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SMETS TECHNOLOGY

ARC·2400®

RETEXTURING & ROAD LINE REMOVAL TRUCK

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INNOVATIONS FOR POWERFUL PERFORMANCES

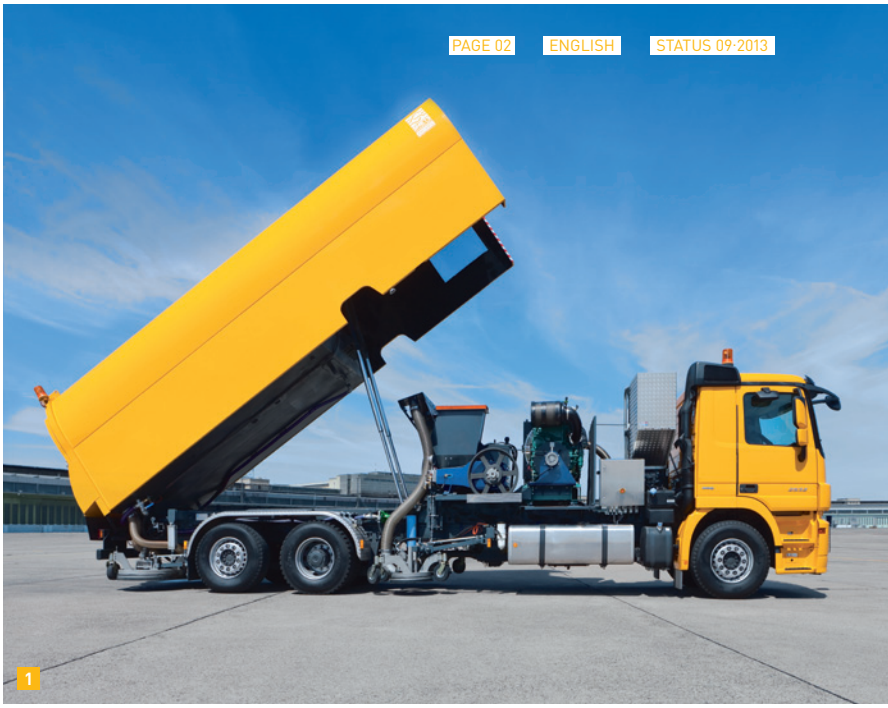
AVERAGE CLEANING RESULTS

Retexturing of asphalt or concrete surfaces
(increasing friction value)

Ø 3,000 m²/h

Cleaning of surfaces
(e.g. drain-asphalt)

Ø 10,000 m²/h



1 The tank and sound hood can be tilted hydraulically for maintenance purposes and for emptying the waste water tank. This allows easy access to all components – high pressure pump, boost pump, fan, cooler, extractor and auxiliary engine.

