

Comparison of insulation blowing machines

The right technology for all applications and insulation materials



Comparison of blowing machines

- ▶ EM100 for beginners and do-it-yourselfers
- ▶ Minifant M99 and Zellofant M95 – compact and internationally proven all-rounders
- ▶ EM300, EM400 and EM500 – mobile as well as stationary high-performance machines



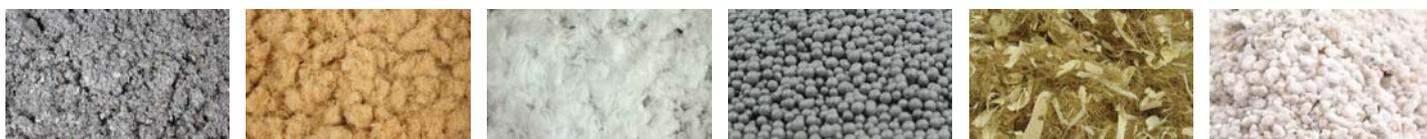
X-Floc blow-in technology

For more than 25 years, X-Floc Dämmtechnik-Maschinen GmbH has been considered a centre of competence for the development of blow-in technology. In the pneumatic conveying of insulation materials, the company developed a multitude of innovations and design standards. Several of these become established as state of the art and many of these innovations are part of the basic equipment of an X-Floc insulation blowing machine.

The company has always remained true to one principle in research and development: X-Floc insulation blowing machines should have a very high compatibility with all insulation materials available on the market (cellulose, wood fibre, mineral wool, granulates, bulk materials, composite materials, etc.). X-Floc thus offers the user the greatest possible flexibility to act with regard to the requirements of the building project as well as to changes in the market.

Content

X-Floc blow-in technology and machine series	2-3
Blow-in insulation material product groups	2
Applications/Blowing-in methods	3
Comparison of insulation blowing machines	4-7
Characteristic curves of current machine types	8
X-Floc insulation blowing machines	9-14
Radio remote control FFB2000-Pro	15
Amplifier/Vacuum stations	16-17
Factory filling	18
Insulation blowing mobiles	19
Equipment and accessories	20



Blow-in insulation material product groups

Cellulose

ALSLANAT, Arbocel Climasafe, Cellisol 300, Cellisol 500, Warmcel, Warmcel 500, Zellofix, Ouatex, Eurocellulose, cellulose V1, Vosges Cellulose, Eurocellulose SB, cellulose V3 SB, Vosges Cellulose S B, FranceFloc B, Ecofloc B, Cell la vie B, Néocell B, Optimum MP, Climacell S, Climacell pure, Climacell akust, Climacell inside, Climacell sonic, cellfloc, climacell Loft, climacell InduTec, climacell HSX, climacell FSX, climacell Green Nature, Unifloc, Witherm, DÄMMSTATTs CI 040, KLIMA-TEC-FLOCK, biocell, DÄMMSTATTs CI Dämmschüttung, DÄMMSTATTs CI 040 bf, KLIMA-TEC-FLOCK bf, biocell bf, DÄMMSTATTs CI Dämmschüttung bf, DAEMMSTATT D, Isocell D, Trendisol D, Dobry-Ekovilla D, DAEMMSTATT D bf, Isocell D bf, Trendisol D bf, Dobry-Ekovilla D bf, Isocell P, Isocell for you, FLOCO'MOBIL Dämmflocke, Floci-Cell, naturheld Holzfaser Einblasdämmung, WoodyCell+, WoodyCell Plus, WOODYCELL, isofloc, isofloc L, isofloc L+, isofloc LW, isofloc LM, swissfloc, isofloc eco, isofloc neo, easyfiber, CelluBOR SW, OUATECO PREMIUM, JUST BE GREEN, ISOL+, OUATECO, OUATECO NATURE, STEICOfloc, STEICOfloc NB, THERMOFLOC F, THERMOFLOC B, GREENFLOC, Klima-super, Isocell, trendisol, Isodek, Dobry-Ekovilla, Fibra-Natur, Domexcell, Pavafloc, Renocell, Isolare, Poesis, isECO, ISOCELL F, greenwool, clima-super Evolution, Isocell Evolution, greenwool Evolution, isECO green, clima-super lambda+, clima-super max, Isocell lambda+, greenwool lambda+, isECO lambda+, isECO max, trendisol lambda+, Wolfinger Zellulosedämmung, STT Floc, Ekovilla, Ekovilla Puru, Ekovilla IA, Isonem, Isolet, UpCell, GreenCell, Climatizer plus, Thermocel, La cellulosa, Easycell, Celisol, Isofloc EU 01, WarmFiber, WarmFiber Plus, Termex, Termex Green, Ekocell, Ekocell Green, Kätevå, Kätevå Green, iQ3 CELLULOSE, CELLIPURE, ISOLANT ECOLOGIQUE SEMI, DOMOSANIX, CELLECO etc.

Wood fibre

GUTEX Thermofibre, GUTEX Thermofibre FQ, WOODYCELL SW, AIRFLEX, best wood FIBRE, Hoiz, Jasmin, STEICO zell, Thermocell in-situ formed loose fill insulation, Termoträ Original, Termoträ Fire Protect, Climawood, Hunton Nativo Wood Fiber Insulation Blow-in etc.

Mineral fibre

InsulSafe, Supafil Cavity Wall, Supafil Loft Plus, Supafil Timber Frame, Supafil Max Frame, Teko-Flock, Indi-Flock, Trendi-Flock, swissporROC, COOMBLISSIMO, FLOCOLENE, TECHWOOL, Fillrock KD Plus, Fillrock KD, Fillrock RG Plus, Fillrock RG, Conlit Firesafe, PAROC BLT 5, DOSSOLAN THERMIQUE, Climastone, Climaglass etc.

Mineral granules

BIT Perlit Bachl, HY Perlit Bachl, Neopor, Hyperdämm, Hyperlite KD, Thermoperl, 2K Perlit Flachdachdämmung, Extraperl S4, Thermo-Fill, Thermo-Floor, Thermo-Plan, Thermo-Roof, ISOPLUS100 BEPS-WD, SLS 20F, SLS20 Plus, Perli-Fill, Poraver Blähglas-Granulat, Bauhaus DSX100, Geocell Blähglas, JASS Wärmedämmschüttung, Liaver, NEVOLIT, Climastyre etc.

EPS granules

ThermoWhite WD 100 R, ISO Plus BINDER WD 100R, ThermoWhite WD 70 R (RN), ThermoWhite WD 130 R, HIRSCH PoroBead 033, H2 Wall, Granublow 033, HIRSCH PoroBead Plus, H2 Wall Plus, Granublow Plus, Isofloc Pearl, RigiBead Premium 033, RigiBead 035, SwissporEPS Perlen, SwissporEPS Styromull, airpor level 3.0, airpor level 3.0 A, airpor rapid, airpor light, BACHL niveauTHERM 160 Premium, BACHL niveauTHERM 160 Premium-PLUS, BACHL niveauTHERM 400 Premium, BACHL niveauTHERM 400 Premium-PLUS, HK33, TF Pearls, GRANU-PUR, Neopixels Premium HR Insulation, thermotec BEPS-WD 130R, thermotec BEPS-WD 70N, Ecofibre EPS 033 Kerndämmung etc.

Fire protection plaster

ISOVER FireProtect 150, ISOVER FireProtect 150F, DOSSOLAN THERMIQUE, DOSSOLAN 3000, DOSSOLAN-HOECO F II/1, Cafco-BLAZSHIEKD DC/F, Cafco-300, FIBREXPAN etc.

Other insulation material

Hanf-Dämmwolle HDW, AgriCell BW, Einblasstroh, Bio-Einblasstroh, Thermostroh, Thermostraw, Blown straw insulation, Plantacell, Stroheinblasdämmung, Sonnen-Stroh, SunStraw, Blowstraw, Blow-in straw, Loose fill straw insulation, SonnenKlee-Einblasstroh, GREENFLOC, Thermofloc-Dämm pellets, G-tec gebundener Dämmkork, Iso-Stroh, Flachsfloc, Lopas-Strohhäckseldämmung, CEMWOOD CW 1000 / CW 2000, ISOLENA-BLOCK, ISOLENA-OPTIMAL, ISOLENA-PREMIUM, ISOLENA-KLEMMFILZ, ISOLENA-OPTIMAL PLUS, MEHABIT, MEHAPORT, MEHASPORT, NeptuTherm, Calor, THERMO JUTE DUO, THERMO JUTE 100, THERMO JUTE 100 PLUS, Métisse Flocon, FonaTerm - granular, REINFLOCK, Conluto, JOMaperl etc.

Table does not claim to be complete. X-Floc will check other products upon request.

X-Floc Machine series

The re-engineered very first model of Zellofant M95 is still being manufactured today and many machines of the first generation are still in use. This fact speaks for itself. The Zellofant M95 is the symbol for blow-in technology in Europe. Thousands of users still successfully use this machine type today.

But time does not stand still, of course. The demands on a blow-in machine have grown due to the further development of blow-in insulation materials. X-Floc still sets new standards, e.g. with the EM300 and EM400 series. In addition, the company develops special machines for particular areas of application and for special blow-in technology requirements.

