



WELDING TECHNOLOGIES

**MRK-01ST
CONTAINER-BASED
MOBILE RAIL WELDING SYSTEM**

At railways with intensive rail traffic and, therefore, subject to faster wear, it is necessary to carry out track maintenance more often and during extremely limited time intervals in order not to interfere with the traffic.

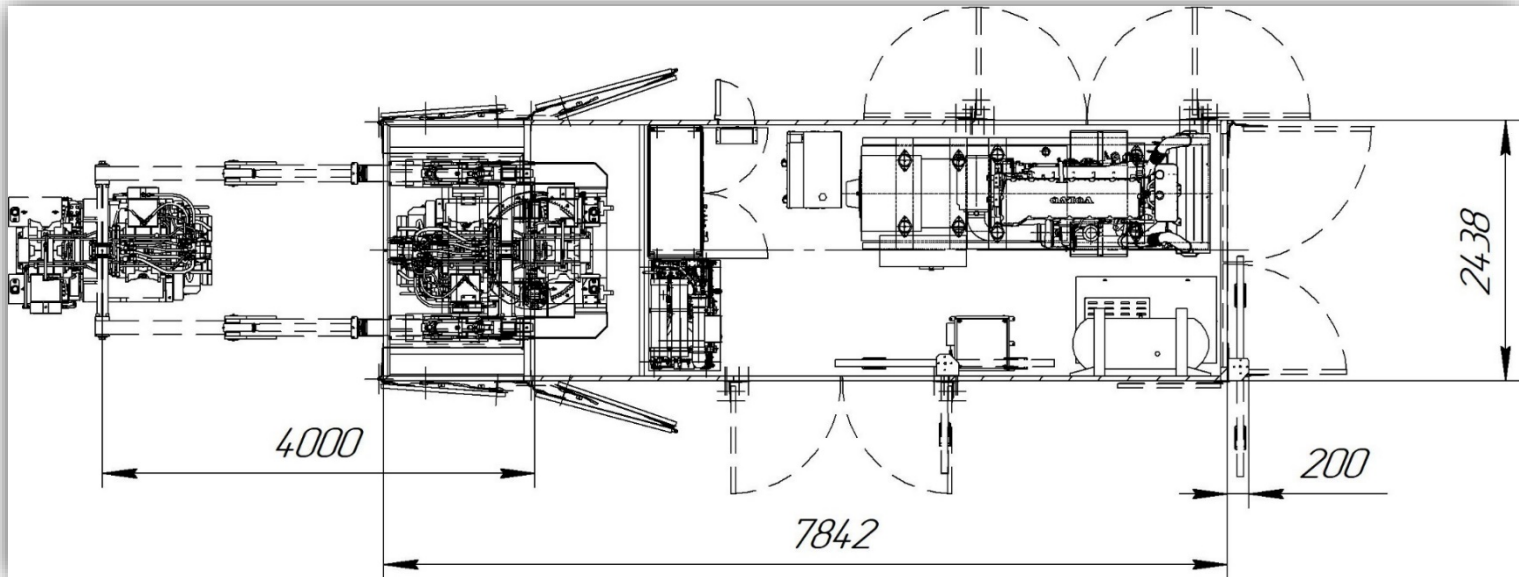
A currently common challenge of the railways sector is to considerably reduce the time of track works, and when using standard rail-bound machinery that also results in increasing costs. In this connection, more efficient and flexible track machines and methods of works are becoming more and more in demand.

