



Model:

**DS1000**

Product Type:

**PNEUMATIC DOOR SKINNING TOOL**

### Foreseen Use of the Tool

Do not use the tool outside of the design intent.  
Never modify the tool for any other purpose, or for its use.



## Safety Precaution

**Caution:** To help prevent personal injury

- Normal use of this product is likely to expose the user to dust and/or microscopic particles containing chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Always wear appropriate safety equipment and clothing when using this product. Study, understand and follow all instructions provided with this product.
- Always wear ANSI approved goggles when using this product.
- Always select the correct accessories of the correct size and design for the job that you are attempting to perform.
- Always work in a clean, safe, well-lit, organized and adequately equipped area.
- Do not begin repairs without assurance that vehicle is in secure position, and will not move during repair.

Product Information:

### DS1000 - Pneumatic Door Skinning Tool

- Save significant time and cost in skinning doors
- Faster than any other method
- Factory like results in one pass
- One hand operation
- Patent #6,578,404

### Unpacking

When unpacking, check the parts diagram and part number listing on page 5 to make sure all parts are included. If any parts are missing or damage, please call your distributor

### Important

Read these instructions carefully before operating this tool.  
Keep these instructions in a safe accessible place.



**Astro Pneumatic  
Tool Company**

[www.astrotools.com](http://www.astrotools.com)

### 1 YEAR LIMITED WARRANTY

•Astro Pneumatic Tool Co. warrants our products to the original user against defective material or workmanship for a period of 1 year (except where noted on our price schedule) from the date of 1st use. Astro reserves the right to determine whether the product failed because of defective material, workmanship or other causes and to charge back for missing parts. Astro Pneumatic Tool Co., at its discretion, will repair products covered under this warranty free of charge. The distributor should direct the original user to return the product (with the exceptions listed below) with the distributor's name, address, adequate proof of date of purchase or a copy of warranty card, and a short note explaining the problem. **Failures caused by accident, alteration, or misuse are not covered by this warranty.**

•Astro Pneumatic Tool Co. or its authorized service representatives must perform all warranty repairs. Any repair to the product by unauthorized service representatives voids this warranty. The rights under this warranty are limited to the original user and may not be transferred to subsequent owners.

•This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of limitations of incidental or consequential damages so the above limitations may not apply to you. All claims must be sent to:

Astro Pneumatic Tool Company  
372 Old US Highway 52 South  
Mt. Airy, NC 27030



PLEASE CALL 1-800-221-9705  
FOR REPAIR AND RETURN INSTRUCTIONS



### PNEUMATIC DOOR SKINNING TOOL



**Also Available As Accessory:** DS1000-45A - Nylon Seat

## **DS1000 PNEUMATIC DOOR SKINNING TOOL: BACKGROUND, FEATURES & BENEFITS**

### **Industry Background:**

- Installing door skins has always been a very tedious labor intensive job originally done with a hammer and dolly.
- Other tools have been designed over the years to simplify this job, but all of these tools offer minimal improvement at best.
- A very deliberate sustained effort, to develop a better way of crimping a door skin flange, resulted in the development of the "DS 1000" tool.

### **Features of the DS 1000:**

- Precision machined aluminum head, hardened shafts, and ball bearing construction throughout, which will provide a long life and maximum durability for many years of trouble free service for real world professional use.
- Forged and hardened steel crimping head is specially designed to roll the steel flanges over with a minimum of physical effort, and leaves the flange smooth without unsightly ripples.
- Nylon dolly pad is made of a special nylon polymer, which inherently has lubricating properties, to help minimize physical effort and virtually eliminate damage to exterior surfaces of the door skin.
- The DS 1000 is manufactured to be very versatile with provisions to accommodate virtually any door flange thickness, by simply loosening two socket head screws and sliding the Nylon Dolly pad fore or aft, and re-tightening the screws.
- Powerful pneumatic drive motor with planetary gear reduction reduces the speed and allows for maximum range of motion of the crimping head.
- Design allows tool to maneuver around inner and outer curves as well as most body design features.
- Close tolerance design and manufacturing, results in a tool that is incredibly smooth, quiet, and easy to use.