2 Retexturing of road surfaces with pressure up to 2,500 bar and a working width of up to 2,400 mm

3 Complete removal of firmest and thickest road markings with an average performance of more than 2,200 m/h.

ARC·2400®

RETEXTURING & ROAD·LINE·REMOVAL·TRUCK

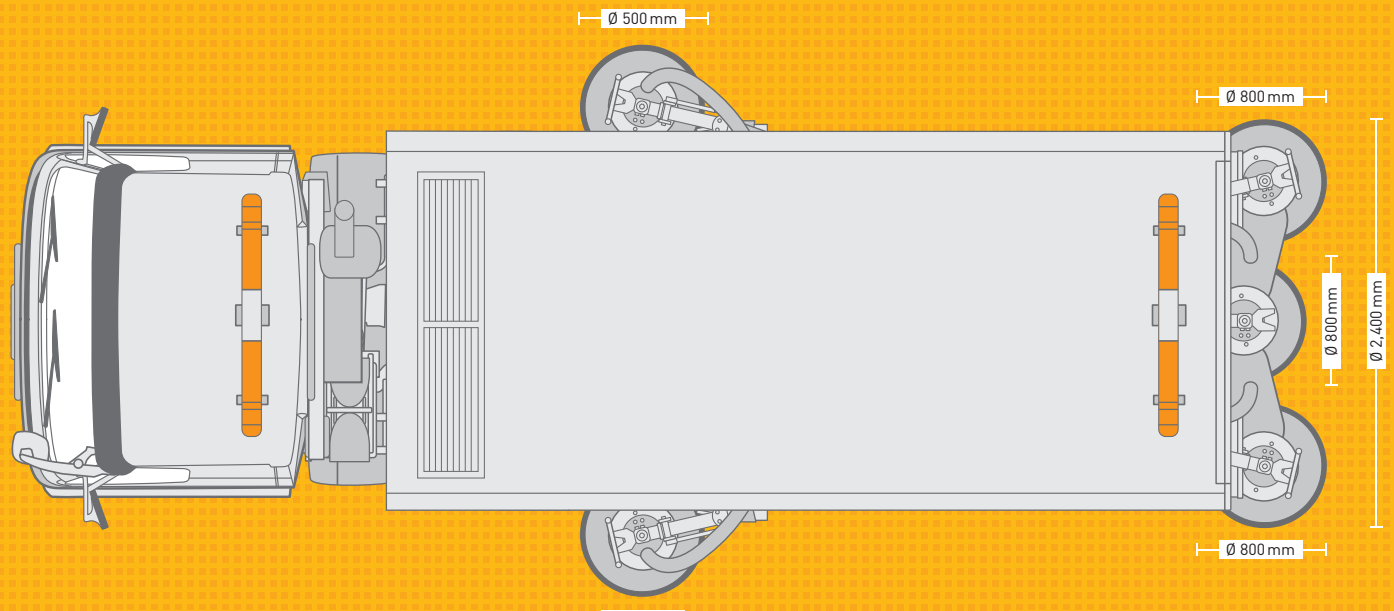
The German company SMETS-Technology GmbH designed and built with partners this high performance vehicle for professional surface treatment and line / marking removal.

The **ARC·2400®** can be used professionally for three main applications:

1. **Retexturing (roughening) of too smooth road surfaces**
2. **De-marking of traffic lines (all kind of materials) – on the left and the right side of the vehicle**
3. **RRubber removal on runways**

All deposits and dirt on the treated surface are removed by means of ultra-high pressure water and entirely withdrawn by suction. An auxiliary engine is driving a strong and powerful high pressure pump (250 kW) whereas all other aggregates are hydraulically driven. The additional required power is taken from two sources: First, via a PTO from the truck's engine and second, via a hydrostatic gear, which is built into the drive shaft.

The 2,400 mm surface cleaner, which is located at the rear of the vehicle, can be lifted up within 3 seconds by means of pneumatic cylinders.



DE-MARKING DEVICE · RIGHT / LEFT
Each with max. Ø 500 mm

RETEXTURING DEVICE
Working width Ø 2,400 mm

TECHNICAL DATA

→ CONTROLS AND SETTINGS FROM THE DRIVER'S CABIN

- Monitor for 3 cameras mounted behind the surface cleaner at the rear side and 2 behind the de-marking device on each side of the vehicle
- RPM counter on each surface cleaner to show the speed of the nozzle bars
- Pressure gauge for the working pressure
- Joystick for forward and reverse movement
- Potentiometer to set the driving speed during operation
- Setting of the rotation speed of every surface cleaner (rpm)
- Setting of the suction operation (rpm of the blower)
- Setting of the working pressure (1,000 to 2,500 bar)
- Switch for every surface cleaner ON / OFF
- Control for all hydraulic circuits
- Control of all parameters of the auxiliary VOLVO diesel engine
- Pressure gauge for booster pressure
- Control of water temperature
- Level of fresh and waste water

CHASSIS
Wheelbase 6,000 + 1,350 mm | 6 x 2
max. total weight 25 tons

TRUCK'S ENGINE PERFORMANCE
Approx. 267 kW

AUXILIARY ENGINE PERFORMANCE
285 kW

SPEED DURING OPERATION
0.12 to 4.80 km / h

WORKING WIDTH
Rear device 2,400 mm | Side device 500 mm (each side)

WORKING PRESSURE
1,000 to 2,500 bar | stepless regulation

FLOW RATE OF HP PUMP
20 to 45 l / min | stepless regulation

TANK VOLUME
8,000 litres fresh water | 9,000 litres waste water

SUCTION
max. 16,800 m^3 / h

SPEED OF NOZZLE ARMS
stepless regulation

4 De-Marking devices installed on both sides of the vehicle with a working width of 250 – 500 mm each. The working width can be chosen individually.

