

Machine technology

Spray application machine





Dear Customer,

Machine technology as a game changer for liquid applied waterproofing.

Until now, applying PMMA-based liquid applied waterproofing was considered to be a purely manual job. With the latest development from Triflex, mechanical application of 2-component liquid applied waterproofing is an innovation in the construction sector.

Always with our customers as partners in mind, we have now developed a machine that really delivers in terms of quality and speed of application. At the same time, we have remained true to our motto: Delivering solutions together. Because this new development also means that we are able to support contractors in tackling their challenges, such as sustainability and the shortage of qualified specialists.

Based on more than 45 years of experience and development in the field of liquid applied waterproofing, Triflex SAM represents a symbiosis of manual working and mechanical application for details and surfaces. Accompany us on our journey into the future and implementing long-term solutions in the best possible way.

Speak with us.

Triflex GmbH & Co. KG

Jens Karsten Nagel
Managing Director of Triflex



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Triflex SAM

Who is SAM?

SAM is the spray application machine for PMMA resin-based, 2-component Triflex products. Since the start of 2023, SAM has been in service supporting our customers on the construction site. The machine is used to apply products more quickly and ergonomically, with lower labour costs. The base resin is supplied in IBCs, which means less container waste compared to products supplied in drums. In addition, SAM makes sure that the mix ratio of catalyst and base resin never varies – and the result is a surface with consistent quality.

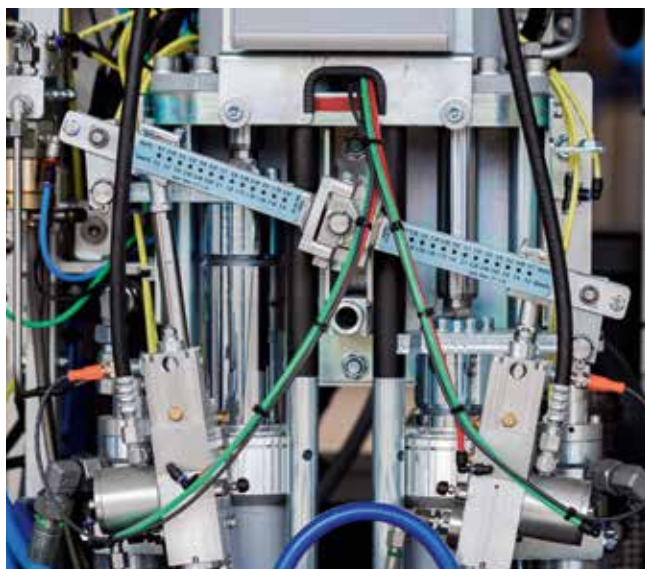


The sophisticated solution

How is Triflex SAM designed?

Triflex SAM comprises a mobile unit containing the following components:

- Volume-controlled pump unit, including control panel
- Hose holder
- Drive unit, incl. diesel tank
- Catalyst and cleaning tanks
- Storage for tools and spare parts, incl. power stirrer for containers





After mixing, the product is applied using a nozzle. The nozzle system is designed so that Triflex products with different viscosities and high delivery rates are applied with consistent quality. The gun allows mechanical control of the application and cleaning process.

Outside the mobile unit, the mixing element and spray gun, including the selected nozzle, are used. The mixing unit is connected to the mobile unit by a hose, which contains five feed lines for conveying the following components from the machine to the mixing unit:

- Triflex base resin
- Triflex liquid catalyst
- Triflex cleaner
- Compressed air
- Power supply

The mixing unit is designed for carrying on the operator's back. The base resin and the liquid catalyst are kept separate until they reach the mixing unit to prevent the material from curing in the supply lines.

Technology geared to construction sites

How is Triflex SAM controlled?

Triflex SAM is used to apply Triflex 2-component PMMA products. The appropriate mix ratio is set to suit the job in hand, and is guaranteed to stay the same throughout the entire application process.

