

# GRASSLAND HARVESTING

Product range of pick-up rakes



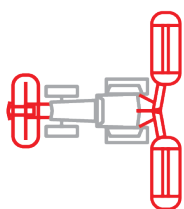


# SPECIALIST IN MOWING AND GRASSLAND HARVESTING

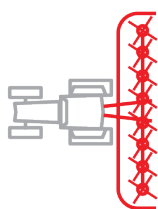
SIP is a Slovenian manufacturer of agricultural machinery with a long tradition. We are experts in the technologies of mowers, tedders, rakes and pick-up rakes. Our vision is to become a leading specialist in mowing and grassland harvesting systems.

## Our main program includes:

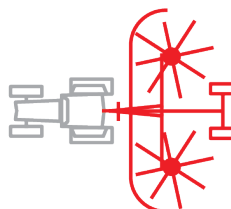
- mowers



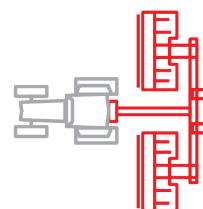
- tedders



- rakes



- pick-up rakes



SIP's agricultural machines are recognised for their ease of use, uniquely robust design and innovative solutions. The state-of-the-art grassland harvesting program offers professional technologies for **three agricultural segments**:

- **mountain farms** and farms in transitional and flat areas, where safe, light, and agile machinery is needed;
- **medium-sized farms and contractors** who need durable and efficient machines to operate in large areas with an excellent price-quality ratio;
- **large agricultural companies** where high performance, reliability and maximum productivity are key to ensuring the highest income.

**Our sales network** is spread globally in more than 45 countries, with France, Austria, Switzerland, Germany, and Italy leading the way.

**Our mission** is to become leading specialists in mowing and grassland harvesting systems.



# MORE THAN **65 YEARS** OF KNOWLEDGE AND EXPERIENCE

By choosing SIP, you have opted for a robust, simple and proven machine that can handle any work regardless of the complexity of the terrain: from large plains to varied mountain areas with larger slopes.

## **PROFESSIONAL APPROACH**

- professionally qualified multidisciplinary staff,
- cooperation with agricultural experts,
- cooperation with the most demanding users,
- cooperation with our partners,
- gathering insight and data analysis.

## **TESTED IN THE MOST DEMANDING CONDITIONS**

- testing polygon,
- performance testing,
- endurance testing.

## **CONNECTED WITH END USERS**

To develop reliable and durable machines, we are in constant contact with our end users, who test our machines in a wide variety of conditions. We use the valuable experience gained in this manner to develop useful, advanced and simple technologies

## **QUALITY COMES FIRST**

We use quality components and materials from renowned world manufacturers as we want the most loaded parts of the machines to work flawlessly.

**The result is a wide range of excellent machines, durable and adapted to all types of terrain.**

We are responsive and quick to provide spare parts and support.







### 3-year warranty

Years of testing, 100% quality control and selected suppliers guarantee reliable and robust machines.



### QF - Quality forage

The pick-up system ensures clean forage without ash contamination and leaf loss.



### Freely rotating skids

The free-rotating skids close to the pick-up unit ensure perfect adaptation to terrain.



### Curved tines

The curved tines ensure that forage is lifted off the ground without contamination of swath with soil, sand, or stones.



### HPS - Hydro-pneumatic suspension

The hydro-pneumatic suspension system ensures perfect adaptation to the ground.



### LP - Loss protection

Unique system against loss of spring tines in case of breakage.



### Flexible pick-up unit

The segmented central axis allows the flexibility of the pick-up unit and excellent adaptation to the ground and a clean swath.



### Without a cam curve

The pick-up unit built from fewer components allows for quick and easy maintenance.





