

MEISEI VC™

In-Line Automatic Viscosity Control And Measurement System

2006 Models



Product Manufactured by
MEISEI CORPORATION



Distributed by
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Automatic Viscosity Control For Inks, Coatings and Adhesives

The best selling viscosity control and measurement system for the past 19 years. Meisei has more than 80% of the Japanese market share. More than 9,000 systems have been sold to coating, gravure and flexo companies in Japan.

Meisei's excellent customer support provides impeccable service after the sale !



GP-10 Type

◆ Functions and Features ◆

- ① Single unit performs four functions: ink circulation, ink agitating, viscosity measurement and viscosity control.
- ② Improves product quality and color consistency. Decreases losses and customer claims. -Guaranteed !
- ③ By providing uniform viscosity, waste is minimized and ink consumption is reduced by 15 to 20%.
- ④ Non leak and safety by pneumatic diaphragm.
- ⑤ Easy to clean by only half a gal of solvent, takes one minute.
- ⑥ Automatic oil lubrication and recycling system extends pump life by 3 times longer.
- ⑦ Kink-free, solvent resistant hoses are soft and easy to handle.
- ⑧ Compact and lightweight, the system is easy to move, setup and operate.
- ⑨ Make operators free to adjust viscosity level, Operator can now devote their attention to other matters.

◆ Viscosity display ◆



- . The controller LED display is large, bright and easy to read.
- . Viscosity is displayed in cup-seconds.

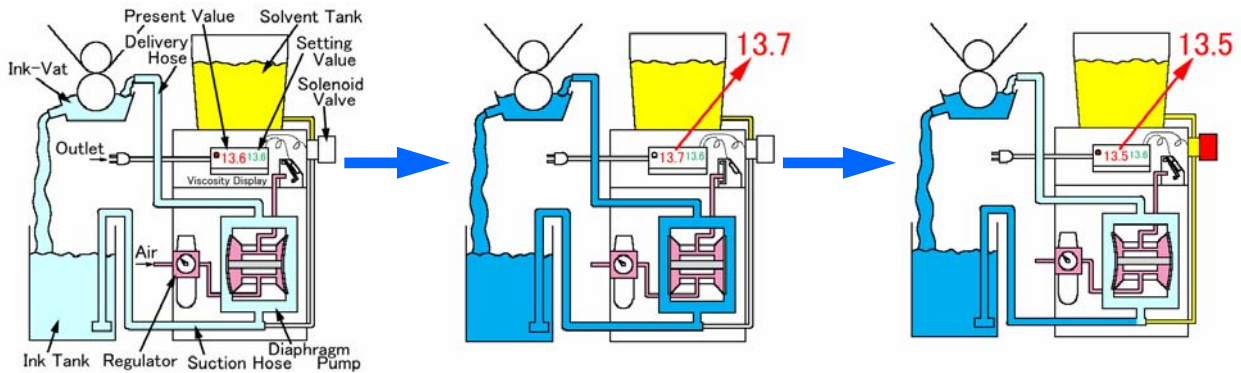
◆PRINCIPLE

These viscosity controller systems are controlled by sensing viscosity through the loads placed on the diaphragm pump.

(The evaporation of solvent in the tank causes the liquid viscosity is thickening.

As the liquid viscosity thickens, the load on the pump is also increased. Then the pump cycle is getting slow.

As the liquid viscosity thins, the load on the pump is also decreased. Then the pump cycle is getting fast.)



① The system detects the diaphragm pump pulse times that the liquid is circulating through.

Viscosity Present Value is displayed. Set up this value as the upper limit.

⑤ The Viscosity Present Value returns the beginning value.

② The liquid viscosity thickens and the load on the diaphragm pump is increased. Then Viscosity Present Value becomes higher.

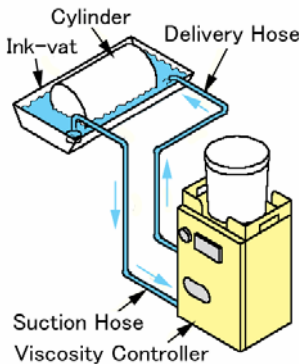
③ The solenoid valve will open and feed the solvent after it catches the electric signal from the sensor.

④ The sensor detects that Viscosity Present Value is getting small by pump air exhaust.

