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AQUASYSTEM makes pumps useful for everybody.

# PRODUCTS CATALOG

**AQUA**  
SYSTEM CO.,LTD.

**AQUASYSTEM Co., Ltd. JAPAN**



CLEANER  
DRUM PUMP  
PAIL PUMP

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liquids and operating  
(electric) powers.....P.4

**AQUA**  
SYSTEM CO.,LTD.



# Contents



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Vacuum Pumps

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Pumps

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Electric Portable  
Pumps

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Semi Rotary Wing  
Pumps

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

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Cans		Air Type		Sucking		Air Type			Electric Type		
		Discharge		Drum	Drum	Sucking /Discharge			Discharge		
		Drum		Drum	Drum	Others			Drum		
Viscosity		Medium		Medium	Medium	Low	Medium		Low		
	Sp. Gravity	APD-20S(S/N)-1	JPD-20S(S)-1	APD-20S(S)-1	KPD-20S(S)-1	KCH-20S(S)-1	AMH-20S(S)-1		CHD-20PP	CHD-20HP	CHD-20S(S)
Acetone	0.79	●	●			●	●				
Ammonia water	0.68	●	●				●				
Isopropyl alcohol	0.79	●	●	●	●		●				
Ethyl alcohol	0.79	●	●				●				
Ethylene glycol	1.1	●	●	●	●		●		●		
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	1.7	●	●				●		●		
Ethyl acetate	0.9	●	●				●				
Methyl acetate	0.9	●	●				●				
Hypochlorous acid											
Sodium hydrochlorite	1.15										●
Diethylene glycol	-	●	●	●	●		●				
Dimethylformamide	0.93	●	●				●				
Nitric Acid (Density:10)	1.5	●	●				●		●	●	●
Nitric Acid (Density:30)	1.5	●	●				●		●	●	●
*Sodium hydroxide											
Density: 10-50	2.13	●	●				●				
Triethanolamine	1.12	●	●				●				
Trichloroethane	1.33	●	●	●			●				
Trichloroethylene	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)	0.8	●	●				●				
Hexane	0.67	●	●	●			●				
Benzyl alcohol	1.04	●	●				●				
Benzene	0.88	●	●	●	●		●				
Formaldehyde	1.08-1.11	●	●				●				
Water	1	●	●			●	●		●	●	●
Methyl alcohol	0.79	●	●	●	●		●				
Methyl isobutyl ketone	0.8	●	●				●				
Methyl ethyl ketone	0.8	●	●				●				
*Sulfuric acid											
Density: 10-30	1.84										●

# How to use

## ANNOUNCEMENT

Please be noted that

1. All of our product models have been marked with "EX" (= **Export**) at the end.  
This "E" mark is, however, to be changed to "-i" (= **International**) at the end.

2. All of specifications and qualities of our products remain unchanged.


This announcement shall be effective on Sep. 1, 2016.

### Air Vacuum Cleaners

Air Vacuum Cleaners for Cleaning


## APPQ0550C-SET-i

**Products Clarification**

**QR Code**  


**Products**

Standard



Equal NITTO  
Hi Cupla 20PM

※at 1cP

**Products Photo**

**Index**

Worked by

**Compressed Air**

Acceptable viscosity

**Up to 300**

Compressor with

**5HP or higher**

**Features**

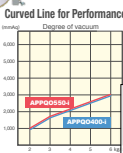
Source for Driving  
Applicable Viscosity  
Compressor Capacity etc.

**Curved line for Performance**

For a Open Can only

**Specifications Table**

Oil-proof hose	Included
	Included
	φ32 x 2m



**Specifications Table**

Page	Model	Other	Ad Blue	Water	Acid/Alkaline	Solvent	Gasoline	Kerosene, Light Oil	Type
6	CHD series			●	●	●			New Products Air
7	CHD series			●	●	●			Electric
8	APDQO-F series							●	Air
11	AVC-55							●	Vacuum
12	APPQO 550-i							●	
12	APPQO 400-i							●	
13	APPQO550C-SET-i							●	
13	APPQO550S-i							●	
14	AVC-550SUS-i (Stainless)			●				●	
15	EVC-550-i							●	
16	APPQO-i							●	
17	APPQO-H-i							●	
18	APPQO-CY series	Powder							
19	APPQO-HP2-i							●	Pail
22	P-S series							● ●	
23	APD-R-i							●	Drum
24	APD series					●		● ●	
26	APDQ-25 series				●			● ●	
27	APDX-25 series				●			● ●	
28	ACH series				●			●	
29	AMVH series				●			● ●	Portable, Hose Connection
30	AMH1 series				●			● ●	
31	DF series							● ●	
31	DF6H-20G-i					●		● ● ●	
31	DF2A-6PP-i				●			● ● ●	
31	DF4P-15G-i							● ● ●	
32	HR-25G-i							● ● ●	Drum
32	HR-2B-i							● ●	
32	HF-1000-i							● ●	
33	HRD-25SUS-i					●		●	

Page	Model	Other	Ad Blue	Water	Acid/Alkaline	Solvent	Gasoline	Kerosene, Light Oil	Type
33	HRP-25 III-i			●					Drum
34	S-LXHS-i			●					
34	S-LX-i			●					
35	EV-200-i series							●	Portable, Hose Connection
36	EVP-56-i series							●	
37	CUBE-56K-i							●	
38	YATSUNAMI / KING / JIS-5K 10K type							● ●	Accessories
40	GN-AL20/25-i					●		● ●	
40	GN-SUS20/25-i					●			
40	GN-PP20/25-i					●			
40	ATNH-20-i					● ●			
40	ATNH-25-i					● ●			
40	ATNP-SUS20-Ad-i			● ●					
41	MK33D(OL)-25-i					● ●			
41	TB-K24-FM/Ad-i					●			
41	GN-AL25K24-i					●			
41	ATNH-20/25K24-i					●			
41	ATNH-20Ad-i			●					
41	ATPS-20Ad-i			●					
42	AFG-18/24-i								
42	AFW series								
42	AFR series								
44	AJL550S-i								
44	AJL750S-i								
44	AJL920S-i								
45	Gun Holder GN-H								
45	Drum Pump Stand D-STAND								
46	E-C-i							●	
46	ZKT-D-OL(W)-i			●				●	





