

CONVEYING

# METRO

System Solutions - Conveying



ZERO LOSS

# METRO G

## SYSTEM SOLUTIONS - HOPPER LOADERS FOR GRANULATE



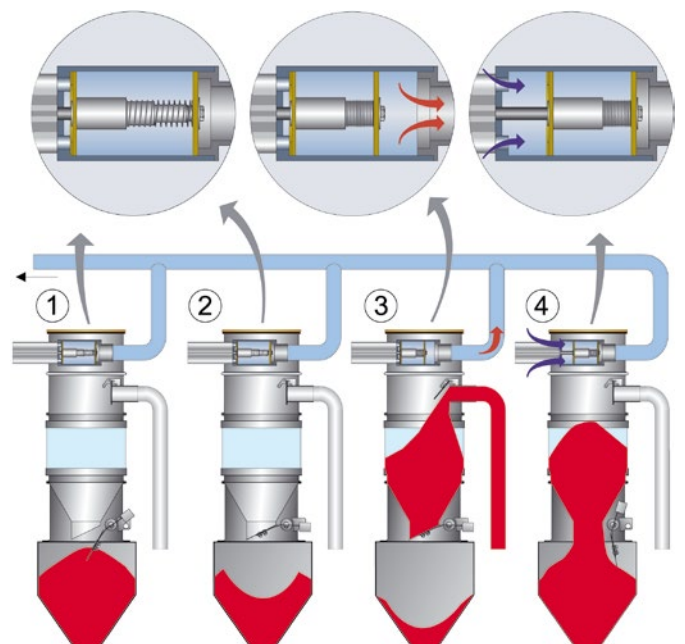
METRO G is the most comprehensive and flexible material loader range on the market. It combines the best of two established material loader ranges – colortronic and motan. Whether simple or highly complex, METRO G’s modular system will provide you with an individual solution tailored to your demands.

motan is a world leading supplier of complex centralised material feed systems. Each system is designed to suit your needs by taking into account individual factors such as throughput, materials types and plant layout. A wide selection of loaders with a variety of conveying options, controls, blowers and filter techniques allow the creation of the optimum system for your facility.

A centralised conveying system offers substantial operational benefits and cost savings for plastics processors.

### Vacuum valve with implosion cleaning

The mesh filter is automatically cleaned after each loading cycle by implosion. This guarantees a constant and reliable material conveying and reduces maintenance costs on the loader. Because the material loader is air-tight the conveying performance remains stable and there is no dust around the unit.



METRO G 06M-HCG



METRO G 06V-HCG



METRO G 06E-HPS



METRO G 0.5I-MSG



**Modular design**

No product redundancy - as your production requirements change so does the material loader. All material loaders are fully modular and can be matched to different throughputs and requirements depending on the application. Not only are there different material loader volumes but also different material inlet and outlet sizes which can be accurately adapted to suit throughputs and conveying distances. The option of either a glass or steel hopper body is available for most loaders.

**Machine loader version**

Perfect for conveying hygroscopic materials with small throughputs, or where space is limited, a machine loader version is available. The discharge module of the loader has no discharge flap and the unit must be mounted directly on the feed throat of the processing machine.

The benefit to you is that no machine supply hopper is required and very little material stays at the machine. This is especially important for dried materials as the residence time of the material is kept to an absolute minimum.

**Lid mounted vacuum valve**

Reliable operation even when conveying with high vacuums. The cast design with extra strong air cylinder makes this vacuum valve perfect for demanding conveying applications where a high material loading and high vacuum are required.

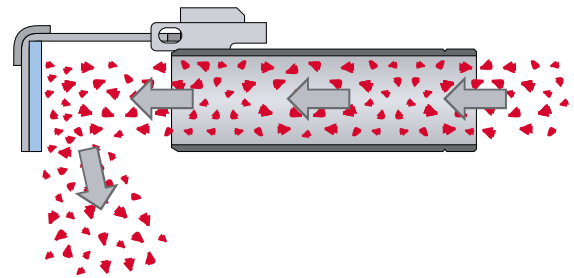
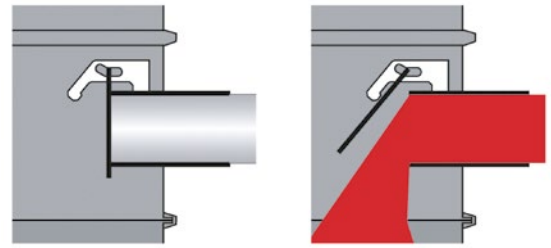


**Membrane vacuum valve**

This valve is contamination free - guaranteed. A membrane vacuum valve operates without the need for compressed air, instead it gets its energy from the conveying system, using vacuum to open and close the valve. This makes it ideal for clean room applications.



# METRO G



### Interchangeable material inlet flaps

Optimum conveying capacity and minimum wear. The material loader inlet flaps are easily removeable, and depending on your application, can be exchanged. The flaps make sure that multiple loaders can work together properly in a system. They limit the amount of vacuum required for a group of loaders connected to a coupling station. Thus, no check valves need to be installed in the material flow at the coupling station which would result in a reduction in conveying

capacity and increased material abrasion. An additional benefit of the inlet flap is that it acts as a deflector plate at the material inlet and so protects the loader mesh filter and body from wear. Angled and special glass plated versions are available for extremely abrasive materials.

