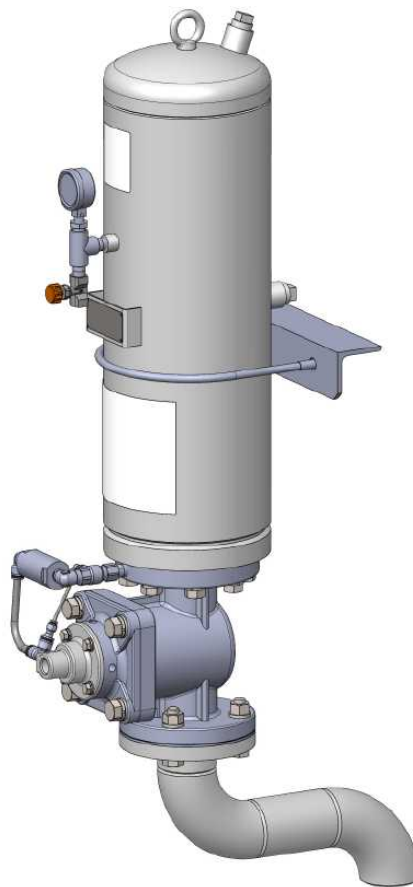




# **BLASTER SERIES DIRECT BLASTER OPERATING MANUAL (OUTER PISTON TYPE)**



**EDB 2.5-20A • 2.5-30A • 2.5-38A**

**EDB 4-60A • 4-80A • 4-130A**

**EDB 6-230A**

## **EXEN CORPORATION**

## ☆ SAFETY PRECAUTIONS

- ☆ This is a product that removes adhesion or blockade generated in the hopper or the chute by injecting the compressed air stored in the tank. Do not attempt to use the product for any purposes other than removal of any adhesion or blockade.
- ☆ Be sure to read carefully and understand this operation manual before using the product so that it can be operated safely and efficiently. Improper use of the product may result in injury or machine failure. Keep this manual for further reference.
- ☆ The contents and specifications in this document are subject to change without notice due to improvement. Furthermore, although every effort has been made to ensure the accuracy of the contents of this document, in the unlikely event that you find an omission or have any questions, please contact your nearest sales office or distributor.
- ☆ Please note that we cannot hold any responsibility for any malfunctions or defects arising from improper use of this product.
- ☆ The tank of this product complies with Japanese pressure vessel regulations. It may not conform to the regulations of overseas countries and compliance with foreign regulations needs to be confirmed individually.
- ☆ The following symbols are DANGER, WARNING, and CAUTION instruction for the use of this product so that the product will not cause harm or damage to users or others.



### DANGER

【DANGER】 indicates an imminent dangerous situation which may lead to death or serious injury.



### WARNING

【WARNING】 refers to a hazard that may cause death or serious injury.



### CAUTION

【CAUTION】 refers to a hazard that may cause minor or moderate injury.



## WARNING

(To prevent death)

-  This is a heavy product. When mounting this product, be sure to firmly secure the flange surface of the blaster to the mounting surface. Insufficient fastening may cause the product to fall.
-  Please attach turnbuckle or wire rope to eyebolt of this product to prevent fall.
-  Please ensure that the product is securely mounted where adequately withstands the weight of this product.
-  Make sure the installation surface is flat and free of protrusions.
-  Do not use the product beyond the operating pressure range.  
If used above the operating pressure, the tank may rupture, resulting in serious injury, death, or damage to the surrounding area.
-  Be sure to install and use a pressure gauge. Use at pressures exceeding the operating pressure may result in rupture.
-  Do not expose the tank to direct sunlight for long periods of time with the tank filled with compressed air.  
The compressed air inside the tank will become even more pressurized and may damage the tank.
-  Never use the tank if it has air leaks.  
Also, never repair or modify the air leaking parts. Damage or rupture may result in personal injury.
-  Use compressed air as the working fluid.  
Do not use any other fluid.



(To prevent injury or damages)

⚠ Please do not approach front of the jet orifice or behind of the blaster during test injection. There is a possibility of causing an unexpected injury by a blast.

⚠ Do not inject this product in the state with insufficient installation. There is a possibility that the installation part may break and fall.

⚠ After air has been fully charged, please do not perform removal or disassembling of this product. There is a possibility of sudden injection causing an unexpected injury.  
Fully open the needle valve attached to the tank so that there is no residual pressure in the tank. (Check with a pressure gauge).

⚠ Keep your face away from the needle valve when venting residual pressure.  
Doing so may cause blindness or ear damage.

⚠ To protect yourself from explosion noise, wear hearing protection when using this product.



⚠ Follow your country's guidelines regarding noise.

# ○ INTRODUCTION

Thank you for purchasing this blaster from the direct blaster series.

Be sure to read this operation manual before use.

Be sure to read carefully and understand this operation manual before using the product so that it can be operated safely and efficiently. Handle and maintain the product appropriately for safety operation. Keep this manual in a safe place.

## CONTENTS

|                                            |    |
|--------------------------------------------|----|
| ☆ SAFETY PRECAUTIONS .....                 | 1  |
| ○ INTRODUCTION .....                       | 4  |
| ○ SAFETY .....                             | 5  |
| ○ NAMES OF PARTS .....                     | 8  |
| ○ SYSTEM CONFIGURATION .....               | 10 |
| ○ INSTALLATION .....                       | 11 |
| ○ BASIS OF SELECTION .....                 | 21 |
| ○ REFERENCE OF INSTALLMENT .....           | 22 |
| ○ INSPECTION AFTER INSTALLATION .....      | 23 |
| ○ CAUTION POINTS OF OPERATING .....        | 24 |
| ○ INSPECTION .....                         | 25 |
| ○ TROUBLESHOOTING .....                    | 26 |
| ○ REPLACEMENT PERIOD FOR CONSUMABLES ..... | 27 |
| ○ SPECIFICATIONS .....                     | 29 |

## ○ SAFETY



(For personal protection during operation)

- Put on a safety helmet, safety gloves, safety shoes, and safety harness, before installing the blaster.



Safety helmet



Safety gloves



Safety shoes



Safety harness

-  This product is heavy. Attach a rope securely and transport it using a crane.

-  To protect yourself from explosion noise, wear hearing protection when using this product.





(For longer service life)

- Please start piping after checking that there is no adhesion of foreign substances, machining dust and burr on the piping materials.
- Perform flushing by blowing air at 0.3MPa or higher into the pipe to remove foreign matter, machining dust, and burrs.
- Please use air that has passed through an air filter with a filtration rating of 5 micrometers or less. Moisture or fine dust in the piping may cause malfunction or air leakage.
- When using directional air equipment, please ensure that the IN side of the fluid flow direction is aligned with the IN port indicated on the product during piping.
- Regarding the use of sealing tape, please be sure not to get caught the tape inside the piping and not to cause air leak. When applying the sealing tape onto thread portions, avoid the 2-3 top screw threads. When applying liquid sealing material onto screw portions, avoid the 2-3 top screw threads and don't apply the excess amount. Avoid applying liquid sealing to female thread.
- Do not ride on or place heavy material on this product or piping.
- In cold climates, appropriate anti-freezing measures must be taken. (Compressed air must be kept from freezing.)
- Please do not use this product in an atmosphere containing corrosive gas or explosive gas.
- Please do not make the valve into a scaffold or do not put heavy material on it.
- Before use, thoroughly inspect the parts for any damage or breakage, and ensure that the bolts or screw are not loose.

- The bolting torque at the time of piping should be referred to the following table.

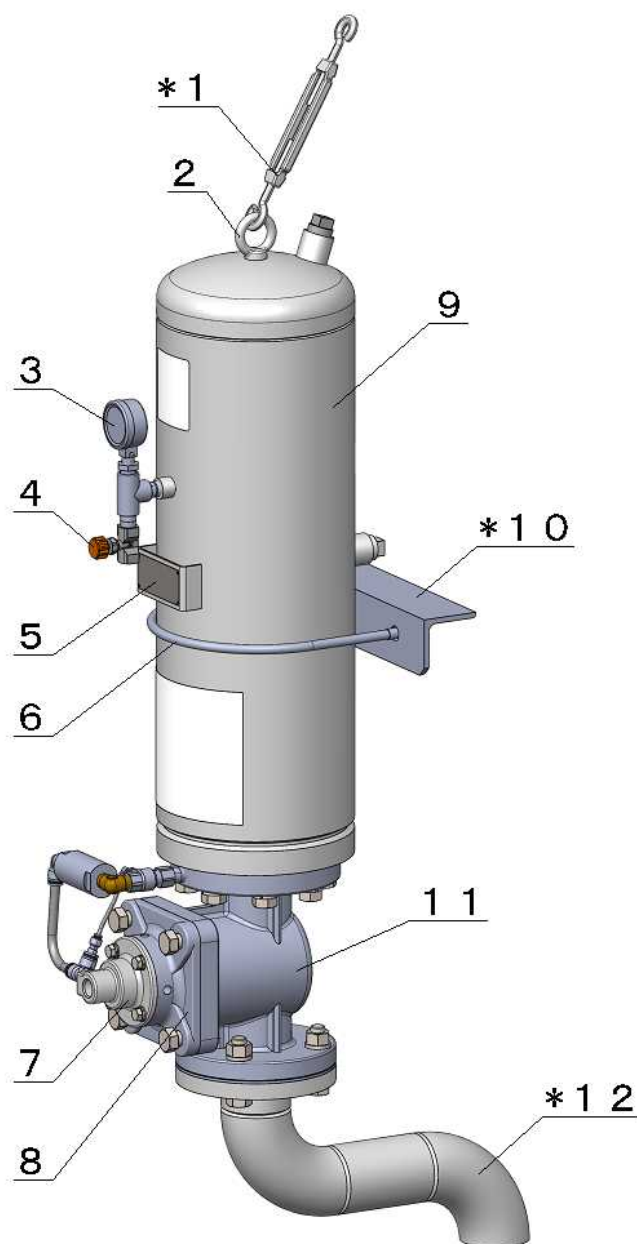
When the main part material is aluminum

| Diameter of piping | Recommended bolting torque for piping (N·m) |
|--------------------|---------------------------------------------|
| Rc1/8              | 7—9                                         |
| Rc1/4              | 12—14                                       |
| Rc3/8              | 22—24                                       |
| Rc1/2              | 28—30                                       |
| Rc3/4              | 31—33                                       |

