

# SMARTPLOW®



# AGRISEM®



# Agrisem Spirit

AGRISEM is a company born in France in the mid-90s, specializing in **the design, manufacture and sale of TCS tools for tillage, fertilization and sowing.**

Moreover, the STRIPCAT striptill and BOSS direct seed drills, developed in South-West of France by a farmer to meet his economic, agronomic and ecological needs, are now marketed by AGRISEM.

To maintain this spirit of customer-developed solutions, the company has set up a dedicated support team, ensuring that products evolve to meet the challenges of the sector.

**Our main goal is to help the farmer get the most out of his most important tool: the soil.**



The main innovations of AGRISEM revolve around the main objectives:

- **Surface work** to manage organic matter, soil fertility and seedbed preparation, we have designed a range of machines with this in mind: it's the MULCH range.
- **Deeper loosening** to obtain the best soil structure, without mineral loss, in order to give the plant the right growing conditions: it's the PLOW range.
- **Precision sowing** to plant crops in the best conditions, fertilize as accurately as possible using versatile tools: it's the SEM range.
- **Minimum tillage and conservation farming**, in the search for more sustainable solutions that respect resources : it's the range Conservation Farming.
- the adaptation of AGRISEM's agricultural expertise in tillage and seeding to viticulture: it's the vine range.



## A team at your service

**The AGRISEM service means being close to you!**

Every day, we work to **better support you, anticipate your needs and simplify your work** thanks to ever more innovative machines.

From design to marketing, our teams continually strive to **develop tailor-made tools** for its customers.

**Mutual trust and common values**, this is how we see our collaboration.

**Listening, advice and availability**, the AGRISEM service means benefiting at all times from the expertise of a dense network and competent technicians.



## The Agriculture of Tomorrow ...

**Let nature have the power to do the job!**

Composed of a team of enthusiasts, AGRISEM is committed to more responsible agriculture that respects the environment.

Our vocation is to improve your daily life by **developing ever more efficient and economical machines**.

**Nature is our best ally for thinking, creating, nourishing and succeeding.**

Together, let us look to the future and anticipate the challenges to be taken up in order **to build the world of Tomorrow**.





It is essential to maintain a soil structure conducive to root development, to the vertical circulation of water and air to ensure rapid growth of the plants, allowing them a strong resistance to external aggressions (climatic hazards, pests and weeds ).



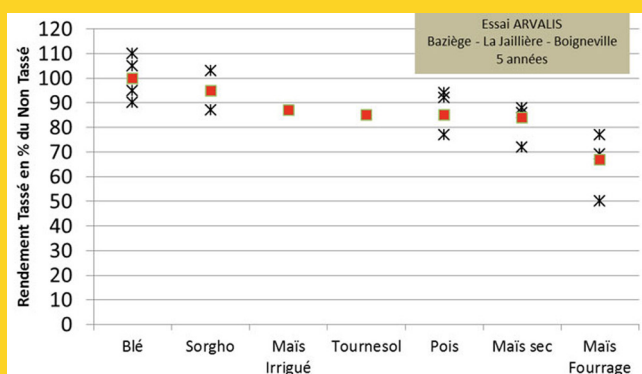
The structure and vertical circulation of the elements in the soil can also be blocked by the smoothing caused in depth by repeated tillage such as plowing. The sole will thus create an impermeable barrier which will prevent infiltrations and capillary rises, but also the development of the roots.



However, it can happen that the soil structure is disturbed during certain harvesting sites, for example with the repeated passage of increasingly heavy equipment in increasingly frequent complicated climatic conditions



## Up to 30% yield loss



This deterioration of the structure caused by compaction will systematically lead, whatever the crop, to a yield loss of up to 30% in packed areas (see Arvalis test).



