TUME

Gemini 6000

Clear and simple sowing method gives the best economical result

Tume proudly presents a new sowing technology which ensures the safest result following the best farming technology.

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Traditional sowing with a new way of action!

Tume has already over ten years experience of wide working width seed only and combined seed and fertiliser drills. As example of wide drill models of those days was Tume Maximaster of 8 m working width.

Already then Tume was ahead of its time. In the combined seed and fertilizer versions also the granulated fertiliser was by air assistance distributed and placed besides the seeds. This by Tume developed seed and fertilizer technology was then widely used in seed and fertilizer drills of several drill manufacturers.

Tume was not completely satisfied to the air assisted sowing technology. Air assisting was only necessarily needed to transport the seeds and fertiliser to the foldable outer sections of large working width drills and keep the transport width within the legal three meters. However: **Air assisting brings no add value or real benefits to sowing or fertilising itself – vice versa:**

- air condenses water, specially transporting and distributing fertilizer is very challenging
- for bigger working widths air flow dividers are needed > less accuracy in metering
- air assisting requires complicated and expensive technical solutions
  - PTO drive or constant hydraulic power from tractor
- more complicated and difficult to operate – requires the operator a lot of learning and concen tration
- wearing and blocking air hoses, too many parts and components unnecessary for the seed to germinate and grow
- air blow is removing fine soil away around the placed seeds causing uneven germinating
  - stabile germinating conditions are disturbed
  - air blow from the coulter seed tube causes un even sowing depth of "jumping seeds"
- delays in seed and fertilizer flows in headland and corner turns cause over and under lapping
- in practice the tractor engine must be operated with full revs to maintain enough air flow to prevent blockages. This causes extra fuel consumption
- pneumatic drills are mainly high and their hoppers are difficult to fill up
- air – assisted drills are noisy

Tume Gemini provides a new revolutionary concept of drilling!

Tume Gemini is a new seed and fertiliser drill with six meter working width. Being fully mechanical and still only of three meter transport width makes it completely different from other drill concepts. Gemini is simple and easy to use and control. Therefore it is also very reliable.

Gemini utilizes well proven sowing technology of Nova Combi, winner of many crop contests in row:

- rapeseed (spring variety) sowing test in Loimaa, Finland 2009, organised by farm machinery magazine Koneviesti (report in Koneviesti 16/2009, p. 100).
- rapeseed (winter variety) sowing test in Sweden, organised by Hushållningssälskapet I Västmanland Target to get 30 plants/sqm. Tume was the best by 32 plants/sqm.
- malt barley growing contest in Sweden 2009–2010, organised by Lantmannen magazine, a real landslide victory for Tume (report in Lantmannen October 2010, page 58).

Tume has earlier used the peg wheel type feeding chambers requiering adjustment of rotation speed in the transmission for altering the application rate. Nowadays Tume uses in almost all of its drills the accurate and reliable feeding system based on fluted rollers. Many test winnings and results ensure this to be the best choice. Both options are available but the fluted rollers are recommended by Tume.

Gemini provides very large hoppers

The wall between seed and fertilizer hoppers is adjustable. The total volume of both hoppers is amply 6500 liters. The hoppers are also very easy to fill up thanks to low fill up height and the possibility to get the lifter very close to the hopper openings. There is no need for new fill up tools or technology. Most farms have an existing solution to fill up the Tume Gemini hoppers easily and economically.

Operating costs and total economy to taken notice

The power requirement of Tume Gemini is low, 200 hp is enough for sure. Most competitors with 6 m working width, seed and fertilizer, require 350 hp. To be able to use smaller tractors and still reach equal performance provides several important benefits. Savings are achieved in capital and operating costs, especially through decreasing fuel consumption. In the following example, noticing only the costs of purchasing price and fuel consumption caused by the difference of tractor power requirement, at the level of 500 working hours per year Tume Gemini provides savings of 22 €/hour. In practice the difference would be even bigger when some indirect tractor size related costs like financing, insurance and service would be taken notice. Also the negative impact of soil compaction is less thanks to lower weight of the drill and tractor. The lower power requirement also speaks for the soil protecting nature of the Tume Gemini drilling technology.

TRACTOR POWER	***Gemini: 200 HP/147 KW***	*Many compatitors: 350 HP/ 257 KW*
Tractor purcahasing price	**75 000 €**	125 000 €
Total time of use	**15 years**	15 years
Value decrease	**5000 €/year**	8333 €/year
Capital cost per hour, 500h/year	**10 €/hour**	16 €/hour
Fuel consumption, 200 g/kWh	**30 liters/hour**	50 liters/hour
Fuel price ca. 0, 80 €/kg	**24 €/hour**	40 €/hour
Cost total:	**34 €/hour**	56 €/hour

Savings at minimum 22 €/hour!

TECHNICAL DETAILS Gemini 6000

• **Hopper capacity**	6500 l
• **Working width**	6000 mm
Weight with standard equipment without load	10350 kg
Double disc coulters – pressure weight, adjustment of compression during driving	48 pcs, Ø 360/400 mm 40–200 kg
Working depth adjustment wheels – tyre size	24 pcs 18,5 x 8,50–8 AW
Fertilizer/seed feeder – Bottom flaps – Feeder usage	fluted rollers, 100 positions adjustable, equipped with springs ground wheel at the side
Packer wheels – tyre size	24 pcs, in groups of two wheels, adjustable structure 7,50–20 AS

We reserve the right for alterations.

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