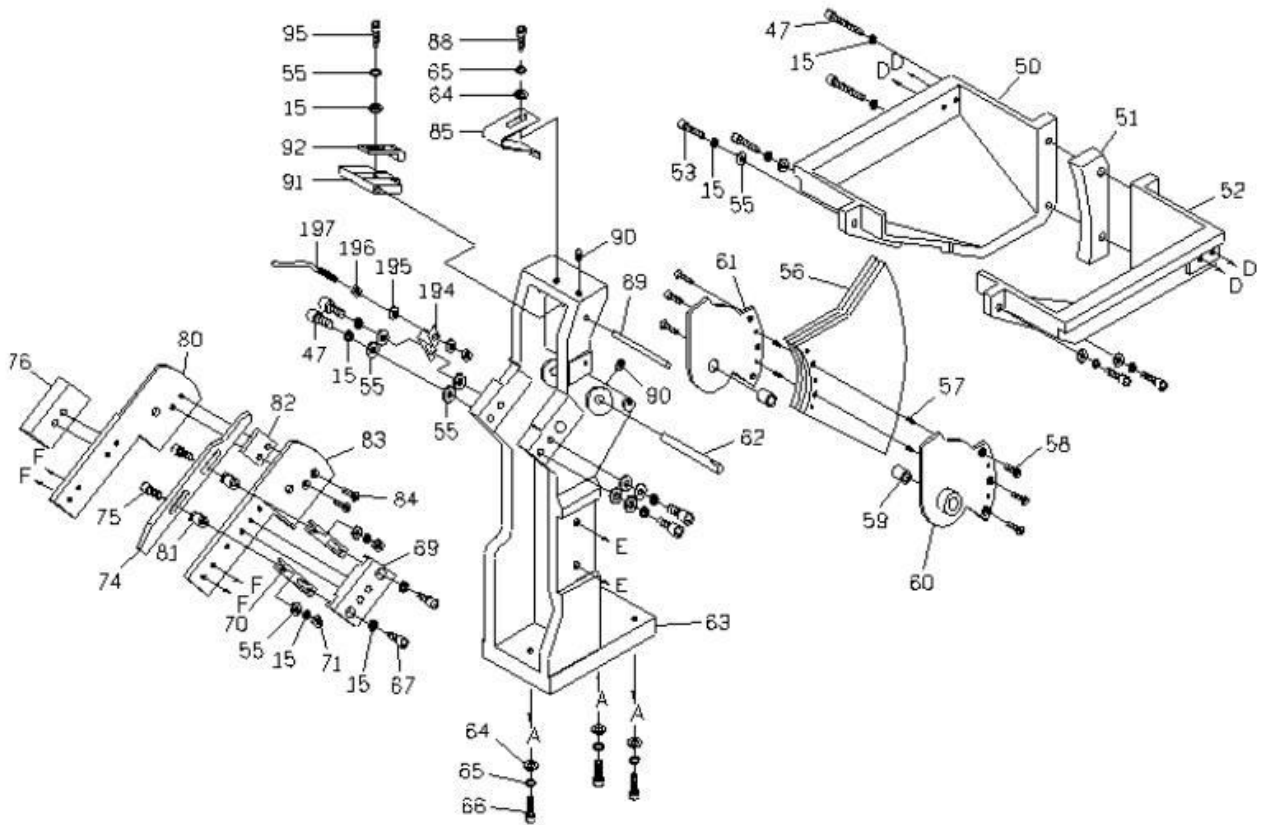
Lubricate and assembly it.



