

Front attachments

## JAGUAR front attachments PICK UP DIRECT DISC ORBIS Adapter for maize picker



# Efficient maize harvesting is an art.

#### Built to meet the challenge.

With their versatile range of front attachments, the CLAAS JAGUAR machines harvest an extremely diverse array of crops around the world. The effort put into the continuous development of these powerful front attachments is reflected in their high operating reliability. The development activity focuses in particular on the work quality, wear resistance and performance of the front attachments.



jaguar-front-attachments.claas.com





#### ORBIS 900 / 750 / 600 / 600 SD / 450.

- Maize front attachments with working widths from 4.5 m to 9.0 m
- ORBIS 600 in two versions for an optimal crop flow and operational reliability:
- ORBIS 600 for medium to tall crops
- ORBIS 600 SD for low to medium-height crops
- Folding process for ORBIS 750 takes just 15 seconds
- AUTO CONTOUR for automatic ground contour adaptation
- AUTO PILOT row sensor for automatic steering



#### PICK UP 300 / 380.

- High-performance rake with five rows of tines for clean grass intake
- Robust roller crop press with large intake auger for high throughput
- ACTIVE CONTOUR for automatic ground adaptation



#### DIRECT DISC 600 / 500 and 600 P / 500 P.

- MAX CUT mower bed for very clean grass cutting
- Paddle roller for optimal crop flow in short crops
- Very large intake auger for high throughput



#### Robust adapter.

- Fast and convenient connection of combine harvester front attachments, such as maize pickers for harvesting maize cob silage
- Integrated feed roller for even crop flow
- Drive connection to JAGUAR made via quick-release coupler

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JAGUAR front attachments

Coupling

PICK UP

ORBIS

Arguments

Technical data

On the road

DIRECT DISC

Adapter for maize picker













# Straightforward and convenient – coupling of all JAGUAR front attachments.







When machines of the JAGUAR 800 or 900 model series couple with the front attachment, the drive train is automatically connected by means of the quick coupler. The central locking system, which is easily accessible from the left-hand side, secures the front attachment to the forage harvester. Two flat-seal hydraulic couplings and a control cable enable positive connection of the front attachment functions.



Intelligent connection.

Once the front attachment is connected electrically to the JAGUAR, various basic settings are configured automatically with the aid of the front attachment detection feature.





Once the connection with the JAGUAR is established, the values which have been learned are retained. The following values are saved in the front attachment module:

- Front attachment end stops
- Last cutting height preselection values
- Last cutting height adjustment values
- Last working position

- Last AUTO CONTOUR values
- Front attachment speed for length of cut
- Front attachment operating hours
- Serial number



PICK UP front attachment module



ORBIS front attachment module

## On-road transport with excellent visibility.





On maize front attachments with a working width of up to 6.0 m, the side sections are folded vertically; in the case of the ORBIS 750 and ORBIS 900, they are folded on top of each other. An integrated transport system available for the ORBIS 600 / 600 SD, 750 and the ORBIS 900 ensures compliance with the statutory axle-load regulations.

Transport width		
ORBIS 750 / 600 SD / 600 / 450	mm	2995
ORBIS 900	mm	3290



High standard of ride comfort: the JAGUAR runs on the road with the front attachment in place and oscillation damping activated

#### Straightforward and safe.

For on-road travel, the front attachment is carried on the JAGUAR and can be supported by an integrated transport system if required.

On the PICK UP, the support wheels are retracted to provide an appropriately narrow transport width. Wheel retraction can be performed mechanically, without the need for any tools, or hydraulically from the comfort of the cab.

Transport width		
PICK UP 380	mm	3976
PICK UP 300	mm	3000







The DIRECT DISC is placed on the trailer and secured without the need for tools. In this way, it is possible to travel safely at up to 40 km/h.