5 Truck with lowered rear cleaning device (working position) (3 x 830 mm Ø) and one lowered de-marking device (left side).

6 Both de-marking devices in working position. Each device (3 x at the rear and 2 x at both sides) can be activated separately or in combination – the system is able to work on several and different applications.

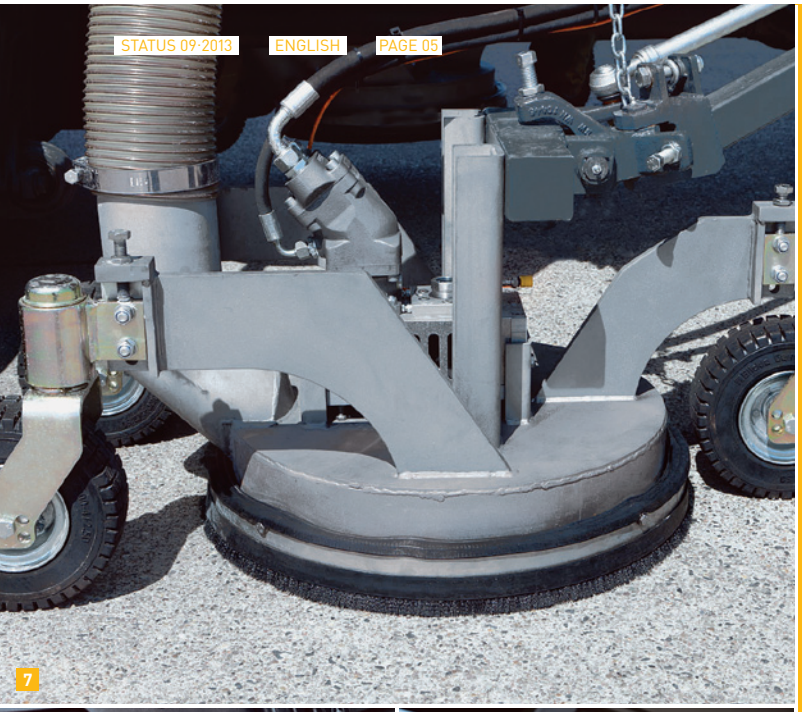
INNOVATIVE ENVIRONMENT-FRIENDLY ECONOMICAL

Every surface becomes a smooth structure after a period of being used by different vehicles. If the friction value falls below a certain level the surface has to be treated / roughened in order to grant an acceptable friction afterwards.

The ARC·2400® is designed to meet this requirement and to treat such a surface in a professional manner.

Nowadays road markings are not removed anymore with grinders. Grinders cause damage to the surface structure and the grooves (striation) are dangerous by passing with a vehicle at a certain speed (steering wheel breaks away).

The ARC·2400® is designed to meet this requirement and to remove all kind of road marking paints without causing damage to the surface structure.



SAFETY & RELIABILITY

7 One de-marking device in working position. The build-in nozzle bar can be equipped with insert nozzles to perform different working widths from 250 up to 500 mm. (depending on width of road line).

8 Color monitor in driver's cabin allows a constant control of the cleaning performance.

9 A central control board with a color touch screen for an easy control of all parameters and easy settings.

10 The nozzle configurations guarantee extreme high nozzle speeds which avoids any damage on the treated surface because it creates the minimum stress of ALL world-wide available systems.

A TDZ (touch-down-zone) on a runway becomes slippery by means of rubber deposits after several periods of being in operation. With our ultra-high pressure system and nozzle speeds of more than 400 km/h we remove the rubber from the surface without causing any damage to asphalt, concrete, grooved and covered surfaces.

The ARC·2400® is designed to meet this requirement and to remove all rubber deposits without causing damage to the surface structure.