The desired delivery rate in litres per minute is selected on the control panel, and the pump generates the required pressure of up to 180 bar.



Specifications at a glance

Dimensions of Triflex SAM when closed:	Length: 2,870 mm Width: 1,560 mm Height: 1,395 mm
Dimensions of Triflex SAM including trailer:	Length: 5,200 mm Width: 2,100 mm Height: 1,900 mm
Weight:	Approx. 2.6 tonnes
Delivery rate:	Up to 22 litres/minute*
Delivery height:	Up to 20 metres
Hose length:	60 metres
Diesel tank:	Capacity approx. 120 litres
Consumption:	Approx. 15 to 20 litres/working day (8 h)
Material tanks:	IBC (external) Catalyst tank approx. 60 litres Cleaning tank approx. 20 litres
Controlled mixing process with integrated checking control	

*Depending on viscosity, temperature and delivery height



The complete package

What accessories are available?

What does Triflex SAM come with?

To enable you to use Triflex SAM with optimal efficiency on the construction site, our service includes supplying most of the required accessories. These comprise different nozzles, information on operating the machine, assistance for working with IBCs, and tools.



For quick and reliable setting of the correct mix ratio, an overview of the product-specific properties is provided. The operating manual explains how Triflex SAM is operated. In addition, QR codes on various components of Triflex SAM link to step-by-step explanatory videos on correct handling.



The double and a single nozzles are easy to interchange, and spare nozzles plus a nozzle extension are provided in addition. To prevent the nozzles from clogging with cured material after using Triflex SAM, they are placed in a container with Triflex cleaner, which is also supplied.



To make working with the IBCs easier, an IBC frame and an IBC power stirrer are supplied.



Triflex SAM has drawers containing further tools, e.g. open-end spanner, hammer, pliers and a set of Allen keys.



Other required accessories:

Tools for applying and spreading from a standing position



Studded soles



Aluminium telescopic bar



Universal roller + holder

Personal protective equipment (PPE)



Nitrile gloves



Paper overall



Safety glasses



Face mask with at least filter type A1 or A2
(incl. explosion protection if required)

Triflex products incl. accessories



IBC Protection Set



Special Fleece



Liquid Catalyst



Intermediate bulk container (IBC)



More output, more coverage, less waste

What are the advantages of Triflex SAM?



Speed

- + Up to 4 times quicker than manual application
- + Short construction times, shorter closure times and fast refurbishments

Sustainability

- + Less container waste by using IBCs
- + Emission-free mixing



Quality

- + Uniform spray pattern with no wastage
- + Even, all-over application with the appropriate nozzle design
- + Integrated meter reading for monitoring material consumption

Personnel

- + Ergonomic working from a standing position
- + More efficient personnel planning with shorter construction times
- + Stress-free working despite increased coverage
- + Enhanced working conditions



A versatile solution

For which areas of application is Triflex SAM suitable?

Mechanical application on surfaces and in details

Triflex SAM fulfils the requirements for waterproofing surfaces and details on flat roofs and parking decks. From priming to waterproofing and finishing, all PMMA resin-based Triflex products can be applied with Triflex SAM, and nozzles specially designed for the individual products are supplied. Primers and finishes have a relatively low viscosity, so they are applied using single nozzle 6505. The waterproofing products, on the other hand, have a higher viscosity, which is why they are applied with double nozzle 6507.

Which products can be applied with Triflex SAM?

Application	Triflex product	Nozzle
Primers	Triflex Bridge Deck Primer	6505
	Triflex Cryl Primer 222	
	Triflex Cryl Primer 276	
	Triflex Cryl Primer 287	
Waterproofing	Triflex ProDetail	6507
	Triflex ProPark	
	Triflex ProTect	
	Triflex ProTerra	
Finishes	Triflex Cryl Finish 202	6505
	Triflex Cryl Finish 205	
	Triflex Cryl Finish 209	
	Triflex Cryl Finish S1	



Delivering and mixing for balconies and details

Apart from faster application, another major advantage of Triflex SAM is that working on upper levels on a construction site is no problem at all. The hose between the machine's tanks and the mixing unit allows the Triflex products to be delivered to a height of up to 20 metres using the patented piston pump technology. On reaching the required level, the base resin and catalyst are mixed, and then sprayed or used to fill buckets ready for applying manually in the usual way.