### PICK UP 380 / 300.

#### PICK UP family.

Ever-increasing yields and more powerful forage harvesters call for a very clean crop take-up and technology which is both robust and extremely user-friendly. The PICK UP 380 and 300 front attachments meet these requirements with a wealth of options.

The PICK UP for the JAGUAR stands out with its excellent ground-contour adaptation and high throughput.



#### Crop flow.

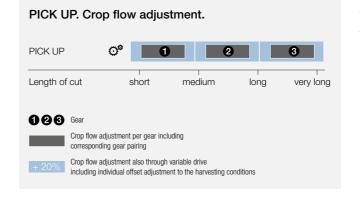
The powerful, controlled rake with four or five tine rows enables a clean crop take-up. Furthermore, the guide wheels (which can be adjusted without tools) are fitted at the same height as the rake.

The double roller crop press and the large auger diameter ensure an excellent crop flow. The optional spring-loaded intake auger increases throughput when handling large swaths.



#### Tilting frame for PICK UP 300 and 380.

The main frame supports the torsion-suspended rake and the floating intake auger. The tilting frame is attached to the main frame by means of a central pivot point, three arms and a spring to return the frame to the neutral position. This arrangement enables ideal freedom of movement for optimal ground-contour adaptation and high-performance crop pick-up.



The auger speed is matched to the set length of cut by means of the 3-speed transmission or by substituting the sprockets. The variable front attachment drive allows the machine performance to be matched optimally to the field conditions.



Robust rake for clean crop intake

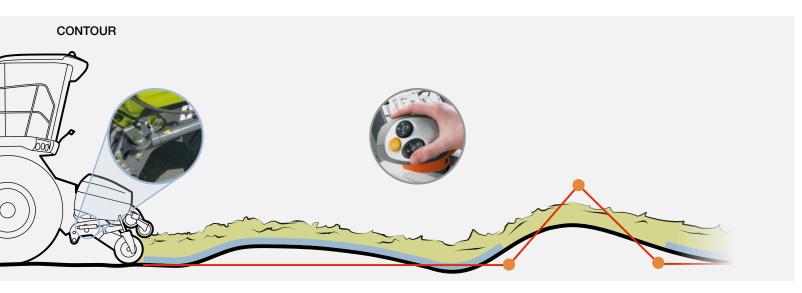


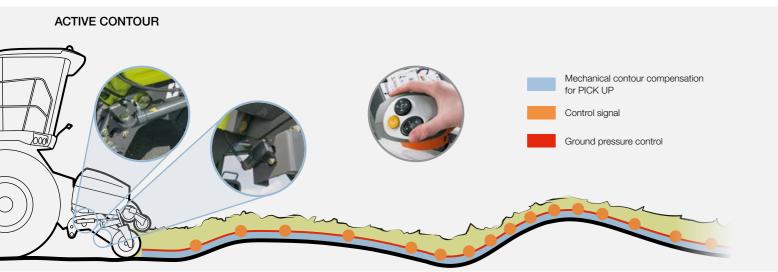
Roller crop press for excellent crop flow

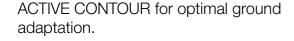
#### Robust roller crop press.

Thanks to its end-position damping and very close proximity to the intake auger, the roller crop press ensures an excellent crop flow.

# Loss-free harvesting – easy access.







The ACTIVE CONTOUR function allows the PICK UP to adapt quickly to the changing ground contours. The system controls the height of the front attachment actively via potentiometers. The rake is maintained at a constant distance from the ground. In this way, you can reduce crop losses in very hilly terrain.

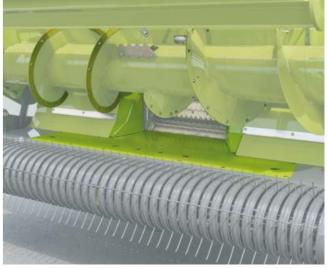




The CLAAS CAM PILOT takes control of the task of steering during the swath pick-up process, thereby making it possible to attain working speeds of up to 15 km/h without fatiguing the operator. Furthermore, the operator is able to concentrate much better on filling the transport vehicle for a loss-free harvest.