When the main part material is metal other than aluminum

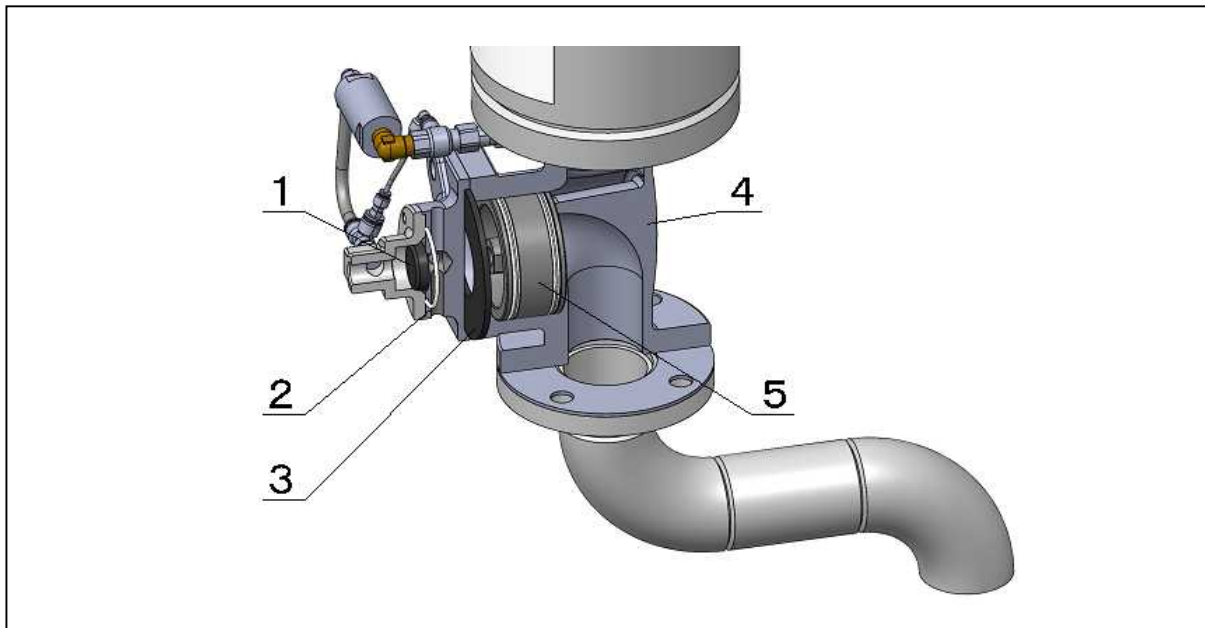
| Diameter of piping | Recommended bolting torque for piping (N·m) |
|--------------------|---------------------------------------------|
| Rc1/8              | 18—20                                       |
| Rc1/4              | 23—25                                       |
| Rc3/8              | 31—33                                       |
| Rc1/2              | 41—43                                       |
| Rc3/4              | 62—65                                       |

## ○ NAMES OF PARTS

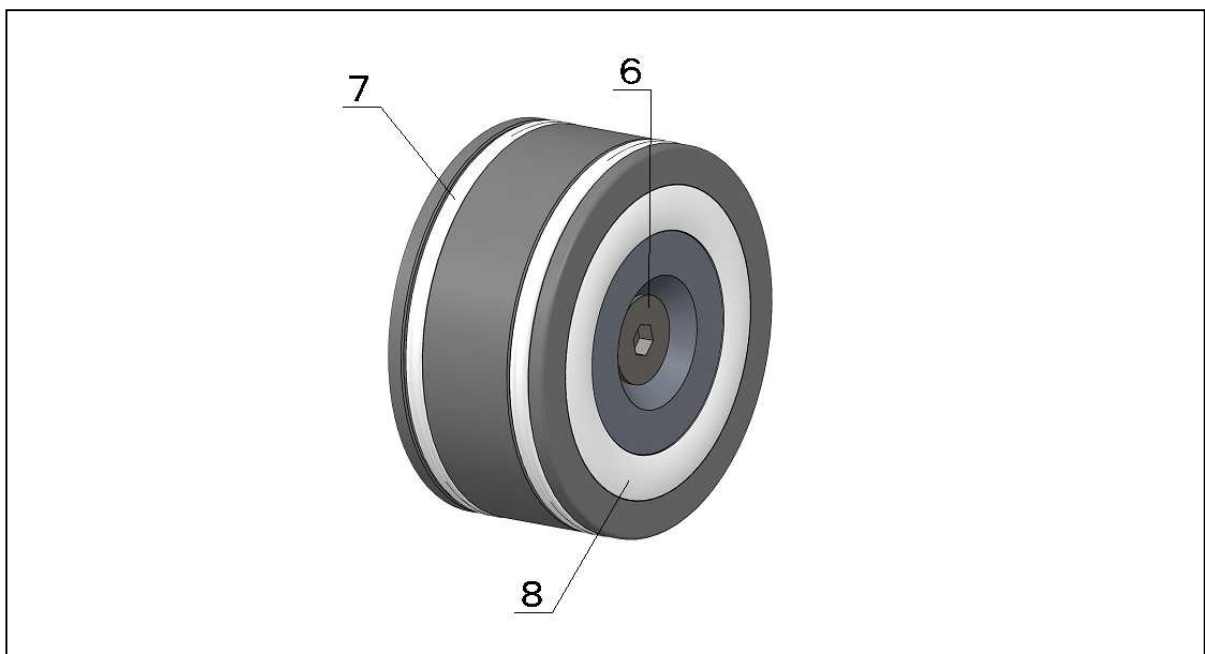


|   |                |    |                |
|---|----------------|----|----------------|
| 1 | Turnbuckle     | 7  | Valve cap      |
| 2 | Eye bolt       | 8  | Valve cover    |
| 3 | Pressure gauge | 9  | Air tank       |
| 4 | Needle valve   | 10 | Tank fix metal |
| 5 | Name plate     | 11 | Valve case     |
| 6 | Band           | 12 | Air nozzle     |

\* Is an optional part.

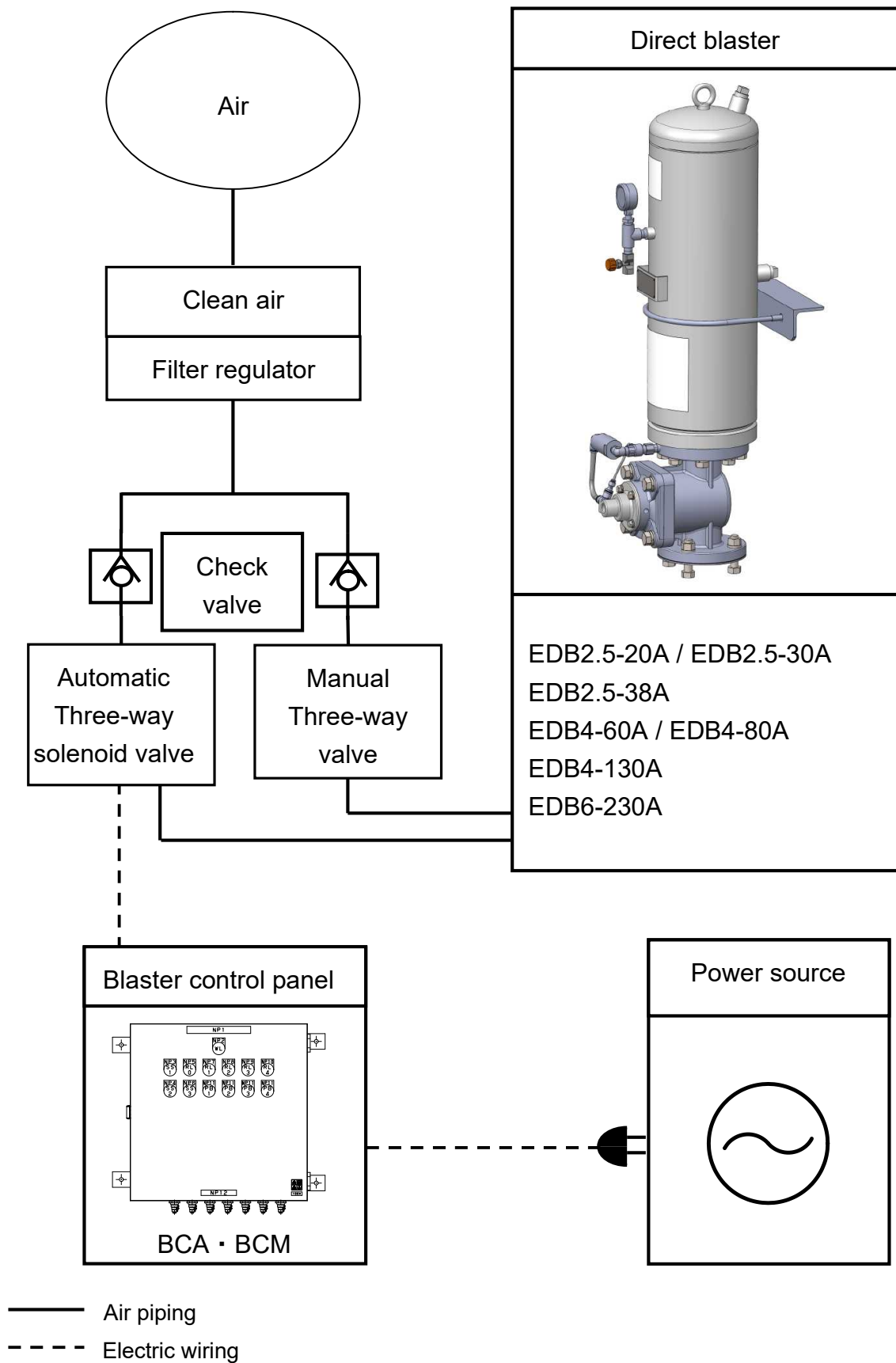


|   |                  |   |                 |
|---|------------------|---|-----------------|
| 1 | Mushroom valve   | 4 | Valve case      |
| 2 | O-ring           | 5 | Piston assembly |
| 3 | Yielding packing | — | —               |



|   |                                      |   |           |
|---|--------------------------------------|---|-----------|
| 6 | Bolt M12X25 Hexagon socket flat head | 8 | Seal ring |
| 7 | X-ring                               | — | —         |

