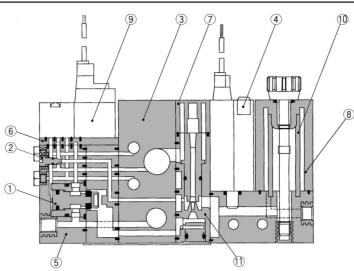
# **Ejector System/Construction**



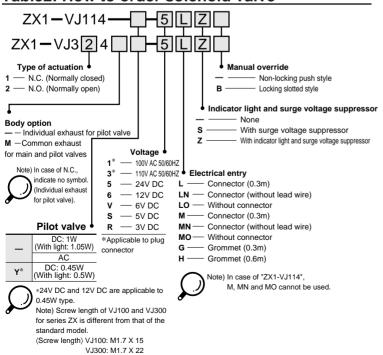
# **Component Parts**

No.	Description	Material	Note
1	Poppet valve ass'y	_	ZX1-PV-O
2	Release flow adjusting needle	Stainless steel	
3	Manifold	Aluminum	
(4)	Vacuum switch	_	ZSE2, ZSP1
(5)	Valve unit	_	ZX1-VADDDD-D-D
6	Interface plate	-	(PV <del>↔</del> PS→PD)
$\overline{\mathcal{O}}$	Silencer case		
8	Filter case	Polycarbonate (1)	

# Table1: How to order pilot valve

No.	Component		Model	Combination
	Supply valve	Release valve	INIOdei	Combination
1	Solenoid valve N.C. (VJ114)	Solenoid valve N.C. (VJ114)	ZX1-VJ114-□□□□	K1, J1
2	Solenoid valve N.O. (VJ324)	Solenoid valve N.C. (VJ314)	ZX1-VJ3 <sup>1</sup> <sub>2</sub> 40-000	K3, J2
3	Air operated N.O. (VJA324)	Air operated N.C. (VJA314)	ZX1-VJA3 <sup>1</sup> 24	K8
(4)	Air operated	N.C. (ZX1A)	ZX1A-🗆	K6

# Table2: How to order solenoid valve



# **Replacement Parts**

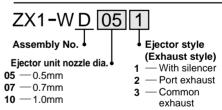
No.	Description	Material	Part No.
(9)	Pilot valve (Air operated)	_	Refer to Table
	(All operated)		1, 2, and 3
10	Filter element	PVF	ZX1-FE
11	Ejector assembly		Refer to Table 4
Note 1) • The case is made of polycarbonate. Therefore, do not use with or expose it to the following chemicals: paint thinner, carbon tetrachloride, chloroform, acetic ester, aniline, cyclohexane, trichloroethylene, sulfuric acid, lactic acid,			

ester, anline, cyclohexane, trichloroethylene, sulfuric acid, lactic acid, watersoluble cutting oil (alkalinic), etc. • Do not expose it to direct sunlight.

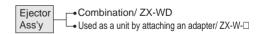
# Table 3: How to order air operated valve ZX1A-M3 Port size M3 M3 × 0.5 Pilot port/External

M3 M3 X 0.5 Pilot port/External M5 M5 X 0.8 release port

Table 4: How to order ejector assembly



\*An adapter should be attached to the assembly to be used as a unit. PV port and V port can be connected.



# 

Turning the vacuum release flow volume adjustment needle clockwise reduces the vacuum release flow volume; the needle valve is fully closed when the needle stops turning. Turning the needle 2 full turns counterclockwise from the fully closed position renders the needle valve fully open. The needle will fall out if it is turned more than 4 full turns. ΖX

ZR

# **Ejector Unit**

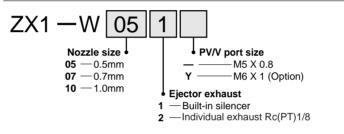


Sp	ecifications
----	--------------

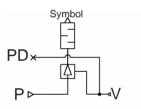
Unit No.	ZX1-W05 <sup>1</sup> <sub>2</sub>	ZX1-W07 <sup>1</sup> <sub>2</sub>	ZX1-W10 <sup>1</sup> <sub>2</sub>	
Nozzle dia. ø(mm)	0.5	0.7	1.0	
Max. suction flow (@min(ANR))	5	10	22	
Air consumption (#min(ANR))	13	23	46	
Max. vacuum pressure	–84kPa			
Max. operating pressure	0.7MPa			
Supply pressure range	0.2MPa to 0.55MPa			
Standard supply pressure	0.45MPa			
Operating temperature range	5 to 50 °C			
Ejector exhaust style*	Code ① Built-in silencerFor single and manifold			
	Code 2 Individual exhaust For single and manifold			
Weight	Built-in silencer: 35g/Individual exhaust: 45g			
Standard accessory	Bracket B			

