

Screw dosing unit
with flexible PU dosing hopper

SPECTROFLEX

 think materials management



SPECTROFLEX V/G

SCREW DOSING UNIT

SPECTROFLEX is ideally suited for dosing powders, pellets, regrind, granulates, flakes and fibers in continuous processes. motan's unique interchangeable system provides two huge advantages over common dosing units. Firstly, the user can swap the quick exchange modules in less than one minute easily without any tools. Furthermore, the single and twin screw exchange modules are also interchangeable, allowing the user to configure the feeder for nearly any type of material in a matter of minutes.

Dosing of powder and non-free flowing materials

The dosing screws and the intensity of the discharge aid (massage rollers) of the SPECTROFLEX can be adjusted to the type of material.

Active filling of the dosing screw

The massage roller technology creates an active filling of the dosing screw without a mechanical agitator needing to be in the material flow.

Exchange module

The exchange modules can be swapped easily and without any tools. So, material changeovers can be made quickly and without previous clean-down of the dosing hopper.

The exchange modules come in different versions, equipped with either single, double, spiral or auger screws, allowing the user to configure the dosing unit for nearly any type of material in a matter of minutes.

No mechanical agitators

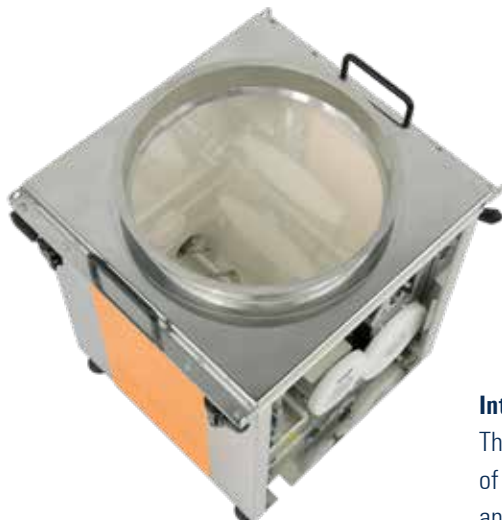
Thanks to the massage rollers you don't need to use mechanical agitators which are in direct material contact. So even difficult and fragile materials will not be damaged.



Elliptical massage rollers

In contrast to common massage paddles, which are normally used with other dosing hoppers on the market, the SPECTROFLEX uses elliptical rollers. The specific design of the oscillating massage rollers increases the lifespan of the polyurethane dosing hopper.

Powered by an independent motor, the elliptical massage rollers can be set to 48 different settings, guaranteeing you optimal dosing for various materials.



Interchangeable dosing screws

The pluggable screws can be exchanged in a matter of minutes. This makes adjustments of the throughput easy and shortens production downtime tremendously!

Volumetric version

If you need to dose material that has a very stable and consistent bulk density, then a load cell is not required.



VOLUnet SF control

A simple to operate touchscreen for SPECTROFLEX V

- Suitable for one dosing unit
- Up to 50 recipes can be stored
- Reporting function via Ethernet
- Standard network interface (Ethernet) for integration in the motan CONTROLnet network

Gravimetric version

If you need to dose material very precise an with unstable bulk density incl. batch tracking, then a load cell is required.



Platform scale with DMS load cell

The platform scale is available in two sizes: DMS load cells with either 150 kg or 300 kg nominal load. With integrated digital weighing electronics and CAN system. As well as a measurement resolution of up to 5,120,000 digits.



GRAVInet SF control

A simple to operate touchscreen for SPECTROFLEX G

- Suitable for up to 2 dosing units
- Up to 50 recipes can be stored
- Reporting function via Ethernet
- Standard network interface (Ethernet) for integration in the motan CONTROLnet network

