



Application information 2024/2025

Release agents



Release agents

Release agents are indispensable aids in numerous production processes to prevent materials from sticking to molds, tools and surfaces. They play a crucial role in the manufacture of plastic parts, in metal processing, in the casting of concrete and many other industrial applications.

The choice of the right release agent is crucial for the quality of the end product, the efficiency of the production process and the durability of the tools used.

The selection of the right system and application equipment also plays a key role in ensuring that the release agent is applied evenly and precisely to achieve optimum results.

Types

Generally, the spraying processes can be divided into airspray (air atomizing), airless and aircoat / airmix (airless with air support).

Release agents that are applied using airspray or aircoat, with or without electrostatics, can be solvent-based or water-based. The choice between these two variants depends on the specific requirements of the production process, environmental regulations and safety requirements.

Solvent-based release agents offer fast drying and uniform layer formation, while water-based ones are more environmentally friendly and safer. The combination of the right release agent and application method has a decisive influence on efficiency, material utilization and environmental compatibility in the production process, and we at Walther can provide you with expert advice for your individual application.



Water-based



Solvent-based



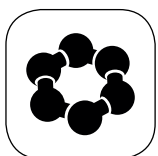
Water-based & solvent-based with electrostatics

Applications

Release agents are of crucial importance in numerous industries. Choosing the right application system is essential for an economical application. Below you will find examples of industries and applications in which our systems are ideal for use.



Wood industry
e.g. cut protection,
production of:
Chipboard & MDF boards



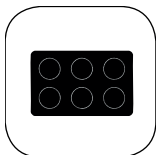
Plastics industry
e.g. foam,
PU, rigid & flexible foams,
automotive suppliers



Upholstery industry
e.g. foam bonding,
textile lamination,
leather lamination



Metal industry
z.B. coating



Food industry
e.g. molds for confectionery



Shoe industry
e.g. shoe soles

Airspray

For release agents, we recommend a low-pressure spray gun (HVLV) or HVLV+ with a nozzle bore of 0.3mm to 1.1mm to reduce overspray and produce a fine, thin film of release agent.



GA 1020 / 1030
excellent atomization



WA 100
compact
automatic spray gun



WA 110
highly compact
automatic spray gun



GA 9010
precise application



GM 1030
universal spray gun



Pilot Mini
lightweight and handy
spray gun



Pilot Twin
compact spray gun for
low-viscosity materials



Nozzle extensions
for reaching places that are
difficult to access

Electrostatics

Water and solvent-based release agents can be optimally processed with an electrostatic applicator - 0.15mm nozzle bore. Isolated material supply systems are necessary for processing water-based release agents. This helps you to achieve an ideal edge structure and surface wetting even in complex geometric parts.



GM 5000EA
Airspray applications with
low-conductivity release
agents. With built-in high-
voltage cascade.



GM 5000EAC
Aircoat applications with
low-conductivity release
agents. With built-in high-
voltage cascade.



GA 5000EA
Airspray applications,
internal or external control
of the forming/atomizing
air.



GA 5000EAC
Aircoat applications, internal
or external control
of the forming/atomizing
air.

Material conveying

Our wide range of pressure tanks in combination with precision regulators have proven themselves as a material feed system for conventional and electrostatics application with reproducible results $\leq 10\text{g/min}$.



Material pressure tanks
By using pressure tanks, you achieve a
pulsation-free and unhindered material flow
during application.



AquaCoat
Material conveying system for the
electrostatic processing of release agents.
Completely insulated design.

Component selection for release agent processing

Application equipment and components for release agents are crucial for precise and efficient application in industrial processes. They ensure that the release agent is applied evenly to the desired surfaces in order to achieve optimum production results.



GM 5000 EA/EAC



GA 5000 EA / EAC



GM 5000 EAW / EACW



GA 5000 EAW / EACW

Type of release agent				
Solvent-based				
Water-based				
Solvent-based Electrostatic	●	●		
Water-based Electrostatic			●	●
Nozzle extensions possible				
Material conveying				
Pressure tank	●	●	●	●
Diaphragm pump	●	●	●	●
Piston pump			●	●
AquaCoat				
AquaCoat up to 60 liter			●	●
AquaCoat up to 200 liter			●	●
Release agent supply				
Stationary	●	●	●	●
Central	●	●		
Use of robotics				
suitable		●		●
Surface application				
Precision	●	●	●	●
Large-scale	●	●	●	●
Application quantities				
only small quantities				
Small to large quantities	●	●	●	●
Pressure range				
Low pressure (0.2 – max. 0.7 bar)	●	●		
Medium pressure (1.0 – max. 1.5 bar)	●	●	●	●
High pressure (3.0 – max. 8.0 bar)	●	●	●	●
Certification				
ATEX	●	●	●	●

- = possible
- (●) = limited possible



GM 1030



GA 1020 / 1030



Pilot Mini



WA 100



Pilot Twin



WA 110



GA 9010

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Standard material pressure tanks

With pressure tanks, you achieve a pulsation-free and unhindered material flow during application.
For example, you can also process shear-sensitive dispersion adhesives without any problems.