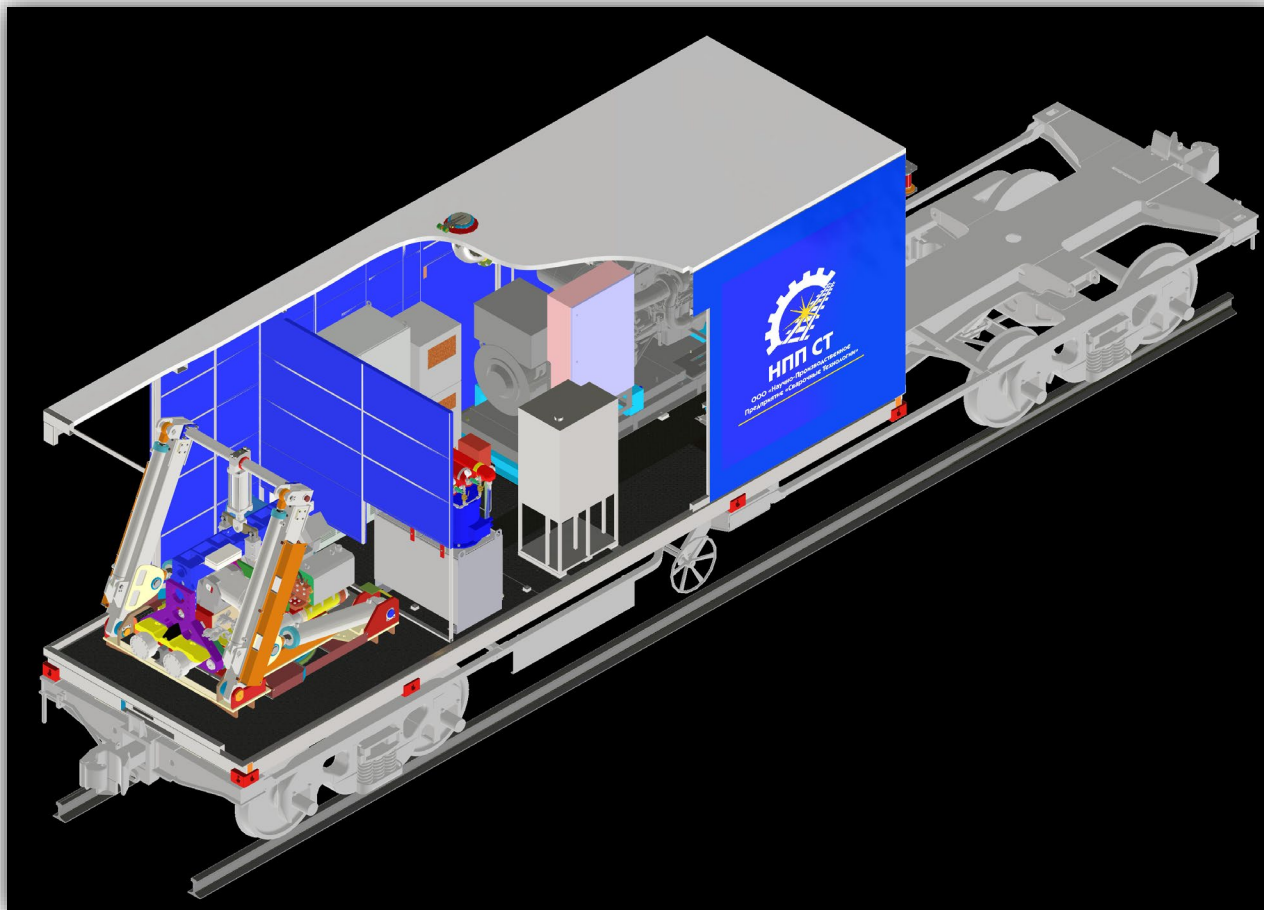
In this presentation we would like to bring to your attention a container-based mobile rail welding system MSK-01ST.



**Container-based mobile rail welding system
is equipped with:**

- container for flash-butt welding equipment;
- welding manipulator (lifting unit);
- hydraulic supports in the rear part of the vehicle;
- diesel generator;
- inductive heating unit;
- welding machine MSR-120.02 or MSP-60.





Scheme of placement of rail-welding container
on the railway platform



Suspended rail welding machine MSR-120.02 as part of the complex MRK-01ST

Advantages

- Mobile rail welding complex MRK-01ST in container design can be transported to the place of work both on the railway platform and on road transport;
- Rail welding complex can be used as a stationary rail welding machine for welding short segments of rails;
- Rail welding complex MRK-01ST is not tied to a specific traction unit and is transported by rail by any traction module;
- Maintenance and operating costs of the rail welding complex MRK-01ST are significantly lower compared to the maintenance of a railway rail welding machine and a rail welding machine on a combined road-rail course.

Manipulator (welding lift) parameters	
Rotation angle of welding head, deg.	± 30
Lifting capacity, kg	4500
Lifting height of welding head above the track, mm	550
Boom length of lifting device, mm	4000
Welding parameters	
Machine welding time of rail R65 joint, sec., not more	240
Capacity at duty cycle = 50%, kVA, not less	262
Nominal upsetting force, t	120
Maximum upsetting speed, mm/sec., not less	30
Welded joint heat treatment parameters	
Heating temperature, °C	850÷900
Heating time, °C, not more	240
Cooling time, °C, not less	180
Diesel generator AC 400	
Capacity, kVA	400
Fuel tank capacity, l	350

TECHNICAL PARAMETERS	MSR-120.02	MSP-60
Supply mains rated voltage, V	380	380
Capacity at duty cycle=50% , kVA	240	240
Maximum secondary current, kA	72	72
Rated continuous secondary current, kA	21,4	21,4
Rated upsetting force, kN	1200	600
Maximum clamping force, kN	2900	1600
Adjustment range of flashing speed, mm/sec.	0,2-2	0,2-2
Machine welding time of rail, sec.	240	240
Overall dimensions, mm (length x width x height)		
- welding device	1876x1170x1130	1790x1145x1220
- hydraulic drive station	1021x662x1630	1021x662x1630
- electrical equipment unit	1090x550x1670	1090x550x1670
Weight, kg		
- welding device	3 750	3100
- hydraulic drive station	1 000	1000
- electrical equipment unit	650	650



THANK YOU FOR ATTENTION

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