# Air Motor Pumps

Pump for Drum Can

## CHD series



**NEW!**

Worked by

**Compressed Air**

Discharge Head

**4m Max.**

Discharging Capacity

**50L/min.**

**Option**

- Ball Valve
- Gun Nozzle
- Indicate "V" for Ball Valve, "N" for Gun Nozzle after the model name.
- EX. CHD-20APP-V (with Ball Valve)

Ball Valve



Gun Nozzle



## Specifications Table

Types	CHD-20APP-i	CHD-20AHP-i	CHD-20ASUS-i
Acceptable liquid	Acid and Alkaline liquid	Acid and Alkaline liquid	Solvents
Max. Viscosity (cP)	100	100	100
Max. delivery rate (L/min)	50	50	40
Materials	Body	PP	HP
	Hose (m)	PVC, 2	SUS, 2
Air consumption (L/min)	760	760	760
Compressor	Higher than 5	Higher than 5	Higher than 5
Weight (kg)	2.5	2.7	5.0

• HP means "High Purity Polypropylene".

# Electric Drum Pumps

Pump for Drum Can



## CHD series



**NEW!**

Available

**100V**

Discharge Head

**5m Max.**

Discharging Capacity

**55L/min.**

**Option**

- Ball Valve
- Gun Nozzle
- For details of "Ball Valve" and "Gun Nozzle" refer to P4.
- 220V of CHD series are still under development.

Easy to change motor parts



## Specifications Table

Types	CHD-20PP-i	CHD-20HP-i	CHD-20SUS-i
Acceptable liquid	Acid and Alkaline liquid	Acid and Alkaline liquid	Solvents
Max. Viscosity (cP)	100	100	100
Max. delivery rate (L/min)	55	55	45
Materials	Body	PP	HP
	Hose (m)	PVC, 2	SUS, 2
Current (A)	1.7	1.7	1.7
Voltage (V)	100	100	100
Power	170	170	170
Weight (kg)	2.5	2.8	5.0

• HP means "High Purity Polypropylene".



# Air Type Cleaner(with the filter) for tank cleaning

Simple Filtering System / Cutting Liquid Recycling

## APDQO-F series

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

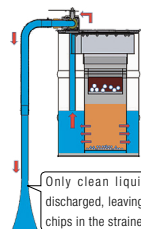
AIR TYPE Cleaner with filters for drum can.

**NEW!**

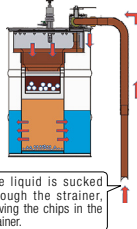


While discharging, the compressed air pushes the liquid out.

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.

Please choose either filter from below two types.



FS

Stainless Filter Type

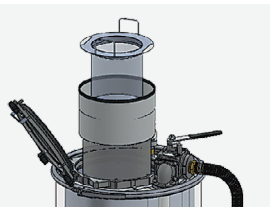
FS Type : This is a durable stainless made filter, and no replacement is required.



FF

Non-woven Fabric Type

FF Type : This is a consumable filter, and replacement is periodically required.



- 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.

Worked by

**Compressed Air**

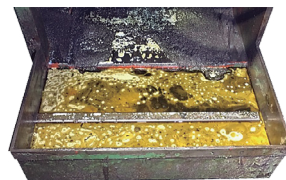
Acceptable Viscosity

**Up to 500 cP**

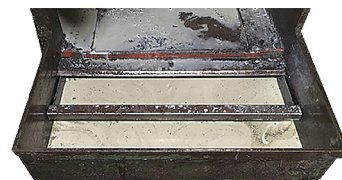
Compressor with

**5HP or higher**

To keep job clean & easy, reducing 50% working time.



The cutting liquid mixed with chips and sludge etc. can be



It is filtered and cleaned, and then you can reuse it.



completely collected within 3 min, and discharged within 2 min

## Specifications Table

Types	APDQO-FS-i	APDQO-FF-i
Applicable oils	Cutting Liquid, Oil, Kerosene	
Max. Discharging Volume (L/min)	140	
Max. Sucking Volume (L/min)	110	
Discharge Head (m)	2.5	
Weight (kg)	38.5	36.5

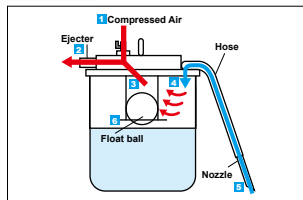
# Industrial Vacuum Cleaners

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. Air inside tank is discharged by 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.



# Air Vacuum Cleaners



## Industrial Air Vacuum Cleaners for Pail Can

**AVC-55**

AVC-55PC: with Pail Can, Carrier.

Economical  
Type



Holder For Pail Can



Carrier For Pail Can



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).

Worked by  
**Compressed Air**

Acceptable Viscosity  
**Up to 3000 cP**

Compressor with  
**5HP or higher**



## Specifications Table

Specifications at 5Kg / oil	Oil-proof hose	φ32 x 2m
	Aluminium nozzle	φ32 x 30cm
	Air consumption amount	520 / min
	Vacuum degree	2,600mm / H <sub>2</sub> O
	Air suction amount	1.7m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	Option
Option		Can, Carrier, "T" type nozzle, Filter set



# Air Vacuum Cleaners

Industrial Air Vacuum Cleaners for Pail Can

## APPQ0 550-i



Worked by  
**Compressed Air**

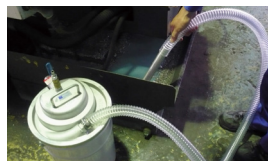
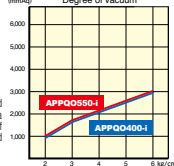
Acceptable Viscosity  
**Up to 3000 cP**

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

## APPQ0 400-i



Curved Line for Performance



You can use APPQ0400(550)-i for cutting oil and chips.



