Features of 2-Tank Dehumidifier Dryer

With the 2-tank system, the operation rate of IMM increased!

Since the dryer has 2 tanks, while the IMM is running, it is possible to prepare for the next molding operation by operating the tank not in use. Cleaning or pre-drying can be started then, which helps increase the operation rate of IMM.

Cost and space for the standby dryer saved!

With two tanks, there is no need to have another dryer for pre-drying. Since setup is possible with one unit, cost and space can be saved.
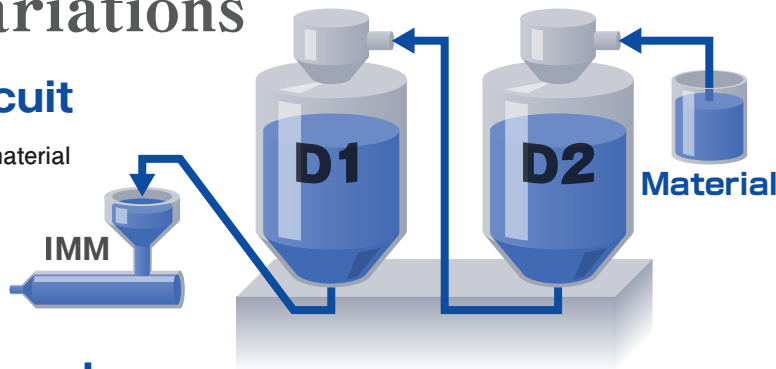
Attachment and detachment time of material hoses dramatically shortened with one-touch coupler!

One touch coupler significantly shortens the time it takes to change hoses after completion of molding.

Rich loading variations
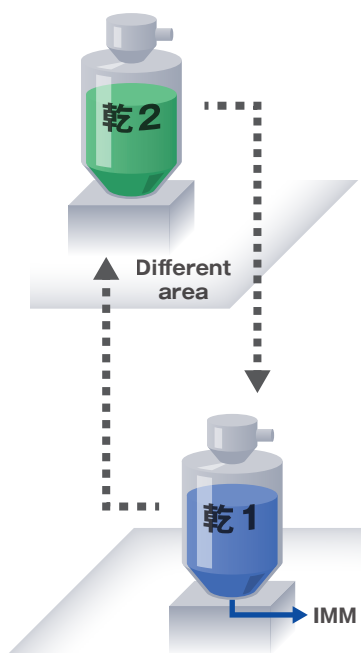
Standard loading circuit

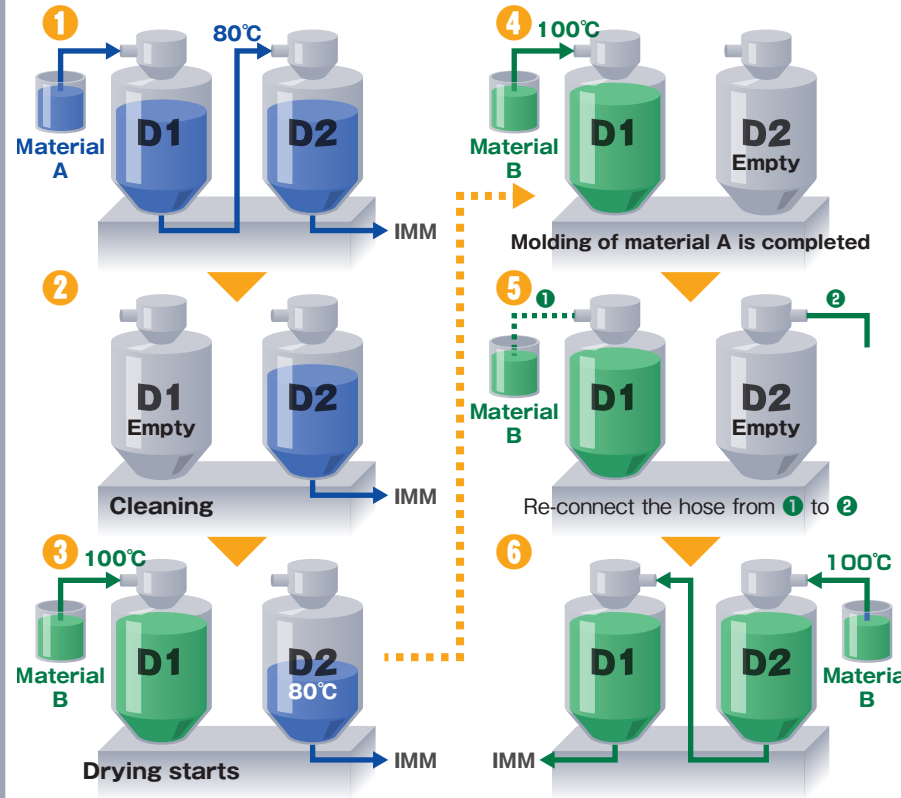By using the standard loading circuit, material of 100Kg or more capacity is dried and loaded to one IMM.