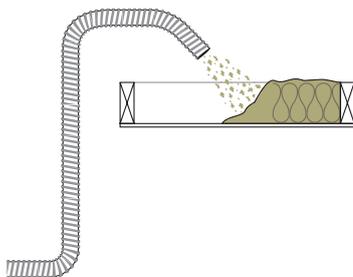


Applications/Blow-in methods

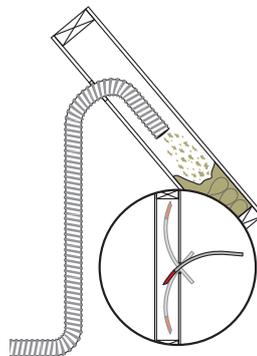
In the blow-in process, thermal insulation material is placed in building components by means of an insulation blowing machine. The insulation material is usually fed to the machine in bag form. The blow-in machine breaks the thermal insulation material, which is compressed

in the delivery container, into pieces and then loosens it further. The loosened insulation material is transported via a hose into the building components to be insulated, where the insulation material fills the room. Compressed by the pressure, it becomes thermal insulation.

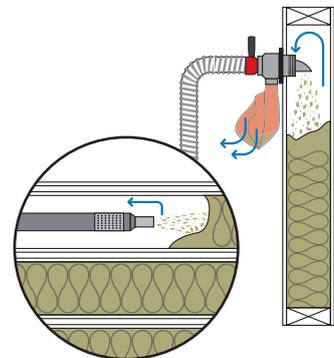
A Open/Atic blowing



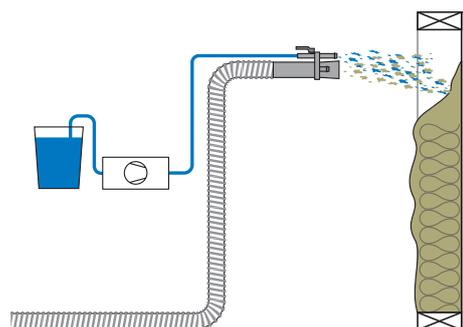
B Dry injection



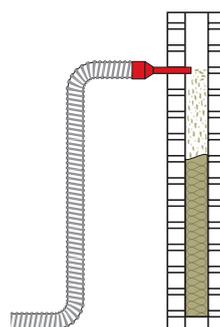
C Ventilated dense blowing



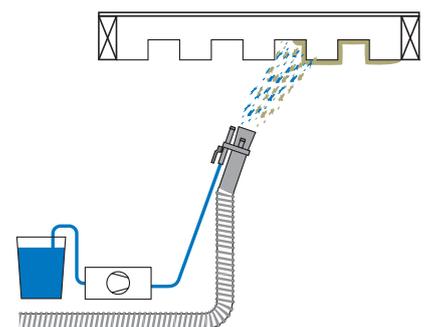
D Damp spraying/CSO



E Cavity wall insulation



F Fire protection plaster



Comparison of insulation blowing machines

Model series	EM100	Minifant M99	Minifant M99	Minifant M99
Machine type	EM100-230V/2,0kW	M99-230V/3,6kW	M99-DS-230V/3,6kW	M99-DS-Pro-230V/3,6kW
				
Article number	3550	3432	3837	5416
Power/Material processing speed	320kg/h	600kg/h	650kg/h	650kg/h
Hopper	0,15m ³	0,26m ³	0,26m ³	0,26m ³
Airlock outlet ø	NW63 (2½")	NW63 (2½")	NW75 (3")	NW75 (3")
Dimensions (øxH)	600x500x1300mm (LxWxH)	640x1400mm	640x1400mm	640x1400mm
Unladen weight	117kg	110kg	111kg	111kg
Filling height	1300mm	1400mm	1400mm	1400mm
Airlock ventilation	○	●	●	●
Dust removal/Support for bags	Support for bags (optional)	Support for bags (optional)	Support for bags (optional)	Support for bags (optional)
Machine control	Cable remote control KFB3 (optional KFB30/FFB500)	Radio remote control FFB500 and cable remote control KFB3 (optional KFB30)		Radio remote control FFB2000-Pro and control cable (KFB2000)
Material conditioning	2 horizontal agitator shafts	Rotating agitator with shredder arms		
Shredder	○	○	○	○
Airlock material	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Airlock feed gate adjustable	14 levels, manual	17 levels, manual	17 levels, manual	17 levels, manual
Airlock rotational speed adjustable	○	○	●	●
Automatic switch-off	○	○	○	●
Pressure relief valve	○	○	○	○
Air generator	High-powered radial compressor 1,45kW	High-powered radial compressor 2x1,45kW	High-powered radial compressor 2x1,45kW	High-powered radial compressor 2x1,45kW
Max. dynamic pressure (adjustable)	250mbar	325mbar	340mbar	340mbar
Air feed amplification	External amplification optional e. g. X-Floc Amplifier/Vacuum station VS28/VS33, VS55M/VS75M			
Air volume (nominal/measured)	220/190m ³ /h	440/350m ³ /h	440/350m ³ /h	440/350m ³ /h
Aspiration with suction hood (cleaning/dust extraction)	○	●	●	●
Conveying height with/without amplifier	15/30m	>30/50m	>30/50m	>30/50m
Hose length L=max.	40m	80m	80m	80m
Motor	1-phase, 0,75kW	1-phase, 0,75kW	3-phase, 0,75kW	3-phase, 0,75kW
Power rating	2,2kW	3,6kW	3,6kW	3,6kW
Power supply	230V/50Hz/10-16A	230V/50Hz/16A (10A possible with one radial compressor)		
Max. material packing density	145kg/m ³	145kg/m ³	155kg/m ³	155kg/m ³

Compatibility table		EM100						Minifant M99						Minifant M99						Minifant M99					
Material	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
Cellulose	Applications	●	○	○	●	○	●	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-
	Suitability	○	○	○	-	○	●	●	○	○	○	-	-	●	●	●	●	-	-	●	●	○	●	-	-
Wood fibre	Applications	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
	Suitability	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
Mineral fibre	Applications	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
	Suitability	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
Mineral granules	Applications	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
	Suitability	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
EPS granules	Applications	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
	Suitability	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
Fire protection plaster, Others	Applications	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-
	Suitability	○	○	○	○	○	●	○	○	○	○	○	-	○	○	○	○	○	-	○	○	○	○	○	-

A = Open/attic blowing | B = Dry injection | C = Dry injection with ventilation | D = Damp spraying/CSO | E = Cavity wall insulation | F = Fire protection plaster
 ● suitable/yes | ○ recommended with limitations | ◯ not recommended/no/not specified

All values approximate. Please contact us for more details and information. **Special insulation blowing machines on request.**

Comparison of insulation blowing machines

Zellofant M95		Zellofant M95		Zellofant M95		Zellofant M95		Zellofant M95	
M95-230V/3,7kW		M95-2x230V/5,1kW		M95-400V/5,5kW		M95-2x230V/6,6kW		M95-400V/7,3kW	
									
7139		6906		6907		10919		6908	
650kg/h		750kg/h		1080kg		980kg/h		1255kg/h	
0,44m ³ (0,3m ³)		0,44m ³ (0,3m ³)		0,44m ³ (0,3m ³)		0,44m ³ (0,3m ³)		0,44m ³ (0,3m ³)	
NW75 (3") (Standard) Erweiterung auf NW90 (3½") oder Direktreduzierung auf NW63 (2½"), NW50 (2") möglich									
880x1425mm		800x1425mm		800x1425mm		800x1425mm		800x1425mm	
155kg		160kg		165kg		170kg		185kg	
1425mm		1425mm		1425mm		1425mm		1425mm	
●		●		●		●		●	
Support for bags (optional) with dust reducing cover									
Cable remote control KFB2000 (standard) or radio remote control FFB2000/FFB2000-Pro									
2-level agitator with rotating shredder arms, replacable grid and rake unit									
HW95 optional		HW95 optional		HW95 optional		HW95 optional		HW95 optional	
Sheet steel		Sheet steel		Sheet steel		Sheet steel		Sheet steel	
14 levels, manual (optional)									
10 Stufen Kabelsteuerung KFB2000 / 19 Stufen Funkfernsteuerung FFB2000-Pro									
●		●		●		●		●	
○		○		○		○		○	
High-powered radial compressor		High-powered radial compressor		High-powered radial compressor		High-powered radial compressor		High-powered radial compressor	
2x1,45kW		2x1,8kW		2x1,8kW		2x1,8kW + 1x1,45kW + 2x0,75kW		3x1,45kW	
300mbar		375mbar		390mbar		420mbar		400mbar	
External amplification optional e. g. X-Floc Amplifier/Vacuum station VS28/VS33, VS55M/VS75M									
320/250m ³ /h		390/370m ³ /h		390/370m ³ /h		590/540m ³ /h		590/540m ³ /h	
○		○		○		○		○	
>45/>70m		>30/>70m		>30/>70m		>30/>75m		>30/>75m	
80m		150m		150m		180m		180m	
2x3-phase, 0,75kW		2x3-phase, 0,75kW		2x3-phase, 0,75kW		2x3-phase, 0,75kW		1x3-phase, 1,1kW and 1x3-phase, 0,75kW	
3,7kW		5,1kW		5,5kW		6,6kW		7,3kW	
230V/50Hz/16A		2x230V/50Hz/16A		400V/50Hz/3x16A/N/PE		2x230V/50Hz/16A		400V/50Hz/3x16A/N/PE	
155kg/m ³		165kg/m ³		165kg/m ³		165kg/m ³		165kg/m ³	

A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-
●	○	○	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-
○	○	○	○	○	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-
●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●
-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

A = Open/attic blowing | B = Dry injection | C = Dry injection with ventilation | D = Damp spraying/CSO | E = Cavity wall insulation | F = Fire protection plaster
 ● suitable/yes | ○ recommended with limitations | ○ not recommended/no/not specified

