





# BERGMANN ROTO-COMPACTOR PS 1400-E Typ 182



# The principle of the BERGMANN Roto-Compactor PS 1400-E Typ 182







#### Idea and functional principle

The PS 1400-E Typ 182 (bag capacity of 1.400 litre) belongs to the electrically driven Bergmann rotating waste compactors. The basic idea is to compact waste/recyclable material directly where it will be produced. This leads to savings of disposal trips, reduces the costs and saves the environment.

A left and right turning and rotating compaction drum "steamrolls" every material and grabs it into a bin. By means of the specially equipped drum the waste will be compacted in layers. Idea, conception and implementation come from Bergmann and the more than 30-year-old experience in this technique.

#### Easy handling due to continuous filling

Just add a euro-pallet or a one-way pallet (with similar measurements) to the stationary unit. In the second Stepp a 1.400 litre polythene sack will be inserted and the doors will be closed. After the start button has been activated the compaction unit sinks and the waste/recyclable material can be thrown in.

Waiting for the end of the compaction cycles or filling rhythms is not necessary!

#### **Compaction in layers**

The compaction takes place in a **1.400 litre PE-bag** statt. The compaction drum grabs the material in layers until the full signal will be initiated.

Solely in view of cartonage a compaction weight between 300-400 kg will be attained. The PE-bag's share of foill attains a percentage share of only less than 1%. Therefore it fulfills the condition for further processing of the paper respectively the cartonage.

#### Example:

of 10m3 make approx. 1,35m3=425kg cardboard!



Result PS 1400-E with water sprinkling & 3,0 kW drive





#### <u>Usage</u>

The PS 1400-E Typ 182 is particularly suitable for recyclable material, such as paper, cardboard or similar packaging materials. The typical usage of this machine takes place in supermarkets, clothing stores, kiosks, but also in the industry, e.g. the packaging industrie.

This machine can be filled optionally via chute or faceplate. If the machine will be installed in a highrise building two possibilities for filling are available. On the one hand the machine could be filled by means of the chute from the ground floor. Apart from that a simultaneously filling from a overlying floor via a waste chute is possible as well. This is only possible with the PS!

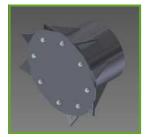


#### **Safety**

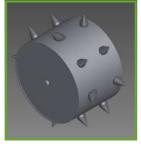
The Bergmann PS correspond to the European Machinery Directive CE and are equipped with the latest safety technology as standard. For example the doors are equipped with safety limit switches.



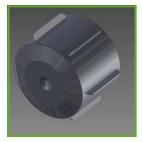




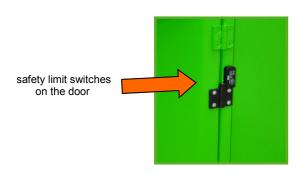
standard drum



special drum with steel cones



special drum with parallel bars





clear and simple control panel

#### More than 30 years of experience

From the individual gearbox through to the electrical steering the machine is based on the experience of more than 30 years. This experience is attributed to the different ranges and uses of our customers, which are reflected in all parts of the serial machine. Moreover, the possible additional accessories are based on **longtime experience!** 

#### **Compaction operation**

The compaction drum will be driven by a low-maintenance 3,0 kW motor. The lifting system is realize by a hydraulic cylinder. Additionally, the compaction operation of the machine is nearly scarcely audible due to the electromechanical driving. This saves the environment in view of noise and oil pollution.

For the most different materials various compaction drums are available.

#### Safety limit switches on the door

Safety limit switches prevent the intervention into the security zone of the machine.

#### **User-friendly**

A solid PLC-control (incl. display) within the control cabinet takes over the control of the machine. The display makes it possible to read out the operating hours or change the running time of the machine. In addition to that various information will be indicated there. Optional it is possible to mount an additional displayexternally or **use a web-connection**. The <u>advantage</u> of this solution in the case of a big machine park is receiving all disturbances, full signals and maintenance intervals in the home office. **NEW!** 

#### **Control panel**

The clear control panel guarantees a reliable operation and easy handling of the machine. The programmes are individual available and therefore for nearly every customer requirement adaptable.



