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futuretech



Product Group 1
Protection Systems



Decont Jet 21

Decontamination System
for Large Vehicles



Hot gas decontamination technology for the 21st century

This new type of decontamination system is able to radioactively decontaminate, disinfect or detoxify and of course clean large vehicles such as trucks or tanks, etc. on a decontamination site practically without using chemicals.

The Decont Jet 21 is ready for operation within 15 minutes and can be operated by only 2 persons with minimal physical stress. Post-treatment of the decontaminated vehicles is not necessary!

**Developed on behalf of
the Federal German
Armed Forces for HEP 90**



In only one hour: 6 tanks or 10 wheeled vehicles

The decontamination system Decont Jet 21 represents the station for the decontamination of large vehicles on a decontamination site.

To make the system ready for operation, the semitrailer is lifted and stably leveled by means of two pairs of hydraulic supports at the front and rear. Then the hydraulic crane with the decontamination frame is turned in the working position in the rear part of the semitrailer and the frame is opened. The vehicle to be decontaminated can now enter the decontamination station.

Now, the laser-based contour recognition automatically stores the contour of the vehicle to be decontaminated in order to ensure optimum decontamination conditions during the following high-pressure cleaning and the hot gas decontamination itself. Usually, only one passing over of the decontamination frame is necessary for the high-pressure pre-cleaning of the vehicle.

Decontamination itself is carried out by the hot gases of the gas generator. Therefore, the hot gas stream is concentrated on the surface of the vehicle via slit nozzles at an optimal angle.

The enormous hot gas flow, high speed and optimal temperature of the hot gases ensure reliable decontamination.

If needed water or decontamination chemicals can be added to the hot gas stream to increase the decontamination effect.

High-pressure-cleaning 18.000 l per hour!



Profile of the hot gas stream



10 Advantages in the area of efficiency and economy



1. High mobility without long set-up time (transportable by road and air, on train and ship)
2. Universal use under all relevant climate conditions
3. Pre-cleaning and decontamination at only one station (instead of three), no post-treatment
4. Practically chemical-free decontamination
5. Minimum personnel required (only two persons)
6. Automatic process
7. Low susceptance to failure
8. No corrosion problems, good material compatibility (no use of aggressive chemicals)
9. Good compatibility with the environment
10. Comprehensive costs:
 - no decontamination chemicals
 - minimum water consumption
 - low personnel requirement
 - immediate readiness for operation
 - outstanding efficiency

Decontamination at only one station

Up to now large vehicles were usually treated in three stations:

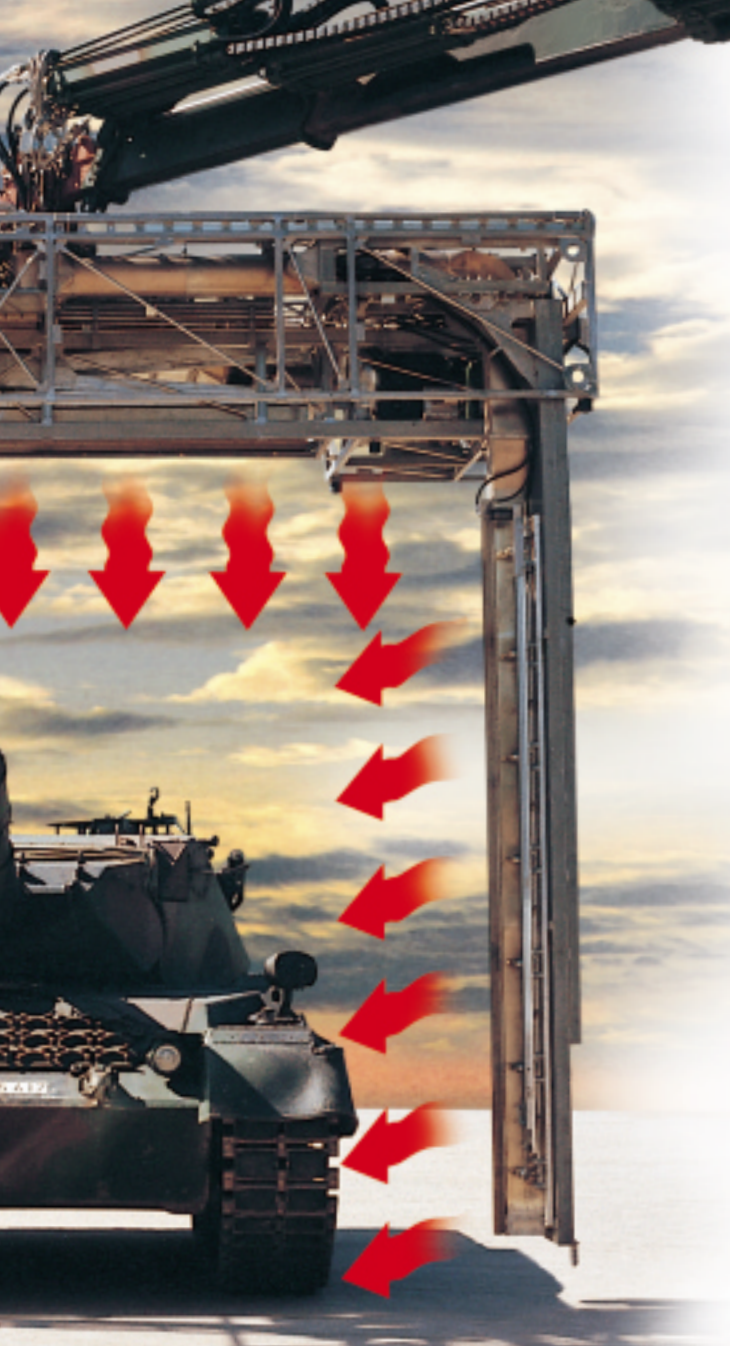
1. Pre-treatment
2. Main treatment (incl. reaction time of the decontamination chemicals)
3. Post-treatment

The Decont Jet 21 carries out high-pressure pre-cleaning and hot gas decontamination at

only one station!

