





USAGE AND ASSEMBLY INSTRUCTIONS NUMERO 5
PULLING TOWER





# INTRODUCTION

NUMERO 5 XPLATE is the MWM Pulling Tower that, thanks to the use of compressed air, allows 360° repair of multiple damages.

Composed of an independent and mobile vacuum depression plate, a vertically adjustable winch on a square section metal pole and a small hooked headset. The combined action of these parts is granted by a couple of belts.

## **POLE**

Cornerstone of the whole system, it is built up in a squared section solid tubular shape firmly welded on two standing base support. It allows complete adjustability of the height of the pulling point through **15 positions**, **from 28 cm to 165 cm**, enabling both repair of damages close to the ground like sills and of elevated parts such as uprights. Supplied on wheels, it is outlined by a very easily transport flexibility thanks to a comfortable handle located on the top part and a shelf to locate up to two plates when not being used.

## **WINCH**

Active Pulling point of the System, it is an adjustable pulling device operated by the user. After several tests on the field, MWM has chosen to use a belt made up of polymeric strands threaded like traction vehicle as if compared to the use of chain or rope, it allows greater precision and control on the pull leading to a better repair quality. In detail, it has been studied and developed a precise movement of the winch: one click of the lever corresponds to 1 mm of longitudinal pull and the device is also equipped with a lock to maintain traction pull tight and allow the damage to be fully repaired. Being highly adjustable, when used in conjunction with the anchoring plate, it allows a constant traction force to be achieved and maintained, without significant loss of force at any height.

## **PLATE**

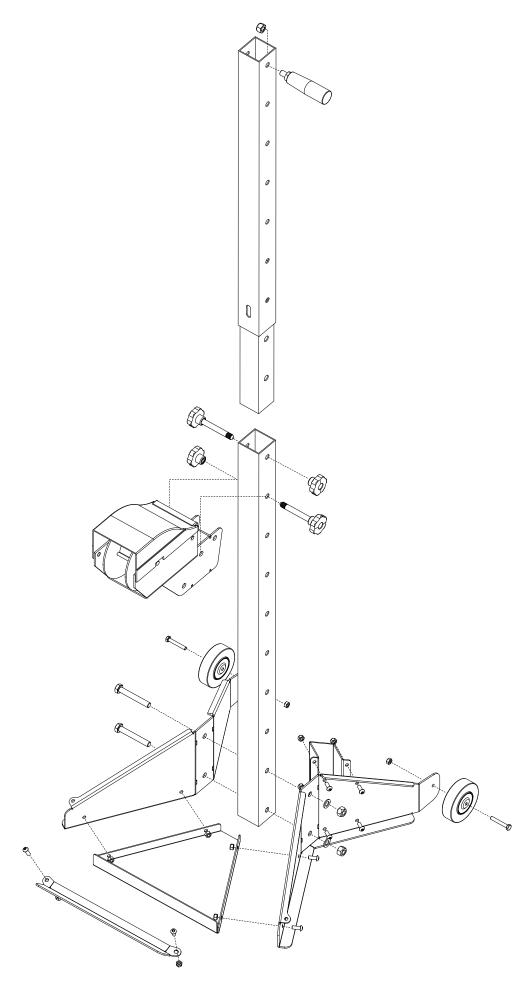
Built in two elements: hot-rolled steel plate common in heavy industry and sitting pad of vulcanised rubber at a specifical density, designed and tested to stick at the best even on damaged or granular floors. During the vulcanization process the rubber acquires flexibility and resilience to abrasiveness and at the same time it is shaped and fixed directly on the metal plate. Main supporting element of the system, it is fixed to the ground through pneumatic depression making possible to pull, in joint use with the pulling winch. The two C-shaped profiles stick to the floor when the plate is put into use, increasing the total friction of the plate itself when crosswisely pulled.

Use the NUMERO 5 XPLATE only and exclusively for sheet metal straightening, following the instructions provided in the present manual.

Do not make any structural modification to the equipment in order not to compromise its performance and cause any damage to its components.

Do not use the tower with tools whose pulling force is higher than the indicated one (550 Kg - 5395 N) so as not to compromise its performance and damage its components.

# **ASSEMBLY INSTRUCTIONS**



## **USAGE**

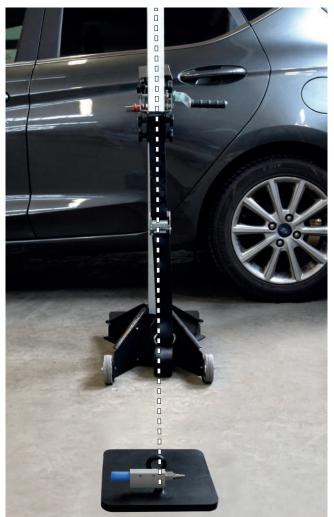


Move NUMERO 5 XPLATE next to the damaged are to be repaired.

Adjust winch's height at same of damaged part to be repaired.



Position accessories provided on the damage: hook gripping head, eyebolt and hook all connected to the consumables chosen for the repair (multipads, washers, etc.)



Position vacuum plate in line with the pulling tower and repairing area.

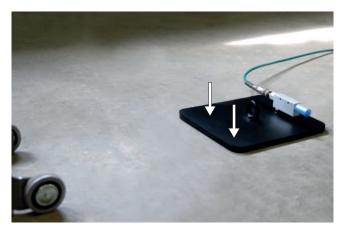
The vacuum plate has a rectangular shape and for maximum performance and optimum pull force, position the vacuum plate as shown in pictures displayed in the present manual, and precisely: short side facing the tower and pneumatic vacuum generator facing the opposite side.

Do not place the plate at an angle or off-axis to the tower in any way.

Failure to observe even one of these warnings will decrease the pulling force of the tower and may damage the tower components.

#### **ATTENTION!**

Position the plate on smooth, flat and cracks-free surface. Ensure surface is completely clean. Use compressed air free of humidity and oils. In optimal conditions the plate can generate 550 Kg - 5395 N and its performances are linked to the surface's characteristics.



Power the plate with compressed air pressure within 6 and 8 bar.

Push the plate down on the floor to let vacuuming start.



Put the strap in tension.



Turn winch's lever counterclockwise till expected pulling is reached.



To unlock the winch, operate on the lock lever and turn lever counterclockwise to lose the strap.

## **ATTENTION!**

Use the winch only for pulling only.

DO NOT use the winch for goods lifting.

Maximum traction power 550kg – 5395N.

Maximum power on the lever 20kg – 196.2N.

# **ACCESSORIES** (Not included)



# **COMPENSATION PLATE**

Positioned mirrorwise on the other side of the pulling Tower, it has the purpose of compensating the pulling traction of the Tower by immobilizing the vehicle to the floor so allowing to carry out the necessary strength to repair without any pulling limitation. The kit is provided with a metal plate and a belt with 2 hooks which are anchored to the vehicle frame, using clamps commonly found in any car body repair workshop, and the other to the metal plate stuck to the ground.



# **VERTICAL PULL PLATE**

Equipped with the same steel plate as the plate supplied with the pulling tower, it is designed for a perpendicular pull to the fixing surface. Using the same pneumatic vacuum valve system, in its lower connection part it shows a low-density rubber perimeter profile which, by getting compressed, allows an efficient vertical pull without detaching from the ground surface.



## **EXTENSION**

Firmly insertable into the upper part of the pulling pole, thanks to its 70 cm height and 6 usable pulling positions, it extends the general pole height up to 2.20 mt to allow repairs of roofs and van uprights.



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