### 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).

## Specifications Table

Models		APPQ0400-i	APPQ0550-i
Specifications at 5kg / cfl	Oil-proof hose	φ25 x 2m	φ32 x 2m
	Aluminium nozzle	φ25 x 30cm	φ32 x 30cm
	Air consumption amount	340 / min	520 / min
	Vacuum degree	2,600mm / H <sub>2</sub> O	2,600mm / H <sub>2</sub> O
Application	Air suction amount	1.1m³ / min	1.7m³ / min
	Oil stopper	Included	Included
Option		Filter	Included
Option		Can, Carrier, "T" type nozzle, Filter set	
Compressor (HP)		3	5

- We have "APPQ0400G" for kerosene and oil, "APPQ0400AS" for solvents.

# Air Vacuum Cleaners

Air Vacuum Cleaners for Cleaning

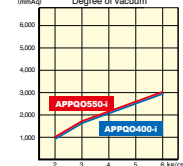
## APPQ0550C-SET-i



Standard



Curved Line for Performance



## APPQ0550S-i

NEW!



Simple and Economical type.

### Option



## Accessories



For details of "APPQ0C-550SET-i" and "APPQ0550S" refer to specification table of "APPQ0550"





# Air Vacuum Cleaners

Air Vacuum Cleaners (Stainless) for Cleaning

**AVC-550SUS-i** (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	520 / min
	Vacuum degree	2,600mm / H <sub>2</sub> O
	Air suction amount	1.7m <sup>3</sup> / min
Application	Oil stopper	Included
	Filter	Included
Option		Can, Carrier, "T" type nozzle, Filter set

# Electric Pail Vacuum Cleaner

Cleaner for A Pail Can



**EVC-550-i**

Worked by

**AC220V**

Acceptable Viscosity

**Up to 3000 cP**



Option



For Open Can only  
Option

"EVC-550SET-i" includes the options.



## Specifications Table

Output (W)	1,050
Current (A)	11
Vacuum degree (Mpa)	0.21
Noize (db)	90 (No load, 1m height)
Hose size	φ32 × 2m
Electric cord	5m (with earth grip)
Weight (kg)	9.2
Option	Can, Carrier, "T" type nozzle, Filter set



# Air Vacuum Pumps

Air Type Vacuum Pump for Pail Can

## APPQO-i

- We have "APPQOG" for kerosene and oil, "APPQOAS" for solvent.



Worked by  
**Compressed Air**

Acceptable Viscosity  
**Up to 1000 cP**

Compressor with  
**1 HP or higher**



### Specifications Table

Models		APPQO-i	APPQOG-i	APPQOAS-i
Container		Open Pail Can	Open Pail Can	Open Pail Can
Acceptable liquid		Oil	Kerosene, Light Oil	Solvents
Suction Amount (L/min)		60	60	60
Oil-Proof Hose		PVC φ25×2m	Oil-Proof PVC φ25×2m	PP φ25×2m
Materials	Body	Aluminum		
	Packing	NBR		Fluorine
Weight (Kg)		4.9	5.2	4.8

# Air Vacuum Pumps

High Vacuum Pump for Pail Can

## APPQO-H-i

- We have "APPQO-HG" for kerosene and oil, "APPQO-HAS" for solvents.



Worked by  
**Compressed Air**

Acceptable Viscosity  
**Up to 5000 cP**

Compressor with  
**5 HP or higher**



### Specifications Table

Models		APPQO-H-i	APPQO-HG-i	APPQO-HAS-i
Container		Open Pail Can	Open Pail Can	Open Pail Can
Acceptable liquid		Oil	Kerosene, Light Oil	Solvents
Suction Amount (L/min)		80	80	80
Oil-Proof Hose		PVC φ25×2m	Oil-Proof PVC φ25×2m	PP φ25×2m
Materials	Body	Aluminum		
	Packing	NBR		Fluorine
Weight (Kg)		6.0	6.0	4.0



# Air Cyclone Cleaners

Air Type Cyclone Cleaners for Pail Can

## APPQO-CY series



for  
Dusts and  
Powders

Worked by

**Compressed Air**

Compressor with

**5HP or higher**

Tonner Collection Ratio

**Approx. 99%**

- Collection ratio for dusts and powders: Better than 98%(according to our test data)
- No static electricity problem with a ground wire.

### Specifications Table

Models		APPQO-CY25-i	APPQO-CY32-i
Container		Open Pail Can	Open Drum Can (100L)
Acceptable liquid		-	-
Oil-Proof Hose		φ25×2m	φ32×2m
Materials	Body	AL, SUS, SPHC	AL, SUS, SPHC
	Packing	CR rubber	CR rubber
Weight (kg)		6.5	6.3

- You need to use Top Plate for 100L Drum Can

# Air Vacuum Pail Pumps

Air Type High Power Vacuum Cleaner

## APPQO-HP2-i



Worked by

**Compressed Air**

Acceptable Viscosity

**Up to 3000 cP**

Compressor with

**10HP or higher**























- Collection power is 150% more powerful than existing APPQO550.
- Powerful collection into drum can.
- Drum Can, Top Plate, Drum Can Carrier are options.

### Specifications Table

Models		APPQO-HP2-i
Acceptable liquid		Oil
Suction Amount (L/min)		150
Oil-Proof Hose		φ38×2m
Materials	Body	AL, SUS, SPHC
	Packing	NBR
Weight (kg)		6.0

- You need to use Top Plate for 100L Drum Can

# Pail Pumps Options

	Types		AVC - 55	AVC-55PC	APPQ0400-i	APPQ0550-i	APPQ0550-i-SET	APPQ0550S-i	APPQ0-HP2-i	AVC-550SUS-i	EVC-550-i	EVC550-C-SET-i	APPQ0-CV20-i	APPQ0-CV24-i	APPQ0-H-i	APPQ0-H-i
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		●	●	-	●	●	●	●	●	●	●	●	-	-
	Q	Drum Can 200L														

# Cleaner Options

You can change "Pail Can Pumps" to "Drum Can Pumps" if you use the options.

