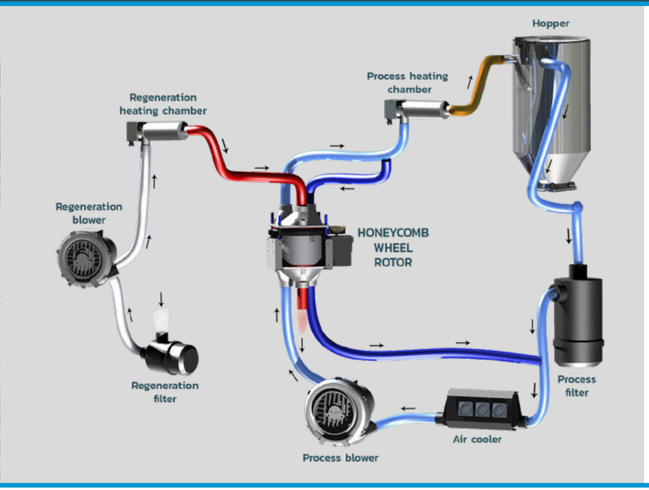
Summit Systems: Leaders in plastics ancillary equipment & services

DRYPLUS DP SERIES



TECHNICAL FEATURES

The wheel dryer offers a large number of important advantages:

- Dryer installed separate from the drying hopper
- Drying temperatures up to 180°C
- Constant and adjustable dew point of down to -50°C
- Energy saving up to 40% and more
- Energy monitoring system with large controller full text display
- No need of compressed air
- No need of cooling water
- Automatic or manual adjustable process air flow
- Material selection table with pre-set or programmable drying parameters
- Visual and acoustic alarm
- Smart Mode: automatic adaption of the drying process to the production needs by monitoring the return air temperature – no waste of energy
- MPM (Material Protection Management): protects the material from over drying and degradation by monitoring the loading system or return air temperature
- SLS (Safety Loading System): prevents that undried material is reaching the production machine by monitoring the drying time
- 5 Years warranty on the desiccant wheel

Choose from numerous additional options:

- Weekly timer
- Integrated or external portable dew point sensor
- Bio-material version for drying temperatures below 50°C
- Automatic throughput control in combination with our HALO
- Integration in the Vismec Supervision system 4.0 to operate from a PC, tablet or smart phone or other external management systems
- Clean room version for medical and pharma applications
- Remote control
- Filter sensor to prevent filter clogging
- Various mobile and stationary frames with and without castors
- Selection of suction boxes with different outlets and diameters
- Integrated brushless conveying system "feeding kit"

DESICCANT WHEEL DRYER

The desiccant wheel dryer is the new generation of desiccant dehumidifying dryers. It is far more efficient, more compact and requires less maintenance.

Traditional dehumidifying dryers use a large volume of molecular sieves in pellet form composed by at least 30% of clay, which tends to degrade very easily over time.

The desiccant wheel instead is completely different where the pure molecular sieve is applied to a synthetic substrate, rolled into a cylinder forming a honeycomb structure and covered by a steel protection.

HOW THE WHEEL DRYER WORKS

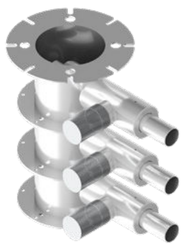
The wheel is rotating driven by a step motor through 3 main sections: drying, regeneration and cooling.

- In the first section the humid process air coming from the material hopper through a return air filter is dried in two stages and the dry air is returned by the process blower through a heating chamber to the material in the drying hopper
- Parallel to that a part of the turning wheel is in regeneration with its own dedicated heat chamber and regeneration blower
- In the cooling section a part of the wheel is cooled down before it returns back into the drying process