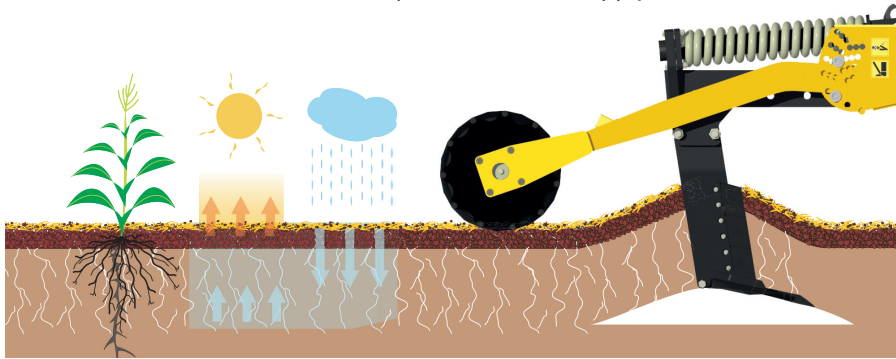
## Loosening the soil without upsetting horizons, the secret of the TCS blade

The succession of vertical water circulation in the soil on the one hand, the slow alteration of the bedrock and, in particular, the accumulation and degradation of the organic matter brought in by the various crops, have made it possible to organise the soil into horizontal layers called horizons.



Root development - Water supply

Regardless of the type of soil, the majority of humus and nutrients are stored in the first few centimetres of the soil. This is why it is important not to disturb these horizons in order to ensure the availability of nutrients for the plant, while at the same time giving the roots the freedom to develop in order to search for water resources and certain minerals from the bedrock at depth.



The SMARTPLOW is equipped with 20x590 offset-tipped blades, that have inherited the principle of the TCS blade developed and patented by AGRISEM, which has made famous the soil looseners of the brand.

The thin tip positioned at the front ensures a good penetration in hard soil to break compacted areas. Its offset mounting allows to avoid lifting blocks along the blade.



The fin, tilted to the front, progressively lifts the soil with a «wave effect».

- Network of vertical cracks restructuring the soil.
- Capillary infiltration and ascent.
- Warming of the soil.
- Roots development.
- **No disturbance of the soil horizons.**
- **All the fertility and organic matter are kept at the surface.**

The many benefits of not overturning during the cracking.

- No creation of clods or ascent of plastic blocks difficult to refine when preparing the seed bed.
- No phenomenon of wind-borne soil and preservation of the mulch at the surface, allowing to preserve the freshness of the soil even during summer.
- The tilled surface remained flat and levelled, allowing the use before direct seeding without any superficial preparation.
- The soil is loosened in a homogeneous way and at an identical depth on the whole width of the machine.





# SMARTPLOW®



## Non-Stop Hydraulic Security

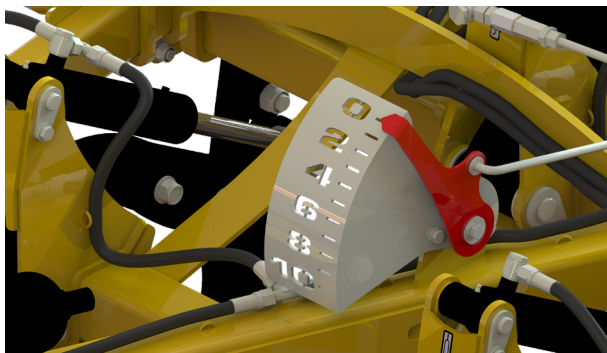
- Good penetration capacity even in hard and compacted soil.
- Adjustable and continuous triggering power.
- Progressive clearing of more than 30 cm.





The monobloc frame ensures a sturdy transmission of the tractor power. The row, with a 68 cm space, are an excellent balance between compactness and capacity in the residues with the 3 rows.

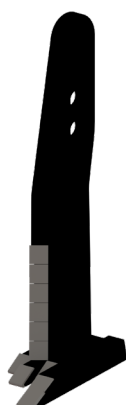
The important clearing under the frame (75 cm) allows for a passage in any conditions.



Thanks to the continuous hydraulic adjustment of the depth from the driving position, it is easy to adapt the tillage depth to the various areas of the plot.
























The compact design of the machines allows the assembly of dual rollers. Furthermore, the kinematic parallelogram with draw bars allows to press the rollers differently in order to achieve a levelled or more open profile on ridges.



The blades and the ploughshares are fully protected by carbide inserts whose enveloping shape is guaranteeing the shock resistance.