All values approximate. Please contact us for more details and information. **Special insulation blowing machines on request.**

Comparison of insulation blowing machines

Model series	EM300	EM300	EM300	EM300	EM300	EM300
Machine type	EM320-2x230V/7,0kW	EM325-3x230V/10,2kW	EM340-400V/7,3kW	EM345-400V/10,5kW	EM360-400V/5,9kW	EM365-400V/9,2kW
		 amplifier integrated		 amplifier integrated		 amplifier integrated
Article number	5760	6971	5770	7129	6007	6268
Power/Material processing speed	1050kg/h	1250kg/h	1200kg/h	1400kg/h	1200kg/h	1400kg/h
Hopper	0,315m ³	0,315m ³	0,315m ³	0,315m ³	0,315m ³	0,315m ³
Airlock outlet ø	NW75 (3") or NW90 (3½") optional direct reduction to NW75 (3")					
Dimensions (øxH)	990x830x1740mm	990x830x1740mm	990x830x1740mm	990x830x1740mm	990x830x1740mm	990x830x1740mm
Unladen weight	257kg	270kg	265kg	273kg	280kg	302kg
Filling height	1250mm	1250mm	1250mm	1250mm	1250mm	1250mm
Airlock ventilation	●	●	●	●	●	●
Dust removal/Support for bags	passive (strip curtain) / active (dust extraction)					
Machine control	Cable remote control KFB2000 or radio remote control FFB2000-Pro					
Material conditioning	Crusher shafts (3 rotating shafts) disengageable for processing of loose bulk material (e. g. EPS granules)					
Shredder	●	●	●	●	●	●
Airlock material	Sheet steel	Sheet steel	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Airlock feed gate adjustable	Continuously variable manually / with electrically adjustable airlock feed gate (optional)					
Airlock rotational speed adjustable	10 levels cable remote control KFB2000 / 19 levels radio remote control FFB2000-Pro					
Automatic switch-off	●	●	●	●	●	●
Pressure relief valve	optional	optional	optional	optional	optional	optional
Air generator	3 High-powered radial compressors 2x1,8kW + 1x1,45kW	5 High-powered radial compressors 3x1,8kW + 2x1,45kW	3 High-powered radial compressors 2x1,8kW + 1x1,45kW	5 High-powered radial compressors 4x1,8kW + 1x1,45kW	Turbine 4,0kW	Turbine 4,0kW and 2 High-powered radial compressor 3,3kW
Max. dynamic pressure (adjustable)	360mbar	375mbar	405mbar	400mbar	400mbar	420mbar
Air feed amplification	External amplification optional e. g. X-Floc Amplifier/Vacuum station VS28/VS33, VS55M/VS75M					
Air volume (nominal/measured)	590/480m ³ /h	995/765m ³ /h	585/500m ³ /h	960/785m ³ /h	380/375m ³ /h	795/660m ³ /h
Aspiration with suction hood (cleaning/dust extraction)	●	●	●	●	●	●
Conveying height with/without amplifier	>45m	>70m	>45m	>70m	>45m	>70m
Hose length L=max.	150m	200m	180m	200m	180m	200m
Motor	1x3-phase, 1,1kW and 1x3-phase, 0,75kW	1x3-phase, 1,1kW and 1x3-phase, 0,75kW	1x3-phase, 1,1kW and 1x3-phase, 0,75kW	1x3-phase, 1,1kW and 1x3-phase, 0,75kW	1x3-phase, 1,1kW and 1x3-phase, 0,75kW	1x3-phase, 1,1kW and 1x3-phase, 0,75kW
Power rating	7,0kW	10,2kW	7,3kW	10,5kW	5,9kW	9,2kW
Power supply	2x230V/50Hz/16A	3x230V/50Hz/16A	400V/50Hz/3x16A/N/PE	400V/50Hz/3x16A/N/PE and 1x230V/16A	400V/50Hz/3x16A/N/PE	400V/50Hz/3x16A/N/PE and 1x230V/16A
Max. material packing density	220kg/m ³	220kg/m ³	220kg/m ³	220kg/m ³	220kg/m ³	220kg/m ³

Compatibility table

	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F						
Cellulose	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-	●	●	●	●	●	-
Wood fibre	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	●	○	○	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-	●	●	●	-	○	-
Mineral fibre	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	○	○	○	○	○	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-	●	●	●	○	●	-
Mineral granules	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●	●	-	-	-	○	●
EPS granules	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	●	-
Fire protection plaster, Others	Applications	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
	Suitability	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

A = Open/attic blowing | B = Dry injection | C = Dry injection with ventilation | D = Damp spraying/CSO | E = Cavity wall insulation | F = Fire protection plaster
 ● suitable/yes | ○ recommended with limitations | - not recommended/no/not specified

All values approximate. Please contact us for more details and information. **Special insulation blowing machines on request.**

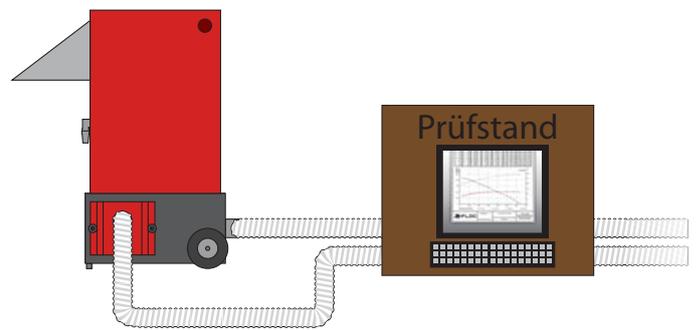
Characteristic curves of common insulation blowing machines

For quality assurance of the insulation blowing machines manufactured by X-Floc Dämmtechnik-Maschinen GmbH, the performance values of the entire system (air generator with hose guide, non-return flaps and rotary valve) are recorded and logged. A characteristic curve test bench specially developed for this measurement is used for this purpose. Faults in the overall system can thus be reliably detected and eliminated. The measurement is part of the acceptance test and guarantees the full performance of the installed elements in interaction.

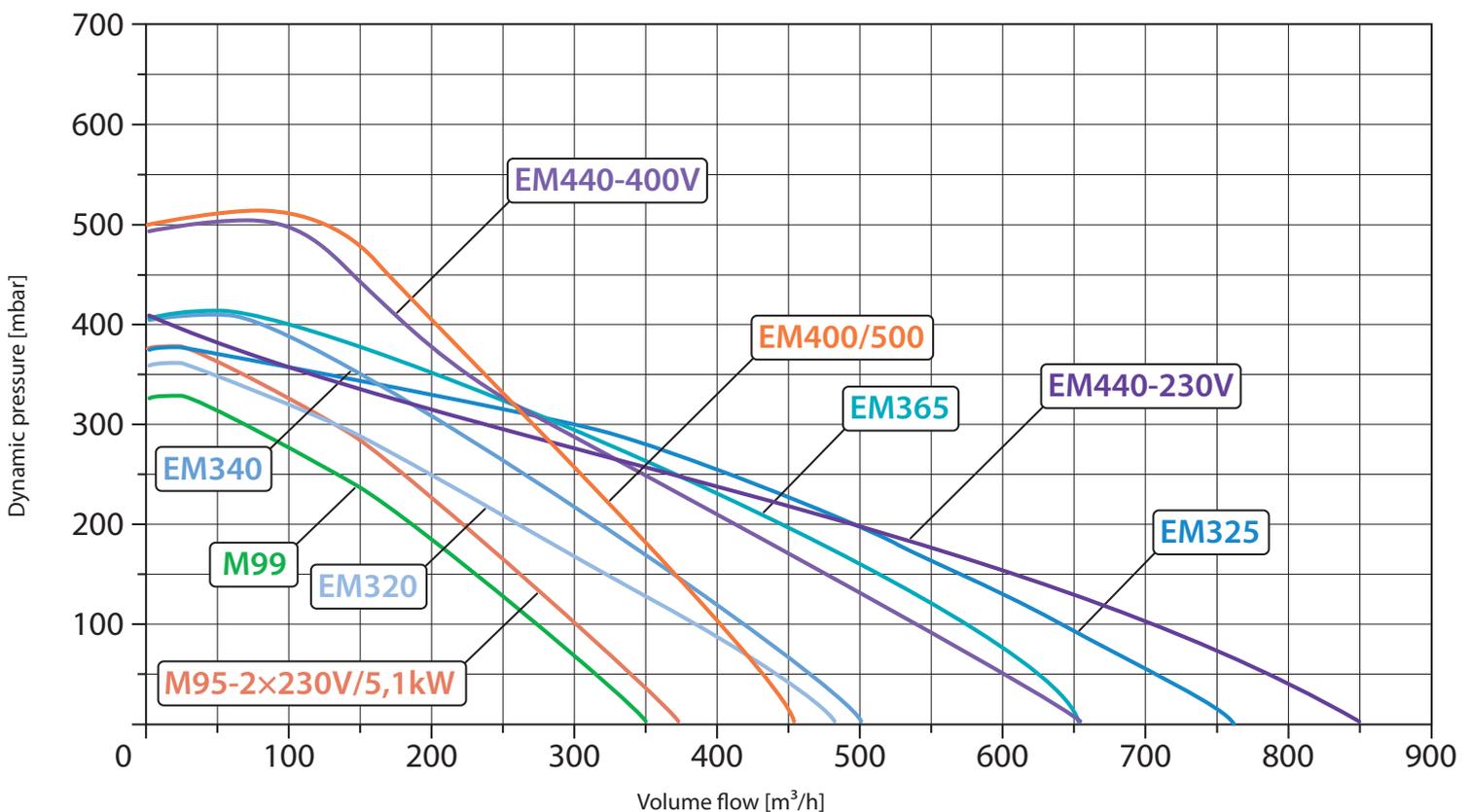
In this way, X-Floc differs from the majority of manufacturers who limit themselves to stating the summed nominal values of the air generators for their products. However, these often deviate from the actual performance values.

