



Operation Manual

PRODUCT NAME

Regulator

MODEL / Series / Product Number

ARG20-(F,N)01~(F,N)02(B,H)(G1,G2,G3,G4)(-1,N,Y,Z)-B

ARG30-(F,N)02~(F,N)03(B,H)(G1,G2,G3,G4)(-1,N,Y,Z)-B

ARG40-(F,N)02~(F,N)04(B,H)(G1,G2,G3,G4)(-1,N,Y,Z)-B

SMC Corporation

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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.



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.

Precautions for Design

Warning

- (1) Externally there are plastic parts such as knob (polyacetal) and pressure gauge cover (polycarbonate).
Organic solvents including thinner, acetone, alcohol and ethylene chloride; chemicals including sulphuric acid, nitric acid and hydrochloric acid; cutting oil, synthetic oils, ester-based compressor oil, alkali, kerosene, gasoline, lock material of screw are harmful. Do not use the product where these are present.
- (2) Consult SMC if no leakage is allowed due to the environment, or if the operating fluid is not air.
- (3) Protect from ultra violet ray and radiation heat by shield.
- (4) A safety device needs to be installed if output pressure is exceeding the set pressure, otherwise this can cause breakage of outlet device and equipment or malfunction.

Caution

- (1) The use outside specifications is prohibited.
- (2) Allowed air consumption from the relief port is 0.1 L/min(ANR) or less.

Selection

Warning

- (1) Mineral grease used on internal surfaces and packing may leak to the outlet.
Please contact SMC if this is a problem.
- (2) Residual pressure of product without backflow function is released unstably even though the inlet pressure is released (residual pressure might be left in the product). Please select product with backflow function to release the residual pressure completely.
- (3) Long absence of operation or operation with sealed circuit or balancing circuit on the outlet side may cause set pressure fluctuation.
Please consult SMC if this is not acceptable.
- (4) Set range of outlet pressure shall be 85% or less of the inlet pressure.
Operating at a setting exceeding 85% causes the outlet pressure to be easily affected by fluctuations in flow rate and inlet pressure, leading to instability.
- (5) Since the safety margin is calculated to the maximum value of the set pressure range shown in the specification table, the pressure setting may be over the maximum value. However, use the product within the specified range.
- (6) If the product is used with circuit which requires high exhaust sensitivity or set precision, please consult SMC.

Installation

Warning

- (1) Connect the product ensuring the direction of "1"(IN) and "2"(OUT) for air direction and indicated arrow. Incorrect connections may cause malfunction.
- (2) Install with enough space around regulator to perform regular maintenance and operation.
The required space is shown on 「10. Dimensions」.
- (3) Do not drop nor apply impact during transportation or installation. Damage of products or pressure gauge can result in malfunction.
- (4) Do not install in areas with high humidity or high temperature.
It may lead to a malfunction of the pressure gauge.

Adjustment

Warning

- (1) Adjust the set pressure ensuring correct inlet and outlet pressures.
Turning the knob excessively can cause damage to the internal parts.
- (2) Do not use tools for the knob operation as this may cause damages.
It must be operated manually.

 **Caution**

- (1) Be sure to unlock the knob before adjusting the pressure and lock it after setting the pressure. Failure to follow this procedure can damage the knob and the outlet pressure may fluctuate.
 - Pull the pressure regulator knob to unlock. (You can visually verify this with the "orange mark" that appears in the gap.)
 - Push the pressure regulator knob to lock. When the knob is not easily locked, turn it left and right a little and then push it. (When the knob is locked, the "orange mark" will disappear.)
- (2) For the regulator with the pressure gauge, don't apply pressure over the maximum scale of the pressure gauge in order to protect the gauge.
- (3) Adjust pressure incrementally. Pressure may become lower than set pressure if adjusted by decreasing the value. Rotate the knob clockwise to raise the set pressure. Counterclockwise to reduce the pressure. Moreover, please lock the knob after setting pressure.
- (4) Outlet pressure may rise when the inlet pressure is discharged and resupplied after pressure setting. In this case, consume air at the outlet which will bring the pressure closer to the set pressure.
- (5) Outlet pressure may change if the product is used for a long period of time. Please confirm the set pressure regularly.

Piping

 **Warning**

- (1) Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove chips, cutting oil and solid foreign material from inside the pipe. Contamination of piping may cause damage or malfunction.
- (2) When screwing together pipes and fittings, etc., be certain that chips from the pipe threads and sealant do not get inside the pipe. When a sealant tape is used, leave 1 thread ridges exposed at the end of the threads.
- (3) Hold the female screw side and screw in piping with recommended tightening torque. Insufficient tightening torque lead to cause loose piping or sealing failure. Excessive torque may lead to cause screw breakage. Tightening without holding female screw side applies excessive force to the piping bracket which lead to cause breakage.