### Tangential material inlet with trumpet air outlet

The ideal solution for fine or dusty materials. If the materials that you need to convey have a small granule size, are very dusty or contain angel-hair, then the METRO G loaders can be supplied with a tangential material inlet. During conveying this produces a cyclone effect which is perfect for separating different types of materials. With the "trumpet" air outlet, the exhaust air speed is well below the levitation speed so that no granules or particles can be carried back to the central dust filter.

### Twin material inlets

Two material inlets for the proportioning of different materials. You can easily adjust the percentage and number of material layers per conveying cycle.



### Stainless steel discharge flap

Because the large material outlet has a discharge flap which is made of stainless steel it is abrasion resistant and meets all requirements for medical or food packaging applications. The angled design increases the outlet area and helps with materials which may bridge.



### Dampened discharge flap

Prevents material jamming and vacuum loss.

A spring loaded damper on the discharge flap prevents the flap from completely closing when not under vacuum. During pneumatic conveying any granules left lying on the discharge flap which might get trapped are first sucked away. With increasing vacuum, the flap is then pressed against the spring and will close completely.



### Discharge flap counterweight

The counterweight of the outlet flap is mounted on the outside of the loader discharge module; this means that the actual status of the loading cycle is visible at all times. Service work can be easily and quickly carried out, as accessibility is excellent.



### De-dusting module

Guarantees consistent material quality for critical applications. The de-dusting module removes dust and fines from the high performance engineering plastics directly at the hopper loader, sending them via the air flow to the central dust filter. These expensive materials, now dust-free, can be processed without further delay.



### Implosion valve for any application

The reliable vacuum valve is suitable for light as well as higher pressures and offers with its powerful pneumatic cylinder the ideal solution for almost all uses. Silicone-free seals or a variant for high temperatures are possible. For clean room applications, the filter can be retrofitted without an adapter and with minimum effort.



# METRO G/F/R

SYSTEM LOADERS FOR GRANULATE, FLAKES AND REGRIND MATERIALS



To cope with large material conveying throughputs of up to 6000kg/h. Hopper loaders are available in 60, 100, or 150 litre sizes. The system loaders are an integral part of a centralised material conveying system.

Each system is designed to suit your specific needs; e.g. throughput, material types, and plant layout are individually considered. In addition to different loader sizes, a wide variety of conveying options, controls, blowers, and filter techniques allow the creation of the optimum system for your facility. By centralising your conveying system, the cost of material handling is reduced considerably.

### Material discharge valve

The METRO G/F/R models are designed for conveying of granulate, flake and regrind materials.

A large diameter pneumatic butterfly valve (Ø300mm) is used, guaranteeing safe material discharge. The opening and closing of the valve, in addition to its large diameter helps to break any bridged material.



### Material request sensor

A rotary paddle switch is installed below the discharge valve to automatically start the conveying cycle when the material level falls below the sensor.



### Sensor for maximum level in every hopper loader

A rotary paddle switch is installed in the loader body to automatically stop the conveying cycle when the maximum level is reached.



### METRO R - Optional dust removal

As material is discharged from the METRO R material loader, dust is actively removed and conveyed to the central dust filter. This is achieved by generating an air flow using the central vacuum pump.



### METRO R – Special filter unit

A large PTFE-coated cloth filter is installed in the loader. The large filter area to air flow ratio and the Teflon membrane coating on the filter provides you with optimum dust separation.

A compressed air accumulator integrated in the hinged lid of the hopper loader with direct connection of the air outlet nozzles secures high-efficient filter cleaning.

### METRO G/F – Optional compressed air filter cleaning

In addition to implosion cleaning the mesh filter can also be automatically cleaned by compressed air after each loading cycle.



# METRO P

## HOPPER LOADERS FOR POWDERS

In the plastics compounding and manufacturing process, there are many powders (all with different flow properties) that require handling. For the vacuum conveying of both free-flowing and non-free-flowing powders, motan has a solution. The METRO P series of hopper loaders are available in two versions and guarantee reliable and dust-free conveying.

The METRO PC system loaders are designed to be integrated into centralised motan conveying systems. The METRO PB single loaders are designed to be used as a “stand-alone” solution. From the material source right through to the point of processing, motan offers the ideal solution for your powder handling requirements.

### METRO PC system loaders

To cope with different material conveying throughputs, hopper loaders are available in 10, 25 or 50 litre sizes. The system loaders are an integral part of a centralised material conveying system. Each system is designed to suit the customer; e.g. throughput, material types and plant layout are individually taken into account. In addition to different loader sizes, a wide variety of conveying options, controls, blowers and filter techniques allow the creation of the optimum system for the customer’s facility.

The hopper loaders along with the blower and other system components are integrated using a CAN-Bus network linked to the METROnet conveying control. The control can be used as a single control for one conveying system or combined with other controls using Ethernet to form an integrated network. The control is operated using a full colour easy-to-use graphic touch panel.