## Soil cracking with the 20x590 blade

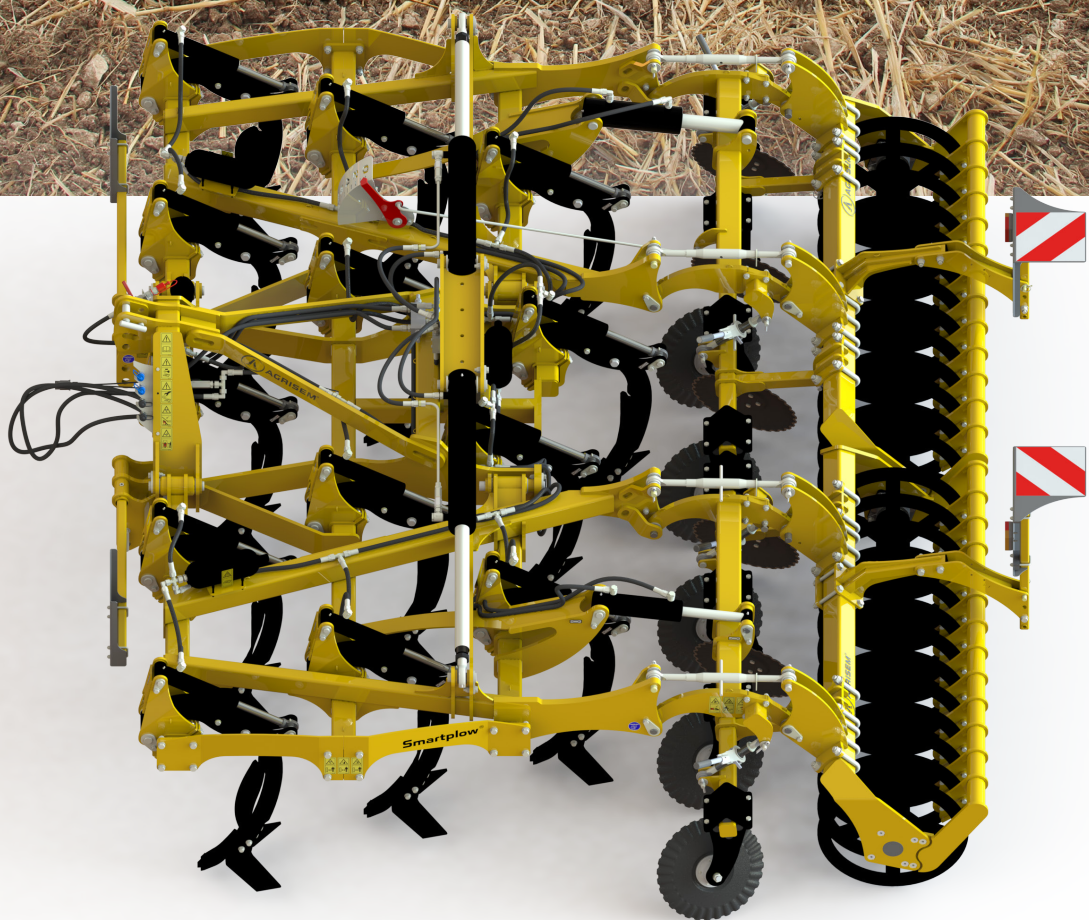
- Rooting and development of the crop assured.
- Reduced GNR consumption and power requirements.
- Improved work output.

Study based on a 150 hp 				Working depth	Rooting		
Labour	Plough 5 corps	Cultivator 4 m	Roller 7,3 m	25cm	★★★	1,4 h/ha	29 L/ha
	 0,8h/ha  18L/ha	 0,4h/ha  9L/ha	 0,2h/ha  2L/ha				
TCS	Tines cultivator 3 m	Power harrow 4 m		20cm	★★	0,9 h/ha	25 L/ha
	 0,4h/ha  15L/ha	 0,5h/ha  10L/ha					
CULTIPLow	Cultiplow 3 m	Disc-O-Mulch Gold 4 m		30cm	★★★★★	0,9 h/ha	21 L/ha
	 0,65h/ha  15L/ha	 0,25h/ha  6L/ha					
SMARTPLOW	SMARTPLOW 3,5 m	Disc-O-Mulch R 5 m		25cm	★★★★★	0,6 h/ha	16 L/ha
	 0,4h/ha  12L/ha	 0,2h/ha  4L/ha					