## ○ SYSTEM CONFIGURATION



## ○ INSTALLATION

- This unit can be installed on various hoppers and chutes with different structures. The model, number of blasters, and mounting position should be determined according to the condition of the powder or granules.

- ⚠ When piping the blaster, be sure to install a check valve on the primary side of the directional valve.

This prevents backflow of the filled air and protects against malfunction or erroneous injection caused by depressurization on the primary side of the directional valve. Also, when using a branched air source, be sure to install a check valve on the primary side of the directional control valve after branching.

When using with aeration, etc., ensure that the air volume is sufficient for rapid filling so that the filling starts within 0.5 seconds and workpiece does not enter the nozzle after injection (before the piston closes).

- ⚠ In case install a reinforcing plate, securely fix the reinforcing plate by full welding all around or bolts. Use welding rod JIS Z3211 E4319 or above.  
(Kobe Steel welding rod B-17 or above)

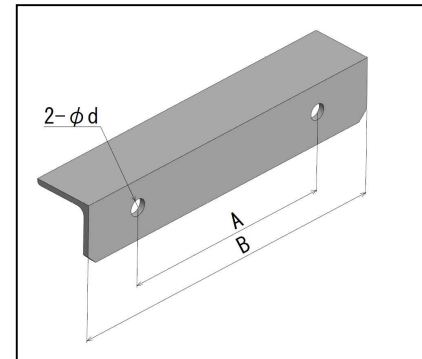
- ⚠ Backflow of powder material may cause malfunction. Install injection nozzle toward to downward. If the main unit is mounted horizontal, the center of main unit should be above the horizontal line of nozzle's jet orifice. Refer to the "REFERENCE OF INSTALLMENT" on page 22.

- ⚠ When using the original nozzle do not narrow the cross section of flow path to the outlet. Also, minimize the number of bending sections as much as possible. (Two or less places are recommended) Otherwise, this may increase resistance during injection, cause greater shock around the valve, and lead to damage.

■ Dimension of tank fix metal  
Equal angle steel (L65 X L65 X t6)

Unit : 【mm】

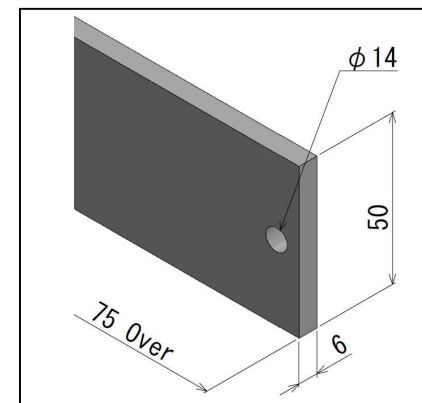
| Model      | A   | B   | $\phi$ d |
|------------|-----|-----|----------|
| EDB2.5-20A | 235 | 305 | 14       |
| EDB2.5-30A | 290 | 360 | 18       |
| EDB2.5-38A |     |     |          |



Flat bar

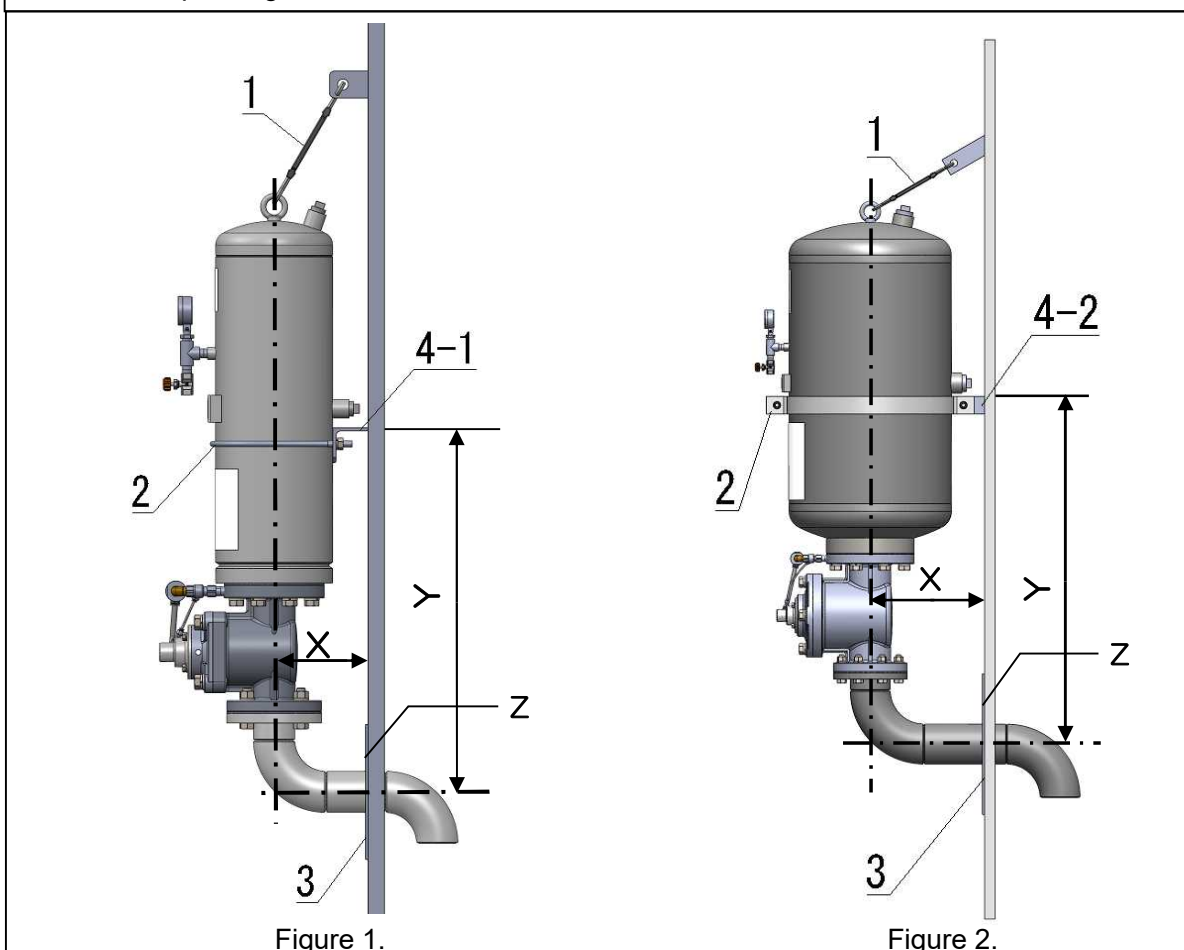
|           |                                      |
|-----------|--------------------------------------|
| EDB4-60A  | Use the flat bar shown on the right. |
| EDB4-80A  |                                      |
| EDB4-130A |                                      |
| EDB6-230A |                                      |

Note : Set the cutting length according to the length of nozzle.



■ Mounting instruction (Nozzle and tank fix metal)

Note : Equal angle steel for EDB2.5, Use flat bar for EDB4 and EDB6.



- 1. Turnbuckle (Option) 2. Band (Included parts) 3. Reinforcing plate (Option)  
4-1. Tank fix metal (Equal angle steel) 4-2. Tank fix metal (Flat bar)

■ Table 1 Installation dimensions

(Reference values for X, Y, Z dimensions in figure 1 and 2 installation of blasters)

| Model      | X   | Y   | Z     | Reinforcing plate |
|------------|-----|-----|-------|-------------------|
|            |     |     |       | W × H × t (mm)    |
| EDB2.5-20A | 173 | 560 | ϕ 80  | 250×250×4.5       |
| EDB2.5-30A | 199 | 580 |       |                   |
| EDB2.5-38A |     |     |       |                   |
| EDB4-60A   | 240 | 730 | ϕ 120 | 400×400×6         |
| EDB4-80A   | 315 | 750 |       |                   |
| EDB4-130A  |     |     |       |                   |
| EDB6-230A  | 360 | 980 | ϕ 170 | 600×600×6         |

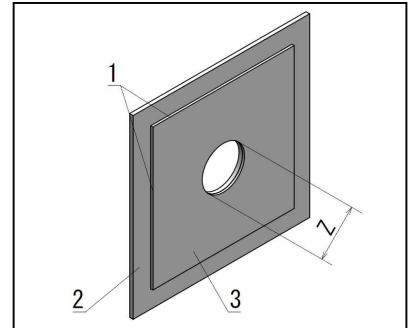
Note : “X” sizes of EDB4 and EDB6 are minimum length. X size changes with the length of the nozzle. Please set the X size according to the length of the nozzle.

