Avant
Avant: compact – high capacity – fast

For contractors and larger farms in working widths of 4, 5 and 6 m.

High acreage output and first class sowing quality – with these superb features the foldable AVANT sowing combinations prove their ability above all in every practical farming operation. With large working widths of 4, 5 or 6 m the professional can profit from the modular build system. The wrap around system, with the seed hopper mounted at the front and the rotary cultivator, roller and sowing coulters at the rear of the tractor ensures the achievement of high outputs even in the smallest of fields. Quick change times between individual fields further increases the profitability.

Quick and simple changing from field to field:
Fold up hydraulically, drive to the next field, unfold and start work!

Sowing after the plough or mulch sowing!

No problem, as the AVANT sowing combination unrestrictedly allows for both. The PTO driven rotary cultivator does not cultivate the soil passively but actively and in this way optimally prepares a seed bed independent of forward speed. The intensity of soil tillage is quite simply adjusted via the operating speed and all folding rotary cultivators are equipped, as standard, with a three gear shift gearbox. By increasing and decreasing the forward speed the intensity of tilth creation can be controlled to match the soil conditions. Efficiency is the magic word for large farms and in farm overlapping situations. So, the AVANT sowing combination ensures an optimised cultivation even in unfavourable weather conditions. The rotary cultivator works the soil independent of forward speed allowing an almost wheel slip free operation and no additional ground pressure that will affect soil structure.
Quick mounting – short set-up times

Within a few minutes the front tank and the rear combination are mounted on to the tractor. The seed tubes are fitted down the side of the tractor with the aid of brackets that remain there even when the Avant has been dismounted. When the tractor is used for other operations the fitted side delivery seed tubes do not affect the function of the tractor. By means of quick-fit locking devices the seed tubes from the front tank and the rear combination are easily reconnected. The front tank is coupled on to the front linkage and the hydraulic couplings are plugged in to the tractor and the same procedure is carried out at the rear: the rotary cultivator is coupled on to the lower links, the top link connected and the hydraulic hoses plugged in. That leaves the data cable to be just connected to the AMATRON® and the sowing operation can start. The advantage is good utilisation of the tractor modular space, even load carrying on the tractor axles and that the superb manoeuvrability both on the road and in the field are made full use of.

Fast on the road

For transport on public roads the rear mounted combination can be hydraulically folded to a transport width of less than 3 m and a transport height of less than 3.7 m. Makes full use of the transport speed of the tractor! No restrictions from the tractor mounting limitations.
Front: seed tank up to 2,000 l capacity – with or without self-steering front packer on large wheels

The front mounted seed hopper has been designed to be low and wide so as not to obstruct the driver’s view with the added advantage that visibility to the rear allows for an uncluttered view of the rear mounted implements.

The seed delivery fan is hydraulically driven by a powerful hydraulic motor. Modern tractors are equipped with sufficient hydraulic valves to supply a constant oil flow irrespective of engine speed and thus fulfill all the parameters needed for hydraulic drive.

The star wheel on the seed tank provides a guaranteed safe drive of the metering system. As optional equipment fully electronic AMATRON® seed metering is available where, in this way, the seed rate and the fully automatic calibration is possible. (not in conjunction with ED precision airplanter)

When operating without front tank tyre packer the seed tank is carried on the front hydraulics. If necessary the front tank can be ballasted with additional weights.

In conjunction with the ED precision airplanter the front tank can be used as a fertiliser hopper. The possibility of this dual utilisation saves further expensive investment.

The front tyre packer gives additional re-consolidation of the area left in between the tractor wheels and with its self-steering roller driving around bends is simply possible.

The metering casettes from the new metering device can easily be exchanged, ensuring a precise metering with good longitudinal distribution for all seeds and seed rates even at high operational speeds.
Rear: the components of success consisting of rotary cultivator with wedge ring roller and RoTeC coulters

Utmost strength for the toughest conditions

The rotary cultivator frame is manufactured from 8 mm steel with a double skinned trough bottom and welded bearing bushes. This frame ensures a very high torsion resistance to cope well with high forces resulting from operating in tough conditions or during transport. Side plates are provided to prevent soil ridging at the sides and these are sprung mounted to ride over obstacles.

Accurate re-consolidation

For re-consolidating the soil AVANT combinations are available with a 580 mm Ø wedge ring roller. The wedge ring roller reconsolidates in strips into which the seed is then placed.

Precise seed placement

RoTeC roll disc coulters allow the precise seed placement virtually irrespective of soil condition and forward speed where the polypropylene depth limiters guide the depth of the coulter discs directly at the seed placement area. Under unfavourable conditions the RoTeC single disc coulter even in a 12.5 cm row spacing allows blockage free operation. The wide operational range of the RoTeC coulters and the extraordinary wear resistance of the boron steel discs ensure an enormous efficiency and longevity.

The new 400 mm Ø sowing disc on the RoTeC+ coulter consists of hardened boron steel and operates with extremely little wear. The depth control is carried out directly on the coulter – via an adjustable depth limiter/cleaning disc. This disc allows the quick and simple seed placement depth setting without any additional tools. Maximum coulter pressure is 50 kg.

