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Fasteners / Hardware / Pneumatic Tools

# RH160E

Rivet Nut setting Tool (Spin /Pull)

Instructions & Parts List



This spin-pull tool automatically threads the fastener onto the mandrel. Press the trigger just once and the fastener is installed. Release the trigger and it will automatically spin out of the Rivet-Nut completing the installation. Located at the bottom of the tool is a totally adjustable stroke length rotating knob to suit any grip range. A swivel air inlet is also included for increased mobility. No complicated tear down is required to adjust the stroke or to change thread sizes... both adjustments and changes are done outside the tool. The RH160E handles Rivet-Nut thread sizes 6-32" through 1/2-13" and the RH160E-Metric handles Rivet-Nut thread sizes 4mm through 12mm.

**CAUTION: ALWAYS WEAR SAFETY GLASSES WHEN OPERATING TOOL**

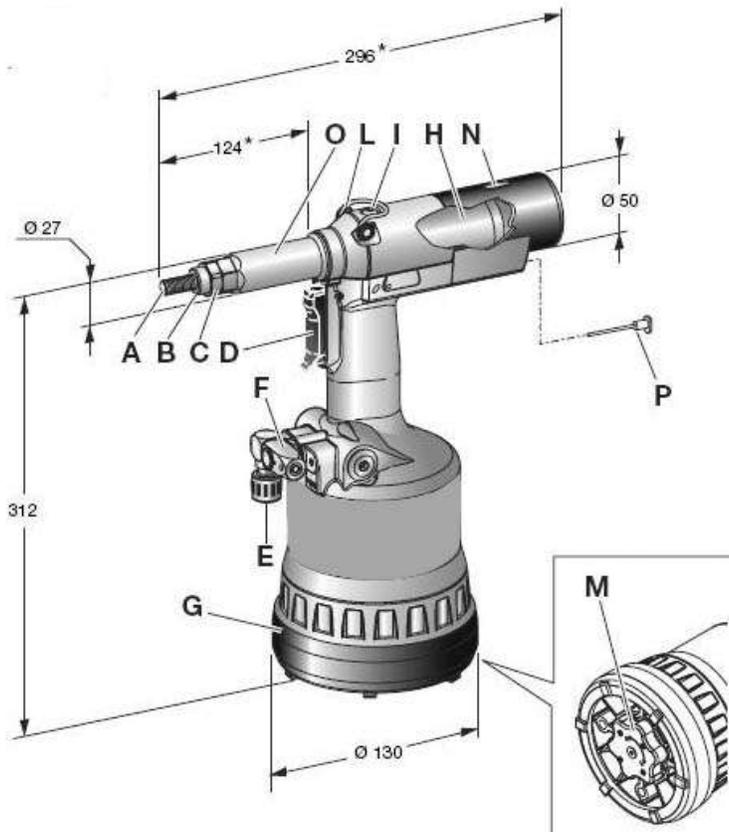
## **Air Feed**

Use only compressed air. Check airline for damage from humidity & contaminants.

In order to protect the tool from premature wear it is recommended a filter separator & regulator assembly be used. A lubricator is not necessary but a water separator is highly recommended.

Normal working pressure is 85-95 PSI. Air connection thread size 1/4"- NPT.

**WARNING: Do not use air supply greater than recommended or tool may be damaged or burst. Do not use oxygen, combustible gases or bottled gases as a source for this tool. Gases could cause the tool to explode.**

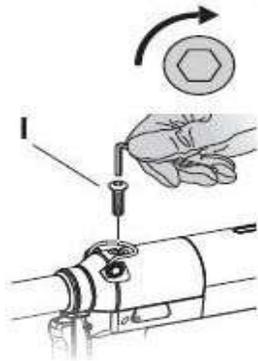


- A: Mandrel**
- B: Nosepiece**
- C: Nosepiece Lock Nut**
- D: Trigger**
- E: Air Connection (1/4-20 NPT female)**
- F: Pressure control Valve**
- G: Protective Bottom**
- H: Pneumatic Motor**