### **Benefits to technicians:**

- Drastic reduction in the time required to install a door skin. As much as an hour or more can be expected improving your bottom line in a commission or rate environment.
- Drastic reduction in operator fatigue, leads to fewer cases of carpal tunnel syndrome and other repetitive motion ailments.
- One handed operation to allow for free hand to manipulate the work piece.
- Light weight and maneuverable yet very powerful
- Variable flange thickness adjustment allows for accurate disbursement of panel adhesive in the crimped area resulting in a smooth glue bead.

### **Benefits to management:**

- The drastic reduction in the time required to install a door skin significantly reduces labor costs.
- Drastic reduction in operator fatigue, leads to fewer cases of carpal tunnel syndrome and other repetitive motion ailments which reduces potential workman's comp claims and costs.
- Elimination of damage to the outside of the door skin further reduces labor during finishing.
- Drastic improvement in the quality of the finished product. The finished crimp typically is indistinguishable from a factory crimp.
- The reduction in labor, results in a very short payback period on your investment. In many cases the "DS1000" tool pays for itself within weeks.



## DS1000 OPERATING INSTRUCTIONS

*Thank you for purchasing a DS1000 Door Skinning Tool from Astro Pneumatic tool Company. We are confident that you will be very pleased with this tool. The DS1000 Door Skinner Tool is very straight forward and simple to operate, however, spending a few minutes to read through these instructions and tips could make you proficient in the use of the DS1000 much more quickly.*

*The DS1000 makes short work of crimping the door skin flanges of straight or smoothly contoured door edges. It can be used successfully in areas as short as 3 inches or infinitely longer. The DS1000 works by folding the door skin flange over and pinching it tight between a hardened steel, reciprocating crimping head and an adjustable nylon anvil pad. One pass is all that is normally required once you have the nylon pad adjusted for the proper crimp thickness.*

### **Preparation:**

There are a few that must be done to make your job successful.

We start by assuming that the old door skin has been removed and the shell cleaned and prepared for the new skin, adhesive applied and the shell and skin clamped together.

**It is necessary to have the flange bent over to at least 80 degrees from horizontal.** In other words the flange should be hammered over somewhat all the way around the door skin.

It is also necessary to have the starting corners hammered down nearly tight. Starting the first inch or two of the corners of the door by using a hammer and dolly to fold the flange down tight accomplishes two things. First it keeps the door skin in place around the shell, and second it creates a place to engage the DS1000 tool onto the skin flange. After you are finished hammering down the starting corners, use your hammer and dolly to start folding the entire flange over to about 80 degrees. This does take a little time, but it is worth the effort as you will soon see.

### **Operation:**

Now you are ready to finish the crimp with the DS1000.

- 1) First make sure you have the nylon pad adjusted to obtain the crimp thickness to your liking. This can only be done through trial and error. If you have any concerns about being too tight, it is not a problem to fold the flange down loosely, and then make a second pass to pinch it tight. We do recommend that the crimp be at least 90% tight on the first pass.
- 2) Slide the DS1000 onto the door skin in one of the starting areas. **IT IS CRITICAL THAT YOU KEEP THE TOOL STRAIGHT AND PARALLEL TO THE EDGE OF THE DOOR WHILE YOU ARE OPERATING IT.** If you operate the DS1000 tool at even a slight angle away from the edge of the door you will run the risk of the reciprocating head catching on the uncrimped flange and deforming it.

It is also important to roll the DS1000 slightly counter-clockwise (looking at the air inlet) as you are operating it so that the innermost edge of the nylon pad will not contact the exterior surface of the door skin. It is unlikely that any damage will occur regardless, but a little finesse will assure you of a flawless job.

- 3) Make sure you have the DS1000 connected to good clean shop air at 90 to 120 PSI. Start the DS1000 and push it slowly along the edge of the door to fold and crimp the flange down tight. It is not necessary to push hard. After a short period you will get a feel for a comfortable feed rate.

