

www.m-planter.fi

# Benefits of the mechanical planting

- Efficiency: Mounding and planting at the same time.
- Enables additional soil construction during planting.
- Similar planting quality: One man + one machine.
- Fresh mounds: Planting immediately after mounding.
- Other applications: Spreading of fertilizer, water, herbicide...

# Background of M-Planter

- Mechanical soil preparation and manual planting since 1970's.
- Contracting and manufacturing of excavator applications for soil preparation (mounding).
- Development of excavator based planter.





### M-Planter

- Combining of mounding and planting.
- 2005: The first prototype of the two-headed mounding planter M-240.
- 2007: The second prototype of M-240.
- 2008: Serial manufacturing of standard models for the domestic market.







# Product development continues

- 2013: M-160 Single-headed mounding planter for harvester.
- 2015: Development of customized models for export market.
- 2016: M-320 Two-headed planter for eucalyptus and acacia in Indonesia.







# What M-Planter requires?

- Pot seedlings
- Base machine: min 12-17 ton excavator with:
  - Electrically piloted hydraulics
  - 160-170 bar hydraulic pressure
  - 100 l/min hydraulic flow
  - 1-7 buttons from joysticks

# Seedling carrier



### Standard models



M-120

Weight: 900 kg
Width: 1 000 mm
Height: 1 100 mm
Depth: 2 000 mm
Plantingtube Ø: 60 mm
Seedling capacity: 122 pcs

M-240

Weight: 1 500 kg
Width: 2 890 mm
Height: 1 400 mm
Depth: 1 450 mm
Plantingtube Ø: 60 mm
Seedling capacity: 244 pcs



### M-120 vs M-240



#### M-120

- Requires smaller excavator.
- Can be made to work only with hydraulics (no electricity).
- Easier to use at difficult sites.

#### M-240

- Can mound and plant two locations at the same time, but can also mound and plant single location.
- At least 25 % more efficient.
- More efficient to push the harvesting residue.



# Productivity

Planting site quality	M-120 (one-headed)	M-240 (two-headed)
Difficult site (steep, lot's of rocks and harvesting residue)	120 seedlings / hour	160 seedlings / hour
Average site (some rocks and harvesting residue)	150 seedlings / hour	240 seedlings / hour
Easy site (flat areas, clean site, few rocks)	180+ seedlings / hour	300+ seedlings / hour

## What M-Planter has planted?

- Spruce
- Pine
- Birch
- Aspen
- Alder
- Eucalyptus
- Aacacia

# Why M-Planter?

- Long experience of mechanical silviculture.
- Only notable manufacturer of the excavator based two-headed mounding planters.
- The most efficient excavator based mounding planter (METLA/LUKE research).







# M-Planter Oy







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