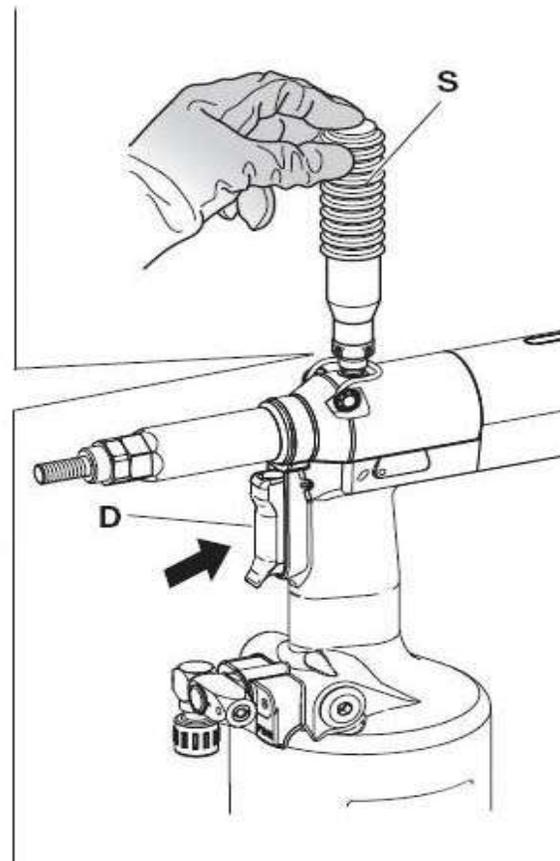
## MAINTENANCE

### ADDITION OF HYDRAULIC FLUID

The Hydraulic oil should be topped off after a long period of usage or when there is a power loss of the tool. Put the tool in a vertical position rotating the knob (M) towards the plus sign + up to the end of the stroke, and remove plug (I) by using a 4mm Allen wrench (supplied). After removal of plug (I), check the oil level in order to avoid overflowing. Next screw the oil container (S) supplied into the oil inlet hole until it is seated. While keeping the tool in the vertical position connect the air line and push button (D) and then cycle the tool several times until air bubbles in the oil container (S) stop appearing in the oil container (S). This indicates that tool is filled of oil and is ready for use. Disconnect the air line and unscrew the oil container (S) from tool and replace plug (I) first checking to be sure the washer on plug is in position and not damaged.

