

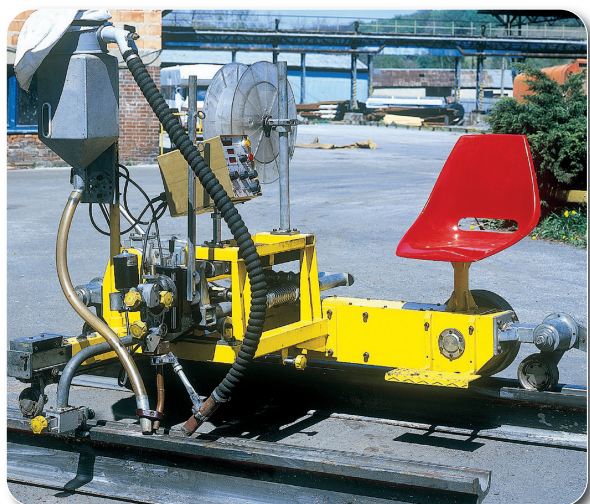
# Unique tramway curve resurfacing technology\*



\* PATENTED BY JINPO PLUS & KMT INTERNATIONAL, CZECH REPUBLIC

RAIL  
WALKER™

## Five reasons why to choose our technology



Rail Walker

1

Comprehensive resolution of rail resurfacing with technological background allowing repair work independent of external power supply.

2

Multiple cost reduction of rail resurfacing and the possibility of repeated repair.

3

New patented technology of submerged arc welding without preheating.

4

Weld hardness corresponds to that of the rail. In addition, higher hardness can be achieved, if required.

5

Any rail surface can be repaired while the geometric shape of original rail is kept.

Certificate of the Czech Welding Institute



**kmt**  
international

# Comprehensive resolution of the rail resurfacing problems - **this is what we offer**

1

## Technology

The submerged arc welding technology without preheating, with the weld hardness corresponding to that of the base material, allows for highly productive resurfacing of the city traffic rails. Repairs can be done by welding of worn rails on the top and side surfaces, in curves and straight sections of any length, while keeping the original geometric shapes of rail crown, high quality of weld layer of parameters close to those of the base material being taken for granted. The welding accuracy achieved can be of 0+1 mm. Automatic welding minimizes the risk of human factor error input. The equipment and new technology have been tested successfully both in laboratory and have proved to be worthy in operation.



Weldinghead



Macrostructure of top and side rail weld

2

## Trolley design

The equipment ensures the welding head travel and positioning when re-profiling worn rails. The trolley has two driven wheels which bear the most of the whole equipment weight. It is operated on the rail not just being repaired. The trolley positioning and guiding is carried out by three-wheel arrangement and two pairs of guiding pulley. The trolley is operated also on the repaired rail by means of a pulley fitted to the telescopic arm controlled by operator from his/her worksite. The welding head position can be set by manual slides. The repaired rail line is monitored by the mechanical copying equipment with the accuracy of 0,3 mm. The trolley is equipped with the welding head with flux recirculation. Using the supplementary equipment, graphic reports of welding parameters time behaviour can be recorded.

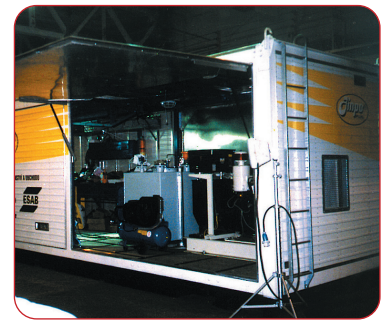


Welding of curve in practice

3

## Technical background

A comprehensive resolution of technical equipment in the form of mobile container allows for concentrating of all needed technology into a closed compact unit. After the container has been transported to the worksite (on the platform, undercarriage, wagon, etc.), repair work can be carried out independently of the external power supply.



Mobile container with accessories



Mobile container at night repair

## Technical data

### Welding trolley

|                  |                             |
|------------------|-----------------------------|
| dimensions:      | 2135 x 1660 x 1120 -1440 mm |
| weight:          | 322 kg                      |
| travel speed:    | 10-250 cm/min               |
| engine A6 - VEC: | 4000 ot./min                |
| transmission:    | 1:617                       |
| clutch:          | claw                        |

### Welding equipment

|                                  |  |
|----------------------------------|--|
| max welding current:             | 800 A  |
| welding wire diameter:           | 1,6 - 4,0 mm                                   |
| wire feeding speed:              | 9 m/min  |
| wire weight, max.:               | 30 kg  |
| flux tank volume:                | 10 l   |
| vertical slide motion:           | 90 + 50 mm                                     |
| horizontal slide motion:         | 330 mm   |
| pressure air for flux recycling: | 4 at 175 l/min, 5 at 225 l/min, 6 at 250 l/min |

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