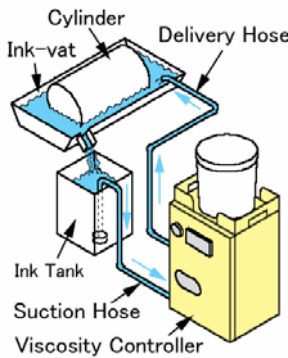
◆EXAMPLES OF INSTALLATION

We are explaining how to install in case of using Inks by the following illustrations. But if you would like to use

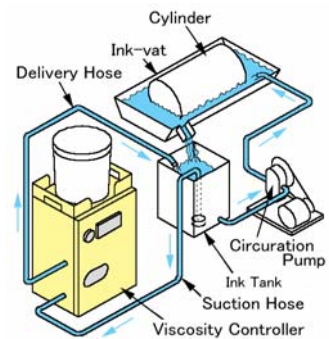
① Direct circulation



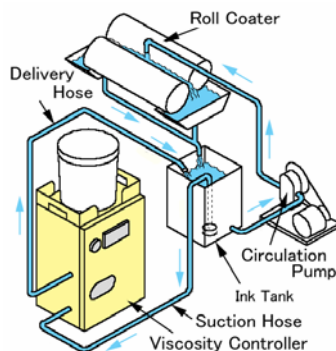
② Circulation through ink-tank



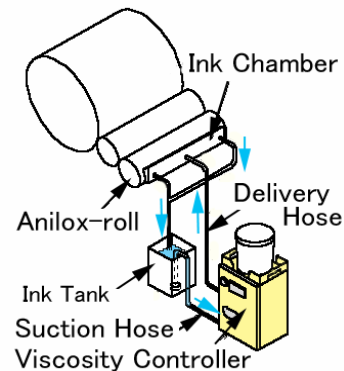
③ Circulation through ink-tank with using circulating pump



④ Circulation through ink-tank with circulating pump for Roll coater



⑤ Circulation through ink-tank for Ink chamber

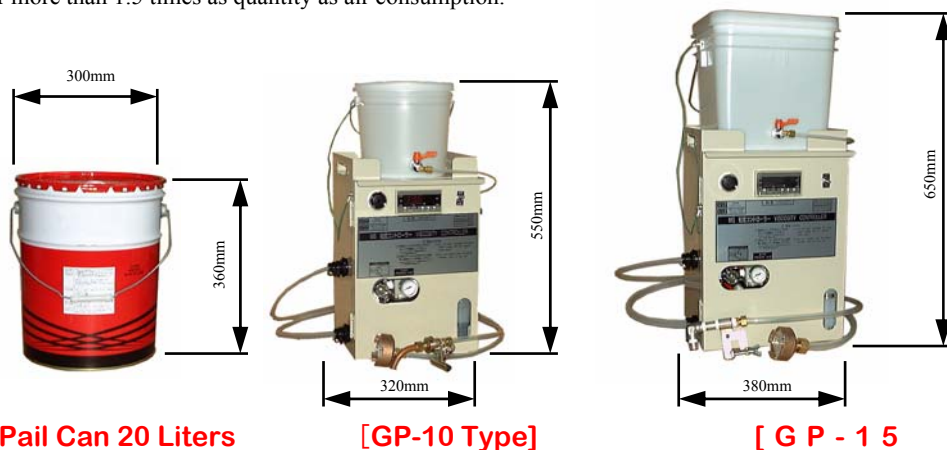


◆SPEC.