The air performance curves determined with the aid of the characteristic test bench also allow a more detailed assessment and evaluation of the machine performance. Various boundary conditions (e.g. the insulation material used, the nature of the compartment, etc.) ensure different back pressures in each application. If this is not taken into account in the measurement, the maximum values for dynamic pressure and air volume (= volume flow) have little significance for the performance assessment.

Experience shows that the most commonly used „working pressure“ is between 80mbar and 200mbar. The graphically displayed characteristic curves of the respective injection machines therefore allow an effective comparison of the performance values at all real operating points in use.



Example of characteristic curves



Insulation blowing machine EM100

The robust compact blow-in machine is excellently suited for processing cellulose and glass wool as well as for free-flowing insulation materials, bulk materials and other materials approved by the building authorities.

The EM100 has a powerful blower with a long service life and a material conditioning unit with two horizontal shafts that ensures good loosening of the insulation material. For this reason, the machine is particularly suitable for the application areas of open/attic blowing, dry injection and damp spraying.

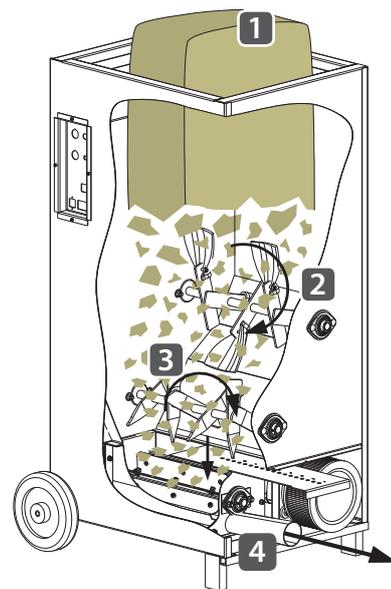
The compact dimensions and low weight ensure high mobility. The EM100 is equipped with a 230V connection. The standard scope of delivery includes a cable control, optionally the machine is also available with radio remote control.

Thanks to easy handling and setting options via a clearly structured control panel with voltage control display, the EM100 is equally suitable for the blow-in specialist as well as for DIY application.

► For further information, see product data sheet **EM100**

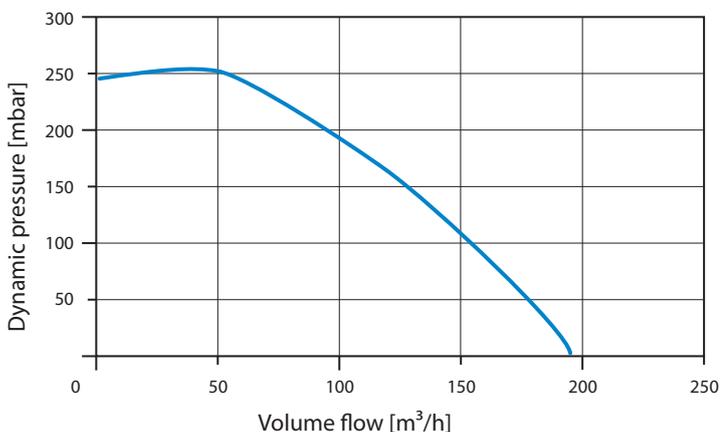


Operating principle



- 1** The insulation bales are opened and fed to the machine roughly separated by the bars on the upper hopper.
- 2** The material further broken up by the agitator shaft with disturbing lobes falls into the lower hopper area..
- 3** The rotating agitator shaft loosens the material ready for blowing before it falls into the rotating airlock.
- 4** At the lower airlock point, the insulation material is blown out of the airlock chamber by the air flow of the supply air unit and into the conveyor hose via the outlet nozzle.

Example of characteristic curves



X-Floc Insulation blowing machines

Insulation blowing machine Minifant M99

The Minifant M99 series are compact blow-in machines for processing loose insulation materials or free-flowing bulk materials approved by the building authorities. Cellulose, wood fibre, glass and rock wool, perlite, EPS granulate, straw and many more: The Minifant M99 is a real all-rounder in all versions.

Robust compact design and low dead weight ensure high mobility - thanks to the two transport wheels, even on any standard construction site surface.

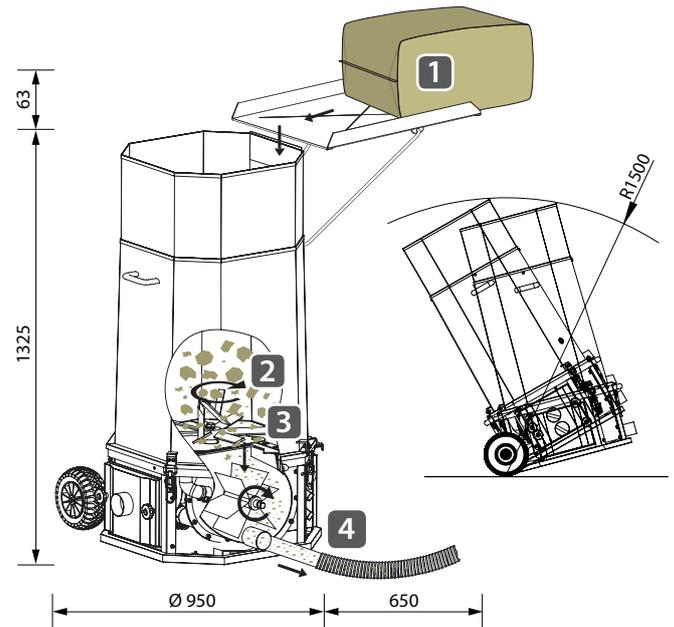
All machines are equipped with a 3-channel radio remote control as standard, so that settings such as air and material quantity can be made directly at the injection point. The Minifant M99 has a 230V connection as standard. The M99-DS and M99-DS-Pro versions can also be operated internationally with 220-240V.

Versatility and an excellent price-performance ratio are the reasons why a large number of X-Floc customers worldwide swear by these little all-rounders.

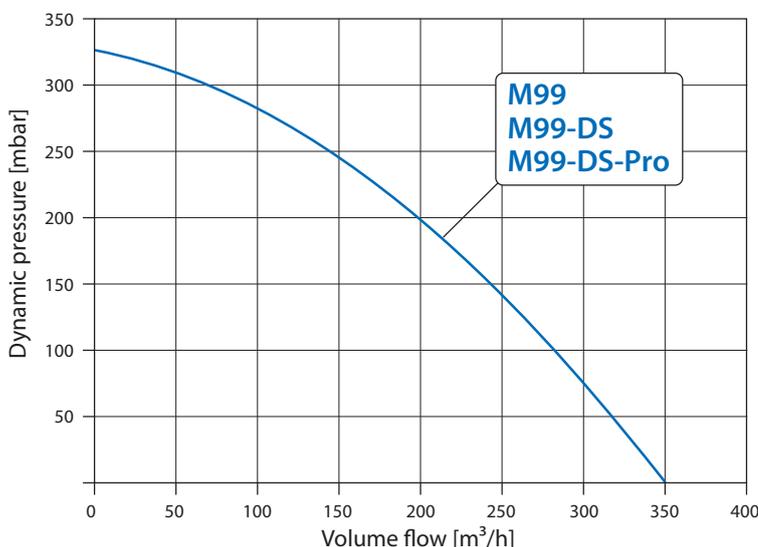
▶ For more information, see product brochure **Minifant M99**



Operating principle



Example of characteristic curves



- 1 The insulation bales are placed on the support for the bags (optional), opened and fed to the hopper.
- 2 The material conditioning unit breaks up the compacted material and feeds it to the rotary airlock.
- 3 The adjustable airlock feed gate finely adjusts the material feed according to the application.
- 4 The air flow moves the material from the airlock chambers (6 or 8) into the outlet nozzle. The insulation material is accelerated in the conveyor line connected to the outlet nozzle and blown into the component.

Insulation blowing machine Zellofant M95

Proven technology in the smallest space: In Europe, the Zellofant M95 is symbolic of blow-in technology. For more than 25 years, the powerful machines of this series have been used to process thermal insulation materials approved by the building authorities, such as cellulose, wood fibre, mineral fibre and granulates, as well as other materials. Thanks to its compact design, the Zellofant M95 is ideally suited for mobile construction site use.

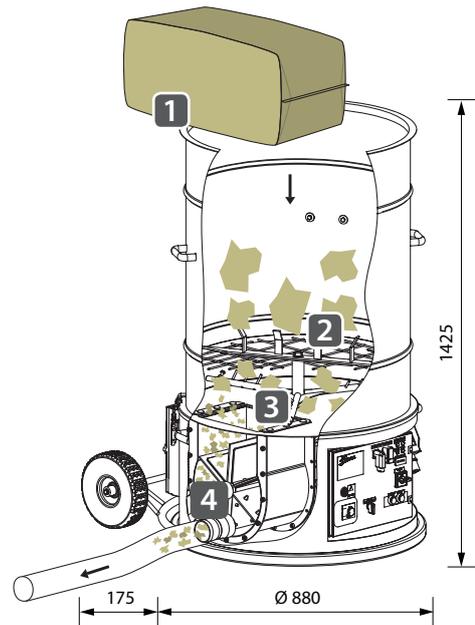
The three-stage material conditioning unit can easily break up and finely break down highly compressed processing material. The material feed rate can be adjusted via the speed of the airlock rotor. A manual airlock feed gate is also available as an option. Two (or three for machine type 6,6kW and 7,3kW) high-performance centrifugal fans effortlessly generate the required air power.

