



Operation Manual

Product name:

IMPACT BLOW GUN

Model/ Series/ Product Number

IBG1 SERIES

SMC Corporation

Contents

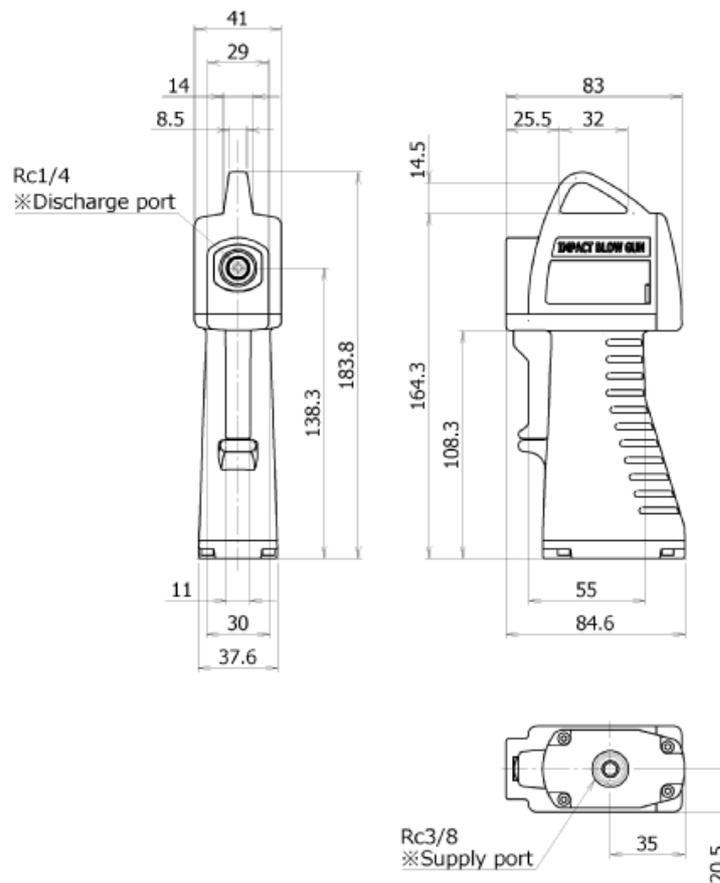
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2. Specifications

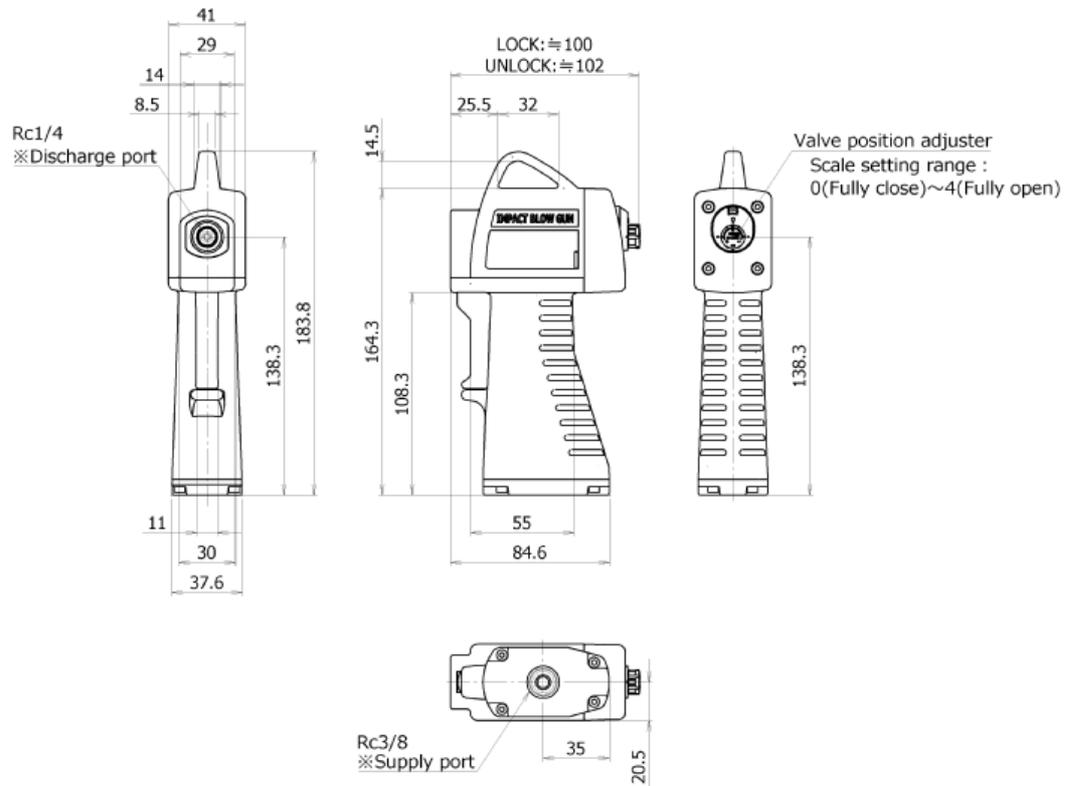
	Without adjuster	With adjuster
Fluid	Air	
Operating pressure range	0.1~0.7MPa	
Proof pressure	1.05MPa	
Fluid and ambient temperature	+5°C~+60°C	
Weight	380g	390g
Operating force	10N or less	