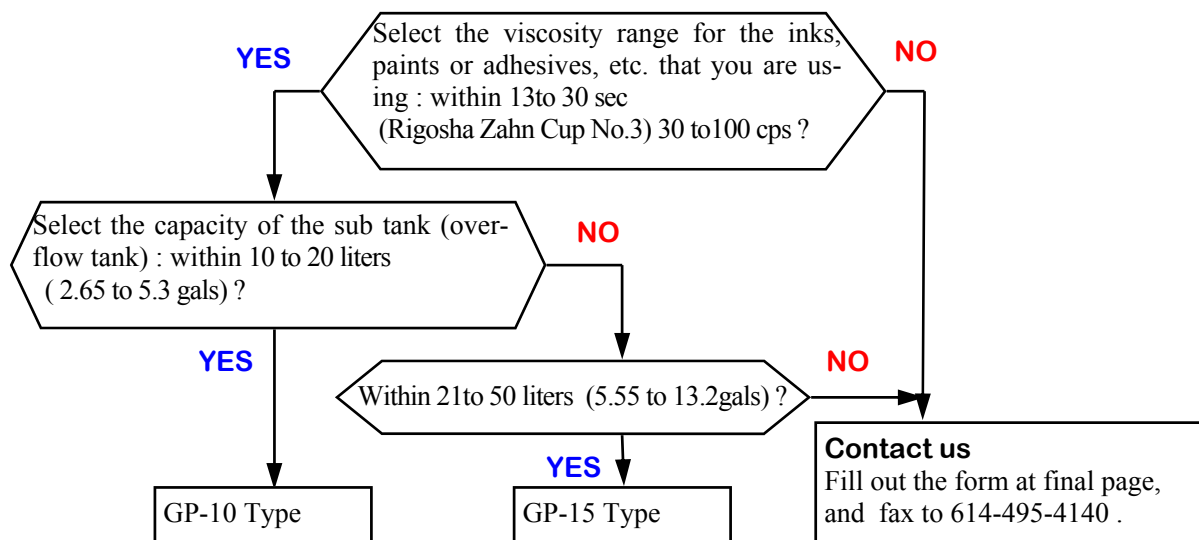
Model No.	GP-10	GP-15
Appearance	box type of steel mono-block	box type of steel mono-block
Dimension	320mm x 295mm x 550mmH (12.6" x 11.6" x 21.7" H.)	380mm x 380mm x 650mmH (14.8" x 15" x 25.6" H.)
Net weight	16 kg (35 lbs)	22 kg (48.5 lbs)
Control range	13 to30 sec (Rigosha Zahn Cup No.3) 30~100 cps	13 to30 sec (Rigosha Zahn Cup No.3) 30~100 cps.
Solvent tank	4 liters (1 gal) made of PE	10 liters (2.7 gal) made of PE
Suction hose	I/D 8mm x 2,300mmL. (I/D 0.3" x 90.55" L.)	I/D 11mm x 2,300mmL. (I/D 0.43" x 90.55" L.)
Delivery hose	I/D 6.5mm x 2,300mmL. (I/D 0.25" x 90.55" L.)	I/D 8mm x 2,300mmL. (I/D 0.3" x 90.55" L.)
Circulation volume	1.8 to 3.9 liters/min. (0.48~1 gal/min.)	3.2 to 8.8 liters/min. (0.85~2.3 gal/min.)
Air consumption	40 liters/min. (1.68 scfm or 10.5 gals/min.)	90 liters/min. (3.78 scfm or 23.8 gals/min.)
Working pressure	4 to 8kgf/cm ² (60 to 120 psi)	4 to 8kgf/cm ² (60 to 120 psi)
Working voltage	AC100-120V/40W (Option 200-240V)	AC100-120V/40W (Option 200-240V)
Max. volume of Sub-tank	10 to 20 liters (2.65 to 5.3 gals)	21 to50 liters (5.55 to 13.2gals)

[Notice]

The liquid circulating quantity and air consumption stand for the maximum quantities while Viscosity controller is operating. Supply the compressed air more than 1.5 times as quantity as air consumption.



◆MODEL SELECTION



◆OTHERS

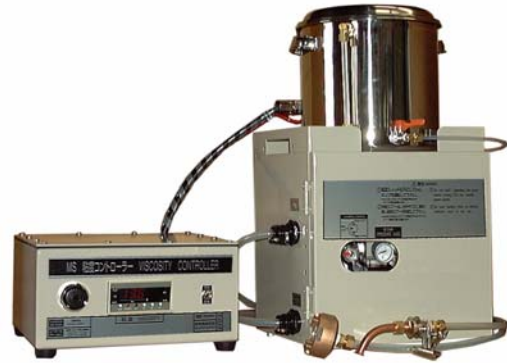
① AP-1000E-M Type

Controlled viscosity range: 100 to 300 CPS
Solenoid valve for solvent supply is made use of flameproof type of explosion-protected construction.
Solvent tank is made of stainless steel, capacity : 8 liters.



② AP-1500E- Type

Separated steel boxes, controller and pump unit.
Steel box for pump unit can be set up at even dangerous area, but steel box for controller cannot be set up dangerous area.



③ AP-1000E-A Type

The equalizer can defuse the exhaust pulsation.



④ AP-1000E-FH Type

The dusts and dregs in the ink are filtered and eliminated by the cartridge filter.



⑤ AP-1000E-TD Type

The ink temperature is displayed.



⑥ AP-1500E-TC Type

The liquid temperature is automatically regulated.



