

Machine technology

Spray application machine



TRIFLEX
SAM



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.

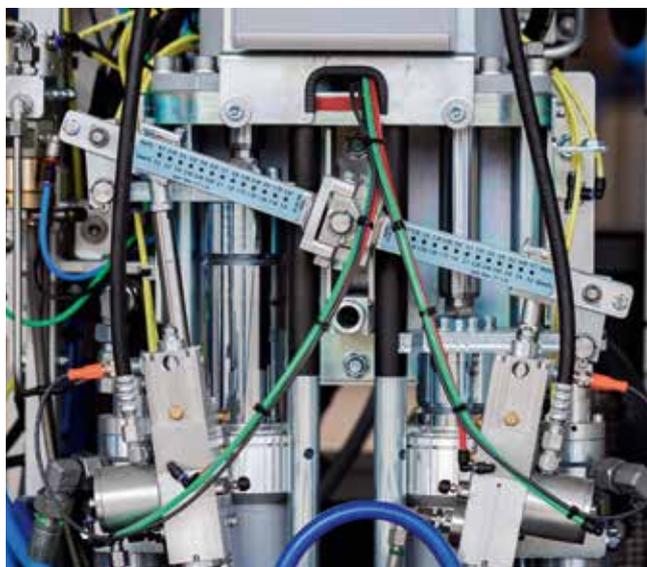


The sophisticated solution

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





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.

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.

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.





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?

Machine surface application and detail work

Triflex SAM is particularly well suited to large projects on roofs and parking decks. Primers, waterproofing and finishes can be implemented with Triflex products and applied with Triflex SAM. Be it a pointed roof, flat roof, underground car park or intermediate deck – thanks to the 60 m hose, Triflex SAM can also be placed outside the actual construction site. This means that hard-to-reach areas can also be waterproofed more quickly, more sustainably and more efficiently.

Delivering and mixing – even high up

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 m using the patented piston pump technology. Once there, the base resin and catalyst are mixed. The finished product is sprayed or alternatively filled into a bucket so that it can then be manually applied as usual. This means that transporting the material to balconies or roofs by hand is not necessary.



No issues with unsuitable driveways

Triflex SAM can be moved by crane, meaning that the use of the machine is not dependent on suitable driveways. Above all when it comes to high roofs above 20 m, this means that machine application does not have to be avoided. The closed machine has four hooks, which can be used to lift Triflex SAM without any problems. The trailer can also be transported upwards, which means that Triflex SAM can be moved freely on the construction site.



Technical Data

What are the properties of Triflex SAM?

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 require less material per surface, so they are applied using single nozzle 6505. The waterproofing products, on the other hand, are applied with a higher material consumption, which is why they are applied with double nozzle 6507. The following performance table offers an overview of Triflex products that can be applied with Triflex SAM, including the delivery quantity to be set and the possible coverage. The specifications apply for four people applying at an ambient temperature of +20 °C. The required delivery quantity may need to be adjusted if the temperature is different.

Performance table

Application	Triflex Produkt	Nozzle		Delivery volume in liters/minute at +20 °C	Possible performance in m ² /minute
		Variant	Number		
Primers	Triflex Bridge Deck Primer	6505	1	5.0	12.0
	Triflex Cryl Primer 222				
	Triflex Cryl Primer 276				
	Triflex Cryl Primer 287				
Waterproofings	Triflex ProDetail	6507	2	10.0	-/-
	Triflex ProPark				2.5 (2-layer incl. fleece insert)
	Triflex ProTect				
	Triflex ProTerra				
Sealings	Triflex Cryl Finish 202	6505	1	6.0	6.0
	Triflex Cryl Finish 205				
	Triflex Cryl Finish 209				
	Triflex Cryl Finish S1				

Other data

Dimensions	Triflex SAM without trailer, closed, incl. exhaust pipe	Length: 2870 mm Width: 1560 mm Height: 1560 mm
	Triflex SAM incl. trailer, closed, incl. exhaust pipe	Length: 5250 mm Width: 2145 mm Height: 1980 mm
	Triflex SAM incl. trailer, open, incl. exhaust pipe	Length: 5250 mm Width: 2145 mm Height: 2310 mm
Weight	approx. 2.6 tonnes	
Delivery rate	up to 24 litres/minute*	
Hose length	60 meters	
Delivery height	up to 20 meters	
Diesel tank	Tank capacity	approx. 120 litres
	Fuel consumption	approx. 30 litres/workday (8 h)
Material tanks	IBC (external) Catalyst tank approx. 60 litres Cleaning tank approx. 20 litres	
Controlled mixing process with integrated checking control		



Machine set-up times

Position	Number of employees	Time in minutes
Set-up	2	30
Dismantling	2	40

* Depending on viscosity, temperature and delivery height



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.