**APPQ0550-i**



**EVC-550-i**

- Use:
- APPQ0550-i
  - APPQ0-H-i
  - APPQ0-HP2-i
  - AVC-550SUS-i



**NEW! Pail Can Holder**



Top Plate  
**DTB**



Open Drum Can  
(100L and 200L)

- Cover and band are options.



Drum Can Carrier  
**DC-NBR**





# Manual Pumps

Pump for Pail Can

## P-S series



Worked by

**Manual, Piston**

Acceptable Viscosity

**Up to 10,000 cP**

Use: To supply for working oil to the NC lathe.  
To subdivide brake oil, engine oil, mission oil.



### Specifications Table

Types		P-S-i	P-SX-i	P-SXT-i
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)		

# Drum Pumps

Pneumatic Pump for Drum Can



## APD-R-i

Worked by

**Compressed Air**

Acceptable Viscosity

**Up to 3000 cP**

Compressor with

**1HP or higher**

APD-R-i is more economical than APD-20(25)-i series products, due to no pressure gauge applied.



### Specifications Table

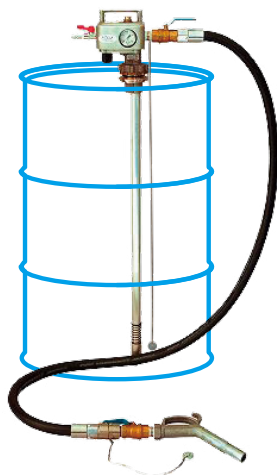
Types		APD-R-i
Function		Delivery
Acceptable		General oil
Parts materials	Body	AL
	Packing	Fluoro-Rubber
	Hose	PVC (D25x2m)
Max. delivery rate (L/min)	1cP	65
	500cP	30
	1000cP	15
Max. Discharge Head		2m
Weight (kg)		4.4



# Air Pressure Drum Pumps

Pneumatic Pump for Drum Can Safe, Efficient, Silent And Durable

## APD series



Worked by

**Compressed Air**

Acceptable Viscosity

**Up to 3,000 cP**

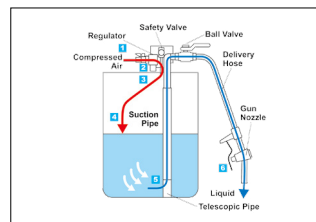
Compressor with

**1HP or Higher**

### Drum Can Inlet's Shape



APD series utilize closed drum cans.



### 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.

APD series are very safe because they have regulators, safety valves, pressure gauges.  
No maintenance is required.

### Nozzle type



PVC Hose



Oil resistant rubber Hose



SUS Hose



### Specifications Table

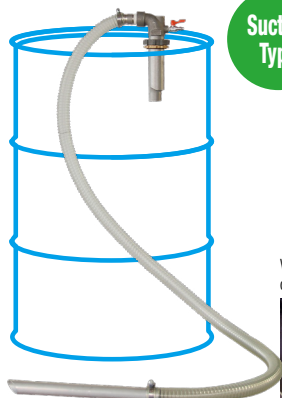
Types		APD-20(25)-i	APD-20(25)N-i	APD-20(25)G-i	APD-20(25)GN-i	APD-20(25)AS-i	APD-20(25)ASN-i	APD-20SUS-i	APD-20SUSN-i
Function		Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery	Delivery
Acceptable		General oil	General oil	Kerosene, Diesel, Gasoline	Kerosene, Diesel, Gasoline	Solvents	Solvents	Solvents, Acid and Alkaline liquids	Solvents, Acid and Alkaline liquids
Materials	Body	AL	AL	AL	AL	AL	AL	SUS304	SUS304
	Packing	Fluoro-Rubber	Fluoro-Rubber	Fluoro-Rubber	Fluoro-Rubber	Teflon, Fluoro-Rubber	Teflon, Fluoro-Rubber	Teflon, Perflu	Teflon, Perflu
Parts	Hose	PVC (D25(32)x2m)	PVC (D25(32)x2m)	Oil resistant rubber (D25(32)x2m)	Oil resistant rubber (D25(32)x2m)	SUS304 (D25(32)x2m)	SUS304 (D25(32)x2m)	SUS304 (D20x2m)	SUS304 (D20x2m)
	Max. delivery rate (L/min)	1cP 65 (150)	55 (80)	55 (115)	50 (70)	35 (115)	30 (70)	40	35
	500cP	30 (60)	20 (40)	20 (45)	15 (30)	15 (30)	15 (30)	15	10
rate (L/min)	1000cP	15 (25)	9.5 (20)	7 (20)	7 (15)	6 (15)	6 (15)	5.5	5
	Max. Discharge Head	2m	2m	2m	2m	2m	2m	2m	2m
Weight (kg)		4.4 (5.6)	4.3 (5.1)	5.6 (7.4)	5.3 (6.5)	5.3 (7.5)	4.9 (5.7)	7.8	7.6



# Air Vacuum Drum Pumps

Pump for Drum Can

## APDQ-25 series



Suction  
Type

We apply newly designed adapter for easier fixing on a drum can.