The water level in the fresh water tank is monitored continuously. If the level reaches the lower point the driver/operator is warned visually. If the level drops even further the system switches automatically to the pressureless mode avoiding dry running of the high pressure pump.

To ensure that the surface being treated is not damaged, the high pressure system shuts off the moment the driver steps on the clutch or coupling. The high pressure system can only be activated when the vehicle is actually in motion. Even at the full load (2,500 bar and 45 l/min at a vehicle speed of 4,8 km/h) the water and debris are entirely sucked off the surface and drawn off into the waste water tank.

The ARC·2400® – a further example of our modern technology which more than meets today's demands for environment-friendly, innovative and economical products.

ADDITIONAL OPTIONS

All additional systems can be retrofitted on several of our vehicles and onto the Airport Runway Cleaner **ARC·2400®**.

A MAGNET SYSTEM

Magnetic device with permanent magnet which is installed under the driver's cabin. The magnet can be lowered into the working position by means of a pneumatic cylinder from the driver's cabin.

B LINE LASER

The line laser is installed at the front of the truck. The green line is clearly visible and makes it easier for the driver/operator to set the next cleaning trail.

C FC 12 FILTER CONTAINER

ARC·2400® trucks dump and discharge the waste water into a filter container. The filter container, type FC 12 was developed and designed to separate the debris from the water (filter mesh size 50 micron). Regarding German regulations the filtered water can be lead into the public sewer. This allows a clean and environmental-friendly disposal and reduces the dumping time considerably.

COMPANY PROFILE

WORLD BUSINESS PARTNER

ISO 9001 CERTIFIED

The owners of the company SMETS-Technology GmbH are very experienced and have been in that field of business since 1975. SMETS-Technology has partnerships in order to build and deliver professional and multipurpose vehicles for a wide range of cleaning applications in municipalities, authorities and in the contracting business (industrial cleaning).

The company attaches great importance to customer support in initial aspects of application technology, right up to the design and layout of specific vehicles required for the job to be done. And of course the service does not end here: Once the vehicle is handed over to the customer he receives professional on-the-job training and can rely on a competent after-sales service.

Long-term customer relations stand as a proof of acceptance of the products and customer satisfaction.

OUR RANGE OF PRODUCTS

- Sewer cleaning trucks (combined vehicles for cleaning and vacuuming, vacuum vehicles, cleaning vehicles)
- Sewer inspection systems and vehicles
- Accessories for sewer cleaning (maintenance and protection systems, hoses and cleaning pumps)
- Nozzles for sewer cleaning and high pressure cleaning
- Garbage trucks & industrial cleaning combination trucks
- Small high pressure cleaning units for sewer pipes with reduced dimensions
- Sweeping trucks
- Tipping container trucks
- Well cleaning and inspection trucks
- Runway cleaning truck **ARC·1000®** with 1,000 mm working width and an average performance of above 1,200 m²/h
- Runway cleaning truck **ARC·2000®** with 2,000 mm working width and an average performance of above 2,400 m²/h
- Trucks for cleaning tanks or any other dangerous substances
- Road marking removal truck **MRT·300/1** with a 13 m³ tank (6 water / 7 sludge) = 3.5 – 4 hours continuous operation
- Road marking removal truck **MRT·300/2** with a 7 m³ tank (3 water / 4 sludge)= 2 hours continuous operation
- Friction testing unit

VARIOUS TYPES OF HIGH PRESSURE WATER CLEANING TRUCKS

- Direct drive via cardan shaft of vehicle transmission
- Drive via separate diesel engine
- Equipped with soundproof insulation, water tank, complete workshop

PARTNER NETWORK

Algeria · Australia · Austria · Bahrain · Brazil · Egypt · England · France · Greece · Hungary
India · Indonesia · Iraq · Ireland · Italy · Japan · Jordan · Kenya · Kuwait · Lebanon · Libya · Malaysia
Morocco · Nigeria · Oman · Pakistan · Philippines · PR China · Qatar · Romania · Saudi Arabia
Serbia · Singapore · South Africa · South Korea · Spain · Syria · Taiwan · Tanzania · Thailand
Tunisia· United Arab Emirates · Vietnam

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