OPERATION MANUAL VBAT-M7A

AIR TANK
VBAT05A∗-SV-Q
VBAT10A∗-SV-Q

INDEX

●Cautions on operation---------- P1
●Specification---------- P1
●Connecting Air tank and Booster regulator------- P2

Thank you for choosing this SMC product. This operation manual provides all essential items to ensure its optimum performance and longer lifespan. Please read it before starting to use it. Keep this manual properly and read it again when any inconvenience occurs. Please refer to the latest catalogue, drawings and maintenance manual.

Operation Precaution

●Check and confirm product specification. Before any operation to ensure safe and optimum. Operating the product out of specifications may cause failure of product or accident.
●Applicable regulation for air tank varies with countries. Please ensure national standard compliance before operation.

Design Precaution

⚠ WARNING

(1)Operating pressure

●Apply required pressure. When the pressure is likely to exceed max. operating pressure, protective measure should be introduced.
●Especially, if the tank is used individually, use pressure switch or safety valve to prevent surge of pressure.

(2)Connection

●Connect filter or a mist separator to the tank outlet. Dust might flow to the outlet as the inner surface of air tank is not treated.
●Booster regulator VBA can be used with in the combination as shown in the table below.

		Booster regulator			
		VBA1∗1∗	VBA2∗00	VBA1∗A	VBA2∗A
Air tank	VBAT05A∗-SV-Q	○	–	○	–
	VBAT10A∗-SV-Q	○	○	○	○

Selection

⚠ CAUTION

●Avoid repeating sudden charge to and discharge from the air tank.
●Charging (air tank temp. increases) and discharging (air tank temp. decreases) may make the temperature of the air tank exceed the temperature range.
●Keep operating condition within specifications.
●Please follow the selecting method of Booster regulator in the catalogue when connecting with Booster regulator.

Installation

⚠ CAUTION

(1)Accessories

●Accessories are fixed at foot of the tank with tie. Once removed, be aware of missing of parts.

(2)Installation

●Install the tank away from people. As tank keeps air inside, it will be dangerous if the air flows out by any chance.
●Do not set the tank at a place with a moving part and vibration. If the tank is installation in such a place cannot be avoided inform us of it.
●Please refer to the selection “Air tank and Booster regulator Assembly” to assemble them together.
●For mounting on the floor, use 4 holes at ϕ11 to secure either by bolts (M8) or anchor bolts (not included in accessories, please order separately.).

(3)Piping

●Flexible piping should be employed to avoid moment and vibration applied to the socket of the tank.

Specifications

(1)Specifications

●This air tank is CE marked and complies with simple pressure vessels directive.

Model	VBAT05A∗-SV-Q	VBAT10A∗-SV-Q
Max. operating pressure	20bar (2MPa)	
Material	SS400	
Tank capacity	5 L	10 L
Temp. range	0~75 °C	
Tank mass	6.6 kg	10 kg
OUT Port Rc, G	3/8	1/2
Paint	Outer surface : Silver baking Inner Surface : Rust-proof	