The cable or radio remote control enables all important settings to be made directly at the injection point and the machine to be controlled precisely. Depending on the type, the machines of the M95 series are equipped with 230V or 400V electrical connection.

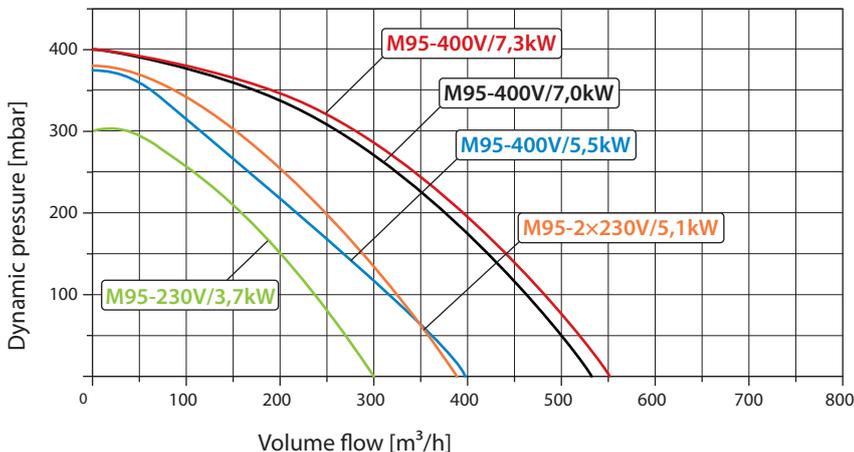
► For more information see product brochure **Zellofant M95**



Operating principle



Example of characteristic curves



- 1 The insulation bales are placed on the support for the bags (optional), opened and fed to the hopper.
- 2 The shredding arm breaks the material into small pieces, which fall through the replacement grid into the rake unit. There the material is broken up ready for blowing.
- 3 The manual airlock feed gate (optional) enables precise metering of the material feed rate.
- 4 The rotor transports the material into the lower part of the airlock. The air flow of the high-powered radial compressors accelerates the material and transports it through the outlet nozzle into the conveyor line.

X-Floc Insulation blowing machines

Insulation blowing machine EM300

The compact high-performance blow-in machines of the EM300 series are ideal for processing thermal insulation materials approved by the building authorities, such as cellulose, wood fibre, mineral fibre, granulates and other materials. All blow-in methods are possible with the EM300 machine types.

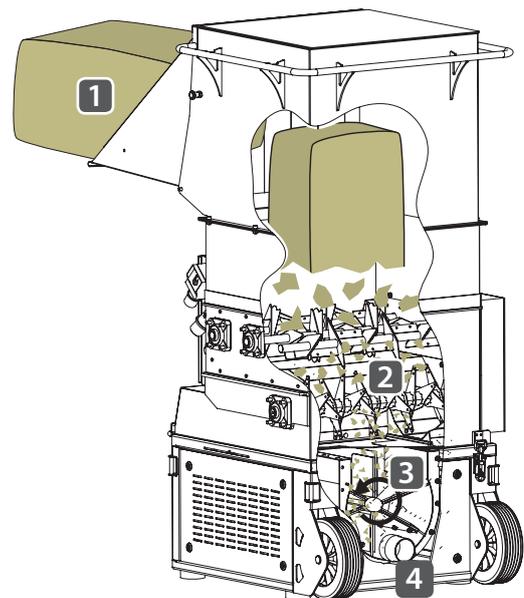
The two-stage material conditioning unit with three shafts and an additional shredder shaft is able to easily break up and finely break down highly compressed processing materials. The material feed rate can be adjusted via the position of the airlock feed gate and the speed of the airlock rotor. The high-performance centrifugal fans effortlessly generate the required air power and can be excellently used for suction purposes at the same time. Thanks to the suction options, low-dust filling is ensured.

The precise machine control and the choice of settings are made by cable or radio remote control directly at the injection point. Depending on the type, the machine is equipped with 230V and/or 400V electrical connection

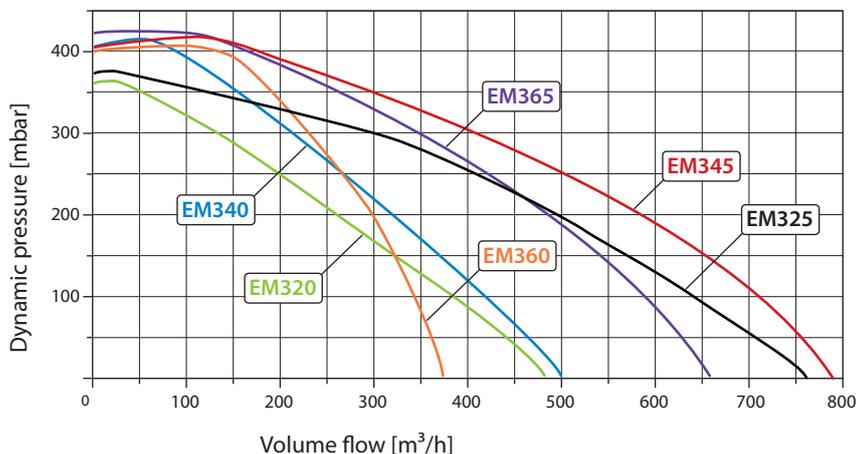
► For more information, see product brochure **EM300**



Operating principle



Example of characteristic curves



- 1 The insulation bales are placed on the bag support, opened and pushed through the strip curtain into the filling hopper.
- 2 The material conditioning unit breaks the material into smaller pieces and ensures further transport to the airlock inlet.
- 3 The airlock feed gate (adjustable manually or via radio remote control) enables the material feed to be metered.
- 4 The rotor transports the material into the lower part of the airlock. The air flow of the blower accelerates the material and transports it through the outlet nozzle into the conveyor line.

Insulation blowing machine EM400

The high-performance blow-in machines of the EM400 series are optimally suited for the professional processing of thermal insulation materials approved by building authorities, such as cellulose, wood fibre, rock wool and many more.

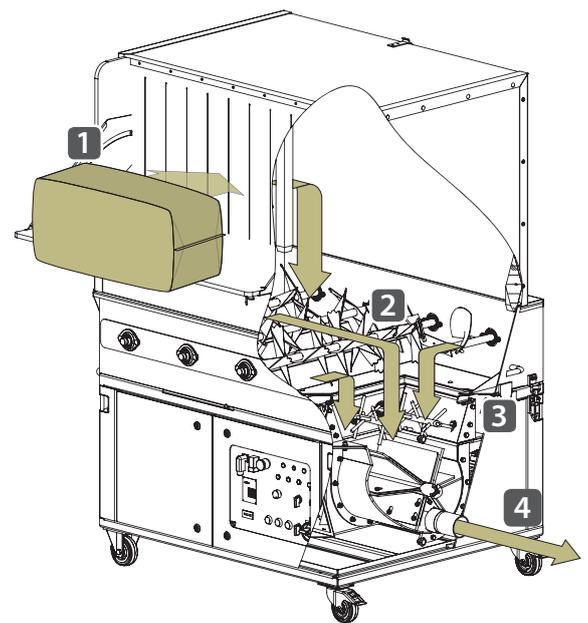
The two-stage material conditioning unit, consisting of four rotating shredding shafts and a chipping unit, is able to easily break up and finely break down highly compressed processing materials. The material feed rate can be conveniently selected in approx. 20 stages by positioning the electric airlock feed gate via the cable or radio remote control (optional). A 5-stage, specially developed high-performance turbine and/or several high-powered radial compressors effortlessly generate the required air power. All important machine settings for the blowing process can be selected directly from the injection point by cable or radio remote control.

With the exception of the EM400-3x230V, the machines in this series are equipped with a 400V electrical connection.

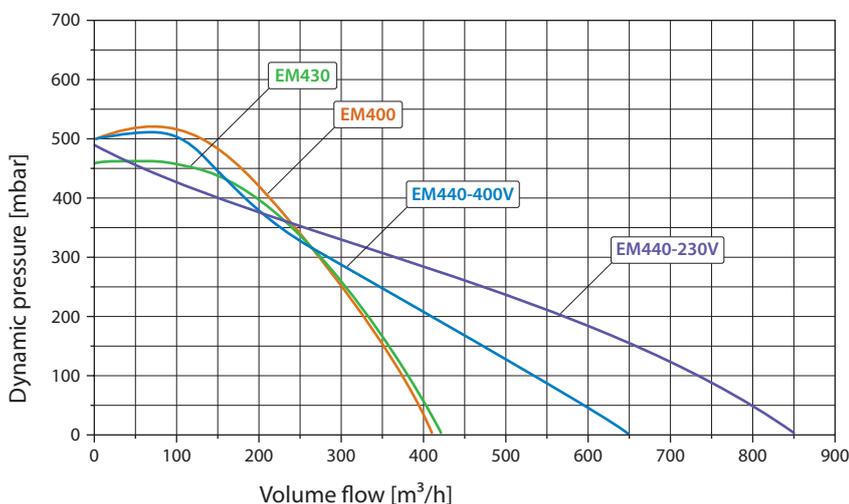
► For more information, see product brochure **EM400**



Operating principle



Example of characteristic curves



- 1 The insulation bales are placed on the bag support, opened and pushed through the strip curtain into the filling hopper.
- 2 Four rotating shredding shafts break the material into smaller pieces and transport it to the airlock inlet.
- 3 The electric airlock feed gate meters the amount of material into the shredding unit, which ensures that the fibres are finely broken up.
- 4 The rotor transports the material into the lower part of the airlock. The air flow of the high-performance turbine accelerates the material and transports it through the outlet nozzle into the conveyor line.