DP 160 + COOLER

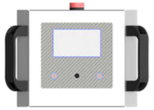
DP 250 + H 400

3-WAY SUCTION VALVE



HALO

REMOTE CONTROL



FEEDING KIT

TECHNICAL TABLE DP series

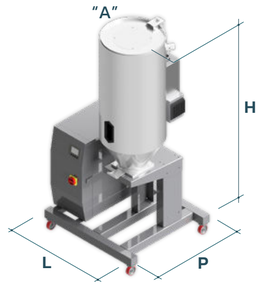
MODEL	Temperature [°C]	Air Flow [m³/h]	Power Supply	Heating Power [kW]	Installed Power [kW]	Dew Point [°C]	Energy at 80°C [kW/Kg/h]	Energy at 120°C [kW/Kg/h]
DP 50	50 - 185	20 - 50	3P+N 400V	2,5	4,2	0 / -45	0,06	0,08
DP 80	55 - 185	30 - 80	3P+N 400V	3,5	5,5	0 / -45	0,06	0,08
DP 160	55 - 185	75 - 160	3P+N 400V	7	12,1	0 / -50	0,06	0,08
DP 250	55 - 150	120 - 250	3P+N 400V	7 - 14	12,9 - 19,9	0 / -50	0,06	0,08
DP 400	55 - 150	180 - 400	3P+N 400V	14 - 21	24,9 - 31,9	0 / -50	0,06	0,08
DP 630	55 - 150	300 - 630	3P+N 400V	21 - 35	38,3 - 52,3	0 / -50	0,06	0,08
DP 900	55 - 150	340 - 900	3P 400V	35 - 42	58,7 - 65,7	0 / -50	0,06	0,08
DP 1200	55 - 150	450 - 1200	3P 400V	42 - 56	77,9 - 91,9	0 / -50	0,06	0,08
DP 1700	55 - 150	900 - 1700	3P 400V	56 - 77	106,6 - 127,2	0 / -50	0,06	0,08

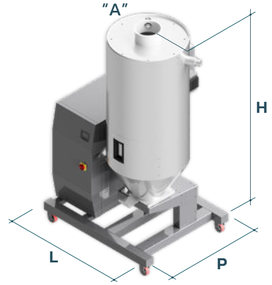
DRYER AND DRYING HOPPER COMBINATIONS - DIMENSIONAL TABLE

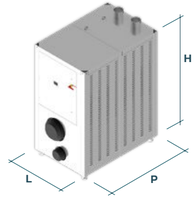
MODEL	Hoppers	L [mm]	P [mm]	H [mm]	Air Hose [mm]	Lid flange holes "A" [mm]
DP 50	75 LITERS	940	852	1720	50	4 x M6 D 280
	100 LITERS	940	852	1975	50	4 x M6 D 280
	150 LITERS	940	852	2049	50	4 x M6 D 280
DP 80	100 LITERS	940	852	1975	50	4 x M6 D 280
	150 LITERS	940	852	2049	50	4 x M6 D 280
	200 LITERS	940	852	2344	50	4 x M6 D 280
DP 160	200 LITERS	1440	1155	2299	63,5	4 x M6 D 280
	300 LITERS	1440	1155	2398	63,5	4 x M6 D 280
	400 LITERS	1440	1155	2637	63,5	4 x M6 D 280
	600 LITERS	1680	1160	2686	63,5	4 x M6 D 280
DP 250	300 LITERS	1440	1155	2398	63,5	4 x M6 D 280
	400 LITERS	1440	1155	2637	63,5	4 x M6 D 280
	600 LITERS	1680	1160	2686	63,5	4 x M6 D 280
	800 LITERS	1680	1181	3046	63,5	4 x M6 D 280
DP 400	600 LITERS	1830	1250	2703	114,3	4 x M6 D 280
	800 LITERS	1830	1250	3065	114,3	4 x M6 D 280
	1200 LITERS	1830	1250	3659	114,3	4 x M6 D 280

DRYER DIMENSIONAL TABLE

MODEL	L [mm]	P [mm]	H [mm]	Air Hose [mm]
DP 630	650	1216	1575	114,3
DP 900	1095	2005	1609	159
DP 1200	1095	2005	1609	159
DP 1700	1165	2065	2245	220