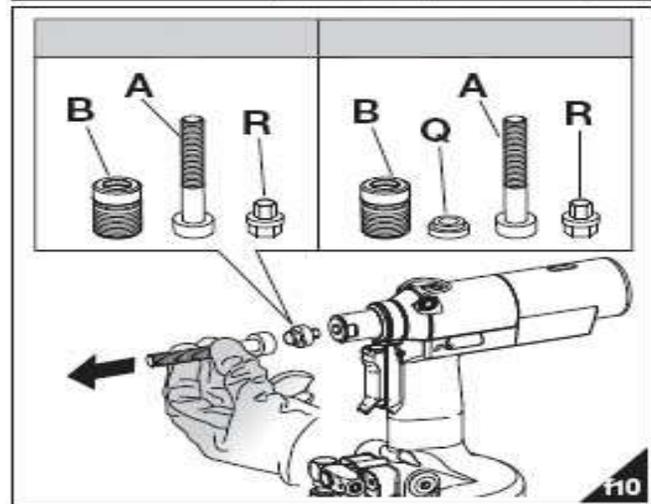
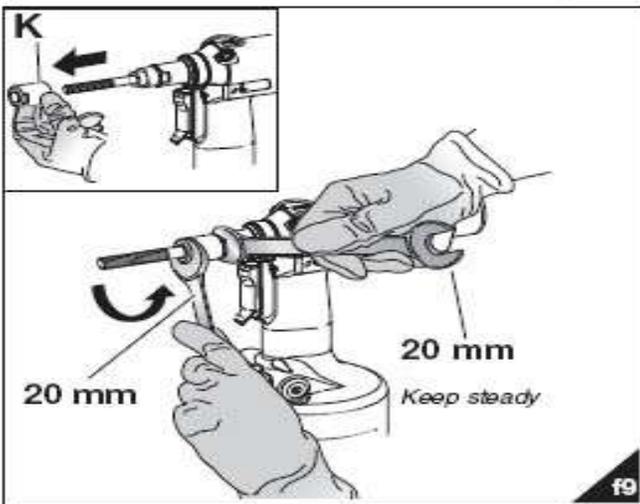
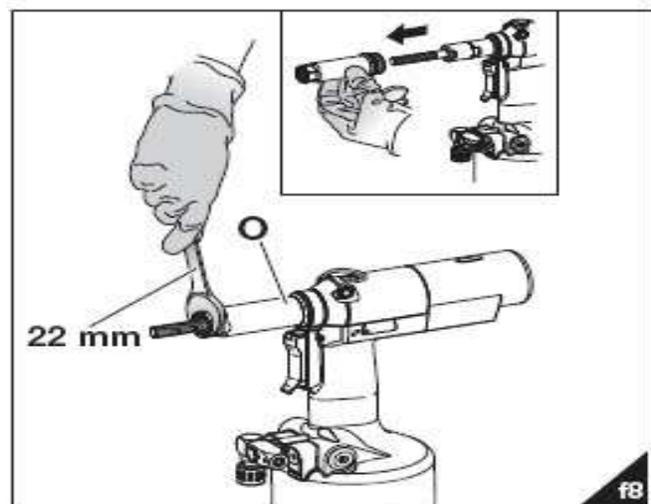
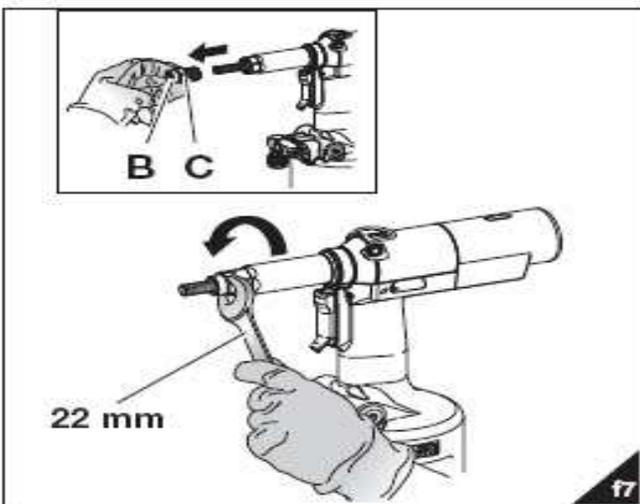