X-Floc Insulation blowing machines

Insulation blowing machine EM500

The high-performance blow-in machine is optimally suited for the professional processing of thermal insulation materials approved by the building authorities, such as cellulose, wood fibre, granulate and many more. It is optimised for stationary workshop use and mobile construction site use and is characterised by a very high throughput.

Unlike conventional blow-in machines, the material is fed in at table height and transported to the 3-stage material conditioning unit by a conveyor belt. This material conditioning unit, consisting of a chopping shaft and two shredding shafts, is able to easily break up and finely break down highly compressed processing materials.

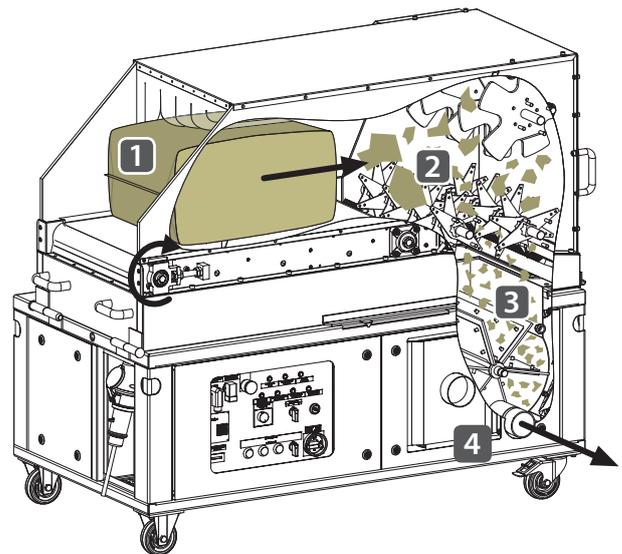
The material feed rate can be adjusted via the position of the electric airlock feed gate. A high-performance turbine effortlessly generates the required air power.

All important machine settings can be selected directly from the injection point by cable or radio remote control. The machine is equipped with a 400V/3x16A electrical connection.

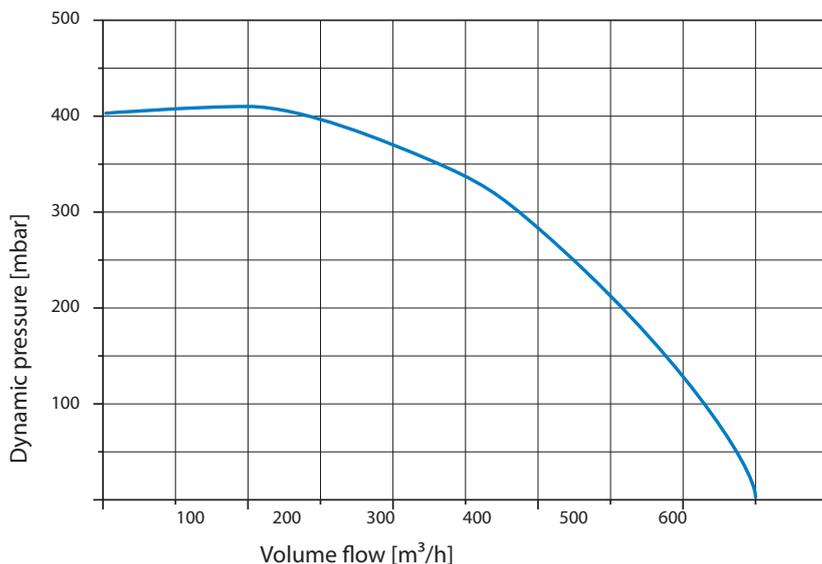
▶ For further information, see product data sheet **EM500**



Operating principle



Example of characteristic curves



- 1 The insulation bales are conveyed via the conveyor belt into the hopper.
- 2 With the help of rotating agitator shafts the bale is broken up into small pieces and any lumps are broken up.
- 3 The material falls through the airlock feed gate opening into the rotary airlock. The feed gate can be used to reduce the degree to which the chambers are filled - a particular advantage for easy-flowing bulk materials.
- 4 By rotating the airlock rotor and with the help of the air flow, the material is conveyed and blown out of the rotary airlock through the outlet nozzle.

Radio remote control FFB2000-Pro

Bidirectional radio communication with FM technology: For the Minifant M99-DS-Pro, the digital radio remote control FFB2000-Pro **art. no. 5154** is included in the scope of delivery. It is optionally available for all machine types of the Zellofant M95, EM300 and EM400 series as well as for the EM500 blow-in machine.

The FFB2000-Pro is characterised by high transmission reliability and individual setting options. From the EM300 series onwards, material quantity metering is also possible either via the setting of the airlock rotor speed or the electric airlock feed gate.

► For further information, see product data sheet **FFB2000-Pro**

Technical data

Transmission frequency	434MHz
Operating temperature range	-20°C to +40°C
Voltage supply	24V DC
Radio channels	4 (for construction sites with sources of interference)

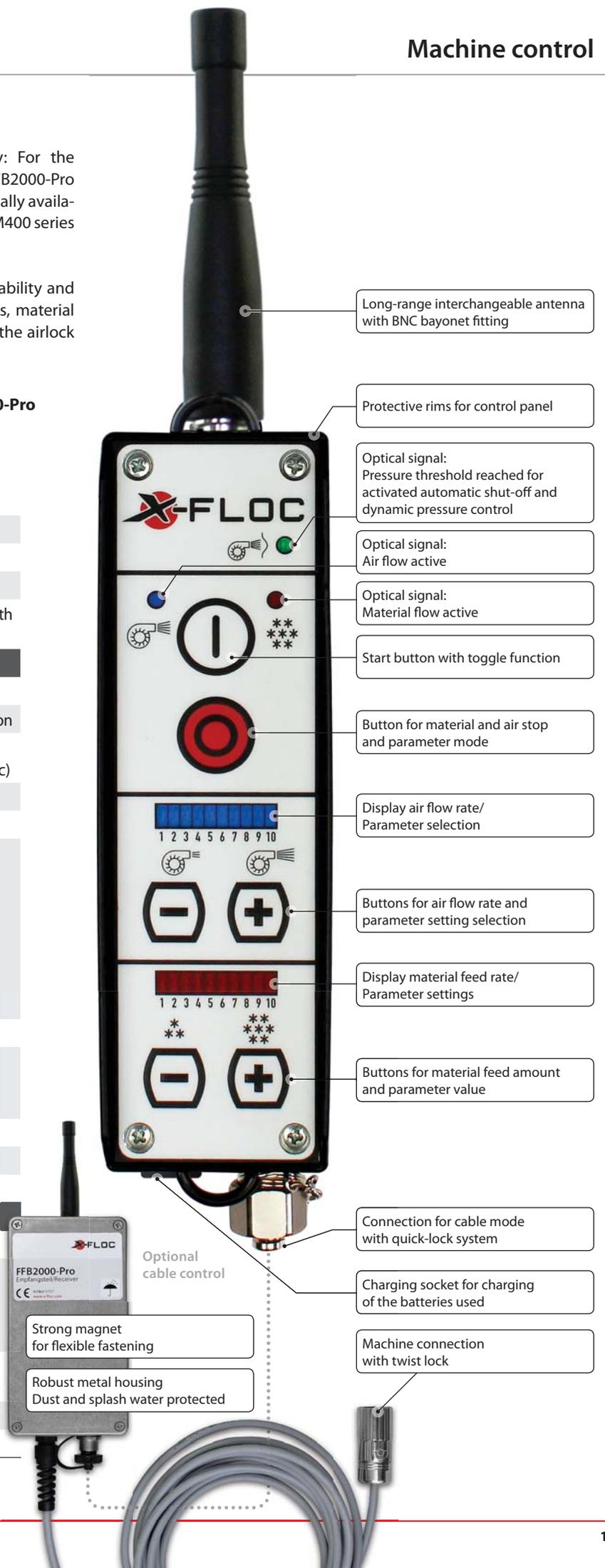
Hand control unit

Duration of use	up to 30h
Range	>100m without interruption
Overpressure signal	LED (optical) Warning tone (accoustic)
Function buttons	6 (foil keypad)
Parameter levels	10
Adjustable parameters:	
Radio channels	1-4
Switch-on delay material	0, 1, 2, ...9s
Switch-off delay air	0, 1, 2, ...9s
Delay time:	
Automatic switch-off	0, 1, 2, ...9s
Response time:	
Dynamic pressure control	50, 100, ...500ms

Protection class	IP40
Connections	Cable control Charging socket Antenna
Power supply	3x AAA NiMH 800mAh
Weight	approx. 400g
Dimensions	approx. 47x154x47mm

Receiver

Protection class	IP40
Connections	Control line to the machine Cable control Antenna
Power supply	24V DC (from blow-in machine)
Weight	approx. 765g
Dimensions	approx. 83x151x50mm



Long-range interchangeable antenna with BNC bayonet fitting

Protective rims for control panel

Optical signal: Pressure threshold reached for activated automatic shut-off and dynamic pressure control

Optical signal: Air flow active

Optical signal: Material flow active

Start button with toggle function

Button for material and air stop and parameter mode

Display air flow rate/Parameter selection

Buttons for air flow rate and parameter setting selection

Display material feed rate/Parameter settings

Buttons for material feed amount and parameter value

Connection for cable mode with quick-lock system

Charging socket for charging of the batteries used

Machine connection with twist lock

Optional cable control

Strong magnet for flexible fastening

Robust metal housing
Dust and splash water protected

Insulation blowing machines with amplifier

Amplifier/Vacuum stations

Some insulation materials require a particularly high air volume for professional injection. Occasionally, certain installation situations require the overcoming of large rise heights or the use of long delivery lines. In the meantime, loose insulation materials also have to be removed from time to time.

