



*Mr Quick – Krone's Big Pack 1270 XC produced record throughputs on test, topping out with 58t/hr at 164kg/m<sup>3</sup> bale density.*

Krone Big Pack 1270 XC HighSpeed big baler:

## Speedy by name, speedy by nature

We took a first look at Krone's 1270 XC HighSpeed baler last year (profi 2/12), liking its claimed output. Later in the summer we put a pre-production example through a full test: it's one rapid machine

**T**he Big Pack 1270 sits in the middle of Krone's UK range. All the company's big square balers now feature the HighSpeed system, which sees packer volume increased by 18% and plunger rate upped from 38 strokes/min to 45 strokes/min. On top of that, XC variants carry X-Cut rotor and knives – a direct-driven, 550mm diameter rotor with 20mm wide tines that feeds crop to a split bank of knives.

Before detailing output here's the low-down on the baler itself, starting with attachment to the tractor. This comes via an 80mm ball hitch, which makes the ride more comfortable and the operator's life simple: to hitch up you just connect the pto, the load-sensing connectors and a single-acting service for the pick-up. The sturdy-looking hydraulic stand has to be lifted via the cab display, but that's no hardship – just don't



*The new Active pick-up gains a powered feed roller above and behind the existing crop guide. It's part of the high-output chain.*

forget to do it. A slim drawbar helps the outfit make tight turns, although wide tyres can connect with the drawbar's step when heading sharp left.

The test baler carried Krone's Active pick-up. Introduced a while after our initial driving impression, this adds a powered feed

roller behind and above the existing roller guide; these sit above the camless pick-up and its five rows of cranked tines. Tine-to-tine width measures 2.15m. In work the Active pick-up managed a nearly-perfect sweep of even the largest straw swaths – and we mean 'nearly perfect'.

Next come the MaxFlow rotor with its four spirals of Hardox-faced tines (rather than the usual three) and, beyond it, the XC cutter. This uses 26 knives to deliver a nominal 45mm cut length, selectable in sets of 26, 13, 13 and 0. Knife changes are easy – the tray is lowered from a button, then sub-sections, each holding 13 knives, are pulled out to both left and right. If you want crop chop lengths down to 21mm, Krone offers its own pre-chop unit.



*The knife drawer lowers via buttons (arrow). One half then pulls out to the nearside, the other to the offside. The big housing (right) covers the driveline protection clutch for the VFS packer.*



*The six double knotters worked reliably but could do with more cleaning airflow in some circumstances. A MultiBale option lets the machine produce up to nine small bales tied into a full-sized pack.*



*The needles are fairly easy to reach thanks to fold-up twine boxes. LED strip lighting is a big help in the event of a problem at night.*

Both the packer and plunger run at a rapid 45 strokes/min, with the option of reducing pto speed to give a potentially fuel-saving 38 strokes/min where crop is light. The VFS packer section has four rakes and one feeder, controlled by cam tracks, plus a retainer to keep crop in the pre-chamber. When the pre-chamber is full, the retainer is moved mechanically rearwards, the feeder rake engages and the crop is swept into the bale chamber. We found the arrangement managed to combine high throughput with high

bale density. Protection comes from overload clutches in the rotor and feed drive-lines which, by re-engaging automatically after the operator stops and lowers pto rpm, give the confidence to really push the baler hard.

**There's the choice of single or double knotters.** The test baler came with six double knotters and the MultiBale option: this lets the operator lump up to nine individually wrapped small bales in one 2.7m long pack,

## ASSESSMENT

### How we rate the Big Pack 1270 XC

#### Design/operation

Attachment	+
Pick-up	++
Stand	+
Rotor	++
Cutter	++
Twine storage	+
Display	++
Driveline protection	++
Bale length adjustment	++
Baling pressure adjustment	++

#### Field work

Pick-up performance	++
Bale density	+
Output	++
Knotters	+
Monitoring operation	+
Maintaining set bale length	+
Power requirement	+

#### General

Axles	+
Build quality	+
Knife changes	++
Maintenance	+
Operator's manual	+

Ratings: ++ = very good; + = good; ○ = average; □ = below average; ■ = poor

or make one bale up to 2.7m long. Small bale length is adjustable between 300mm and 1.35m and each is secured with two twines, while the overall package has six strings. The idea is to let a farmer or contractor use big equipment to handle and transport big packages, which are then split for hand-handling by the buyer. 'MultiBaling' is achieved by using two needle sets, one of two and one of four, activated alone or together. The knotters gave little trouble over 5,000+ bales. Early on, the upper and lower twine alarms were set off by a problem with friction brakes in the twine boxes, although that was soon sorted out by Krone. Elsewhere the pneumatic cleaners failed when a valve broke; and while knotter cleaning performance was generally good, we think more airflow would be better in brittle crops. Twine capacity is 32 balls in two lots of 16, with the option of two extra boxes with six balls in each. That's plenty. Thoughtfully, Krone has provided LED strip lights in the main boxes, plus others around the needles and knotters. Not so handy is the way the



*Twine boxes holding 16 balls each are on either side. Optional extra boxes boost total capacity to 44.*



*The bale ejector and fold-up chute are button-operated from alongside. Four load cells (arrow) assess bale weight, returning an impressive  $\pm 2\%$  accuracy on test.*

baler's big side panels shower the operator with itchy dust on opening – a redesign here would be very welcome.