3.External dimensions

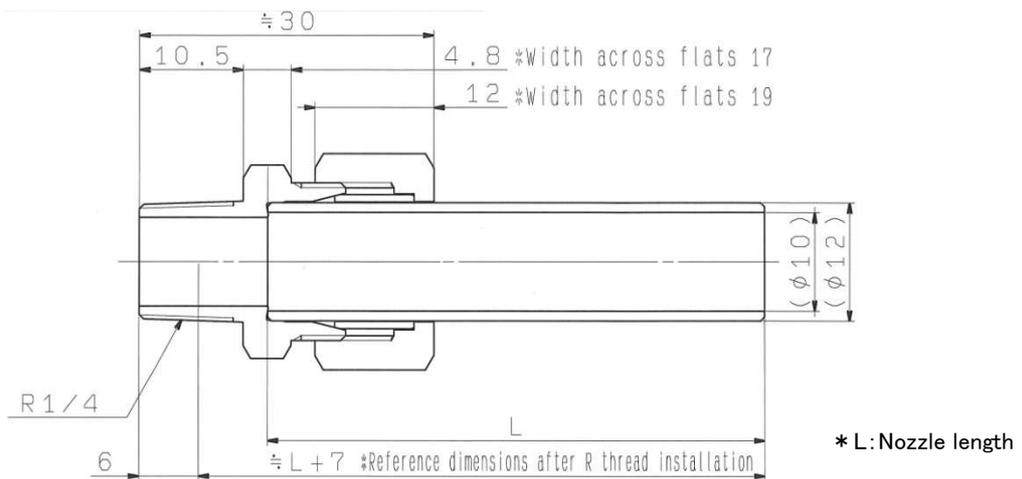
Without adjuster



With adjuster

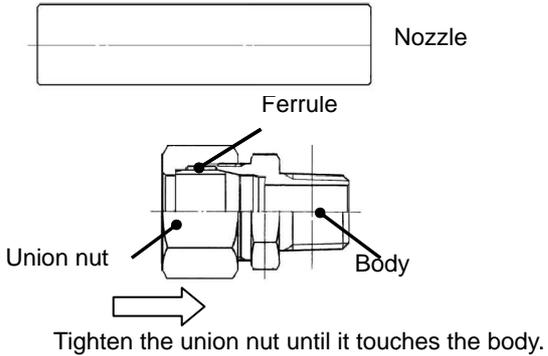
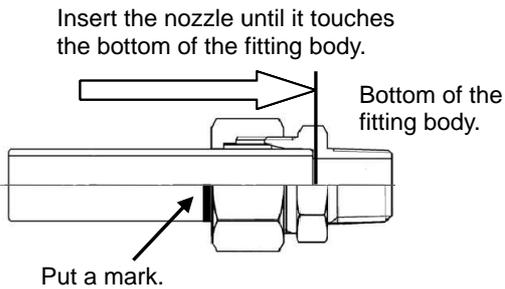
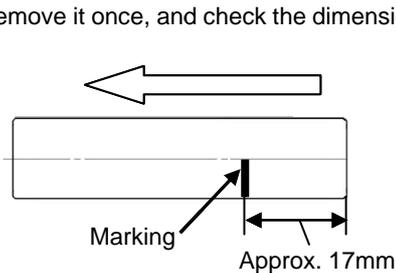
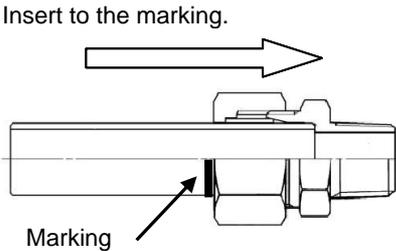
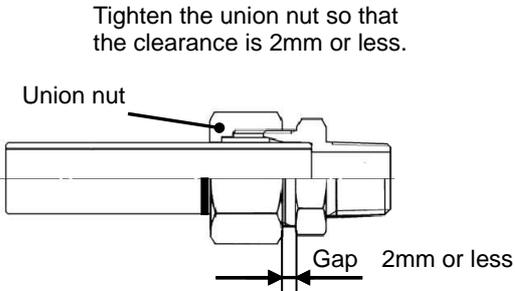


