



OPTIMA SX

HIGH SPEED PRECISION ROW

WHEN FARMING MEANS BUSINESS

Realising the full potential of farming is about growing and developing your business, not only your crop or livestock, but also your profit. Improve productivity and profitability by focusing on the positives and minimising disadvantageous aspects, through strong, dedicated management.

Success springs from determination and clear targets, from laying down the appropriate strategy and allocating correct investments for the future. Quality results require the right ideas and equipment. When there is work to be done, you need the optimal setup and smart solutions that support you towards an easier, more profitable way of working. You need solutions that make tough and demanding conditions less complicated.





Effective sowing means catching the appropriate moment when the soil is exactly right, in order to give your crop a head start. Kverneland offers perfect seeding equipment, with optimum seed distribution, for a vast variety of crops.



Limited Edition
2018

SPEED

PRECISION

INTELLIGENCE

VERSATILITY

PRECISION AT HIGH SPEED

50% HIGHER PERFORMANCE

Speed

Time is important to benefit from the optimum sowing conditions. Only a few days are perfect. Therefore, high performance is important. The Optima SX is the seeding row to precisely deposit seed by seed at high speeds.

Versatility

You want a precision drill that is versatile, ready for various crops, with smaller or bigger seeds, to sow shallow or deep. Ready to adjust to the various ways of tillage, standard or mulch seeding in different types of soils.

Intelligence

You invest in the best equipment that is reliable. Seed placement should be perfect both in the row and over the entire field. With the Optima SX you have everything under control using ISOBUS technology. You save seeds and time.

Precision

Seed is expensive and every seed counts. Only with an optimum number of plants the following working steps achieve the maximum effect. Precision application within the row and working depth provide the basis for the highest yields.

*Optima SX high speed sowing
row for high yields.*

HIGH SPEED SOWING UNIT

UP TO 18KM/H FOR UTMOST EFFICIENCY

The Optima SX high speed sowing unit ensures maximised performance and efficiency. With accurate seed singulation, precise seed placement and higher working speeds of up to 18km/h, the Optima TFprofi seeder is up to 50% more efficient than the standard HD-II row. The sowing row can be combined with the Optima TFprofi and the multi-flexible, telescopic Optima V frames. All components are ready for high speeds.

- **Optimum depth control** due to the heavy basic weight of the sowing unit with the possibility to add additional pressure (up to 100kg) onto each individual sowing unit via spring-loaded system.
- **Effective ground contour following** due to the large depth control by open gauge wheels (Ø410mm, with 120mm)
- **Precise seed placement** by the small coulter which forms a clean furrow. Good placement, and seed covering is done by the smooth flexible intermediate press wheel and multi-adjustable V-press wheel.

1

All basic components of the row (cast-iron single-arm, parallelogram, double disc coulter, open gauge wheels, trash wheels, V-press wheels etc.) are taken from the well-known HD-II seeding row.

2

60 litre seed hopper capacity.

3

High speed seed tube.

