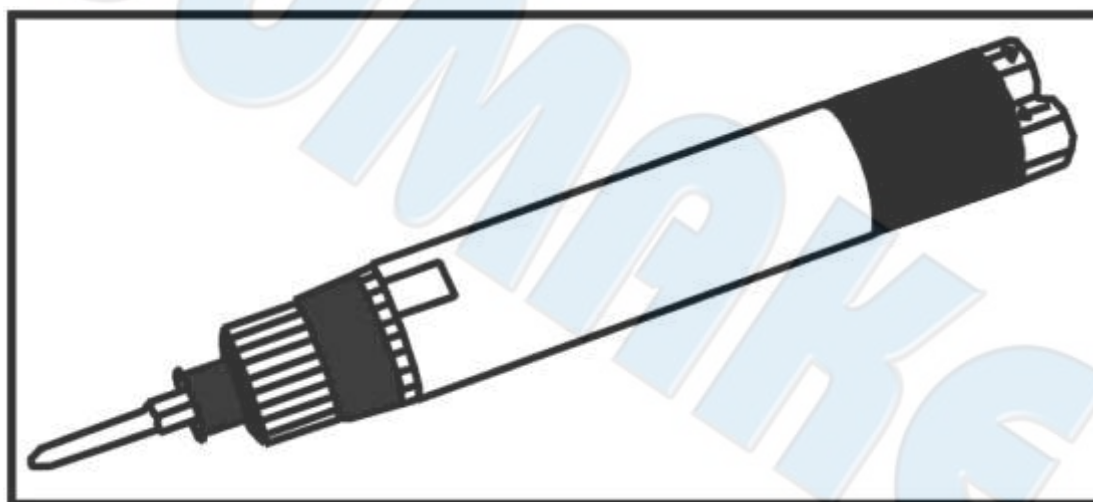




SUMAKE PNEUMATIC TOOLS



Oil-Free Air Push To Start-Shut Off Air Screwdriver (Environment Protect) 3 Air Ways - Reversible Type –

Test result according to EN ISO 11148-6:2012

MODEL	Vibration EN ISO 28927-2	Noise : EN ISO 15744		Safety Instructions  Warning
		Sound pressure level	Sound power level	
SMPRF48/O.E.	No Load: 0.8 m/s ²	No Load: 80 dB(A)	No Load: 91 dB(A)	1- Read this manual and understand all safety instructions before operation the tool. 2- Wear an approved ear-protector and gloves while operating tool.   
SMPRF50/O.E.	No Load: 0.8 m/s ²	No Load: 80 dB(A)	No Load: 91 dB(A)	
SMPRF55/O.E.	No Load: 1.0 m/s ²	No Load: 79 dB(A)	No Load: 90 dB(A)	
SMPRF60/O.E.	No Load: 0.9 m/s ²	No Load: 80 dB(A)	No Load: 91 dB(A)	
SMPRF65/O.E.	No Load: 0.9 m/s ²	No Load: 80 dB(A)	No Load: 91 dB(A)	
SMPRF68/O.E.	No Load: 0.9 m/s ²	No Load: 81 dB(A)	No Load: 92 dB(A)	
	Uncertainty K= 1.5 m/s ²	Uncertainty K= 3dB		

SMPRF48(50)(55)(60)(65)(68)/O.E.-S-2304C-MIF

SUMAKE INDUSTRIAL CO., LTD

4F,NO.351,Yangguang St.,Neihu District TAIPEI, TAIWAN, ZIP:114-91



EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment : **OIL-FREE AIR START-SHUT OFF AIR SCREWDRIVER**

(ENVIRONMENT PROTECT) 3 AIR WAYS - REVERSIBLE TYPE -

Model/ Serial No. : **SMPRF48(50)(55)(60)(65)(68)/O.E.**

to which this declaration applies, complies with these normative documents:

- Machinery Directive: 2006/42/EC

and conforms to the following EN standard,

- EN ISO 12100: 2010
- EN ISO 11148-6:2012

Name and Signature/Position



Mike Su – Managing Director

Date and Place

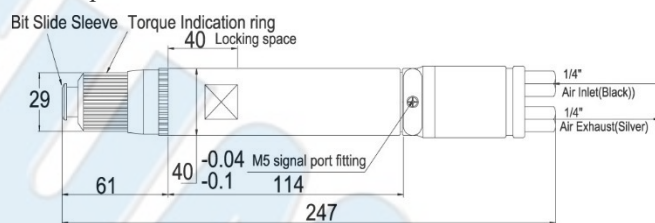
2022/12/1

Taipei, Taiwan

SMPRF48(50)(55)(60)(65)(68)/O.E.-D-2304B-MIF

Air Nutrunner Air Start Shut-off Operator's Manual

For safety use, Please Follow the instructions. The operation without your local regulations may cause serious injury. Read thoroughly and understand this instruction manual and keep this within reach for future reference.