## ■ Installation procedure

(Refer to "Mounting instruction (Nozzle and tank fix metal" on page 13.)

1. Drill hole on the installed wall as refer "Z" dimensions of Table-1.

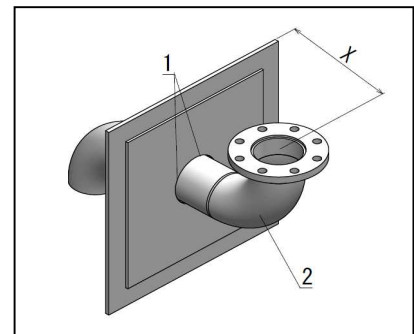
Note : For those walls of 3.2 mm or less in thickness or any too long distance between the mounting hole and the nozzle, attach a reinforcement plate.



- ▶ 1. Welding all around
- 2. Wall
- 3. Reinforcement plate

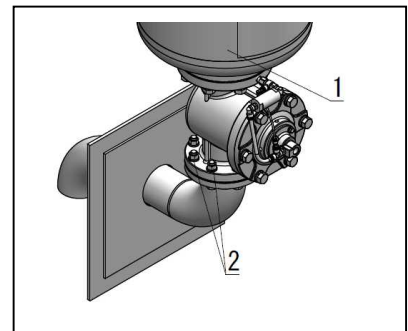
2. Insert the nozzle into the hole according to the "X" dimension shown in Table-1 and temporarily weld it in place.

Note : To prevent backflow of powder or grain, install the nozzle with the nozzle jet facing downward.



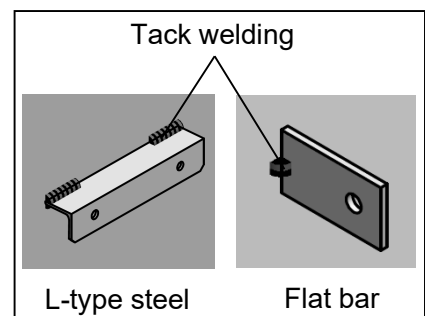
- ▶ 1. Tack welding
- 2. Nozzle

3. Temporarily fix the blaster to the flange of the nozzle.

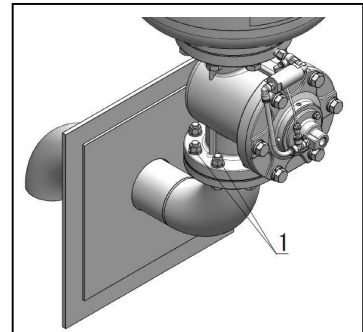


- ▶ 1. Tank
- 2. Temporary fixation

4. Temporarily tack weld the tank fixing metal in place, referring to the "Y" dimension in Table 1.

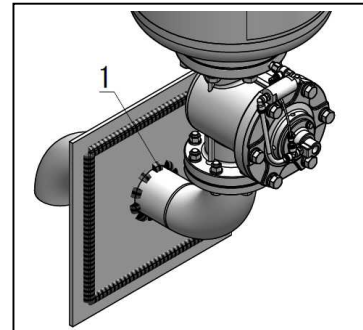


5. Secure the flange portion of the blaster and nozzle with bolts.



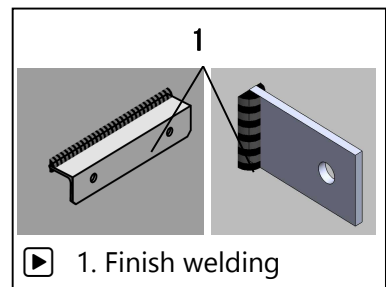
▶ 1. Final installation

6. Weld the wall and nozzle mount all around.



▶ 1. Welding all around

7. Perform final welding between the wall and the tank mounting bracket.



▶ 1. Finish welding

8. Secure the tank with the band.
9. Attach the tank fixing bracket or a hanging bracket to the wall, and connect it to the tank's eyebolt using a turnbuckle.

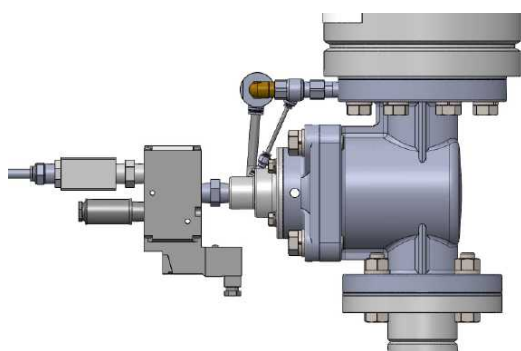
## ■ How to connect three-way solenoid valve and manual three-way valve

- ⚠ The three-way solenoid valve VP742K-□TZ1-04B-F-X and manual three-way valve are optional items (sold separately).
- ⚠ Do not use in an atmosphere of flammable or explosive gas.  
Failure to do so may result in fire or explosion. (This product is not explosion-proof.)

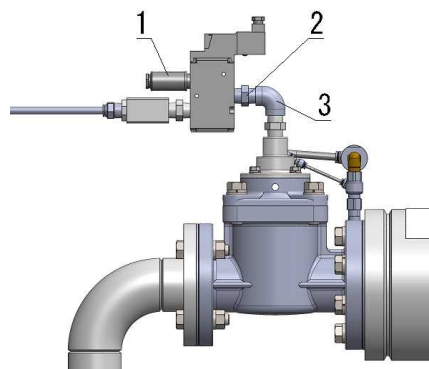
## ■ Three-way solenoid valve

- ⚠ The solenoid valve should be installed with the exhaust port facing down.  
When mounting blaster in horizontal position, use the elbow and hexagonal nipple provided.

When mounted vertically (reference figure)

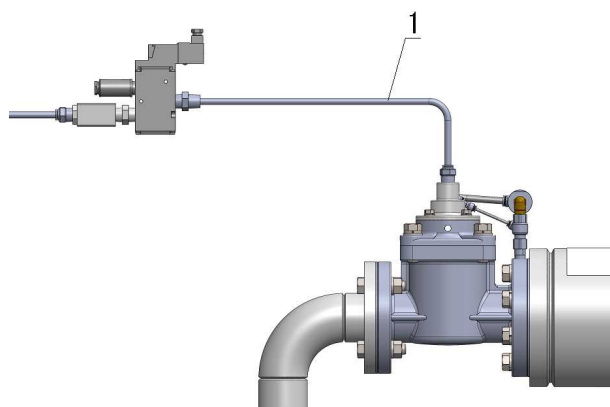


When installed horizontally (reference figure)



- ▶ 1. Silencer 2. Hexagon nipple 3. Elbow

- ⚠ Depending on complicated nozzle shapes and installation requirements, the solenoid valve may vibrate violently at the time of injection. In such a case, connect the blaster to the solenoid valve using a flexible hose (no longer than approximately 2 meters), and prevent vibration from being transmitted to the solenoid valve.  
For the hose, we recommend using hose assembly HDB or nylon tube  $\phi$  10.



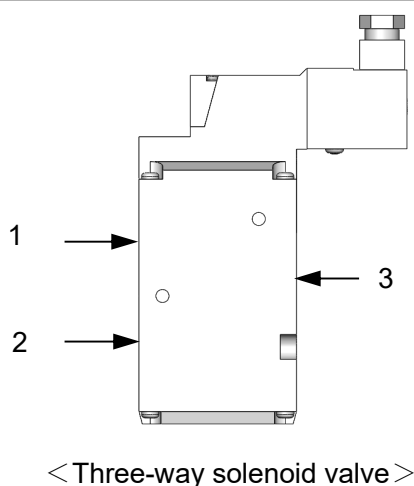
<Shock absorbing mounting>

- ▶ 1. Flexible hose

- ⚠ Use a filter regulator to remove foreign objects from the system and adjust pressure.
- ⚠ If a foreign substance mixes into the solenoid valve, it causes poor operation. Flush the inside of the piping before making the connection.
- ⚠ Apply sealing tape to each part to prevent air leakage.
- ⚠ Using solenoid valves in areas where dust and rainwater are present may cause malfunction. To prevent this, attach a silencer or a long nipple (100mm) and an elbow to the exhaust port.
- ⚠ Recommended torque for piping size Rc1/2 is 28 to 30 N · m.

- After confirming the control panel voltage and the solenoid valve input voltage, connect the solenoid valve according to the following procedure. Use the solenoid valve in the normally open position.

