

<http://en.aqsys.co.jp>

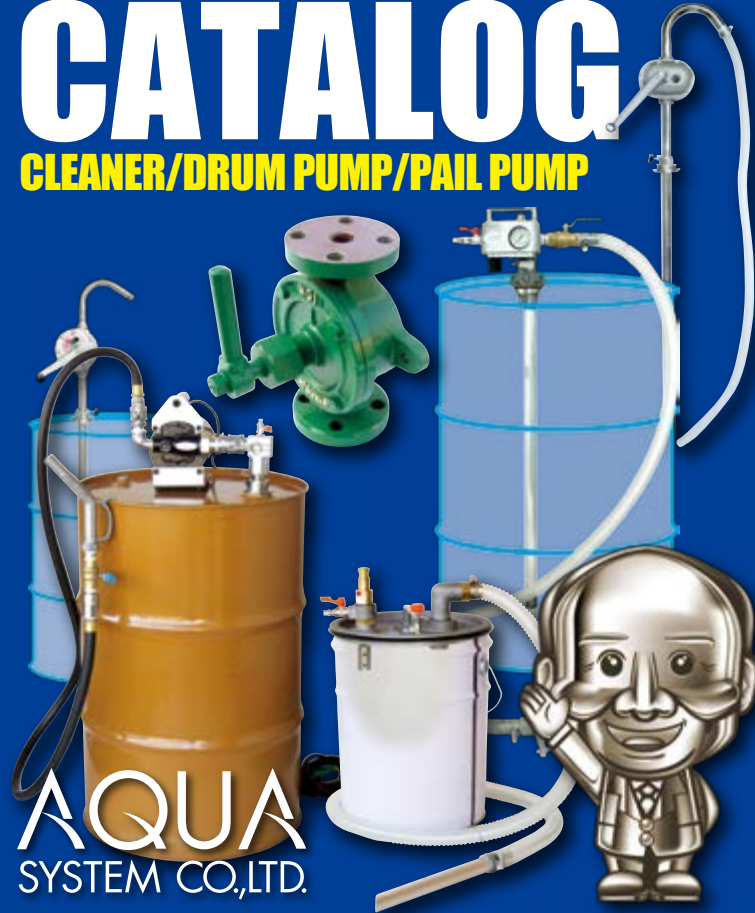
# PRODUCTS CATALOG

CLEANER/DRUM PUMP/PAIL PUMP



**AQUA**  
SYSTEM CO.,LTD.

**AQUASYSTEM Co., Ltd. JAPAN**



**AQUA**  
SYSTEM CO.,LTD.



# Contents



New Products

**P.4**



Vacuum Cleaners,  
Vacuum Pumps

**P.6**



Pail Pumps

**P.12**



Drum Pumps

**P.20**



Portable Pumps

**P.26**



Electric Portable  
Pumps

**P.30**



Semi Rotary Wing  
Pumps

**P.34**



Nozzles, Flow Meter,  
Pail / Drum Cock,  
Fans, Sweeper

**P.36**

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## Viscosity Comparison Table

$cP = cst \times Sp. Gravity$   $cst = \eta / \rho$

Liquid	Viscosity at each temperature							
	0	5	10	15	20	25	30/35	
60 Spindle Oil	87	60	40	30	22	17	13	
90 Oil for freezer	122	90	65	48	36	28	23	
150 Oil for freezer	240	160	110	80	60	46	36	
90 Turbine Oil	290	200	140	100	75	63	40	
150 Spindle Oil	360	230	150	100	75	55	46	
SAE-10W	300	220	150	110	85	65	36	
ISO 32 Working Oil, Gear Oil 75W	400	260	180	125	90	70	53	
120 Machine Oil	620	400	265	180	130	95	75	
30 Oil for freezer, Engine Oil 5W-20 (30)	700	420	280	190	130	95	75	
140 Turbine Oil	750	500	320	240	170	120	95	
SAE-20W ISO46	800	530	370	260	190	140	105	
160 Machine Oil	900	600	400	285	190	140	105	
ISO 68 Lubrication Oil, Engine Oil 10W 30(40)	1,050	650	440	300	210	150	130	
180 Turbine Oil	1,100	700	460	320	220	160	120	
200 Turbine Oil	1,300	800	550	360	260	180	135	
SAE-80 Gear Oil	1,400	900	600	400	280	200	150	
SAE-90 Gear Oil 85W	1,800	1,150	750	500	340	240	180	
ISO 100 Engine Oil 20W 40 (50)	2,000	1,200	800	500	350	250	180	
SAE-40	2,700	1,600	1,050	720	500	340	250	
ISO 150	3,200	2,000	1,250	800	550	380	280	
SAE-90 Gear Oil	4,200	2,500	1,800	1,000	700	480	340	
SAE-50	5,000	3,000	1,800	1,200	800	530	380	
ISO 220	5,000	3,200	2,200	1,300	900	600	420	
SAE-60	9,000	5,500	3,400	2,000	1,350	900	650	
ISO 320	9,500	5,500	3,300	2,100	1,400	900	650	
SAE-140 Gear Oil	10,000	6,000	3,800	2,300	1,400	1,000	700	
ISO 460	14,000	8,000	4,800	3,000	1,900	1,100	900	
ISO 680		14,000	8,000	5,000	3,000	2,100	1,400	
ISO 1000			14,000	8,000	5,000	3,100	2,100/1,500	
ISO 1500				14,000	8,000	5,000	3,100/2,200	

### How to read the above table

\* First of all, to make sure the kind of liquid, viscosity and the temperature when used.

Make sure where you liquid with viscosity is found under the temperature to be used.

If you find your liquid at the colored column in the above table, it is acceptable.

If you find on the non-colored column, such a liquid is not acceptable.

\* The acceptable table in the above shows just indication for your information, and they are not guaranteed figures.

Please make sure of acceptable viscosity for each our product.

\* Generally, viscosity degree drops, when the temperature are goes up.

If you have the information of oil manufacturer and the kind of liquid, viscosity information becomes available.

Viscosity information for our pump is described in cP, and in case convert ion to cP is required, you can get by the formula of  $cP = cst \times Sp. Gravity$ .  
(In case of water, simply multiply by 1.00)

# How to use

**Products Clarification**

**QR Code**

## Industrial vacuum cleaners

Air Vacuum Cleaners (Stainless) for cleaning

**APPQ0550C-SET**



**Products**

Worked by  
**Compressed Air** **Index**

Standard

Equal NITTO  
Hi Cupla 20PM

※at 1cP

**Products Photo**

Acceptable viscosity

**Up to 3000 cP**

Compressor with

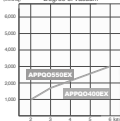
**5HP or higher**

**Features**

**Source for Driving  
Applicable Viscosity  
Compressor Capacity etc.**



Curved Line for Performance



For a Open Can only

**Specifications Table**

**Curved line for Performance**

Specifications at 5kg / oil	Oil-proof hose	Included
	Aluminium nozzle	Included
	Accessories	32 x 2m 2 x 30cm
Application	Oil stopper	2,600mm / H <sub>2</sub> O
	Filter	1.7m <sup>3</sup> / min
Option		Can, Carrier, "T" type nozzle, Filter set

**Specifications Table**

**The places to be used**

Type	Model	Page	
New (Drum)	Air	4	
Vacuum	Sucking Air (Cleaner)	5	
		7	
		8	
		10	
		14	
		14	
		14	
		--	
		12	
		13	
	Electric	11	
	Drum	Air	22
			22
		22	
		22	
		22	
		22	
		22	
		22	
		22	
		22	
		22	
		22	
		23	
		23	
		24	
		24	
		25	
		25	
		28	
		28	
		29	
		29	
		--	
		--	
		--	
Manual		16	
		16	
		16	
		18	
		18	
		17	
		17	
		17	
	19		
	19		
Pail	Discharging Air	16	
		16	
		16	
		18	
		18	
		17	
		17	
		17	
		19	
	Manual	19	

Type	Model	Page
Portable, hose connection	Air	27
		26
		26
		26
		17
		17
		17
		--
		--
		31
		31
		32
		32
		33
		37
		37
		37
		--
		36
		37
		36
		36
		--
		36
		36
		--
		36
		37
		39
		--
		41
		41
		41
	38	
	38	
	38	
	38	
	39	
	39	
	39	
	39	
	39	
	39	
	42	
	42	
	42	



## New Products

### Simple Filtering System / Cutting Liquid Recycling

#### APDQO-FEX

Recommendable to collect cutting oil, and for the maintenance service of cutting machines.