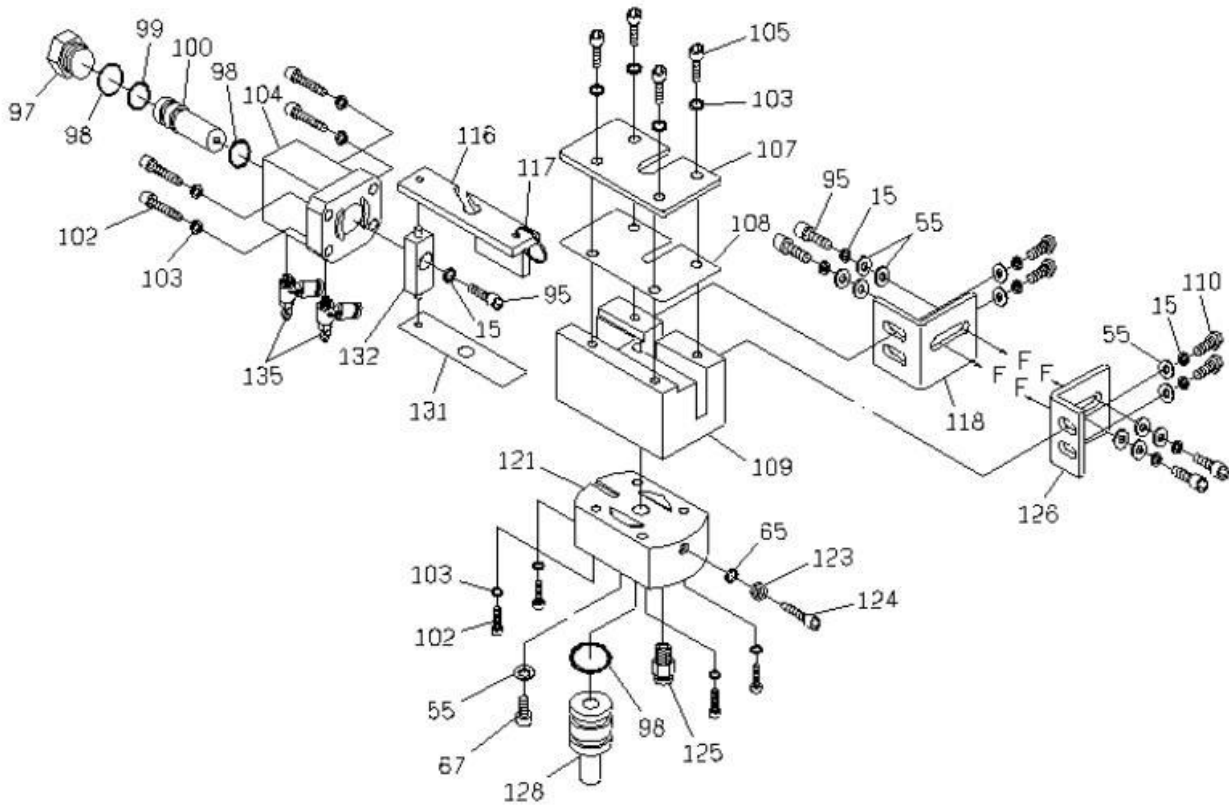
9 Part list



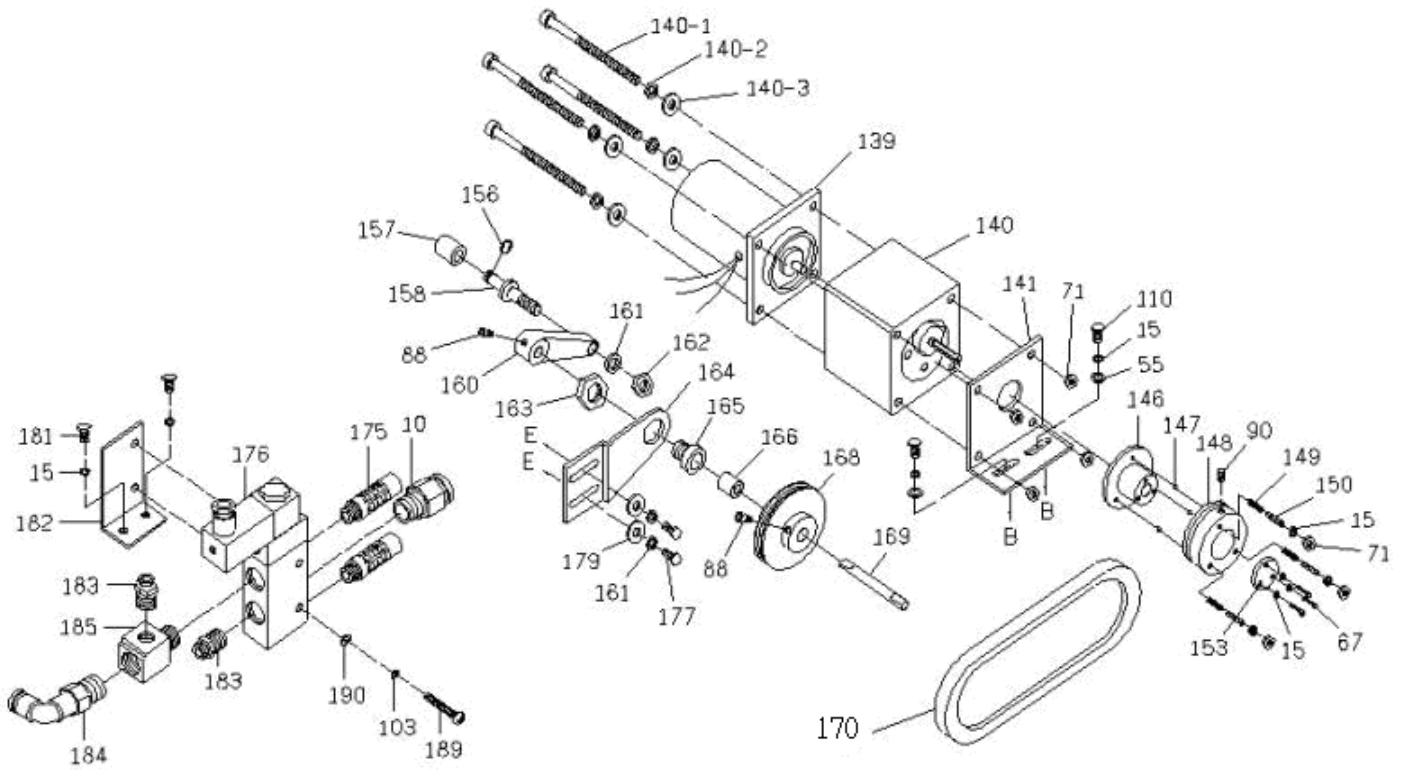
S/No.	Part NO.	Description	Q'TY	S/No	Part NO.	Description	Q'TY
1	CM-001	Clear Plate	1	22	SH07	Varistor	1
2	CM-002	Clear Plate	1	23	CM-023	SW Panel	1
3	CM-003	Cover	1	24	SH08	Midget Knob	1
4	CM-004	Handle	2	25	LP05	Pilot Lamp	2
5	SWW3001	Screw	12	27	CM-027	Snap Switch	1
9	JOPQ008	Union	1	34	CM-034	Complete PCB	1
10	JOPQ009	Union	4	35	ST21	Connector Wiring	1
11	CM-011	Back Panel	1	36	OE023	Rocking Circuit Board supp	1
12	SWP3003	Screw	4	39	CM-039	Electric Box	1
13	CM-013	Chassis	1	43	JOPM003	Union	1
14	OH017	Robber Foot	4	44	AC02	Air Unit	1
18	CM-018	Right Panel	1	45	OE004	Cord Pushing	1
19	ST02	Receptacle	1	46	CM-046	Power Cord	1
21	JOP004	Union	1				