The CLAAS CAM PILOT detects the swaths in three dimensions and applies the appropriate steering correction automatically. As usual, it is activated via the control lever and deactivated by turning the steering wheel.





#### Optimal accessibility.

Excellent accessibility is one of the key characteristics of the PICK UP family. For example, during the reversing procedure after detection of a foreign object, the roller crop press is automatically raised hydraulically (optional raising of the intake is also possible). As well as making it easier to search for foreign objects after the presence of metal or a stone has been detected, this arrangement allows wear parts to be replaced easily.

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# DIRECT DISC 600 P / 500 P and 600 / 500.



#### Whole crop harvesting with the DIRECT DISC.

Whether you're intending to use milk ripe plants for high-grade animal feed or as biomass for energy production, this front attachment means you can mow and chop in a single pass.

#### DIRECT DISC 600 P / 500 P.

Plants cut with the MAX CUT mower bed are fed to the intake auger by means of a height-adjustable paddle roller. This enables an extremely consistent crop flow, even when the crop is very short.

#### DIRECT DISC 600 and 500.

The crop is fed straight from the mower bed to the intake auger. As a result of the extremely large intake auger with its 800 mm diameter, both DIRECT DISC model series have excellent throughput.

The DIRECT DISC 600 and 500 are notable in particular for their ability to handle very tall plants, such as sorghum, growing to heights of up to 4.0 m. CLAAS offers side knives for use in severely intertwined crops. The hydraulically adjustable tubular bar serves as a roller crop press for optimal, clean cutting and consistent feeding of the crop.



DIRECT DISC 600 / 500 with large intake auger



Adjustable roller crop press bars, optionally with hydraulic operation



DIRECT DISC 600 P / 500 P: adjustment of paddle roller height, optional hydraulic adjustment also available

#### DIRECT DISC application areas Increasing crop height Increasingly demanding harvesting process Wild crops Whole plants (grain) Whole plants Energy grass Alternative Sorahum and legumes energy plants Crop height up to Average yield Crop height up to High yield e.g. e.g. e.g. 50 cm / 20" (small / short (large / tall vetch/rye Szarvasi wildflower silphium 4.0 m plants) mixtures perfoliatum DIRECT DISC 600 P / 500 P DIRECT DISC 600/500 Well suited Conditionally suited

#### Simply hitch up for flawless harvesting.

DIRECT DISC	600 P / 500 P	600/500
Delayed activation of mowing units means that DIRECT DISC can be	•	•
switched on under full load		
Three-speed transmission for optimal adjustment of crop flow to field conditions or different lengths of cut	•	•
Two externally driven mower beds from the M-CUT model series with	•	•
quick knife change system and SAFETY LINK modules for safe mowing		
Paddle roller and intake auger for perfect crop flow in low to	•	-
medium-height crops		
Roller crop press for a perfect crop feed	•	•
Intake auger with very large diameter for high throughput and very	•	•
tall crops		
Ideal adaptation to ground contours through mechanical balance	•	•
system and ground pressure control for excellent work quality		

Standard - Not available



DIRECT DISC 600 / 500 with MAX CUT mower bed



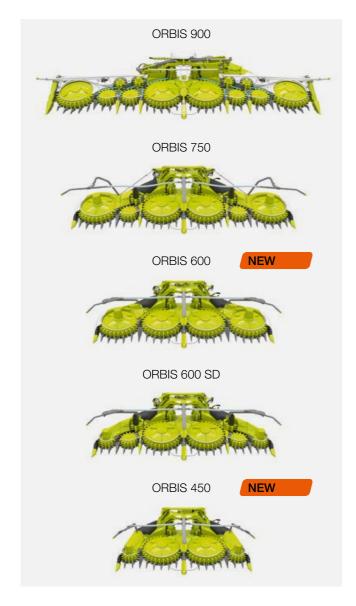
Powerful drive train with three-speed transmission



DIRECT DISC 600 P / 500 P with paddle roller

# ORBIS 900 / 750 / 600 / 600 SD / 450.

## Row-independent harvesting.





#### Unique crop flow.

The combination of small and large intake discs makes for high versatility with outstanding throughput. The ORBIS transports all the plants gently and reliably for optimal delivery to the feeder unit of the JAGUAR. The transfer is performed with very even lateral distribution which makes for top-quality chopped material.