AIR TYPE Cleaner with filters for drum can.



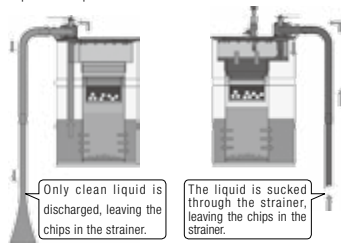
Carrier for drum can



Top plate for open drum can

While discharging, the compressed air pushes the liquid out.

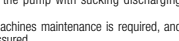
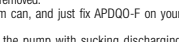
While sucking, the liquid with chips is sucked.



Only clean liquid is discharged, leaving the chips in the strainer.

The liquid is sucked through the strainer, leaving the chips in the strainer.

- Due to Double filters with stainless made meshes (100 mesh and 400 mesh), cut powder is removed.
  - Apply JIS approved drum can, and just fix APDQO-F on your own open drum can.
  - Then, this will work as the pump with sucking discharging functions.
  - No more troublesome machines maintenance is required, and simple maintenance is assured.
- \*A drum can is separately sold.



# Vacuum Cleaners

To collect cutting powder.

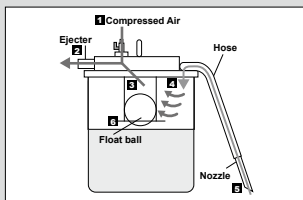
To change cutting liquid.

To collect wastage liquid.



## Mechanism of Suction

1. Supply the air compressed at 0.4~0.6Mpa.
2. Compressed air goes out through the ejector with high speed.
3. The air inside tank is discharged by the vacuum force made by ejector.
4. The pressure inside the tank becomes minus pressure.
5. Dust or liquid can be sucked through a nozzle.
6. When the tank becomes full of liquid, the float ball shuts the spout of sucking air. Then, cleaner stops working.



# Industrial Vacuum Cleaners



## Industrial Air Vacuum Cleaners For Pail Can

### AVC-55

AVC-55PC:with Pail Can, Carrier.

Economical  
Type



For Open Can Only

Simply remove top plate of standard pail can (for oil), then it can be a Open Can. This is a pail can of which all top plate can be removed (upper cover of a can).

Carrier For Pail Can

Worked by

**Compressed Air**

Acceptable viscosity

**Up to 3000 cP**

Compressor with

**5HP or higher**



## Specifications Table

Specifications at 5Kg / crl	Oil-proof hose	φ32 x 2m
	Aluminium nozzle	φ32 x 30cm
	Air consumption amount	450 / min
	Vacuum degree	2,000mm / H <sub>2</sub> O
Application	Air suction amount	1.7m <sup>3</sup> / min
	Oil stopper	Included
	Filter	Option
	Option	Can, Carrier, "T" type nozzle, Filter set



# Industrial Vacuum Cleaners

## Industrial Air Vacuum Cleaners For A Pail Can

### APPQ0550EX

Standard



Worked by  
**Compressed Air**

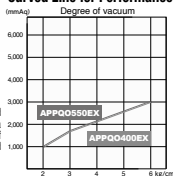
Acceptable viscosity  
**Up to 3000 cP**

Compressor with  
**3-5HP or higher**

### APPQ0400EX



Curved Line for Performance



For a Open Can only

Simply remove top plate of standard pail can (for oil), then it can be a Open Can. This is a pail can of which all top plate can be removed (upper cover of a can).



Option

### Specifications Table

Models		APPQ0400EX	APPQ0550EX
Specifications at 5kg / cm <sup>2</sup>	Oil-proof hose	φ25 x 2m	φ32 x 2m
	Aluminium nozzle	φ25 x 30cm	φ32 x 30cm
	Air consumption amount	280 / min	450 / min
	Vacuum degree	2,000mm / H <sub>2</sub> O	2,000mm / H <sub>2</sub> O
	Air suction amount	0.06m <sup>3</sup> / min	0.08m <sup>3</sup> / min
Application	Oil stopper	Option	Included
	Filter	Option	Included
Option		Can, Carrier, "T" type nozzle, Filter set	



# Industrial Vacuum Cleaners

## Air Vacuum Cleaners (Stainless) For Cleaning

### APPQ0550CEX-SET

Standard

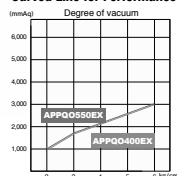


Worked by  
**Compressed Air**

Acceptable viscosity  
**Up to 3000 cP**

Compressor with  
**5HP or higher**

Curved Line for Performance



For a Open Can only

### Specifications Table

Specifications at 5kg / cm <sup>2</sup>	Oil-proof hose	φ32 x 2m
	Aluminium nozzle	φ32 x 30cm
	Air consumption amount	450 / min
	Vacuum degree	2,000mm / H <sub>2</sub> O
	Air suction amount	0.08m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	Included
Option		Can, Carrier, "T" type nozzle, Filter set

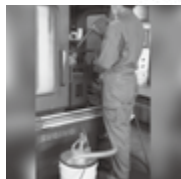
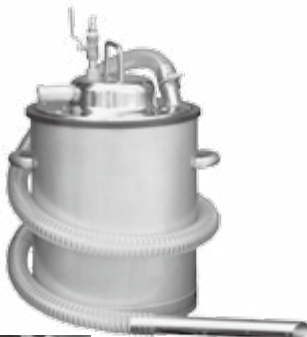


# Industrial Vacuum Cleaners

## Air Vacuum Cleaners (Stainless) For Cleaning

### **AVC-550SUSEX** (Stainless)

Standard



For SUS Can only  
Option



Worked by  
**Compressed Air**

Acceptable viscosity  
**Up to 3000 cP**

Compressor with  
**5HP or higher**

### Specifications Table

Specifications at 5kg / cfl	Oil-proof hose	φ32 x 2m
	Aluminium nozzle	φ32 x 30cm
	Air consumption amount	450 / min
	Vacuum degree	2,000mm / H <sub>2</sub> O
	Air suction amount	0.08m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	Option
Option		Can, Carrier, "T" type nozzle, Filter set

# Electric Pail Vacuum Cleaner

## The Cleaner For A Pail Can



### **EVC-550EX**

Worked by

**AC220V**

Acceptable viscosity

**Up to 3000 cP**



Option

Option

For Open Can only  
Option



### Specifications Table

Output (W)	1,050
Current (A)	10
Vacuum degree (Mpa)	0.21
Noize (db)	80 (No load, 1m height)
Hose size	φ32 × 2m
Electric cord	5m (with earth grip)
Weight (kg)	9.3
Option	Can, Carrier, "T" type nozzle, Filter set





# Industrial Vacuum Pumps

## Air Type Vacuum Pump For Pail Can

### APPQOEX

High Vacuum



Worked by

**Compressed Air**

Acceptable viscosity

**Up to 1000 cP**

Compressor with

**1HP or higher**



### Specifications Table

Specifications at 5kg / cfl	Oil-proof hose	φ25 x 2m
	Aluminium nozzle	φ25 x 30cm
	Air consumption amount	100 / min
	Vacuum degree	2,000mm / H <sub>2</sub> O
	Air suction amount	0.075m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	--
Option		Can, Carrier, "T" type nozzle, Filter set

