

# TECHNICAL SHEET



# HBC - Baling solutions by Bollegraaf

With over 60 years of experience, knowledge, and expertise, Bollegraaf balers are worldwide known to set the standard in recyclables baling technology. Utilizing unique design features, the highest quality materials available in the marketplace, and world-class manufacturing, Bollegraaf produces balers that set the benchmark in reliability and performance. The extensive range of balers includes the perfect

match for the material and volume of recyclables handled by your company. Coupled with the wide variety of baler addon options to further customize your baler to surpass your requirements. Every Bollegraaf baler is designed, developed, manufactured, and tested in our state-of-the-art manufacturing facility in the Netherlands. We ensure that every Bollegraaf baler is capable of processing the largest quantities of materials with the greatest bale density achievable, whilst using a minimal amount of energy to offer you the lowest possible operational costs.



**CREATING A WORLD OF DIFFERENCE** 

# **FUNCTIONAL DESCRIPTION**

HBC Balers consist of the following outstanding characteristics: high-tech hydraulic unit, unique pre-press flap, mainpress, advanced tying system, smart operating system, hydraulic power pack, and extra wide feed hopper.

## **HIGH-TECH HYDRAULIC UNIT**

- Compact system layout Single manifold block with minimal hydraulic pipes and hoses.
  - Reduces loss of pressure within the system, resulting in heavier and homogeneous bales.
  - Reduces oil temperature and chances of oil leakage.
  - Increases oil lifespan.
  - Smaller tank lower amount of oil required.
- Smooth-running hydraulics. The absence of pressure peaks results in the smooth running of the baler.
  - Reduces wear and tear on key areas of the baler.
  - Less machine noise with the help of "Silent pumps" - Internal gear pumps submerged inside the oil tank cause little noise.
- Energy-efficient oil cooling unit. The advanced hydraulic layout and control system reduces oil temperature, requiring a smaller cooling system than equal force balers.
- Highest quality cylinders. Special manufacturing for the machines' purpose and fitted with spherical bearings help extend the cylinders' lifespan.

## **UNIQUE PRE-PRESS FLAP**

- Optimizes baling capacity. 30-40% more capacity compared to a shear baler for equal force. The pre-press flap processes more material per cycle, and produces more compact, heavier and more homogeneous bales, which are easier to stack.
- Saves energy and time. Return oil flow which opens the pre-press flap, supports the return cycle of the ram cylinder, saving energy and production time.
- Reduces wear. The pre-press flap spreads pressure equally over the material, reducing internal wear and tear and lowering operational costs.
- The absence of shear knives leads to lower operational costs.
- More versatile. A baler with a pre-press flap is capable of processing more types of material.

#### MAINPRESS

- Strong proven design minimal wear parts. Floor and side specially designed steel wheels with highcapacity sealed bearings, ensure the ram is kept in the best working position, reducing wear and tear and loss of compaction force.
- Fast-acting The fast return cycle of the cylinder increases the throughput of the material.

# **ADVANCED TYING SYSTEM**

- Single needle system (5x1) with patented "Rotoclean" (self-cleaning) needle heads - easily accessible, minimal components. Is highly reliable requiring only minimal service.
- Unique twist finger designed to have optimum efficiency and make shorter, stronger twists. Reducing wire consumption per bale saves up to 30% on wire costs.
- Horizontal wiring is also possible (5x5 and 5x3).

## **SMART OPERATING SYSTEM**

- Full process control. Total central control over all stages in the baling process.
- Storage and feedback of process data. Memory function for performance optimization (wireless remote data transfer is available).
- Quick preset menus. Quick and easy switching between 10 pre-installed baling settings. For optimum baling without the need for a dedicated baler operator, Saving production time and increasing efficiency.
- Touch screen control. Easy operation, simple layout icon-based menus with Bollegraaf's Information and Operation System (BIOS).
- Real-time baler data Precise data feedback of system pressures, operation movements, and performance allows fine-tuning of baler settings.

# HYDRAULIC POWER PACK - PUMP MOTOR IN-VERTER TECHNOLOGY

- ∞ Lowers power consumption.
- ∞ Greatly improves the lifespan of hydraulic oil.
- ∞ Reduces wear on hydraulic pumps and drive motors.
- Removes spikes in the hydraulic system, giving a smoother baling cycle reducing wear and tear on key components.
- ∞ Reduces noise levels.

## **EXTRA WIDE FEED HOPPER**

- Meant to deal with the in-flow of larger pieces of waste that are carried in on a wide conveyor belt (2000 mm).
- The extra wide feed hopper is mounted on the filling opening of the baler.