#### Versatility to the fore.

Maize yields of well over 70 t/ha, biogas, SHREDLAGE®, low-growing maize or other crops, such as whole crop silage or sorghum - ORBIS copes with every task.

The three-tier structure of its transport discs ensures an even

- The synchronised rotation of the cutting and intake discs enables a gentle crop transfer
- Sturdy tubular bars reliably prevent cob losses
- The new knife geometry ensures a perfect cut, even at high
- Straight cutting of plants makes for uniform stubble height
- Guide fingers can be adjusted for differing harvest
- Gentle, high-throughput crop transport
- Very even crop transfer for consistently high-quality chopped material

#### Heads-up. ORBIS 600 and 450.

The ORBIS row-independent maize front attachments combine completely new design and drive ideas with the practical experience we have gained around the globe. Our model range, whose reliability and smoothness have made it such a success, grows again this year with the addition of the ORBIS 600 with four large discs and the ORBIS 450.

#### Advantages for you:

- Efficient drive concept with 11% lower starting torque than comparable models
- Engage and reverse under full load
- Straight-line crop transfer from ORBIS to JAGUAR for top-quality chopped material
- Uniform crop flow across the entire width of the feed roller
- Extremely flat design for even stubble and very low stubble heights down to 85 mm

- ORBIS 600 SD with small discs for short to medium crop heights
- NEW: ORBIS 600 with four large discs for medium to extremely tall maize
- Folds out symmetrically within just 15 seconds (ORBIS 750)
- Integrated transport system available with ORBIS 600 and higher
- PREMIUM LINE ex factory



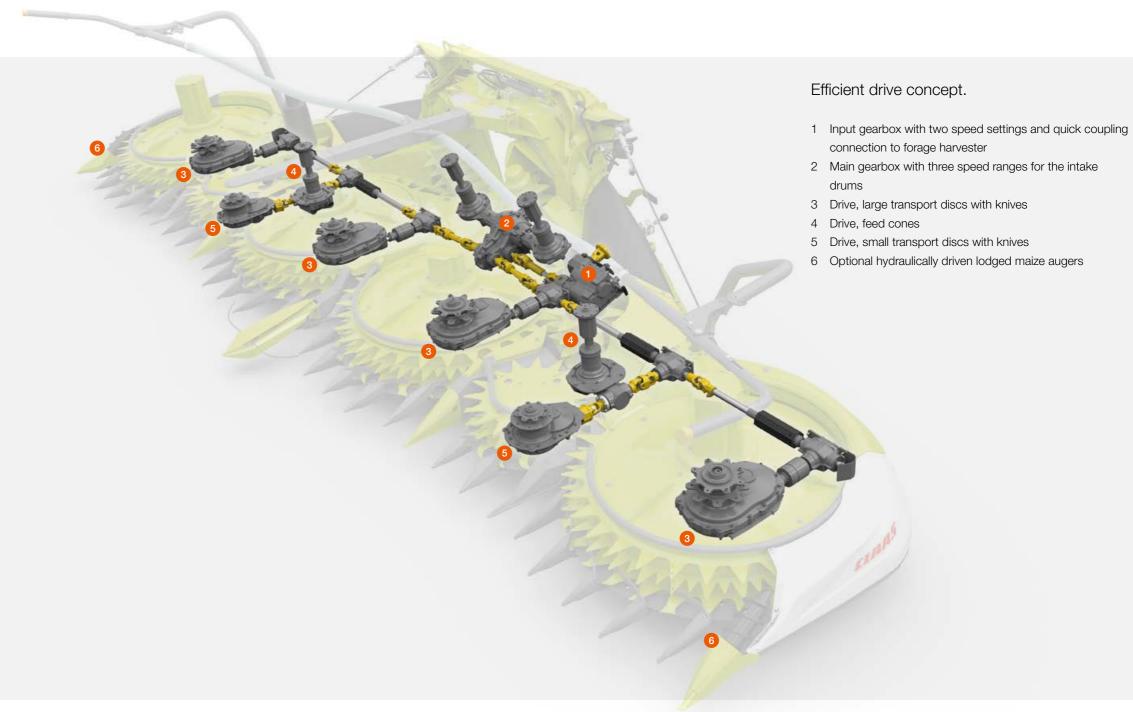
# Save energy and fuel.