CLASSIFIED CAPACITY SPECIFICATIONS

Model No.	Free Speed	O. A. L	Dia.	Air hose bore		Air Consumption	Torque range	Vibration Lever	Standard Deviation	Fastening Capacity	
	r. p. m	mm	mm	6.0 Kg/cm ³	5.0 Kg/cm ³	m ³ /min	Kgf-cm	Ms ³	%	Machine Screw Dia.	Tapping Screw Dia.
	.									T	2T
SMPRF48/O. E.	1800	247	40	8.0	9.5	0.55	5-45	< 2.5	±3	M2.8-M5.8	M2.3-M4.7
SMPRF50/O. E.	1400	247	40	8.0	9.5	0.55	7-50	< 2.5	±3	M2.9-M6.0	M2.6-M4.9
SMPRF55/O. E.	1000	247	40	8.0	9.5	0.55	7-65	< 2.5	±3	M2.9-M6.4	M2.6-M5.4
SMPRF60/O. E.	550	247	40	8.0	9.5	0.55	15-95	< 2.5	±3	M4.1-M7.0	M3.3-M6.0
SMPRF65/O. E.	300	247	40	8.0	9.5	0.55	30-180	< 2.5	±3	M5.0-M9.3	M4.0-M7.2
SMPRF68/O. E.	250	247	40	8.0	9.5	0.55	50-280	< 2.5	±3	M6.0-M11.0	M4.9-M8.7

OPERATIONS

- Precision adjustment has been made around case, gear and rotating section
- M5 Signal port fitting is used for transmission of 1)Start signal of tools, and 2)Stop signal of torque.
- Air start means automatic stop at torque set value and air supply stop of M5 signal port fitting and motor. You must stop the air supply in order to reset the Air nutrunner motors to the initial status, then Air nutrunner motors will restart when air supplied
- Easy adjusting fastening torque by tightening or loosening nut torque indication.
- Tighten to the right: increase torque. Loosen to the left: decrease torque
- Air motor will automatically stop when the load reaches at the pre-set torque.
- The color ring –for torque manages and identifiesUsing site management.
- To avoid defective of motor, please screw tight the tools at Locking space when fixing Air nutrunner motors.
- Warning: In case O.E. type, Incorrect direction of air inlet(black) and air exhaust(silver) may causes defective of air nutrunner motors .

AIR SUPPLY

- Air tools are adversely affected by moisture. Since air from compressor contains much moisture and dust, it is desirable to provide a filter and lubricator in the pipeline to remove such undesirable elements. Also take the drain out from air tank every day.
- When using brand-new air hose or air pipe. Blow and clean the inside of air hose or pipe before installation.
- Keep inside of air hose or air pipe clean to prevent airdrop problem caused by the lots of drain and dust accumulated and possibly make the inside diameter smaller in the long use.
- When disconnect air hose from air tool while in the operation do not drop air hose end to the floor as dust or other element may come into air hose.
- Use air regulator to keep stable air pressure at 5.5kg/cm²-6.0kg/cm² at the toll. It is important to get proper air pressure at the toll.
- After lubrication, oil will discharged the exhaust upon operation. Flush motor for a few seconds.