**IMPORTANT:** Make sure plug (I) is tightened at a torque corresponding to min. of 3.6 ft-lb and a max. of 5.9 ft-lb



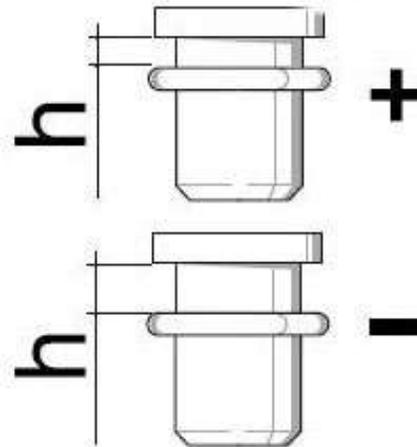
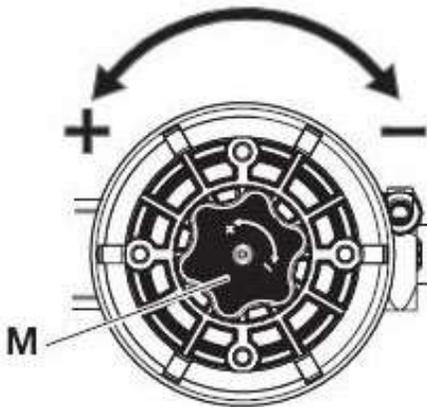
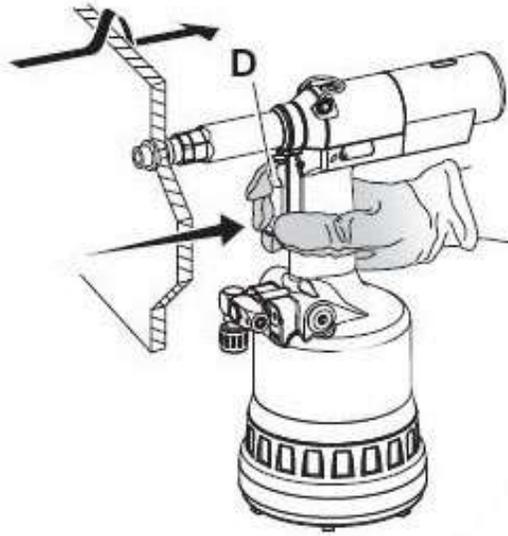
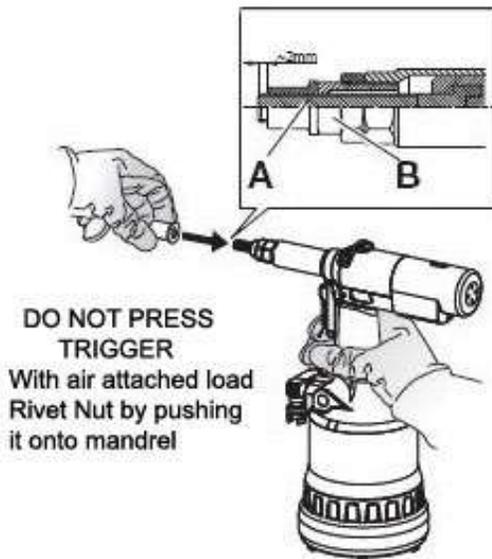
## Changing Mandrel and Nosepiece

The tool is supplied with mandrels (A) and nosepieces (B) for setting Rivet Nuts. Depending on the Rivet-Nut thread size it may be necessary to change mandrel (A) and nosepiece (B). This can be done by loosening nosepiece lock nut (C) using a 22mm wrench and remove nosepiece (B) and spacer (Q) if it ranges from 6-32" – ½-13" or M4 – M12 see f7. With the same wrench (22mm) remove the head (O) see f8. Using two 20mm wrenches remove ring nut (K) and remove the mandrel (A) see f9. To prevent damage it is critical that you follow procedure in f9. After replacing mandrel (A) with the correct thread size assemble the ring nut (K) and follow the above procedure in reverse order. Make sure that component (R) is the correct one.

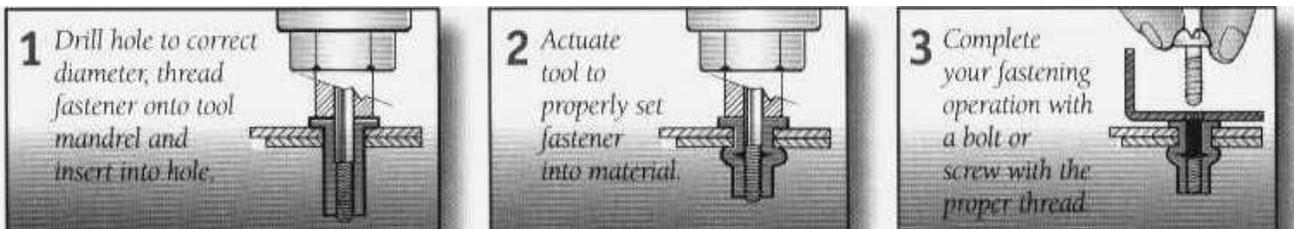


## Adjusting Stroke Length (Preliminary Operations)

Before using the tool and after each change of thread size, the stroke should be adjusted according to the dimensions, type of insert and thickness of material rivet nut is to be installed in. Before setting rotation of knob (M) in the direction indicated either decreases (-) or increases (+) the clamping force (h).