Reaction time for the decontamination chemicals and post-treatment is no longer required.





User-friendly computer-directed operation

The whole system is operated through the electronic control system in the operator's cabin. The operator's cabin turns together with the crane and always provides optimal overview. The cabin is sound-proofed and equipped with NBC protected ventilation and airconditioning, heating, window heating and windscreen wipers.

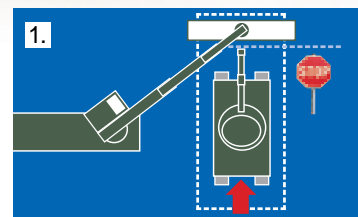


A clear operating display indicates all operating parameters and enables the operator to switch on and control the necessary functions.

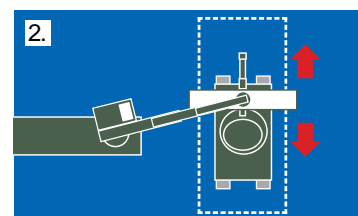
10.000 HP Decont-power!



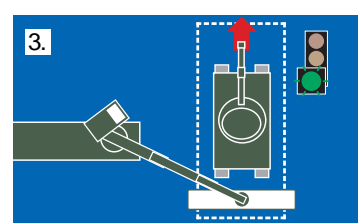
A decontamination cycle takes only 6 to 10 minutes



- Parking of the vehicle to be decontaminated
- Contour recognition

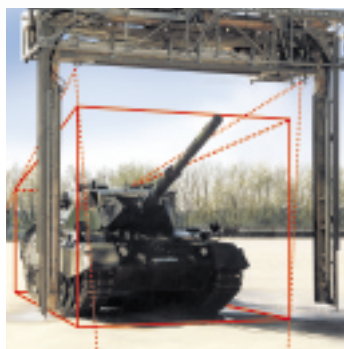


- High-pressure pre-cleaning
- Hot gas decontamination



- Decontamination frame in final position
- Departure of the decontaminated vehicle

It is not necessary to drive through the decontamination frame!



The contour of the vehicle to be decontaminated is recognized by the laser-based recognition system that ensures an optimal distance of the upper and side nozzle bars.



Both, the rotating nozzles for high-pressure cleaning and the slit nozzles for the hot gas stream are integrated in the upper and side bars.

The hot gas decontamination technology has been proven and optimized in test series for several years by the NBC decontamination experts of the German Armed Forces Scientific Institute for NBC Protection Technologies.

Decont Jet 21 – at present the most modern vehicle decontamination system

The Decont Jet 21 is able to ensure the decontamination of large vehicles without complicated or time-costly preparation and independent from the site and weather conditions.

Due to its flexibility, it can be used for vehicles of most sizes.

The M 701C-500 gas generator which is based on the driving gear of the Dolphine Jet Trainer L-29 works very reliably and stands out due to its simplicity and sturdy execution. The gas generator is installed in the upper part of the decontamination frame. It produces a thermal performance of approx. 6.000 kW and delivers a mass stream of approx. 14,7 kg per second.



The Decont Jet 21 is able to clean or decontaminate up to 10 wheeled vehicles per hour.



The decontamination capacity for combat tanks is 6 tanks per hour.

Decont Jet 21 - standard for the coming years

After its introduction in the Federal German Armed Forces, the decontamination system Decont Jet 21 will

represent the international standard for the decontamination of vehicles in the next 10 to 20 years.

Technical Data

Transport (without tractive vehicle)	Length	ca. 12,7 m
	Width	ca. 2,5 m
	Height	ca. 3,5 m
Transport mass (without consumables)		ca. 16.000 kg
Total mass (with consumables)		ca. 27.000 kg
Space requirement in working position	Length	ca. 25 m
	Width	ca. 15 m
	Height	ca. 6,5 m
Gas generator	Type	M 701 C-500
	Mass	ca. 335 kg
	Length	2.113 mm
	Width	896 mm
	Height	928 mm
	Thermal performance	ca. 6.000 kW
	Mass stream	ca. 14,7 kg/s
Fuel consumption	ca. 870 l/h	

Performance Data

Decontamination capacity	min. 6 combat tanks or 10 wheeled vehicles per hour		
Dimensions of the vehicles to be decontaminated:			
	Length	Width	Height
Minimum	3,31 m	1,25 m	0,86 m
Maximum	11,80 m	3,70 m	3,84 m
Self-decontamination	in max. 15 minutes by means of decontamination site (e.g. HEP 90)		
Operating time	at least 2 x for 3 hours within 24 hours		
Operating personnel	2 persons		
Operational conditions	Temperature range -30 °C to +49 °C Climate zones A1, B3 and C1 acc. to STANAG 2895		

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Please contact us for further information:



Protection Systems



Cleaning and Environmental Protection Systems



Mobile Catering Systems



Water Purification

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