VISMEC DP THROUGHPUT TABLE

MATERIAL	Bulk Density [kg/dm³]	Drying Time [h]	DP 50			DP 80			DP 160				DP 250				DP 400			DP 630
			75 L	100 L	150 L	100 L	150 L	200 L	200 L	300 L	400 L	600 L	300 L	400 L	600 L	800 L	600 L	800 L	1200 L	and bigger
							throughput [kg/h]				throughput [kg/h]				throughput [kg/h]					
ABS	0,55	2 – 5	10 – 20	10 – 30	15 – 40	10 – 30	15 – 40	20 – 55	20 – 55	35 – 85	45 – 110	65 – 165	35 – 85	45 – 110	65 – 165	90 – 220	65 – 165	90 – 220	130 – 330	on request
ASA	0,60	2 – 4	10 – 20	15 – 30	20 – 45	15 – 30	20 – 45	30 – 60	30 – 60	45 – 90	60 – 120	90 – 180	45 – 90	60 – 120	90 – 180	120 – 240	90 – 180	120 – 240	180 – 360	on request
CA	0,80	2 – 4	15 – 30	20 – 40	30 – 60	20 – 40	30 – 60	40 – 80	40 – 80	60 – 120	80 – 160	120 – 240	60 – 120	80 – 160	120 – 240	160 – 320	120 – 240	160 – 320	240 – 480	on request
LCP	0,90	4 – 6	10 – 15	15 – 25	20 – 35	15 – 25	20 – 35	30 – 45	30 – 45	45 – 70	60 – 90	90 – 135	45 – 70	60 – 90	90 – 135	120 – 180	90 – 135	120 – 180	180 – 270	on request
PA 6	0,60	3 – 5	10 – 15	10 – 20	20 – 30	10 – 20	20 – 30	25 – 40	25 – 40	35 – 60	50 – 80	70 – 120	35 – 60	50 – 80	70 – 120	95 – 160	70 – 120	95 – 160	145 – 240	on request
PA 66	0,60	3 – 5	10 – 15	10 – 20	20 – 30	10 – 20	20 – 30	25 – 40	25 – 40	35 – 60	50 – 80	70 – 120	35 – 60	50 – 80	70 – 120	95 – 160	70 – 120	95 – 160	145 – 240	on request
PBT	0,80	2 – 4	15 – 30	20 – 40	30 – 60	20 – 40	30 – 60	40 – 80	40 – 80	60 – 120	80 – 160	120 – 240	60 – 120	80 – 160	120 – 240	160 – 320	120 – 240	160 – 320	240 – 480	on request
PC	0,70	4	15	20	25	20	25	35	35	55	70	105	55	70	105	140	105	140	210	on request
PC / ABS	0,70	2 – 4	15 – 25	20 – 35	25 – 50	20 – 35	25 – 50	35 – 70	35 – 70	55 – 105	70 – 140	105 – 210	55 – 105	70 – 140	105 – 210	140 – 280	105 – 210	140 – 280	210 – 420	on request
PC / PBT	0,75	2 – 4	15 – 30	20 – 40	30 – 55	20 – 40	30 – 55	40 – 75	40 – 75	55 – 115	75 – 150	115 – 225	55 – 115	75 – 150	115 – 225	150 – 300	115 – 225	150 – 300	225 – 450	on request
PE	0,50	1 – 2	20 – 40	25 – 50	40 – 75	25 – 50	40 – 75	50 – 100	50 – 100	75 – 150	100 – 200	150 – 300	75 – 150	100 – 200	150 – 300	200 – 400	150 – 300	200 – 400	300 – 600	on request
PEEK	0,80	2 – 3	20 – 30	25 – 40	40 – 60	25 – 40	40 – 60	55 – 80	55 – 80	80 – 120	105 – 160	160 – 240	80 – 120	105 – 160	160 – 240	215 – 320	160 – 240	215 – 320	320 – 480	on request
PEI	0,75	2 – 3	20 – 30	25 – 40	40 – 55	25 – 40	40 – 55	50 – 75	50 – 75	75 – 115	100 – 150	150 – 225	75 – 115	100 – 150	150 – 225	200 – 300	150 – 225	200 – 300	300 – 450	on request