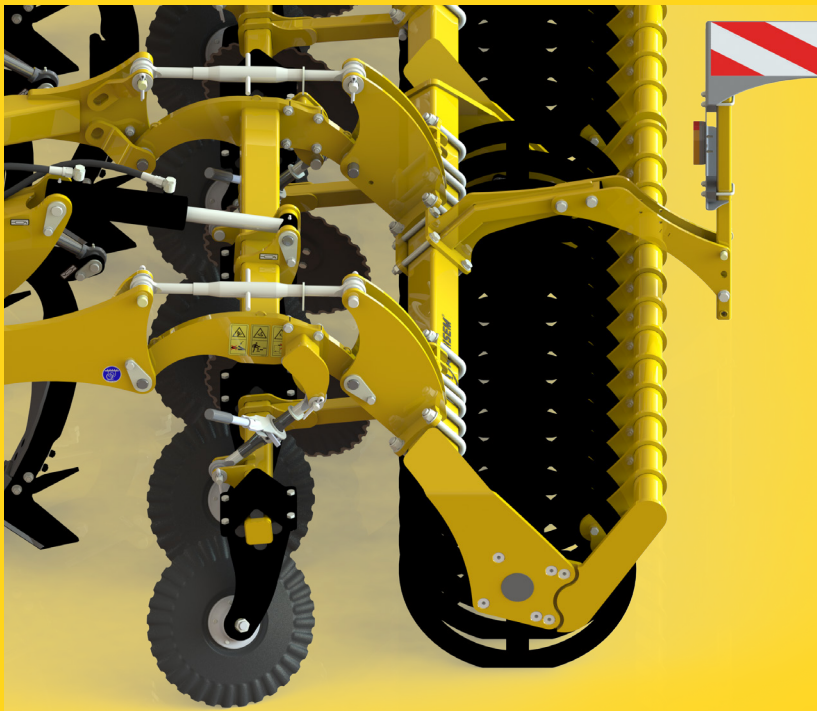
# SMARTPLOW®

## EVEN MORE VERSATILITY FOR STUBBLE CULTIVATION



The SMARTPLOW can also be equipped with powerful stubbing teeth, combined with levelling discs, arranged in a staggered pattern to complete the earth-straw mixture before the tampering from the roller.





Arranged in a staggered pattern after the third rows of teeth, the mulching discs of Ø460 mm levelling the soil and allowing the cutting of the residues thanks to their aggressive and self-sharpening profile. Mounted on elastomeric collar safety systems, and directly connected to the parallelogram system for the roller adjustment, their work is regular even when changing the working depth of the teeth.

For an intensive use even in harsh conditions and in weary soils, the SMARTPLOW is equipped with tips recharged with carbide or in option, of ploughshares with specific tungsten carbide inserts which offer an incomparable solidity even in case of impact against stones.

This equipment, which allows to divide by up to 10 times the changes of the wear parts, is also available on the fins.



With an inter teeth space of almost 300 mm, the SMARTPLOW allows:

- either a tillage to a depth up to 25 cm thanks to the straight tips topped with mouldboard to amplify the mixing effect,
- either a shallow stubble cultivation from 5 cm, thanks to the removable 3650-mm fins, whose crossover ensures total scalping,
- the inclination of the tips is adjustable according to 2 positions, to limit the power consumption when the conditions and the sought work are easy, or to ensure the penetration even in the hardest soils.

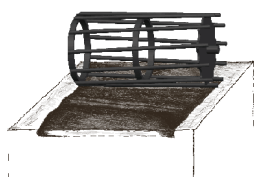


# Specifications

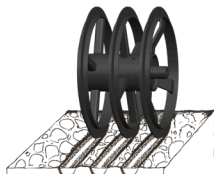
		Rigid		Folding		
Working width (≈ m)		3,00	3,50	4,00	5,00	6,00
Transport width (≈ m)		3,00	3,50	3,00	3,00	3,00
Number of blades		10	12	13	17	21
Interrow (cm)		30	29	30.5	29.5	28.5
Weight according to configuration(≈ kg)	20x590 blades – cage roller Ø450	1635	1820	2860	3200	3690
	20x590 blades – double U-sem roller Ø580	1875	2110	3240	3770	4215
	AGM tines– Discs – cage roller Ø450	1880	2115	3220	3735	4165
	AGM tines – Discs – T-Sem roller Ø620	2115	2380	3510	4090	4650
Power min-max (HP)		110-150	125-170	150-210	180-250	210-290
Number of hydraulic distributions		1DE+1SE		2DE+1SE		