#### Technical data of the PS 1400-E Typ 182

**Driving unit** 

Driving power

 $\begin{array}{ll} \mbox{Compaction unit} & 3,0 \ \mbox{kW} \ / \ 1.400 \ \mbox{U/min} \\ \mbox{Lifting unit} & 1,1 \ \mbox{kW} \ / \ 1.400 \ \mbox{U/min} \\ \end{array}$ 

Rotation speed drum approx. 22 U/min up to 35 U/min

Gear

Amount of gear oil

Main gear unit 1,0 litre
Angle 1,3 litre

Gear oil CLP acc. to DIN 51 517, part 3

Viskosity from 320 mm<sup>2</sup>/s at 40°C

Temperature range -10°C to +60°C

**Hydraulic unit (Lifting)** 

Hydraulic oil

HLP 46 5,0 litre

Hydraulic oil HLP according DIN 51 524, part 2

Viskosity from 56 mm²/s at 40°C

Temperature range -10°C to +60°C

approx. dimensions (without options)

Width of the machine 1.232 mm

Depth of the machine 1.710 mm

Height of the machine 2.580 mm

Max. required space for handling

Width min. 1.330 mm Height min. 2.580 mm

**Electrical data** 

Input voltage 400 V / 3 Phases / 50 Hz +N

Frequency 50 Hz
Control voltage 24 V
Preliminary fuse on site 3 x 16 A

**Further information** 

Movement manually with spec. equipment

Noise level approx. 59 dB(A) acc. to

DIN 5045 (1m distance)

Total weight approx. 930 kg

Subject to technical modifications.



#### 30310320



#### Chute, pull down

Chute pull down for an easier filling of the APS. The loading height will be reduced from approx. 1.890mm to 1.480mm. The safety distances are maintained through the foldable chute. This chute is made from aluminium and is supported by a gas spring.

chute, pull down

50000392



#### PE-bag 90µm, 1400 litre

Transparent PE-bag with a capacity of 1400 litre and a thickness of  $90\mu m$ . Available with 50 bags per one roll.

PE-bag

30310869



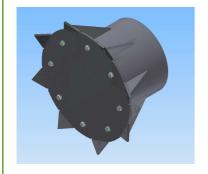
#### **Additional remote control**

Additional remote control with 5m cable.

remote control



#### 30310242

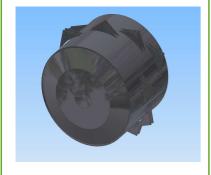


#### Standard drum

Compaction drum with special equipment for effective compaction of paper, cardboard or residual waste. The drum crushes, tears up and compacts the thrown in material by a continuous rolling movement. This special drum equipment can compact industrial waste, garbage, wooden boxes for fruits and vegetables and more and more!

Standard drum

#### 30310340



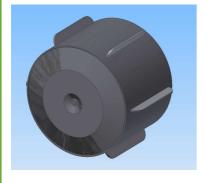
#### Special-drum double spikes

Compaction drum equiped with double spikes for the compaction of the most types of plastic film or styrofoam. The drum crushes, tears up and compacts the thrown in material by a continuous rolling movement.

On the backside of the gearbox is a cap installed. Two knifes are fixed at the gearbox on the left and right side of the drum. The drum is also for compaction of material like hard plastics, waste of printing agency etc.!

Special drum

#### 30310344



#### Special-drum cross web

Special drum for the compaction of Big-Bags, textile material or aluminium cans. The drum, equiped with steel cross beams, grip up and compacts the thrown in material layer by layer by a continuous rolling movement. Therfor it achieves optimal compaction results.

The compaction drum is applicable for garbage in plastic bags, light package, Tetra Pak, cans, aluminium scap etc.!

Special drum



#### 30310349

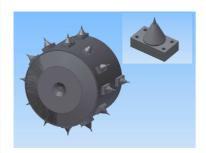


#### **Special drum with spikes**

Compaction drum with spikes for effective compaction of strong material/waste. The drum crushes, tears up and compacts the thrown in material by a continuous rolling movement. This special drum can compact industrial waste, garbage, wooden boxes for fruits and vegetables, strong cardboard jackets, cardboard packaging, hard-plastic-waste, wood, light metal scrap, etc.!

Special drum

#### 30310350

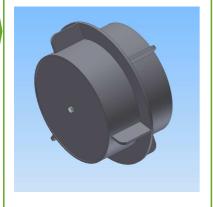


#### Special drum convertible spikes

Compaction drum with exchangeable spikes. The spikes are equiped with an adapter which are screwed on the compaction drum. This special drum crushes, tears up and compacts the thrown in material by a continuous rolling movement. The compaction drum is convenienr for especially plastic bottles, foil with air cells, wooden boxes for fruits and vegetables, hard plastic waste, PVC-bottles, cardboard jackets!

Special drum

#### 30310351



#### Special drum middle rack

Compaction drum equiped with middlejack and actuator plates. This spezial drum grip and compacts the thrown in material by a continuous rolling movement.

