

# Bollegraaf



*HBC 180 **Baler***



**Bollegraaf. Big in making recyclables small.**

# Maximum capacity, minimum costs



*The HBC 180 is a unique fully-automatic baler for applications that make tough demands on capacity and bale weight. Its 180 tons of compaction force and a high filling ratio make the HBC 180 baler extremely suitable for compacting bulky materials such as cardboard and magazines into large, compact and homogenous bales. Consistent production and reliability make the HBC 180 a sound link in the production process. This baler is the machine of choice for companies needing maximum processing capacity at minimum cost.*

#### Pre-press flap

The HBC 180 baler is equipped with a large, quarter-cylinder pre-press flap. The pre-press flap allows you to process twice as much material per cycle as with a shear baler. Compared with a shear baler, a Bollegraaf with a pre-press flap needs less power to achieve the same capacity. Its higher filling ratio also allows the top of the bales to be well pressed down, resulting in compact, rectangular bales. The pre-press flap means shearing the material to be processed is unnecessary, so shearing blades and wear strips are not needed, which also saves costly replacement of these parts. The pre-press flap cylinders are suspended in tension, which ensures that adequate hydraulic force for opening the pre-press flap is always available.

Needle head

#### Maximum speed at low energy consumption

The hydraulic unit produces high efficiency, partly due to the use of a manifold block. This block has larger holes, so there is less pressure loss, and therefore, more compaction force becomes available. The main ram cylinder is differentially extended as long as there is no need for the main compaction ram to provide any force. This produces a higher pre-press rate. When the main ram cylinder is returning, the increased diameter of the piston rod ensures that the returning speed of the ram cylinder is much higher than for a standard cylinder. If there is sufficient material supply, the pre-press flap is opened at the same time as the main ram cylinder is returned. All these provisions lead to maximum capacity at low motor power. That also means lower power consumption and much lower electricity bills compared with shear blade balers.

#### Low noise pump

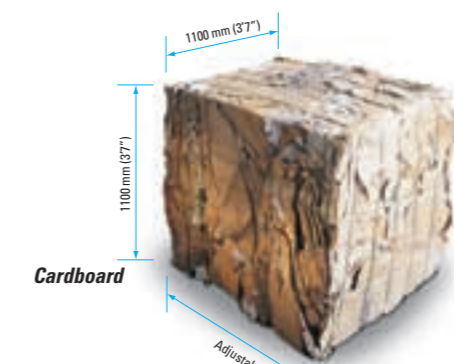
The internal gear pumps have a low noise level and lower power consumption, due to the higher volumetric efficiency of these pumps.

#### Patented needle heads

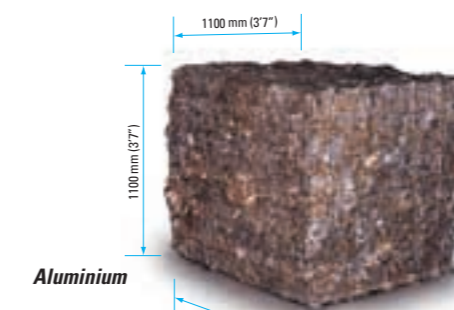
The HBC 180 baler is provided with reinforced RotoClean needle heads (one of Bollegraaf's patents). These needle heads are fitted to 50mm diameter needle rods and pull five vertical wires around the balers. The wire wheel in the needle head is mounted in such a way that contamination cannot occur, so production will never be interrupted to clean a needle head. This also contributes to lower maintenance costs and higher productivity. The HBC 180 baler can also be equipped with cross-wires as an additional option.



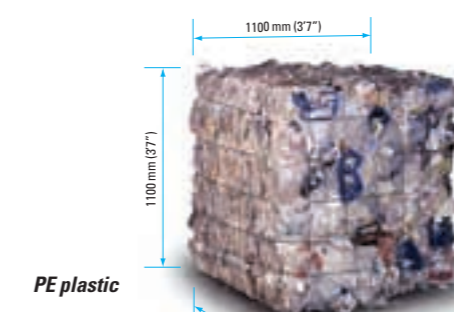
Newspapers and magazines



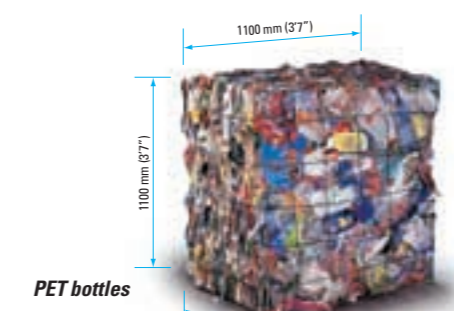
Cardboard



Aluminium



PE plastic



PET bottles

#### Twistomat

The innovative knotting unit of the HBC 180 baler ties the wires fast and efficiently around the bales. The hydraulically operated wire cutter cuts wire up to a thickness of 4 mm. The risk of wire breakage under the knot is reduced to a minimum because the twisting fingers are fitted to bent shafts. No maintenance is required thanks to the enclosed drive.