Loading variation example

Until now ...

when using two dryers,
- the cost was high
- space was required
- transportation was a big problem

In the case of a 2-tank dehumidifying dryer

❶ 80℃
❷ Cleaning
❸ 100℃ Drying starts
❹ 100℃ Molding of material A is completed
❺ Re-connect the hose from ❶ to ❷
❻ 100℃
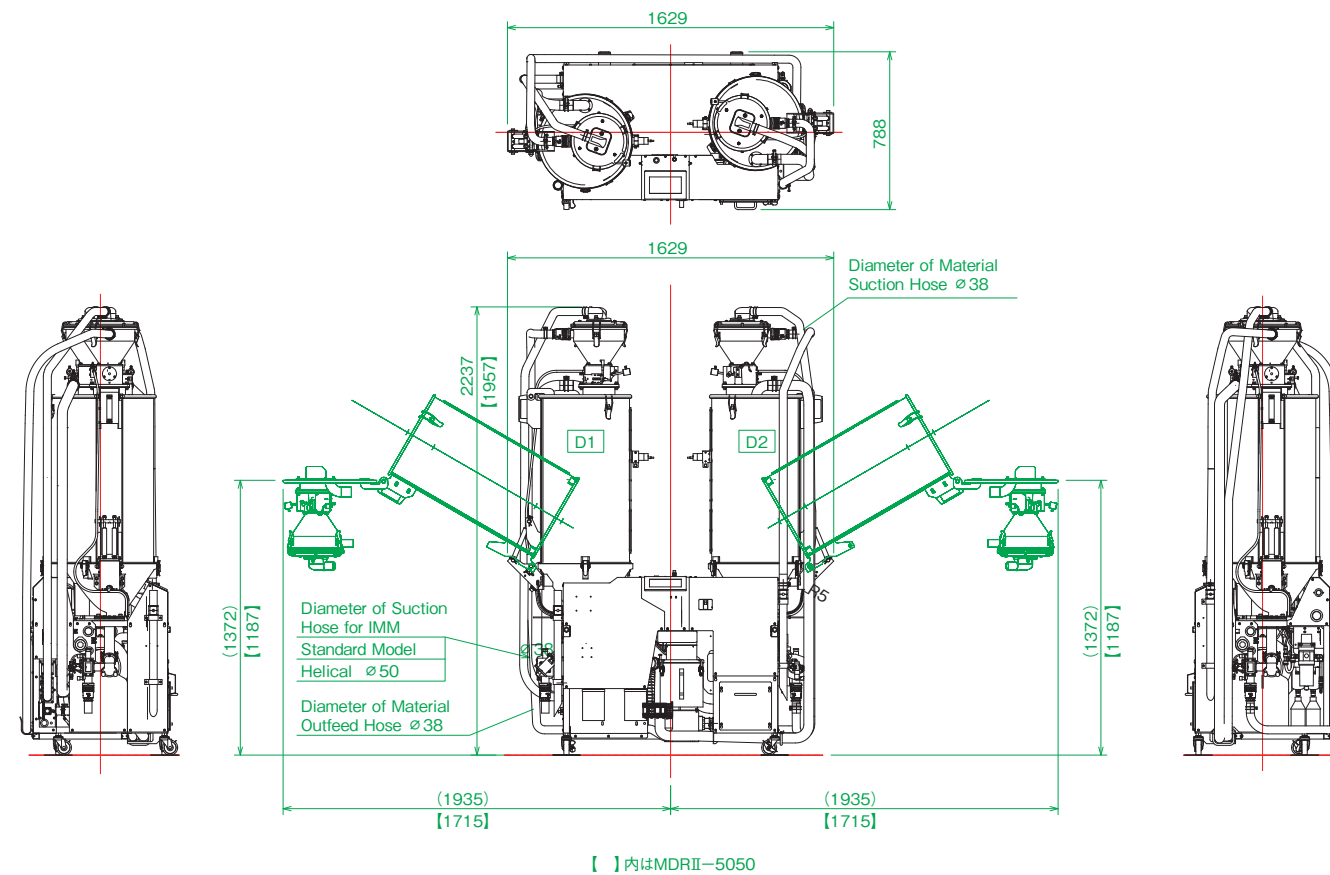
Possible to perform operation with one tank only, such as D1 only and D2 only