◆RELATED EQUIPMENTS

①Moisture eliminator in the compressed air.

M-Drain

99.5% of the moisture in the compressed air can be eliminated.



②Double structure hose.

Super flexible, kink-free and solvent-proof

Size: External diameter X Internal diameter

10mm X 6.5mm, 12mm X 8mm

16mm X 11mm, 1mm X 15mm

25mm X 19mm

[Bending]

[Return to former



③Special lubricating oil for Viscosity controller

MEISEI Super 1000

The durability of the diaphragm pump is improved.
Capacity: 4 liters



④Washing pot for Viscosity Controller.

W-1000 type

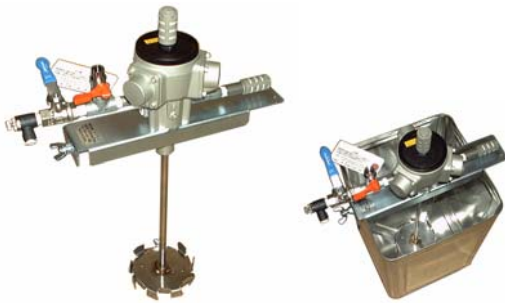
Washing completely by air



⑤Pneumatic driving agitator.

VF-03 type

Ink in the tank is agitated. Available for drum tank.



⑥Circulating pump.

SP -D type

The liquid is suctioned, delivered and circulated by this pump.



⑦Zahn cup (measuring cup of viscosity).

ZC-2 -3 - 4 - 5- 6 - 7 type

Easy to measure the viscosity.



⑧Pouring nozzle.

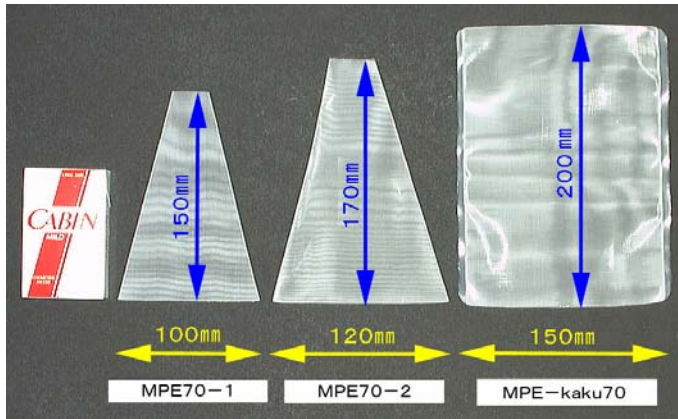
SN-40 / SN-50 type

These pouring nozzles are used to fix at the mouth of pail can.

40mm dia. and 50mm dia. for the pouring mouth are available.



Innovations & Solutions



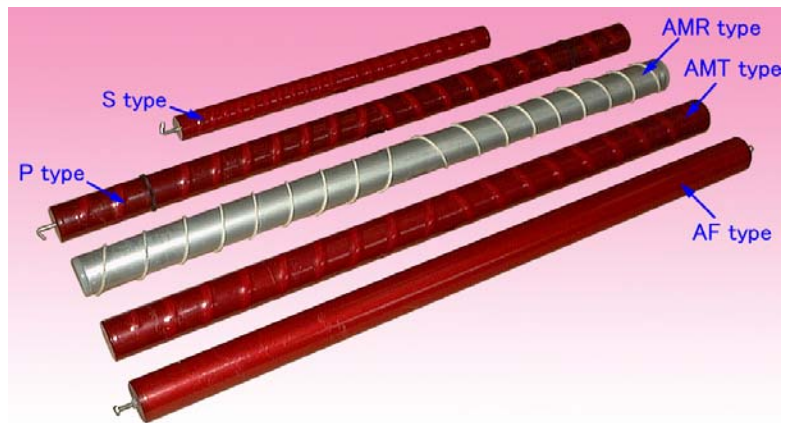
[Features]

- ① Solvent-proof net is processed like a bag.
- ② Filter mesh has the mesh count No. 45, 70, 85, 100 and 140.
- ③ Filter mesh has trapezoid shape No. 1 and No. 2, also rectangular shape. In case of used at the pump has big exhausting ink quantity and many dusts are contained, No.2 or rectangular shape is used.
- ④ In case of Gravure printing, No. MPE70-1 is usually used. The magnet in the filter eliminates iron powder and prevents to produce the printing defects.
- ⑤ 1 set: 500 pcs. (per a unit).

