VK15020 R FU K, 630266750



Producthoogtepunten

Fully automatic electro-hydraulic channel baler HSM VK 15020

- article 6438P05434G05243
- year of construction 2024

Technical specifications

- Main drive power with integrated 2x75 kW frequency converter
  – see optional equipment
  Motor efficiency class IE4 in accordance with IEC standard 60034/30
- Total drive power depending on optional equipment
- Voltage / Frequency 3 x 400 V / 50 Hz + N + PE
- Pressing force 1500 kN
- Specific pressing force 124 N/cm²
- Pump flow rate 1097 l/min
- Tank capacity 3000 l
- Filling opening (W x L) 970 x 2000 mm
- Bale/channel cross-section (W x H) 1100 x 1100 mm
- Bale length continuously adjustable 400 - 1800 mm
- Bale weight at 1200 mm bale length approx. 800–1250 kg
  or standardised bale weight (per m³) approx. 800–1250 kg
  (depending on material)
- Cycle time (press stroke in idle mode, back and forth) approx. 10.00 s
- Theoretical volume throughput 873 m³/h
- Theoretical throughput at a bulk density
  of 20 kg/m³ = approx. 17.46 t/h
  of 50 kg/m³ = approx. 43.65 t/h

Technical description HSM VK 15020

- Continuous feeding; continuous bale ejection
- Standard feed hopper, cubic with inspection door on the left

- Fully automatic baling
- Fully automatic horizontal 5-strand strapping using patented wire, ø 3.4 mm in accordance with DIN 177
- Bale length measurement via wire consumption monitoring
- Pressing interval control via light barrier
- 4500 mm pressing channel, conical
- Conicity is hydraulically adjusted depending on the material
- Feed opening length can be flexibly adjusted as required via an integrated position-measuring system
- Special design on the operator side and push-through cylinder on the left when viewed in the direction of pressing
- Siemens S7-1500 F programmable logic controller, with TP 700 touch panel:
  Operating states are displayed symbolically and graphically on the control display
- Multicolour indicator lights;
  Operating states are displayed not only on the control display
  but also via a multicolour indicator light on the control cabinet

- Maximum access security for operating personnel through:
  access locking via a key-swap system at access points to the press
  as well as non-contact safety switches at access and maintenance points on the press
- Bale counter integrated into the text display
- Operating hours counter
- Cardan suspension for stress-free mounting of the press main cylinder
- Bypass filter system to increase oil service life by at least 50–70%
- Electro-hydraulic locking of the press carriage during the strapping process

- Wear-resistant sections in the press housing made of double-walled sheet steel (second layer replaceable)
- Paint finish (standard)
  Press RAL 7011 (iron grey)
  Cylinder RAL 9002 (grey-white), motor RAL 7024 (graphite grey)
  Press plate, control cabinet RAL 7035 (light grey)
- Machine base weight without optional extras approx. 45 tonnes
- Includes technical documentation, German
- Includes GS mark (Tested Safety) for the bale press
- Includes manufacturer’s declaration (CE compliant) for the bale press

Initial equipment included in the scope of delivery

- Remote maintenance system for external data analysis and processing
- Sm@rt Service licence for fast and effective

fault rectification by HSM customer service
- Initial fill of hydraulic oil
- Initial supply of 10 wire rolls (40 kg each), wire thickness 3.4 mm
- Wire monitoring: If a wire end or wire break is detected, the automatic system switches off

Additional equipment / project-specific requirements depending on the initial situation

Hydraulic 4-strand vertical cross-strapping, with
5-strand basic horizontal strapping
Including:
Hydraulic shut-off slides in the vertical press plate
wire-drawing needle channels and the press box base plate.
Automatically swivelling maintenance platform with
safety railing, mounted on the vertical unit
above the press channel for maintenance of the
vertical strapping unit, access via ladder.
Dimensions as per project drawing, additionally
maintenance trolleys on the left and right of the vertical strapping unit,
providing access for wire insertion and side maintenance.
Automatic activation and deactivation of vertical strapping
Automatic activation and deactivation of vertical
strapping without manual wire handling.
Depending on the respective programme settings for the
individual baling materials, this results in a fully automatic solution.