Model	MDRⅡ-5050 (-HG)	MDRⅡ-7575 (-HG)
Dehumidifier Dew Point	Lower than -45 ℃ * Varies depending on the supply air condition.	
Dehumidifying Method	Polymer separation membrane method	
Drying Setting Temperature	80〜150℃	
Drying Blower — Flow (50/60Hz) (m³/min)	9.5/10.6 ×2	9.5/10.6 ×2
Drying Blower — Static Air Pressure (50/60Hz) (kPa)	0.91/1.3×2	0.91/1.3×2
Drying Blower — Motor (kW)	3 phase 0.3×2	3 phase 0.3×2
Drying Heater (kW)	5.4 ×2	
Drying Hopper (Material: SUS) — Maximum stocking capacity *1 (ℓ)	83 (50kg) ×2	125 (75kg) ×2
Drying Hopper (Material: SUS) — Adjustable Range *1	42〜83 (25〜50kg) ×2	42〜125 (25〜75kg) ×2
Loading Blower — Flow (50/60Hz) (m³/min)	3.5/4.2	
Loading Blower — Static Air Pressure (50/60Hz) (kPa)	15.0/20.0	
Loading Blower — Motor (kW)	1.5/1.75	
Compressed Air Supply Pressure (MPa)	0.5以上	
Air Consumption — Standard Mode (ℓ/min)	150 ×2	
Air Consumption — Eco Mode (Option) (ℓ/min)	90×2	
Filter (Circulating) — Material	Cellulose Fiber + Synthetic Fiber	
Filter (Circulating) — Filtering Capacity	Equivalent to 10	
Filter (Conveying) — Material	Cellulose Fiber + Synthetic Fiber	
Filter (Conveying) — Filtering Capacity	Equivalent to 10	
Hose Diameter — Air Suction Hose (mm)	Standard Specifications φ38	
Hose Diameter — Material Suction Hose (mm)	φ38	

Caution: *1 The capacity(ℓ) is based on the 0.6 apparent specific gravity of the ABS virgin pellet.

型式	MDRⅡ-5050 (-HG)	MDRⅡ-7575 (-HG)
Conveying Hopper Effective Capacity (Dryer) (ℓ)	3.5	
Screen Size	7 inch Wide Color Monitor	
Language support	Japanese, English, Chinese	
Mold memory	99 MEMORIES	
Material Library	50 entries	
Power Supply (V)	3-phase AC200(50/60Hz)	
Rated Current (A)	40	
Power Consumption (kWh)	3.49 when temperature is set to 100℃	
Temperature Controller — Control Method	PID Control	
Temperature Controller — Sensor Input	K (CA)	
Dimensions — Width (mm)	1629	
Dimensions — Height (mm)	1957	2237
Dimensions — Depth (mm)	788	
Weight	292	295
IMM Loading Hopper (Standard Type) — Hopper Type	G Hopper 100	
IMM Loading Hopper (Standard Type) — Capacity (ℓ)	7	