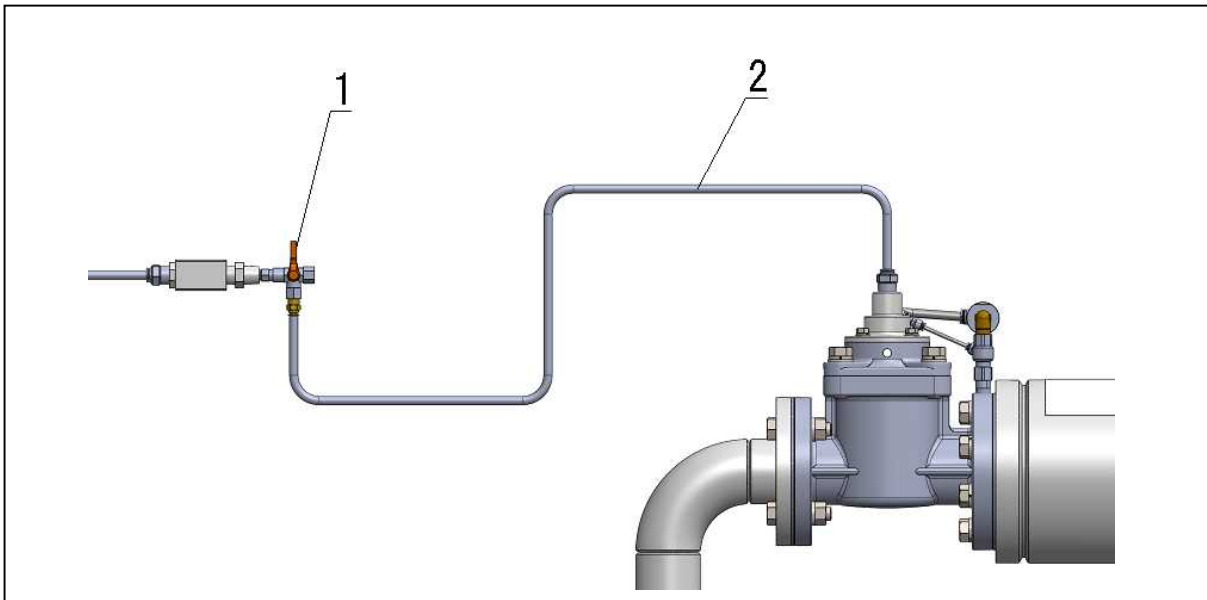
1. After connecting the fitting appropriate to the installation position of the main body, connect it to "2A" of the solenoid valve.
  2. It is recommended to install a muffler or long nipple (100mm) at "1P" of the solenoid valve.
  3. Connect the pipe of the air supply to "3R" of the solenoid valve.
- It is recommended to install a check valve in front of the solenoid valve.



- ▶ 1. Exhaust side "1P"   2. Air side "3R"   3. Blaster side "2A"

## ■ Manual three-way valve

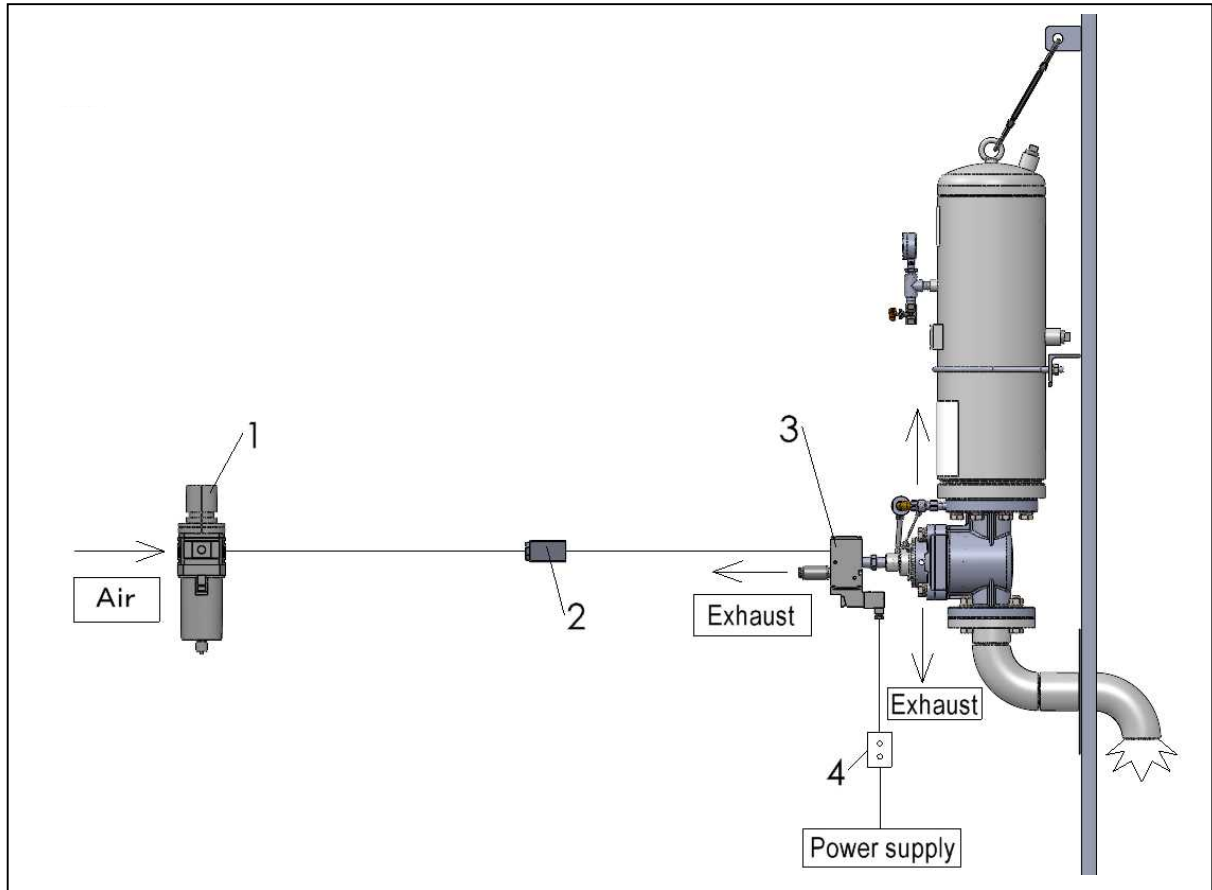
- ⚠ When using a manual three-way valve, quick switching (within 0.5 seconds) is required. If you do not switch quickly, it will lead to malfunction of the blaster.  
For reliable blaster operation, we recommend using the separately sold blaster dedicated operation panel or three-way solenoid valve.
- ⚠ For use with the manual three-way valve, after the blaster's tank is filled with compressed air, the three-way valve is operated to exhaust the compressed air in the flexible tube to activate the blaster.  
If compressed air is not supplied to the blaster, powder or grains may flow back into the blaster from the nozzle. Therefore, be sure to return the manual valve to the intake mode within 0.5 seconds after blaster operation.
- ⚠ Use the hose length from the main body to the manual three-way valve within 2 m.  
We recommend using a nylon made  $\phi 10$  for the hose.  
Use a three-way valve with Rc1 / 2 or higher. Make sure the valve is in a normally open mode.
- ⚠ Install a filter regulator in front of the manual three-way valve to prevent foreign material contamination.
- ⚠ Wrap sealing tape around each connection to prevent air from leaking.



- ▶ 1. Three-way valve    2. Flexible hose (within 2 m)

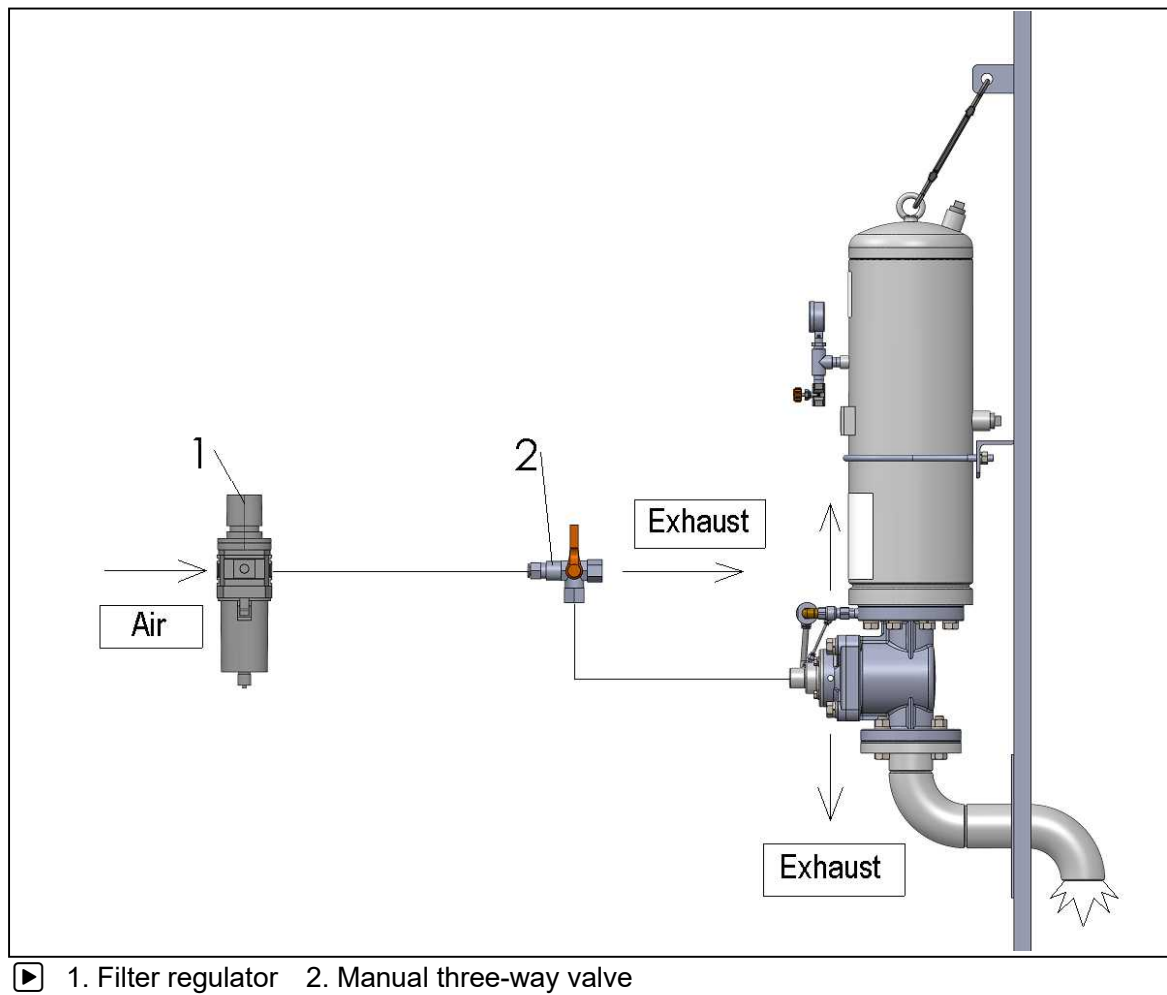
■ Three-way valve installation example

● Electric



- ▶ 1. Filter regulator 2. Check valve 3. Three-way solenoid valve 4. Switch

● Manual



## ○ BASIS OF SELECTION

### ■ Selected number chart of blaster

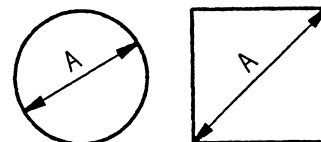
(Unit)