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# TOP FEATURES OF BOLLEGRAAF BALERS THAT WILL HELP TO IMPROVE YOUR BUSINESS



THE ADVANTAGES

#### ∞ Optimized Total Cost of Ownership

When developing our HBC balers, one of our priorities is to focus on optimizing your total cost of ownership (TCO). The use of high-quality materials and clever construction leads to a high level of efficiency in maintenance. Which helps you to lower your TCO.

#### ∞ Higher bale density

Space is valuable to our customers and we know that. Our HBC balers produce compact, heavier, and homogeneous bales, which allows the optimization of warehousing and logistics of your valuable baled materials.

#### ∞ Reduced production time

The design of the HBC balers was created to reduce the production time of your bales. The smart operating system with quick preset menus and the fast return cycle of the ram cylinder are just two examples of how your production time is as short as possible with HBC balers.

#### ∞ Low energy usage

In the process industry minimizing energy consumption is key, not only for managing your OPEX, but also for sustainability purposes. HBC balers make sure you do not unnecessarily waste energy. For instance, by their default standby mode, which can save you up to 30% on energy.

#### ∞ High versatility

You do not want a different baler for every single type of waste material. The HBC balers come with a pre-press flap that is capable of processing many more types of material. You can get one baler for all your baling needs.

#### ∞ Easy operation

HBC balers have a smart operating system, which gives you easy control over all the stages in the baling process. The quick preset menus and the touchscreen control are there to make the life of your operator easier.



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Туре	Bale width (A)	Bale height (B)	Filling di- mensions	Baling force (Ram)	Force pre- press flap	Specific bale pres- sure	Working pressure	Weight	Length (C)	Width (D) <sup>(2)</sup>	Height (E) <sup>(3)</sup>	Motor power	Capacity 30kg/m <sup>3</sup> 6 strokes / bale <sup>(4)</sup>	Capacity 50kg/m <sup>3</sup> 5 strokes / bale <sup>(4)</sup>	Capacity 100kg/m <sup>3</sup> 3 strokes / bale <sup>(4)</sup>
	mm	mm	mm	metric T	Т	kg/cm²	bar	Т	mm	mm	mm	kW	T/h	T/h	T/h
HBC40	1100	720	1100x1250	39	17	4,9	250	16	8300	2000	2455	18.5	6	10	17
НВС60	1100	720	1100x1315	65	27	8,2	250	23	9600	2150	2695	30 45	9 12	14 20	25 34
HBC80	1100	720	1100x1485	80	42	10,1	250	25	10750	2300	2920	30 45	9 14	15 22	26 40
НВС100	1100	720	1100x1600	97	52	12,2	250	34	12000	2700	3020	45 75	10 16	17 25	30 46
HBC100S <sup>(1)</sup>	1100	1100	1100x1600	97	52	8,0	250	38	12000	2700	3400	45 75	15 24	21 33	38 53
HBC120	1100	720	1100x1600	122	52	15,4	315	35	12000	2700	3020	90	16	25	46
HBC120S <sup>(1)</sup>	1100	1100	1100x1600	122	52	10,1	315	39	12000	2700	3400	90	25	33	53
HBC200S <sup>(1)</sup>	1100	1100	1100x1600	198	70	16,3	315	53	13585	2900	3450	2 x 90	31	47	82

# Additions to the portfolio since 2023

High-performance shear baler:

НВК60	1100	720	1100x1400	65	NA	8,2	250	20	9500	4544 <sup>(5)</sup>	3005	30	6	9	15
Brand-new upgraded design <sup>(6)</sup> for high-performance and ease-of-maintenance HBC balers:															

**HBC135** 1100 720 1100×1600 136 52 17.1 350 35 12000 2700 3020

HBC160S	1100	1100	1100x1600	163	70	13,0	250	49	13260	2900	3450	2 x 75	31	47	82
HBC135S	1100	1100	1100x1600	136	52	11,2	350	39	12000	2700	3400	90	25	33	53
HBC135	1100	720	1100x1600	136	52	17,1	350	35	12000	2700	3020	90	16	25	46

All balers are standard equipped with cylinders from Hunger.

(1) These S (Square) variants are also available in M (Mille): Bale size 1100x1000 mm.

(2) Excluding optional horizontal needle installation.

- (3) Height of the feed shaft. Measured without supports (standard: 390 mm) and without funnel (standard: 1570 mm for HBC80+).
- (4) Capacity based on optimal feeding and may vary by material type. Capacity calculated on vertical steel wire tying. To verify capacities for your specific materials, please contact Bollegraaf.
- (5) HBK balers only have a horizontal needle installation.
- (6) The new HBC135 and HBC160 include the following new features:
- Full **bolted** hardox in the bale chamber for easy replacement.
- Extra large maintenance doors on both sides of the bale chamber.
- Large polyester safety cage with vertically opening maintenance doors.
- Adaptive Proportional Channel Pressure System APCP 2.0.

Each baler can be sold in eco-friendly version (includes VFD on main motor, etc.).