Conditions for successful construction site application

What requirements need to be met for using Triflex SAM?

To maintain the accustomed high quality when applying Triflex products, certain general requirements need to be in place. These include regular training, the right construction site conditions, and adhering to the recommended PPE.

What training is required?

- Triflex products and Triflex SAM must both be used by trained personnel only.
- Initial training on operating Triflex SAM at the construction site is provided by a Triflex applications engineer.

What requirements does the construction site need to meet?

- The construction site work must be carried out with Triflex materials.
- The construction site must be suitable for the dimensions and weight of Triflex SAM, including the trailer and the required IBCs. Alternatively, a suitable parking place outside the construction site must be available, from where the material can be conveyed.
- It must be possible to bring Triflex SAM onto the construction site, which principally means taking into account its dimensions and necessary turning circle.
- A vehicle for towing the trailer (including Triflex SAM) must be available.

What PPE is worn?

- Unless the risk assessment states otherwise, application must be carried out with complete PPE (eye, hand and body protection), including a face mask. Explosion protection must be taken into account for enclosed areas. Triflex recommends the face mask from CleanSpace or Dräger, for example. The occupational medical regulations on the wearing of respiratory protection must be adhered to. Gloves complying with the information in the safety data sheet, Section 8, should be used.
- In the case of enclosed and semi-enclosed areas (e.g. intermediate decks, multi-storey car parks), sufficient ventilation must be guaranteed.

What rules have to be followed when transporting and disposing of the materials?

- The required quantities of Triflex base resin, liquid catalyst and Triflex cleaner can be ordered, as usual, from your Triflex contact or the Customer Service department.
- The ordered materials are delivered to the construction site in the IBCs by truck, with transportation organised by our transport company. The IBCs then have to be unloaded using a lift truck, pallet truck or suitable wheel loader. Suitable moving equipment must be available if the IBCs need to be relocated within the construction site.
- The IBCs must stand on a firm, sound surface, in a location that is cool, well ventilated and suitable for hazardous goods. The container must be kept in a dry and frost-free place where it is also protected from heat and direct sunlight. In winter, the container should be kept at room temperature as far as possible before application.
- The empty IBCs are recycled in the conventional manner.



