

BAK Thermoplastic Welding Technology AG Industriestrasse 6 6064 Kerns/Switzerland

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### **OPERATION MANUAL**

Air Station N80

Please read the operating instructions carefully before use and keep for further reference! Before start-up these operating instructions must be examined carefully because we will not assume any liability for any failures resulting from improper use.



### **TECHNICAL DATA**

Standard Voltage Rated Frequency Rated Pressure Operating Pressure

Rated Airflow Power Consumption Weight Dimensions L/B/H IP Class 230 V 50/60 Hz 150 mbar 100-200 mbar 0,1-0,2 bar 80 l/min 86 W 6kg 357x214x230 mm 55

### DIMENSIONS



### SAFETY

To prevent electric shock and fire!!!

The following safety precautions should always be followed to reduce the risk of breakdown and / or accident.

- 1. Don't install the blower where it can be flooded with water.
- 2. Electrical work must be done by a qualified electrician.
- 3. The power supply should be in accordance to the rated voltage shown on the label on the blower and be fitted with an earth leakage breaker and over current breaker.
- 4. The power outlet used should be waterproof and connected to an electrical grounding.
- 5. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid hazard.
- 6. Don't place any objects on the electric cable.
- 7. Be sure to unplug the blower before starting maintenance.
- 8. Be sure to put the upper case back after maintenance.
- 9. Don't touch the metal part of the blower until it is cooled down as the blower runs very hot.

Ignoring any of the above may cause an electric shock or a fire.

### START UP

Selection of the installation place

- 1. Install the blower near working place. If the cord is too long, the performance will be less.
- 2. Install in a place which is convenient for maintenance.
- 3. Only install the blower on stable and horizontal ground.
- 4. To get the most efficient function, protect the blower from wind and dust.
- 5. Install in a well-ventilated place.
- 6. Protect the blower from fumigation and sewage.
- 7. Install at least 30cm away from the wall of a house.
- 8. Installation in the shade is recommended to suppress heat generation of the blower.

Don't install the blower where it will be flooded with water. Don't install where there is excess moisture or humidity.

### **Procedure of installation**

- 1. The base should be made of strong material to bear the weight and block vibration from the blower.
- 2. Provide a separate power outlet to be used for the blower only.
- 3. Electrical work must be done by a qualified electrician.
- 4. The power supply should be the rated voltage shown on the label on the blower and be fitted with an earth leakage breaker and over current breaker.
- 5. The power outlet used should be waterproof and connected to an electrical grounding.
- 6. Place the blower horizontally on the base.
- 7. A soft rubber hose must be used to connect the air outlet of the blower to the pipe.
- 8. The rubber hose must be fastened with hose clamps.
- 9. To ensure, that the hose is not kinked or blocked, level the air outlet and the pipe when connecting.
- 10. Before starting the operation of the blower, ensure that the level is appropriate and the valves on the pipeline are properly opened.

### **Start operation**

Insert the power plug into the power outlet with full contact so that the plug itself does not wobble. Incomplete connection may cause an electric shock or a fire. After starting operation ensure that there is:

No air leakage from the hose and the pipe connection.

No abnormal noise from the blower.

No vibration transmitted to the ground due to strained piping.

### MAINTENANCE

Compressor N80 is oil less. Never lubricate them.

All compressors have already been precisely adjusted. Never disassemble them.

### **Replacement of the filter element**

Be sure to unplug the blower before starting the replacement work.

Loosen the screw and remove the filter cover (2). Remove the filter element (3) from the upper case (4) and replace with a new one. At the same time, clean the air inlet of the filter cover (2) and the upper case (4). Assemble the filter cover (2) with the filter gasket (1) securely positioned. Mount the filter cover (2) to the upper case (4), then tighten the screws.

Recommended time to replace the filter element

It is recommended that the filter element is cleaned or replaced with a new one depending on the extent of its deterioration as determined by the atmospheric conditions around the application.

The filter element should be checked every three months and should be replaced yearly.