# PICK-UP RAKES

## AIR

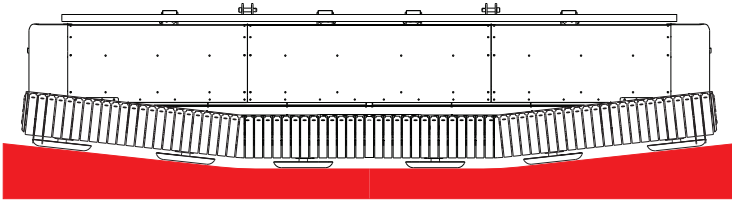
The innovative AIR pick-up rakes represent **a step forward in raking technology**. The combination of a patented flexible pick-up unit, rotor accelerator, and conveyor belt enables the formation of airy and evenly distributed swaths. The pick-up technology is designed to prevent the losses of sensitive leaves and the introduction of soil, sand, and stones into the swaths, thus ensuring the **harvesting of high-quality forage**.



# AIR TECHNOLOGIES

## CAMLESS FLEXIBLE PICK-UP

The **segmented flexible pick-up** unit enables excellent adaptation as it **follows the ground along a curved line**. The spring tines on the pick-up unit are curved in the opposite direction of travel and thus produce a trailed effect, which ensures a gentle and fast lifting of forage from the ground and prevents swath contamination.

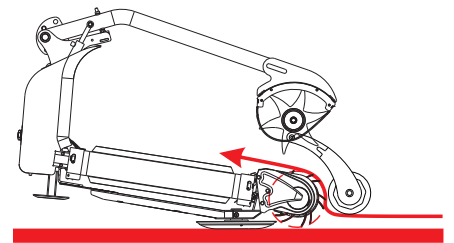


The camless flexible pick-up unit enables excellent adaptation as it follows the ground along a curved line.



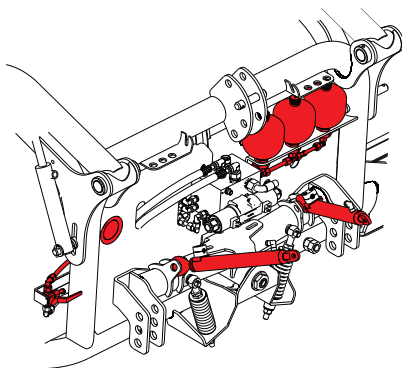
## LESS LEAF LOSS

The pick-up unit with a smaller diameter rotor ensures **a smooth flow of forage** without turbulence and accumulation of forage in front of the rake. This prevents leaf loss and preserves the nutrients in the forage.

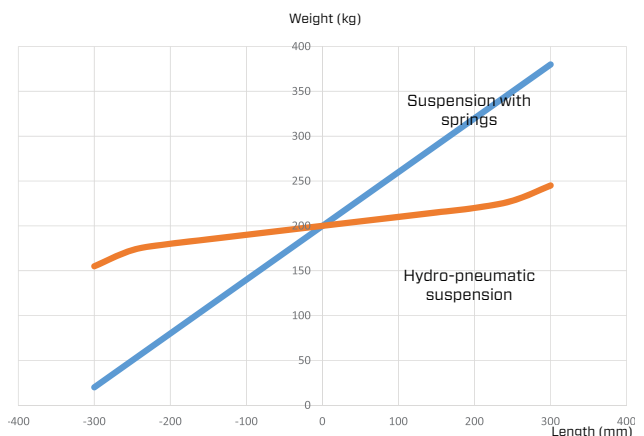


## HYDRO-PNEUMATIC SUSPENSION

The hydro-pneumatic suspension system ensures **excellent responsiveness and even pressure on the ground**. Easy and efficient ground adaptation is possible on all types of terrain.



Hydro-pneumatic suspension system in the AIR F front pick-up rake .

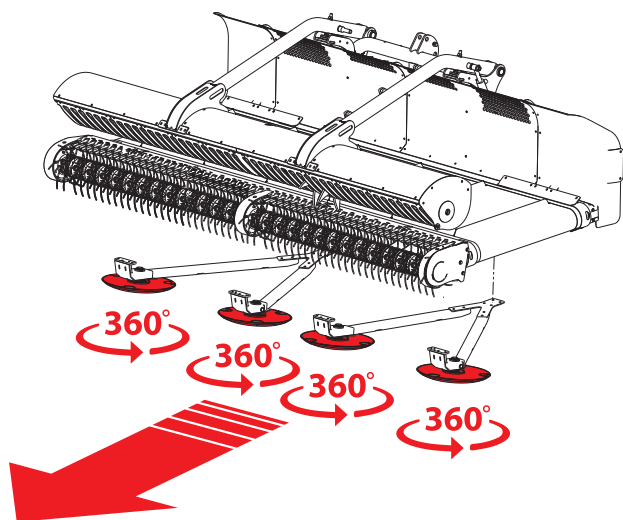


Comparison of weight distribution between the hydro-pneumatic suspension system (orange) and the mechanical spring systems (blue) at different rake positions.