1629
788
1629
2237 [1957]
Diameter of Material Suction Hose φ38
D1 D2
Diameter of Suction Hose for IMM Standard Model Helical φ50
Diameter of Material Outfeed Hose φ38
(1372) [1187]
(1372) [1187]
(1935) [1715]
(1935) [1715]
[ ]内はMDRⅡ−5050

MDR2-5050_7575-E01 24121KP

2-Tank Dehumidifier Dryer

MDRⅡ-5050(-HG)
MDRⅡ-7575(-HG)

MDRⅡ-7575

With Wide Material Loading Variations, the Operating Rate of MMs Increased! **2-Tank Dehumidifier Dryer**
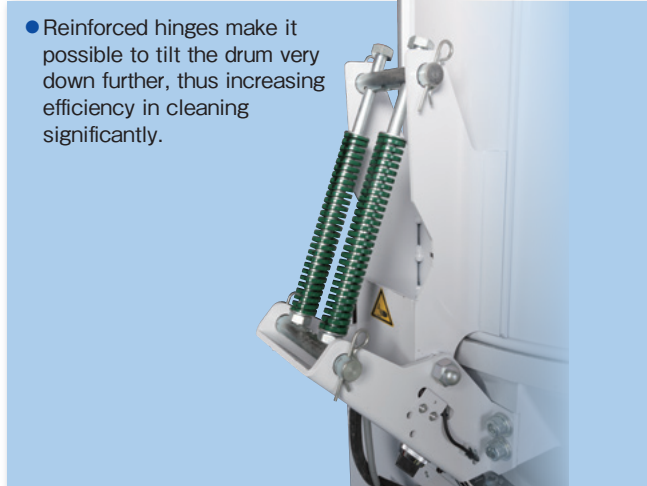
Higher efficiency in setup! Higher level of cleaning work!
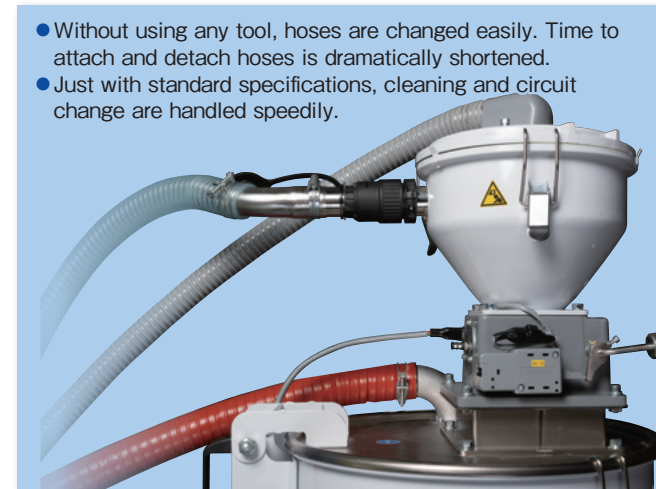
Easy to open/close the drum

Reinforced hinge

- Reinforced hinges make it possible to tilt the drum very down further, thus increasing efficiency in cleaning significantly.
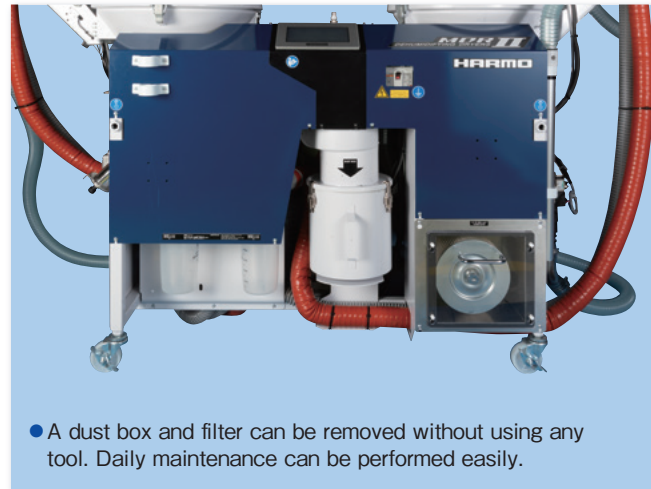
One-touch coupler (standard specifications)