(2)How to order

VBAT 10A ∗ -SV-Q

- 10A: Tank capacity

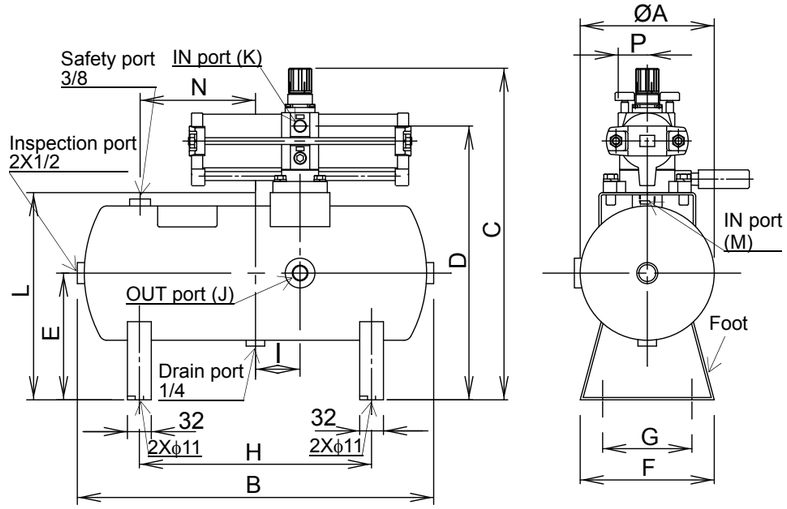
Size	Tank capacity
05A	5 L
10A	10 L

- ∗: Port thread

Symbol	Type of thread
Nil	Rc
F	G

- SV: Safety valve(2MPa)
- V: Drain valve
- Q: CE conformity

Completed Assembly



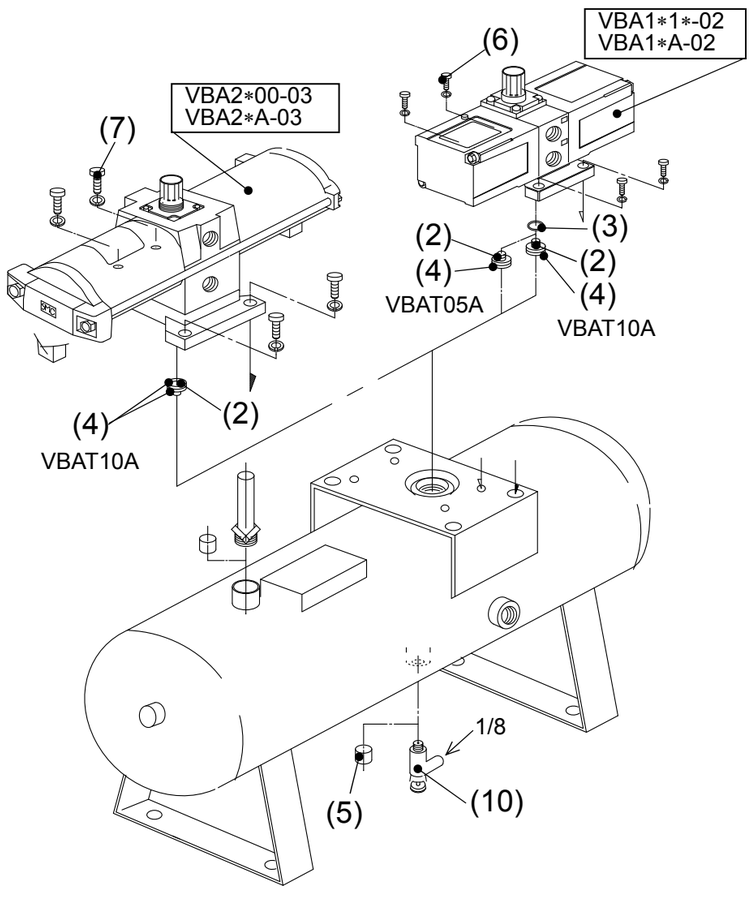
Tank type	VBA type	ϕA	B	C	D	E	F	G	H	I	J	K	L	M	N	P
VBAT 05A	VBA 1110, 1111	156	360	366	307	163	160	100	200	60	3/8	1/4	257	3/8	60	17
VBAT 10A	VBA 2100	180	460	387	328	170	180	120	312	60	1/2	3/8	278	1/2	130	39
				448	367											
	VBA 2200			405												
VBAT 05A	VBA 10A, 11A	156	360	370	307	163	160	100	200	60	3/8	1/4	257	3/8	60	20
VBAT 10A	VBA 20A	180	460	391	328	170	180	120	312	60	1/2	3/8	278	1/2	130	39
				454	367											
	VBA 22A			417												