## FREELY ROTATING SKIDS

While raking, it is important to protect the turf. The rotating skids, installed close to the pick-up unit, **ensure high responsiveness** and **excellent adaptation to terrain**, and reduce wear on the pick-up. No dirt remains on the skids because they rotate freely.



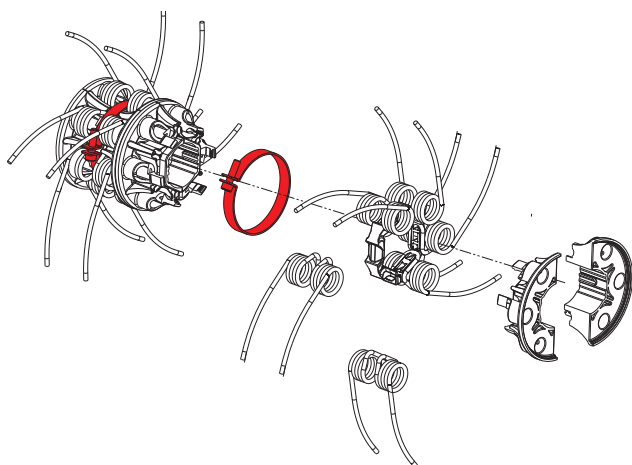
The freely rotating discs are close to the pick-up unit.



High responsiveness to changes in terrain ensures less wear on the pick-up unit. As the swath is clean and free of stones and sand, safe work with a harvester, baler or self-loading wagon is also ensured.

## SPRING TINE LOSS PROTECTION

The spring tine loss protection system consists of a split plastic element and a metal clamp. Each segment attaches six spring tines at a time, ensuring **quick and easy maintenance**. In the event of tines breakage, it remains in position.



The number of elements is minimised for fast and convenient maintenance.





# PICK-UP RAKES

## AIR 300 F, AIR 350 F

The **front pick-up** rakes raise forage from the ground and deliver side swath. During raking, **the forage is not run over** by the tractor wheels. The flexible pick-up unit ensures **efficient raking** and **ground adaptation**.

Finger rotor

Forage loss protection roller

Hydraulic drive

Flexible pick-up

100 cm conveyor belt



The robust linkage with a hydro-pneumatic suspension offers excellent responsiveness to changes in terrain.



Maximum efficiency of the hydraulic drive of the flexible pick-up unit and the finger rotor.



The direction and speed of the conveyor belt are set by a hydraulic motor.

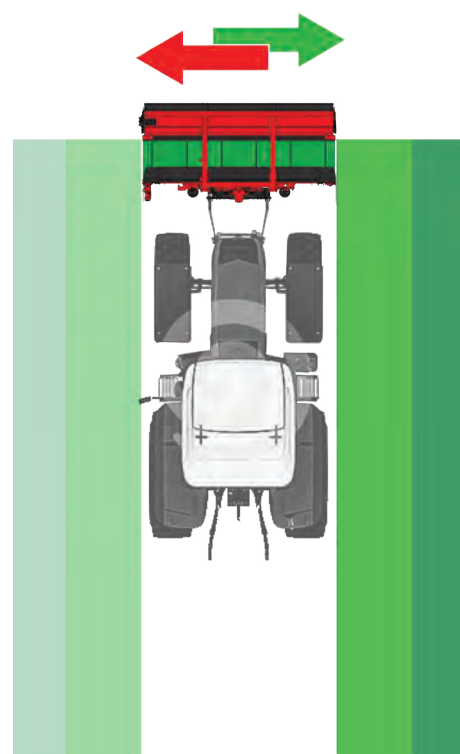




The finger rotor and pick-up unit ensure perfect forage flow.