SPECTROFLEX V/G

SCREW DOSING UNIT

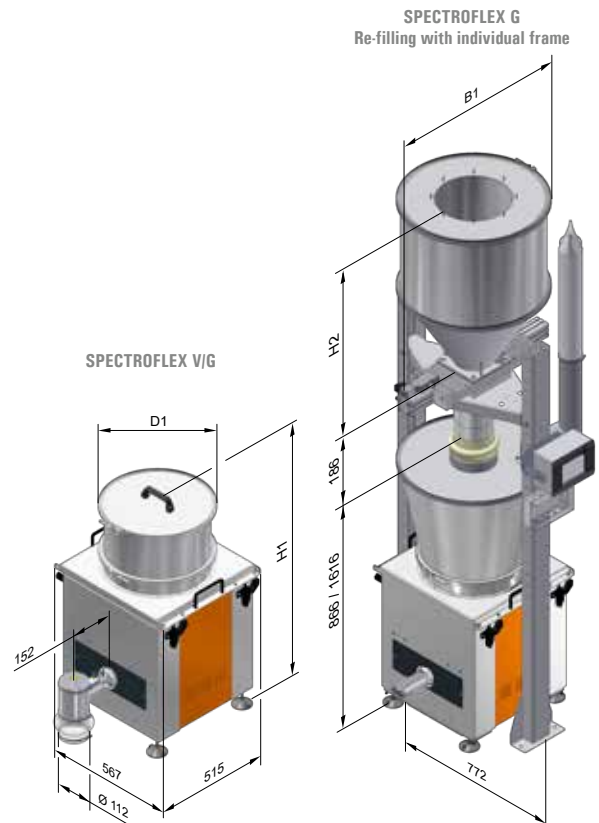
Device-specific information				
Dosing module - free-flowing granules (FG)	FG M1	FG M2	FG L2	FG L4
Throughput (l/h) *	2,5 - 52	19 - 358	101 - 1900	163 - 3245
Auger screw / dosing sleeve	17x17/20	32x32/36	51x70/60	63x100/72
* Throughput with granulate / bulk density 0.82 kg/l				
Dosing module - free flowing regrind (FM)	FM M1	FM M2	FM L1	FM L3
Throughput (l/h) *	1,8 - 60	25 - 350	90 - 1689	160 - 2900
Auger screw / dosing sleeve	17x17/20	32x32/36	51x25/60	63x100/72
* Throughput with rough regrind (ABS-PC) / bulk density 0.48 kg/l				
Dosing module - good flowing powders (FP)	FP M1	FP M2	FP L1	FP L3
Throughput (l/h) *	8 - 130	16 - 280	33 - 560	160 - 1950
Auger screw / dosing sleeve	32x16/36	32x32/36	51x25/60	63x100/72
* Throughput with uncoated chalk / bulk density 0.91 kg/l				
Dosing module - non-free-flowing powders (NP)	NP M1	NP M2	NP L1	NP L3
Throughput (l/h) *	2,6 - 49	7 - 131	20 - 357	33 - 603
Twin screw concave / dosing sleeve	20x11/26	22x20/26	32x30/38	35x40/38
* Throughput with coated chalk / bulk density 0.82 kg/l				
Dosing module - non-free-flowing regrind (NR)	-	-	NR L2	NR L4
Throughput (l/h) *	-	-	78 - 720	135 - 1570
Spiral screw / dosing sleeve	-	-	43x40/60	50x50/60
* Throughput with flakes (PE/PET) / bulk density 0.37 kg/l				

Technical data - SPECTROFLEX V/G						
Dosing module - bin	M1	M2	L1	L2	L3	L4
Volume (l)	55	85	100	150	200	250
Number of dosing module	1	1	1	1	1	1
Weight (kg)	63	65	73	77	81	85
Dimensions (mm)						
D1	430	430	580	580	580	580
H1	860	1060	1150	1350	1550	1750

Technical data - SPECTROFLEX G - Re-filling with individual frame												
Dosing module - bin	GM1	GM2	GL2	GL4	FPM1	NPM1	FPM2	NPM2	FNL1	FPL1	FPL3	NPL3
Volume (l)	48	73	150	250	50	68	88	100	138	150	200	188
Dimensions (mm)												
B1	656	656	718	757	490	480	490	490	592	620	620	592
H2	632	832	833	1433	762	917	817	782	817	914	1182	1149

Subject to technical changes.

Technical data - Electrics	
Rated voltage (V/Hz)	1/N/PE 230/50-60
mahlgut Rated current (A)	2,5
Rated output (VA)	250
Pre-fuse (A)	6
Control voltage (VDC)	24
Protection type switch cabinet	IP 54
Short-circuit breaking capacity (kA)	6



YOUR BENEFITS

- Dosing of non-free flowing materials
 - Full flexibility – one unit for many different applications.
- Exchange module
 - Faster material changes – less cleaning time
- Volumetric version
 - The cost-effective solution for materials with consistent bulk densities.
- Interchangeable dosing screws
 - Save money with faster material changes
- No mechanical agitators
 - Ecause of the massage rollers you can also dose difficult and fragile materials
- Active filling of the dosing screw
 - High dosing accuracy - even for small dosing quantities
- Elliptical massage rollers
 - Little wear and abrasion of the flexible dosing hopper
- Quick material exchange
 - Higher efficiency thanks to less downtime in your production
- VOLUnet SF control
 - The cost-effective solution for volumetric dosing
- GRAVInet SF control
 - The cost-effective solution for up to 2 SPECTROFLEX G dosing modules

To find your local partner, please visit our website.