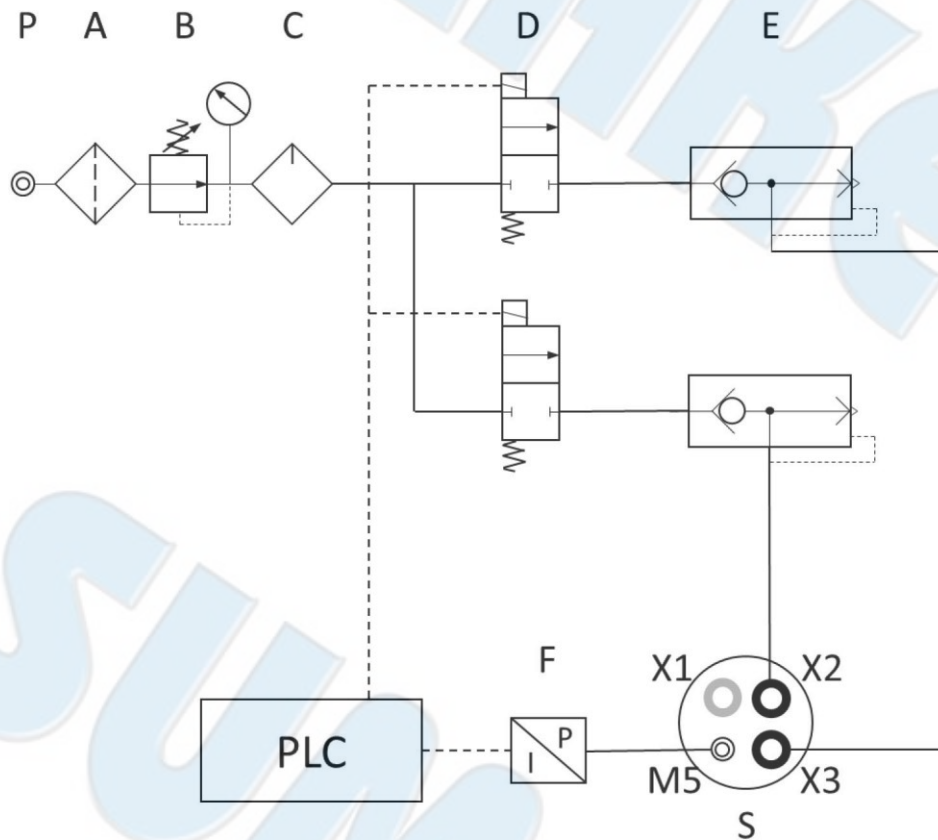
LUBRICATION

- Lubrication is indispensable to air tolls. The most ideal maintenance is to install one lubricator to a toll for automatic oil feed, but if it is not available, manual lubrication twice every day is recommended for longer life and keeping the efficient function of mechanism.
- For manual lubrication, disconnect air hose from bushing air inlet and full up spindle oil(#40-#60) into the air feed in take and push the bit.

Air Nutrunner Air Start Shut-off Operator's Manual

Installation diagram of Automation system with M5 signal port 【For 3 ports shutoff and air-start】

- By connecting with M5 signal port, PLC automation system can precise control the torque to avoid any float, loose or miss occurred.
- Air screwdriver clutch will be released and motor will stop automatically when load reach the preset torque.
- Water filter, pressure regulator & oiler are the devices required upon tube configuration.
- In order to assure the tube from pressure interference, installation of quick exhaust valve is a must with the use of the air tool.
- Connect M5 signal port with pressure sensor.



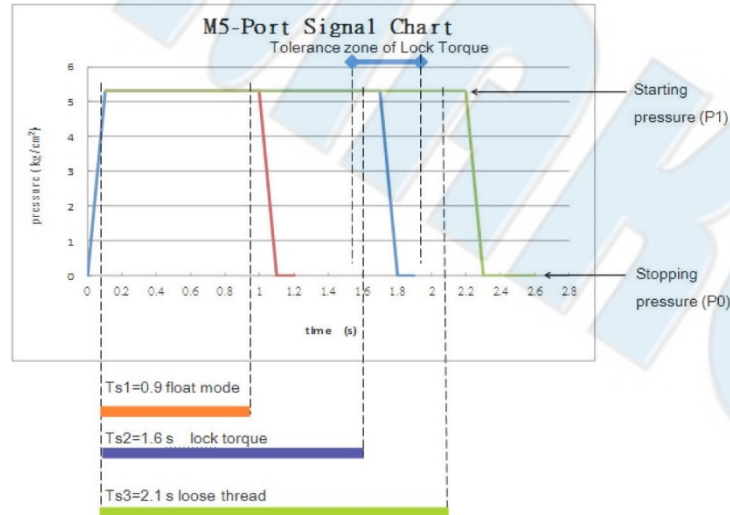
P=Pneumatic supply
A=Filter
B=Pressure regulator
C=Oil fog lubricator
D=Solenoid valve
E=Quick exhaust valve
F=M5pressure sensor

S=Pneumatic screwdriver
X1=1/4"PTsilver Hex vent
X2=1/4"PTblack Hex Inlet(lock)
X3=1/4"PTblack Hex Inlet(loosen)
M5=M5signal port

Air Nutrunner Air Start Shut-off Operator's Manual

M5 port-Automated Signal Chart:

1. P1 appears when M5 Signal Port detects the pressure as the air tool switches on.
2. P0 appears when M5 Signal Port turns off the pressure back to 0, when the torque has reached the target.
3. Central Processing Unit will determine on or off due to pressure by the sign of P1 or P0.
4. Ts1 < tolerance zone = float mode.
Ts2 within tolerance zone = lock torque.
Ts3 > tolerance zone = loose thread.