The freely rotating skids are positioned very close to the pick-up, so the spring tines barely touch the ground, ensuring less wear of the pick-up and clean forage.



The forage is placed on the left or right side of the rake so the tractor wheels do not drive over it.



The transparent side guards provide good visibility to the forage flow.

With the **AIR F** pick-up technology, the high quality of the forage is guaranteed.

With the unique pick-up system, the investment in the rake results in clean forage of higher nutritional value. The machine is an excellent solution for raking alfalfa and all types of grasslands as well as straw and crop residues.



# PICK-UP RAKES

## AIR 500 T

The **trailed pick-up** rake with a flexible pick-up unit prevents the entry of soil and stones into the swath, thus ensuring **high forage quality**. In working position, the rake is shifted to the side of the tractor wheel tracks, which **prevents driving on cut forage**.

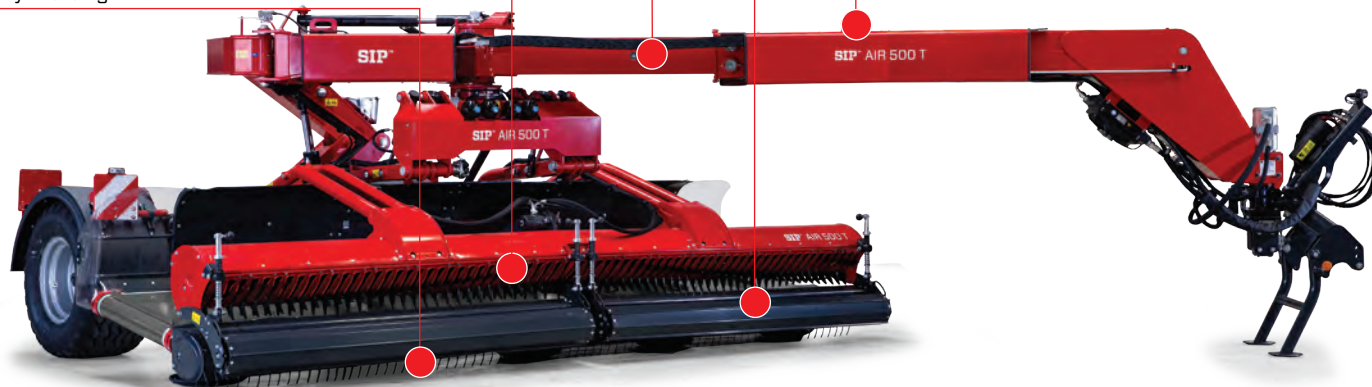
Telescopic drawbar

Flexible pick-up

Hydro-pneumatic suspension (HPS)

Finger rotor

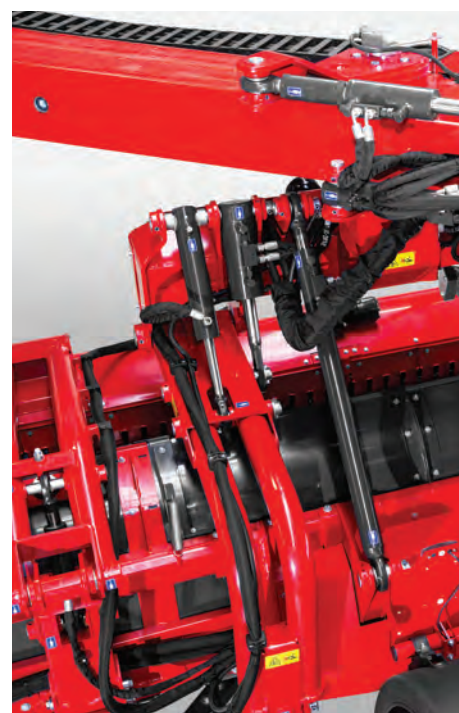
Freely rotating skids



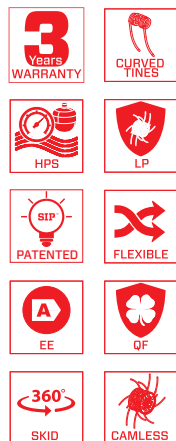
Transport frame with 2-point pivoting linkage.