With appropriate technology from X-Floc, the existing insulation blowing machine can also be supplemented for reinforcement or used for suction. The X-Floc amplifier/vacuum stations range from mobile amplifiers for construction site use (VS28, VS33, VS55M, VS75M) to special designs (VS40) as well as stationary solutions suitable for factory filling (VS55).

All X-Floc amplifier/vacuum stations feature complete separation of working and cooling air. They can all significantly increase the performance of blow-in machines and/or, in combination with suitable accessories, extract small and large quantities of solids in a short time. The suction function is suitable for a wide range of materials. Thanks to the cover with bayonet lock, the air filter fleece can be easily replaced.

- ▶ For more information, see product brochure **Amplifier/Vacuum stations**



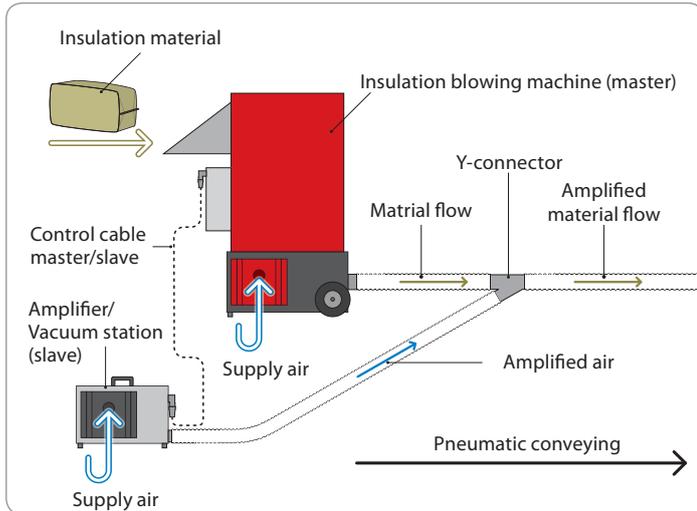
Comparison of amplifier/vacuum stations

Amplifier/Vacuum station	VS28	VS33	VS55M	VS75M	VS40	VS55
Type						
Article number	2711	5855	9455	9793	8336	6348
Amplify/Clean	● / ●	● / ●	● / ●	● / ●	● / ●	● / ●
Active dust removal	●	●	●	●	●	●
Stepless power regulation	●	●	●	●	●	●
Synchronisation with machine	●	●	●	●	●	●
Remote control	●	●	●	●	●	●
Power	2,8kW	3,3kW	5,5kW	7,5kW	4,0kW	5,5kW
Max. overpressure	330mbar	370mbar	500mbar	600mbar	430mbar	550mbar
Max. negative pressure	300mbar	340mbar	450mbar	550mbar	380mbar	500mbar
Max. air volume (nominal / measured)	440 / 360m ³ /h	620 / 580m ³ /h	470m ³ /h*	390m ³ /h*	430 / 390m ³ /h	390 / 350m ³ /h
Air feed unit	High-powered radial compressor	High-powered radial compressor	5-stage turbine	5-stage turbine	5-stage turbine	5-stage turbine
Outlet nozzle	NW63 (2½")	NW63 (2½")	NW63 (2½")	NW63 (2½")	NW63 (2½")	NW63 (2½")
Intake socket	NW75 (3")	NW75 (3")	NW90 (3½")	NW90 (3½")	NW75 (3")	NW75 (3")
Operating hours counter	○	●	-	-	○	○
Dimensions (LxWxH)	482x358x418mm	482x358x418mm	605x560x750mm	605x560x750mm	600x650x600mm	785x700x580mm
Weight	approx. 19,5kg	approx. 19,8kg	approx. 65kg	approx. 88kg	approx. 60kg	approx. 100kg

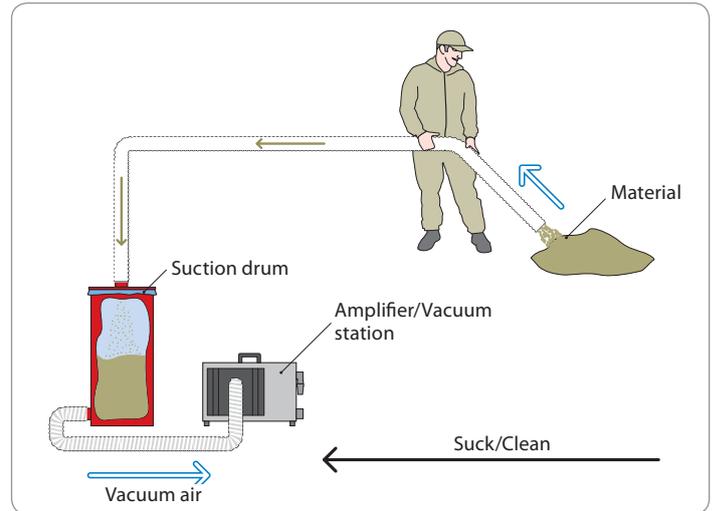
* Freeblowing ● Included as standard ○ Optionally available