Bale length is tracked by star wheel and reported on the cab display. Here the user can alter overall bale length, or adjust it if reality doesn't agree with the preset value.

The rear of the bale chute has a sensor and an optional camera that signals every bale made to the cab controller – useful in corners. Also optional are sensors towards the rear of the chamber which keep tabs on bale moisture content; while their readings didn't often agree with those measured by probe,

they are useful in tracking trends in moisture and so deciding when to call it a day. Once that decision is made the bale ejector comes into play. This is needed because the long rear chute (which hosts the bale weighing system) is a one-piece item. The ejector depressurises the chamber rams, and there is a sensor to warn the operator if the chute isn't lowered before work restarts.

**The jewel in the crown has to be Krone's optional iCan documentation system.** Field info – including location – can be sent to it from the office, and guidance then takes the operator to the location. In operation, data is logged for every bale: the time taken to make it, its moisture content, its weight and its exact location in the field. All this is carried in a tiny chip inserted automatically in the bale (profi 2/12) so the farm or customer can see exactly what's where on a PC. Two in-cab displays are offered – the non-ISObus Delta and the ISObus-compatible CCI. The test Big Pack came with the latter, and there was little it didn't have. The built-in automatic bale density control worked well, while individual counters tally bale numbers in different conditions, like in chopped or unchopped straw; total bale length, total and average weights and job timings are also shown. Our only suggestion is to be able to name each counter. Also switchable from here are optional LED light strips for the pick-up and bale chamber. The bale weights shown on-screen were often checked in the field, and on flat land we found the discrepancy to be no more than around 2% – good going.

Colaert supplies the axle set. This can be single or double, with the latter featuring passive caster steer whose status is shown on-screen. Approved for 60km/hr travel,



*Krone's optional iCan pinpoints every bale, field by field, and carries its details. A farmer and/or customer can then see everything on the office PC.*



*The optional CCI touch screen shows the weight and moisture content of every bale, holds rolling totals and does much more besides. Cost of this display is £2,450.*

## VITAL STATISTICS

### Krone Big Pack 1270 XC HighSpeed

#### Pick-up

Tine-to-tine width	2.15m
Tine rows	Five
Tine number/row	40
Tine length	95mm
Tyres	6 x 6.50-8

#### Cutter

Rotor width	1.16m
Knives/chop length	26/45mm

#### Running gear

Axles	Sprung, caster steered
Tyres	620/40 R22.5

#### Size, weights

Machine l/w/h	7.90/3.00/2.88m
Hitch load	1.79t
Gross weight	10.65t

#### List prices

Base spec, before VAT	£118,395
As tested	£144,375

the axles are normally shod with chunky 620/40 R22.5 tyres.

Last (but far from least) we come to the 1270 XC HighSpeed's output. Does it deliver the 20% increase in throughput claimed by Krone over its predecessor? Up against a conventional Big Pack 1270 VFS in the same field of narrow, uneven crop swaths, the first set of measurements produced 35t/hr excluding headland turns. Not bad, but still not the required 46t/hr. The second test happened in perfect conditions – fat swaths of 10%-12% moisture wheat straw – and saw a 2.4m bale pushed out every 20sec. With bale weight averaging 330kg (a density of 164kg/m<sup>3</sup>), that calculates out to a 58t/hr maximum, excluding turns – a new record, confirming the baler's high-output tag and comfortably bettering Krone's own claim. Naturally figures like that won't be returned every day of the season, but they do show what's possible.

**Summary:** Krone's Big Pack 1270 XC High-Speed baler really does live up to its name. Producing an output on test in wheat straw of up to 58t/hr (excluding headland turn time), it breaks existing records. The baler's throughput and high package densities flow directly from the Active pick-up, bigger pre-chamber volume and the higher stroke rate of the packer and plunger.

Operation and reliability on test were largely fine. Criticisms are relatively few: the dust-harboring side panels, the marginal knottier cleaning airflow with brittle straw, the inability to name bale counters. As usual, such excellence comes at a price: in this case £144,375 for a top-spec model with bale-weighing facility.

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