

TracFeed® NSV

TENSIONING DEVICE FOR LOCAL TRANSPORT

English

INNOVATIVE

With the aim of making in particular urban traffic areas more attractive, Rail Power Systems has developed a new tensioning device TracFeed® NSV, that can be fully integrated into tubular steel masts. Already a success in Nuremberg, Freiburg and Stockholm, this integrated tensioning device offers an ideal means for urban planners to design inner-city traffic areas that are both space-saving and more attractive. Unsightly concrete blocks, steel cables and tensioning aids such as cable tensioning clamps or assembly brackets in the outer, visible area, which up to now have defined the cityscape, are completely eliminated.

TECHNOLOGY

The integrated TracFeed® NSV tensioning device for contact wire or catenary wire (Fig. 2, pos. 3) vanishes completely into the tubular steel mast. Catenary ropes and wires are re-tensioned using weights with constant tensile force, just as with conventional tensioning devices. Two cable drums with different diameters mounted on different shafts are at the core of the system. The drums are connected to a chain gear, which achieves the usual power transmission ratio of 3:1. Despite its very compact design in aluminium alloy and die-cast aluminium, the tensioning device has a locking device for assembly/disassembly and a snap-in device should the contact wire/catenary wire break. The slide bearings are made of self-lubricating COM-KU/D solid plastic. The tensioning device is very low maintenance, as all moving parts are protected from weather conditions. It is only recommended to check every 24 months that the weights are running smoothly (Fig. 2, pos. 5), as well as their position with respect to the temperature.

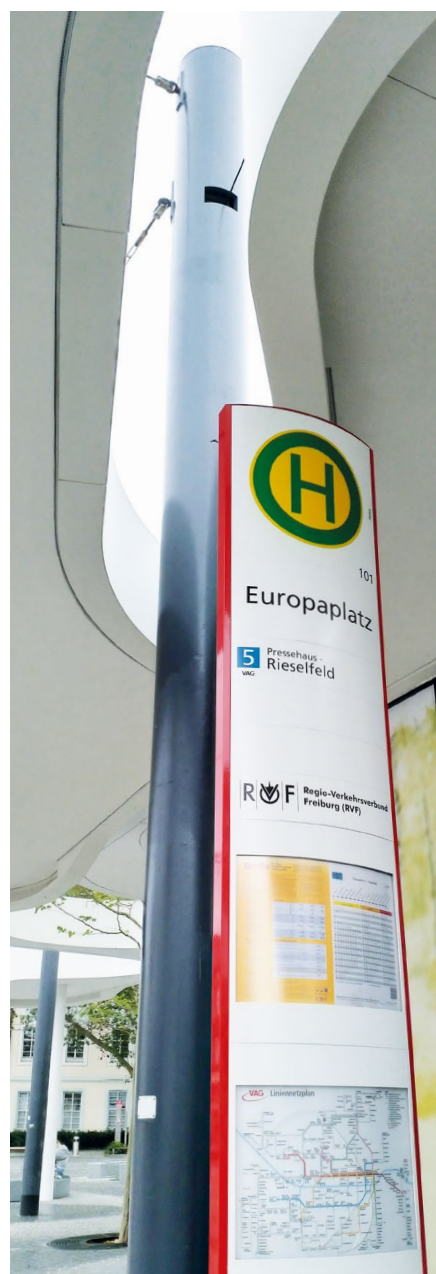


Fig. 1: TracFeed® NSV Tensioning device in Freiburg, Germany

ASSEMBLY

No special tools are required to mount the tensioning device in previously installed or horizontal tubular steel masts. The tensioning device is inserted through the upper door (Fig. 2, pos. 1) in the tubular steel mast and affixed at a height of approx. 6 m above the top edge of the rail. The weights are inserted through the lower door (Fig. 2, pos. 2).

OUTLOOK

TracFeed® NSV tensioning device enables a mechanical tensile force of up to 12 kN to be achieved. Future versions are planned that will achieve a tractive force of up to 20 kN. For masts with an inner diameter of only 300 mm, up to 10 kN are planned.

Urban planners thus have an attractive solution available for the design of inner-city overhead contact line systems for trams and light railways, which fits harmoniously into the cityscape.

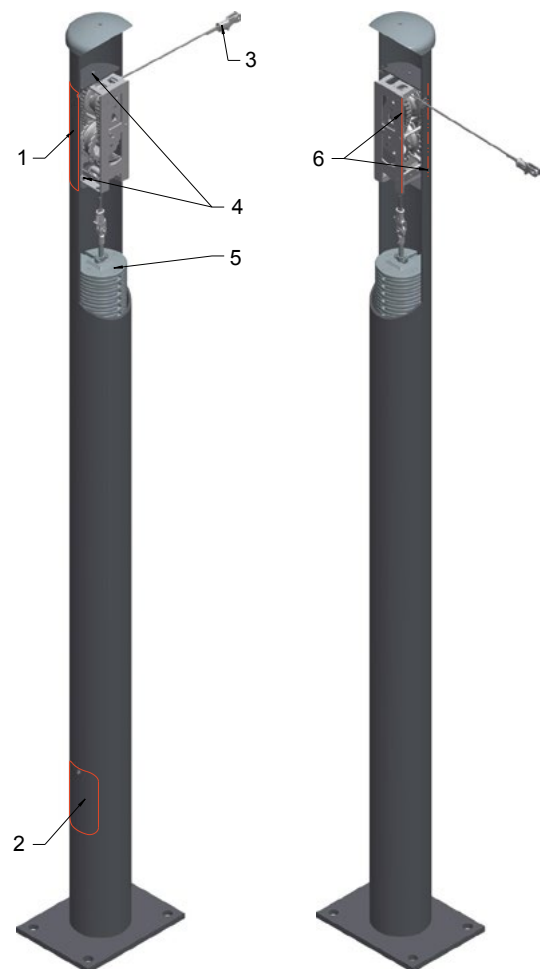


Fig. 2: Integrated tensioning device

- 1 Upper door
- 2 Lower door
- 3 Catenary wire
- 4 Upper/lower stop
- 5 Weights
- 6 Interior contact surfaces

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