| Model      | Condition | Silo size |      |    |      |    |      |     |     |
|------------|-----------|-----------|------|----|------|----|------|-----|-----|
|            |           | 1M        | 1.5M | 3M | 4.5M | 6M | 8.5M | 10M | 12M |
| EDB2.5-20A | Inferior  | 1         | 3    | 6  | -    | -  | -    | -   | -   |
|            | Superior  | 1         | 2    | 4  | -    | -  | -    | -   | -   |
| EDB2.5-30A | Inferior  | 1         | 3    | 5  | 8    | -  | -    | -   | -   |
|            | Superior  | 1         | 2    | 3  | 5    | -  | -    | -   | -   |
| EDB2.5-38A | Inferior  | 1         | 3    | 5  | 8    | -  | -    | -   | -   |
|            | Superior  | 1         | 2    | 3  | 5    | -  | -    | -   | -   |
| EDB4-60A   | Inferior  | -         | 3    | 4  | 6    | 10 | 12   | -   | -   |
|            | Superior  | -         | 2    | 3  | 4    | 5  | 6    | -   | -   |
| EDB4-80A   | Inferior  | -         | 3    | 4  | 6    | 10 | 12   | -   | -   |
|            | Superior  | -         | 2    | 3  | 4    | 5  | 6    | -   | -   |
| EDB4-130A  | Inferior  | -         | 2    | 4  | 6    | 8  | 10   | 11  | 12  |
|            | Superior  | -         | 1    | 2  | 3    | 4  | 5    | 6   | 7   |
| EDB6-230A  | Inferior  | -         | -    | 2  | 4    | 6  | 8    | 9   | 10  |
|            | Superior  | -         | -    | 1  | 2    | 3  | 4    | 5   | 6   |

Note : Number of blaster that use changes according to condition of adhesion and/or blockage of the substance that stored.

### ■ Calculation of silo size

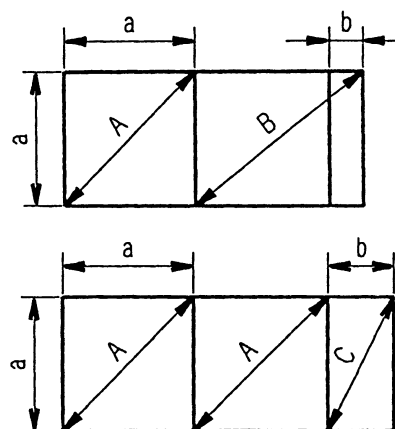
1) For round and square silos, diagonal length A.



2) In case of rectangular silo

• If length of "b" is shorter than 1/3 of "a" length,  
A + B (ignore "b" length).

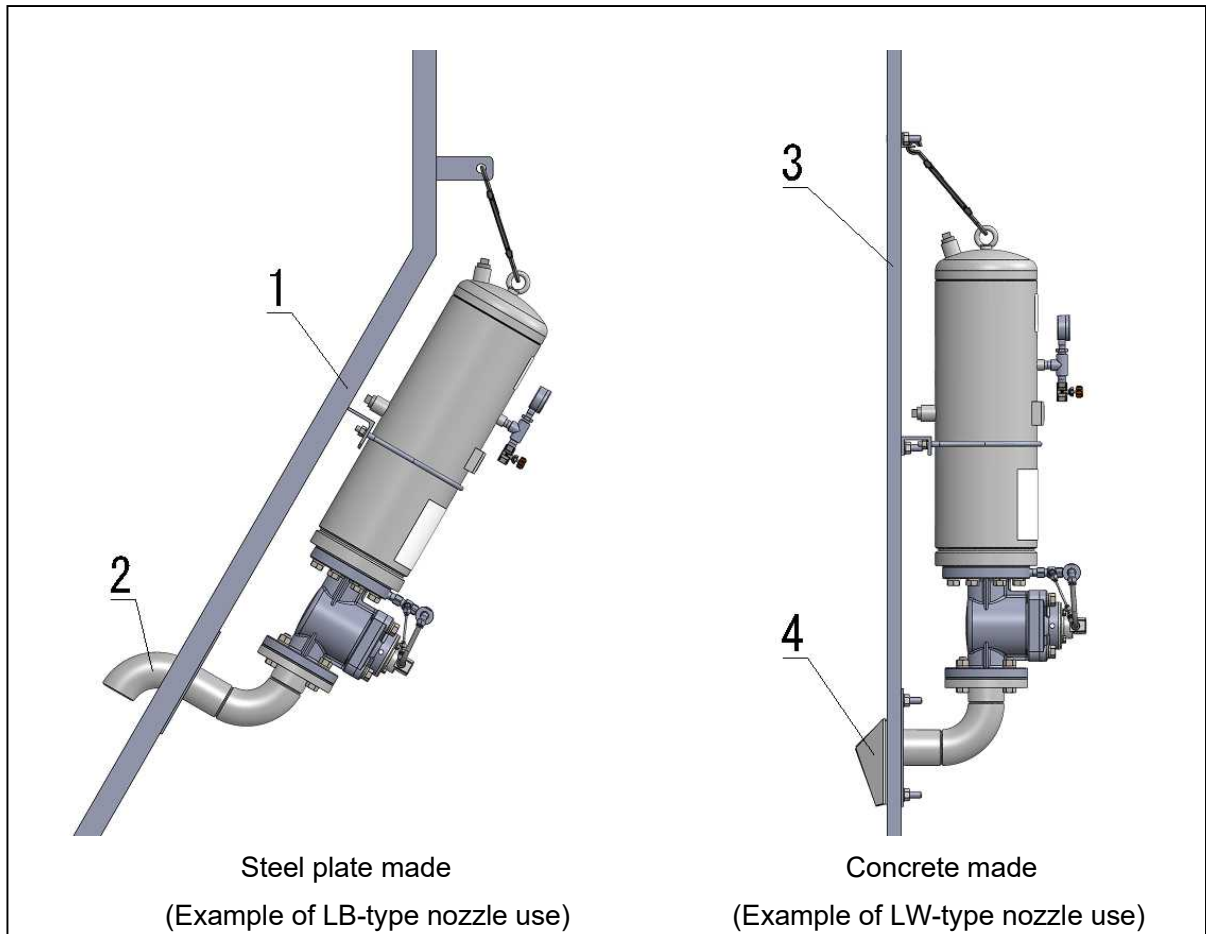
• If length of "b" is longer than 1/3 of "a" length,  
2A + C.



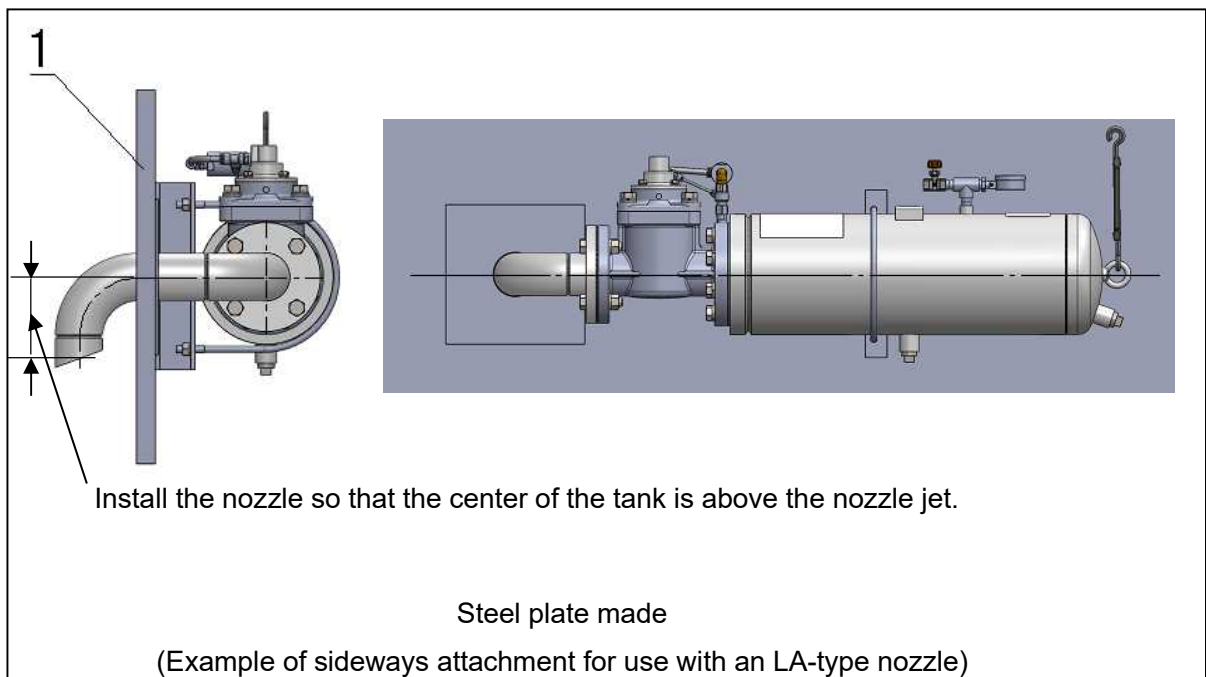
### ■ Inferior condition

- 1) Powdering material which sticks regardless of the weight.
- 2) Powdering material with strong adhesion
- 3) Powdering material, which is easily influenced by weather, especially causes large time-passage change by moisture and/or temperature.
- 4) Powdering material, which is becoming hard by long term storage.
- 5) Hopper with an angle of 45° or less or with a narrow exhaust port structure.