### METRO PB stand-alone loaders

The METRO PB versions come in a variety of loader and blower sizes for material throughputs of up to 1000kg/h. Included in the scope of supply is a floor-mounted blower station comprised of a control and a maintenance-free, low-noise three-phase blower.

The intuitive colour graphic display with touch panel is located at a convenient height allowing for easy operation of the stand-alone system.

### Hopper loader models F & N

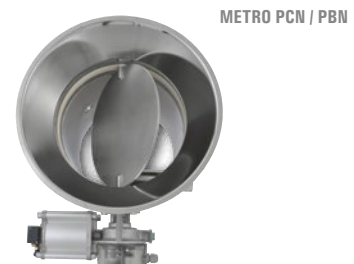
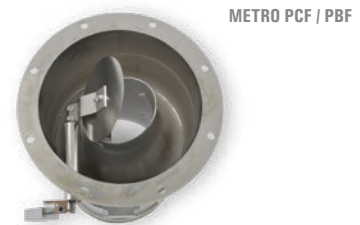
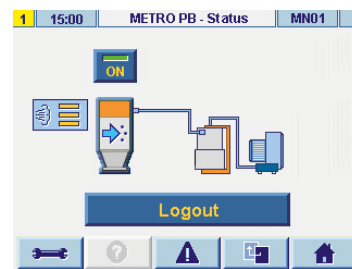
The METRO PCF and PBF models are designed for free-flowing powders, the METRO PCN and PBN models for non-free-flowing powders.

### Material discharge of METRO PCF and PBF

A counter weighted gravity discharge flap (Ø130mm) is used for free-flowing powders with throughputs up to 500 kg/h.

### Material discharge of METRO PCN and PBN

A pneumatic butterfly valve (Ø300mm) is used for all non-free-flowing powders, guaranteeing safe material discharge.





Filter unit



#### Filter unit

Up to 7 generously dimensioned ePTFE-coated star cartridge filters can be installed in the loader. The large filter area to air-flow ratio and the Teflon membrane coating on the filters provides optimum separation for all powders.

#### Filter cleaning unit

A compressed air accumulator integrated in the hinged lid of the hopper loader with direct connection of the air outlet nozzles secures high-efficient filter cleaning. Depending on the material to be conveyed, optimisation of the filter cleaning sequences can be made in the setup menu of the control.

Filter cleaning



#### Vacuum valve

All METRO PC loaders are fitted with a vacuum valve. The valve opens the vacuum line when material is being conveyed and closes with an airtight seal after the conveying phase. This allows multiple loaders to be connected to one blower.

#### Fluidisation aid for METRO PBN and PCN loaders

The optional fluidisation aid installed in the hopper body of the N-type loaders eliminates bridging and guarantees safe discharge even with non-free-flowing powders.

Vacuum valve



#### Level sensor

In every hopper loader, a rotary paddle switch can be optionally installed to automatically stop the conveying cycle when the level is reached.

#### Material take-up

Essential for trouble-free material conveying is the correct form of material take-up.

#### Conveying of free-flowing powders:

##### Telescopic suction probe

Free-flowing powders can be simply conveyed using a telescopic suction probe connected to the material feed-line.

#### Conveying of non-free-flowing powders:

##### Screw discharge

In a collecting hopper fitted with a horizontal agitator, non-free-flowing powder is stirred up. The integrated feed-screw conveys the powder directly into the material feed-line. By varying the feed-screw speed, the amount of material being conveyed can be adjusted.

Screw discharge



# METROFLOW

## GRAVIMETRIC MATERIAL LOADER



The METROFLOW series is part of the motan range of products and systems for all stages of management, conditioning and preparation of plastic granules. With the METROFLOW gravimetric material loader, plastic processors can automate important areas of the production process cost-effectively and efficiently. The METROFLOW weighs every single load and evaluates the results with a maximum deviation of 1%. Gravimetric throughput control greatly improves the entire material management process and allows for full traceability.

A known quantity of virgin and regrind material is conveyed quickly and cleanly to the hopper of a processing machine or a drying bin. The material loaders come in 6, 10 and 30 liter volumes. The design quality, plus the engineering, ensures high performance and reliable operation.

### Precision load cell

The digital load cell guarantees high accuracy with every single weighing. This guarantees a weighing accuracy with a very small deviation. Any vibrations or oscillations caused by the processing machine are compensated for by the highly accurate control, which uses proprietary software to filter out any disturbances.



### Dampened discharge flap

A spring-loaded damper on the discharge flap prevents the flap from completely closing when not under vacuum. During pneumatic conveying, any granules left lying on the discharge flap which might get trapped are first sucked away. With increasing vacuum, the flap is then pressed against the spring and will close completely.



### Discharge flap counterweight

The counterweight of the discharge flap is mounted on the outside of the loader discharge module. This means that the actual status of the loading cycle is always visible. Service work can be easily and quickly carried out, because of easy accessibility.



