



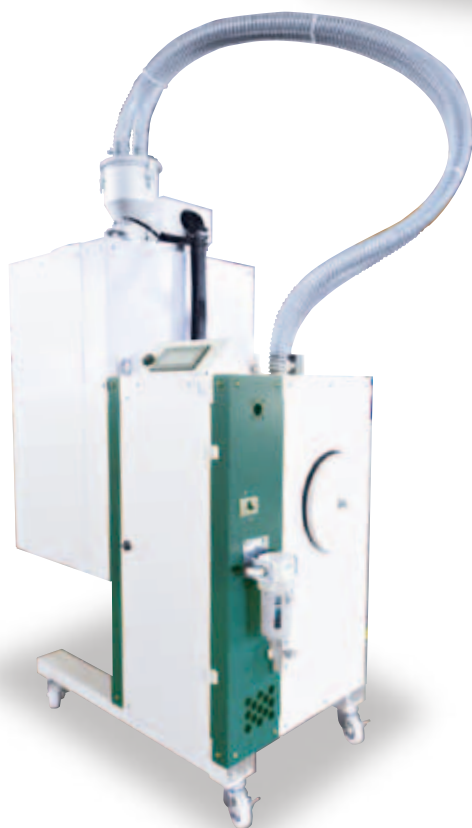
Vacuum Dryer

DVseries 5/10/30

DECO



Uniform Drying, Easy Cleaning and
Compact Design by KAWATA's
Original Drying Technology!



High-performance compact decompression dryer
that meets needs with Kawata's original technology

This new dryer developed by Kawata's original technology meets your needs!

The DV-5 has been designed for engineering plastic molding, precision molding and small lot molding.

The heating system by band heater, flow spacer and periodic circulation allow uniform heating and drying of material.

Our original material supply gate helps prevent material jamming, convey material smoothly and keep the hopper under vacuum.

Energy Savings
Achieve 450w/h
at 160°C.

Energy Savings

- Power consumption of 450w/h or less even when drying at 160°C because of direct heating

Installation area
500 mm
×
500 mm

Space Savings

- Achieves space-saving considering the installation location
Small footprint for limited space (500×500mm)

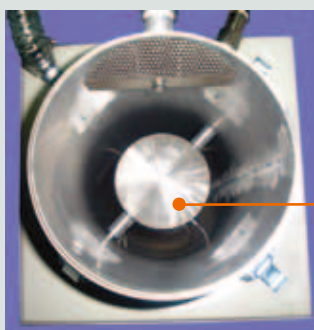


Integral drying and conveying Unit

- It has built-in primary transportation, secondary transportation, and circulation transportation equipment.
Automatic and continuous operation of drying and conveying

Improved Maintenance

- Easily detachable flow spacer and no heating fins in the drying hopper for easy cleaning.

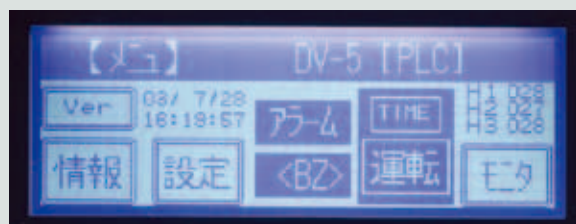


▲ Drying hopper
(heating / vacuum)



▲ Flow spacer

Touch Panel for Easy Operation



▲ Control panel (LCD screen)

Collecting function

- Discharge of remaining material in the drying hopper to bag by the switch.

Various Alarms

- Equipped with upper and lower limit temperature alarm, empty state alarm, etc.

No Exhaust Heat

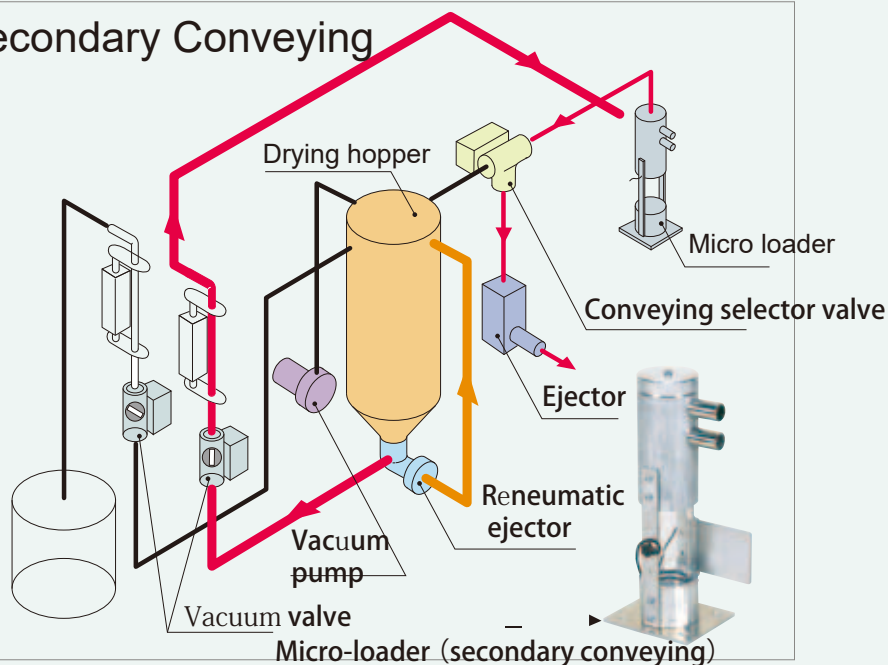
- No exhaust heat due to direct heating instead of ventilation drying