#### Long service life

The bale ram is equipped with large wheels with bearings underneath and on the sides. This results in minimum wear. It contributes to a long service life and also limits the maintenance costs.

#### Hydraulic cylinders

The special sealing rings of the hydraulic cylinders ensure a long service life. Both the ram and the flap cylinder are suspended with hinges so that radial loads cannot occur, which increases the service life.

#### Electronics

The HBC 180 baler is controlled by the most modern PLC technology. The AS-I bus cable system (one cable) connects all limit switches and valves to the PLC. The graphic control screen ensures optimal communication between man and machine. The PLC software is programmed so that process failures errors are solved automatically.

#### HBC 180 highlights:

- fully automatic baler with 180 tons compaction force
- maximum capacity in its class
- optimal, homogeneous, rectangular bales
- minimum compaction time
- low power consumption
- low maintenance costs
- long service life due to durable design and high-quality components
- reliable technology
- maximum efficiency
- various options



▲ We provide our hydraulic balers with an AS interface (AS-I bus) to ensure better control of our machines. This AS interface is used to read the data collected by the sensors during the production process.



▲ The PLC control system ensures a problem-free fully-automatic process.



▲ Tailor-made work of a high standard. The high-quality machines are designed by our specialists using an extensive network of CAD stations. The steel plate parts are flame cut by a CNC-controlled flame cutting machine. The combination of know-how and technological skills produces high standard tailor-made work.

# Options



## ◀ TurboPress (patent)

The TurboPress increases the capacity of the HBC 180 baler by compacting the material in the feed chute. In this way the available feed chute volume is put to optimal use, and capacity can increase by up to 300 percent. This allows you to have a faster and more efficient operation. The TurboPress certainly gives good service when processing low bulk weight materials such as shop cardboard, shredded materials.

*Motorpower: 2,2 kW*



## ◀ W'hopper

The standard feed opening to the HBC 180 baler can be widened from 1600 mm (5'3") to 2000 mm (6'7"). This is extremely practical when larger pieces of material are being processed, and the use of a shredder is then unnecessary.

*Motorpower: heavy 7,5 kW*

*very heavy 30 kW*



## ◀ Distributor (Ruffler)

The 'distributor' ensures a uniformly composed bale when material with a high bulk weight is fed, such as magazines, newspapers, computer paper. As soon as the material has fallen into the feed hopper, a rotating propeller ensures uniform distribution in the feed hopper. The distributor, therefore, ensures production of rectangular, uniformly composed and homogeneous bales.