Nozzle



Note) The nozzle and flareless fitting are included in the same package unassembled.
Refer to "How to mount to mount a nozzle" on the next page for the assembly instructions.

4. How to mount a nozzle

Preparation	<p>1. Check that the ferrule is mounted inside the fitting as shown in figure on the right. Hand-tighten the union nut. Ensure ferrule is aligned properly.</p>	 <p>Nozzle</p> <p>Ferrule</p> <p>Union nut</p> <p>Body</p> <p>Tighten the union nut until it touches the body.</p>
	<p>2. Insert the nozzle until it touches the fitting body. Then, mark a line on the nozzle at the edge of the union nut.</p>	 <p>Insert the nozzle until it touches the bottom of the fitting body.</p> <p>Put a mark.</p> <p>Bottom of the fitting body.</p>
	<p>3. Remove the nozzle once, and check the dimension from the end of the nozzle to the marking. If the dimension is different from the 17mm, verify the alignment of the nozzle and adjust.</p>	 <p>Remove it once, and check the dimension.</p> <p>Marking</p> <p>Approx. 17mm</p>
Tightening	<p>4. After verifying the dimension, insert the nozzle into the fitting body again. Confirm that the nozzle is inserted down to the marking.</p>	 <p>Insert to the marking.</p> <p>Marking</p>
	<p>5. Using the tightening tool, tighten the union nut so that the gap between the fitting body and the union nut becomes 2mm or less.</p> <p>6. Pull the nozzle by hand to ensure that the nozzle is secure.</p>	 <p>Tighten the union nut so that the clearance is 2mm or less.</p> <p>Union nut</p> <p>Gap 2mm or less</p>



Impact blow gun Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.”

They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

*1) ISO 4414: Pneumatic fluid power -- General rules relating to systems.

ISO 4413: Hydraulic fluid power -- General rules relating to systems.

IEC 60204-1: Safety of machinery -- Electrical equipment of machines .(Part 1: General requirements)

ISO 10218: Manipulating industrial robots -Safety.

etc.



Caution

Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.



Warning

Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.



Danger

Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results.

The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product.

This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly.

The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.

2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.

3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.

2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.

3. An application which could have negative effects on people, property, or animals requiring special safety analysis.

4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.



Impact blow gun Safety Instructions

Caution

The product is provided for use in manufacturing industries.

The product herein described is basically provided for peaceful use in manufacturing industries. If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.

If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".

Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)

Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.

2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.

This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.

3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

*2) Vacuum pads are excluded from this 1 year warranty.

A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.

Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.

2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulation of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

Caution

SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country.

Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

Selection

Warning

1. Check the specifications.

The product is designed for use only in compressed air systems. Do not operate at pressures or temperatures, etc., beyond the range of specifications, as this can cause damage or malfunction.

Caution

1. Do not use the product with flammable, explosive, or toxic substances such as gas, gas fuel, and refrigerants.

Mounting

Warning

1. Install a stop valve on the supply pressure side of the blow gun.

It will be emergency shut off in case of unexpected leakage or damage.

2. Refer to How to mount a nozzle on page 4 for assembling the nozzle.

3. After tightening the nozzle onto the impact blow gun by hand, add extra tightening by 2 to 3 turns. Tightening torque is 12 to 14N as a guide.

