

## TECHNICAL DESCRIPTION

### Mobile Crushing Plant, Type JAWMAX 1006 ECO / MAXI on Crawler Undercarriage, with Screen Module 12/25

Dimension Sheet no. 42 1501 49

## 1. GENERAL DATA

### 1.1 Application Data

- Feed material: natural rock, building debris, armored concrete
- Throuput capacity: up to 200 t/h (depending on feed material and gap width)
- Feed material size: max. 950 mm x 550 mm
- Final grain size: for ex. 0/32 or 0/63 mm with oversize grain recirculation

### 1.2 General Technical Data

#### ECO (without Screen Module)

- |           | <u>in operation</u> | <u>in transport</u> |
|-----------|---------------------|---------------------|
| - Length: | approx. 12.00 m     | approx. 10.00 m     |
| - Width:  | approx. 3.80 m      | approx. 2.60 m      |
| - Height: | approx. 3.70 m      | approx. 3.20 m      |
- Total weight: approx. 29.700 kg without options
  - Ground pressure /crawlers: approx. 11.0 N/cm<sup>2</sup> - without options

#### MAXI (with Screen Module)

- |           | <u>in operation</u> | <u>in transport</u> |
|-----------|---------------------|---------------------|
| - Length: | approx. 15.00 m     | approx. 14.10 m     |
| - Width:  | approx. 3.80 m      | approx. 3.00 m      |
| - Height: | approx. 3.70 m      | approx. 3.20 m      |
- Total weight: approx. 34,100 kg without options
  - Ground pressure/crawlers: approx. 13.0 N/cm<sup>2</sup> - without options

### 1.3 Power Consumption (Connected Loads)

#### ECO:

- Crusher:	75 kW
- Vibratory feeder:	2 x 2.7 kW
- Maid discharge conveyor:	7.5 kW
- Pre-screened material conveyor:	2.2 kW
- Magnet separator:	2.2 kW
- Hydraulic unit:	4 kW
- Crawler undercarriage	2x19.4 kW
- Free capacity (ECO):	50 kW

#### MAXI:

- Screening machine 12/25-1	2x 3.0 kW
- Stockpile conveyor	7.5 kW
- Short conveyor for oversize grains	2.2 kW
- Recirculation conveyor for oversize grains	4.0 kW
- Free capacity (MAXI)	30.0 kW

Current supply by means of a three-phase Diesel genset 180 kVA, emission standard 3A, which is fastened on the plant.

### 1.4 Painting

- A two-colored lacquer is standard: RAL 3016 – coral red  
RAL 9005 – black

## 2. DESCRIPTION OF PLANT COMPONENTS

### 2.1 Feed Hopper

- Hopper length: approx. 2600 mm
- Hopper width: approx. 1800 mm
- Hopper height: approx. 500 mm
- Capacity: approx. 3.3 m<sup>3</sup>
- Sheet thickness: 10 mm highly wear-resistant steel sheets
- Execution: welded construction with stiffening and pedestals for fastening on supporting construction.

#### 2.1.1 Hopper Extension - OPTION

- Hopper length: approx. 2600 mm
- Hopper width: approx. 2600 mm
- Hopper height: approx. 900 mm
- Capacity: approx. 6.1 m<sup>3</sup>
- Sheet thickness: 10 mm highly wear-resistant steel sheets
- Execution: hopper walls hydraulically foldaway
- Weight: approx. 1010 kg

### 2.2 Vibrating Feeder

- Trough width: 1000 mm
- Trough length: 2800 mm
- Pre-screening: 2 steps with extra heavy tines, length 650 mm, gap width 50 mm – standard
- Drive power: 2 x 2,7 kW (unbalance motors)
- Regulation: adjustment of centrifugal weights (=coarse setting)  
changing of speed with frequency converter (=dosing)
- Design: base plate thickness = 6 mm  
wear plates/side walls = 6 mm  
wear plates/bottom s = 12 mm on 20 mm wooden boards  
wear plates bolted with trough body.