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

### Specifications Table

Types		APDQ-25-i	APDQ-25G-i	APDQ-25AS-i
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
Max. Discharge Head		2m	2m	2m
Weight (kg)		3.3	4.4	4.0
Option		Drum can		

Worked by

**Compressed Air**

Discharge Head

**2m Max.**

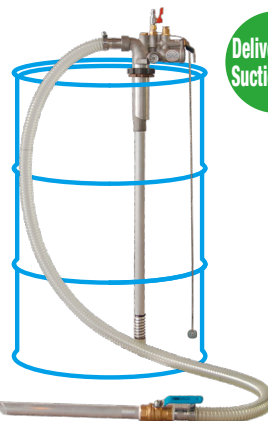
Acceptable Viscosity

**Up to 3000 cP**

# Air Pressure & Vacuum Drum Pumps

Pump for Drum Can

## APDX-25 series



Delivery and  
Suction Type

Visible pressure meter is applied to assure of safety. Also, we apply newly designed adapter for easier fixing on a drum can.



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

### Specifications Table

Types		APDX-25-i	APDX-25G-i	APDX-25AS-i
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	100 / 70	70 / 50	70 / 50
	500cP	45 / 50	25 / 35	25 / 35
	1000cP	20 / 30	10 / 20	10 / 20
Max. Discharge Head (m)		2.0		
Weight (kg)		4.3	5.7	5.3
Option		Drum can		



Worked by

**Compressed Air**

Discharge Head

**2m Max.**

Acceptable Viscosity

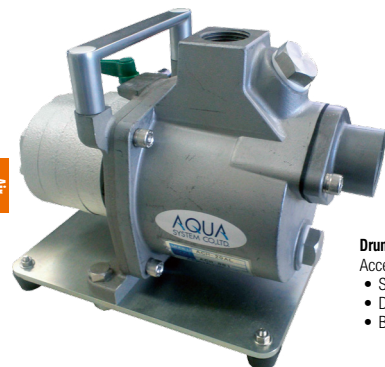
**Up to 3000 cP**



# Portable Type Pumps

Recommendable for The Liquid of Low Viscosity

## ACH series



### Hose Type (for Oil)

#### Accessories

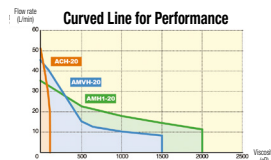
- Discharge Hose (2m)
- Suction Hose (2m)
- Ball Valve Nozzle



### Drum Type

#### Accessories

- Suction Pipe
- Discharge Hose 2m
- Ball Valve Nozzle



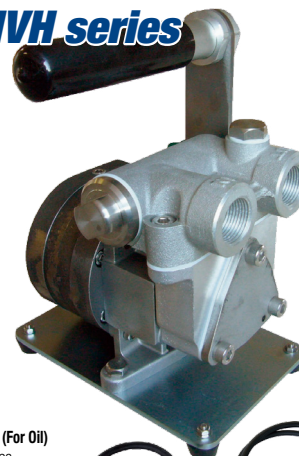
## Specifications Table

Types		ACH-20AL-i	ACH-20SUS-i
Acceptable liquid		Kerosene	Solvents
Max. viscosity (cP)		5	5
Max. delivery rate at 1cP (L)		50	50
Discharge Head (m)		5	5
Materials	Body	Aluminum	SUS
	Packing	NBR	Fluorine
Weight (kg)		4.5	6.4
Compressor (HP)		Higher than 5	Higher than 5

# Portable Type Pumps

Recommendable for The Liquids of Low and Medium Viscosity

## AMVH series



### Hose Type (For Oil)

#### Accessories

- Discharge Hose (2m)
- Suction Hose (2m)
- Ball Valve Nozzle



### Drum Type

#### Accessories

- Suction Pipe
- Discharge Hose 2m
- Ball Valve Nozzle



## Specifications Table

Types		AMVH-20FC-i	AMVH-20SUS-i
Acceptable liquid		Kerosene, Oil	Solvents
Max. viscosity (cP)		1,500	1,500
Max. delivery rate at 1cP (L)		45	45
Discharge Head (m)		10	10
Materials	Body	FC, AL, SUS	SUS
	Packing	Teflon	Teflon
Weight (kg)		7.8	9.7
Compressor (HP)		Higher than 5	Higher than 5





# Portable Type Pumps

Recommendable for The Liquids of Low and Medium Viscosity (Up to 2,000cP)

## AMH1 series

Worked by

**Compressed Air**



**Hose Type (For Oil)**

Accessories

- Discharge Hose (2m)
- Suction Hose (2m)
- Ball Valve Nozzle

**Drum Type**

Accessories

- Suction Pipe
- Discharge Hose (2m)
- Ball Valve Nozzle



## Specifications Table

Types		AMH1-20FC-i	AMH1-20SUS-i
Acceptable liquid		Kerosene, Oil	Solvents
Max. viscosity (cP)		2,000	2,000
Max. delivery rate at 1cP (L)		32	32
Discharge Head (m)		15	15
Materials	Body	Aluminum	SUS
	Packing	Teflon	Teflon
Weight (kg)		7.2	8.8
Compressor (HP)		Higher than 3	Higher than 3

# Air Diaphragm Pumps

Recommendable for Various Applications

Worked by

**Compressed Air**

## DF series

**DF6H-20G-i**



For Hose Type

**DF4P-15G-i**



For Pail Can Type

**DF2A-6PP-i**



For Hose Type

## Specifications Table

Types		DF6H-20G-i	DF2A-6PP-i	DF6D-20G-i	DF6D-20SUS-i	DF4P-15G-i
Acceptable liquid		Kerosene Oil, Gasoline	Solvents	Kerosene Oil, Gasoline	Solvents	Kerosene Oil, Gasoline
Max. viscosity (cP)		4,000	1,000	4,000	2,500	3,000
Max. delivery rate at 1cP (L)		50	40	50	35	40
Discharge Head (m)		40	30	40	30	40
Materials	Body	Aluminum	PP	Aluminum	SUS	Aluminum
	Packing	Hytre/Nitrile	Teflon	Teflon	Teflon	Teflon
Weight (kg)		6	3	8.5	7.5	5.6
Hose		Oil Proof 2m	-	Oil Proof 2m	SUS, 2m	Oil Proof 2m
Compressor (HP)		Higher than 3	Higher than 1	Higher than 3	Higher than 3	Higher than 3