4

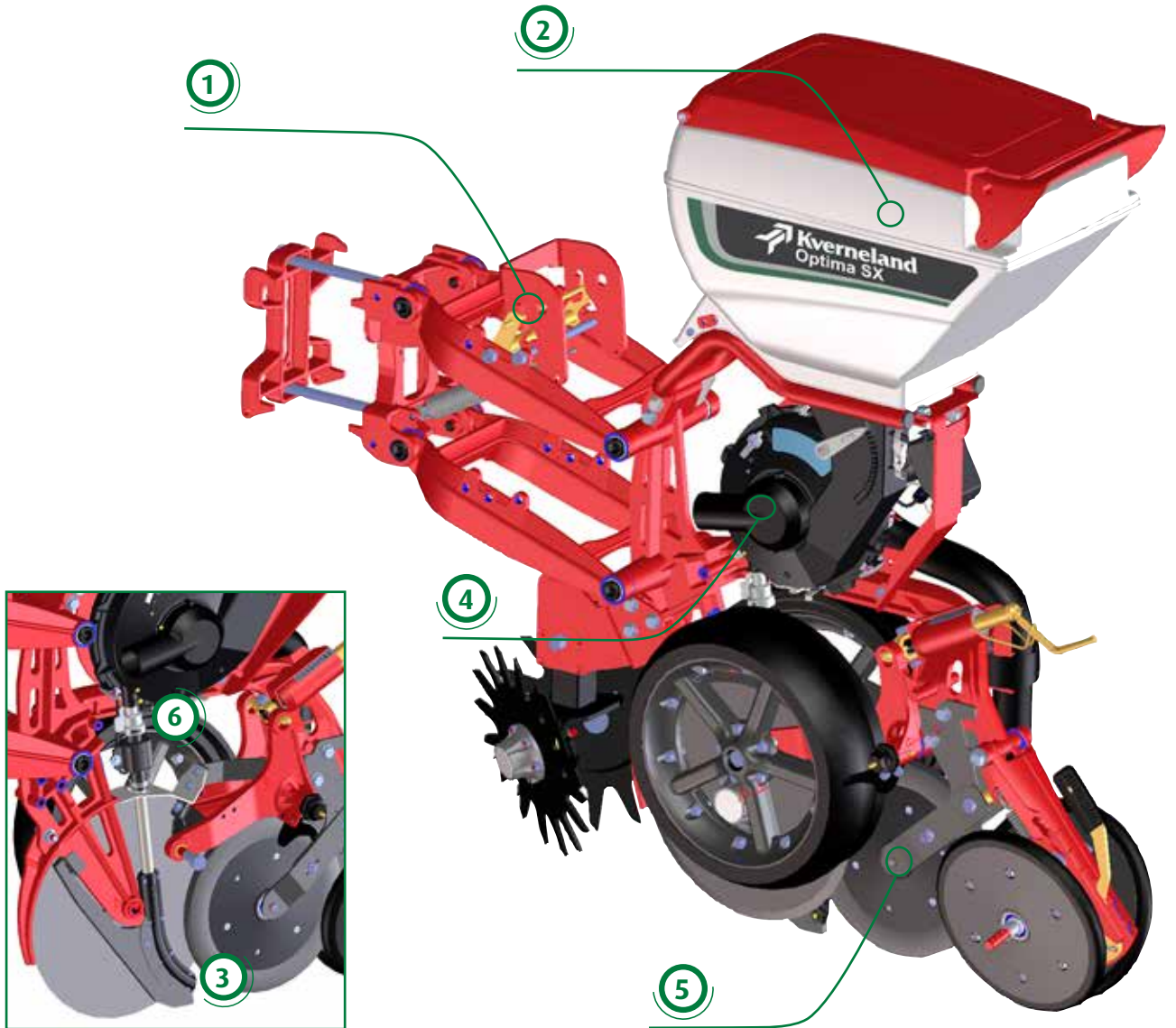
Pressurised Optima SX seeding heart. Without seals - no friction, no wear. Integrated engine with GEOSEED® function.

5

Smooth flexible intermediate press wheel for good seed placement and recompaction.

6

Infrared monitoring of singulation quality.