## Rollers

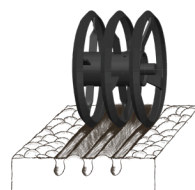
Cage Ø450



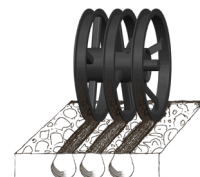
T-Sem Ø620



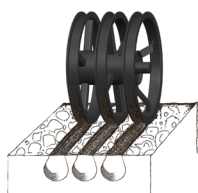
V-Sem Ø600



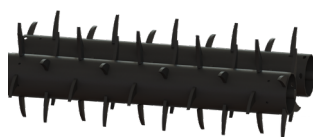
U-Sem Ø580



Double U-Sem Ø580



Double Spike Ø600

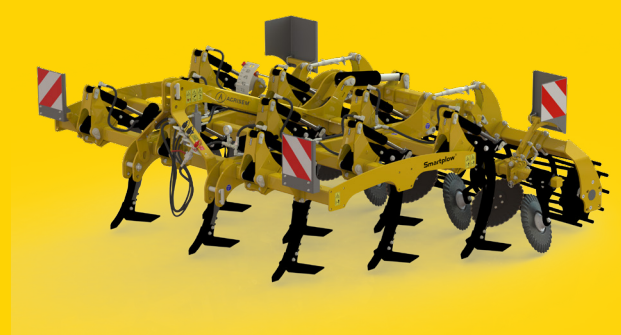
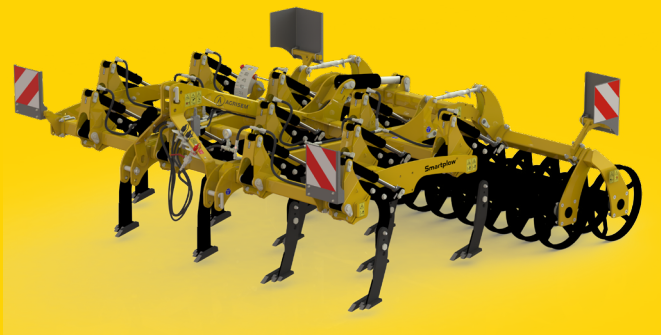




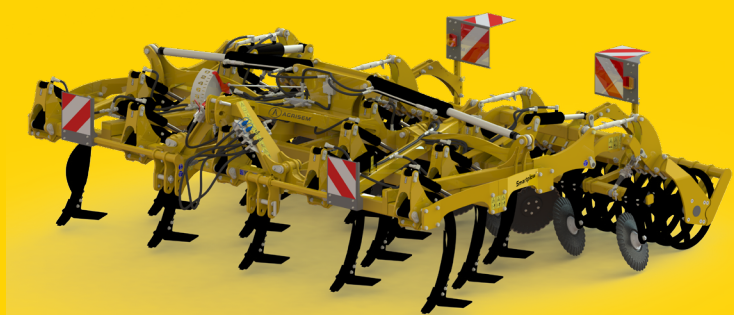
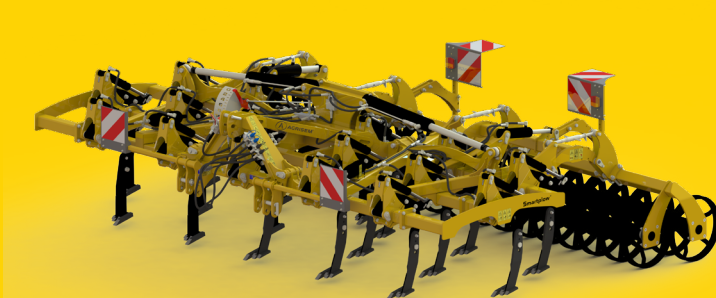
# Versions

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Rigid



Folding







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