Recommended tightening torque Unit: N m

Thread size	1/8	1/4	3/8	1/2
Torque	7 to 9	12 to 14	22 to 24	28 to 30

- (4) Before using an SMC fitting and S coupler, please refer to "Tightening the threaded portion of the connection thread" of the Fittings & Tubing Precautions.
- (5) Do not apply torsion or bending moment other than the weight of the product itself. External piping needs to be supported separately as it may cause breakage. Non-flexible piping like steel tube is susceptible to excessive moment load or vibration. Insert flexible tubes to prevent this.

Air Source

 **Warning**

- (1) Use clean air. Do not use compressed air containing chemicals, organic solvent, synthetic oil or corrosive gas as it may be cause of breakage of components or operation failure.
- (2) Air containing too much moisture may cause malfunction. Install an air drier or aftercooler before the regulator.

Maintenance



Warning

- (1) Maintenance and checks should be done by following the procedure in this operation manual. Incorrect handling of the product may cause breakage or operation failure of the equipment or device.



Caution

- (1) If an emergency countermeasure is to be taken during setting failure or exhaust leakage, the internal valve seating part should be checked. If failure such as foreign matter is found, remove it before performing the emergency countermeasure.

2. Application

This product aims at controlling pressure of air lines.

3. Specifications

Model	ARG20-B	ARG30-B	ARG40-B
Port size	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Fluid	Air		
Ambient and fluid temperature	-5 to 60°C (No freezing)		
Proof pressure	1.5MPa		
Max. operating pressure	1.0MPa		
Set pressure range	0.05 to 0.85 MPa		
Construction	Relieving type		
Weight (kg)	0.21	0.40	0.57

4. How to Order

ARG 30 - 03 BG1 - - B

1
 2
 3
 4
 5

		Symbol	Description	1				
				Body size				
				20	30	40		
2	Thread type	+						
		Nil	Rc	●	●	●		
		N	NPT	●	●	●		
		F	G	●	●	●		
3	Port size	+						
		01	1/8	●	—	—		
		02	1/4	●	●	●		
		03	3/8	—	●	●		
		04	1/2	—	—	●		
4	Option	a	Mounting	+	Without mounting option	●	●	●
				B	With bracket	●	●	●
				H	With set nut (for Panel mount)	●	●	●
		+						
	b	Mounting angle of pressure gauge	G1	0°	●	●	●	
			G2	90°	●	●	●	
			G3	180°	●	●	●	
			G4	270°	●	●	●	
5	Semi-standard	c	Set pressure	+	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		+						
		d	Exhaust mechanism	Nil	Relieving type	●	●	●
	N			Non-relieving type	●	●	●	
	+							
	e	Knob	Nil	Downward	●	●	●	
			Y	Upward	●	●	●	
+								
f	Unit indication	Nil	Unit on product label: MPa, Pressure gauge in SI units: Mpa	●	●	●		
		Z	Unit on product label: psi, Pressure gauge: MPa/psi dual scale	●	●	●		

* When selecting a product, check the catalog for the model selection.

5. Trouble Shooting

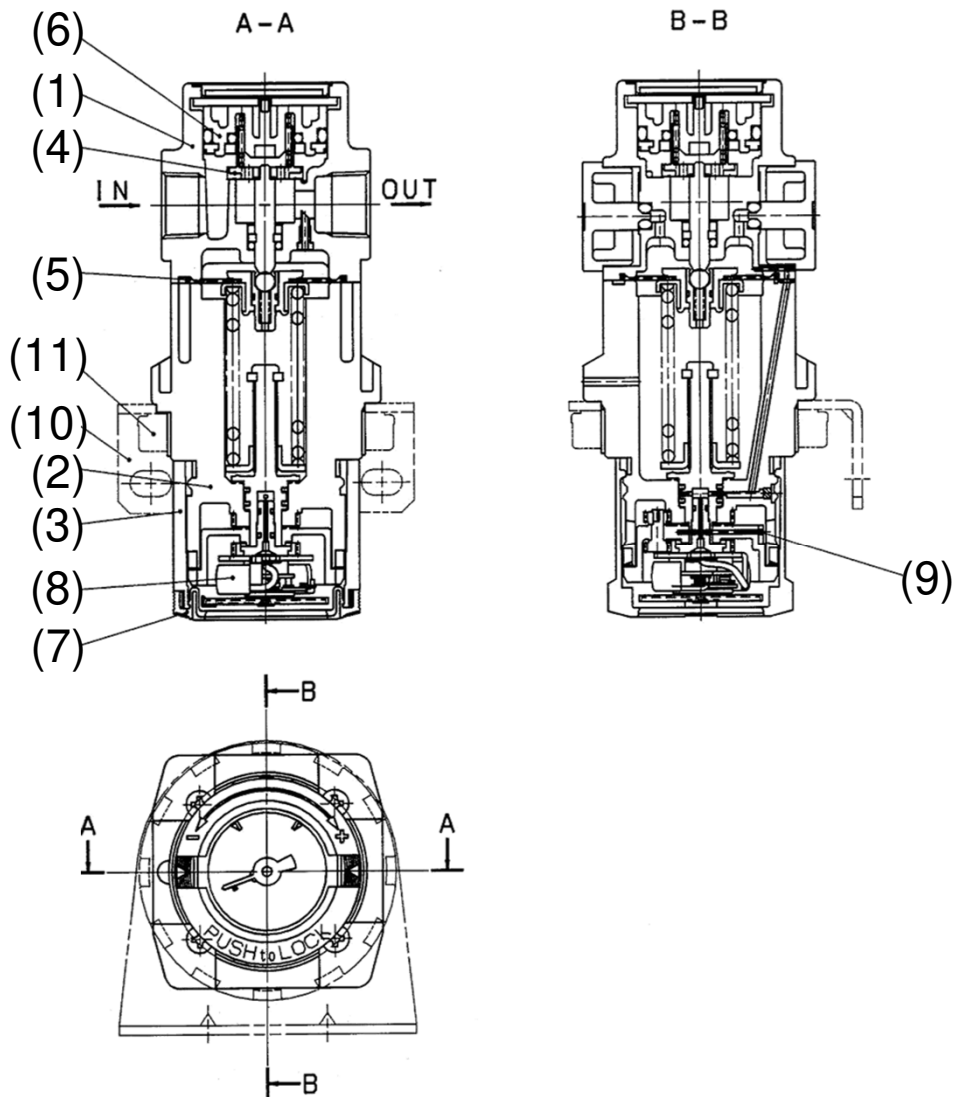
Refer to sections 「6. Construction / Parts List」 (P10) and 「9. Disassembly Drawing」 (P15-P16).