The DS1000 is designed to be very maneuverable. It is capable of negotiating inside curves, outside curves, concave and convex door edges, and many style lines. Flanges on body style features that are too abrupt to be done with the DS1000 as well as sharp corners etc. will need to be folded over with a hammer and dolly.

*With a little practice, you will experience outstanding results both on the exterior surfaces of the door and the inside flange, and save LOTS of time as well.*

### Maintenance instruction:

- 1) Lubrication:  
After 3 to 4 hours of operation, oiling may be necessary again.
- 2) Tightness of parts:  
Regularly check whether all connecting parts are fastened securely. Follow this procedure daily before beginning work.
- 3) Cleaness:  
Dust may accumulate around spindle inside shield. It is recommended to remove the dust on daily basis.
- 4) Storage:  
Avoid storing the tool in a location subject to high humidity. If the tool is left unused, the residual moisture inside the tool can cause rust. Before storing and after operation, oil the tool at the air inlet with spindle oil and run it for a short period.
- 5) Disposal:  
Follow national legislation of Waste disposal. Never drop into fire.
- 6) Ordering service part:  
For further operational and handling information or for replacement of parts and components, contact the sales agent from where you purchased the tool, or the service division of our company.  
\*In ordering parts and components, give each part number, name and quantities.

## ⚠ WARNING ⚠



- 1) The tool shall not be used in potentially explosive atmospheres.



- 2) Disconnect the air hose before changing or adjusting any inserted tools.

- 3) Before using tool, please confirm all couplings and plugs are fixed securely. Air hose that is under pressure may lash out when disconnected and could lead to serious injuries.

- 4) Prevent loose clothes, long hair or any other personal accessories from coming close to moving parts to reduce the risk of being caught, trapped or drawn into the rotating spindle.

- 5) Excessive high air pressure, that exceeds the maximum pressure, may cause injuries to user.



- 6) Exposure to strong vibration for extended time may cause harm to operator.
- 7) Make sure of the rotation direction before starting the tool to reduce hazardous situations due to unexpected rotation direction.



- 8) Slip/Trip/Fall is a major reason of serious injury or death. Beware of excess hose left on the walking or work surface.



- 9) Wearing eye/face protector could reduce the danger to person from high speed splinters being emitted from the tool or work surface.



- 10) Wearing correct breathing protection will help avoid inhaling dust or handling debris from work process that can be harmful to your health.

- 12) High sound level can cause permanent hearing loss. Use hearing protection while operating tool.

- 13) Due to the material being processed, there may be a risk of explosion or fire. Be aware of work surface dangers prior to beginning work.

- 14) There is a risk of being cut due to high speed rotation. Do not touch high speed rotating parts.

- 15) This power tool is not insulated. If contact is made with an electric current injury may occur.

- 16) Dust created by sanding, sawing, grinding, drilling and other related activities may expose the user to dust and/or microscopic particles that may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Users of this tool should review the chemical composition of the work surface and any products used in conjunction with the operation of this tool for any such chemicals prior to engaging in any activity that creates dust and/or microscopic particles.

Users should obtain the Material Safety Data Sheets for all identified chemicals, either from the manufacturer or their employer, and proceed to study, understand, and follow all instructions and warnings for exposure to such chemicals.

Some examples of these chemicals are: lead from lead-based paints; crystalline silica from bricks, cement and other masonry products; and arsenic and chromium from chemically treated lumber. A listing of the chemicals can be obtained from [www.oehha.ca.gov](http://www.oehha.ca.gov) under Proposition 65.

In order to reduce their exposure to such chemicals, users should always:

\*work in well-ventilated areas.

\*wear appropriate safety equipment and clothing that are specifically designed to filter out microscopic particles.