The drum is convenient for compaction of trash bags, hospital/hotel waste at which the compaction material should not destroyed. On this way is the smell nuisance reduced!

Special drum



EDV-code	Description	Scope of delivery
----------	-------------	-------------------

#### 30310341



#### Knife equipment on the gearbox neck

Additional knives on the gearbox neck which cut the material still more.

knife equipment fixing components

#### 30310360



#### Cover cap

Cover cap on the PS which is mounted as a rain shelter.

cover cap

#### 30310356



#### Full signal via flashing light

An optical sign that advises the operator of the 100% full signal.

(picture shows flasing light mounted on the roof)

flashing light

various electrical components

#### 30310116



#### Ozone generator

Prevention of unpleasant odours and desinfection by means of the bactericidal, fungicidal and viricidal effect of ozone. Ozone is heavier as air and is generated without the need of operating resources from ambient air. After 20 minutes it will degrade to oxygen. The generator is adjustable from 0 to 200 mg/h.

ozone generator various fixing material



#### 30310365



#### Water sprinkler (via main connection)

Water sprinkler for the connection to the main water supply. The two lubrication spry valve are installed left and right side approach the compaction drum! This option increase the compaction weight of the bale.

(approx. 15-20 liter water/bale increase the bale weight more than 100kg)

valves

spray nozzle

various equipment

#### 30310366



#### Water sprinkler (via tank and pump)

Water sprinkling with tank (approx. 40I) and pump. The two lubrication spry valve are installed left and right side approach the compaction drum! (approx. 15-20 liter water/bale increase the bale weight more than 100kg)

tank

pump

spray nozzle

various equipment

#### 30310439



#### Additional emergency stop button

An additional emergency stop button on the frame of the machine gives additional safety if a second person recognizes danger.

additional emergency stop button



#### 30310900



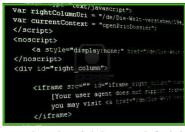
# Indication display on the machine for standard-PLC

Indication of e.g. the following information:

- operating hours
- disturbance safety chain
- running time, reversing time
- optional all information of sensors-packet A (s. EDV-code 30 310 901)

external display

#### 30310901





#### Sensors packet A

Prompts abot the sensors which are connected to the control system, wherby disturbances, operating errors or operating information will be indicated.

Information regarding the following:

- door limit switches left/right
- emergency stop button is activated
- motor protection function
- maintenance! greasing the gear
- maintenance!
- indication accident prevention regulations "once a year"

#### Please note:

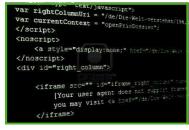
This sensors packet is available with the standard PLC-control and with the optional extendable PLC-control with LAN-connection!

sensors

add-on programming

various electrical equipment

#### 30310902





#### Sensors packet B

Prompts abot the sensors which are connected to the control system, wherby disturbances, operating errors or operating information will be indicated (e.g. "permanent indication of the filling level").

Additional information regarding:

- maintenance "lifting unit"
- indication of the current energy consumption
- Sensor for permanent filling level

#### Please note:

This sensors packet is ONLY available with the optional extendable PLC-control with LAN-connection (EDV-code: 30 310 903)!

sensors

add-on programming

various electrical equipment



30310903



#### **Extended PLC-control with LAN-connection**

The PLC-control enables it to call up all information of the machine (see sensors packet A and B) through a web-connection in the home office or somewhere else. This function facilitates and reduces service operations and informs about operating condition of the machine. For the web-connection a power connection is required. The installation has to be done by an informatics-technician on site. The control has no display inside the control cabinet. The following information are visible respectively adjustable via the web-connection:

- operating condition (off, standby, on)
- energy consumption
- times of the operating cycles (this is no longer possible on the machine)
- permanent indication of the filling level
- error safety chain
- historic condition safe-keeping
- optional all information of sensors-packet
   A
- optional all Information of sensors-packet

  B

PLC-control with extendable functions but without integrated display

30310904



# <u>Touchscreen-display for extended PLC-control</u> with LAN-connection

All time adjustments and functions of the machine can be started via the externally mounted toch-screen-display. This display also shows the operator the particular function as under EDV-code 34311903. In case of the optional available accessory sensors packet A respectively B those information are visible as well. The emergency stop button is according to conventional mechanical design.

#### Please note:

This touchscreen-display is ONLY available with the optional extendable PLC-control with LAN-connection!

touchscreen-display



# **BERGMANN**

# **Machines for Waste Management**

Von-Arenberg-Straße 7 49762 Lathen Tel. +49 5933 955-0 Fax. +49 5933 955-294 info@bergmann-online.com