Trouble		Possible cause	Countermeasure
Category	Failure		
Pressure	The pressure can not be adjusted.	1. The product is installed opposite to the flow direction.	1. Check flow direction and install the regulator correctly if wrong.
		2. Pressure adjusting spring is damaged.	2. Replace the pressure adjusting spring.
		3. Valve spring is damaged.	3. Replace the valve spring.
		4. Foreign materials caught in valve seat or valve O-ring.	4. Remove the valve guide and clean valve seat or valve O-ring. Grease up after washing the sliding surface of valve O-ring.
		5. Valve rubber seat is damaged.	5. Replace the valve.
	The set pressure does not become zero even when the knob is loosened.	1. Foreign materials caught in valve seat or valve O-ring.	1. Remove the valve guide and clean valve seat or valve O-ring. Grease up after washing the sliding surface of valve O-ring.
		2. Valve rubber seat is damaged.	2. Replace the valve.
		3. Valve spring is damaged.	3. Replace the valve spring.
4. The valve is fixed in an opened position.		4. Clean the valve sliding surface of O-ring and apply grease additionally.	
Air leakage	Air leaks from the bonnet relief port.	1. Diaphragm is damaged.	1. Replace the diaphragm assembly.
		2. Foreign materials caught in seating part of the relief valve.	2. Clean the relieving valve seat, or replace the diaphragm assembly.
		3. Foreign materials caught in valve seat or valve O-ring.	3. Remove the valve guide and clean valve seat or valve O-ring. Grease up after washing the sliding surface of valve O-ring.
		4. Valve rubber seat is damaged.	4. Replace the valve.
		5. Back pressure exceeding the set pressure is applied to the downstream.	5. Revise the air circuit so that back pressure does not exceed the set pressure.
	Air leaks between the bonnet and the body.	1. Loosened bonnet screws.	1. Fasten the bonnet.
		2. Diaphragm is damaged.	2. Replace the diaphragm assembly.
	Air leaks from the pressure gauge. (the knob)	1. Foreign materials are caught in the pressure gauge O-ring.	1. Remove the pressure gauge, and clean the pressure gauge O-ring. After cleaning, apply grease to the pressure gauge O-ring.
		2. The pressure gauge is damaged.	2. Replace the pressure gauge.

Note) The grease used recommends ENEOS Corporation diamond multipurpose No.2.

6. Construction / Parts List

ARG20/30/40-B



Component Parts

No.	Part name	Material	Note
(1)	Body	ADC	White
(2)	Bonnet	PBT	White
(3)	Knob	POM	Gray