### **Magnetically operated discharge flap**

After each conveying cycle, the vacuum used for conveying is released and the weight of the material would normally cause the discharge flap to open. But - due to the newly developed magnetically operated discharge flap - the flap remains firmly closed. Only after the material in the loader has been weighed, is the holding magnet deactivated and the material is discharged.

An additional advantage compared to a pneumatic discharge flap: no sensor is required below the hopper loader. The material request takes place via the initiator at the counterweight of the outlet flap.



### **Stainless steel discharge flap**

Because the large material outlet has a discharge flap which is made of stainless steel, it is abrasion resistant and meets all requirements for medical or food packaging applications. The angled design increases the outlet area and helps with materials which may bridge.



### **No hose connected to the lid**

When equipped with a standard implosion vacuum valve, the material loader lid is free from any attachments such as hoses and valves. This allows you to safely and easily gain access to the unit, which saves time when cleaning the loader.



### **Optional hinged frame**

The optional hinged frame, which is available when mounting the METROFLOW on a mezzanine or large material bin, allows easy cleaning of the discharge flap module.



# METRO CONTROLS



## Loader controls

From simple cost effective solutions to innovative state-of-the-art controls.

Three different control box options are available:

- P box: a simple plug connection with all other functions accessible at the central control
- S box: status indication and an on/off switch are at the loader
- X box: for integration of METRO-G loaders into existing colortronic conveying systems with status indication and an on/off switch
- C box: the most advanced control box with alarm and status indication, on/off and other functions located directly at the loader

# METROMIX

## Material proportioning valve

Accurate and reliable addition and mixing of regrind and virgin materials. As an alternative to a twin inlet METRO-G material loader, the electro-polished stainless steel METROMIX proportioning valve can be connected to single inlet METRO G material loaders. You can easily adjust the percentage and number of material layers per conveying cycle. A large transparent access panel gives you easy access for cleaning.



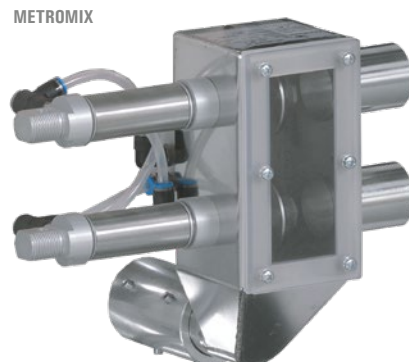
## System controls

From simple cost effective solutions to innovative state-of-the-art controls with Ethernet-based open network architecture.

Several different levels of automation are available for controlling the METRO G loaders.

- METRONet S: a soft PLC conveying control for standard conveying systems
- METRONet AE and AN: the ultimate networkable system toolkit for complex conveying systems with either a soft PLC or Siemens S7 PLC with WEBpanel and decentralised CAN-Bus nodes for the connection of peripheral equipment

All METRONet controls are totally integrated in the CONTROLnet platform and can be linked to other controls via Ethernet.



# METROCONNECT

## MANUALLY OPERATED COUPLING STATION - CODED OR UN-CODED

### METROCONNECT U & C

The METROCONNECT U & C advanced manually operated coupling tables are available in both un-coded and coded wireless RFID versions. They are a high quality engineered solution for typical conveying systems. The METROCONNECT U can easily be upgraded to a coded version.

Convenient table-top design gives you easy access to every connection. Push-fit connectors allow easy insertion of the material lines into the material coupling table. Quick release lids allow for easy removal and ensure an air tight seal. The large grip gives you lots of space for labelling.



### METROCONNECT C – coded

The METROCONNECT C wireless coded coupling table uses RFID (Radio Frequency Identification) technology to check connections and ensure that material is conveyed only when the correct connection is made.

The stiffness of the material hose can cause difficulties when making a material connection on a coded coupling table. motan's specially designed and patented swivel grip solves this problem and allows for hassle-free material changes.



### METROCONNECT C – RFID technology

Compared to traditional systems, such as barcodes or laser marking, RFID technology offers important advantages in material traceability, verification and validation. Transponder data can easily be read and written. In addition, the data can be extended, modified or replaced. This technology offers to an automated production many benefits because it reduces human error and increases reliability and flexibility.



### METROCONNECT U/C – wear resistant solutions

When conveying very abrasive materials, for example glass-reinforced polyamides, it is important that the material selection station is designed to withstand wear.

One solution is to use glass material feed lines and bends. motan's glass bends are PU coated and earthed –making them shatter proof and eliminating the danger of static.



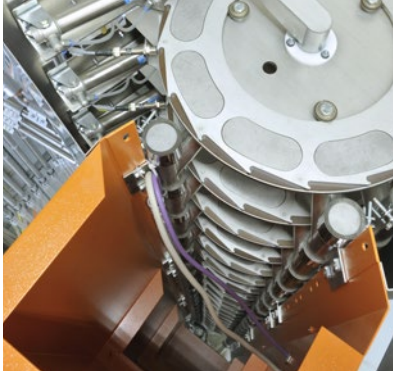
### METROCONNECTnet – control

METROCONNECT can be fully integrated into the motan CONTROLnet world or operate as stand-alone units with a 5.7" colour touch panel.