# Industrial Vacuum Pumps

## The Pump For Pail Can



### APPQO-HEX

High Vacuum



Worked by

**Compressed Air**

Acceptable viscosity

**Up to 5000 cP**

Compressor with

**5HP or higher**



For SUS Can only  
Option



### Specifications Table

Specifications at 5kg / cfl	Oil-proof hose	φ25 x 2m
	Aluminium nozzle	φ25 x 30cm
	Air consumption amount	450 / min
	Vacuum degree	5,000mm / H <sub>2</sub> O
	Air suction amount	0.08m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	--
Option		SUS can, Carrier, "T" type nozzle, Filter set



# Air Pressure Pail Pumps

## Air Type Cyclone Vacuum Cleaner

### APPQO-CY20/32/40EX

for  
Dusts and  
Powders



- Pail can: Simply place on drum can.
- Collection ratio for dusts and powders: Better than 98% (according to our test data)
- No static electricity problem with a ground wire.
- Please visit our WEB (<http://en.aqsys.co.jp>) for details of specification.

### APPQO-HP2EX



- Collection power is 150% powerful Than existing APPQO550.
- Powerful collection into drum can.
- Please visit our WEB (<http://en.aqsys.co.jp>) for details of specification.

Worked by  
**Compressed Air**

Compressor with  
**10HP or higher**

Worked by  
**Compressed Air**

Acceptable viscosity  
**Up to 3000 cP**

Compressor with  
**10HP or higher**



# Pail Pumps Options

Types		Types													
		A	V	C	-	5	5	A	V	C	-	5	5		
Accessories	A	Main Nozzle	●	●	●	●	●	●	●	●	●	●	●	●	●
	B	Square Nozzle	●	●	-	●	●	●	●	●	●	-	-	-	-
	C	Open Pail Can	-	●	-	-	●	-	-	-	●	-	-	-	-
	D	Pail Can Carrier	-	●	-	-	●	-	-	-	●	-	-	-	-
	E	T Type Nozzle	-	-	-	-	-	-	-	-	-	●	-	-	-
	F	Filter Set	-	-	-	-	●	-	-	-	●	●	●	●	-
	G	Oil Stopper	●	●	-	-	●	●	●	●	●	●	-	-	●
Option	A	Main Nozzle	●	●	●	●	●	●	●	●	●	●	●	●	●
	B	Square Nozzle	●	●	-	●	●	●	●	●	●	●	-	-	-
	C	Open Pail Can	●	●	●	●	●	●	●	●	●	●	●	●	●
	D	Pail Can Carrier	●	●	●	●	●	●	●	●	●	●	●	●	●
	E	T Type Nozzle	●	●	-	-	-	-	-	-	-	-	-	-	-
	F	Filter Set	●	●	-	-	●	-	-	-	●	●	●	●	-
	G	Oil Stopper	-	-	-	-	●	●	●	●	●	●	-	-	●
	H	Closed Pail Can	-	-	-	-	-	-	-	-	-	-	-	-	-
	I	Nozzle With Socket	●	●	●	●	●	-	-	-	●	●	-	-	●
	J	Brush Nozzle	●	●	-	●	●	-	-	-	●	●	-	-	-
	K	Silencer	●	●	●	●	●	-	-	-	-	-	-	-	-
	L	Pail Can Holder	●	●	●	●	●	-	-	-	●	●	●	●	●
	M	Sus Can	●	●	●	●	●	●	●	●	●	●	●	●	●
N	Top Plate 100L	●	●	-	●	●	●	●	●	●	●	●	●	-	
O	Top Plate 200L	●	●	-	●	●	●	●	●	●	●	●	●	-	
P	Drum Can Carrier	●	●	-	●	●	●	●	●	●	●	●	●	-	

\*SUS can only.



# Air Pressure Pail Pumps

## The Pump For Pail Can

### APP-CEX series



Worked by  
**Compressed Air**

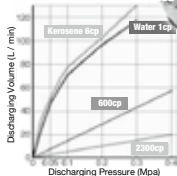
Discharge Head  
**30m Max.**

Acceptable viscosity  
**Up to 5000 cP**

Discharging capacity  
**50L/min.**



Curved Line for Performance



Safety valve works at 0.5MPa.  
Air pressure is limited up to 0.3MPa.

### Specifications Table

Types		APP-CEX-AL	APP-CEX-SUS	APP-CEX-PP
Acceptable liquid		Diesel, Kerosene, Oil	Gasoline, Acid / Alkaline Solvents	Acid / Alkaline liquids
Materials	Body & Connecting Parts	Steel / AL. BC	Steel / SUS	Steel / PP
	Packing	NBR	Fluorine Rubber	Fluorine Rubber
Operated by		Air Pressure		
Weight (without hose / kg)		23.0		

# Air Pressure Pumps

## The Pump For Pail Can



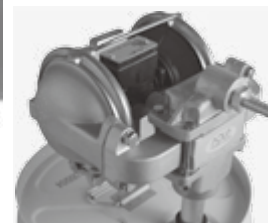
### DF EX series



Worked by  
**Compressed Air**

Acceptable viscosity  
**Up to 2500-4000 cP**

Discharging capacity  
**28-40L/min.**



DF4P-15AS

### Specifications Table

Types		DF4P-15SUS EX	DF4P-15G EX	DF4P-15AS EX
Acceptable liquid		Solvent, Chemical	Diesel, Kerosene, Gasoline, Oil	Solvent
Max viscosity		2,500	4,000	2,500
Max delivery rate at 1cP (L)		28	40	28
Discharge Head (m)		40	40	40
Materials	Body / Nozzle	Stainless	Aluminum	Aluminum
	Diaphragm	Hytrek	Hytrek	Teflon
	Packing	Teflon	Teflon, Fluorine Rubber	Teflon
	Hose	Stainless hose(φ15*2m)	Oil rubber hose(φ15*2m)	Stainless hose(φ15*2m)
Air consumption (NL/min)		250	250	250
Weight (kg)		6.0	5.6	5.2
Option		Pail can (close type)		



# Air Motor Pumps

The Pump For Pail Can

## MH EX series



Worked by  
**Compressed Air**

Discharge Head  
**4.2m Max.**

Acceptable viscosity  
**Up to 100 cP**



### Specifications Table

Types		MH21NA-V	MH316MA-V
Acceptable liquid		Acid / Alkaline liquids	Acid / Alkaline liquids
Materials	Body & Connecting Parts	PP / PVDF / PVC / Hastelloy C	SUS316 / PTFE
	Packing	Teflon, Fluoro-rubber	Teflon, Fluoro-rubber
Operated by		Air	
Weight (kg)		2.3	3.2

# Manual Pumps

The Pump For Pail Can



## P-S EX series



Worked by  
**Manual, Piston**

Acceptable viscosity  
**Up to 10,000 cP**



### Specifications Table

Types		P-S	P-SX	P-SXT
Acceptable liquid		General oil, Diesel, Kerosene	Solvent, Acid / Alkaline liquids	Solvent, Acid / Alkaline liquids
Materials	Body & Connecting Parts	Steel	SUS304	SUS316
	Packing	Nylon	Teflon	Teflon
Hose		PVC	Teflon	Teflon
Operated by		Hands & Piston		
Weight (kg)		1.0	1.0	1.0
Option		Pail can (close type)		

# APD-EX series

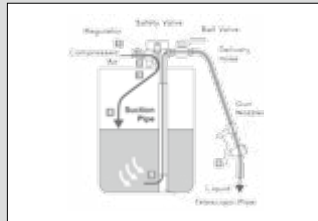


**Pneumatic Pump For Drum Can**  
**Safe, Efficient, Silent And Durable**

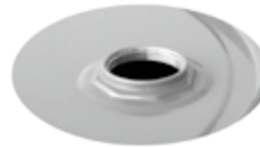


## Delivery Mechanism

1. Compressed air of 0.1~1 MPa is let in.
2. Regulator is set to decompress air to 0.05 MPa.
3. Decompressed air enters into the drum can.
4. Air pushes the surface of the liquids inside of the can.
5. The pushed liquid enters into the suction pipe.
6. Liquid enters into the hose and goes out through the nozzle.