Options/Replacement Parts

No.	Part name	Semi-standard specification	Material	ARG20-B	ARG30-B	ARG40-B
(4)	Valve	—	Brass, HNBR	AR20P-410S	AR30P-410S	AR40P-410S
(5)	Diaphragm assembly	—	Weatherable NBR	AR20P-150AS	AR30P-150AS	AR40P-150AS
		N Non-relieving	Weatherable NBR	AR20P-150AS-N	AR30P-150AS-N	AR40P-150AS-N
(6)	Valve guide assembly	—	POM / NBR	AR20P-050AS	AR30P-050AS	AR40P-050AS
(7)	Pressure gauge cover	—	PC	ARG20P-400S	ARG30P-400S	ARG40P-400S
(8)	Pressure gauge	—	—	GB2-10AS	GB3-10AS	GB4-10AS
		1 0.2MPa setting	—	GB2-3AS	GB3-3AS	GB4-3AS
		Z Unit: MPa/psi dual scale	—	GB2-10AS-X101	GB3-10AS-X101	GB4-10AS-X101
		1Z Unit: MPa/psi dual scale	—	GB2-3AS-X101	GB3-3AS-X101	GB4-3AS-X101
(9)	Clip	—	Stainless steel	ARG20P-420S	ARG30P-420S	ARG40P-420S
(10)	^{Note1)} Bracket assembly	—	Steel / POM	ARG23P-270AS	ARG33P-270AS	ARG43P-270AS
(11)	Set nut	—	POM	ARG23P-260S	ARG33P-260S	ARG43P-260S

Note1) This is an assembly of a bracket and set nut

Note2) The number in the table is corresponding to the number in structural drawing (above-mentioned figure) and 「9. Disassembly Drawing」.

7. Replacement Procedure

Warning

Before replacement, make sure that no pressure remains in the equipment.

Also, make sure to loosen the knob of the regulator so that the set pressure is zero.

Replace referring to 「9. Disassembly Drawing」 (P15-P16).

After replacement, confirm that the product satisfies specific functions and no external leakage occurs before operating it.

1) Diaphragm Assembly

Applicable model	Work category	Procedure	Tools	Criteria						
ARG20-B ARG30-B ARG40-B	Disassembly	1) Remove the bonnet. Rotate the set screw counterclockwise with cross pointed driver to remove the bonnet from the body.	Phillips screwdriver	—						
		2) Remove parts in order of the pressure adjusting screw assembly, pressure adjusting spring, and the diaphragm assembly. Please be noted that the diaphragm assembly adheres to the bonnet if disassemble parts with the knob facing downwards.		—						
	Assembly	3) Mount parts to the body in order of the diaphragm assembly, pressure adjusting spring, and pressure adjusting screw. Mind the direction of the diaphragm assembly and pressure adjusting screw assembly. See attached disassembly drawing.		Direction of diaphragm assembly and pressure adjusting screw assembly						
		4) Mount the bonnet to the body. Mount the bonnet to the body, and settle it roughly with four(4) set screws with a cross pointed driver. Then, Tighten screws diagonally with the tightening torque in the check item to settle.	Phillips screwdriver	<table border="1"> <thead> <tr> <th colspan="2">Tightening torque</th> </tr> </thead> <tbody> <tr> <td>ARG20-B</td> <td>2.15+/-0.3N·m</td> </tr> <tr> <td>ARG30-B</td> <td>2.35+/-0.3N·m</td> </tr> <tr> <td>ARG40-B</td> <td>3.5 +/-0.3N·m</td> </tr> </tbody> </table>	Tightening torque		ARG20-B	2.15+/-0.3N·m	ARG30-B	2.35+/-0.3N·m
Tightening torque										
ARG20-B	2.15+/-0.3N·m									
ARG30-B	2.35+/-0.3N·m									
ARG40-B	3.5 +/-0.3N·m									

2) Valve Guide Assembly and Valve

Applicable model	Work category	Procedure	Tools	Criteria
ARG20-B ARG30-B ARG40-B	Disassembly	1) Remove the cap. Insert the small screw driver in the gap between the body and the cap and dig up the cap.	small screw driver (-)	—
		2) Remove the cover. Insert the circular pliers to two holes of the cover and rotate 45 degree, and lift it.	Round pliers Nominal: 125	—
		3) Remove the valve guide assembly. Hold the valve guide with a small pliers, and lift.	Small pliers	—
		4) Remove the valve spring.	—	—
		5) Remove the valve.	—	—
	Assembly	6) Mount the valve. Mate the stem convex and the valve center hole.	—	Positioning the stem and the valve
		7) Mount the valve spring. Insert the valve spring to the valve hole.	—	—
		8) Mount the assembly of the valve guide and the cover. Mate the notch of the body cover hole and the detent of the cover. Then push the assembly of them. Insert the circular plier to two holes of the cover to rotate 45 degree to settle.	Round pliers Nominal: 125	—
		9) Mount the cap. Mate the convex of the body cover and the concave of the cap, and push them in to settle. Ensure the end of the body and the cap are almost flat.	—	Orientation of the body and the cap. Body end and the cap are almost flat.