# METROLINK

## FULLY AUTOMATIC MATERIAL SELECTION AND DISTRIBUTION SYSTEM



### Fully automatic

METROLINK assures that every desired connection of a material to a processing machine in your production process is made automatically and without any chance of cross contamination.

One METROLINK tower can manage up to 16 materials being conveyed to 32 machines - all this with a floor space footprint of under 1m<sup>2</sup>.



### Wear resistant solutions – long-life and maintenance free

When conveying very abrasive materials, for example glass-reinforced polyamides, it is important that the material selection station is designed to withstand wear. One solution is to use glass material feed lines and bends. motan's glass bends are PU coated and earthed – making them shatter proof and eliminating the danger of static.



### Pipework – high reliability and wear resistant

Fixed pipe connections throughout the whole production process until the next material change ensures maximum security and long service life. METROLINK has no flexible hoses and there are no switching operations during normal conveying.



### Optimised conveying – capacity-enhancing

Because of the fixed pipe connections, system throughputs can be increased and several machine lines can be parallel fed with material at the same time.



### Controls

From simple cost effective solutions up to innovative state-of-the-art controls with Ethernet-based open network architecture.

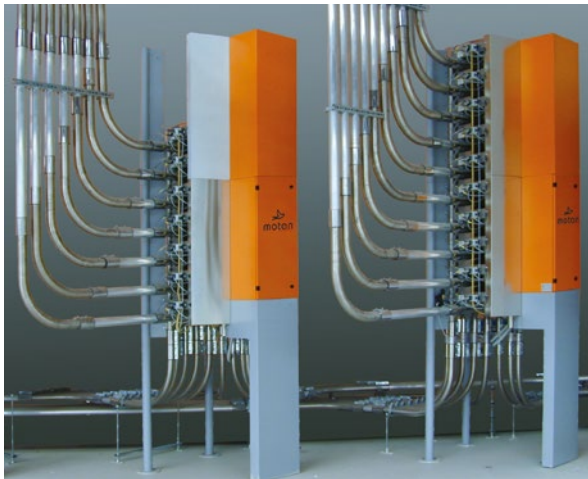
METROLINK can be fully integrated into the motan CONTROLnet world or operate as stand-alone units with a 5.7" colour touch panel.

# METRO G

METROCONNECT C



METROLINK



Suction box



Central vacuum station



## Material distribution

- motan's METROCONNECT U and C material distribution system provides a fast and easy method of distributing material to the machine
- Optimum security with the fully automatic METROLINK material selection and distribution system

## Central vacuum stations

- Various quiet and low-maintenance vacuum blowers and pumps also for high material throughputs
- At blower failure automatic switchover to standby blower
- Frequency-controlled conveying blower for gentle material conveying
- Centralised dust collection with automatic filter cleaning and a large dust collection bin

## Line purging

- After each conveying cycle, thorough material line purging can be effected:
  - essential for the conveying of hygroscopic materials
  - for fast and trouble-free material changes
  - prevents line plugging in long vertical line segments
- Choice of purging suction boxes or individual valves

## Dry-air conveying

- Closed loop conveying system
- Losses in conveying air are compensated with dry air
- Material temperature is maintained
- No reabsorption of moisture

# CONTROLnet

## METROnet, LINKnet

### CONTROLnet

CONTROLnet is an integrated system of controls. Designed to operate, manage, and supervise every stage of the raw materials handling process. It offers you a completely new level of management capability, helping to meet the ever greater demands for product quality and cost efficiency.



### LINKnet 3.0 – Information and control system

LINKnet 3.0, the SIMATIC Win CC based graphic user interface for easy management of your motan-colortronic system.

LINKnet 3.0 simplifies the control of the following tasks:

- Operating
- Supervising
- Reporting
- Archiving



### METROnet – For all METRO conveying systems.

METROnet A and METROnet S are totally integrated in the CONTROLnet platform and can be linked to other controls via Ethernet connection.

#### METROnet A

Conveying control supporting all aspects of material logistics:

- up to 99 material loaders with 1 or 2 inlets
- integration of proportioning valves and suction boxes with line purging and dry-air conveying
- material selection from manual coupling stations to fully automatic METROLINK units
- sharing of coupling stations between multiple conveying lines
- up to 8 numbers of conveying lines (blower stations)

#### METROnet S

- Controls both 1 or 2 inlet material loaders (max. 24 single inlet)
- Up to four suction boxes with line purging
- Two blower stations
- Embedded microcontroller for operation and control with on-board network port





