MAINTENANCE REPAIR SYSTEM

This system is specially designed for logistical support for the benefit of armored units, infantry, heavy transport and units and formations with means of earthworks, land preparation and public works operating in difficult areas and off-road. This system ensures safe handling and maneuvering operations for lifting and moving all heavy loads (tank turrets, propellants, cannons, etc.).

System architecture

By design and architecture, this compact system is compacted in a 20-foot container and includes various equipment, including:

- A telescopic crane arm intended for handling, maneuvering and lifting tasks of 6800 kg of load with an action radius of 4 m and a height of 5 m with a full 360 degree rotation;
- A system of hydraulic stabilization jacks;
- A 60 kVa current generator;
- An air compressor;
- Storage point for welding cylinders;
- Tool storage and storage cabinets.

System use

This Advanced Repair System is a removable and deployable maintenance module, built on a reinforced logistics platform. It is intended to be deployed in operational areas to ensure optimal proximity maintenance for the benefit of combat units during military operations or during exercises and maneuvers.
This Advanced Repair System is an operational solution for a maintenance workshop deployed at the rear of units engaged in the front, it allows combat repair teams to advance towards the positions of vehicles and devices declared to be faulty to intervene on place and thus avoid sending these vehicles or devices to their rallying units to the rear.

System advantage

The configuration and architecture of this system, once deployed in the field, offers ideal working conditions and conditions, particularly in regions with severe climates. Likewise, this system offers the following advantages:

- Minimization of maintenance and repair costs and times;
- Reduction of downtime of machinery and vehicles;
- Improvement of the capacities and performance of repair personnel by putting them in real combat conditions;
- This system ensures preventive and routine maintenance for the benefit of isolated and remote units by ensuring systematic and periodic technical visits;
- This system is designed to work at more than 50 degrees and minus 10 degrees;
- This system can be transported by air on board a C 130 and can be easily embarked on a 6x6 chassis or flatbed trailer fixed by twist lock;
- The deployment time of this system by a team of three trained elements is estimated at 30 minutes maximum.

Id. No.	**Requirement description**
1	Construction
1.1	When the Container System is in transport mode, the total height of the Container System shall be maximum 2591 mm (equivalent to the height of a 1CC container), including the lifting system and other parts or inventory.
1.2	The Flatrack system and its components shall be constructed according to the Machinery Directive (no. 2006/42/EC)
1.3	The System without inventory should not require any maintenance during storage periods.
1.4	All units of weights and measures stated in the Deliverables, shall be in SI-Units by 80/181/EEC, unless specified otherwise in the requirements for the Predefined Container Systems.
1.5	Threading shall be according to ISO standard metric threads (or equivalent), unless specified otherwise in the requirements for the redefined Container Systems.
2.	Construction
2.1.	All joints between different metals shall be assembled in a way that prevents galvanic corrosion.
2.2.	Pre-painted surfaces on external mounted equipment shall be roughened followed by dust removal to ensure proper adhesion of the subsequent coating.
2.3.	The System has to be safe to operate and handle as per Machinery Directive 2006/42/EC and Directive 2009/104/EC or equivalent.
2.4.	he center of gravity (COG) in vertical direction shall be lower than the center of the container.
2.5.	The COG in longitudinal direction shall be between the forklift pockets and as close as possible to the center of the system
3.	External
3.1.	The external and internal surfaces of the Container System shall be treated to atmospheric-corrosivity category C3, high according DS/EN 12944 or equivalent.
3.2.	The colour of the external system shall be optional (for the Buyer) in any RAL colour for each individual order.
3.3.	Void-spaces i.e. inside steel beams which are difficult to mend shall be protective coated with an anti-corrosion adhesive product.
4.	Flatrack (Sub-frame)
4.1.	The flatrack part of the Container System shall comply with STANAG 2413, edition 4, annex A, or equivalent.
4.2.	The Container System shall fulfil EN 12640, minimum requirements and testing – in respect of securing of cargo on road vehicles – Lashing points on commercial vehicles goods transportation or equivalent.
4.3.	**Sub frame requirements** The Container System shall be equipped with four Bottom ISO corner castings, for attachment to trucks, trains etc., equipped with ISO locking system, or equivalent.

Id. No.	Requirement description
4.4.	The Container System shall have fork lift pockets for handling of loaded container according to ISO 1496-1.
4.5.	It should be possible to transport the Container System at 80 km/h.
5.	Generator
5.1.	In order for the System to run "Island mode", the System shall have its own diesel generator.
5.2.	The generator shall be able to run at 75% of its rated power for 8 hours without refilling.
5.3.	At sea level and in 20 degrees Celsius, the generator should run at its optimal load as per engine manufacturer's recommendation, with the lifting system, the welder and the in operation simultaneously. By "optimal load" is understood that the generator is running optimally in relation to fuel consumption, and service and maintenance needs. **Documentation:** Calculation, descripition from engine/generator supplier to be included in the offer.
5.4.	The generator shall be able to run at 1400 m. above sea level, at 60 degrees Celsius and running on single fuel (F54) with the lifting system and the welder.
5.5.	If the generator is overloaded the system shall automatically shut off power, before the generator is brought to stop.