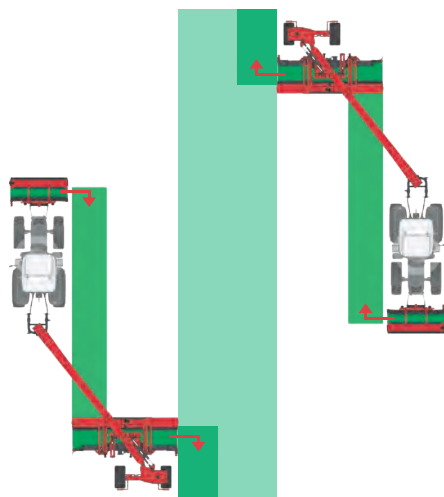
The direction and speed of the conveyor belt are set by a hydraulic motor.



The pick-up unit on a flexible frame equipped with hydro-pneumatic suspension ensures excellent responsiveness to terrain.



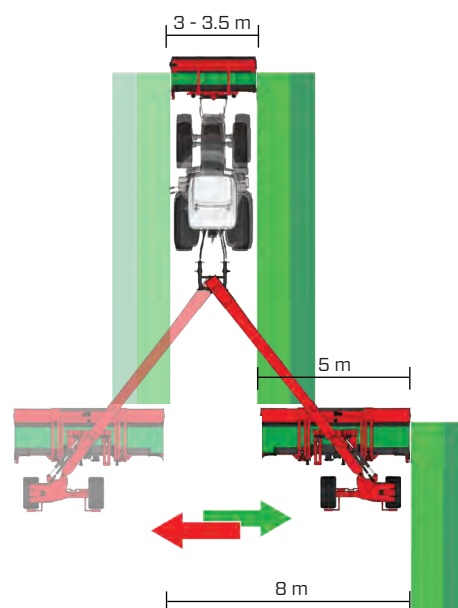




The shape and number of the swaths can be adapted to the different types of forage harvesting machines, thus shortening the time of harvesting and reducing the cost.



The (optional) swath curtain allows for an even more evenly shaped swath.



The performance of the AIR 500 T pick-up rake can be increased if combined with the AIR F front pick-up. The units are connected to each other via the hydraulic system, while the control mechanism allows both units to be operated simultaneously.



The well-thought-out design of the transport frame with wheels placed very close to the pick-up unit.



The flexible telescopic frame puts the machine in a compact transport position.



The flexible 5 m pick-up unit adapts perfectly to all types of terrain across the entire working width. The system ensures quality raking, and it can also be used for turning or merging the swaths.

With the **AIR 500 T** pick-up rake, the quality of the forage is guaranteed.

With the unique pick-up system, the investment in the rake results in clean forage of higher nutritional value. In alfalfa production, leaf losses are prevented, thus increasing the protein yield per hectare of arable land.

# PICK-UP RAKES

## AIR 900 T

The pick-up rakes AIR 900 T ensure high capacity and efficiency with a working width of 9 m for central swath delivery and 7 m for side swath delivery. The pick-up rakes prevent the swath from ash contamination and give high-quality forage.