Air supply conditions & Do's and Don'ts:

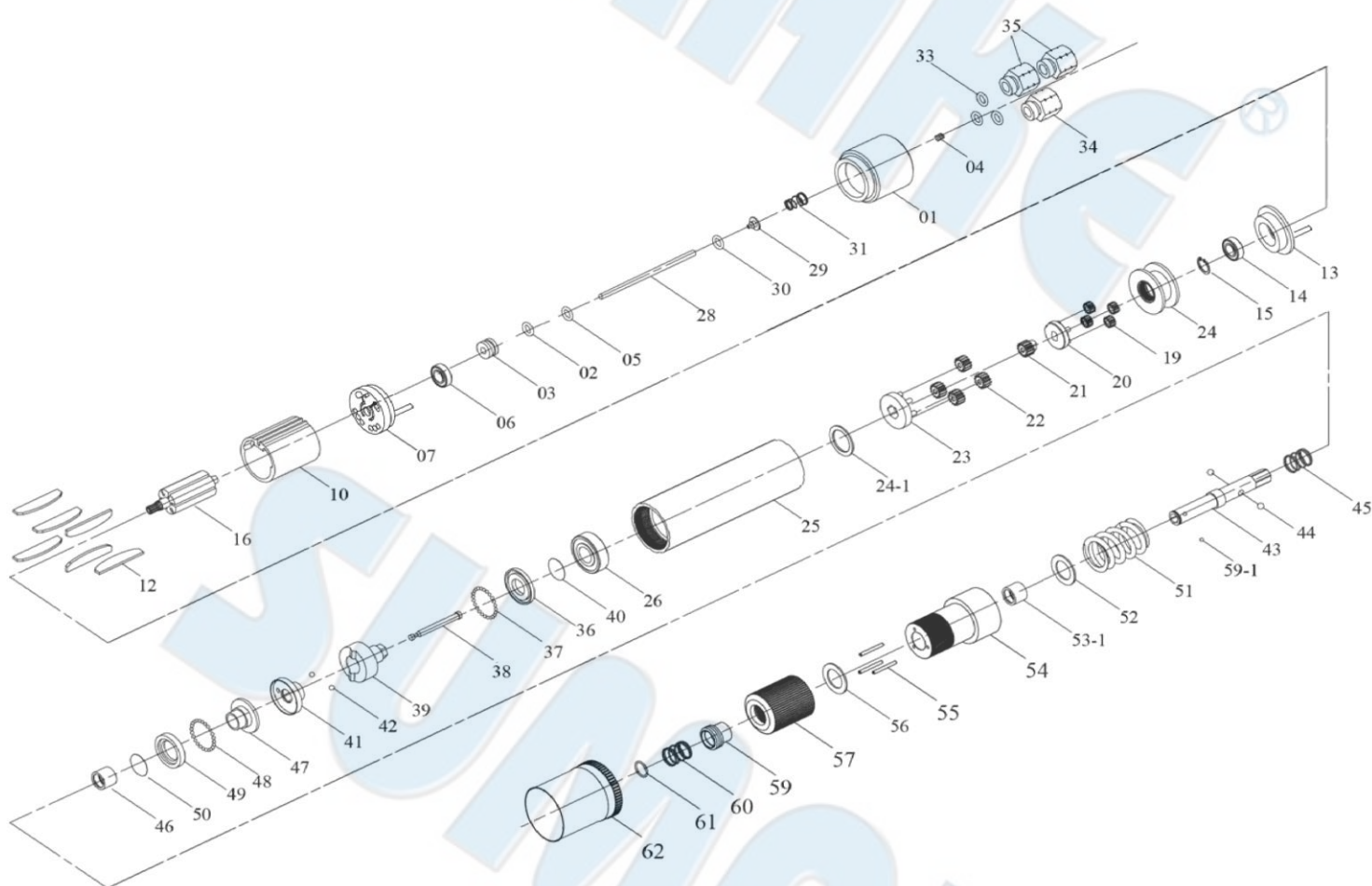
1. There are some adverse effects for pneumatic tools when the air compressor contains too much water and dust. Therefore, it is necessary that the pneumatic tubes equipped with water filter and automatic supply lubricating oil to filter extra substances, and to drain water out of the drain tank.
2. Before the air screwdriver is installed, please connect inlet pipe and pipe coupling onto inlet nuts.
3. To prevent gathering too much water and dust on the pneumatic circuit and pipe coupling, please keep the pipes clean or the inner diameter could possibly shrink in a long term use.
4. When the air screwdriver and the pneumatic tubes are detached, you must not drop the pneumatic tube connector on the floor. This will gather dust and other extra substances into the pneumatic circuit and damage the equipment.
5. In general, it is suggested that the pressure for main pneumatic circuit be 7.0kg/cm² or 8.0kg/cm² (100/140psi), and to install pressure regulator before the air screwdriver is connected to the sub pneumatic circuit. The pressure needs to be stabilized at 5.5kg/cm² or 6.0kg/cm² (80-90psi). If you choose the inner diameter for sub pneumatic circuit as suggested in our chart, it will work for most of the screws. Please do not use the pressure over the regulated one, otherwise it will shorten the life of the air screwdriver.
6. The installation of pressure regulator could stabilize the pressure of the pneumatic circuit, and to make sure the accuracy of the air screwdriver twisting force (repeatability precision).