If tightened insufficiently, the thread of the product may become loose.

Piping

Caution

1. Before piping, confirm the bore size, etc.

Also, check that there are no scratches, dents or cracks in the product.

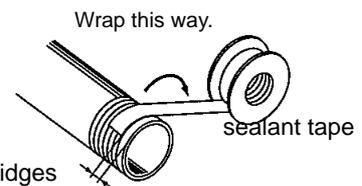
2. Before mounting, check the model, size, etc.

Before piping is connected, flush thoroughly with air or wash to remove chips, cutting oil and other debris from inside the pipe.

3. Sealant tape

When screwing piping or fittings into ports, ensure that chips from the pipe threads or sealing material do not enter the impact blow gun. If sealant tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.

leave 1.5 to 2 thread ridges exposed at the end of the threads..



4. Tighten the thread for the tube by 2 to 3 turns after tightening by hand.

Tightening torque is 22 to 24N as a guide.

5. When connecting a tube, consider factors such as changes in the tubing length due to pressure, and allow sufficient leeway.

6. Make sure that no twist, turn, tensile force or moment load is applied on the port or tube. It may cause the fitting to fracture or the tube to crush, burst or come off.

7. Mount so that tubing is not damaged by becoming entangled or abrasion. This can cause crushing, bursting or disconnection of tubing, etc.

Lubrication

Warning

- 1. Do not introduce oil into the air supply.**
This can damage or contaminate the object to be blown.

Air source

Warning

- 1. Use clean air.**
Do not use compressed air that contains chemicals, synthetic oils including organic solvents, salt or corrosive gases, etc., as it can cause damage or malfunction.

Caution

- 1. Install air filters.**
Install air filters close to the impact blow gun on the upstream side. A filtration degree of 5 µm or less should be selected.
- 2. Take appropriate measures to ensure air quality, such as by providing an aftercooler, air dryer, or water separator.**
Compressed air containing a lot of contaminants may cause operation failure of the blow gun or contamination/damage of the object to be blown. Therefore, take appropriate measures to ensure air quality, such as by providing an after cooler, water separator.

Operating environment

Warning

- 1. Do not use in an environment where corrosive gases, chemicals, sea water, water or steam are present.**
- 2. If using in a location directly exposed to sunlight, shade the product from the sunlight.**
- 3. Do not mount the product in locations where it is exposed to radiant heat.**
- 4. Do not use the product in a place where static electricity is a problem. It may result in system failure or malfunction.**
- 5. Do not use the product in a place where welding spatter can splash or get inside the product, as it may cause the product to catch fire.**
- 6. Do not use in an environment where the product is directly exposed to cutting oil, lubricant oil or coolant liquid, etc. Consult with SMC if using in such an environment.**

Maintenance

Caution

- 1. Please check the following points in the regular maintenance, and replace the parts as necessary.**
 - a) Scratches, dent, frictional wear, corrosion
 - b) Air leakage
 - c) Squeezing or twisting of the tubing that is connected
 - d) Hardening, deterioration or softening of the tubing that is connected
 - e) Loosening of the nozzle

2. Before removing the product, stop the supply pressure and exhaust compressed air in the piping.
3. Do not modify or reconstruct the product.

Handling

Warning

Air blow pressure is high. Pay attention to the following for use.

1. Make sure that the person and workpiece are safe from the objects scattered by the blowing pressure or by the air blow.
2. Be sure to wear safety goggles to protect the eyes from splashed substances.
3. Pay attention because the noise of the air blow is loud.
4. Do not use this product to the human body. It may cause injury to personnel.
5. This product is not intended for amusement applications. Do not use the product as an air gun, etc.
6. To prevent lurching of the nozzle due to air pressure, confirm that the nozzle is not loosened or rattling by pulling on it by hand before operation.
7. The product holder becomes warm by repeated operation. This is normal.
8. Do not use the product to clean or remove toxic substances or chemicals.
9. Do not drop, step on or hit the product. Otherwise, the product may be damaged.
10. If product is to be used in a public place, ensure product is not directed at people or used in a manner that could adversely affect the environment.
11. Make sure that no twist, turn, tensile force or moment load is applied on the port or tube when using or storing the blow gun.
It may cause the fitting to fracture or the tube to crush, burst or come off.

Revision history

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Note: Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.
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