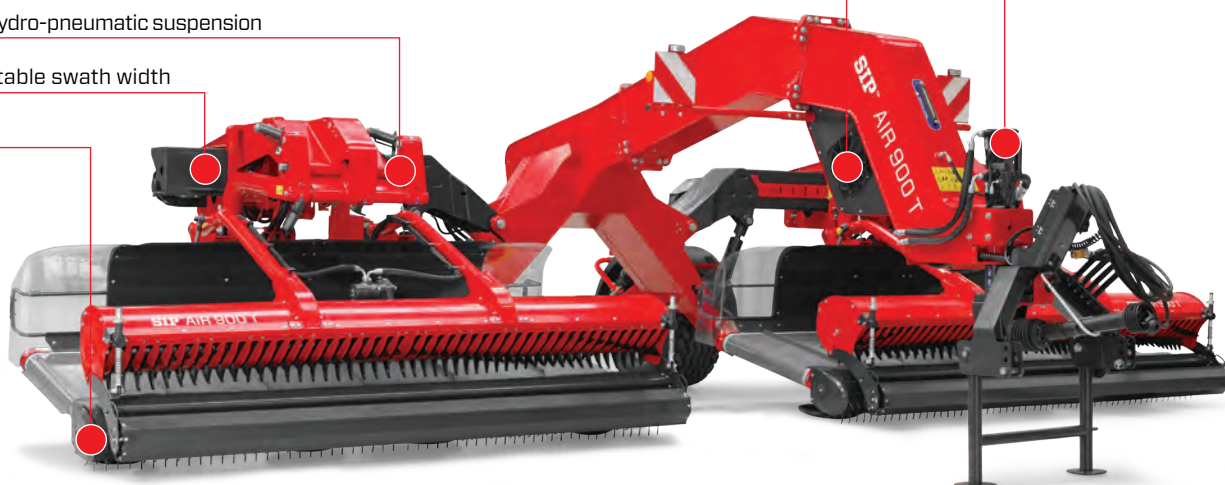
Double variable pump

Hydraulic oil cooler

Trailed pivoting with hydro-pneumatic suspension

Telescopically adjustable swath width

Flexible pick-up unit



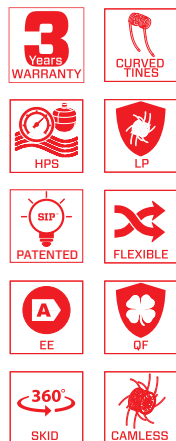
Central swath delivery and high clearance between the frame and the ground result in evenly shaped swaths.



A belt drive with a hydraulic motor allows for speed and rotation direction to be set using the tractor control unit.



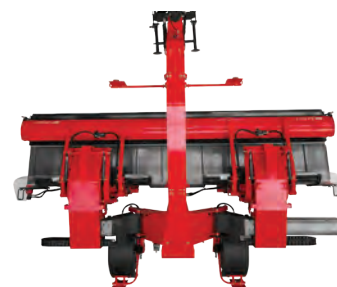
A 2-point flexible hitch with a dual variable hydraulic pump driven via the PTO shaft.







The design of the telescopic arm allows versatility at raking and formation of central or side swaths. Evenly shaped swaths make it easier to collect the forage with harvesters, balers, or self-loading wagons.



Side-swath delivery.



Central-swath delivery.



A large clearance from the ground during partial lift for driving over the swaths or turning at the headlands of the field.



The compact transport position with a short frame allows for comfortable machine handling and stability during transport.



The well-thought-out design and two trailed pick-up units ensure efficiency and reliability in raking on different terrains. The combination of a flexible small-diameter pick-up device and trailed tines reduces the soil and stones contamination of the swath.

The **AIR 900 T** pick-up rakes ensure high-quality forage.

With a unique and simple pick-up system, the investment in the rake pays for itself through clean forage with a higher nutritional value. In the alfalfa production, leaf losses are prevented and thus increasing the protein yield per hectare and the quality of forage.