Periodic Circulation

- To prevent blocking caused by fusion of material, etc. and maintain a uniform material temperature



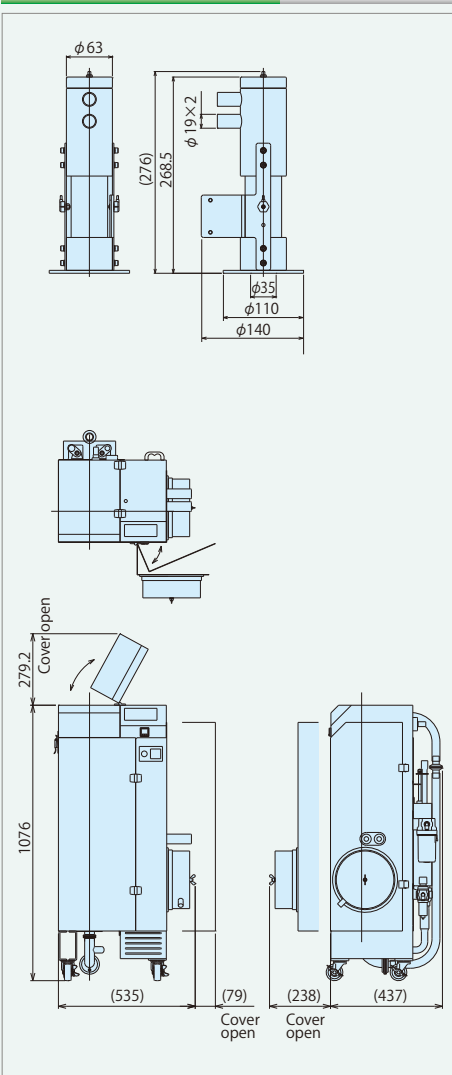
Secondary Conveying



Specifications

Model			DV-5
Feeding Volume		(kg)	5
Drying Temperature		(℃)	80~160
Heater System	Band Heater	(kW)	0.4 (0.2×2 sets)
	Silicon Rubber Heater	(kW)	0.08
Conveying Method		Suction by ejector (primary, secondary & circulation drying)	
Vacuum Pump	Effective Capacity	(kW)	0.19
	Vacuum (Max.)	(kPa)	-87.9 (13.4kPa abs)
Drying Hopper	Effective Capacity	(L)	10
	Material	Contact surface:SUS304 (pocking , Other:SS	
	Accessories	Insulating jacket, level switch	
Secondly conveying Loader Hopper	Effective Capacity	(L)	0.2 (Micro Loader)
	Weight	(kg)	2
	Pipe size	(φ)	19
Utility	Power Supply (Single Phase (kW) AC200V/200、220V 50/60Hz)(AT)		0.9 10
	Compressed Air Requirement (L/min) [ANR]		0.5 (0.4~0.6MPa)
Accessories	PVC Flexible Hose	For Material	φ19×5m×2pcs (With spring)
		For Air	φ19×5m×1pce
	Suction Pipe		φ19 (SUS304) ×1pce
	Cable	Control Cable	5m
		Power Cable	5m (without plug socket)
Painting Color			JMPA Y15-85A, semigloss
Weight (Main Body)		(kg)	Approx. 75

Dimensions



※ Consult us about material with high initial moisture content.

※ Consult us when drying at temperatures of 80°C or lower.