SYSTEM SOLUTIONS - BENEFITS

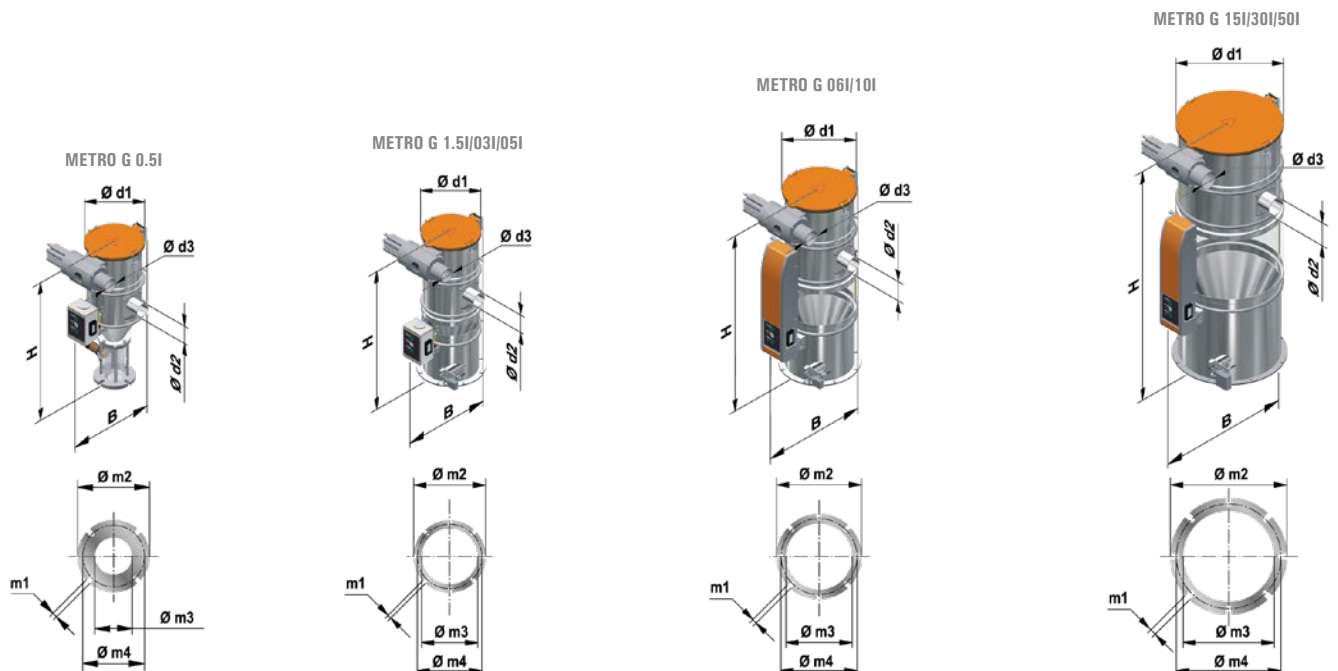
- Material savings**  
 Typically, at least a 1-2% saving in raw material costs as a result of reduced spillage and contamination
- Reduced materials handling labour**  
 By centralising material storage, the cost of material handling is reduced considerably
- Maintenance**  
 motan centralised systems not only require less maintenance than stand-alone systems, but also have lower maintenance costs.
- More space**  
 A centralised material feed system releases production floor space for additional moulding machines and results in a tidier, uncluttered facility
- Safety and cleanliness**  
 Reduced material spillage, no cleaning of filters on the machine and raw materials no longer need to be brought to the machine (no fork trucks etc.). Consequently, the production area is a much cleaner and safer place for personnel
- Energy savings**  
 A centralised conveying system uses approximately 80% less energy compared to machine-dedicated stand-alone systems

# METRO G

## TECHNICAL DATA

Technical data									
Hopper loader type ...	METRO G 0.5I	METRO G 1.5I	METRO G 03I	METRO G 05I	METRO G 06I	METRO G 10I	METRO G 15I	METRO G 30I	METRO G 50I
Volume - litres/cycle	0.5	1.5	3	5	6	10	15	30	50
Weight (kg)	7	8	8.5	9	11.5	12	18.5	20.5	24
Mesh width - filter (µm)	500 (optional 1200)								
Compressed air (bar)	4-6								
Dimensions (mm)									
H	527	469	529	599	628	692	732	832	1132
H (with open lid)	731	670	730	800	858	923	1046	1164	1464
B	290	295	295	295	338	338	430	430	430
Ø d1	170	170	170	170	200	200	300	300	300
Ø d2	45/50	45/50	45/50	45/50	45/50/60	45/50/60	50/60	50/60	50/60
Ø d3	38/45/50	38/45/50	38/45/50	38/45/50	45/50/60	45/50/60	50/60	50/60	50/60
m1	11	7	7	7	7	7	7	7	7
Ø m2	130	215	215	215	240	240	340	340	340
Ø m3	44	170	170	170	200	200	300	300	300
Ø m4	100	195	195	195	225	225	325	325	325