- Without using any tool, hoses are changed easily. Time to attach and detach hoses is dramatically shortened.
- Just with standard specifications, cleaning and circuit change are handled speedily.
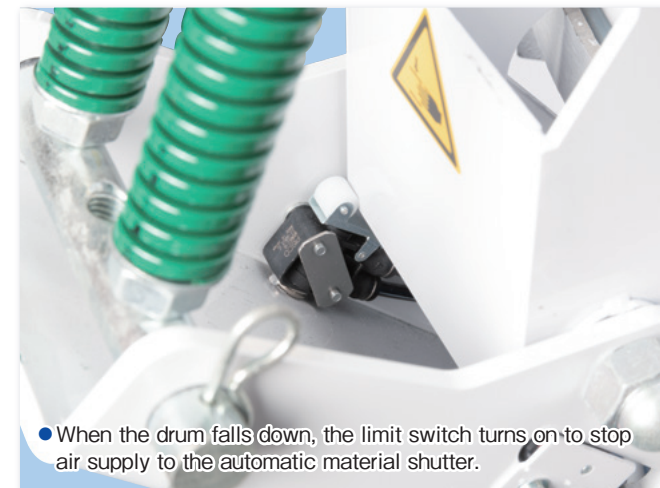
Filter cover and double cyclones

- A dust box and filter can be removed without using any tool. Daily maintenance can be performed easily.
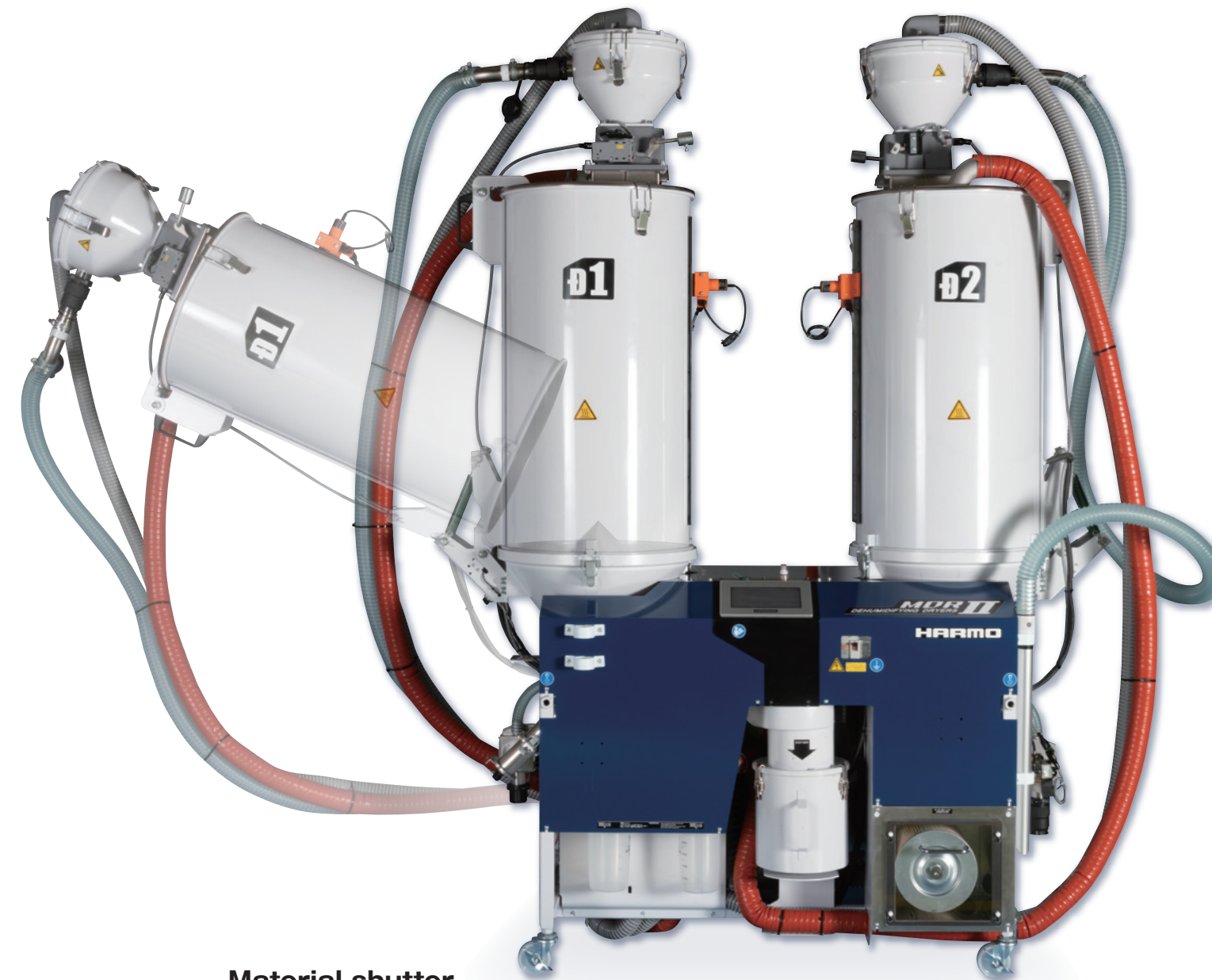
Operator's safety ensured

