





# BERGMANN ROTO-COMPACTOR PS 1400-E Typ 182

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#### 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 10m<sup>3</sup> make approx. 1,35m<sup>3</sup>=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!

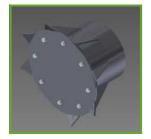


#### <u>Safety</u>

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.



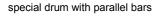


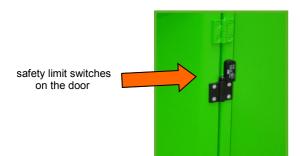


standard drum



special drum with steel cones







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 lowmaintenance 1,5 kW motor. Optional is a **3,0 kW drive motor**, **higher output speed** (35 rpm instead 20 rpm) and **massive compaction drum** possible. This option increase the compaction results and decrease the compaction time. 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 **advantage** 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		approx. dimensions	(without options)
Driving power		Width of the machine	1.200 mm
Compaction unit	1,5 kW / 1.400 U/min	Depth of the machine	
compaction and	optional 3,0 kW / 1.400 U/min	Height of the machine	
Lifting unit	1,1 kW / 1.400 U/min	Max. required space fo Width	r handling min. 1.330 mm
Rotation speed drum	,	Height	min. 2.580 mm
	optional 3,0 kW approx 35 U/min		
<u>Gear</u>			
Amount of gear oil		Electrical data	
Main gear unit	1,0 litre	Input voltage	400 V / 3 Phases / 50 Hz
	1,3 litre	Frequency	50 Hz
Angle		Control voltage	24 V
Gear oil	CLP acc. to DIN 51 517, part 3	Preliminary fuse on site	: 3 x 16 A
Viskosity	from 320 mm <sup>2</sup> /s at 40°C		
Temperature range	-10°C to +60°C	Further information	
, 0,		Movement	manually with spec. equipm

#### Hydraulic unit (Lifting)

Hydraulic oil	
HLP 46	5,0 litre
Hydraulic oil	HLP according DIN 51 524, part 2
Viskosity	from 56 mm <sup>2</sup> /s at 40°C
Temperature range	-10°C to +60°C

Input voltage	400 V / 3 Phases / 50 Hz <b>+N</b>
Frequency	50 Hz
Control voltage	24 V
Preliminary fuse on site	3 x 16 A

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.



EDV-code	Description	Scope of delivery
30310089	Gear with 3,0 kW motor Gear motor with 3,0 kW power, massive compac- tion drum and higher drum speed (approx. 35 rpm). For continuous operation for strong material like multilayer cardboards, extremly strong boxes, etc.! By consistent filling of the Roto-Compactor, using of water spray system (approx. 15-25 liter/bale) the compaction result could be approx. 400-450 kg (cardboard bale approx. 1300-1400 liter)	3,0 kW motor Electrical components Massive drum
30310320	<b>Chute</b> , 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	<u>PE-bag 90μm, 1400 litre</u>	

50000352		<b>PE-bag 90μm, 1400 litre</b> Transparent PE-bag with a capacity of 1400 litre and a thickness of 90μm. Available with 50 bags per one roll.	PE-bag
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30310869	Additional remote control	
	Additional remote control with 5m cable.	remote control



EDV-code	Description	Scope of delivery
30310242	Standard drum Compaction drum with special equipment for effec- tive compaction of paper, cardboard or residual waste. The drum crushes, tears up and compacts the thrown in material by a continuous rolling mo- vement. 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 com- pacts 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 com- paction of material like hard plastics, waste of prin- ting agency etc.!	Special drum

30310344	Special-drum cross web	
	Special drum for the compaction of Big-Bags, texti- le 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 com- paction results. The compaction drum is applicable for garbage in plastic bags, light package, Tetra Pak, cans, alumi- nium scap etc.!	Special drum



Description

30310349	Special drum with spikes	
	Compaction drum with spikes for effective compac- tion 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 scre- wed on the compaction drum. This special drum crushes, tears up and compacts the thrown in ma- terial by a continuous rolling movement. The com- paction 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 com- pacts 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

Scope of delivery



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	<b>Cover cap</b> Cover cap on the APS which is mounted as a rain shelter.	cover cap

30310356	<b>Full signal via flashing light</b> An optical sign that advises the operator of the 100% full signal. (picture shows flasing light mounted on the roof)	flashing light various electrical com- ponents
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mg/h.
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#### EDV-code

Description

Scope of delivery

30310365	Water sprinkler (via main connection)	
	Water sprinkler for the connection to the main wa- ter supply. The two lubrication spry valve are in- stalled 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	<u>Water sprinkler (via tank and pump)</u>	
RECEIPTION OF THE STATE	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



EDV-code	Description	Scope of delivery
30310900	Indication display on the machine for standard- PLCIndication 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 APrompts 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• 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



EDV-code	Description	Scope of delivery
30310903	Extended PLC-control with LAN-connection	
	<ul> <li>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:</li> <li>operating condition (off, standby, on)</li> <li>energy consumption</li> <li>times of the operating cycles (this is no longer possible on the machine)</li> <li>permanent indication of the filling level</li> <li>error safety chain</li> <li>historic condition safe-keeping</li> <li>optional all information of sensors-packet</li> </ul>	PLC-control with exten- dable functions but wit- hout integrated display



30310904

#### Touchscreen-display for extended PLC-control with LAN-connection

All time adjustments and functions of the machine can be started via the externally mounted tochscreen-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!



## **BERGMANN**

## **Machines for Waste Management**

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