#### Energy-saving drive.

The efficient drive concept offers you a huge amount of power for remarkably little fuel. The JAGUAR transmits its power to the maize front attachment mechanically, the energy requirement of the latter being extremely low. This is because the ORBIS requires only a few transmission elements and impressively low starting torque. Thanks to these characteristics, the front attachment can also be switched on and reversed at full load. The transmission and drive components are designed for high throughput. Perfect matching of the drive speed to the set length of cut ensures an optimal crop feed into the JAGUAR.





Power transmission via quick release coupler



Three-stage speed adjustment of intake drums for optimal crop flow



Where necessary, the lodged maize augers are driven hydraulically

## A sharp cut and a reliable transfer.



#### Reliability.

The ORBIS concept featuring a combination of small and large discs is characterised by an extremely high crop flow. The ORBIS handles maize stands of up to 100 t/ha (typical of US or Italian harvesting conditions) perfectly.

When the machine is reversed, the plants which have already been cut remain on the large discs and are then drawn in. The low starting torque of the ORBIS means that it can be restarted at full load or in the upper rated speed range at any time.



Very flat design for low stubble

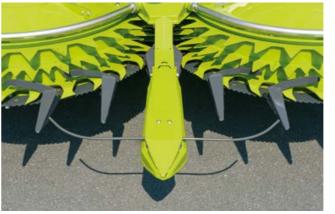


Plants are transported reliably through the crop flow



Robust guide fingers and dischargers under the cutting disc for problem-free operation





#### Three-tier structure.

However difficult the harvesting conditions may be, the threetier structure of the ORBIS transport discs ensures a clean and even crop flow every time.

#### Advantages for you:

- The synchronised rotation of the cutting and transport discs enables a consistent and gentle crop transfer
- Thanks to the small distance between the cutting edge and the discs, ORBIS always leaves behind a uniform stubble height
- Sturdy tubular bars catch falling cobs and so keep losses to a minimum
- The blades are always sharp, thanks to the self-sharpening effect
- Stubble is cut short down to 85 mm and clean with frayed ends for fast rotting

#### CLAAS AUTO PILOT.

As two sensor skids each gauge a row of maize, the sensor signals are translated into steering impulses. Twin-row sensing supports automatic guidance of the JAGUAR up to a speed of 12 km/h and with row widths of 37.5 cm to 80 cm.

#### Advantages for you:

- Maximum reduction in operator workload
- Increased area output
- Reliable row guidance, even where there are gaps in the crop
- Maintenance-free and low-wear technology