オプション Options

- Two-way material conveyor
- ※ Loader Hopper Change to VLA-420 (Use a φ19 hose)
- ※ Power consumption watt-hour meter

- 60L Material tank
- Visual alarm

- Emergency stop button

High-precision drying and good operability by Kawara's original "I.T.C (Image Temperature Control)" heating method

従来機より
87%
省エネ

Energy Savings

- Lower power consumption, 75% to 87% reduction compared to conventional dryers

従来機より
15%
省スペース

Space savings

- Small footprint of 872×553mm, 15% savings compared to conventional dehumidifying dryers (DF-15Z model)

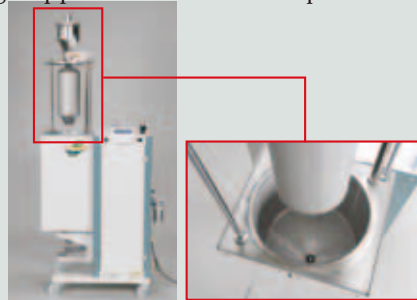


Noise Reduction

- Low-noise vacuum pump

Easy Cleaning

- Automatic up-and-down flow spacer heater by one touch, capable of stopping operation for safety
Drying hopper with no wasted space



Reliability

- New MA valve without jamming
- Easily detachable collection box, minimizing bridging of material



Mass Flow Hopper Focused on Material Mass Flow

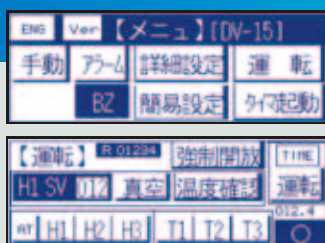
- Uniform residence time under reduced pressure, essential to high-precision drying

I.T.C Heating

- Reliable heat-up and precise temperature control through the use of a simple tube heater by I.T.C Heating Method

Operation

- Simple touch panel, focusing on easy operation and good visibility



Easy maintenance

- Heater and vacuum pump controlled by SSR
- Filter maintenance with the body cover attached



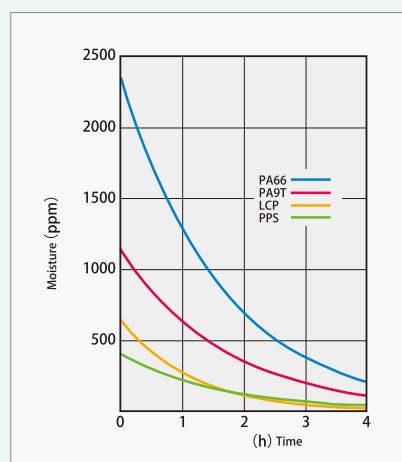
Specifications

Model			DV-15	DV-30
Feeding Volume		(kg)	15	30
Drying Temperature		(℃)	80~160	
Heater System			Direct heating (heater transfer)	
	Heater	(kW)	1.8 (Heater cylinder 0.6kW, cone 0.6kW, inner cylinder 0.6kW)	3.3 (Heater cylinder 1.1kW, cone 1.1kW, inner cylinder 1.1kW)
Marerial Conveying Method			Suction by blower (primary, secondary)	
Vacuum Pump	Motor Output	(kW)	0.19	0.38 (0.19×2)
	(Max.) Vacuum	(kPa)	－87.9 (13.4kPa abs)	
Vacuum Drying Hopper	Effective Capacity	(L)	23	46
	Material		SUS304 (acid pikling)	
	Accessories		Insulating jacket (glass wool)	
				Level switch
Conveying Blower	Motor Capacity	(kW) 50/60Hz	0.55/0.85	
Secondary Conveying Loader Hopper	Model		VL-02	
	Capacity	(L)	2.5	
	Weight	(kg)	4.2	
	Pipe Size	(ϕ)	38	
Utility	Power Supply (3 Phase AC200V/200、220V 50/60Hz)	(kVA) (AT)	3.2/3.9 20	5.0/6.0 30
	Compressed Air Requirement	(L/min) (ANR)	10 (0.4~0.6MPa)	
Accessories	PVC Flexible Hose		PVC hose (ϕ 38) for material: 5m×2pcs PVC hose (ϕ 38) for air: 5m×1pce	
	Suction Pipe		ϕ 38 (SUS304) : 1pce	
	Cable	Control Cable	5m	
		Power Cable	5m (without receptacle)	
Painting Color			JMPA Y15-85A, semigloss	
Weight (Main Body)		(kg)	120	150

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Drying Performance



Example of drying temperature and drying time for resins.

Resin	Drying temperature (°C)	General drying time (h)	DV-5 (kg/h)	DV-15 (kg/h)	DV-30 (kg/h)
LCP	140	3	2	5	10
PPS	140	3	2	5	10
PA66	80	4~6	1	3	5
PA6T	140	3~4	2	4	5

*The drying time and temperature may vary depending on resin properties or conditions.