#### 2.2.1 Lower Deck for Pre-screening – Option

- Finger screen, 2-stages, freely oscillating, opening 25 mm
- Blind bottom, rubber cover

#### 2.2.2 Upper Deck – Blind Bottom Grid Segments – Option

- Blind bottom made of highly wear-resistant steel plates – screwable
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#### 2.2.2 Upper Deck Grid Segments – Option

- 2-stage grid section, length of each stage 650 mm, opening 40mm

## 2.3 Single-Toggle Jaw Crusher

- Type: STE 100-60 ASV
- Feed opening: 1000 mm x 600 mm
- Gap widths: 35 mm up to 140 mm
- Quick release open: max. gap 220 mm
- Crusher speed: 290 rpm (280 – 320 rpm adjustable)
- Driving pulley: DW 1140 mm, 5 x SPC
- Drive: electric motor, 75 kW/1000 rpm
  
- Housing: welded construction, stress-relieved
- Eccentric shaft: forged of heat-treated steel
- Bearing: heavy-duty self aligning roller bearings
- Lubrication: grease; labyrinth seals to protect the bearings
- Swing: welded construction in box section, stress-relieved
  
- Toggle plate: hardened rolling surfaces
  
- Crushing jaws: cast of high-quality austenitic manganese steel; surface toothed; can be turned by 180° in case they are worn.
  
- Side wedges: made of highly wear-resistant steel plates.
  
- Gap adjustment: gap can be set hydraulically via operation panel

### 2.3.1 QUICK RELEASE - OPTION

- Overload protection by means of electronic recording of crushing force and automatic passing through of unbreakable material..

## 2.4 Main Discharge Conveyor

- Belt width: 1000 mm
- Centre distance: approx. 9000 mm
- Drive power: 7.5 kW, drum motor
- Troughing: 20° ascending
- Belt speed: 1.6 m/s
- Capacity: max. 400 t/h
- Belt quality: EP 500/3 10+3 (steel armoured)
- Supporting structure: U-steel construction
- Dampening plates: within the area of crusher outlet
- Operation: hydraulically foldaway

## 2.5 Undercarriage

- Bridge construction with flanged superstructures, welded of steel and sectional steel plates.
- Crawler tracks: track centre distance 2.10 m; bottom plate width 0.4 m
- Travel speed approx. 1.8 km/h;
- Admissible gradient approx. 30 %

## 2.6 Drive Unit

- Diesel genset; 180 kVA; integrated tank 350 L, enclosed all-over; operating and monitoring devices via SPS control system; lockable maintenance doors.
  - Diesel engine, emission standard as per EG 97/68 emission level 3A; Power 144 kW at 1500 rpm according to DIN 6271 + ISO 3046
  - Three-phase squirrel cage motor; 75 kW/1000 rpm; 50 Hz; protection IP 54
  - Motor vee belt pulley, DW 335 mm, 5 grooves, SPC
  - Vee belts SPC, DIN 7753
  - Belt guard and flywheel protection cover
- Speed regulation in six different increments; (speed regulation only possible with plant at standstill) - **OPTION**

## 2.7 Crawler Track Drive

- permanent magnet – synchronous torque motor with gearbox assembly 2x 19.4 kW

## 2.8 Electrical Equipment - SPS

- Switch cabinet with operation panel and protection housing.
- Operation panel with touch screen
- Plant operation: automatic-start/stop
- Additional sockets to supply external consumers
- Frequency converter for vibrating feeder integrated into switch cabinet.
- Cabling in protective tubes.
- Emergency-stop pushbuttons
- Flash lamp and signal horn to indicate instructions or malfunctions

## 2.9 Wireless Remote Control

- for travel drive and control of vibrating feeder

### 2.10.1 Conveyor for pre-screened material, hydraulically foldaway - OPTION

- Belt width: 500 mm
- Centre distance approx. 2900 mm
- Drive power: 2.2 kW, drum motor
- Troughing: 15°
- Belt speed: 1.25 m/s
- Capacity: max. 100 t/h
- Belt quality: EP 400/3 4+2
- Supporting structure: sectional steel construction
- Weight: approx. 400 kg

## 2.10.2 Conveyor for pre-screened material, rigid, can be inserted laterally -OPTION

- Belt width: 500 mm
- Centre distance: approx. 5500 mm
- Drive power: 2.2 kW, drum motor
- Troughing: 15°
- Belt speed: 1.25 m/s
- Capacity: max. 100 t/h
- Belt quality: EP 400/3 4+2
- Supporting structure: sectional steel construction
- Weight: approx. 600 kg

## 2.11 Maintenance Platforms and Access Stairs

- Mounted within the area of Diesel genset.
- It is strictly forbidden to stay on them during operation of the plant!