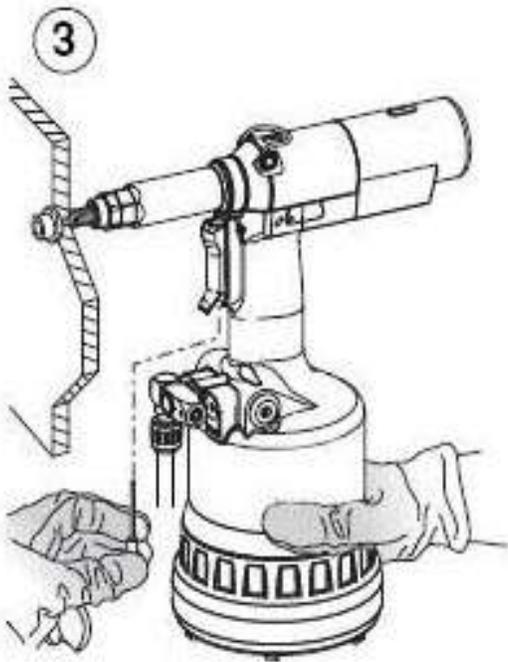
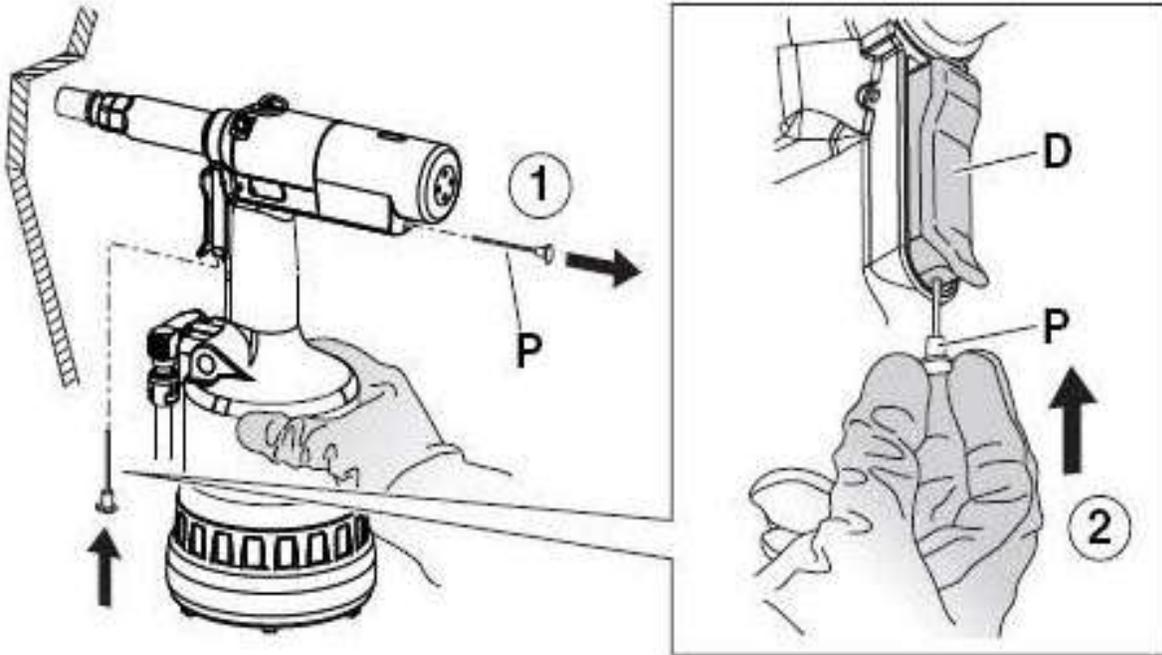
## 3 Simple steps to set Rivet-Nut



## Working Problem

When it is necessary to unscrew mandrel from the Rivet nut remove push rod (P) from it position (1).

**See diagram below**



## Parts List

Mandrels / Nosepieces included in 39225 160-SP tool. Note - no spacers are required