## ○ REFERENCE OF INSTALLMENT



- ▶ 1. Steel plate made 2. LB-type nozzle 3. Concrete made 4. LW-type nozzle



- ▶ 1. Steel plate made

## ○ INSPECTION AFTER INSTALLATION



Do not approach the front of the jet nozzle or the rear of the blaster during test injection.  
There is a risk of unexpected injury from a blast.

1. Confirm that the connections of the solenoid valve, check valve, and attached apparatus are correct.
2. Check that welded parts on nozzle and reinforcement plate are correctly fastened.
3. Confirm if attachment of fall prevention band, eyebolt, turnbuckle etc. is secure.
4. When using the control panel, check correct operation in manual mode or automatic (external signal) mode.
5. Check that the blaster functions correctly.
6. Check that the mounting bolts and piping are securely tightened and connected.

Note : Open the valve and supply air to check air leakage and then supply air into the blaster tank.

Note : Set the air pressure at 0.3MPa to check if the blaster starts correctly.

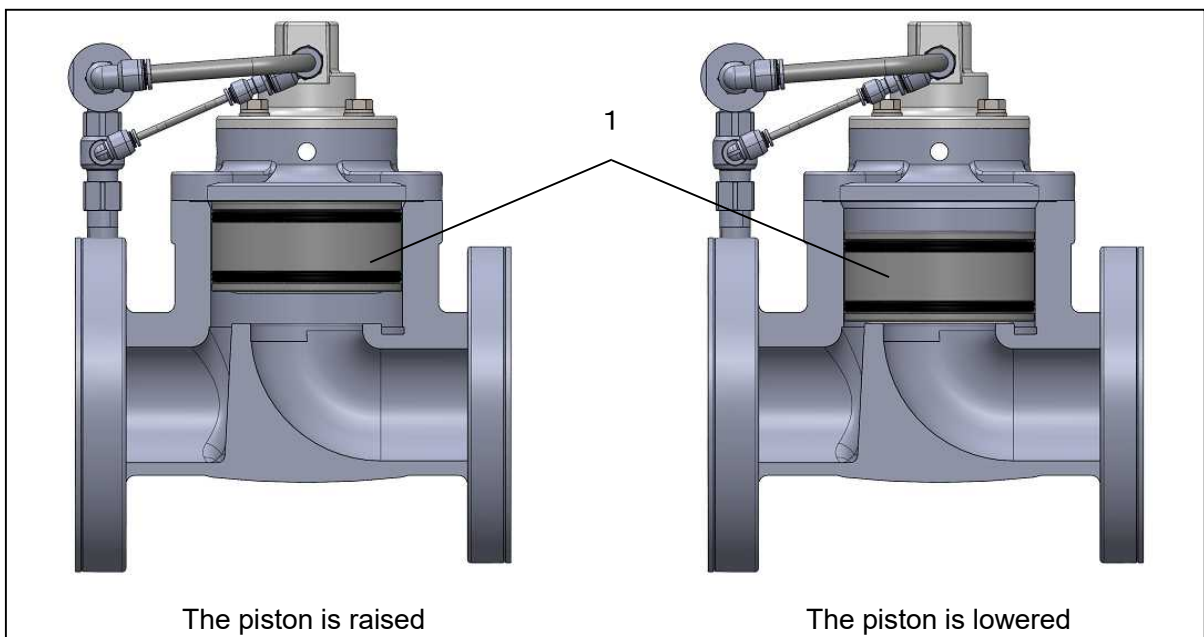
7. Supply the air up to a service pressure to check any air leak.
8. Is the solenoid valve free from excessive vibration during injection?

## ○ CAUTION POINTS OF OPERATING

1. To prevent possible back flow of fine particles, switch the solenoid valve after air blowing to keep filling the tank with air. In automatic operation mode, set the timer so that the solenoid valve can be switched in 0.5 seconds after air blowing.  
Even when using a manual three-way valve, the switching operation should be performed within 0.5 seconds.
2. Do not allow air pressure to become low. The jetting power will be reduced.

### ■ When stopping the air supply

⚠ Immediately after stopping the air supply to the blaster, open the attached needle valve so that there is no residual pressure in the tank (the piston is lowered).  
This is to prevent backflow of powder and granules. Please refer to the figure below.



▶ 1. Piston

## ○ INSPECTION

- To prevent problems during use, please check the following periodically. The inspection is to reduce the trouble during use as much as possible.

1. Check cracks or damage of the valve body.
2. Check wear or damage around the piston.
3. Check any loosened bands, bolts and joints.
4. Check any crack and corrosion in the welded parts.
5. Check backflow of powder or granules into the valve.

## ○ TROUBLESHOOTING

| symptoms                       | Cause                                                                           | Solution                        |
|--------------------------------|---------------------------------------------------------------------------------|---------------------------------|
| Air is not filled up           | Inlet side valve is closed                                                      | Open the valve                  |
|                                | Poor operation of three-way solenoid valve                                      | Repair or replace               |
|                                | Air leakage due to deterioration of packings                                    | Replace packing                 |
|                                | Malfunction due to foreign matter                                               | Remove foreign object and clean |
|                                | Direction of a check valve is reverse                                           | Change check valve direction    |
|                                | Air leakage due to poor seal ring contact                                       | Inspect and replace             |
|                                | Failure of mushroom valve                                                       | Inspect and replace             |
|                                | Piping failure between valve cap and check valve                                | Inspect and replace             |
| Compressed air is not injected | Check valve is located in between solenoid valve and blaster                    | Change installation position    |
|                                | Poor operation of three-way solenoid valve                                      | Repair or replace               |
|                                | Air leakage caused by O-ring failure                                            | Inspect and replace             |
|                                | Malfunction of mushroom valve and piston caused by foreign matter contamination | Remove foreign object and clean |

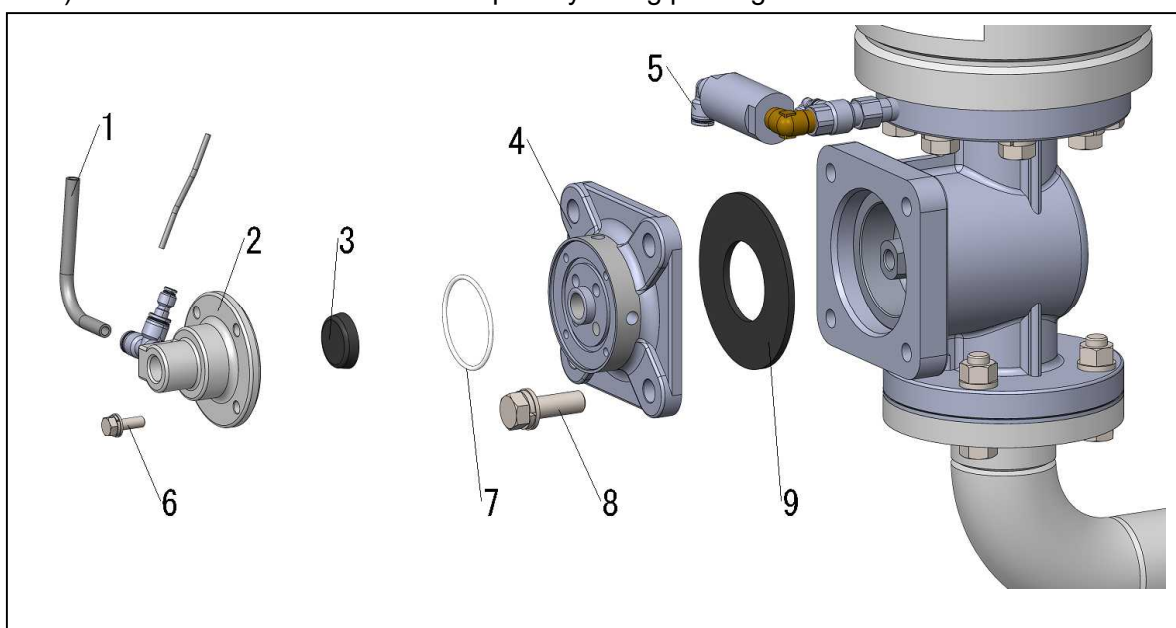
## ○ REPLACEMENT PERIOD FOR CONSUMABLES

○ Consumables should be replaced periodically according to the table below.

| Consumables      | Replacement period.<br>(visual and auditory check) | Replacement frequency |
|------------------|----------------------------------------------------|-----------------------|
| Mushroom valve   | Fall of injection power (vision, hearing)          | Upon found            |
| O-ring           | Fall of injection power (vision, hearing)          | Upon found            |
| Yielding packing | Fall of injection power (vision, hearing)          | Upon found            |
| Seal ring        | Fall of injection power (vision, hearing)          | 300,000 times         |
| X-ring           | Fall of injection power (vision, hearing)          | 300,000 times         |

### ■ Replacement of consumable parts

- 1) Remove two air tubes from the push-one connector.
- 2) Loosen bolts "A" which are fixing the valve cap.
- 3) Remove the valve cap to replace the O-ring and the mushroom valve.
- 4) Loosen bolts "B" which are fixing the valve cover.
- 5) Remove the valve cover and replace yielding packing.