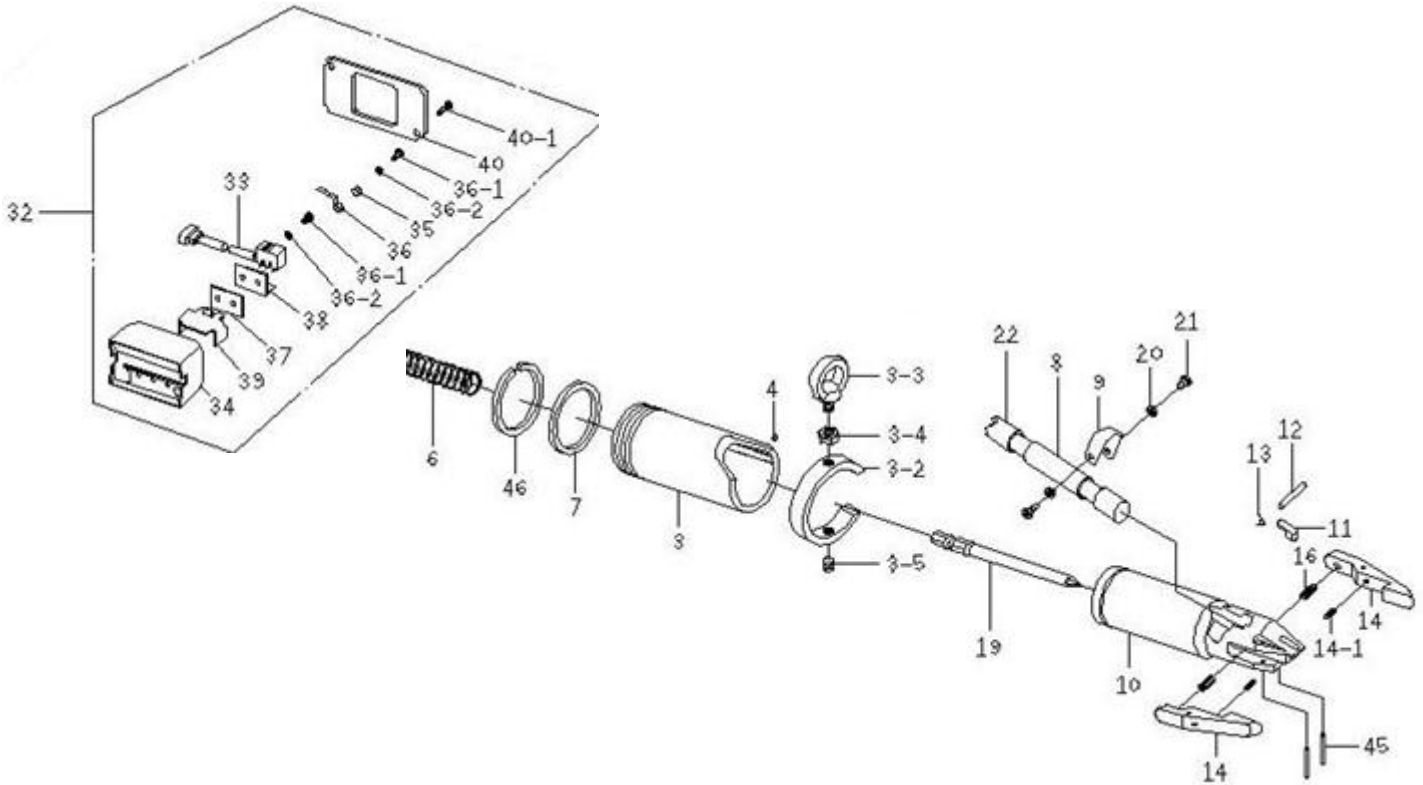
S/No.	Part NO.	Description	Q'TY	S/No.	Part NO.	Description	Q'TY
50	CM-050	Hopper	1	74	30F-074	Head Regulating Plate	1
51	CM-051	Hopper Block	1	76	CM-076	Chute fix Block	1
52	CM-052	Hopper	1	80	30F-080	Chute	1
56	30F-056	Pushing Board	1	81	CM-081	Head Regulating Thimble	2
59	BG004	Bearing	2	82	30F-082	Chute Block	1
60	CM-060	Pushing Board Bearing Base	1	83	30F-083	Chute	1
61	CM-061	Pushing Board Bearing Base	1	85	CM-085	Spring	1
62	CM-062	Bar	1	89	CM-089	Bar	1
63	CM-063	Stand	1	91	CM-091	Gate	1
69	CM-069	Chute Fix Block	1	92	CM-092	Cleaning Board	1
70	CM-070	Head Regulating Stand	2				