Ref	Qty	Part Number	Description
	1	71345403	Mandrel 6-32 UNC
	1	71345396	Head 6-32 UNC FOSF.
	1	71345402	Head 1/2-13 UNC FOSF.
	1	71345409	Mandrel 3/8-16 UNC
	1	71345401	Head 3/8-16 UNC 3/8-24 UNF FOSF.
	1	71345410	Mandrel 1/2-13 UNC
	1	71345400	Head 5/16-18 UNC 5/16-24 UNF FOSF.
	1	71345408	Mandrel 5/16-18 UNC
	1	71345399	Head 1/4-20 UNC 1/4-28 UNF FOSF.
	1	71345407	Mandrel 1/4-20 UNC
	1	71345398	Head 10-32 UNF 10-24 UNC FOSF.
	1	71345405	Mandrel 10-24 UNC
	1	71345406	Mandrel 10-32 UNF
	1	71345397	Head 8-32 UNC FOSF.
	1	71345404	Mandrel 8-32 UNC
	1	713176	Hexagonal Reduction for Inch Mandrels

Mandrels / Nosepieces included in 39226 160M-SP Metric tool

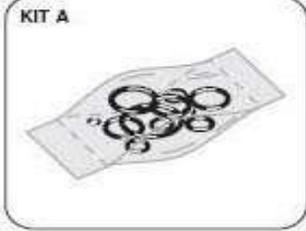
Ref	Qty	Part Number	Description
	1	713291	Head M10
	1	71C00281	Mandrel M10x70 UNI 5931
	1	713176	Hexagonal reduction M10
	1	713292	Head M12
	1	713177	Tie rod M12
	1	713030	Hexagonal reduction M8-M12
	1	713290	Head M8
	1	71345277	Spacer for screw M8
	1	71C00514	Mandrel M8x70 UNI 5931
	1	713289	Head M6
	1	71345276	Spacer M6
	1	71C00279	Mandrel M6x70 UNI 5931
	1	713029	Hexagonal reduction M6
	1	713288	Head M5
	1	71345275	Spacer M5
	1	71C00278	Mandrel M5x70 UNI 5931
	1	713027	Hexagonal reduction M5
	1	713287	Head M4
	1	71345274	Spacer M4
	1	71C00277	Mandrel M4x65 UNI 5931
	1	713025	Hexagonal reduction M4

Ref	Qty	Part Number	Description
22	1	709033	Vase
24	1	72A00053	Oil container
25	1	712225	Allen screw 4mm
26	1	Kit Q	Gasket BALSELE B 094063 (B-NEI)
27	1	713402	Seeger ring JV-25
28	1	71345258	Jacket
29	1	71345261	Flange
30	1	Kit A	Ring PARBAK 8-028 N300-90 PARKER
31	1	Kit A	Gasket OR 5-670 PARKER (N674-70)
32	1	Kit A	Gasket OR 027 DOWTY (N674-70)
33	1	71345264	Oil-dynamic piston
34	1	Kit Q	Gasket BALSELE B 157118(B-NEI)
35	1	Kit A	Gasket OR-2-126 PARKER (N674-70)
36	1	71345260	Ring nut
37	1	Kit A	Gasket OR-2-130 PARKER (N674-70)
38	1	Kit A	Gasket OR-2-122 PARKER (N674-70)
39	1	713348	Motor AM-0001
40	1	72A00022	Valve unit for motor control
41	1	71345263	Nut M 16 x 1
42	1	71345265	Reduction
43	1	713333	Spring for tie-rod
44	1	71345259	Driving shaft
45	1	71345271	Tie-rod ring nut
46	1	71345266	Tube
47	1	71345411	Head ring nut - Inch Sizes
47A	1	713170	Head ring nut - Metric Sizes
48	1	716198	Screw TCEI M4x12 UNI 5931
49	1	72A00009	Fender motor
50	1	710555	Washer ERM 400-004-4490
51	1	713405	Button head screw M6x10 UNI-ISO 7380
52	1	72A00043	Push-button
53	2	713308	Cap
54	2	713406	Screw TSEI M4X25 UNI 5933
55	1	72A00007	Air connector
56	2	Kit A	Gasket OR 2-007 PARKER (N674-70)
57	2	716150	Screw TSEI M4x12 UNI 5933