Air

Air

# Portable Rotary Drum Pumps

Pump for Drum Can

**HR-2B-i**

**HR-25G-i**

**HF-1000-i**



## Specifications Table

Types		HR-2B-i	HR-25G-i	HF-1000-i
Delivery ability (cc / rev)		240	240	1,000
Acceptable liquid		Kerosene, Light oil, Fuel oil A, Oil	Kerosene, Gasoline, Diesel, Fuel oil A, Oil	Kerosene, Light oil, Fuel oil A, Oil
Materials	Body	FC casting	FC casting	AL, Zn alloy
	Packing	NBR	NBR, Teflon	NBR
	Hose	PE (Φ25X1.2m)	PVC (Φ25x1.2m) (Oil resistant) ground wire	PE (Φ32-19X1.2m)
Weight (kg)		7.0	6.6	8.0

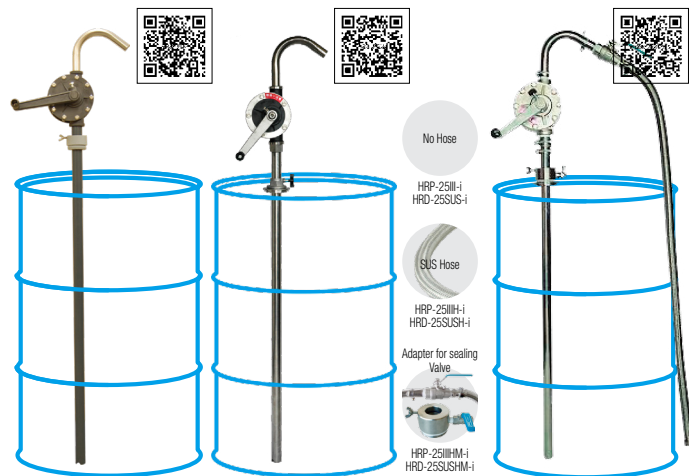
# Portable Rotary Drum Pumps

Pump for Drum Can

**HRB-20P-i**

**HRP-25III-i**

**HRD-25SUS-i**



• The picture is "HRD-25SUSHM-i".

## Specifications Table

Types		HRB-20P-i	HRP-25III/H/HM-i	HRD-25SUS/H/HM-i
Delivery ability (cc / rev)		240	200	220
Acceptable liquid		Water, Adblue	Solvents, Acid and Alkaline liquids	Solvents, Chemical, Diesel, Fuel oil A, Oil
Materials	Body	PP, SUS	SUS, Teflon, PPS	SUS
	Packing	NBR	Teflon	Teflon
	Hose	None	None / SUS1.2m / SUS1.2m	None / SUS1.2m / SUS1.2m
Weight (kg)		2.0	3.2/3.8/4.5	7.4/8.0/8.7

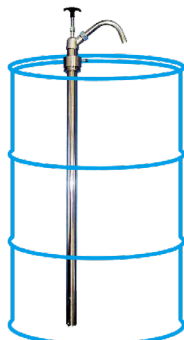




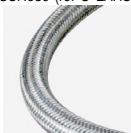
# Portable Piston Drum Pumps

Pump for Drum Can

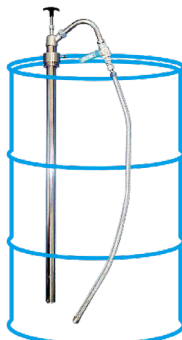
**S-LX-i**



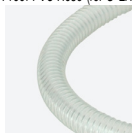
SUSHose (for S-LXHS-i)



**S-LXHS-i**



Oil Proof PVC Hose (for S-LH-1-i)



Worked by  
**Manual, Piston**  
Acceptable Viscosity  
**Up to 10,000 cP**

S-LX-i is without hose.  
S-LXHS-i is with hose.



## Specifications Table

Types		S-L-i	S-LH-1-i	S-LX-i	S-LXHS-i
Delivery ability (cc/rev)		600	600	600	600
Acceptable liquid		Oil	Oil	Solvents	Solvents
Materials	Body	Steel	Steel	SUS304	SUS304
	Packing	Nylon	Nylon	Teflon	Teflon
	Hose	--	Oil Proof PVC (φ19×1m)	--	SUS (φ15×1m)
	Weight (kg)	1.9	3.3	1.9	3.3

# Electric Portable Pumps

Pump for Drum Can



**EV-200-i series**



Handy hose set (EVH-200-i)



Drum set (EVD-200-i)



Acceptable Viscosity

**Up to 2500 cP**

Discharging capacity

**15L/min.**

Available

**220V**

Curved Line for Performance



## Specifications Table

Types	EV-200-i	EVH-200-i	EVD-200-i	EV-12-i	EVH-12-i	EVD-12-i
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: Rc3/4	In: Rc1 Out: Rc3/4	In: Rc1 Out: Rc3/4	In: Rc1 Out: Rc3/4	In: Rc1 Out: Rc3/4	In: Rc1 Out: Rc3/4
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

Portable, Easy to Carry  
Electric Wing



# Electric Portable Pumps

Worked By Electricity

## EVP-56-i series

For  
Kerosene,  
Diesel



EVPH-56-i

Available

**220V**

Discharging capacity

**56L/min.**

EVPD-56-i



## Specifications Table

Type	EVP-56-i	EVPH-56-i	EVPD-56-i
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 / 3.9A	AC230V Single / 3.9A	AC230V Single / 3.9A
Weight (kg)	7.4	12.2	12.2
Max. Viscosity (cP)	5	5	5
Option	-	Handy hose set	Drum set

# Electric Pumps



Pump with Auto Stop Measuring Function

## CUBE-56K-i



\*Don't use gasoline.

This Product can be used only for non-trading purpose only.



Simply switch ON/OFF to start/stop the operation.