S/No.	Part NO.	Description	Q'TY	S/No	Part NO.	Description	Q'TY
97	CM-097	Screw	1	126	CM-126	ES Connector	1
98	OVCP14	O ring	3	128	30F-128	Pipe Connector	1
99	OVCP12	O ring	1	131	30F-131	Control	1
100	CM-100	Pistol	1	132	CM-132	Pistol Block	1
104	CM-104	Cylinder	1	135	JOPS004	Speed Control	2
105	SWR2010	Screw	4				
107	30F-107	ES Cover	1				
108	30F-108	Control Plate	1				
109	30F-109	ES Block	1				
116	30F-116	Shutter	1				
117	OH021	Ring	1				
118	CM-118	ES Connector	1				
124	CM-124	Screw	1				
125	JOPQ007	Union	1				



S/No.	Part NO.	Description	Q'TY	S/No	Part NO.	Description	Q'TY
139	OE007	Motor	1	165	CM-165	Screw	1
140	CM-140	Gear Head	1	166	BG006	Bearing	1
141	CM-141	Motor Plate	1	168	CM-168	Belt Roller	1
146	CM-146	Clutch Base	1	169	CM-169	Bar	1
147	BLS050	Steel Ball	3	170	OH022	Belt	1
148	CM-148	Roller	1	176	SV01	Electromagnetic Valve	1
149	CM-149	Spring	3	182	CM-182	Electromagnetic Valve Base	1
153	CM-153	Clutch Cover	1	183	JOP005	Union	2
156	RRE080	Snap Ring	1	184	JOPQ010	Union	1
157	BG005	Bearing	1	185	JOP006	Union	1
158	CM-158	Spindle	1				
160	CM-160	Roller Arm	1				
163	CM-163	Nut	1				
164	CM-164	Belt Roller Base	1				



S/NO.	Part No.	Description	Q'TY	Remark
3	40S-003	Pipe Cover	1	
3-1	40S-003-2	Rings Set	1	3-1~3-5
4	40S-004	Key	1	
6	40S-006	Pipe Spring	1	
7	40S-007	Cushion Ring	1	
8	40S-008	Hose Joint	1	
9	40S-009	Band	1	
10	40S-010	Y pipe	1	
11	40S-011	Rocker	1	
12	PN003	Spring Pin	1	
13	40S-013	Rocker Spring	1	
14	40S-014	Jaw	1	
16	40S-016	Jaw Spring	2	
19	BIT	BIT	1	
21	SWP3002	Screw	2	20~21
22	40S-022	Delivery Hose	1	26-1~30
29	ST10	Terminal	1	
32	40S-032	Delivery Switch Set	1	
33	40S-033	Micro Switch Set	1	
34	40S-034	Ms Cover	1	
35	40S-035	Can Shaft	1	
36	40S-036	Ms Cam	1	
37	40S-037	Ms Base	1	
38	40S-038	Insulation Plate	1	
39	40S-039	Ms Plate	1	
40	40S-040	Ms Cover LID	1	
40-1	SWF3007	Screw	2	
45	PN002	Spring Pin	2	
46	40S-046	Circlip	1	



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