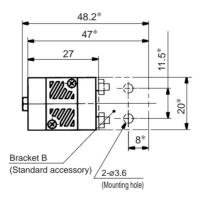
\*Codes ① and ② are corresponding to the suffixes in "How to Order" to indicate the exhaust method.

#### How to Order

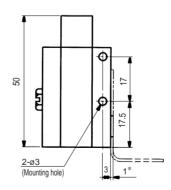


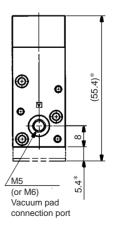
#### Dimensions/ZX1-W





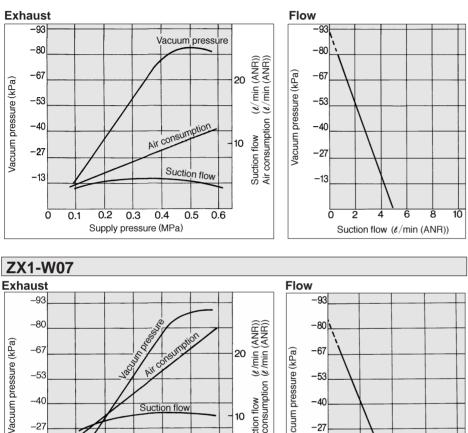
M5 (or M6) (PD port) External release port plug <sup>(1)</sup> <u>M5 (or M6)</u> (P port) Air pressure supply port 10

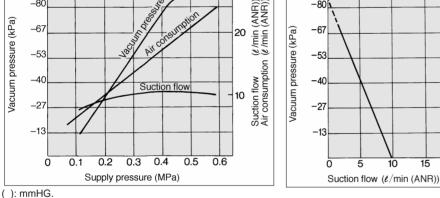




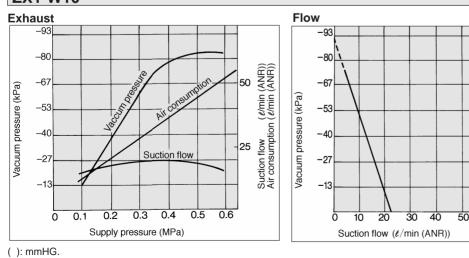
Note1) Remove the plug at external release.

## Flow Characteristics/Exhaust Characteristics ZX1-W05





## ZX1-W10



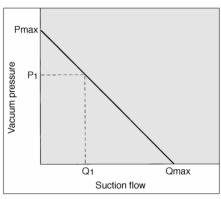
### How to Read Graphs

[At 0.45Mpa]

15

10

20



Flow characteristics are expressed in ejector vacuum pressure and suction flow. If suction flow rate changes a change in vacuum pressure will also be expressed. Normally this relationship is expressed in ejector standard use. In graph, Pmax is max. vacuum pressure and Qmax is max. suction flow. The valves are specified according to catalog use. Changes in vacuum pressure are expressed in the below order. 1)When ejector suction port is covered and

made airtight, suction flow becomes 0 and vacuum pressure is at maximum value (Pmax). ②When suction port is opened gradually, air can flow through, (air leakage), suction flow increases, but vacuum pressure decreases. (condition P1 and Q1)

(3) When suction port is opened further, suction flow moves to maximum value (Qmax), but vacuum pressure is near 0. (atmospheric pressure).

When vaccum port (vacuum piping) has no leakage, vacuum pressure becomes maximum, and vacuum pressure decreases as leakage increases. When leakage value is the same as max. suction flow, vacuum pressure is near 0. In the case when ventirative or leaky work should be adsorbed, please note that vacuum pressure will not be high.

A Precautions	
Be sure to read before handling. Refer to p.0-20 and 0-21 for Safety Instructions and common precautions on the products mentioned in this catalog.	
<b>▲</b> Caution	

Refer to "Data" on Best Pneumatics 3 for the product selection in series ZX and the sizing program.

ΖX