## Drum Can Inlet's Shape



## For Emergency Use

In case neither electricity nor compressed air is available, you can use APD-20 series pump by using manual air pump (foot pump or hand piston pump).

## Nozzle type



Valve type



Gun type



## Specifications Table

Types	APD-REX <b>NEW</b>	APD-20(25)EX	APD-20(25)NEX	APD-20(25)GEX	APD-20(25)GNEX	APD-20(25)ASEX	APD-20(25)ASNEX	APD-20SUS	APD-20SUSN	
Function	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	
Acceptable	General oil	General oil	General oil	Kerosene, Diesel, Gasoline	Kerosene, Diesel, Gasoline	Solvents	Solvents	Solvents, Acid and Alkaline liquids	Solvents, Acid and Alkaline liquids	
Parts materials	Body	AL	AL	AL	AL	AL	AL	AL	SUS304	SUS304
	Packing	Fluoro-Rubber	Fluoro-Rubber	Fluoro-Rubber	Fluoro-Rubber	Fluoro-Rubber	Teflon, Fluoro-Rubber	Teflon, Fluoro-Rubber	Teflon, Perflu	Teflon, Perflu
	Hose	PVC (D25x2m)	PVC (D25x2m)	PVC (D25x2m)	Oil resistant rubber(D25x2m)	Oil resistant rubber(D25x2m)	SUS304 (D25x2m)	SUS304 (D25x2m)	SUS304 (D20x2m)	SUS304 (D20x2m)
Max delivery rate (L/min)	1cP	65 (150)	65 (150)	55 (80)	55 (115)	50 (70)	35 (115)	30 (70)	40	35
	500cP	30 (60)	30 (60)	20 (40)	20 (45)	15 (30)	15 (30)	15 (30)	15	10
	1000cP	15 (25)	15 (25)	9.5 (20)	7 (20)	7 (15)	6 (15)	6 (15)	5.5	5
Discharge Head	Max 2m	Max 2m	Max 2m	Max 2m	Max 2m	Max 2m	Max 2m	Max 2m	Max 2m	
Weight (kg)	4.4	4.4	4.3	5.6	5.3	5.3	4.9	7.8	7.6	

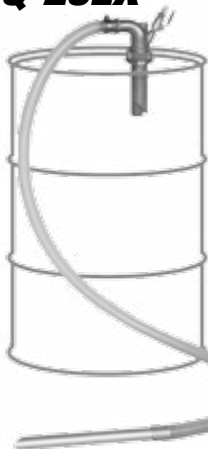


# Vacuum Drum Pumps

## The Pump For Drum Can

### APDQ-25EX

Suction Type



The biggest difference from other pumps is that this pump can accept most of foreign materials, as well as high viscosity liquid.

Worked by  
**Compressed Air**

Discharge Head  
**2m Max.**

Acceptable viscosity  
**Up to 3000 cP**

### Specifications Table

Types		APDQ-25EX	APDQ-25GEX	APDQ-25AS EX
Function		Suction	Suction	Suction
Acceptable liquid		General oil	Diesel Gasoline, Kerosine	Solvent
Parts materials	Body	AL	AL	AL
	Packing	NBR	NBR	Teflon, Fluoro-rubber
	Hose	PVC (D32x2m)	Oil resistant rubber (D25x2m)	SUS304 (D25x2m)
Max delivery rate (L / min)	1cP	80	50	50
Discharge Head		Max 2m	Max 2m	Max 2m
Weight (kg)		3.3	4.4	4.0
Option		Drum can		

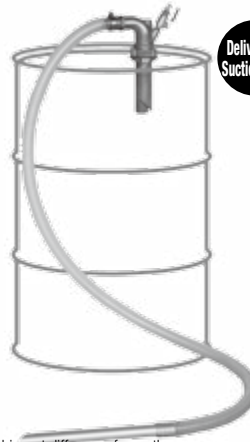
# Air Pressure & Vacuum Drum Pumps



## The Pump For Drum Can

### APDX-25EX series

Delivery or Suction Type



The biggest difference from other pumps is, that you can switch either for sucking or discharging. Then this pump will work for double roles.

Worked by  
**Compressed Air**

Discharge Head  
**2m Max.**

Acceptable viscosity  
**Up to 3000 cP**

### Specifications Table

Types		APDX-25EX	APDX-25GEX	APDX-25AS EX
Function		Delivery / Suction	Delivery / Suction	Delivery / Suction
Acceptable liquid		General oil	Diesel Gasoline, Kerosine	Solvent
Parts materials	Body	AL	AL	AL
	Packing	NBR	NBR	Teflon, Fluoro-rubber
	Hose	PVC (D32x2m)	Oil resistant rubber (D25x2m)	SUS304 (D25x2m)
Max delivery rate (L / min) (in / out)	1cP	70 / 100	50 / 70	50 / 70
	500cP	50 / 45	35 / 25	35 / 25
	1000cP	30 / 20	20 / 10	20 / 10
Discharge Head (m)		2.0		
Weight (kg)		4.3	5.7	5.3
Option		Drum can		



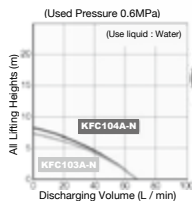
# Air Driven Motor Pumps

## The Pump For Drum Can

### KFC-EX series



Curved Line for Performance



Worked by  
**Compressed Air**

Acceptable viscosity  
**Up to 100 cP**

Discharging capacity  
**65L /min.**



### Specifications Table

Types		KFC103A-NEX	KFC104A-NEX
Acceptable liquid		Acid / Alkaline liquids	Solvent
Max viscosity (cP)		100	100
Max delivery rate at 1cP		65L / min	65L / min
Discharge Head (m)		7.5	7.5
Materials	Body / Nozzle	PP / PVDF / Hastelloy C / PVC	SUS304 / PVDF
	Packing	Teflon, Fluoro-rubber	Teflon, Fluoro-rubber
	Hose	Reinforced PVC (D25x2m)	SUS304 (D25x2m)
	Weight (kg)	5.8	9.9
Option		Drum can	

# Air Diaphragm Pumps

## The Pump For Drum Can

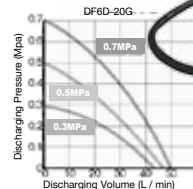


### DF-EX series

Suction Type



Curved Line for Performance



The biggest difference from other pumps is that this pump can accept most of foreign materials, as well as high viscosity liquid.