Wire station ‘K-version’ for 250–1,000 kg wire rolls
set up separately behind or next to the baler,
including wire feed to the baler
- including 5-way horizontal
- including 4-way vertical
(Initial wire supply not included!)

Transport trolley ‘K-version’ for 250–1,000 kg wire reels
18 units, mobile, each equipped with swivel and stop castors

Wire catch net mounted overhanging
between the wire station and the baler
(accident protection in the event of wire breakage)+

Highly wear-resistant design
specifically for use in the waste management sector (R version)

- Wire mesh covers for the front of the compaction plates; prevents foreign matter from entering the feed channels at the front of the compaction plates
- Double-walled baling chamber, with replaceable plates made of highly wear-resistant steel (XAR 500) in the base and side areas
- Baling channel with replaceable plates made of highly wear-resistant steel (XAR 500) in the lid and base areas

Version with frequency-controlled main drive

(frequency converter version)
The plant is operated with a smaller main drive including a frequency converter,
whilst delivering improved performance data
(compared to a conventional drive) – i.e.
75 + 75 kW frequency converter
The innovative frequency-controlled drive
optimises the system's energy efficiency.
Electricity consumption is reduced by up to 40%
compared to conventional drive technology.

This requires a
frequency converter for a 2x75 kW main drive
to optimise the system's energy efficiency and
thereby reducing power consumption by up to 40%
compared to conventional drive technology

as well as
3 air conditioning units
to cool the main components
at high ambient temperatures, up to a maximum of 40°C

Compact unit
consisting of
an oil cooler, cooling capacity 50 + 21 kW with variable frequency drive (VFD)
stepless adjustment to the required cooling temperature
for a 2x75 kW main drive power baler with VFD
(motor power: oil cooler 1.1 + 1.8 kW / filter unit 2x4 kW)

as well as an
oil filter unit
for continuous operation at high capacity or at high
ambient temperatures, flow rate 100 l/min, filter fineness 5 µm

Control cabinet heating for variable frequency drive version
for installation in unheated halls or under canopies,
temperature range from +10 °C to -15 °C

Tank heating
for installation in unheated halls or under canopies,
temperature < +4 °C

Cutting edge pusher
in front of the shearing knife, pressing force approx. 121 kN

Adaptation chute
for material transfer to the baler,
transfer from the feed conveyor
including overfill protection via photocell control

Key changeover system
(1 safety switch + 1 operator key)
additional safety switch with operator key for
securing hazardous positions that could immediately lead to a hazardous situation

- Inspection door on the adaptation shaft

Bale chute
to compensate for the difference in height
between the press channel and floor level (± 0), length approx. 5000 mm

Large-digit digital display for accurate bale length indication
mounted on the baler’s main control cabinet

Control extensions (conventional drive)
for linking various components,
including power section (contactor, relay) in the main control cabinet
of the baler
- Soft start for conveyor belt, 11 kW
- PSM (U-Tech, customer-supplied)

Touch Panel TP1500
large display, for greater ease of use

2 control units on the conveyor belt, including emergency stop function
Operation via illuminated pushbuttons on the conveyor belt

Additional external emergency stop, each
Separate emergency stop interface, 2-channel (input/output),
including 2 dry contacts
For integrating the customer’s conveyor system into the emergency stop
circuit
Interface in the press control cabinet
Wiring to be carried out by the customer

Surveillance camera, 1 unit
Display on the touch panel in the press control cabinet
for monitoring:
- Feeding area/rising section of the conveyor belt

technical and optical modifications reserved
product image is an example image

delivery time: on demand

Modifications and errors reserved