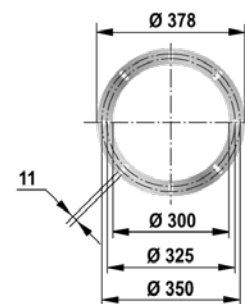
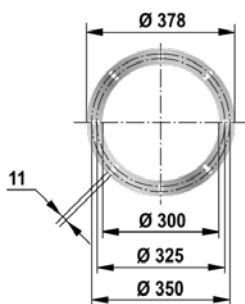
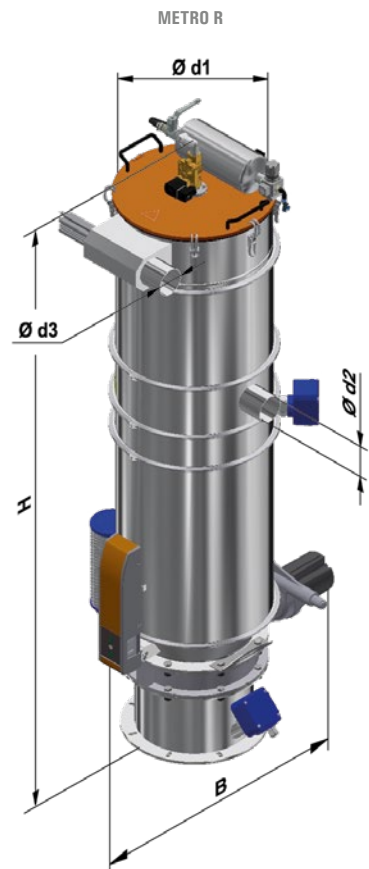
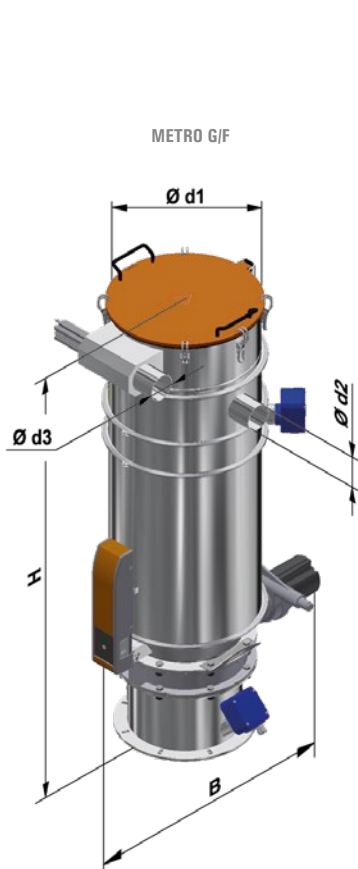
Subject to technical changes



# METRO G/F/R

## TECHNICAL DATA

Technical data						
Hopper loader Type METRO ...	G/F 60	G/F 100	G/F 150	R 60	R 100	R 150
Volume - litres/cycle	60	100	150	60	100	150
Weight (kg)	59	63	69.5	64.5	68.5	75
Control voltage (V DC)				24		
Filter cleaning	Implosion (optional compressed air)			Compressed air		
Compressed air (bar)				5-7		
Dimensions (mm)						
H	1150	1400	1573	1604	1854	2027
H (with open lid)	1527	1777	1950	1827	2077	2250
B	708	759	786	708	759	786
Ø d1	400	400	400	400	400	400
Ø d2	76	76	76	76	76	76
Ø d3	76	76	76	76	76	76



# METRO P

## TECHNICAL DATA

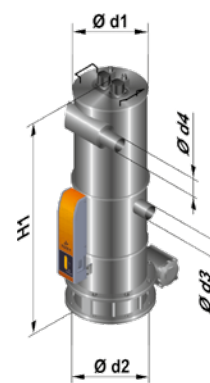
Technical data					
Hopper loader Type METRO ...	PCF 10 PBF 200	PCF 25 PBF 500	PCN 10 PBN 200	PCN 25 PBN 500	PCN 50 PBN 1000
Flow properties of the powder	Free-flowing		Non-free-flowing		
Separation volume (dm <sup>3</sup> )	10	25	10	25	50
Material throughput (kg/h) *	200	500	200	500	1000
Number of filter cartridges	4	7	4	7	7
Filter area (m <sup>2</sup> )	1.0	1.75	1.0	1.75	3.5
Filter cleaning with compressed air reservoir	2 circuits	3 circuits	2 circuits	3 circuits	
Rotary paddle switch in the hopper body (max. level)	Option				
Fluidisation aid	-		Option		
Material discharge	Gravity flap (Ø130 mm)		Butterfly valve (Ø300 mm)		
Rotary paddle switch for actuation of hopper loader discharge	-		Standard		
Max. temperature (°C)	80				
Compressed air oil and water-free (bar)	5 - 7				
Power supply - hopper loader (VDC)	24				
Weight hopper loader (kg)	40	52	47	66	67
Dimensions (mm)					
H1	1231	1528	1066	1363	1613
d1	303	403	303	403	403
d2 (pitch circle diameter)	350	350	350	350	350
d3	45 (60)	60	60	60	60 (76)
d4	60				
Blower station (kW) with control and blower protection filter	1.3 (2.2)	2.2 (4.3)	1.3 (2.2)	2.2 (4.3)	4.3
Monitoring of blower protection filter	Option				
Dimensions (mm)					
H2	886	886	886	886	1083
B1	391	391	391	391	450
L1	410	410	410	410	680
d4	60				