Worked by  
**Compressed Air**

Acceptable viscosity  
**1000-4000 cP**

Discharging capacity  
**30-55L /min.**



### Specifications Table

Types		DF4D-20GEX	DF4D-20ASEX	DF6D-20GEX	DF6D-20ASEX
Acceptable liquid		General oil, Diesel, Gasoline, Kerosine	Solvent	General oil, Diesel, Gasoline, Kerosine	Solvent
Max viscosity (cP)		4000	1000	4000	1000
Max delivery rate at 1cP		30L / min	30L / min	55L / min	55L / min
Discharge Head (m)		40			
Materials	Body / Nozzle	AL			
	Diaphragm	Hytrell	Teflon	Heytrell	Teflon
	Packing	Teflon, Fluoro-rubber	Teflon	Teflon, Fluoro-rubber	Teflon
	Hose	Oil resistant rubber(D20x2m)	SUS304 (D20x2m)	Oil resistant rubber(D20x2m)	SUS304 (D20x2m)
Air consumption		250 NL / min			
Weight (kg)		7.5	6.1	8.5	7.1
Option		Drum can			



# Portable Type Pumps

Recommendable For Continuous Operation

## AMH1-20/25EX

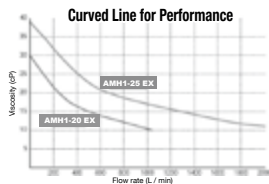


Worked by  
**Compressed Air**

Discharge Head  
**10-15m Max.**

Acceptable viscosity  
**Up to 2000 cP**

Discharging capacity  
**32-40L/min.**



### Specifications Table

Types		AMH1-20 EX	AMH1-25 EX
Acceptable liquid		Kerosene, Oil, Bio diesel, Gasoline, Diesel	Kerosene, Oil, Bio diesel, Gasoline, Diesel
Max viscosity (cP)		2,000	2,000
Max delivery rate at 1cP (L)		32	40
Discharge Head (m)		10	15
Materials	Body	Aluminum	Aluminum
	Packing	Teflon	Teflon
Weight (kg)		7.2	7.5
Option		Handy hose set, Drum set	

# Portable Type Pumps

Recommendable For Continuous Operation



## ACH-20 EX



Worked by  
**Compressed Air**

Discharge Head  
**5m Max.**

Discharging capacity  
**50L/min.**

### Specifications Table

Type		ACH-20 EX
Acceptable liquid		Kerosene, Oil (under 100cP), Diesel
Max viscosity (cP)		100
Max delivery rate at 1cP (L)		50
Discharge Head (m)		5.0
Materials	Body	Aluminum
	Packing	NBR
Weight (kg)		4.2
Option		Handy hose set, Drum set



# Portable Rotary Drum Pumps

The Pump For Drum Can

**HR-2B EX**



**HR-25G EX**



## Specifications Table

Types		HR-2B EX	HR-25G EX
Delivery ability (cc / rev)		240	240
Acceptable liquid		Kerosene, Light oil, Fuel oil A, Oil	Kerosene, Gasoline, Diesel, Fuel oil A, Oil
Materials	Body	FC casting	FC casting
	Packing	NBR	NBR, Teflon
	Hose	PE (φ25X1.2m)	PVC (φ25x1.2m) (Oil resistant) ground wire
Weight (kg)		7.0	6.6

# Portable Rotary Drum Pumps

The Pump For Drum Can

**HF-1000 EX**



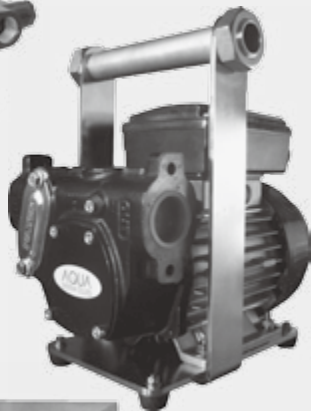
**HRD-25SUS EX**



## Specifications Table

Types		HF-1000 EX	HRD-25SUS EX
Delivery ability (cc / rev)		1,000	220
Acceptable liquid		Kerosene, Light oil, Fuel oil A, Oil	Solvents, Chemical, Diesel, Fuel oil A, Oil
Materials	Body	AL, Zn alloy	SUS
	Packing	NBR	Teflon
	Hose	PE (φ32-19X1.2m)	None OP. SUS304 φ20x1.2m
Weight (kg)		8.0	7.4

# Electric Portable Pumps



For  
Kerosene,  
Diesel



# Electric Portable Pumps



The Pump For Drum Can

## EV-200EX series



EVH-200EX (Handy hose set)



EVD-200EX (Drum set)



Acceptable viscosity

**Up to 2500 cP**

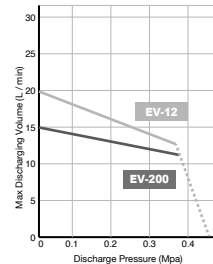
Discharging capacity

**15L/min.**

Available

**220V**

Curved Line for Performance



## Specifications Table

Types	EV-200EX	EVH-200EX	EVD-200EX	EV-12EX	EVH-12EX	EVD-12EX
Max pressure (Mpa)	0.45	0.45	0.45	0.45	0.45	0.45
Discharge Volume (cc) (ISO32oil)	15L / min	15L / min	15L / min	15L / min	15L / min	15L / min
Discharge head (m)	30	30	30	30	30	30
Connection Size	In:Rc1 Out:Rc1 3/4	In:Rc1 Out:Rc1 3/4	In:Rc1 Out:Rc1 3/4	In:Rc1 Out:Rc1 3/4	In:Rc1 Out:Rc1 3/4	In:Rc1 Out:Rc1 3/4
Motor (HP)	1 / 2	1 / 2	1 / 2	3 / 4	3 / 4	3 / 4
Electricity (V / A)	AC230V Single / 3.9A	AC230V Single / 3.9A	AC230V Single / 3.9A	DC12V / 35A	DC12V / 35A	DC12V / 35A
Weight (kg)	12.0	16.8	16.8	14.2	19.0	19.0
Max Viscosity (cP)	2500	2500	2500	2500	2500	2500
Option	--	Handy hose set	Drum set	--	Handy hose set	Drum set



# Electric Portable Pumps

Worked By Electricity

## EVP-56EX series

For  
Kerosene,  
Diesel



EVPH-56EX

Max pressure
<b>0.15 (Mpa)</b>
Discharging capacity
<b>56L/min.</b>

EVPD-56EX



### Specifications Table

Type	EVP-56 EX	EVPH-56EX	EVPD-56EX
Max pressure (Mpa)	0.15	0.15	0.15
Discharge Volume (cc) (ISO32oil)	56L / min	56L / min	56L / min
Discharge head (m)	10	10	10
Connection size	In:Rc1, Out:Rc1	In:Rc1, Out:Rc1	In:Rc1, Out:Rc1
Motor (HP)	1 / 2	1 / 2	1 / 2
Electricity (V / A)	AC230V Single / 22A	AC230V Single / 22A	AC230V Single / 22A
Weight (kg)	7.4	12.2	12.2
Max Viscosity	-	-	-
Option	-	Handy hose set	Drum set

# Electric Pumps



The Pump Can Be Use In Auto Stop Measuring

## CUBE-56EX



\*Don't use gasoline.

For  
Kerosene,  
Diesel

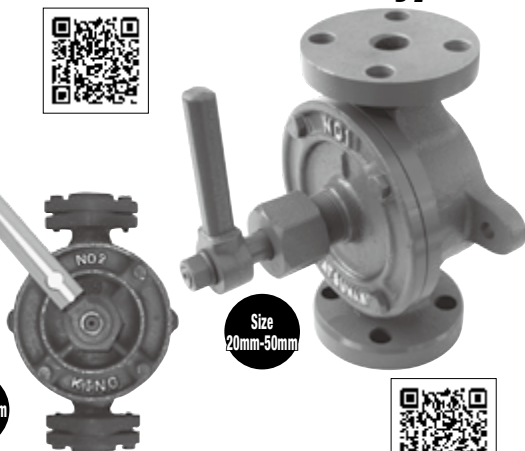
### Specifications Table

Type		CUBE-56EX
Acceptable liquid		Kerosene, Diesel
Max delivery rate at 1c		56
Discharge Head (m)		2.0
Materials	Body / Nozzle	Aluminum, Steel
	Packing	NBR
	Electricity (V / A)	AC230V Single
	Hose	Oil rubber hose (φ20~3m), with strainer
Weight (kg)		24
Hose length	In (m)	2.0
	Out (m)	3.0
Option		Stand type, Tabletop type

# Semi Rotary Wing Pumps

Recommendable For The Engine Of The Generator, And Drinking Water Filtration Device Of Emergency