*Motorpower: 11 kW*



## ▲ Cross-wires

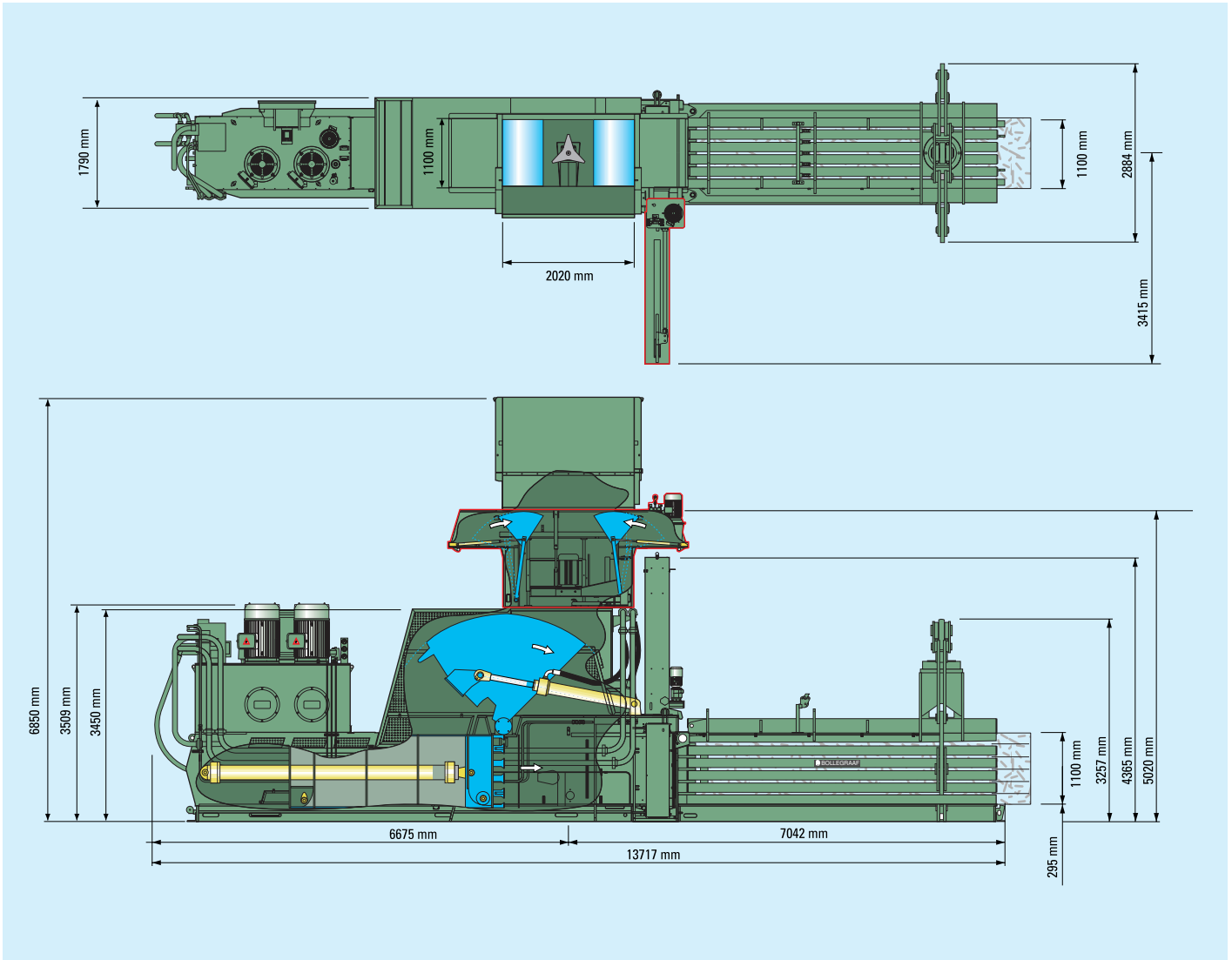
The HBC 180 baler can be equipped with an advanced cross-wire unit in which, as well as from the standard five vertical wires, five horizontal wires can also be pulled around the bales. This is important when materials, which are difficult to compress, are processed, such as coated and laminated types of paper and plastics. The HBC 180 produces perfect bales with cross-wires and material waste is kept to a minimum.

## ▼ B.I.O.S. & display

The HBC 180 baler can be equipped with the Bollegraaf Information & Operating System (B.I.O.S.). This allows specific preferred settings to be programmed. Moreover, the B.I.O.S. control display provides relevant information about the production process, such as power consumption, wire consumption, compaction force, compaction time and actual capacity per type of material. This data is recorded, as is the data relating to maintenance and failures.



# Technical specifications



\* — = Option

Technical specifications	HBC 180
Feed opening	1,600 x 1,100 mm (5'3" x 3'7")
Feed conveyor width	1,600 mm (5'3")
Pre-press flap force	90 tons
Compaction force	180 tons
Stroke volume/cycle	4.3 m <sup>3</sup>
Cycle with filling	16 s
Motor hydraulics	2 x 90 kW (2 x 125 HP)
Knotting system motor	2.2 kW
Baler weight	48 tons
Bale dimensions W x H	1,100 x 1,100 mm (3'7" x 3'7")
Bale length	adjustable
Bale weight	950-1,700 kg (2,090 - 3,740 lbs.)
Capacity at bulk weight of	
20 kg/m <sup>3</sup>	22.7 tons/hour
35 kg/m <sup>3</sup>	34.3 tons/hour
50 kg/m <sup>3</sup>	47.0 tons/hour
100 kg/m <sup>3</sup>	77.4 tons/hour
200 kg/m <sup>3</sup>	117 tons/hour
Capacity when using the distributor approx.	50 tons/hour

Subject to alterations

\* This brochure is offered to you by:



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