The new 15 mm heavy-duty exact harrow III S also operates with the absolute minimum of wear and tear. In conjunction with the RoTeC+ coulter it provides excellent seedbed coverage – even in the hardest operational conditions. Test judgement profi 7/2005 „The exact harrow operates very well...“

RoTeC

RoTeC+
Electronics for precision!

AMATRON+ on-board computers allow the actuation of both tramline rhythm changes and the pre-emergence markers. Tramline creation is monitored via a sensor and offers easy re-programming to other tramline rhythms. On the display is shown the operational position of track markers and tramline rhythm and in addition, the area sown and the seed tank hopper contents.

AMATRON+ controls the electric drive and, in addition, the AMATRON+ on-board computer allows adjustment of the seed rate in randomly chosen steps and for the creation from the tractor cab of intermittent tramlines in sloping terrain. Intermittent tramlines mean the alternate sowing and not sowing of grain so that, although the tramlines are still visible, the danger of water erosion down the tramline is avoided.

Thanks to the integrated interface AMATRON+ can be simply and conveniently connected with numerous (GPS) terminals and pocket PC/PDA solutions available in the market – at random either via cable or wireless via Bluetooth.

In this way a wide range of opportunities are made available, for example for the automatic plot related documentation or for part area site-specific sowing.

The additional decisive advantage of the AMATRON+ on-board computer:
As a multi-purpose machine overlapping operator terminal it can also be utilised together with AMAZONE fertiliser spreaders and plant protection sprayers.

Conservation soil tillage systems from stubble work to sowing

Accurately matched operational steps guarantee superb sowing quality

The „on grip“ tines of the rotary cultivator pull themselves into the soil. Irrespective of whether the soil has been ploughed, cultivated or is un-tilled the rotary cultivator always maintains the pre-set working depth even on clay soils.

„On grip“ tines lift the soil upwards. Soil and straw are mixed across the entire working depth. Coarse soil particles remain on the surface and protect against wind and water erosion and capping. The seed is placed into the area with the fine soil particles.

The soil levelled by the levelling bar is then re-consolidated by the roller. The wedge ring roller firms the seedbed in strips into which the RoTeC coulter then places the seed. In dry conditions the seedling is provided with capillary ground water up to the rolled areas whereas the loose unrolled strips allow in wetter conditions the passage of rain without problem and ensure a gaseous exchange.

Rain passes easily through the loose areas.
Water drawn by capillary action up to the firmed areas.
Gaseous exchange guaranteed in the unconsolidated strips.
## Technical data

<table>
<thead>
<tr>
<th>Front tank</th>
<th>FPS 104 with front mounting frame</th>
<th>FPS 204 with front mounting frame</th>
<th>FRS 104 with front tyer packer</th>
<th>FRS 204 with front tyer packer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of metering units</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hopper capacity without extension</td>
<td>1500 l</td>
<td>1500 l</td>
<td>1500 l</td>
<td>1500 l</td>
</tr>
<tr>
<td>Weight with seed without extension</td>
<td>1665 kg</td>
<td>1700 kg</td>
<td>2190 kg</td>
<td>2225 kg</td>
</tr>
<tr>
<td>Weight with seed with extension</td>
<td>2015 kg</td>
<td>2050 kg</td>
<td>2540 kg</td>
<td>2575 kg</td>
</tr>
<tr>
<td>Lifting power requirement without extension</td>
<td>2900 kg</td>
<td>2900 kg</td>
<td>4300 kg</td>
<td>4300 kg</td>
</tr>
<tr>
<td>Lifting power requirement with extension</td>
<td>3500 kg</td>
<td>3500 kg</td>
<td>4970 kg</td>
<td>4970 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rear combination</th>
<th>Avant 4000 with front mounting frame</th>
<th>Avant 4000 with front mounting frame</th>
<th>Avant 5000 with front mounting frame</th>
<th>Avant 6000 with front mounting frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>rigid</td>
<td>foldable</td>
<td>foldable</td>
<td>foldable</td>
</tr>
<tr>
<td>Working width</td>
<td>4,00 m</td>
<td>4,00 m</td>
<td>5,00 m</td>
<td>6,00 m</td>
</tr>
<tr>
<td>Transport width</td>
<td>4,07 m</td>
<td>3,00 m</td>
<td>3,00 m</td>
<td>3,00 m</td>
</tr>
<tr>
<td>Number of distribution heads</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Weight with RoTeC coulers</td>
<td>2970 kg</td>
<td>4290 kg</td>
<td>4970 kg</td>
<td>5500 kg</td>
</tr>
<tr>
<td>Lifting power requirement</td>
<td>5300 kg</td>
<td>7920 kg</td>
<td>9550 kg</td>
<td>10400 kg</td>
</tr>
</tbody>
</table>

The permissible axle loads and total weight of the tractor has to be checked. Adhere to the legal regulations for road transport in any particular country. Not all the above mentioned combination possibilities can be realised on all tractor types and/or according to the relevant national regulations.

Illustrations, description and technical data are not binding!