## YATSUNAMI / KING / JIS-5K·10K type



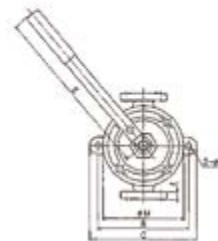
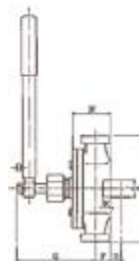
20mm-50mm



### Specifications Table

Types		YATSUNAMI / Standard JIS-5K·10K type	KING
Acceptable liquid		oil	oil
Discharge Volume(cc / str)		240-2000	175-1100
Suction / Discharge Head (m)		2.5 / 15.0	2.5 / 15.0
Materials	Body	FC / CAC	FC / CAC
	Packing	NBR	NBR
Connection Size		JIS 5K / 10K 15-50	Rc1 / 2/Rc2

## YATSUNAMI / KING / JIS5K·10K



Standard Type (No.7)  
JIS Types



Standard Type (No.0-5)



Types	Dia.	Main Body Dimension													Flange Dimension							Weight (KG)	Companion Flange Dia.
		A	B	C	E	F	G	H	J	K	L	M	N	a	b	c	d	f	g				
NO.0	15	180	132	165	330	30	135	20	35	18	11	137	67	10	60	44	20	12	2-M8	5.3	Rc1/2		
1	20	180	132	165	330	30	135	20	35	18	11	137	67	10	60	44	20	12	2-M8	5.3	Rc3/4		
2	25	208	146	177	365	33	145	22	36	15	11	156	75	12	66	56	25	15	2-M8	7.2	Rc1		
3	32	245	168	204	400	44	179	21	43	15	16	178	95	15	76	61	32	15	2-M10	8.9	Rc1 1/4		
5	40	295	198	235	460	45	195	20	43	20	16	205	103	16	85	72	40	18	2-M10	13.6	Rc1 1/2		
7	50	329	235	282	600	50	225	25	48	25	16	240	115	-	105	130	50	20	4-M12	22.3	Rc2		

Types	Dia.	Main Body Dimension													Flange Dimension							Weight (KG)	Companion Flange Dia.
		A	B	C	E	F	G	H	J	K	L	M	N	a	b	c	d	f	g				
JISSK-15	15	194	132	165	330	30	135	20	35	15	11	137	70	-	60	80	20	14	4-12	5.9	-		
JISSK-20	20	194	132	165	330	30	135	20	35	15	11	137	70	-	65	85	20	14	4-12	5.9	-		
JISSK-25	25	210	146	177	365	33	145	17	37	16	11	153	75	-	75	95	25	15	4-12	7.6	-		
JISSK-32	32	248	168	204	400	40	165	24	42	20	16	178	93	-	90	115	32	16	4-15	10.5	-		
JISSK-40	40	293	198	235	460	45	195	20	43	20	16	205	100	-	95	120	40	18	4-15	13.6	-		
JISSK-50	50	329	235	282	600	50	225	25	48	25	16	240	115	-	105	130	50	18	4-15	20.7	-		

Types	Dia.	Main Body Dimension													Flange Dimension							Weight (KG)	Companion Flange Dia.
		A	B	C	E	F	G	H	J	K	L	M	N	a	b	c	d	f	g				
JIS10K-15	15	200	132	165	330	30	135	20	35	15	11	137	70	-	70	95	20	15	4-15	6.6	-		
JIS10K-20	20	200	132	165	330	30	135	20	35	15	11	137	70	-	75	100	20	15	4-15	6.6	-		
JIS10K-25	25	220	146	177	365	33	145	17	37	16	11	153	75	-	90	125	25	20	4-19	9.0	-		
JIS10K-32	32	250	168	204	400	40	165	24	42	20	16	178	93	-	100	135	32	20	4-19	11.5	-		
JIS10K-40	40	298	198	235	460	45	195	20	46	20	16	205	100	-	105	140	40	20	4-19	14.6	-		
JIS10K-50	50	330	235	282	600	50	225	25	48	25	16	240	115	-	120	155	50	20	4-19	20.7	-		

Types	Dia.	Main Body Dimension													Flange Dimension							Weight (KG)	Companion Flange Dia.
		A	B	C	E	F	G	H	J	K	L	M	N	a	b	c	d	f	g				
NO.0	15	180	126	153	330	21	131	19	35	12	11	131	64	11	60	44	20	11	2-M8	-	-		
1	20	180	126	153	330	21	131	19	35	12	11	131	64	11	60	44	20	11	2-M8	-	-		
2	25	203	137	170	360	27	141	18	36	13	11	146	71	12	66	56	25	12	2-M8	-	-		
3	32	232	155	190	400	31	165	20	36	14	15	170	75	15	76	61	32	12	2-M10	-	-		
5	40	265	168	211	460	38	183	17	40	18	16	198	95	16	85	72	40	14	2-M10	-	-		
7	50	312	197	234	600	45	215	31	49	20	16	218	103	-	105	130	50	14	4-M12	-	-		

Wing Pumps

# Variety Of Nozzles

Manual Type (Acceptable For The Liquid Under 0.15Mpa)

**GN-AL20/25EX GN-SUS20/25EX GN-PP20/25EX**



Auto stop type (Acceptable for the liquid under 0.2Mpa and flow range 30-80L/min)

**ATNH-20EX ATNH-25EX ATNP-SUS20-AdE**



## Specifications Table

Types	GN-AL20/25EX	GN-SUS20/25EX	GN-PP20/25EX	GN-AL25K24EX	ATNH-20EX	ATNH-25EX	ATNP-SUS20-AdEX	ATNH-20/25K24
Acceptable liquid	Oil, Kerosene, Diesel, Gasolin	Water, Solvent	Solvent	--	Kerosene, Diesel	Oil, Kerosene, Diesel, Gasolin	Oil, Kerosene, Diesel, Gasolin	Kerosene, Diesel
Material body	AL casting	SUS casting	PP, SUS	--	AL casting, Steel	AL casting, Steel	SUS casting	--
Packing	NBR	Teflon	Fluoro-rubber	NBR	NBR	NBR	Teflon, Fluoro-rubber	NBR
Nozzle inside dia. (mm)	19.8	19.8	22.0	19.8	20.0	24.0	16.0	20.0 / 24.0
Outside (mm)	22.5	22.5	28.0	22.5	24.0	28.0	19.0	24.0 / 28.0
Connection	Rc3/4, Rc1	Rc3/4, Rc1	Rc3/4, Rc1	Rc1	Rc3/4	Rc1	Hose joint 19mm	Rc1
Weight (kg)	0.7	1.3	0.4	1.5	1.5	1.5	1.5	2.0

# Flow Meter

Recommendable For Measuring The Volume Of Discharged Liquid

**TB-K24EX**

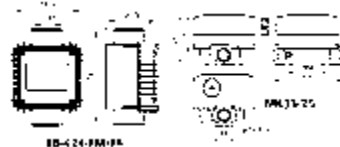
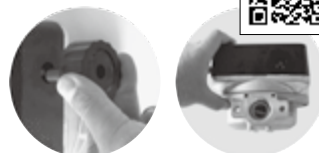


Nozzle & Meter

**GN-AL25K24EX ATNH-20/25K24**



**MK33D(O)-25EX**



## Specifications Table

Types	MK33D(O)-25EX	TB-K24EX
Acceptable liquid	Kerosene, Diesel (Oil)	Kerosene, Diesel
Packing	NBR	NBR
Connection	G1	G1
Weight (kg)	0.4	0.4
Remarks	-	Battery Powerd

# Pail Cock

Recommendable For Subdivision Of Liquid For Pail Can And 18L (Dripproof Filling, Keep Horizon Fally)