PES	0,80	3 – 5	10 – 20	15 – 25	25 – 40	15 – 25	25 – 40	30 – 55	30 – 55	50 – 80	65 – 105	95 – 160	50 – 80	65 – 105	95 – 160	130 – 215	95 – 160	130 – 215	190 – 320	on request
PET	0,80	3 – 5	10 – 20	15 – 25	25 – 40	15 – 25	25 – 40	30 – 55	30 – 55	50 – 80	65 – 105	95 – 160	50 – 80	65 – 105	95 – 160	130 – 215	95 – 160	130 – 215	190 – 320	on request
PET - G	0,80	4 – 6	10 – 15	15 – 20	20 – 30	15 – 20	20 – 30	25 – 40	25 – 40	40 – 60	55 – 80	80 – 120	40 – 60	55 – 80	80 – 120	105 – 160	80 – 120	105 – 160	160 – 240	on request
PET-Preform	0,90	4 – 6	10 – 15	15 – 20	20 – 35	15 – 20	20 – 35	30 – 45	30 – 45	45 – 70	60 – 90	90 – 135	45 – 70	60 – 90	90 – 135	120 – 180	90 – 135	120 – 180	180 – 270	on request
PI	0,85	3	20	30	40	30	40	55	55	85	115	170	85	115	170	225	170	225	340	on request
PLA	0,75	2 – 4	15 – 30	20 – 40	30 – 55	20 – 40	30 – 55	40 – 75	40 – 75	55 – 115	75 – 150	115 – 225	55 – 115	75 – 150	115 – 225	150 – 300	115 – 225	150 – 300	225 – 450	on request
PMMA	0,70	4 – 6	10 – 15	10 – 20	15 – 25	10 – 20	15 – 25	25 – 35	25 – 35	35 – 55	45 – 70	70 – 105	35 – 55	45 – 70	70 – 105	95 – 140	70 – 105	95 – 140	140 – 210	on request
POM	0,85	1 – 2	30 – 65	45 – 85	65 – 125	45 – 85	65 – 125	85 – 170	85 – 170	130 – 255	170 – 340	255 – 510	130 – 255	170 – 340	255 – 510	340 – 680	255 – 510	340 – 680	510 – 1020	on request
PP	0,50	1 – 2	20 – 40	25 – 50	40 – 75	25 – 50	40 – 75	50 – 100	50 – 100	75 – 150	100 – 200	150 – 300	75 – 150	100 – 200	150 – 300	200 – 400	150 – 300	200 – 400	300 – 600	on request
PPA	0,80	4	15	20	30	20	30	40	40	60	80	120	60	80	120	160	120	160	240	on request
PPS	0,80	3 – 4	15 – 20	20 – 25	30 – 40	20 – 25	30 – 40	40 – 55	40 – 55	60 – 80	80 – 105	120 – 160	60 – 80	80 – 105	120 – 160	160 – 215	120 – 160	160 – 215	240 – 320	on request
PSU	0,75	3 – 5	10 – 20	15 – 25	20 – 40	15 – 25	20 – 40	30 – 50	30 – 50	45 – 75	60 – 100	90 – 150	45 – 75	60 – 100	90 – 150	120 – 200	90 – 150	120 – 200	180 – 300	on request
PUR	0,75	2 – 3	20 – 30	25 – 40	40 – 55	25 – 40	40 – 55	50 – 75	50 – 75	75 – 115	100 – 150	150 – 225	75 – 115	100 – 150	150 – 225	200 – 300	150 – 225	200 – 300	300 – 450	on request
SAN	0,65	2 – 4	10 – 25	15 – 35	25 – 50	15 – 35	25 – 50	35 – 65	35 – 65	50 – 100	65 – 130	100 – 195	50 – 100	65 – 130	100 – 195	130 – 260	100 – 195	130 – 260	195 – 390	on request
SB	0,65	2 – 4	10 – 25	15 – 35	25 – 50	15 – 35	25 – 50	35 – 65	35 – 65	50 – 100	65 – 130	100 – 195	50 – 100	65 – 130	100 – 195	130 – 260	100 – 195	130 – 260	195 – 390	on request