# TECHNICAL DATA AND EQUIPMENT

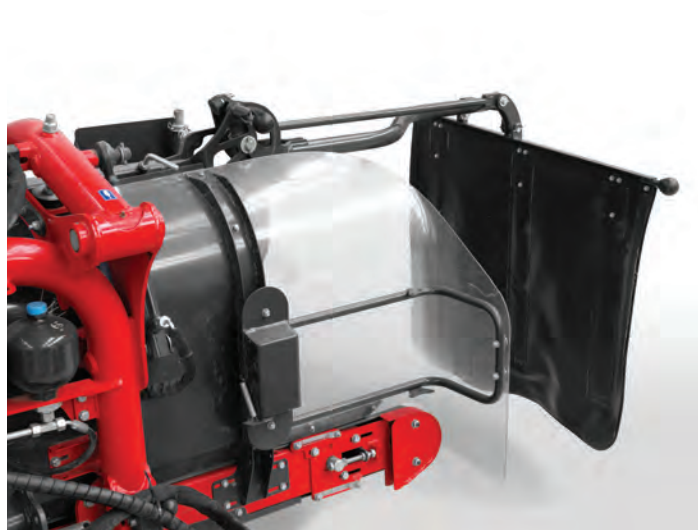
## PICK-UP RAKES AIR ROBUST

TECHNICAL DATA	AIR 300 F	AIR 350 F
Working width (m)	3.55 - 4.45	4.05 - 4.95
Swath width - min. - max. (m)	0.60 - 1.50	0.60 - 1.50
Rotor diameter - pick-up (m)	0.33	0.33
Rotor diameter - finger rotor (m)	0.42	0.42
Pick-up width (m)	2.95	3.45
Conveyor belt width (m)	1.00	1.00
Weight (kg)	987	1152
Required tractor power (kW/HP)	74 / 100	88 / 120
Required oil flow - up to (l/min)	50 - 55	50 - 55
Capacity (ha/h)	5.80	7.50
Operating speed - up to (km/h)	20	20
Transport width (m)	3.00	3.50
Transport height (m)	1.20	1.20
Transport length (m)	1.90	1.90

### SERIAL EQUIPMENT

Hitch	3-point linkage Cat. II
Hydraulic connection	1x single-acting (1SA), 1x double-acting (1DA)
Suspension	Hydro-pneumatic
Road safety equipment	YES
Lightning equipment	YES

### OPTIONAL EQUIPMENT



Hydraulic swath curtain - right







# TRAILED PICK-UP RAKES AIR ROBUST

TECHNICAL DATA	AIR 500 T	AIR 900 T
Working width (m)	5,55 - 6,45	7,00 - 9,00
Swath width - min. - max. (m)	0,60 - 1,50	0,8 - 2,00
Rotor diameter - pick-up (m)	0,33	0,33
Rotor diameter - finger rotor (m)	0,42	0,42
Pick-up width (m)	4,95	3,45
Conveyor belt width (m)	1,00	1,00
Weight (kg)	4350	5750
Required tractor power (kW/HP)	88 / 120	88 / 120
Required oil flow - up to (l/min)	60	40
Capacity (ha/h)	10,0	15,00
Operating speed - up to (km/h)	20	20
Transport width (m)	2,80	2,95
Transport height (m)	2,65	3,95
Transport length (m)	7,22	5,60
Tyre size - transport frame	500/55 - 20; 560/45 - 22.5	500/55 - 20

## SERIAL EQUIPMENT

Hitch	Drawbar with a transport frame	Transport frame with 2-point pivoting linkage
Hydraulic connection	2x double-acting (2DA)	
Suspension	Hydro-pneumatic	
Road safety equipment	YES	
Lightning equipment	YES	

## OPTIONAL EQUIPMENT



Hydraulic swath curtain - right







# PRODUCT RANGE

## DISC MOWERS **SILVERCUT DISC**

### Front mowers

7 discs	8 discs	9 discs
300 F ALP / <b>S</b> -FLOW		
300 F / <b>S</b> -FLOW	340 F / <b>S</b> -FLOW	380 F <b>S</b> -FLOW
300 F FPC / <b>S</b> -FLOW	340 F FPC / <b>S</b> -FLOW	
300 F FSC / <b>S</b> -FLOW	340 F FSC / <b>S</b> -FLOW	
300 F RRC / <b>S</b> -FLOW	340 F RRC / <b>S</b> -FLOW	



### Side mowers

6 discs	7 discs	8 discs	9 discs
	300 S	340 S	380 S
	300 S FPC	340 S FPC	
	300 S FSC	340 S FSC	
270 S RRC	300 S RRC	340 S RRC	