**PE-66(40)EX**

**BV-40(50)EX**



**BVA-40(50)EX**

**SP-40(50)EX**

**ND-40(50)EX**



## Specifications Table

Models	PE-66	BV-40	BV-50	BVA-40(50)	SP-40(50)	SP-L40	ND-40(50)
Acceptable Liquid	Low Viscosity Oil, Washing Liquid, Wax				Gasoline, Water, Solvent		High Viscosity Oil
Can	Pail Can, 18L Can						
Materials	Body	Hard Polyethylene, 66 Nylon	Hard Brass (Chrome Plating), 66 Nylon	Hard Brass (Chrome Plating), SUS304		SUS 304	
	Packing	Hard Brass (Chrome Plating)	NBR			Silicon Teflon Coating	
Specification	Mass: 80g	Mass: 280g	Mass: 600g	Mass: 640g(750g) with pipe	Mass: 650g(760g) with pipe	Mass: 650g(760g) with pipe, and handle lever rock	Mass: 640g(750g) with pipe, and handle lever rock
External Dia. for fitting gate	External Discharging Gate of can. Dia.41		External Discharging Gate of can. Dia.48.8		External Discharging Gate of can. Dia.41 (Ext. Dia. 48.8)		

Model	DMO-10EX	DMY-20EX	DMY-100EX	DMY-150EX	DMY-200EX	DMY-250EX	DMN-30EX	DMA-5EX
Dia. of flowing route	13	9.2	12.5	16	20	24.5	40	3.6
Liquid	Low viscosity oil, Kerosene, Diesel, Gasoline		Solvent, Water		Oil, Solvent, Water, Kerosene, Diesel		High viscosity oil, Solvent	
Can	Drum Can							Drum can for air discharging
Material	Body	Brass, SUS		SUS 304				
	Packing	NBR		Silicon Teflon Coating				
Specification	Mass: 880g	Mass: 860g	Mass: 1180g	Mass: 1480g	Mass: 1980g	Mass: 2280g	Mass: 915g	Mass: 240g
Internal Dia. for fitting gate	Dia. 57.3							Dia. 24.4

# Drum Cock

**DMA-5EX**

**DMO-10EX DMY-20EX**



**DMN-30EX**

**DMY-100/150/200/250EX**



**RACKT-MEX**

**RACK1-MEX**



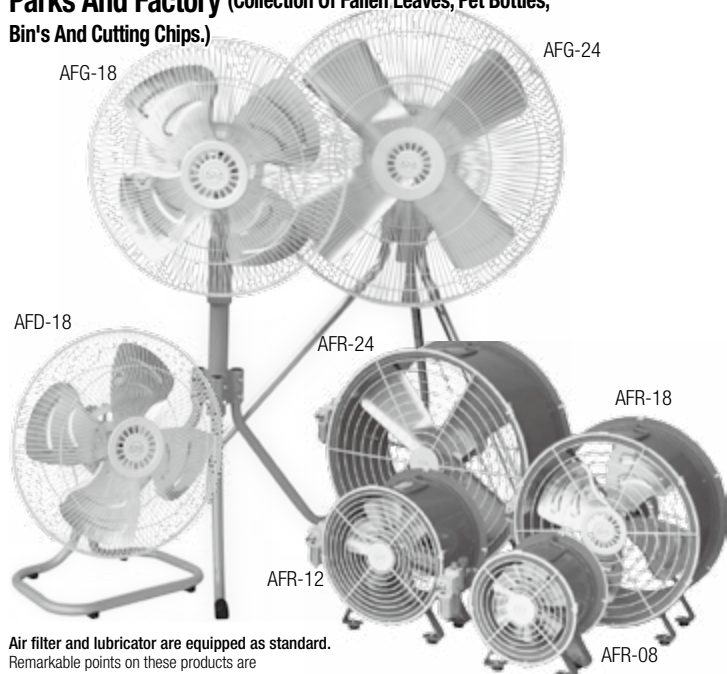
**RACK2-MEX**

**RACK-MEX(sus)**



# Industrial Fans Worked By Air Motor Type

**Recomendable For Cleaning Of Parking Areas, Parks And Factory (Collection Of Fallen Leaves, Pet Bottles, Bin's And Cutting Chips.)**



**Air filter and lubricator are equipped as standard.**

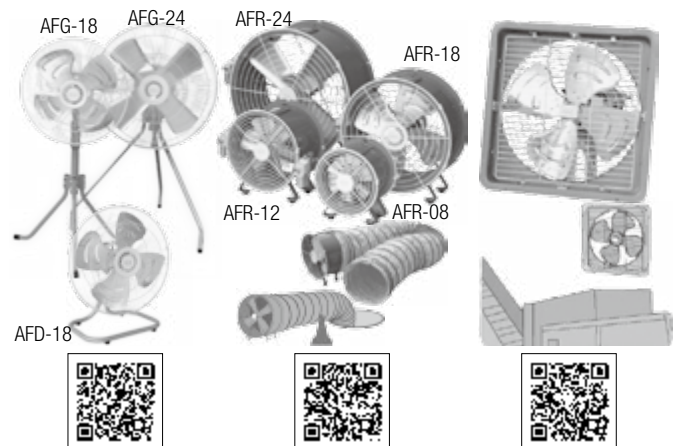
Remarkable points on these products are

- With longer life motor, workable with the depressed air.
- Neither fire nor explosion is expected, as no electricity is required.
- Air hose can be easily connected with one-touch movement. Once valve is open, this fan start working immediately.
- Revolution number is steplessly adjustable with the valve. So, you can easily find the most suitable condition.
- Various kinds and sizes give you wide choices.
- With longer life motor, workable with the depressed air.

**We recommend the below cases, in particular.**

- Ventilation, blowing at factory and/or warehouse. In particular, recommendable at the place with the risk of fire or explosion.
- At the working areas, only the depressed air is available.

# AFG-18/24EX AFREX series AFWEX series



## Specifications Table

Types		AFG-18	AFG-24	AFD-18
Air motor	Dia. of fan (mm)	450	600	450
	Air pressure (Mpa)	0.5	0.6	0.5
	Flow (m <sup>3</sup> / min)	30	50	30
	Revolution (rpm)	1,500	1,000	1,500
	Air consumption (m <sup>3</sup> / min)	0.21	0.39	0.21
Weight (kg)		7.8	11.7	7.2
Available air pressure (Mpa)		0.4-0.5	0.4-0.5	0.4-0.5
Hp		3	5	3

Types		AFR-08	AFR-12	AFR-18	AFR-24	AFW-18	AFW-24
Air motor	Dia. of fan (mm)	200	300	450	600	450	600
	Air pressure (Mpa)	0.5	0.5	0.5	0.6	0.5	0.6
	Flow (m <sup>3</sup> / min)	30	30	50	50	30	50
	Revolution (rpm)	4,700	2,000	2,000	1,300	1,500	1,000
	Air consumption (m <sup>3</sup> / min)	0.17	0.21	0.33	0.42	0.21	0.39
Weight (kg)		9.3	12	15.5	21.8	7.8	11.7
Available air pressure (Mpa)		0.4-0.6	0.4-0.6	0.4-0.6	0.6	0.4-0.6	0.4-0.6
Hp		2	3	3	5	3	5

# Eco Sweeper

**Friendly Product For Environment  
Pushing-Cleaner Eco Sweeper  
Collectable From Casting Metal Iron Up To Pet Bottle.**



**AJL550SEK**

recommendable to collect fallen leaves to pet bottles at narrow paths.



**AJL750SEK**

recommendable to collect fallen leaves to pet bottles at narrow paths. This model has wider working range than AJL550S.



**AJL920SEK**

recommendable for fine rubbishes such as casting power up to allen leaves at factory and/or wide areas.