Air tank and Booster regulator Assembly

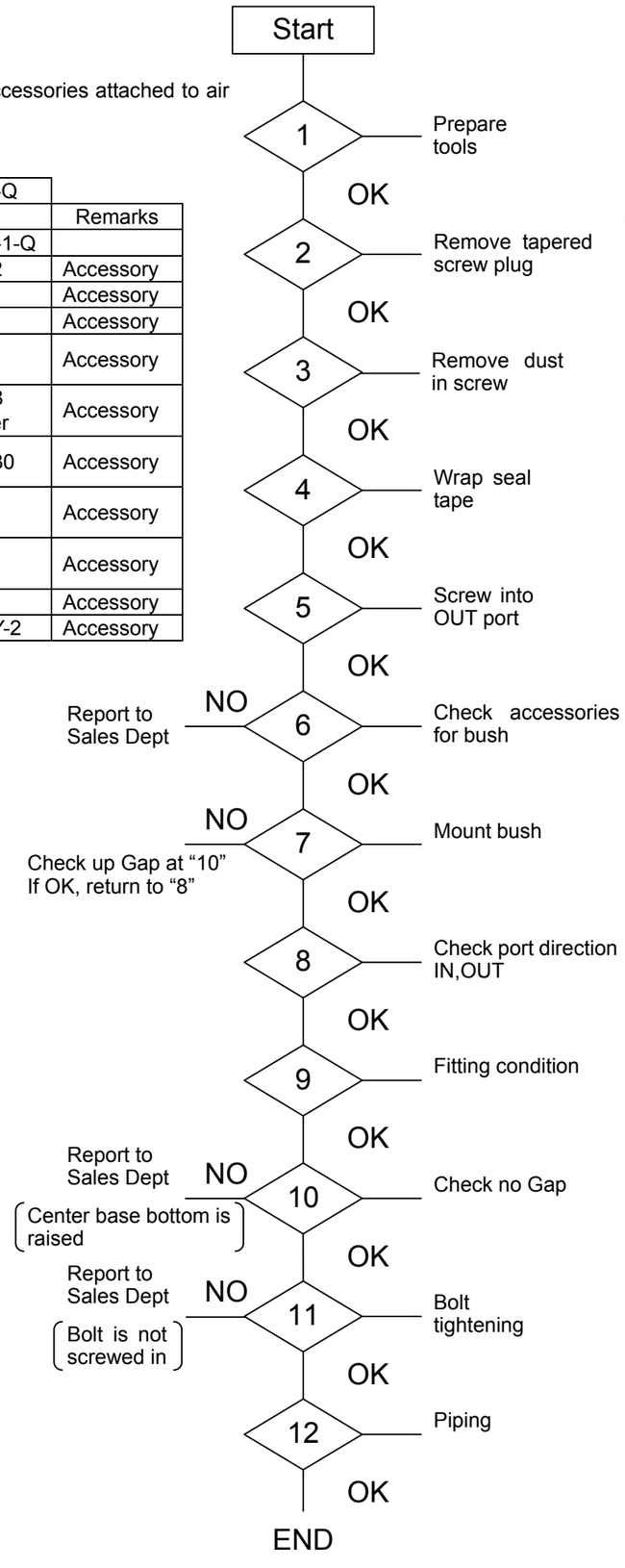
(1)Connecting with Booster regulator

- ●Parts to connect the Booster regulator and the Air tank are included in the accessories attached to air tank foot.
- ●Prepare all necessary connecting tools before assembly.

No.	Description	Material	VBAT05A∗-SV-Q Qty	VBAT05A∗-SV-Q No.	VBAT10A∗-SV-Q Qty	VBAT10A∗-SV-Q No.	Remarks
1	Air tank	SS	1	VBAT5A∗-1-Q	1	VBAT10A∗-1-Q	
2	Bush	BRASS	1	VBAT5A-2	1	VBAT10A-2	Accessory
3	O-ring	HNBR	1	P18	1	P18	Accessory
4	O-ring	HNBR	1	AS568-021	2	AS568-021	Accessory
5	Hexagon socket head plug	SUS	1	R1/4	1	R1/4	Accessory
6	Hexagon socket head bolts	SCM	4	M5X0.8X18 With washer	4	M5X0.8X18 With washer	Accessory
7	Hexagon socket head bolts	SCM	-	-	4	M10X1.5X30	Accessory
8	Hexagon socket head plug	SS	1	R3/8	1	R3/8	Accessory
9	Safety valve	BRASS /FKM	1	VBAT-S	1	VBAT-S	Accessory
10	Drain valve	BRASS	1	VBAT-V1	1	VBAT-V1	Accessory
2~8	Accessory kit	-	1	VBAT5A-Y-2	1	VBAT10A-Y-2	Accessory