### **Replacement of piston set**

- 1. Be sure to unplug the blower before starting the maintenance work.
- 2. Remove the upper case (4), loosen the hex bolts (7) on the front cover (8) and remove it. If you have difficulties to remove the hardcover, (8) insert a flat head screwdriver to the slot on the edge of the front cover (8) and twist the screwdriver gently to open.
- 3. Take out the piston set.
- 4. Replace gasket A (9) and gasket B (10) with new ones. Be sure to keep the teflon coating of the piston (11) away from dust, swarf, water, oil or grease. Try not to touch the teflon seal of the piston (11) with your fingers.
- 5. Insert the piston into the pump case. Fasten the head cover (8) with the hex bolts (7). Tighten the hex bolts (7) evenly and alternately before you completely tighten them.
- 6. Before putting the upper case (4) back to place, start the blower and check if there is any air leakage along the head cover (8) or the nozzle seal by briefly blocking the air outlet. In case there is an air leakage along the head cover (8), re-position gasket A (9) and gasket B (10), then re-fasten the hex bolts (7). In case there is an air leakage along the nozzle seal check if the nozzle seal is installed on the air tank properly and press the pump housing down to allow the air outlet port of the head cover (8) to fit into the nozzle seal correctly.
- 7. Put the upper case (4) back after installing gasket C (6) on the bottom case properly. Fasten the torx screw (5) evenly and alternately.

Recommended time to replace the piston set:

It is suggested that the piston set assembly is replaced every 24 months resp. after 20.000h, depending on the extent of the blower's pressure and airflow deterioration.

There is a groove on each Teflon seal of the piston indicating the degree of wear. If one or both grooves are worn away, replacement of the piston set is recommended.



# Piston sectional view



## Cautions

Locat the spring into the piston by rotating it clockwise. Check that grease is present on the convex face of the spring seat. ( If no grease is present, please contact your supplier) Never use standard grease as it may cause a malfunction. Keep the Teflon Seal away from any dust, swarf, water, oil or grease.

## Suggested Seal Kits

## D-1404 Repair Kit complete, Contents:

(5) Filter element
(11) Gasket A
(12) Gasket B
(13) Piston
(18) Spring Seat
(19) Spring

D-1405 Filter Element

## **GUARANTEE AND LIABIITY**

For BAK guarantee and liability see the general and sales condition on the back of the invoice paper. For the neglect or for damages resulting from it, the manufacturer / supplier will not accept any liability.

Any utilisation of the automatic welding machine, for other purposes than those for which it is intended, is subject to the consent of the manufacturer / supplier.

No warranty claims will be accepted if the automatic welding machine has been modified unless this has been done in consultation with the ma§nufacturer / supplier.

### SERVICE AND REPAIRS

Work on electrical parts of welding machine may only be performed by an electrical engineer in compliance with electro-technical rules.

Do not use the automatic welding machine if the connecting line or the plug is damaged, repairs have to be done by the manufacturer or authorised service personnel.

For after-sales service and orders please contact:

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### Technical data are subject to change without prior notice.

### DRAWINGS AND SPARE PARTS LISTS

#### DX153 Air Station N80



Article-No:	Description	Qty
5107351.1	Tube Air Station N80	1
D - 1403.1	Compressor N80	1
D - 1407	Clamp Air Station N80	1
D - 1409	t-grip	1
D - 1411	Redu M10-5	1
D - 1412	screw M5x60 DIN7991	1
D - 1413	outlet	1
D - 2050	screwed cable buckelproofed PG11	1
D - 2063	main cable 8m	1



Pos.	Description	Qty.
1	Filter Cover Gasket	2
2	Filter Cover	1
3	Filter Element	1
4	Upper Case	1
5	Blind Srew UL	6
6	Gasket	1
7	Headcover Assy	6
8	Hex Bölt	1
9	Gasket A	2
10	Gasket B	2
11	Piston Assy	2
12	Spring	2
13	Spring Seat	2
14	Housing Assy	2
15	Rubber Plug	1
16	Rear Cylinder	2
17	Insulation Bush	4
18	Srew 5x20	4
19	Field Core Assy	1
20	Endcap	1
21	Hex Blot	8
22	Rubber Feet	4
23	Bottom Case	1
24	Joint Hose	1
25	Clamp	2