Hand or finger pinching accidents prevented by the automatic material shutter with a sensor and limit switch

- The falling down of the drum is detected by a sensor, and the opening/closing of the automatic material shutter is stopped automatically.
- When the drum falls down, the limit switch turns on to stop air supply to the automatic material shutter.
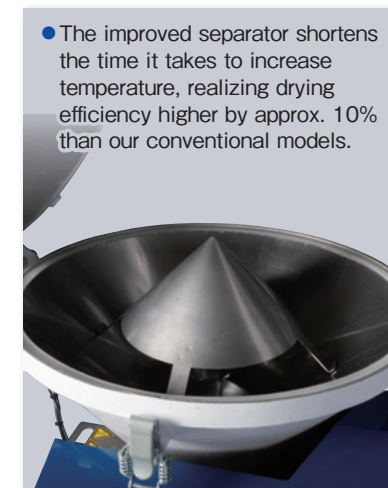
Material shutter auto/manual changeover switch

- Turn this switch to automatic mode, the material shutters for tanks D1 and D2 are controlled automatically. The material flow becomes smooth. Turn the switch to manual mode for material discharge or cleaning.

Separator

- The improved separator shortens the time it takes to increase temperature, realizing drying efficiency higher by approx. 10% than our conventional models.

Material level gauge

- The capacity is adjusted with the material level gauge to reduce the work of discharging excessive material significantly.

Helical hopper (HG type)

- Rotation/separation and stirring are performed by air in the hopper to repeatedly remove fine particles adhering to the surface of resin material, so that two materials can be mixed without being separated.