*PA (natural), it is assumed that resin makers dry it in advance before feeding.

Standard Specifications

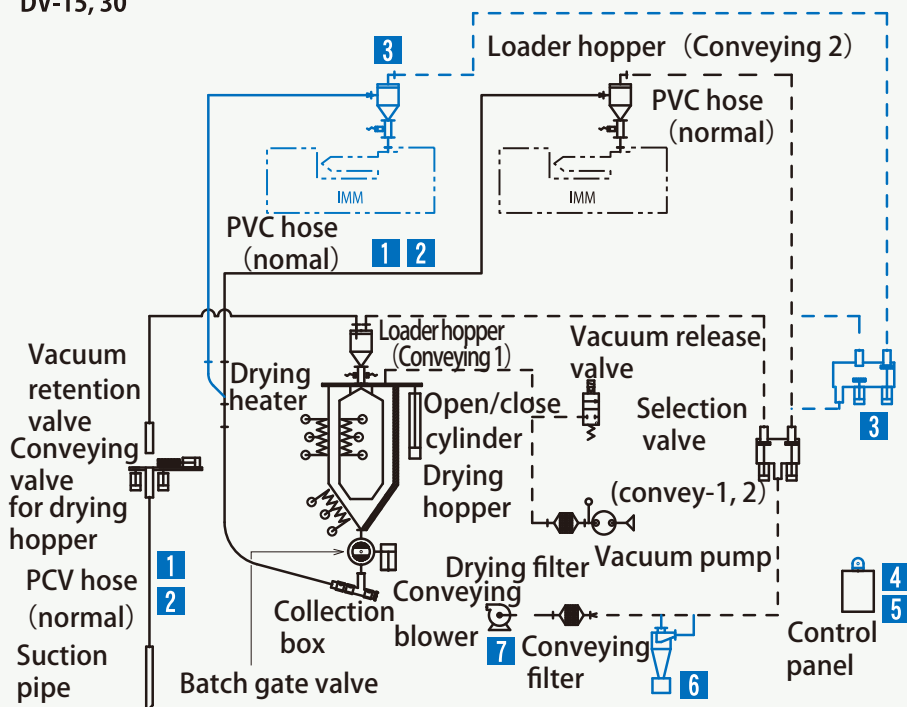
- ☐ Panel language selection (Japanese/English)
- ☐ Start-up and stop timer (Set a designated day of the week)
- ☐ Earth leakage circuit breaker
- ☐ Alarm history display (up to 1000)
- ☐ Alarm buzzer

Alarm Indication

Vacuum press.	Up and down of vacuum pressure Alarm
Pump	Tripped by thermal relay (held signal)
A/D	Temperature input data
Battery	Low battery voltage for PLC and touch panel
Empty tank (LVS/cycle)	Empty drying hopper and loader, transport cycle
Rising temp cycle	Cycle-over of rising temperature
Outside signal	Alarm by external signal
Temperature	Temp fluctuation after heating-up
Over-temp.	Over-heating (can be designated as held signal)
Faulty AT	Faulty auto-tuning

Flow Diagram / Option

DV-15, 30



Standard

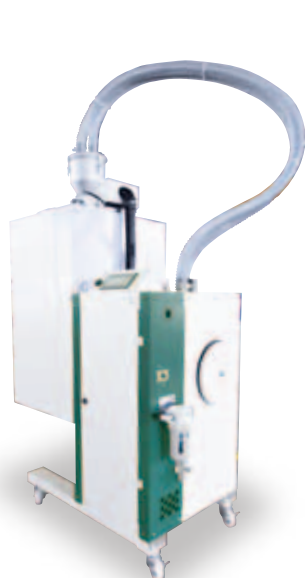
Option

- 1 Heat resistant non PVC flexible hose
- 2 PVC hose (with earth hose)
- 3 Two-way conveying (selection valve for conveying 2 or 3)
- 4 Visual alarm
- 5 Burnout protection by external sensor
- 6 Cyclone with dust collection tank (conveying)
- 7 High-capacity conveying blower

Other Options

- Dust separator
- 60L material tank

* Multi-directional conveying (supplied to up to four molding machines)