\* Valid only for METRO PBF and METRO PBN

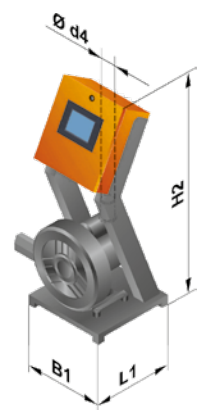
METRO PC



METRO PB



Blower station

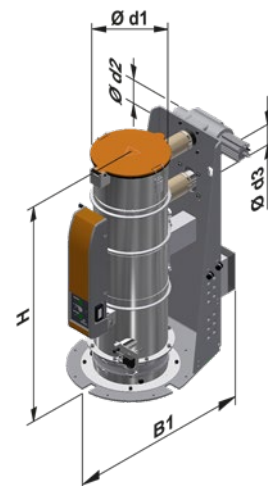


# METROFLOW

## TECHNICAL DATA

Technical data			
Hopper loader type ...	METROFLOW G 06 - HCS	METROFLOW G 10 - HCS	METROFLOW G 30 - HCS
Volume - litres/cycle (l)	6	10	30
Weight (kg) - (hinged)	35 - (42.5)	37 - (44.5)	55 - (65.0)
Power supply (V DC)	24		
Connected load (W)	32		
Control voltage (V DC)	24		
Filter cleaning	Implosion		
Compressed air oil and water-free (bar)	4-6		
Dimensions (mm)			
H	723	788	914
H (with open lid)	957	1022	1248
B1	516	516	596
Ø d1	230	230	330
Ø d2	50	50	60
Ø d3	50	50	60

METROFLOW G



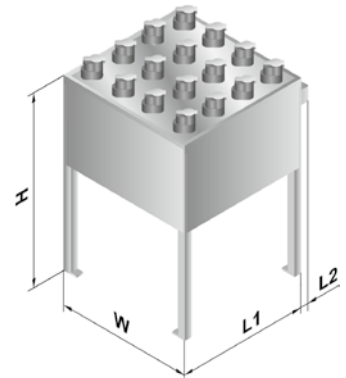
# METROCONNECT / METROLINK

## TECHNICAL DATA

Technical data			
Type METROCONNECT	3x3	4x4	6x6
Number of material lines	9	16	36
Material lines Ø (mm)	45/50/60		
Dimensions [mm]			
W	537	697	1037
L1	521	677	1017
L2	51	51	51
H	1106	1106	1106
Colour RAL (grey)	7040 / stainless steel		

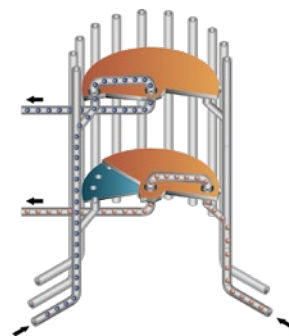
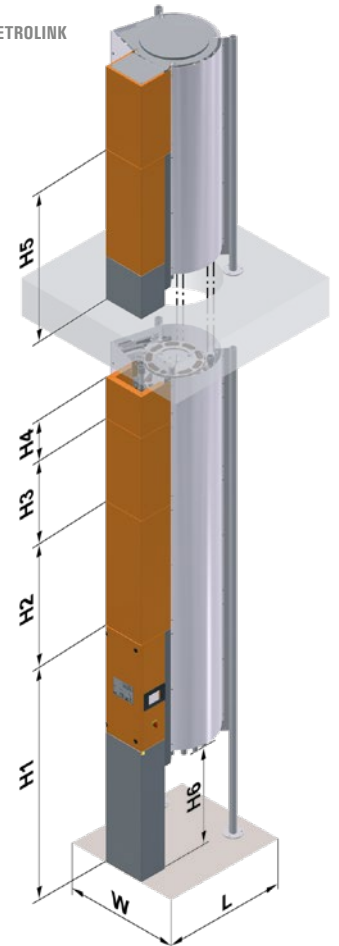
Technical data		
Type METROCONNECT	U	C
Power supply [V/Hz]	-	1/N/PE 230/50
Control voltage [V DC]	-	24

METROCONNECT



Technical data				
Type METROLINK	MK 45/50		MK 60	
Number of material lines	4 - 16		4-12	
Number of machines	4 - 32		4-32	
Material lines Ø (mm)	45/50		60	
Power supply [V/Hz]	1/N/PE 230/50/60	1/N/PE 120/50/60	1/N/PE 230/50/60	1/N/PE 120/50/60
Compressed air, oil and water-free (bar)	6		6	
Dimensions (mm)				
H1 4-6 material outlets (basic version)	2194		2194	
H2 6 material outlets	1149		1149	
H3 4 material outlets	766		766	
H4 2 material outlets	383		383	
H5 4-6 material outlets (platform extension)	1391.5		1391.5	
H6	953		950	
W (required area for maintenance)	830 (2130)		898 (2198)	
L (required area for maintenance)	1030 (1330)		1088 (1388)	
Weight approx. (kg) - with max. amount of equipment (H1)	340		340	
Weight approx. (kg) - with max. amount of equipment (H1+H2)	610		610	
Weight approx. (kg) - with max. amount of equipment (H1+H2+H3)	880		880	
Colour RAL (orange/grey)	2011/7040		2011/7040	

METROLINK



Subject to technical changes.

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