For  
Kerosene,  
Diesel

## Specifications Table

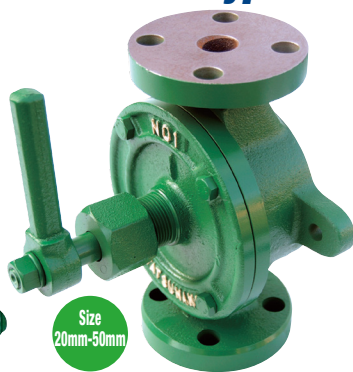
Type	CUBE-56K-i	
Acceptable liquid	Kerosene, Diesel	
Max. delivery rate at 1c	56	
Discharge Head (m)	2.0	
Materials	Body / Nozzle	Aluminum, Steel
	Packing	NBR
	Electricity (V / A)	AC230V Single
	Hose	Oil rubber hose (φ20-3m), with strainer
Weight (kg)		24
Hose length	In (m)	2.0
	Out (m)	3.0
Option		Stand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



# Semi Rotary Wing Pumps

Recommendable for Engine of The Generator, and Drinking Water Filtration Device Of Emergency

**YATSUNAMI / KING / JIS-5K·10K type**



Size  
20mm-50mm



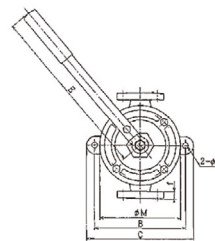
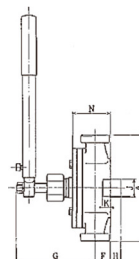
Size  
20mm-50mm



## 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)



VAFS/NAMI Standard Type	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		

Flange Type (JIS S10)	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				
	JIS5K-15	15	194	132	165	330	30	135	20	35	15	11	137	70	-	60	80	20	14	4-12	5.9	-		
	JIS5K-20	20	194	132	165	330	30	135	20	35	15	11	137	70	-	65	85	20	14	4-12	5.9	-		
	JIS5K-25	25	210	146	177	365	33	145	17	37	16	11	153	75	-	75	95	25	15	4-12	7.6	-		
	JIS5K-32	32	248	168	204	400	40	165	24	42	20	16	178	93	-	90	115	32	16	4-15	10.5	-		
	JIS5K-40	40	293	198	235	460	45	195	20	43	20	16	205	100	-	95	120	40	18	4-15	13.6	-		
	JIS5K-50	50	329	235	282	600	50	225	25	48	25	16	240	115	-	105	130	50	18	4-15	20.7	-		

Flange Type (JIS 10K)	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	-		

KING Standard Type	Types	Dia	Main Body Dimension													Flange Dimension						
			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		

# Variety of Nozzles

Manual Type (Acceptable for Liquid Under 0.15Mpa)

**GN-AL20/25-i**

**GN-SUS20/25-i**

**GN-PP20/25-i**



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

**ATNH-20-i**

**ATNH-25-i**

**ATNP-SUS20-Ad-i**



## Specifications Table

Types	GN-AL20/25-i	GN-SUS20/25-i	GN-PP20/25-i	GN-AL25K24-i	ATNH-20-i	ATNH-25-i	ATNP-SUS20-Ad-i	ATNH-20/25K24	ATNH-20Ad-i	ATPS-20Ad-i
Acceptable liquid	Oil, Kerosene, Diesel, Gasolin	Water, Solvent	Solvent	Kerosene, Diesel	Oil, Kerosene, Diesel, Gasolin	Oil, Kerosene, Diesel, Gasolin	Adblue, Water	Kerosene, Diesel	Adblue	Adblue
Material body	AL casting	SUS casting	PP	--	AL casting, Steel	AL casting, Steel	SUS casting	--	SUS	SUS
Packing	NBR	Teflon	Fluoro-rubber	NBR	NBR	NBR	Teflon, Fluoro-rubber	NBR	Fluorine	Fluorine
Nozzle Outside (mm)	22.5	22.5	28.0	22.5	24.0	28.0	19.0	24.0 / 28.0	19.0	19.0
Connection	Rc3/4, Rc1	Rc3/4, Rc1	Rc3/4, Rc1	Rc1	Rc3/4	Rc1	Hose joint 19mm	Rc3/4, Rc1	Hose joint 19mm	Hose joint 19mm
Weight (kg)	0.7	1.3	0.4	1.5	1.5	1.5	1.5	2.0	0.7	1.0

# Flow Meter

Recommendable for Measuring Volume Of Discharged Liquid

**TB-K24-FM/Ad-i**



**MK33D(OL)-25-i**



Nozzle & Meter

**GN-AL25K24-i**

**ATNH-20/25K24-i**

**ATNH-20Ad-i**

**ATPS-20Ad-i**



## Specifications Table

Types	MK33D(OL)-25-i	TB-K24-FM/Ad-i
Acceptable liquid	Kerosene, Diesel (Oil)	Kerosene, Diesel/Adble
Packing	NBR	NBR
Connection	G1	G1
Nozzle Outside (mm)	--	--
Weight (kg)	2.0	0.4
Remarks	--	Battery Powered