3) Bracket assembly and Panel mount

Applicable model	Work category	Procedure	Tools	Criteria										
ARG20-B ARG30-B ARG40-B	Assembly	1) Mount the parts to the bracket (panel). Mate the bracket (panel) concave and the bonnet convex to mount the bracket.	—	—										
		2) Settle the bracket (panel) with set nut. Rotate the set nut clockwise with a hook spanner to settle the parts to the bracket (panel). See check item for tightening torque. Set nut knurling surface shall face the bracket. When mounting with manually is adequate fir general used. bracket, set nut tightened manually is adequate fir general used.	Hook spanner Nominal: : <table border="1"> <tr> <td>ARG20-B</td> <td>52/55</td> </tr> <tr> <td>ARG30-B</td> <td>58/65</td> </tr> <tr> <td>ARG40-B</td> <td>65/70</td> </tr> </table>	ARG20-B	52/55	ARG30-B	58/65	ARG40-B	65/70	Tightening torque <table border="1"> <tr> <td>ARG20-B</td> <td>2.5+/-0.2N·m</td> </tr> <tr> <td>ARG30-B</td> <td>3.5+/-0.3N·m</td> </tr> <tr> <td>ARG40-B</td> <td>4.0+/-0.4N·m</td> </tr> </table>	ARG20-B	2.5+/-0.2N·m	ARG30-B	3.5+/-0.3N·m
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ARG30-B	58/65													
ARG40-B	65/70													
ARG20-B	2.5+/-0.2N·m													
ARG30-B	3.5+/-0.3N·m													
ARG40-B	4.0+/-0.4N·m													

8. Replacement / Angle Adjustment Procedure for Pressure Gauge

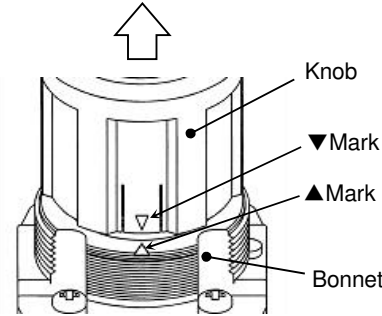
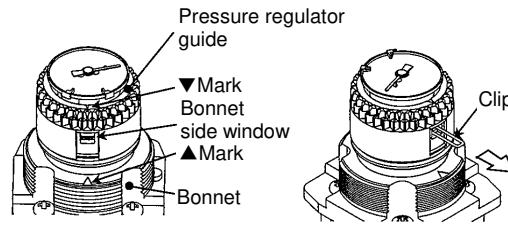
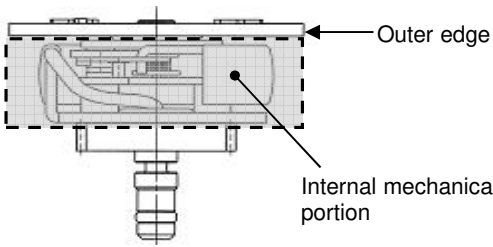
Warning

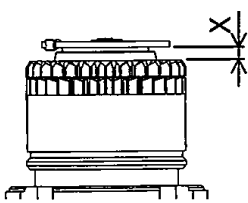
When replacing a pressure gauge and/or changing the mounting angle, release the inlet and outlet pressure completely.

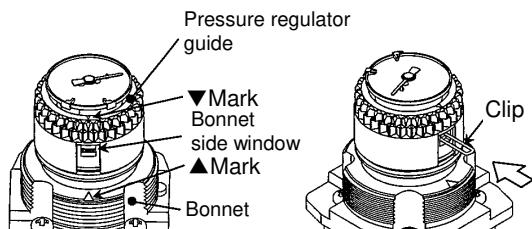
It is dangerous to replace the pressure gauge or change the mounting angle while it is under pressure.

Also, make sure to loosen the knob of the regulator so that the set pressure is zero.

After replacement, confirm that the product satisfies specific functions and no external leakage occurs before operating it.