indications given for free flowing materials at min. and max. drying time

OIL TRAP

Main features

- Suitable for airflow up to 200 m³/h.
- Condensing at least 98% of the oils.
- Zero pressure drop.
- Maximum working temperature 200 °C.
- Stainless steel water connection.
- Glass oil collector.
- Suitable for medical and pharmaceutical applications.
- Second stage filtration system for 99,99% oil remove. (OPTIONAL)

MODEL	Temp. [°C]	Air Flow [m³/h]	Air hose [mm]	Water connection	Installed Power [kW]
Oiltrap 50	200	200	50	3/8" flow 30 lt/hr	0,7

MODEL	L [mm]	P [mm]	H [mm]
Oiltrap 50	350	635	1.100

DRYFEED

In case of central conveying of dried materials the Vismec Dryfeed provides dry air to the conveying process to avoid that the material can pick up humidity from the ambient during the transfer.
A dedicated drying system for conveying also avoids the use of dry air from a material drying process.
The Vismec Dryfeed system can be also installed on a third party conveying system.

MODEL	Air Flow [m³/h]	Material pipe Ø [mm]	Installed Power [kW]
D 40	6 - 25	40	2,07
D 50	6 - 25	50	2,07
D 60	6 - 25	60	2,07
D 70	6 - 25	70	2,07

MODEL	L [mm]	P [mm]	H [mm]
All model	304	495	422

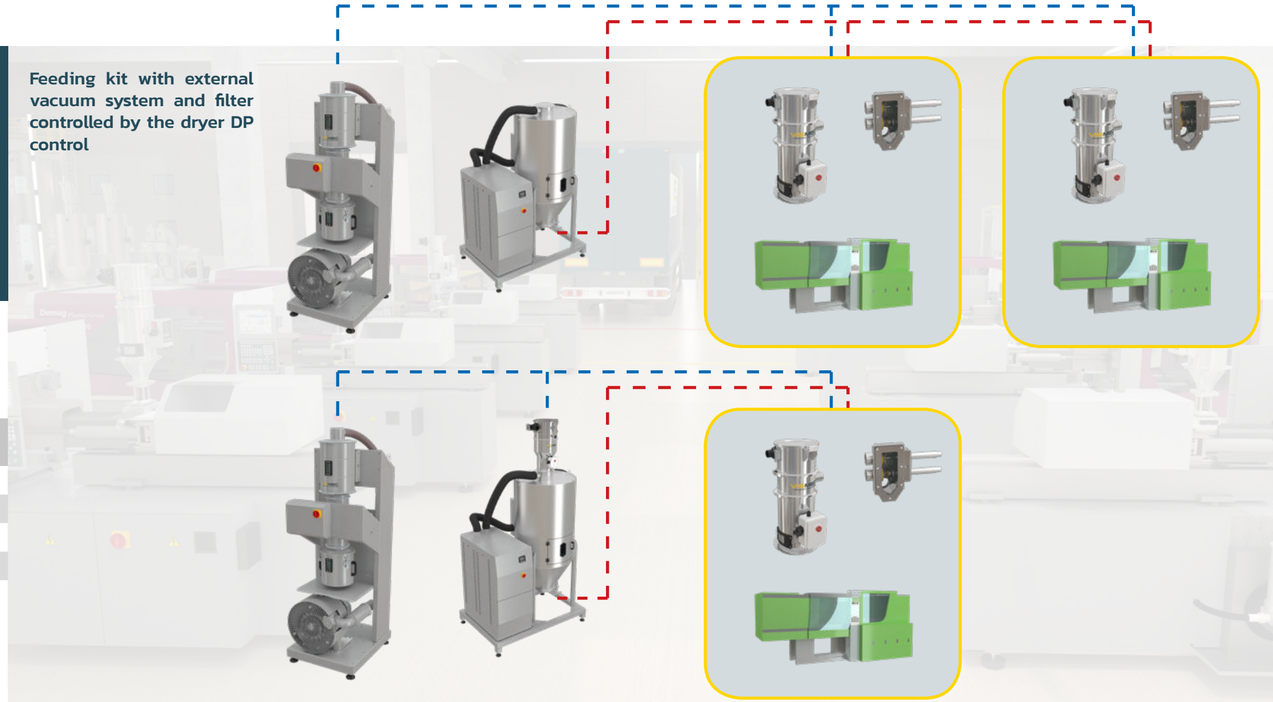
FEEDING KIT

The Vismec feeding KIT uses a brushless single phase blower to connect up to two stations: - dryer and process machine or two machines.
The control is integrated directly in the dryer, including also the possibility to setup a ratio valve.
For larger drying systems and throughputs a standard side channel blower with cyclone filter can be integrated in stead of the brushless single phase blower.

Integrated blower

MODEL	Loader capacity	Hose diameter [mm]	Blower Code	Blower Power [W]
DP 50	6 - 10 L	ø 40 / ø 50	00104	1.100
DP 80	6 - 10 L	ø 40 / ø 50	00104	1.100
DP 160	6 - 10 L	ø 40 / ø 50	00104	1.100
DP 250	6 - 10 L	ø 40 / ø 50	00104	1.100

Feeding kit with external vacuum system and filter controlled by the dryer DP control



PORTABLE DEW POINT METER

Main features:

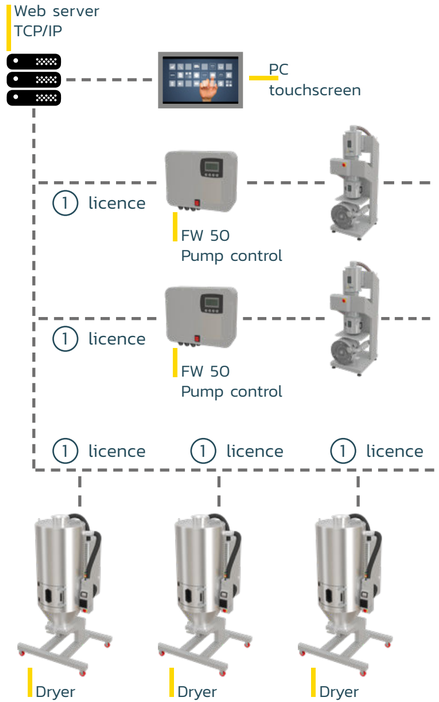
standard dryer
- optional internal dew point sensor

external
- external dew point meter
- integrated vacuum pump
- direct power supply or battery

HALO

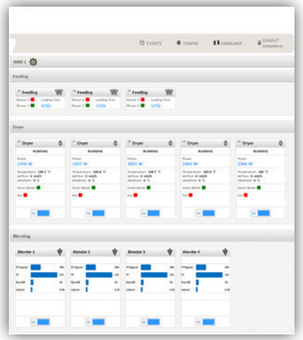
The Vismec HALO is a weighing ring installed on the top of the drying hopper to measure in real-time the troughput in kg/h.
This information is directly given to the dryer control and the drying parametry are adapted automatically to the real troughput.
Additionally the accumulated weight can be monitored on the dryer display and if needed reset for a new production lot.
The HALO is also available for integration in VISMEC or third party individual and central conveying systems.

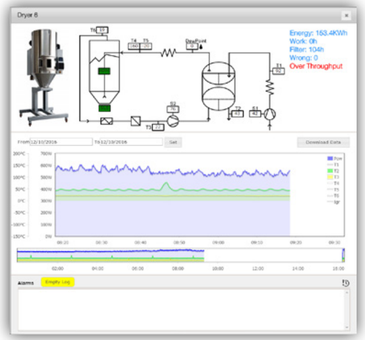
Capacity	Power	Communication Modbus Rtu Interface	Suitable Receivers	Material Max Temp.
100 Kg	24 Vdc 100 mA	RJ45 R s485	From 2 to 25 liters	80° C



SUPERVISION

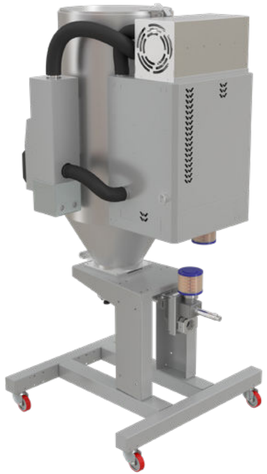
The Vismec supervision system allows a complete overview at one glance of the complete production: individual and central conveying, drying and dosing.
The data and machines can be accessed from any point in the network through a PC, tablet or smartphone, even in wireless.
A remote access is possible for monitoring the system and for trouble shooting from an external position, also from eventual third party companies.
The supervision system also can be linked to other external systems for a data exchange in a 4.0 enviroment.





BIO MATERIAL

This dryer product line has been specifically developed for a new fast growing market segment of BIO materials.
These plastic materials are based on mais, rice, wheat or other natural products with usually very low drying temperatures. As all our drying systems there is no compressed air or cooling water needed. We simply add another air cooler on top of the standard dryer.
The low drying temperature to be reached is 7°C above ambient temperature with a minimum set value of 30°C.



MEDICAL

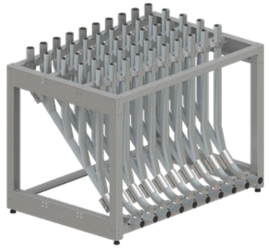
This special product line is based on the standard DW dryerversion dedicated to medical and pharmaceutical products. Our DW medical drying line can be installed directly in a clear room ambient.

Main features:

- fully insulated stainless steel hopper inside and outside
- stainless steel fiter housing
- stainless steel piping
- dew point probe

GLASS RECEIVER

AUTOMATIC DISTRIBUTION STATION

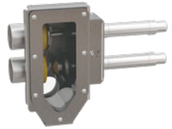


MANUAL DISTRIBUTION STATION

STAINLESS STEEL RECEIVER

BIG BAG EMPTYING STATION

STAINLESS STEEL MATERIAL HOPPER



RATIO VALVE

VACUUM STATION

DOUBLE CYCLONE FILTER

SUMMIT SYSTEMS
PLASTICS AUTOMATION

contact us for other products:

- conveying
- dosing
- grinding
- storage

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