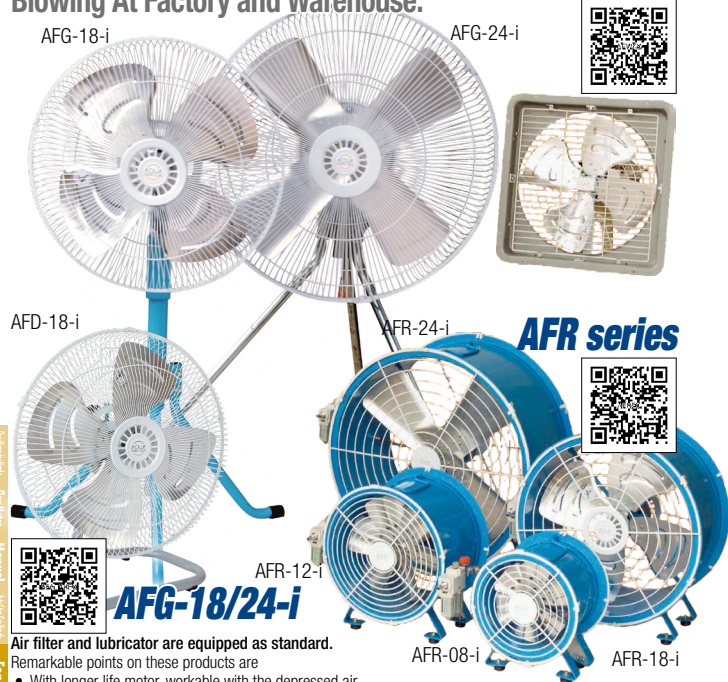
# Industrial Fans Worked By Air Motor Type

Recomendable for Ventiration,  
Blowing At Factory and Warehouse.

## AFW series

AFG-18-i

AFG-24-i



## AFR series



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 starts 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.

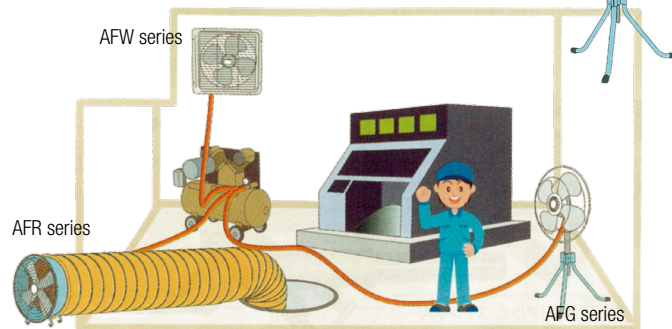
We recommend the below cases, in particular.

- 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.

These fans are worked by compressed air.  
We recommend at the place with risk of fire or explosion.



## The Image for Operation



## Specifications Table

Types		AFG-18-i	AFG-24-i	AFD-18-i
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
Compressor (HP)		3	5	3

Types		AFR-08-i	AFR-12-i	AFR-18-i	AFR-24-i	AFW-18-i	AFW-24-i
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
Compressor (HP)		2	3	3	5	3	5

Accessories:

Holder Manual Air Filter Fan Stand

# Eco Sweeper

Friendly Product for Environment  
Pushing Cleaner Eco Sweeper  
Collectable from Casting Metal Iron Up To Pet Bottle.



## AJL550S-i

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



## AJL750S-i

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



## AJL920S-i

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

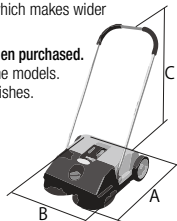


Just push SWEEPER, while walking, then rubbishes can be easily collected.

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

# New Products

Gun Holder & Drum Pump Stand

## Gun Holder GN-H



- It's useful to store the nozzle of drum pumps.

## Drum Pump Stand D-STAND



- It's useful to store the drum pumps.
- The Saucer to guard liquid dripping is equipped as standard.

# Level Checker

Recommendable to control the remaining amount of liquid



**E-C-i**  
for Drum Can



**ZKT-D-OL(W)-i**  
for Drum Can



- This product is to measure the liquid level (or residue amount) in drum can specified by JIS.
- The accuracy allowance is within approx. +/- 5%.
- No electric power is required.

- Portable and light
- Only AA batteries are applicable.
- LED indicator (with 10 levels) immediately shows the height of liquid in a drum can.

Type	ZKT-D-OL-i	ZKT-D-W-i
Container	Drum Can	Drum Can
Acceptable liquid	Oil	Water
Measurement(mm)	φ65×990	φ65×990
Weight (kg)	1.3	1.3

## Viscosity Comparison Table

cP = cst x Sp. Gravity

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	5,500	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)



		Manual Type					Air Type			
		Discharge								
Cans		Drum			Pail		Drum			
Viscosity		Low	Low	High	High		Low			Medium
	Sp. Gravity	HHP-251(H)-HM-I	HHD-265(S)(H)-HM-I	S-LX(L)(MS)-I	P-SX-I	P-SX-I	CHD-204MP	CHD-204HP	CHD-204SUS	APD-2025(M)(N)-I
Acetone	0.79	●	●	●	●	●				
Ammonia water	0.68	●	●		●	●				
Isopropyl alcohol	0.79	●	●	●	●	●				●
Ethyl alcohol	0.79	●	●	●				●		
Ethylene glycol	1.1	●		●	●	●	●	●		●
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	1.7	●	●	●	●	●				
Ethyl acetate	0.9	●	●	●	●	●				
Methyl acetate	0.9	●	●	●	●	●				
Hypochlorous acid										
Sodium hypochlorite	1.15								●	
Diethylene glycol	-		●	●	●	●				●
Dimethylformamide	0.93					●				
Nitric Acid (Density:10)	1.5	●	●	●	●	●	●	●	●	
Nitric Acid (Density:30)	1.5	●	●	●	●	●	●	●	●	
*Sodium hydroxide										
Density: 10-50	2.13	●	●	●	●	●				
Triethanolamine	1.12	●	●		●	●				
Trichloroethane	1.33		●	●	●	●				●
Trichloroethylene	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)	0.8	●	●	●	●	●	●	●		
Hexane	0.67	●	●		●	●	●	●		●
Benzyl alcohol	1.04		●	●	●	●	●	●		
Benzene	0.88	●	●	●	●	●	●	●		●
Formaldehyde	1.08-1.11	●	●	●	●	●				
Water	1	●	●	●	●	●	●	●	●	
Methyl alcohol	0.79	●	●	●	●	●				●
Methyl isobutyl ketone	0.8	●	●	●	●	●				
Methyl ethyl ketone	0.8	●	●	●	●	●				
*Sulfuric acid										
Density: 10-30	1.84						●	●	●	