Execution								
Stainless steel	•	•	•	•	•	•	•	•
Pressure range								
Vacuum ^{*1}				•	•	•	•	•
1.5 bar								
2 bar								
3 bar				•	•	•		
4 bar							•	•
6 bar	•	•	•	•	•	•	•	•
Agitator								
Without agitator	•	•	•	•	•	•	•	•
Manual agitator	•	•	•			•	•	•
Pneumatic gear agitator	•	•	•	•	•	•	•	•
Electric gear agitator		•	•					•
Outlet optional								
1 upper outlet	•	•	•	•	•	•	•	•
2 upper outlets	•	•	•				•	•
1 lower outlet	•	•	•	•	•	•	•	•
Regulator								
Single regulator ^{*2}	•	•	•	•	•	•	•	•
+ 2nd regulator ^{*2}	•	•	•	•	•	•	•	•
+ 2nd and 3rd regulator ^{*2}	•	•	•					
Precision regulator ^{*3}								
Material outlet								
Top	1/4"	1/4"	3/8"	1/4"	1/4"	1/4"	1/4"	3/8"
Bottom	1/2"	1/2"	1"	1/4"	1/4"	1/4"	3/8"	3/8"
Volume [l]								
Filling quantity	4.9	11.4	18	1.96	2.45	3.2	4.1	8.2
Useful capacity	3.5	9	15	1.1	1.8	2.5	3.1	6.4
Diameter [mm]								
Inner diameter	183	232	269	125	125	125	162,5	213
Outer diameter (max.)	243	291	344	173	173	173	222	290
Total height (top / bottom outlet) [mm]								
Without agitator	381 / 414	445 / 481	524 / 604	334	394	454	410 / 430	424 / 455
With manual agitator	538 / 568	592 / 624	681 / 757	-	-	-	562 / 582	577 / 608
with pneumatic agitator	388 / 416	515 / 547	604 / 680	338	398	458	413 / 433	500 / 531
With electric agitator	-	659 / 591	748 / 824	-	-	-	-	644 / 675

^{*1} Optional in combination with overpressure
^{*2} Control range: 0.5 - 8.0 bar - limited to operating pressure
^{*3} Control range: 0.1 - 4.0 bar

•	•	•	•	•	•	•	•	•
•		•		•	•	•	•	•
					•			
				•				
•	•	•	•	•	•	•	•	•
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•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
1"	1"	1"	1"	1"	1"	1"	1"	1"
14	22.3	25.8	48	63.6	107	138	251	
11.8	19.5	23.5	42.8	58.6	90	120	248	
244	270	244	362	362	442	442	692	
320	356	320	438	438	456	456	706	
536 / 586	620 / 694	787 / 837	751 / 781	903 / 933	1064	1263	1152	
686 / 736	769 / 843	936 / 986	901 / 931	1053 / 1083	1213	1413	1304	
608 / 658	692 / 766	858 / 908	824 / 854	974 / 1004	1134	1336	1227	
752 / 802	835 / 910	1004 / 1054	963 / 998	1120 / 1150	1280	1480	1371	

Customized tanks

Range of services and solutions at a glance.

Customized solutions for individual requirements

With our commitment to the highest level of customer satisfaction, we also offer a comprehensive range of customized solutions in the field of tank construction in addition to our standard material pressure tanks. These special solutions are designed to meet specific requirements and needs to ensure optimum performance in your applications.



Integrated technologies

The tanks can be equipped with a variety of technologies, including measurement and control technology for monitoring parameters such as pressure, temperature and fill level. This enables precise control of the process and ensures consistent quality.



Wide range of customization options

Our customized tanks offer a high number of customization options to enable perfect integration into production processes and production lines. This can include, e.g. the size, capacity and shape of the tank. In this way, space requirements can be optimized and efficiency increased.



Consideration of special requirements

From the resistance of aggressive materials to extreme temperatures and pressures – we take on every special requirement and develop solutions to meet them. The choice of materials, including special coatings, plays a decisive role here.



Flexibility and reliability

With mounting options such as wall brackets, pedestals or mobile chassis, we offer maximum flexibility. Our tanks are designed for durability and reliability to meet even the most demanding requirements.



Customized Liquid Solutions


From material preparation, conveying and application to extraction technology, we offer customized system solutions for a smooth material supply in your production process. Our aim is to optimally match the individual components to your application, be it for liquid, highly viscous, explosive or shear-sensitive media such as paints, varnishes, adhesives, release agents, oils, foodstuffs and other coatings. With our many years of experience and unique manufacturing expertise, we are able to optimize individual components and assemblies to meet your specific requirements and thus improve the entire workflow.

Material preparation

Provision


Paint mixing tanks

FMB 35 - 3000



System racks

Liquid Racks




Cover lifter



Preparation

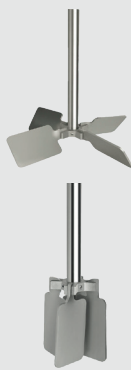
Agitators

Manual agitators
Pneumatic agitators
Electric Agitators




Stirrers

Grid blade impeller
Blade impeller
Cup impeller
Inclined blade impeller
Folding impeller



Material heater



Material handling

Pumps & pressure tanks

Material pressure tanks

MDG 1 - MDG 500
LDG 5 - LDG 20



Pumps

EvoMotion S-60
WildCat 10-70
TOPFINISH DD10
ZIP 52
Unica



Control & dosing units

Individual controls

Switch cabinets
Two-hand controls
One-hand controls
Dosing, variable
Mixing ratios



Valve seals




Atomization

Application


Spray guns

Liquid
Adhesive
Release agent
Signing and marking
Precision spraying
electrostatics




Extraction


Spray walls



Spray booths



Wet separation







Contact



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