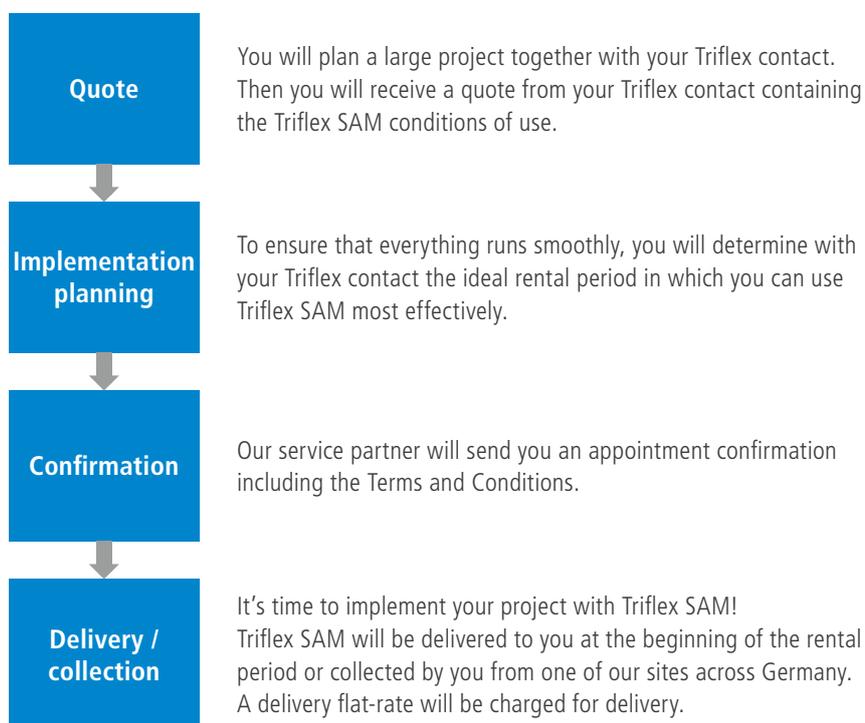


Delivery, rental concept, service partners

How does Triflex SAM get to the construction site?

To enable you to complete your job quickly and reliably, Triflex SAM needs to be in the right place at the right time. We take care of this together with our service partner in the usual Triflex quality. Triflex SAMs are delivered from various locations throughout Germany and Europe, so one is never far from your construction site.

Your strong partner for rental





Rental conditions

What are the conditions for Triflex SAM?

To make it easier to calculate, you can find a list of all of the costs of using Triflex SAM on this page. Your Triflex contact will be happy to give you a customised quote.

Position	Costs
Rental flat rate Due for every rental process to cover administration and maintenance costs.	400 €
Daily rent Due for every working day within the rental period on which Triflex SAM is used.	600 € / day
SAM operator Due for project support and the use of Triflex SAM by a Triflex application engineer.	500 € / day
Transport flat rate Due for transport across Germany by our service partner. International transport will be charged individually.	250 € / outward or return transport 500 € / outward and return transport
Cancellation Due for cancellation or postponement by 48 hours (based on working days Mon. to Fri.) before the start of the rental period.	Rental flat rate Transport flat rate*
Extension In agreement with your Triflex contact, the rental period can be extended by up to 48 hours prior to the end of the rental period if the Triflex SAM is still available.	

* Charge depending on the agreed delivery type: If collection is agreed, no transport flat rate will be charged. If delivery is agreed, the transport flat rate will be charged.

Your benefits at a glance

Flexible construction site preparation

In order to keep your construction site preparation as flexible as possible, you can collect Triflex SAM or have it delivered one day before the start of the rental period. You can also get full use out of your last day of the rental period as Triflex SAM doesn't have to be collected or returned until the following day. There are no added costs for the delivery and collection days.

Unaffected by the weather

In order to minimise costs as a result of days lost due to the weather, up to three stand-by days are possible within a rental period. The daily rent does not have to be paid on these days.

Individual consultation

Both your Triflex contact and the Triflex application engineer will be at your side to give advice during your project with Triflex SAM.



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 10).
- ✓ Suitable for the dimensions (5250 mm x 2145 mm x 1980 mm) and total weight (approx. 2.6 tonnes) of Triflex SAM including trailer and exhaust pipe.

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.



Making it happen together

Triflex international



■ Triflex Headquarters ■ Triflex societies ■ Triflex distribution partner

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