Insulation blowing machines with amplifier

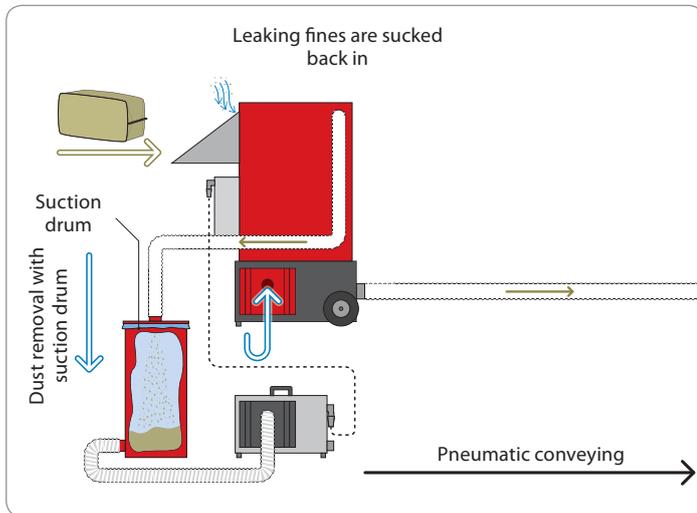
Amplified blowing injection



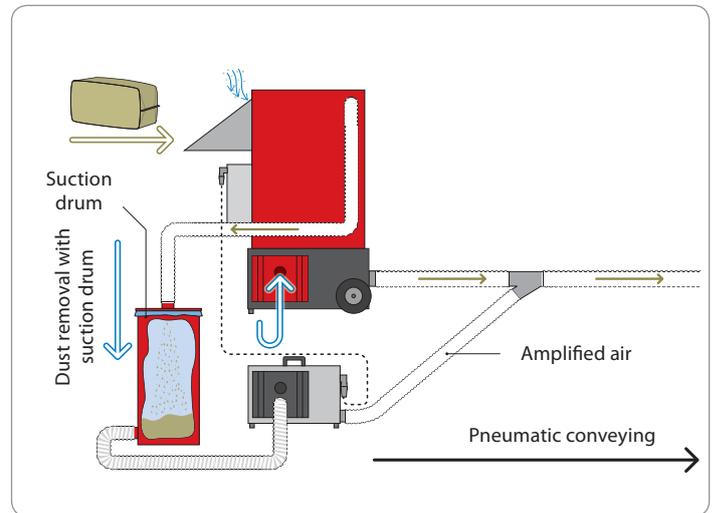
Amplifier aspiration function



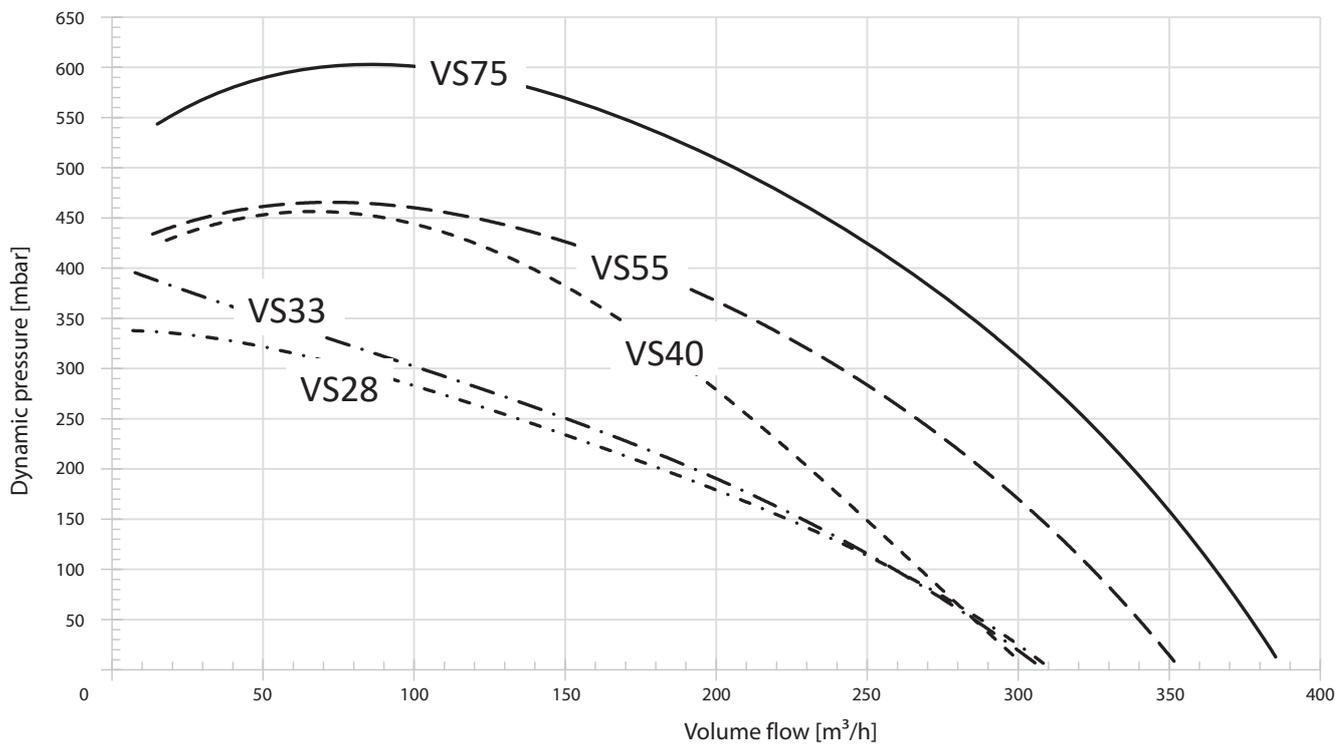
Dust removal



Amplified blowing injection with dust removal



Example of characteristic curves



Insulation blowing machines in industrial filling technology

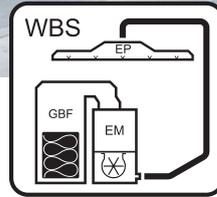
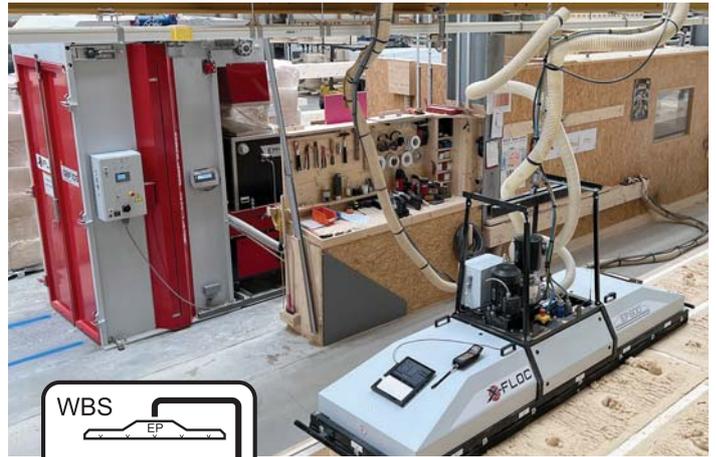
Factory filling

Factory filling of elements not only offers manufacturers of timber frame elements and prefabricated/ eco-houses great advantages in terms of cost-effectiveness and consistently high quality. Increasingly, carpentry companies are also opting for the use of loose insulation materials and industrial filling technology.

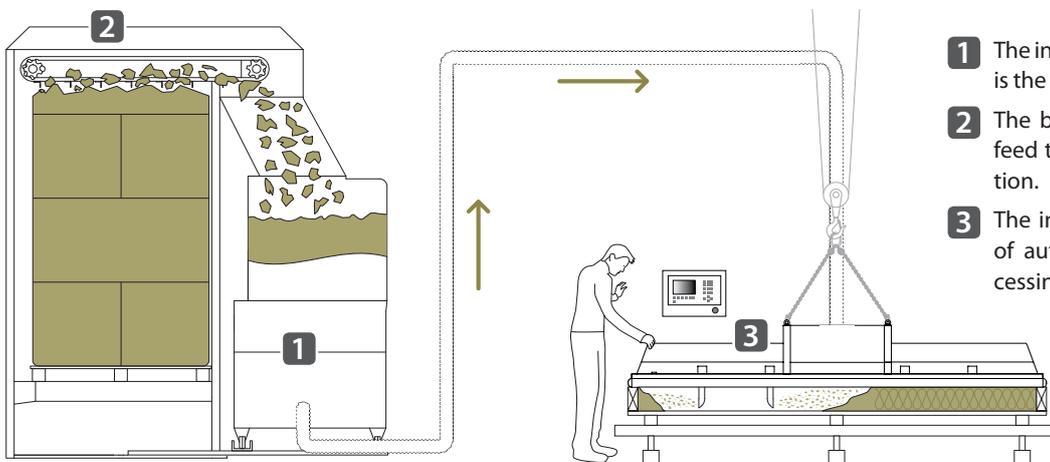
Factory filling systems are modular in design. The insulation blowing machine (e.g. EM430) is the central element. It can already be used for manual filling processes e.g. with injection lances, hoses or nozzles. Extended by a bale conditioning machine, the system allows the use of big bales and with an injection panel the factory filling procedure is automated.

X-Floc factory filling systems, which are individually adapted to the customer's requirements, are already being used successfully in many small companies as well as in fully automated production lines.

► For further information, see product brochure **Factory filling**



Modular system design



- 1 The insulation blowing machine (e.g. EM430) is the heart of the factory filling system.
- 2 The bale conditioning machine is used to feed the machine almost without interruption.
- 3 The injection panel ensures a high degree of automation and consistently high processing quality.

The factory filling systems are designed so that different insulation materials (see: Blow-in insulation material product groups) can be used. Typical product classes such as wood fibre, cellulose, glass wool and rock wool have already been extensively tested.



Insulation blowing mobiles

X-Floc insulation blowing mobiles are fully equipped trailers, transport vehicles and containers for all blow-in technicians. Your blow-in machine is optimally placed on the trailer or vehicle. For this purpose, a system plan with hosing and electrical installation is worked out. In addition, a safe stowage solution is prepared for each piece of equipment.

Highly customisable

Customised trailers, vehicle superstructures or removal of a motor vehicle: We realise blow-in mobiles according to the customer's wishes.

► For further information, see brochure **Insulation blowing mobiles**



Tarpaulin trailer

Tarpaulin trailers in freely selectable dimensions offer space for the ergonomic arrangement of the workplace, a variety of configuration options as well as additional space for further material. They are also suitable for long distances and, due to their low overall weight, for smaller towing vehicles. The large exterior surfaces can be printed with individual customer advertising.

Box trailer

Single-axle box trailers and tandem trailers are also well suited for small towing vehicles, are approved for speeds of 100 km/h and are suitable for short and long distances. These trailers also offer increased theft protection and large exterior surfaces for individual advertising. As standard, all box trailers are available with a two-wing rear door or drive-on flap.



Container

Made of rustproof aluminium, weather-resistant wood and whatever the shape: X-Floc realises system workplaces in containers – tailor-made and well thought-out down to the last detail – very suitable for the blow-in professional as well as for the rental service. On request, the containers are available with compressed air supply and power generator as well as a solution for flatbed vehicles/trailers.

Equipment and accessories

Machine accessories

X-Floc blow-in machines, amplifier/vacuum stations and other products can be operated and combined in a variety of ways. Detailed information on radio remote controls, cable control, power generators as well as bag supports, suction drums and other machine accessories can be found in the

▶ Product brochure **Machine accessories**



Nozzles and blowing accessories

For each insulation blowing principle and each application, tools and/or accessories are necessary for insertion, sealing and venting. Detailed information about these accessories and everything about tools such as injection nozzles, injection needles/lances as well as hole saws and sealing parts can be found in the

▶ Product brochure **Nozzles and blowing accessories**



Hoses and connectors

Hoses and connectors are an essential part of the blow-in equipment because they can be used to create all conceivable transport lines and circuits. Detailed information on conveying and injection hoses as well as hose connectors, hose clamps, Y-pieces and fibre switches can be found in the

▶ Product brochure **Hoses and connectors**



Measurement devices

X-Floc maintains close cooperation with university research and development institutions. This results in an extensive product range in the field of measuring and testing technology for blow-in technicians, insulation manufacturers and material testing institutes, and many more. You can find detailed information in the

▶ Product brochure **Measurement devices**



Damp spraying

In the damp spray process, thermal insulation material is moistened with water after exiting the hose. Detailed information on spray heads and pipes for the various applications as well as on high-pressure pumps such as membrane or piston pumps and on wall scrubber for smooth surfaces can be found in the

▶ Product brochure **Damp spraying**



Industrial safety and respiratory protection

The special work suit with hood protects the blow-in professional from contact with skin-irritating insulation materials. Detailed information on the X-Floc range of workwear, dust masks, professional respirators with legal approval as well as air filters, rechargeable batteries and other accessories can be found in the

▶ Product brochure **Industrial safety and respiratory protection**



X-Floc Dämmtechnik-Maschinen GmbH
Rosine-Starz-Straße 12 · 71272 Renningen · Germany
Telefon: +49-7159-80470-30 · Fax: -40
E-Mail: info@x-floc.com · www.x-floc.com



Your X-Floc representative