Filter No.	Mesh count	Aperture size (mm)	Width (mm)	Height (mm)
MPE45—1	45	0.34	100	150
MPE70—1	70	0.21		
MPE85—1	85	0.18		
MPE100—1	100	0.15		
MPE140—1	140	0.11		
MPE45—2	45	0.34	120	170
MPE70—2	70	0.21		
MPE85—2	85	0.18		
MPE100—2	100	0.15		
MPE—kaku45	45	0.34		
MPE—kaku70	70	0.21	150	200
MPE—kaku85	85	0.18		
MPE—kaku100	100	0.15		
MPE—kaku140	140	0.11		

For a free sample of our filter mesh, please contact us and will send you a MPE-70 filter.

Agitating roller for Gravure printing



[In order from top in the above photograph:

S-Roll, P-Roll, AMR-Roll, AMT-Roll and AF-Roll]

S type

- ① As the external diameter is 36mm, it can be used in the even shallow ink-vat.
- ② Light weight type: the weight is reduced about 45% than P-Roll.
- ③ High speed revolving: the revolving speed is 2.5 times of P-Roll.
- ④ The magnet is fixed at the center, lets the iron powder adhere at the space among the spiral tape and prevents to make the flaw at the cylinder plate.
- ⑤ Possible to produce by 10mm of pitch from 200mm to 800mm of total length. Keeping to hang down by the hook in order to prevent to be bent.

P type, AMR type, AMT type, AF type

- ① P-Roll is the type of lightweight plastic pipe that has the external diameter 48mm. AMR-Roll, AMT-Roll and AF-Roll are the type of Aluminum pipe that have the external diameters 54mm, 52mm and 51mm.
- ② Possible to produce by 10mm of pitch from 300mm to 1,700mm of total length.
- ③ P-Roll is kept to hang down by the hook in order to prevent to be bent. Not to be bent so that AMR-Roll, AMT-Roll and AF-Roll are made of Aluminum.
- ④ P-Roll, AMR-Roll and AMT-Roll touch the revolving cylinder by magnet. AF-Roll is fixed with the cylinder by metal fitting, and touched

◆SPEC. CHECKING LIST

Demo-unit available on request. DATE: _____.

Company name:		Name & title	
Address: City, State: Zip:		Phone:	
		Fax:	
		E-mail:	
Type of process at this location (Check all that apply): <input type="checkbox"/> Flexography <input type="checkbox"/> Gravure <input type="checkbox"/> Coating <input type="checkbox"/> Laminating <input type="checkbox"/> Marking <input type="checkbox"/> Other ()			
The name of liquid which is used: <input type="checkbox"/> Ink <input type="checkbox"/> Paint <input type="checkbox"/> Adhesive			
Base: <input type="checkbox"/> Solvent or <input type="checkbox"/> Water			
The name of material (Printed matter) which is used printing or coating: <input type="checkbox"/> Paper <input type="checkbox"/> Film <input type="checkbox"/> Metal <input type="checkbox"/> Wood <input type="checkbox"/> Others()			
Your products:			
Number of lines and colors: () colors x () lines, () colors x () lines, () colors x () lines			
Ink consumption: liters/hour liters/day gal/hour gal/day			
Voltage: system voltage is <input type="checkbox"/> 100v <input type="checkbox"/> 120v <input type="checkbox"/> 220v <input type="checkbox"/> 240v <input type="checkbox"/> Others(v)			
Select suitable installation style from the examples on page 3: <input type="checkbox"/> No. 1 <input type="checkbox"/> No. 2 <input type="checkbox"/> No. 3 <input type="checkbox"/> No. 4 <input type="checkbox"/> No. 5 <input type="checkbox"/> Others()			
Ink vat capacity: liters (gal)			
Sub tank capacity (if applicable): liters (gal)			
Range of ink viscosity cup: from Sec to Sec.			
Manufacturer's name of measurement cup & Number:			
Cup/Sec of solvent: Sec. (measured by the above cup)			
Circulation pump: <input type="checkbox"/> Equipped <input type="checkbox"/> Not equipped			
Pump circulation volume: liters/min. gal/min			
Mixer: <input type="checkbox"/> Equipped <input type="checkbox"/> Not equipped			
Adaptable Model (This space is used by Meisei):			

Manufacturer
MEISEI CORPORATION
Kani City, Gifu Pref., Japan 509-0246

US Agent for MEISEI Corp.:



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