### Cautions for Use

- 1) Always wear ear protection and safety glasses when using this tool. Gloves and protective clothing are recommended.
- 2) Personal protection and dust collection devices shall be chosen according to the material being worked upon. Please consult provider of such devices.
- 3) Basic safety instructions and warnings must always be followed. In addition, safety instructions & warnings identified in ANSI B186.1 Safety Code for Portable Air Tools must be followed. For further ANSI information see [www.ansi.org](http://www.ansi.org) or call (212) 642-4900





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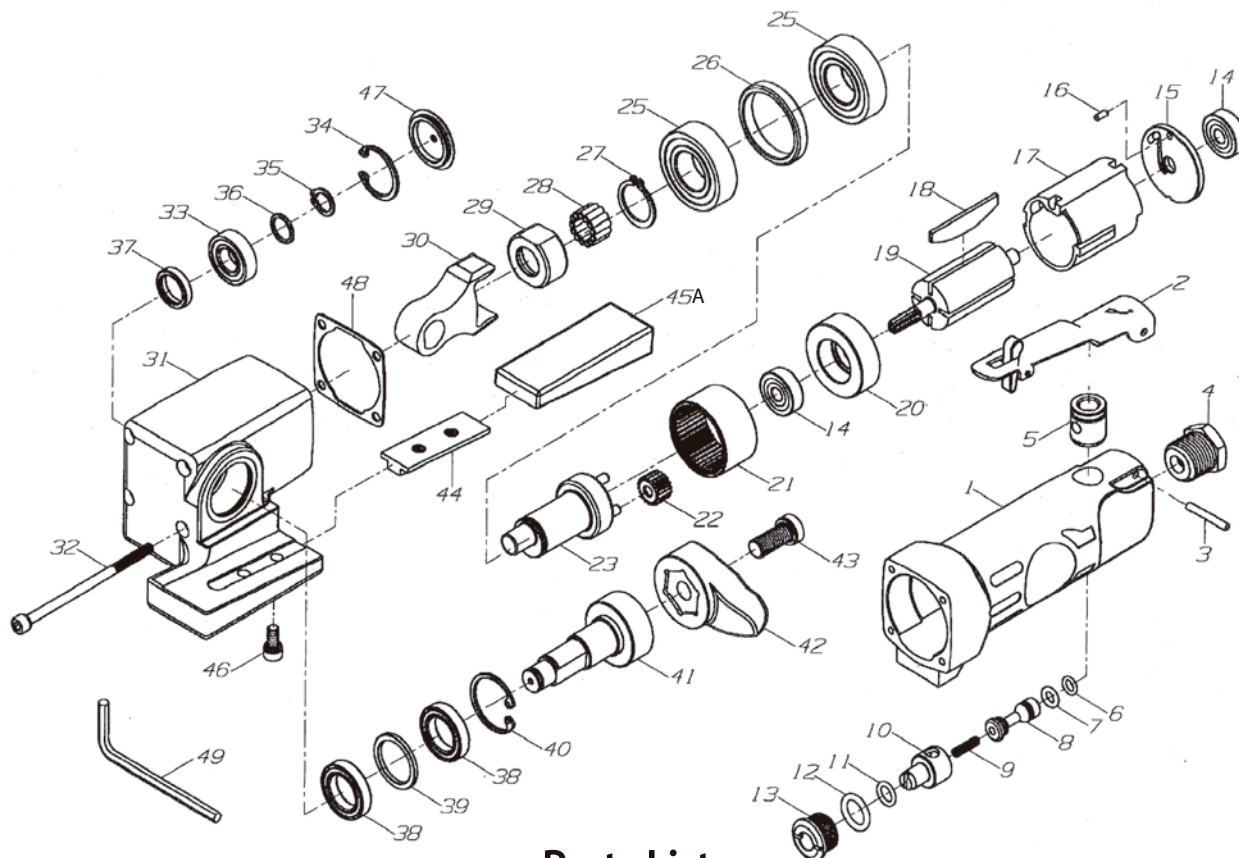
372 Old US Highway 52 South  
Mount Airy, NC 27030

Model:

**DS1000**

## PARTS BREAKDOWN

Call 1.800.221.9705 for questions concerning performance of the product or other inquiries.