## 2.12 Bending Zone, rigid – Option

- Weight: approx. 135 kg

## 2.13 Overbelt Magnet Separator -OPTION

- Permanent magnet
- Steel structure to fasten magnet separator
- Hydraulically adjustable in height
- Antimagnetic discharge chute
- Cable with plug for e-connection
- Technical data:
  - Magnet box size: 930 x 790 x 268 mm
  - Drive: 2.2 kW, drum motor
  - Belt speed: 2.1 m/s
  - Induction: 1590 Gauß at 50 mm above belt  
1040 Gauß at 100 mm above belt  
650 Gauß at 150 mm above belt  
520 Gauß at 200 mm above belt
- Weight: approx. 1150 kg

## 2.14 Mains/Generator changeover unit - Option

- Additional switch cabinet for switching from generator to mains

## 2.15 Belt Scale - Option

Integrated into the steel construction of the main discharge conveyor, consisting of:

- weighing unit with daily total adding function and master data memory, function keys.
- inclination sensor for correction in case of non-constant angles;
- robust, dust-insensitive needle printer to print multi-layer weighing cards (no color tape necessary).

## 2.16 Diesel Particulate Filter - Option

## 2.17 Spraying Device to suppress dust - Option

## 2.18 Refuelling Pump- Option

## 2.19 Special Paint – Option

### 003/000 Screen Unit 12/27 WELDED CONSTRUCTION

Total weight without options 4,400 kg

#### 003/001 Screen Unit Frame

Construction : welded and screwed

Frame for item 003/001 to 003/004

Screen unit can be dismantled for transport purposes

#### 003/002 Screening Machine Type KQ 12/27-1

Design : 1-deck, circular vibration

Screen width : 1200 mm

Screen length : 2700 mm

Screen fabrics : steel, transversally tensioned

Drive power : 2x 3.0 kW

Separation at : according to demand (min. 32 mm)

Lubrication : grease

#### **Machine consisting of:**

- Screen box executed as carrying element
- Feeding bottom with wear lining
- Drive shaft with labyrinth rings and special self-aligning roller bearings,
- Pendulum weights for amplitude adjustment
- Protection pipe for shaft with rubber wear lining
- Spring supports incl. cylindrical pressure springs
- Drive motors with coupling and protection

**003/003 Stockpiling Conveyor****Type PBB-C 1000 x 5,0 m**

For fine grains, hydraulically foldaway

Belt width	: 1000 mm
Centre distance	: 5.0 m
Drive power	: 7.5 kW drum motor
Belt quality	: EP 400/3-4+2
Scraper	: plough and hard metal scraper
Discharge height	: 2.65 m

**Including:**

- guiding chutes below screen
- hydraulically foldaway for transport purposes

**003/004 Short Conveyor for Oversize Grains****Type PBB-C 500 x 2,1 m**

For oversize grains, relocatable

Belt width	: 500 mm
Centre distance	: 2.1 m
Drive power	: 2.2 kW drum motor
Belt quality	: EP 400/3-4+2
Scraper	: plough

**Including:**

- continuous guiding chutes
- relocating device (can be relocated manually)

**003/005 Conveyor****Type PBB-C 500 x 8 m**

for recirculation of oversize grains, can be lowered for transport purposes

Belt widths	: 500 mm
Centre distance	: 8 m
Drive power	: 4 kW drum motor
Belt quality	: ascending belt EP 250/2-3+1.5
Discharge height	: 3.75 m

**Including:**

- Feeding chute
- Supporting elements, hydraulic lifting and lowering from/into transport position
- Mechanical swivelling into stockpiling position (approx. 30° to plant)
- Continuous, raised and reinforced guiding chutes



**003/006      Hydraulic Equipment and Cabling of Screen Unit**

- cabling with plug-in couplings as connection to the plant,
- hydraulically connected to the plant with plug-in couplings
- hydraulic lifting and lowering of screen frame - **OPTION**

**Special Equipment / against extra payment**

- Frequency converter for screen
- Frequency converter for recirculation conveyor

**003/007      Assembly**

in the workshop at Liezen

**Including:**

- Test run without material
- Painting of plant (primer and top coat)
- Start-up in workshop at Liezen