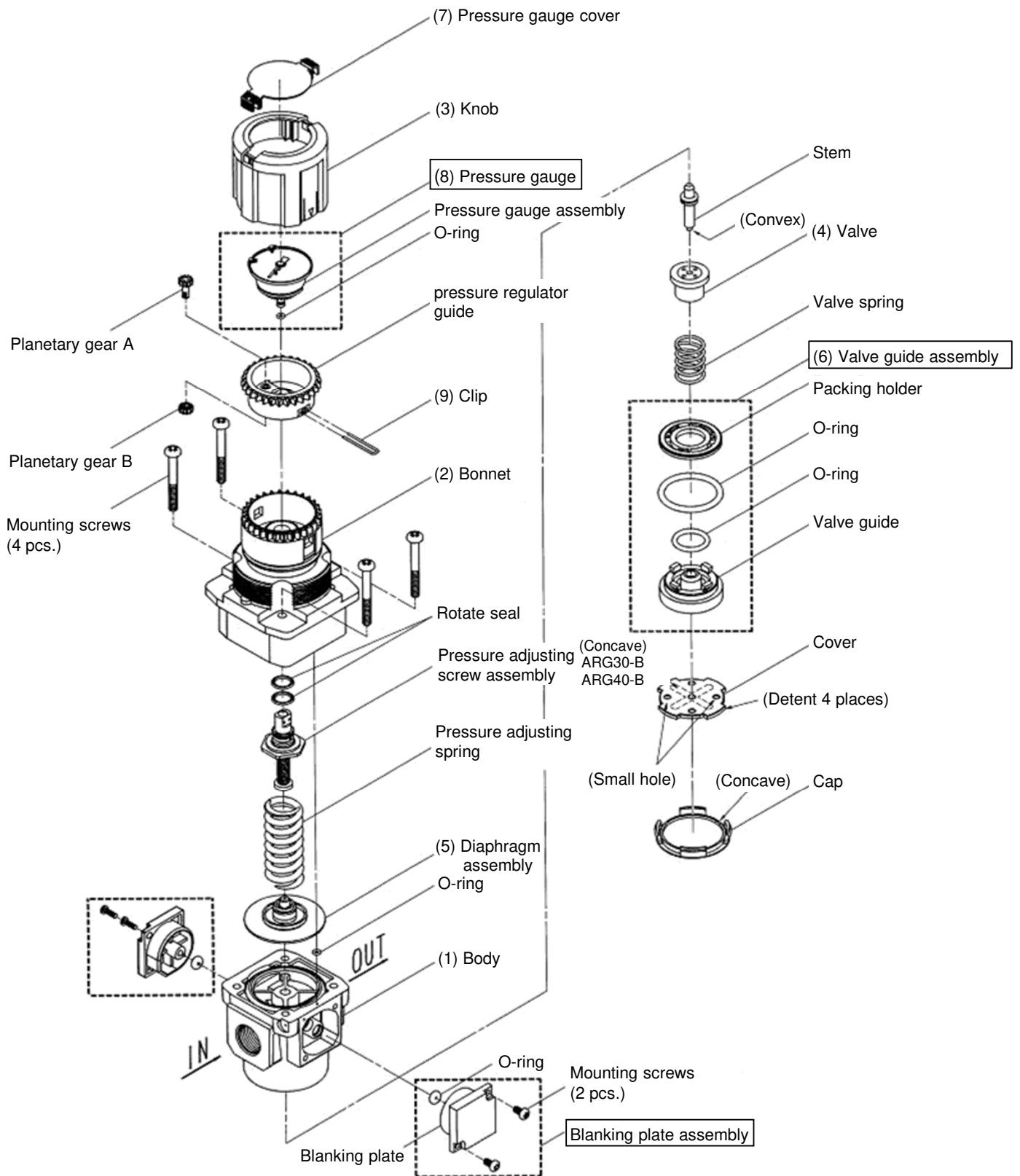
Applicable model	Work category	Procedure	Tool	Criteria
ARG20-B ARG30-B ARG40-B	Disassembly	1) Advance preparation Keep the knob unlocked and completely loosened.	—	The unlocked state of the knob can be visually confirmed by the “Orange mark” shown near the bottom of the knob.
		2) Removing the knob To remove the knob, align the ▼ mark on the knob and the ▲ mark on the bonnet and then pull the knob. 	—	—
		3) Removing the clip When the ▲ mark on the bonnet and the ▼ mark on the pressure regulator guide are aligned, the clip can be seen from the side window of the bonnet. The clip can be picked and removed with tweezers. *When adjusting the mark, turn the pressure regulator guide clockwise for adjustment. 	Tweezers	—
		4) Removing the pressure gauge Pull the pressure gauge out by holding the outer edge of the dial. *Do not touch the internal mechanical portion (shown inside the dotted box). Accuracy of the pressure gauge may be adversely affected. 	—	—

Applicable model	Work category	Procedure	Tool	Criteria								
ARG20-B ARG30-B ARG40-B	Assembly	<p>5) Setting the pressure gauge After the mounting angle is adjusted as required, hold the outer edge of the pressure gauge dial and gently press down. For reference, the required clearance between the bottom of the dial and the top of the pressure regulator guide is shown in table 1.</p> <p>Note1) When the pressure gauge cannot be easily positioned, slightly rotate it. (The cog from the planet gear of the pressure regulator guide may be caught vertically in the cog from the sun gear which is mounted and integrated with the pressure gauge)</p> <p>Note2) Position the pressure gauge to the very bottom.</p> <p>Note3) Attached to the tip of the pressure gauge is an O-ring with grease applied to it. Please use caution to prevent particles and/or dust from entering the pressure gauge when it is set. Otherwise, they may cause air leakage.</p>	—	 <table border="1" data-bbox="1189 526 1508 593"> <caption>Table.1.Clearance Dimensions</caption> <thead> <tr> <th></th> <th>ARG20-B</th> <th>ARG30-B</th> <th>ARG40-B</th> </tr> </thead> <tbody> <tr> <td>X dimension (Reference value)</td> <td>2.6mm</td> <td>3.3mm</td> <td>3.3mm</td> </tr> </tbody> </table>		ARG20-B	ARG30-B	ARG40-B	X dimension (Reference value)	2.6mm	3.3mm	3.3mm
		ARG20-B	ARG30-B	ARG40-B								
X dimension (Reference value)	2.6mm	3.3mm	3.3mm									
	<p>6) Setting the clip. Insert the clip in the side of the bonnet when the ▼ mark on the pressure regulator guide and the ▲ mark on the bonnet are aligned. When inserting and setting the clip, use an instrument with a narrow tip, such as tweezers.</p> <p>Note1) The clip is slightly tapered toward its tip to prevent it from being released. Set the clip by slightly opening its tip.</p> <p>Note2) When the clip cannot easily be set, the cause may be as follows:</p> <p>(1) The pressure regulator screw might have been in a lower position than the current one. (The pressure regulator screw may reach a lower position if the pressing force of the pressure regulator screw is excessively applied. This occurs because there is a clearance between the pressure regulator nut and pressure spring, when the pressure regulator screw is loosened completely.) Countermeasures Turn the pressure regulator guide approx. 5 times clockwise (pressure rise direction).</p> <p>(2) The pressure gauge is not firmly set. Countermeasures Refer to 5 "Setting the pressure gauge."</p>	Tweezers										
		<p>7) Setting the knob. Finished when the knob is set.</p>	—									