## Parts List

INDEX NO.	PART NO.	DESCRIPTION	QTY.
1	DS1000-01	Motor Housing	1
2	DS1000-02	Lever	1
3	DS1000-03	Pin	1
4	DS1000-04	Inlet	1
5	DS1000-05	Valve Bushing	1
6	DS1000-06	O-Ring	1
7	DS1000-07	O-Ring	1
8	DS1000-08	Valve Stem	1
9	DS1000-09	Valve Spring	1
10	DS1000-10	Air Regulator	1
11	DS1000-11	O-Ring	1
12	DS1000-12	O-Ring	1
13	DS1000-13	Valve Plug	1
14	DS1000-14	Ball Bearing	2
15	DS1000-15	Rear End Plate	1
16	DS1000-16	Pin	1
17	DS1000-17	Cylinder	1
18	DS1000-18	Rotor Blade	4
19	DS1000-19	Rotor	1
20	DS1000-20	Front End Plate	1
21	DS1000-21	Internal Gear	1
22	DS1000-22	Planet Gear	3
23	DS1000-23	Planet Carrier	1
25	DS1000-25	Ball Bearing	2

INDEX NO.	PART NO.	DESCRIPTION	QTY.
26	DS1000-26	Spacer	1
27	DS1000-27	Retainer Ring	1
28	DS1000-28	Needle	13
29	DS1000-29	Needle Plate	1
30	DS1000-30	Drive Spindle	1
31	DS1000-31	Angle Head	1
32	DS1000-32	Screw	4
33	DS1000-33	Ball Bearing	1
34	DS1000-34	Retainer Ring	1
35	DS1000-35	Retainer Ring	1
36	DS1000-36	Spacer	1
37	DS1000-37	Spacer	1
38	DS1000-38	Ball Bearing	2
39	DS1000-39	Spacer	1
40	DS1000-40	Retainer Ring	1
41	DS1000-41	Spindle	1
42	DS1000-42	Press Blade	1
43	DS1000-43	Screw	1
44	DS1000-44	Steel Plate	1
45	DS1000-45A	Nylon Seat	1
46	DS1000-46	Screw	2
47	DS1000-47	Cover	1
48	DS1000-48	Gasket	1
49	DS1000-49	Hex Wrench	1



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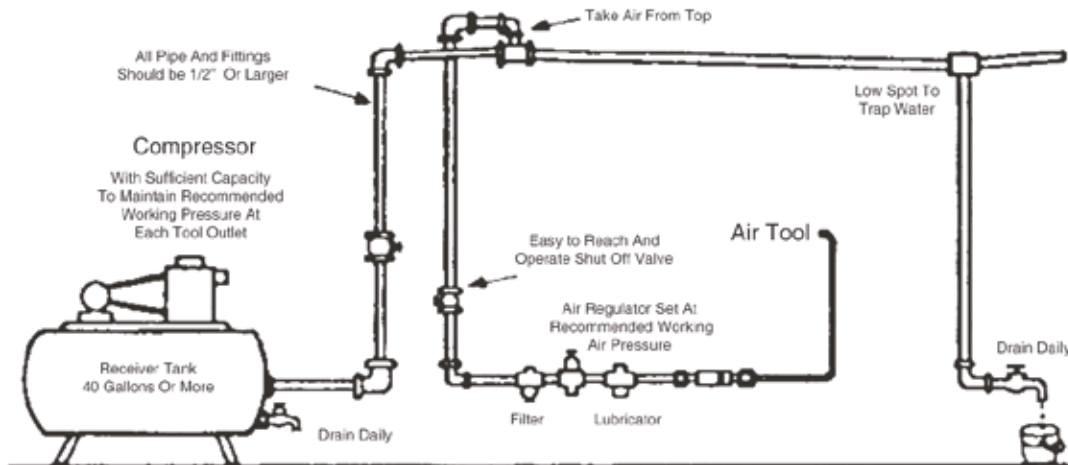
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Recommended Air Supply System

Figure 1

### ASTRO PRODUCTS AVAILABLE FOR AIR FILTRATION:

**2618** - AIR CONTROL UNIT - 120CFM CAPACITY

**2616** - 3/8" FILTER, REGULATOR & LUBRICATOR WITH GAUGE