DV-15



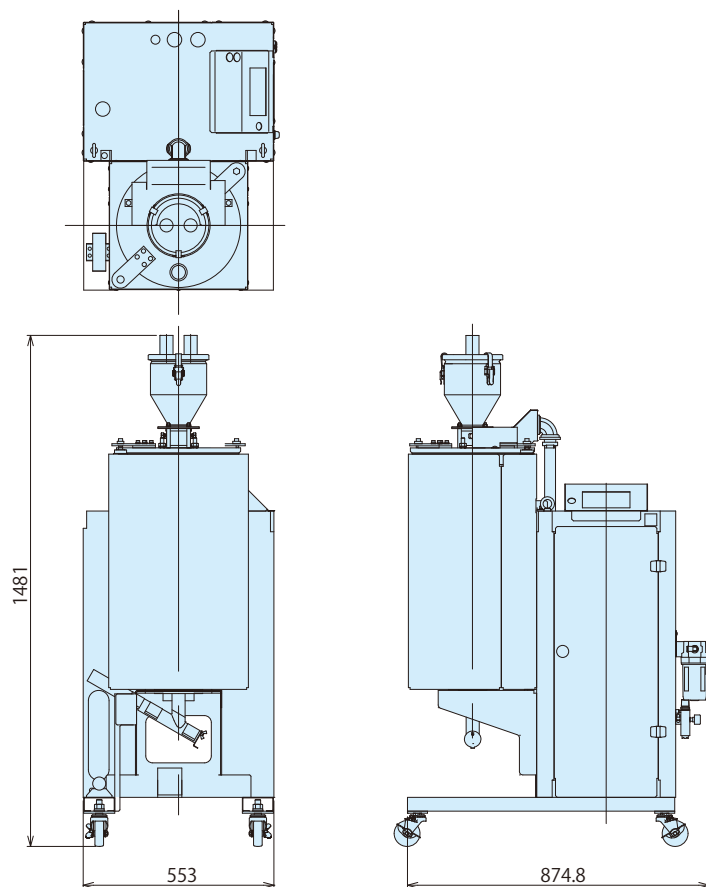
DV-30



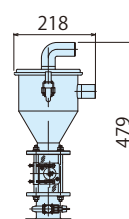
VL-02



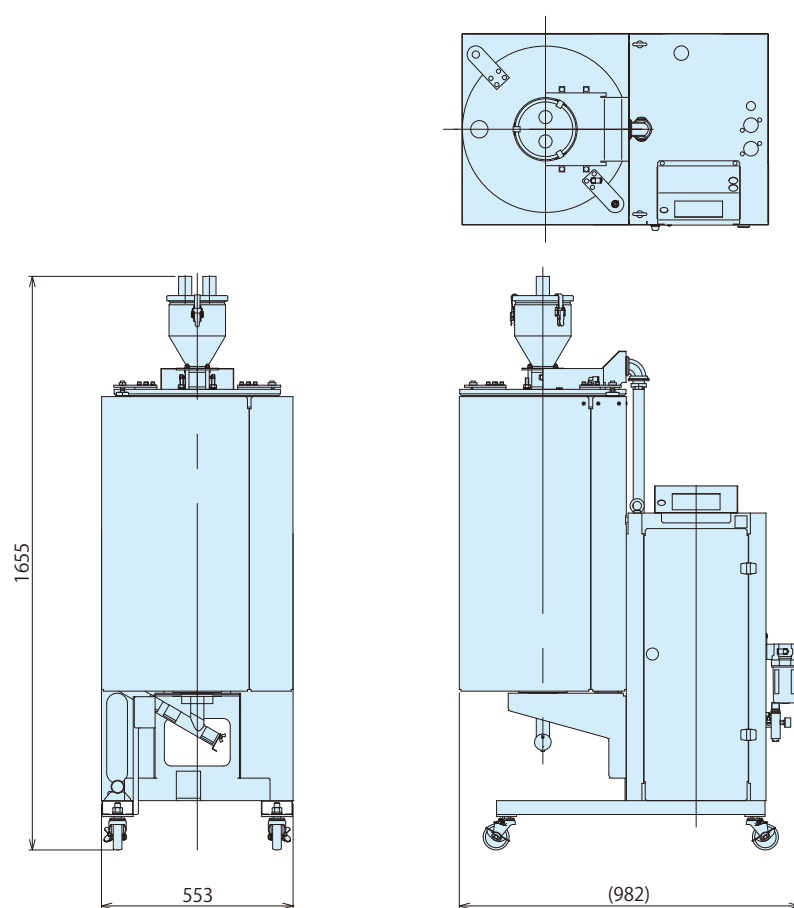
DV-15



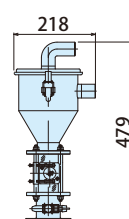
VL-02



DV-30



VL-02





KAWATA U.S.A.,INC.

www.kawata-usa.com

*These specifications are subject to change without notice.
*Please read the instruction manual carefully before use.

Total Systems Engineer

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