**Just push SWEEPER, while walking, then rubbishes can be easily collected.**

- Just push SWEEPER while walking in the factory, street. Good for making the circumstances clean.
- Some models are recommendable to collect pet bottles, and/or empty can. (AJL550S/750S) Good for making the circumstances clean.
- Sweeping brush can be replaceable.
- The height of all the models can be adjustable, which makes wider collectable opportunities.

**Two side brushes are equipped as standard parts, when purchased.**

- Side brushes are equipped at both sides for all the models. These side brushes work well to collect fine rubbishes. The brushes can be easily replaceable.

Types	AJL550S	AJL750S	AJL920S
A (mm)	700	1,120	1,350
B (mm)	570	750	940
C (mm)	1,350	970	1,060



	Cans	Manual Type						Air Type				
		Viscosity	Sp. Gravity	Drum		Pail		Drum				
				Low	High	Low	High	Low	Medium	High		
		HFD-250S/SEK	LJL/MS/SEK	DMN-30EX	SP-40G/SEK / MM/MS/SEK	ND-40/50/EX	P-S/EX	P-S/TEX	KFC10/4-1EX	KFC10/3-1EX	DF-60-2MS / DF-40-2MS/EX	DF-60-2S/SEK
Acetone	0.79	●	●	●	●	●	●	●	●	●	●	●
Ammonia water	0.68	●	●	●	●	●	●	●	●	●	●	●
Isopropyl alcohol	0.79	●	●	●	●	●	●	●	●	●	●	●
Ethyl alcohol	0.79	●	●	●	●	●	●	●	●	●	●	●
Ethylene glycol	1.10	●	●	●	●	●	●	●	●	●	●	●
Sodium chloride	2.17									●		
Methylene chloride	1.32	●	●	●	●	●	●	●	●			
*Hydrochloric acid												
Density: 10-30	1.19									●		
Hydrogen peroxide												
Density: 3	1.13	●	●	●	●	●	●	●	●	●	●	●
Density: 20	1.13	●	●	●	●	●	●	●	●	●	●	●
Density: 5/Temp. 50C	1.13	●	●	●	●	●	●	●	●	●	●	●
Density: 90	1.13	●	●	●	●	●	●	●	●	●	●	●
Gasoline	0.73											
Xylene	0.88	●	●	●	●	●	●	●	●	●	●	●
Citric acid	1.54							●				
Glycerin	1.27											●
Chloroform	1.44	●	●	●	●	●	●	●	●			●
Diesel oil	0.8-0.89											
Kerosene	0.78-0.84	●	●	●	●	●	●	●	●	●	●	●
*Acetic acid												
Density: 10-50	1.70	●	●	●	●	●	●	●	●	●	●	●
Ethyl acetate	0.90	●	●	●	●	●	●	●	●		●	●
Methyl acetate	0.90	●	●	●	●	●	●	●	●		●	●
Hypochlorous acid												
Sodium hydrochlorite	1.15											
Diethylene glycol	-	●	●	●	●	●	●	●	●	●	●	●
Dimethylformamide	0.93											
Nitric Acid (Density:10)	1.50	●	●	●	●	●	●	●	●	●	●	●
Nitric Acid (Density:30)	1.50	●	●	●	●	●	●	●	●	●	●	●
*Sodium hydroxide												
Density: 10-50	2.13	●	●	●	●	●	●	●	●	●	●	●
Triethanolamine	1.12	●	●	●	●	●	●	●	●	●	●	●
Trichloroethylene	1.33	●	●	●	●	●	●	●	●	●	●	●
Trichloroethane	1.46	●	●	●	●	●	●	●	●	●	●	●
Toluene	0.88	●	●	●	●	●	●	●	●	●	●	●
Naphtha	0.76	●	●	●	●	●	●	●	●	●	●	●
Bio-Diesel	0.8-0.84	●	●	●	●	●	●	●	●	●	●	●
*Perchloroethylene	1.622	●	●	●	●	●	●	●	●	●	●	●
Butyl alcohol	0.81	●	●	●	●	●	●	●	●	●	●	●
Propanol alcohol (Density 65)	0.80	●	●	●	●	●	●	●	●	●	●	●
Hexane	0.67	●	●	●	●	●	●	●	●	●	●	●
Hexyl alcohol	1.04	●	●	●	●	●	●	●	●	●	●	●
Benzene	0.88	●	●	●	●	●	●	●	●	●	●	●
Formaldehyde	1.08-1.11	●	●	●	●	●	●	●	●	●	●	●
Water	1.00	●	●	●	●	●	●	●	●	●	●	●
Methyl alcohol	0.79	●	●	●	●	●	●	●	●	●	●	●
Methyl isobutyl ketone	0.80	●	●	●	●	●	●	●	●	●	●	●
Methyl ethyl ketone	0.80	●	●	●	●	●	●	●	●	●	●	●
*Sulfuric acid												
Density: 10-30	1.84										●	



Cans Viscosity		Air Type					Electric Type			
		Discharge				Sucking Discharge	Sucking			
		Pail		High		Others	Drum		Pail	
Sp. Gravity	Low	High	High	High	Medium	Low	Low	Low	Low	
	MM316MA-VEX	MM21NA-VEX	APP-C-SUSEX	APP-C-PPEX	AMH1-ALEX	KFC104-NEX	KFC103-NEX	MM316M-VEX	MM21N-VEX	
Acetone	0.79	●		●						
Ammonia water	0.68	●		●						
Isopropyl alcohol	0.79	●		●		●				
Ethyl alcohol	0.79	●		●						
Ethylene glycol	1.10	●		●		●		●		
Sodium chloride	2.17		●		●			●	●	
Methylene chloride	1.32	●		●			●	●		
*Hydrochloric acid										
Density: 10-30	1.19		●		●			●	●	
Hydrogen peroxide										
Density: 3	1.13	●	●	●	●		●	●		
Density: 20	1.13	●	●	●	●		●	●		
Density: 5/Temp. 50C	1.13	●		●			●	●		
Density: 90	1.13			●						
Gasoline	0.73	●		●		●				
Xylene	0.88	●		●		●				
Citric acid	1.54		●		●		●		●	
Glycerin	1.27			●		●				
Chloroform	1.14	●		●			●	●		
Diesel oil	0.8-0.89	●		●		●	●	●		
Kerosene	0.78-0.84	●		●		●	●	●		
*Acetic acid										
Density: 10-50	1.07	●	●		●	●	●	●	●	
Ethyl acetate	0.90	●		●						
Methyl acetate	0.90	●		●						
Hypochlorous acid					●					
Sodium hydrochlorite	1.15		●		●		●		●	
Diethylene glycol	-	●		●	●	●	●	●	●	
Dimethylformamide	0.93			●						
Nitric Acid (Density:10)	1.50	●	●	●	●	●	●	●	●	
Nitric Acid (Density:30)	1.50	●	●	●	●	●	●	●	●	
*Sodium hydroxide										
Density: 10-50	2.13	●	●	●	●		●	●	●	
Triethanolamine	1.12	●		●						
Trichloroethylene	1.33	●		●		●		●		
Trichloroethane	1.46	●		●		●		●		
Toluene	0.88	●		●		●				
Naphtha	0.76	●		●		●				
Bio-Diesel	0.8-0.84	●		●		●		●		
*Perchloroethylene	1.622	●		●			●	●		
Butyl alcohol	0.81	●		●		●				
Propanol alcohol (Density 65)	0.80	●		●						
Hexane	0.67	●		●		●				
Benzyl alcohol	1.04	●		●						
Benzene	0.88	●		●		●				
Formaldehyde	1.08-1.11	●		●						
Water	1.00	●	●	●	●	●	●	●	●	
Methyl alcohol	0.79	●		●		●				
Methyl isobuthyl ketone	0.80	●		●						
Methyl ethyl ketone	0.80	●		●						
*Sulfuric acid										
Density: 10-30	1.84		●		●			●	●	