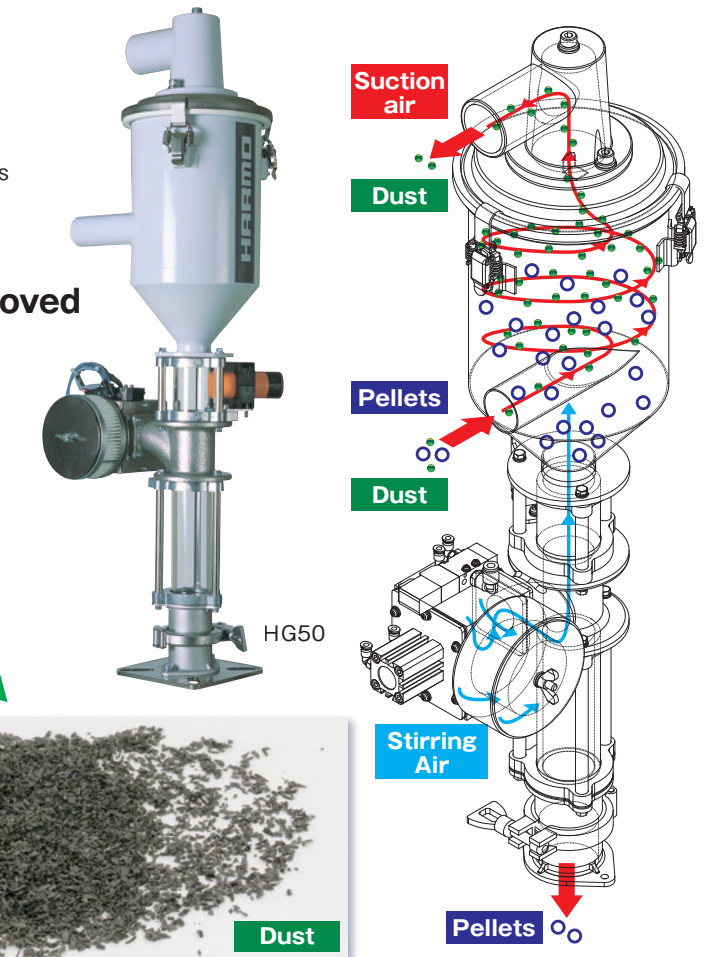### Sample material with dust removed
Crushed PA6

Original

Dust removed

Dust

Suction air
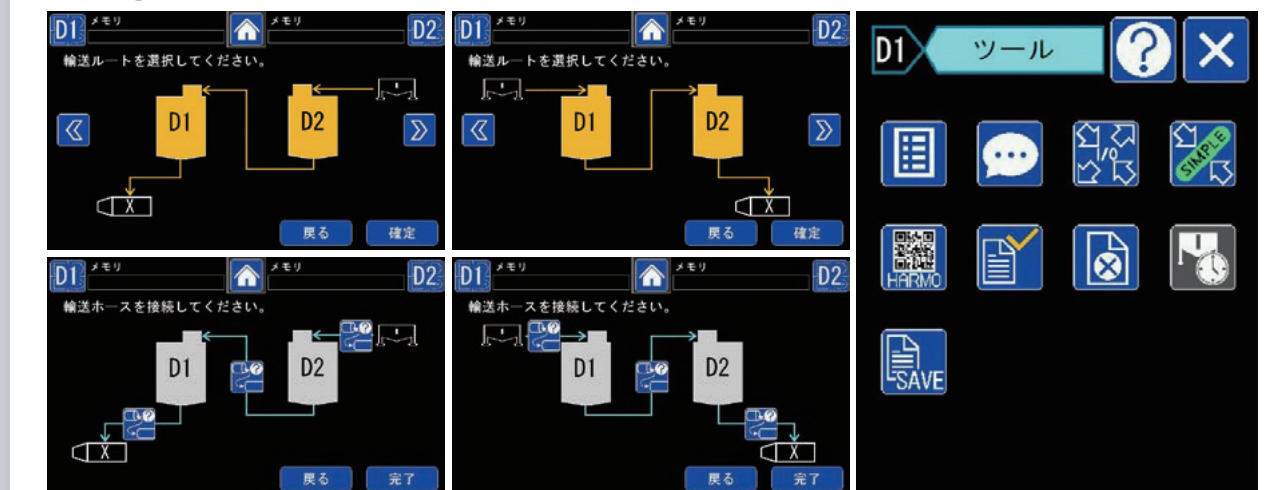
Dust

Pellets

Dust

Stirring Air

Pellets

HG50

Controller

7 inch type wide color indicator adopted, making it possible to present visual information using colors

Navigation function

- The operation screen adopting the navigation function helps operate various loading patterns with ease.
- Icons and illustrations realize the co-existence of ease of use and visual clarity.