- 1. Air tube 2. Valve cap 3. Mushroom valve 4. Valve cover 5. Push-one connector  
6. Bolt "A" 7. O-ring 8. Bolt "B" 9. Yielding packing

- 6) Screw the removed bolt "B" into the piston assembly, and draw out the piston assembly.

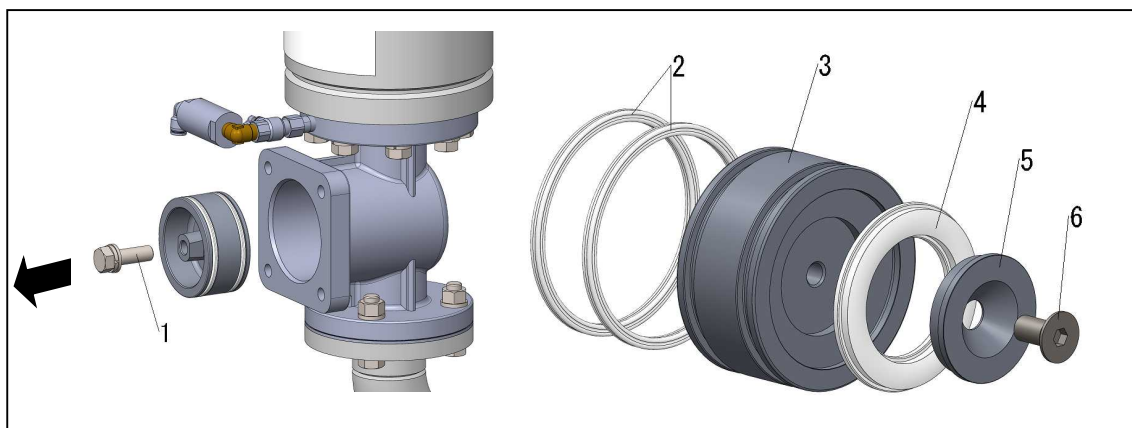
- 7) The fix plate will separate if the flat head bolt of the piston assembly is loosened, then exchange the seal ring.

Note : When loosen the flat head bolt, fix the spanner face of the piston with a spanner or a vise.

Note : When screw in the flat head bolt at the time of assembling, apply adhesives (LOCTITE 241 or adequate item) to the screw portion.

- 8) Wipe off old grease on the piston surface at the time of X ring replacement, and apply new grease (\* Unilube No. 1 of KYODO YUSHI or adequate item) on the piston perimeter centering on X ring surface.

Note : Refer to the following table for the amount of applications.



▶ 1. Bolt B 2. X-ring 3. Piston 4. Seal ring 5. Fix plate 6. Flat head bolt

| Model    | Flat head bolt |                          |                           | Grease amount (g) |
|----------|----------------|--------------------------|---------------------------|-------------------|
|          | Size           | Hexagon wrench size (mm) | Tightening torque (N · m) |                   |
| EDB2.5-A | M12×25         | 8                        | 31                        | 10                |
| EDB4-A   | M16×35         | 10                       | 77                        | 15                |
| EDB6-A   | M20×45         | 12                       | 150                       | 50                |

## ○ SPECIFICATIONS

### ■ Specifications

| Model      | Discharge diameter (in) | Tank capacity (L) | Tank maximum pressure (MPa) | Working pressure (MPa) | Available gas                  | Coating             |                     | Mass (kg) |
|------------|-------------------------|-------------------|-----------------------------|------------------------|--------------------------------|---------------------|---------------------|-----------|
|            |                         |                   |                             |                        |                                | Inside              | Outside             |           |
| EDB2.5-20A | 2.5                     | 20                | 0.97                        | 0.3-0.7                | Compressed air or Nitrogen gas | Epoxy resin coating | Epoxy resin coating | 38        |
| EDB2.5-30A |                         | 30                |                             |                        |                                |                     |                     | 42        |
| EDB2.5-38A |                         | 38                |                             |                        |                                |                     |                     | 50        |
| EDB4-60A   | 4                       | 60                |                             |                        |                                |                     |                     | 81        |
| EDB4-80A   |                         | 80                |                             |                        |                                |                     |                     | 81        |
| EDB4-130A  |                         | 130               |                             |                        |                                |                     |                     | 103       |
| EDB6-230A  | 6                       | 230               |                             |                        |                                |                     |                     | 168       |

### ■ Air exhaust amount

Unit : [L]

| Model      | Air pressure (MPa) |     |       |       |       |
|------------|--------------------|-----|-------|-------|-------|
|            | 0.3                | 0.4 | 0.5   | 0.6   | 0.7   |
| EDB2.5-20A | 60                 | 80  | 100   | 120   | 140   |
| EDB2.5-30A | 90                 | 120 | 150   | 180   | 210   |
| EDB2.5-38A | 114                | 152 | 190   | 228   | 266   |
| EDB4-60A   | 180                | 240 | 300   | 360   | 420   |
| EDB4-80A   | 240                | 320 | 400   | 480   | 560   |
| EDB4-130A  | 390                | 520 | 650   | 780   | 910   |
| EDB6-230A  | 690                | 920 | 1,150 | 1,380 | 1,610 |

Note : This is the volume of air discharged from the blaster at one time.

Discharge volume varies by the injected air pressure.

### ■ Formula of required air volume

$$V = \{V_o \times (0.1 + P) \times 10\} \div M$$

V : Air volume required (L/min (ANR))

V<sub>o</sub> : Overall tank capacity (L)

P : Working pressure (MPa)

M : Action cycle (min)

Example: Operate 6 sets of EDB2.5-30A with air pressure 0.7MPa and its interval of 5 minutes.

$$V = \{30 \times 6 \times (0.1 + 0.7) \times 10\} \div 5 = 288 \text{ (N/min (ANR))}$$

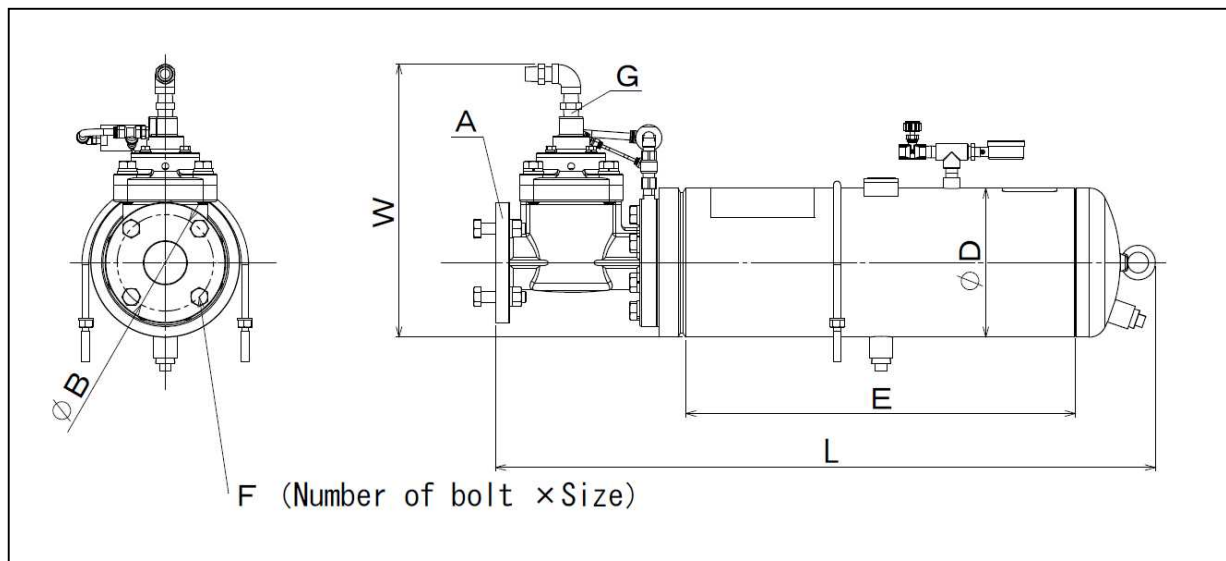
Work sufficiently with a 2.2kW compressor.

■ Dimension table

Unit: 【mm】

| Model      | Discharge diameter |     |       | Total length | Width | Tank diameter |      | Inlet         | Eye A bolt |
|------------|--------------------|-----|-------|--------------|-------|---------------|------|---------------|------------|
|            | A                  | B   | F     | L            | W     | $\phi$ D      | E    | G             |            |
| EDB2.5-20A | 65A                | 140 | 4-M16 | (959)        | (394) | 216           | 566  | 15A<br>(1/2B) | M12        |
| EDB2.5-30A |                    |     |       | (949)        | (419) | 267           | 494  |               |            |
| EDB2.5-38A |                    |     |       | (1095)       |       |               | 640  |               |            |
| EDB4-60A   | 100A               | 175 | 8-M16 | (1296)       | (499) | 319           | 712  |               | M16        |
| EDB4-80A   |                    |     |       | (1003)       | (571) | 462           | 350  |               |            |
| EDB4-130A  |                    |     |       | (1338)       |       |               | 685  |               |            |
| EDB6-230A  | 150A               | 240 | 8-M20 | (1779)       | (668) | 512           | 1011 |               | M20        |

■ Dimension drawing



Note : The flange of this product conforms to Japanese standard (JIS standard) but not to other standards.

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