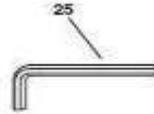
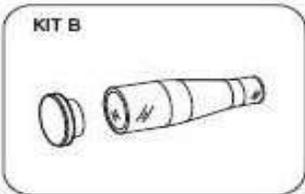
Ref	Qty	Part Number	Description
58	1	Kit A	Gasket OR 5-612 PARKER (N674-70)
59	1	Kit A / Kit C	Gasket OR 2-115 PARKER (N674-70)
60	1	Kit A	Gasket XR 008 PP180 B
61	1	Kit A / Kit M	Gasket OR 008 DOWTY
62	1	Kit A / Kit M	Gasket OR 2-120 PARKER (N674-70)
63	2	Kit A / Kit M	Gasket OR 2-006 PARKER (N674-70)
64	1	Kit A	Gasket OR 2-106 PARKER (N674-70)
65	1	713401	Roller NRB ø3x19.8
66	2	Kit A / Kit M	Gasket OR 2-009 PARKER (N674-70)
67	1	72A00019	Push-button unit
68	2	Kit A / Kit M	Gasket OR-2-003 PARKER (N674-70)
69	2	Kit A / Kit M	Gasket OR-2-005 PARKER (N674-70)
70	1	Kit A / Kit M	Gasket OR 2-010 PARKER (N674-70)
71	1	72C00003	Body
72	1	713403	Ball ø 5,5
73	1	71345272	Valve cap
74	1	71345273	Coil
75	7	Kit A / Kit P	Gasket OR-5-616 PARKER (N674-70)
76	1	7A00028	Air connector
77	2	Kit A	Gasket OR 1.78x8.73 (N674-70)
78	2	Kit A	Gasket OR 1.7 8x 7.66 (N674-70)
79	1	713304	Guide stem connector
80	1	Kit Q	Gasket TS 12 - 19 - 5.7 / L
81	1	Kit Q	Gasket BALSELE B 075047
82	1	Kit A	Gasket OR-5-615 PARKER (N674-70)
83	1	Kit A	Gasket OR-2-116 PARKER (N552-90)
84	1	713319	Nut M22 X 1.25
85	1	713320	Connector
86	1	713315	Stem
87	1	713197	Cover
88	1	713194	Knob
89	1	713316	Ring nut
90	1	713191	Disc
91	1	712575	Screw TSEI MSX12 UNI 5933
92	4	713404	Tapping screw TSP ø2.5x12 for plastic
93	1	713317	Flanged connector
94	1	713318	Driving shaft
95	1	713321	Double-thread screw
96	1	713322	Screw M5
97	1	713199	Spring
98	1	713196	Protection bottom
99	2	713434	Seeger ring ø 11 UNI 7435
100	2	Kit A	Gasket OR 6-700 PARKER (N674-70)
101	1	Kit A / Kit N	Gasket OR-2-340 PARKER (N674-70)
102	1	Kit A / Kit N	Gasket OR 2-109 PARKER (N674-70)
103	1	72A00020	Overpressure valve unit
104	1	72A00029	Air connector unit
105	5	Kit A / Kit P	Casing

Kits			
A	1	74000026	Pneumatic Kit
B	1	74000027	Tie rod container kit
C	1	74000024	Oil-dynamic cylinder kit
D	1	74000025	Hook kit
E	1	74000021	Silencer kit
F	1	74000029	Rod kit
H	1	74000033	Upper piston kit
I	1	74000034	Lower piston kit
L	1	74000035	Retaining plate kit
M	1	74000036	Handgrip kit
N	1	74000030	Pneumatic piston kit
O	1	74000031	Pneumatic jacket kit
P	1	74000023	Coil kit
Q	1	74000037	Oil-dynamic kit

Motor Spare Parts			
1	1	71345183	Crown gear
2	1	71345382	Gear cage
3	4	71345181	Planetary gear
4	1	71345182	Planetary gear
5	1	71345180	Connector
6	1	71C00154	Bearing 688ZZ
7	1	71345179	Front cap
8	1	71345176	Outside body
9	1	71345171	Roll pin
10	5	71345177	Tongue
11	1	71345173	Rotor
12	1	71345172	Back cap
13	1	710943	Bearing 624ZZ



For Metric sizes  
as shown below  
a spacer is required  
for M4 - M8



**IMPORTANT**  
For Inch sizes **NO SPACER** is required.

Note: see parts list for inch size mandrel, head  
and hexagonal reduction part numbers