Maintenance note:

1. If the air screwdriver is not going to be used for a long time, please add lubricating oil for a better preservation. Otherwise, the air screwdriver will be damaged and get rusty.
2. To use the FRL automatic lubricating tool could extend the life of the equipment.

SMPRF55/O.E.

OIL- FREE AIR PUSH TO START-SHUT OFF AIR SCREWDRIVER
(ENVIRONMENT PROTECT) 3 AIR WAYS - REVERSIBLE TYPE -



SMPRF55/O.E.

OIL- FREE AIR PUSH TO START-SHUT OFF AIR SCREWDRIVER (ENVIRONMENT PROTECT) 3 AIR WAYS - REVERSIBLE TYPE -

PARTS LIST

No.	Parts No.	Description	Q'ty
1	5A6103	End Housing	1
2	7Q2010	O Ring	1
3	2P6007	Valve	1
4	7S2111	Screw	1
5	2Q2003	O Ring	1
6	7S5001	Ball Bearing	1
7	1S6004	End Plate	1
10	1P6011	Cylinder	1
12	1P6049	Oil Free Blade	6
13	1P6063	Front Plate	1
14	7S2002	Ball Bearing	1
15	6N2020	C Ring	1
16	1S6052	14T Rotor	1
19	1P2130	14T Plate Gear	4
20	1P2290	Fourth Gear Cage	1
21	1G6090	14T Main Gear	1
22	1P6130	14T Plant Gear	4
23	1P6288	Fourth Gear Cage	1
24	1S6061	Internal Gear	1
24-1	4W6023	Washer	1
25	5A6035	Center Housing	1
26	7S6503	Ball Bearing	1
28	6S2005	Operating Rod	1
29	6S2021	Valve Plate	1
30	7Q2006	O Ring	1
31	6N2104	Cone Spring	1
33	2Q5001	O Ring	3
34	2S5031	Air Exhaust [PT]	1
	2S5031-1	Air Exhaust [NPT]	1

No.	Parts No.	Description	Q'ty
35	2S5032	Air Inlet Bushing [PT]	2
	2S5032-1	Air Inlet Bushing [NPT]	2
36	2S6103	Retainer	1
37	7S2102	Ball	32
38	3S5001	Pilot Pin	1
39	3S5211	Rear Clutch	1
40	6N2006	C Ring	1
41	3S5217	Center Clutch	1
42	7S2112	Ball	2
43	3S5021	Anvil	1
44	7S2105	Ball	2
45	6N5110	Spring	1
46	3S2227	Slide Base	1
47	3S5221	End Clutch	1
48	7S2102	Ball	25
49	3S5231	Ball Race	1
50	6N2006	C Ring	1
51	6N5002	Torque Spring	1
52	2S5121	Washer	1
53-1	3S2240	Anvil Bushing	1
54	3A5232	Clutch Housing	1
55	6S2010	Needle Pin	3
56	3S5101	Regulation Washer	1
57	3A6002	Torque Ring	1
59	5S2001	Bit Slide Sleeve	1
59-1	7S3107	Ball	1
60	6N2103	Spring	1
61	6N2001	C Ring	1
62	5A6021	Rear Housing (Left)	1