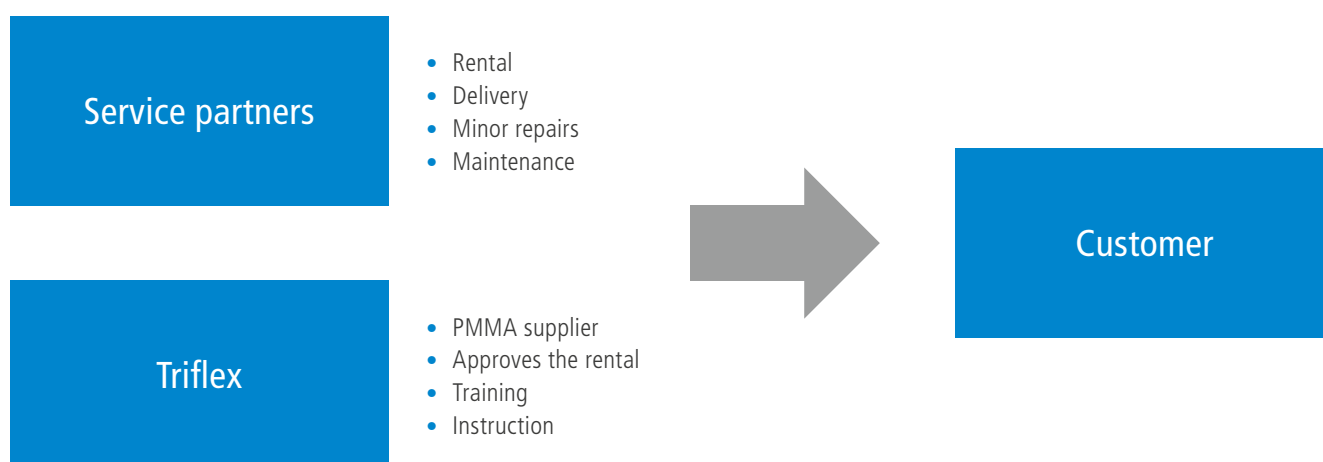


Delivery, rental concept, service partners

How does Triflex SAM get to the construction site?

Your strong partner for rental

To enable you to complete your job quickly and reliably, Triflex SAM needs to be in the right place at the right time. Your service partner takes care of this. Triflex SAMs are based in various locations throughout Germany and Europe, so one is never far from your construction site. You arrange the rental with your service partner direct.



If you require a large quantity of Triflex products for your construction project, we recommend using Triflex SAM. Your Triflex contact will prepare an appropriate quotation and, if you accept it, you will automatically receive a rental agreement from one of our service partners. Together you agree a date for delivery of Triflex SAM. You can either collect the machine, including trailer, from one of the storage locations or have it delivered to the construction site by your service partner.



Alternatively, you can contact the service partner direct to inquire about Triflex SAM.



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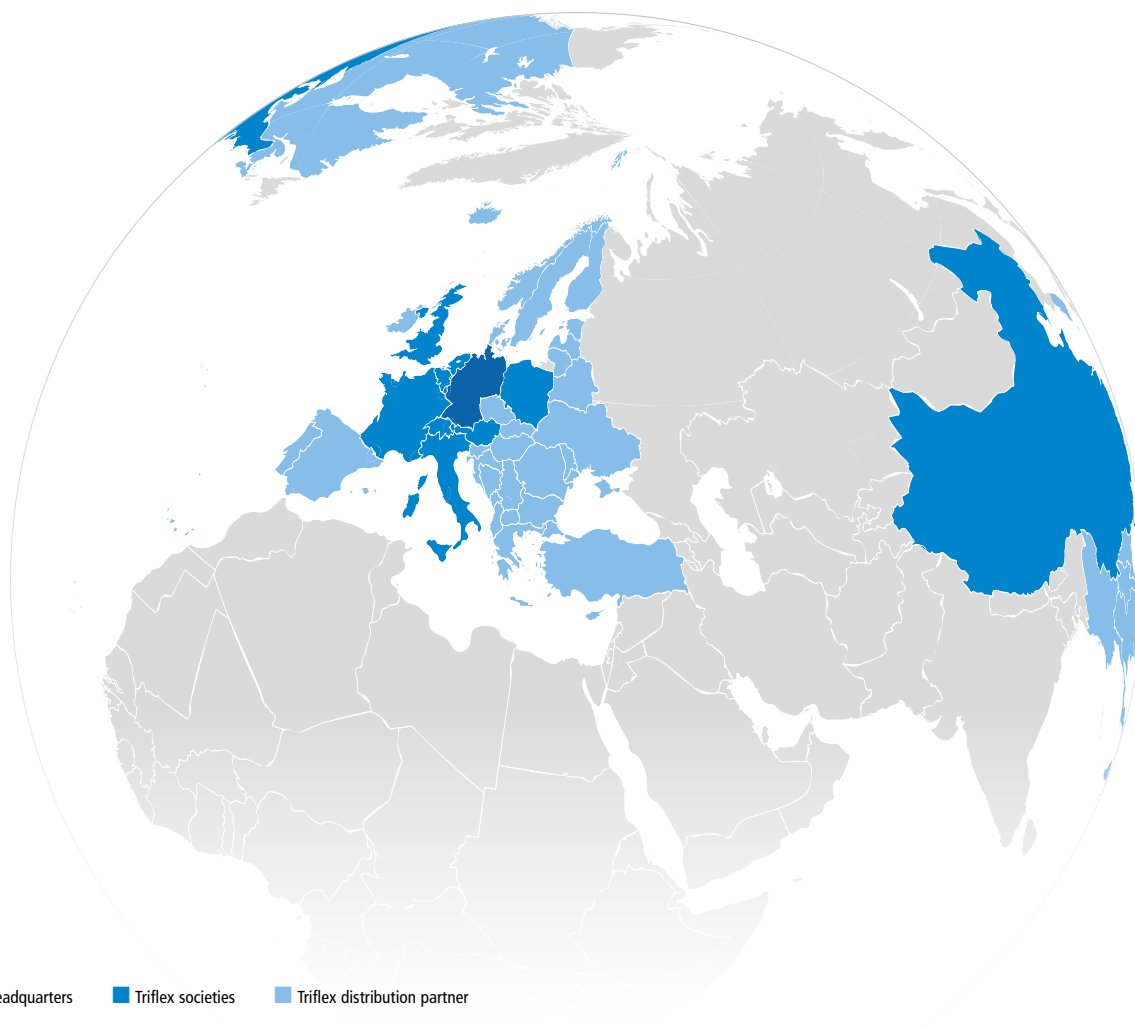