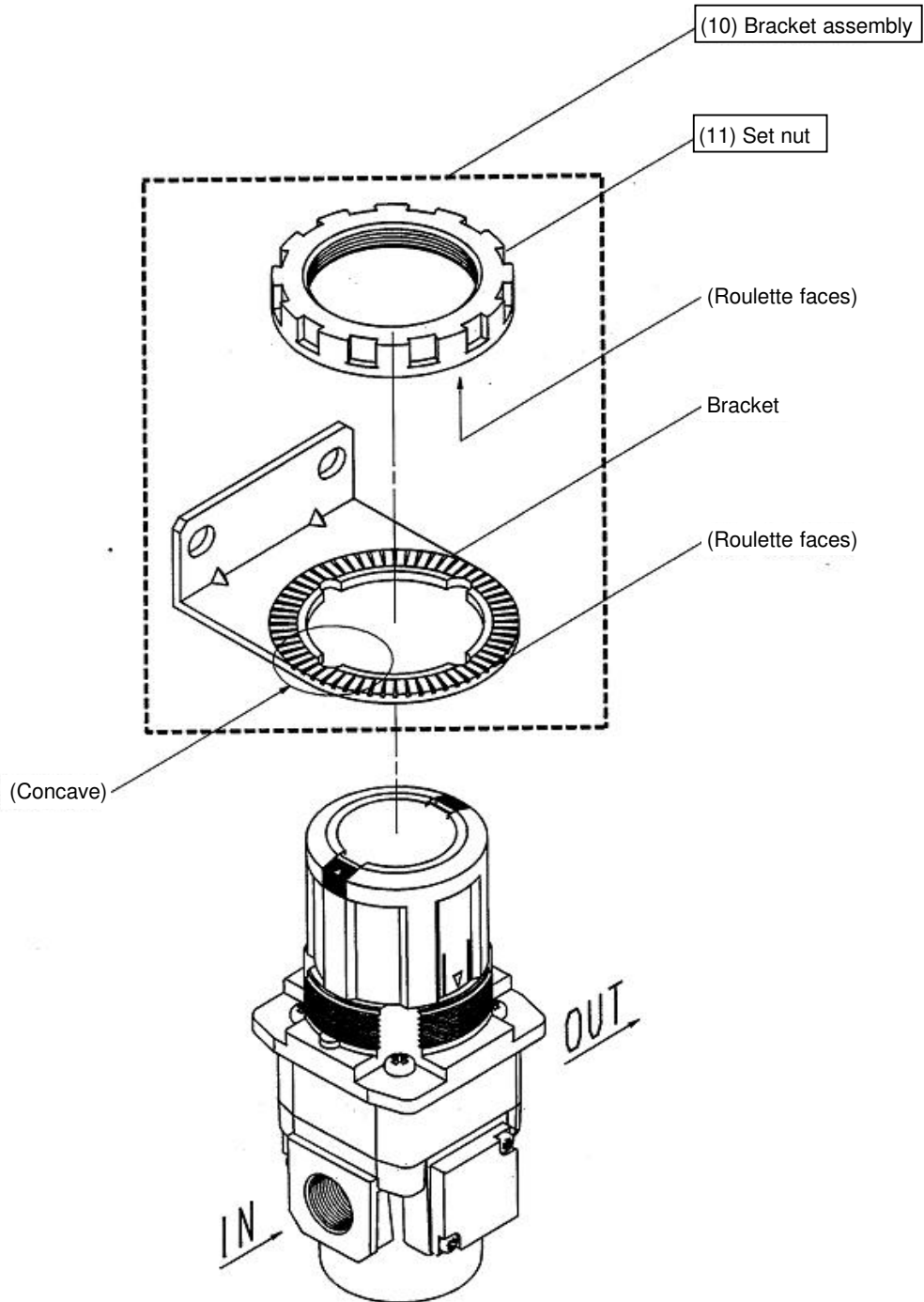


9. Disassembly Drawing

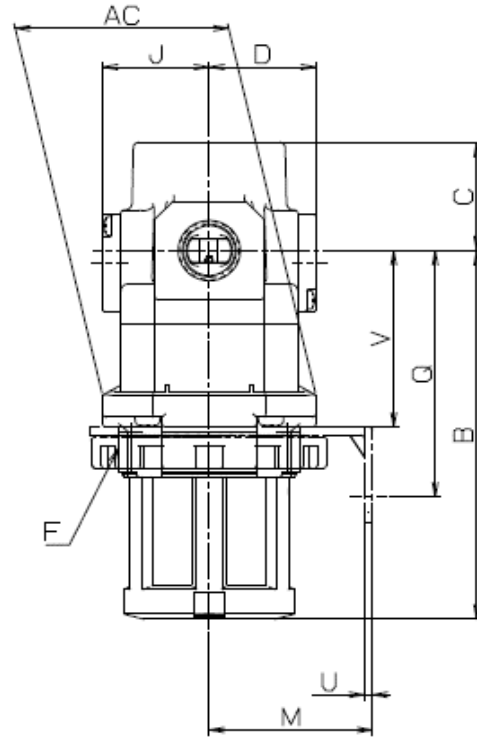
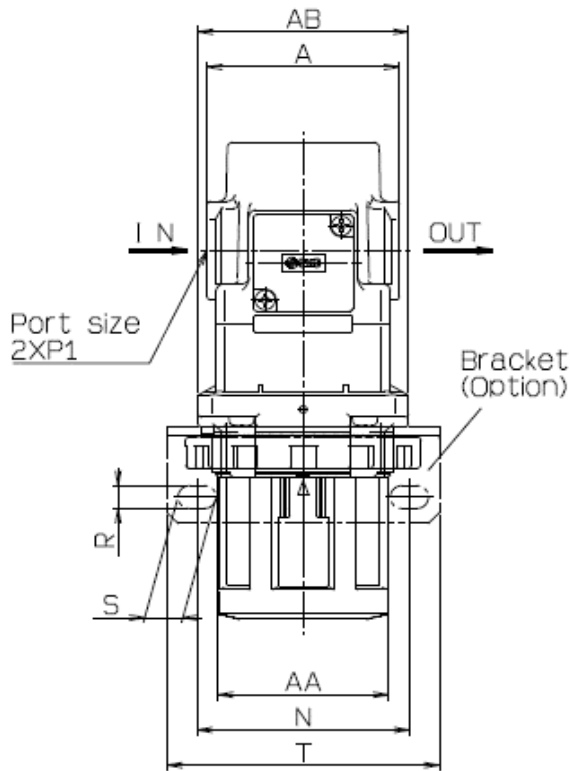
1) Disassembly Drawing ARG20/30/40-B



2) Bracket assembly and Panel mount



10. Dimensions



Panel mounting dimensions

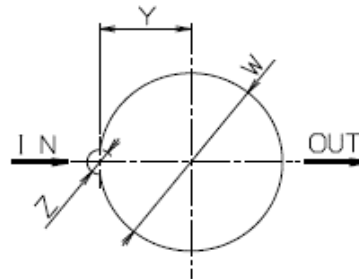
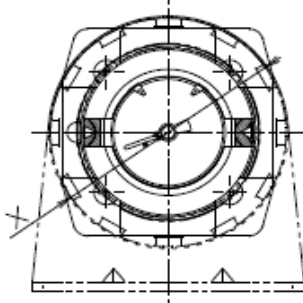


Plate thickness
ARG20 to 40-B : Max.3.5

Dimensions

Model	Standard specification									
	P1	A	B	C	D	F	J	AA	AB	AC
ARG20-B	1/8, 1/4	40	84.1(MAX:87.1)	26.5	28.5	M39X1.5	28.5	φ37	45	46.5
ARG30-B	1/4, 3/8	53	104.7(MAX:108.2)	30.7	29.4	M50X1.5	29.4	φ47	58	58.8
ARG40-B	1/4, 3/8, 1/2	70	111.3(MAX:114.8)	35.8	33.8	M55X1.5	33.8	φ52	70	70

Model	Optional specifications											
	Bracket mount							Panel mount				
	M	N	Q	R	S	T	U	V	W	X	Y	Z
ARG20-B	35	48	60	5.4	10.4	65	2.3	37.7	39.5	52.5	19.5	6
ARG30-B	45	58.5	70	6.5	10.5	75	2.3	50.1	50.5	65	25	7
ARG40-B	50	65.5	75.2	8.5	12.5	85	2.3	53.7	55.5	70	27.5	7

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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