



OPERATION MANUAL

AIR COMBINATION

MODEL
XT13-253-02~04
XT13-207-06~10
XT13-202-12~14
XT13-283

SMC CORPORATION

PILOT REGULATOR

PRECAUTIONS REQUIRED IN HANDLING THE VALVE AND TROUBLESHOOTING

XT 1 3 - 2 5 3 - 0 2 ~ 0 4 XT 1 3 - 2 0 7 - 0 6 ~ 1 0

XT 1 3 - 2 0 2 - 1 2 ~ 1 4 XT 1 3 - 2 8 3

PRECAUTIONS REQUIRED IN HANDLING THE VALVE

I. MOUNTING METHOD

1. Flush the air pipings to be used, before connecting them to the Pressure Regulating Valve. Existence of dust, sand, and scales in the pipings will cause malfunction or trouble of the Valve.
2. The port on which there is an arrow is the inlet port. Install the Valve in such a direction will result in improper operation.
3. Spacing out under the Valve guide, which is on the opposite side to the handle, of the Pressure Regulatig Valve by 60mm or more will make maintenance and inspection easier.

II. PRESSURE ADJUSTING METHOD

Please adjust the secondary pressure by using the other Regulator for pilot adjusting.

III. OTHER PRECAUTIONS

1. Use the unit with a maximum operating pressure of 9.9 kgf/cm^2 .
2. Adjustable range of set pressure is $0.5 \sim 8.5 \text{ kgf/cm}^2$.

TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
Pressure is not regulated.	1. Opposite flow direction, or opposite installation of valve.	1. Check flow direction and correct valve installation if wrong.
	2. Broken valve spring.	2. Replace valve spring.
	3. Foreign materials caught between valve seat.	3. Remove valve guide and clean valve and valve seat.
	4. Damaged rubber lining on valve.	4. Replace valve.
	5. Broken diaphragm.	5. Replace diaphragm.
Set pressure does not return to zero when the pilot pressure decreased to zero.	1. Foreign materials caught between valve seat.	1. Clean valve and valve seat.
	2. Damaged rubber lining on valve.	2. Replace valve.
	3. Broken valve spring.	3. Replace valve spring.
Air leaks near bonnet screws.	Loosened bonnet screws.	Fasten screws evenly.

SPECIFICATIONS

PROOF PRESS.

1.5 kgf/cm² (150.0 kPa) (210 psi)

MAX. WORKING PRESS.

9.9 kgf/cm² (990 kPa) (150 psi)

SET PRESS.

0.5 ~ 8.5 kgf/cm² (50 ~ 850 kPa) (7 ~ 120 psi)

WORKING FLUID

Air

AMBIENT TEMP. AND WORKING FLUID TEMP.

5 ~ 60 °C (40 ~ 140 °F)

PORT SIZE

2-PT 1/4 ~ 1/2 (XT13-253)

2-PT 3/4 ~ 1" (XT13-207)

2-PT 1 1/4 ~ 1 1/2 (XT13-202)

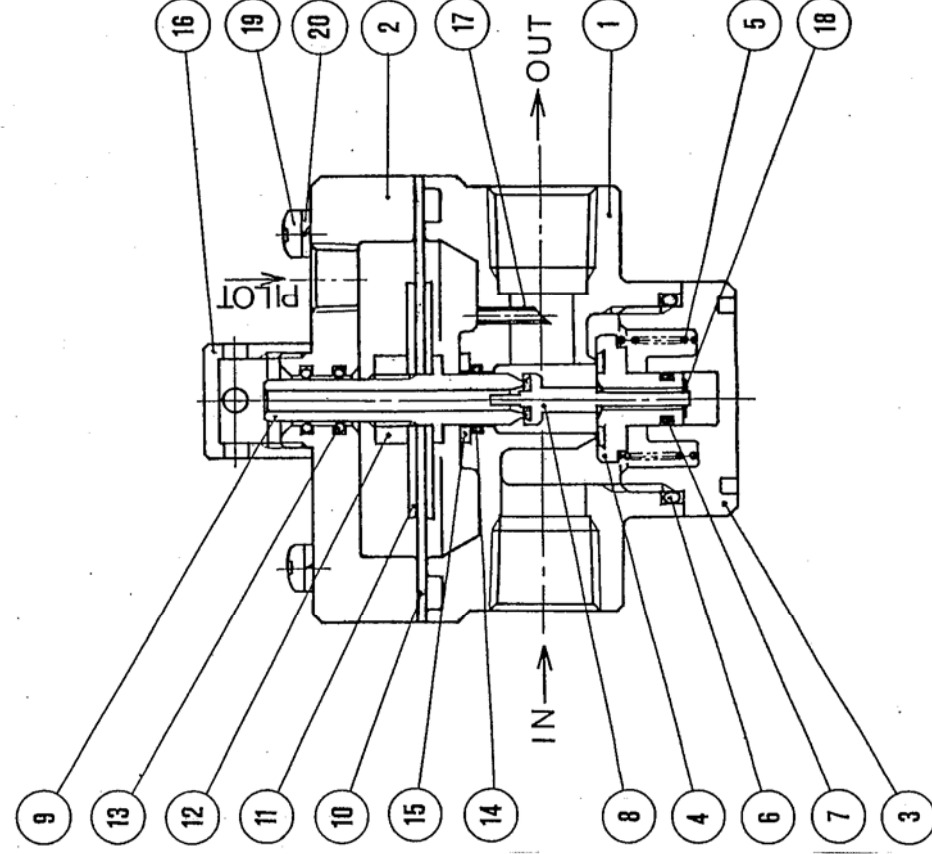
GAUGE PORT SIZE

2-PT 1/4

PILOT PORT

PT 1/4

MODEL XT13-253



ITEM	PART NAME
1	BODY
2	BONNET
3	VALVE GUIDE
4	VALVE
5	VALVE SPRING
6	"O" RING
7	"O" RING
8	ROD "A"
9	ROD "B"
10	DIAPHRAGM
11	DIAPHRAGM SHELL
12	HEXAGON NUT
13	"O" RING
14	"O" RING
15	"O" RING HOLDER
16	CAP
17	STATIC PRESSURE TUBE
18	WASHER
19	SCREW
20	SPRING WASHER