(2)Booster regulator assembling procedure



Contents

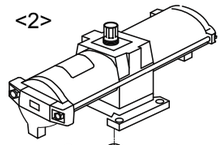
Connecting booster regulator VBA2∗00/2∗A-03 and Tank VBAT10A

Connecting booster regulator VBA1∗1∗/1∗A-02 and Tank VBAT05A/10A

Connecting booster regulator VBA2∗00/2∗A-03 and Tank VBAT10A

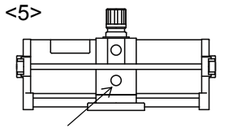
<1> Tools
Hexagonal spanner 8 nominal

<2>



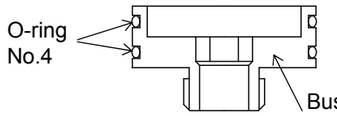
<3> Hexagonal tapered screw plug
<4> Hexagonal spanner 8 nominal

<5>

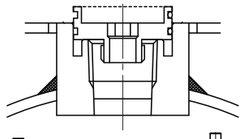


Proper tightening torque 22~24Nm
OUT port

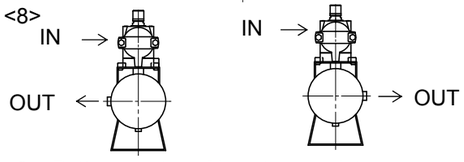
<6>



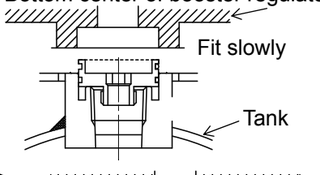
<7> Insert bush to the inlet port of the tank with bush screw heed down



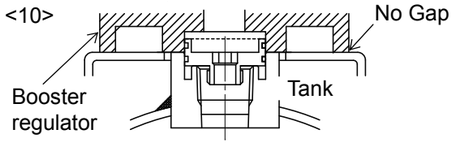
<8>



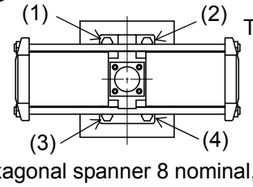
<9> Bottom center of booster regulator



<10>



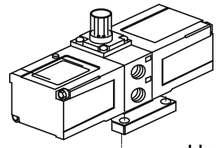
<11>



Tighten diagonally
Top view
Hexagonal spanner 8 nominal, No.7 … 4
Proper tightening torque 22~24Nm

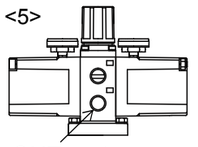
Connecting booster regulator VBA1∗1∗/1∗A-02 and Tank VBAT05A/10A

<1> Tools
Hexagonal spanner 4, 6, 8 nominal



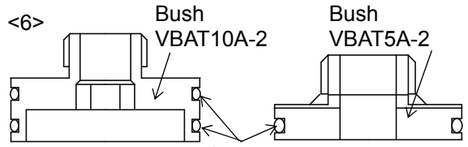
<3> Hexagonal tapered screw plug
<4> Hexagonal spanner 6 nominal

<5>

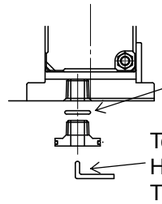


Proper tightening torque 12~14Nm
OUT port

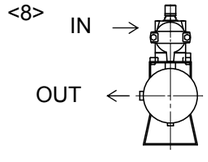
<6>



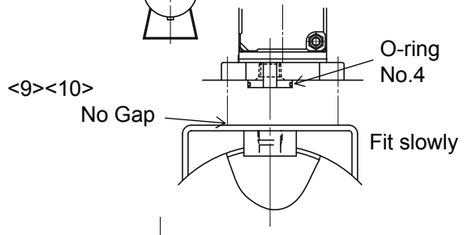
<7> Put O-ring No.3 into the booster regulator bottom groove, then screw the bush in to port at bottom.



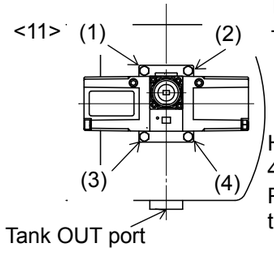
<8>



<9><10>



<11>



Tighten diagonally
Hexagonal spanner 4 nominal, No.6 … 4
Proper tightening torque 3Nm