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Making it happen together

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Everything at a glance

Check list

On this page you will find a summary of all the points that you need to consider before, during and after use of Triflex SAM, regarding the construction site, the contractor and the rental process. If you have any questions or are uncertain about anything, speak to your Triflex contact.

Before using Triflex SAM

Construction site / Equipment:

- ✓ Large project of 800 m² or more
- ✓ Application of PMMA-based, 2-component Triflex products (see table on page 9).
- ✓ Suitable for the dimensions (5200 mm x 2100 mm x 1900 mm) and total weight (approx. 2.6 tonnes) of Triflex SAM including trailer.

Contractor:

- ✓ Trained in the use of Triflex products.
- ✓ Trained in the use of Triflex SAM.

Rental process:

- ✓ Specification of the rental period.
 - ✓ Completed rental agreement with service partner.
 - ✓ Agreement on collection or delivery date with service partner.
- If Triflex SAM is to be collected, the driver must have a driver's license with at least category BE.

During use of Triflex SAM

Construction site / Equipment:

- ✓ Suitable ventilation concept for enclosed and semi-enclosed areas (e.g. parking decks, underground car parks).
- ✓ Suitable moving equipment for transportation of Triflex SAM. It must be capable of pulling Triflex SAM on a trailer with a tow bar and a total weight of approx. 2.6 tonnes.
- ✓ Correct storage of the IBCs on a base (e.g. IBC stand)
- ✓ Transportation of the IBC on the construction site with the appropriate equipment.

Contractor:

- ✓ Instructed by a Triflex applications engineer before using Triflex SAM for the first time.
- ✓ Wearing of the recommended PPE (safety goggles/gloves/suit and face mask).

Rental process:

- ✓ Collection or delivery of Triflex SAM at the agreed time.
- ✓ Compliance with the service partner's handover protocol.



After use of Triflex SAM

Triflex SAM:

- ✓ Fill up the diesel tank.
- ✓ Empty the catalyst and cleaning tanks.
- ✓ Stow the components used safely for transportation.
- ✓ Clean all the tools used and stow them safely for transportation.
- ✓ Clean the nozzles used and place them in the container with Triflex cleaner.

Rental process:

- ✓ Return or collection of Triflex SAM at the agreed time.
- ✓ Compliance with the service partner's handover protocol.





Delivering solutions together.

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