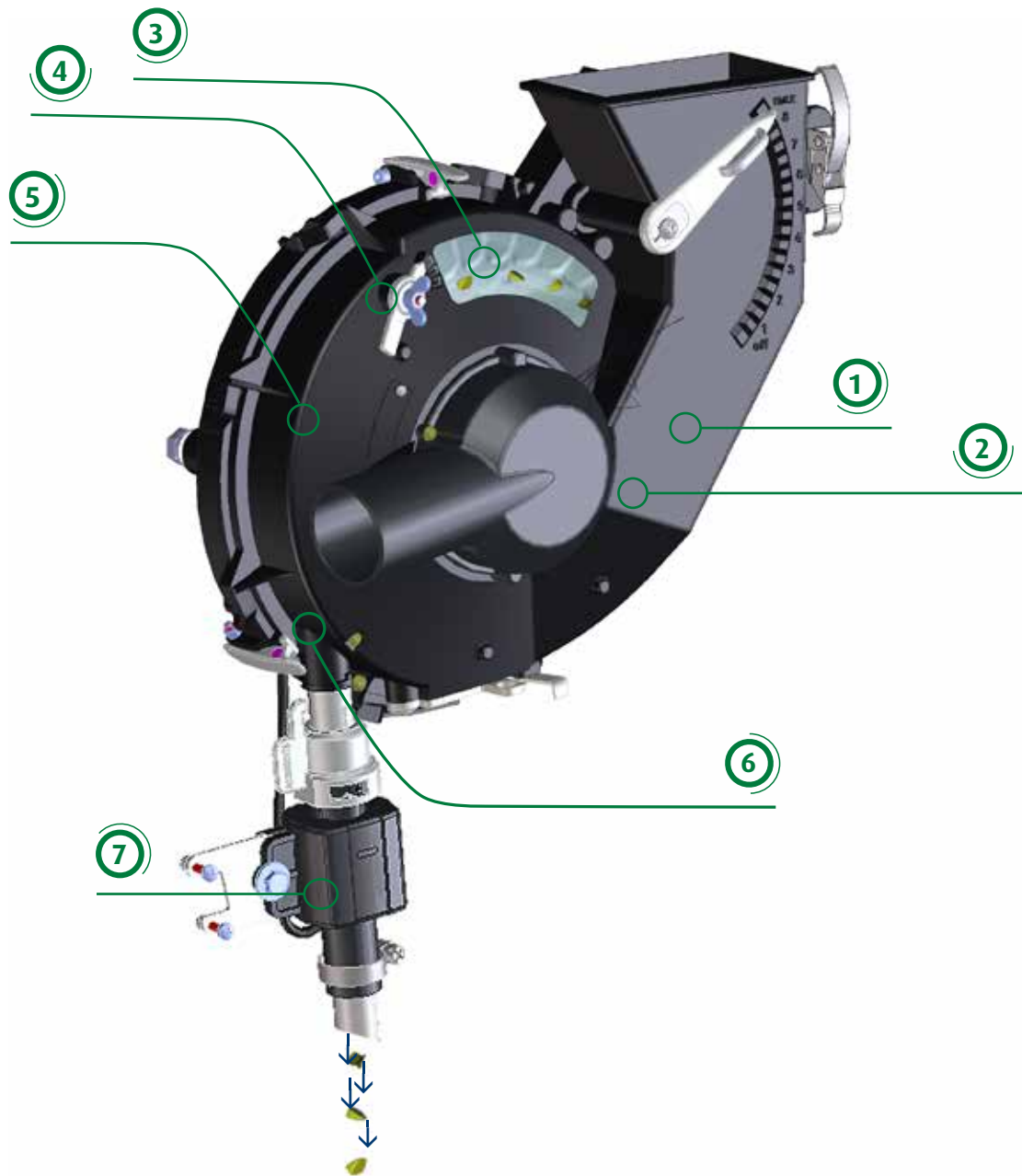


THE SEEDING HEART

PRECISION AT HIGH SPEED

With the pressurised seeding heart the seeds are “shot” by an airstream of up to 70kph into the furrow. A smooth, flexible intermediate press wheel catches and protects the delicate seeds. Any negative impact such as vibration on the way between release point and soil contact is eliminated due to the high air stream. The seeds reach their perfect position in the soil. Each sowing row is electrically powered by ISOBUS connection. An additional generator or other power sources are not required. The complete power supply and control is via ISOBUS.

- 1 By using **air pressure**, the seeds are pressed out of the stock and taken directly to the seed disc. Whilst turning the seed disc, the seeds are allocated to each of the holes.
- 2 The **filling height limiter** regulates the stream of the seeds, especially of small seeds.
- 3 The adjustable **upper toothed scraper** singulates the seeds to every hole.
- 4 The adjustable, **lower scraper** prevents doubles of bigger seeds.
- 5 The **seed disc** rotates to the point of release. The seed disc is directly fixed to the turning back - closed only by a bearing. The seeding heart is without sealing for minimised friction, wear and power requirement.
- 6 At the point of release, the seed drops down, controlled by the seed disc into the **seed tube** supported by the high air stream.
- 7 An **infrared photo sensor** monitors the perfect allocation of the seed disc. Defects or doubles as well as low level alerts of the seed hopper and seed counter are reported to the terminal.



GEOCONTROL AND GEOSEED®

PRECISE SEED PLACEMENT



GEOCONTROL - The more precisely and evenly a seed is sown, the easier it is to work and harvest, and the greater the possible yield. Each electric driven seeding element, in combination with GPS and **GEOCONTROL**(option), is automatically switched on or off at exactly the right place, ensuring that there is no overlap with any row that has already been sown. This is especially handy in triangular fields, on curved or irregular shaped headlands. You can also continue seeding at night.



GEOSEED® - Patented 2-D seed placement. Seeds are placed perfectly in line and in relation to each other.

GEOSEED® Level 1 is the synchronisation within the working width. This improves the distribution of seeds up to perfection in parallel or diamond pattern: Positive effects are the best use of nutrients, water and sun. Also wind and water erosion are decreased.

GEOSEED® Level 2 is the synchronisation over the whole field. This is the necessary requirement for interrow cultivation, also across the seeding direction. **GEOSEED®** is the only system in the world that makes this mechanical weed control possible!

TECHNICAL DATA

Optima SX Seeding row	SX
Hopper capacity (Liter)	60
Parallelogram adjustable up to 100kg weight transfer*	●
Clod deflector	○
Trash wheel	○
V-press wheel 25mm	●
V-press wheel 50mm	○
Open gauge wheel	●
Electronic drive e-drive II	●
Mechanical lifting device	○
Rape kit	○
Max. driving (km/h)	18
Min. row width (cm)	40
Weight (kg)	129

* Optional hydr. up to 125kg

- Standard
- Option
- Not available

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