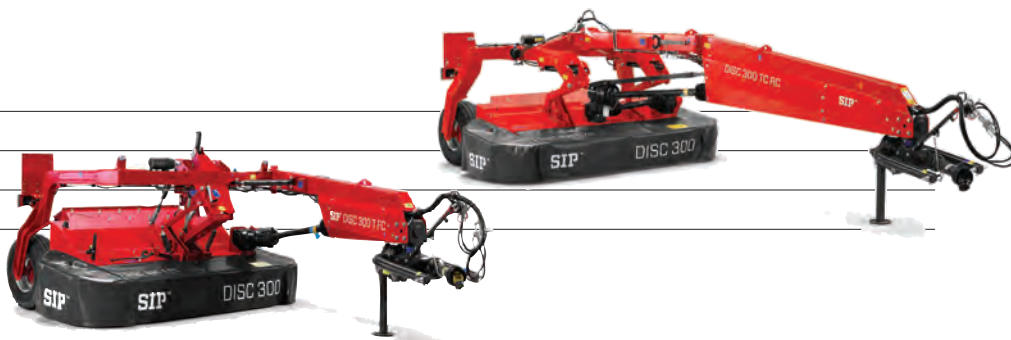
### Mower combinations

8 discs	9 discs
900 C (2x8 discs)	1000 C (2x9 discs)
900 C FPC (2x8 discs)	
900 C FSC (2x8 discs)	
900 C RRC (2x8 discs)	



### Trailed mowers

7 discs	9 discs
300 TS FPC	380 TC FPC
	380 TC FSC
300 TC RRC	380 TC RRC
300 TS RRC	



### Trailed mower combinations

8 discs
1500 T (4x8 discs)
1500 T FPC (4x8 discs)
1500 T FSC (4x8 discs)
1500 T RRC (4x8 discs)





# TEDDERS **SPIDER**

## ROBUST LINE

	4-rotors	6-rotors	8-rotors
3-point linkage	455 4 555 4	615 6 685 6 775 6	815 8 915 8
Trailed			815 8 T



## HEAVY DUTY LINE

	8-rotors	10-rotors	12-rotors	14-rotors
3-point linkage	900 8	1100 10		
Trailed	900 8 T	1100 10 T	1300 12 T	1500 14 T



# PICK-UP RAKES **AIR**

Front	Trailed
300 F	500 T
350 F	900 T



\* T - trailed, F - front.

# RAKES STAR

## 1 - rotors

360 10	400 11	430 12	470 13
		430 12 T	




## 2 - rotors with side swath

600 20 T	700 22 T
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## 2 - rotors with central swath

650 20 T	720 22 T	850 26 T	1000 30 T
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## 4 - rotors with central swath

1250 50 T
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\*T - trailed



# ALP PROGRAM

## DISC MOWERS **DISC ALP**

### Front

5 discs	6 discs	7 discs
220 F ALP	260 F ALP	300 F ALP



### Side

5 discs	6 discs	7 discs	8 discs
220 S ALP	260 S ALP	300 S ALP	340 S ALP



## TEDDERS **SPIDER ALP**

	4-rotors	6-rotors
3-point linkage	350 4 ALP 400 4 ALP	
Trailed	400 4 ALP	600 6 ALP



## RAKES **STAR ALP**

### 1 - rotors

300 8 ALP	320 8 ALP	350 8 ALP
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## BELT RAKES **FAVORIT ALP**

Front	Side
234 F ALP	234 ALP
254 F ALP	254 ALP
274 F ALP	274 ALP





## 3 Years WARRANTY



1

### Counselling

Our skilled dealers and distributors will advise you as to which machine is the best choice for you in accordance with your needs and desires.



2

### Machine purchase

When you buy the machine, we start it up for you for the first time.



3

### Start-up

Before using the machine for the first time, we give you advice about how to use the machine and provide you with tips on proper machine maintenance.



4

### Use

You can always contact our customer support during your use of the machine.



5

### Service

30 days before the expiry of the 2-year warranty, have your machine serviced by an authorised repairer.

## 2 YEARS



6

### Flawless machine

For a technically flawless machine, we add an extra year of warranty without restriction.



7

### Extended guarantee 2 + 1

An extended warranty of one additional year means an additional year of protection against the unexpected cost of repairing the machine.

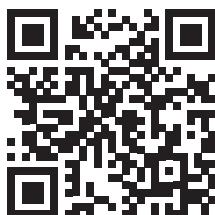


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### Online complaint filing

Complaints filling via the online form for end users.

## + 1 YEAR





# CONTACTS

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