## Excels in all types of terrain.





#### Ground contour adaptation:

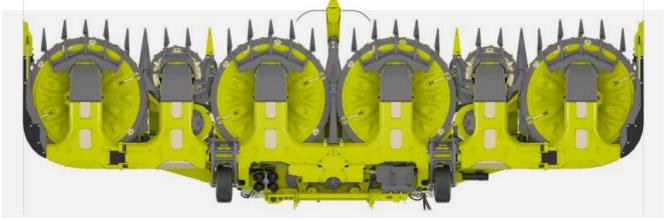
- Very robust tilting frame with +/- 5° lateral balance
- Lateral balance mechanical with central damper or hydraulic with AUTO CONTOUR
- Possible cutting angle adjusted forward by 6° for aggressive crop pick-up, e.g. in lodged maize
- Almost unimpeded crop flow for optimal transfer to feeder unit made possible by pivot point in centre of crop flow
- Sliding skids can be adjusted to define the stubble height to be maintained by automatic ground pressure control
- Press-hardened and rounded underbody structure reduces wear and dirt adhesion

#### Optimal ground-contour adaptation.

The characteristics of the terrain cease to matter when harvesting maize with the ORBIS. Precise ground-contour adaptation is ensured by the redesigned tilting frame in combination with the enhanced CONTOUR / AUTO CONTOUR control system. With the skids in full contact with the ground and depending on the target value setting in CEBIS, the AUTO CONTOUR control system automatically switches over to float position. In this way, reliable lateral compensation is ensured along with ground pressure control.



Sliding skid with two height settings



Dimensionally stable, hardened underbody structure

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# ORBIS: Great versatility.



From lodged maize to diverse crops the ORBIS harvests everything.

Various attachments and add-ons are available to allow you to — The bolt-on guide fingers optimise crop uptake in a variety optimise your ORBIS for any application.

- Additional lodged maize cones make for improved crop flow in lodged crops or other difficult harvesting conditions
- of harvesting conditions
- A narrow centre finger optimises the cutting performance in thin-stalked crops



Narrow centre finger improves stubble during WCS harvesting



Removable guide fingers improve lifting of lodged



Lodged maize point hydraulically driven



Harvesting miscanthus



Harvesting silphium perfoliatum



Harvesting igniscum



Harvesting triticale



Harvesting sorghum



Harvesting sudan grass

# Fast folding for safe road travel.





#### Innovative folding concept.

An all-new development, the symmetrical folding process allows you to deploy the complete maize front attachment (example: ORBIS 750) from its transport width to its full working width in just 15 seconds. At the same time, the integrated transport chassis is automatically moved into the appropriate position.



#### Fast on the road.

Whether or not the front attachment is equipped with the transport system, the oscillation damping system enables smooth road travel at up to 40 km/h. The excellent visibility makes for a high level of safety for you and other road users.









ORBIS 750 with 3.0 m transport width

ORBIS 900 with 3.3 m transport width

ORBIS 450 ORBIS 600 OF

# Hardly any wear. Low maintenance. High reliability.

PREMIUM LINE protection against wear.

# A special wear coating gives intake drums low wear characteristics Interior guide strips made of steel (standard equipment) Exterior guide strips made of steel Wear elements to protect the large cutting disc Knives with wear coating

#### PREMIUM LINE for ORBIS.

Highly wear-resistant parts are recommended for extreme operating conditions, in the event of a high proportion of sand, for example, or extended periods of operation.

#### High operational reliability.

It is often the case that every minute counts during the forage harvesting period. Time-consuming maintenance work is a nuisance and also a cost factor as it reduces the number of productive hours – and also your profit margin.

With ORBIS, wear-resistant parts ensure high long-term reliability:

- The knives have a tungsten carbide coating to increase their service life.
- The speed difference between the cutting disc and the transport disc creates a self-sharpening action
- The cutting discs and transport discs have a modular structure comprising six segments and are easily accessible; as a result, in the event of damage, only the segment concerned needs to be replaced, rather than the entire unit.

#### Extremely maintenance-friendly design.

CLAAS engineers have done all they can to keep maintenance requirements to a minimum.

- Lubrication is only required every 250 operating hours
- All lubrication points are easily accessible
- A transmission oil change is not required until after the first season (500 operating hours) and then after another 5 years (2,500 operating hours)
- All wear parts can be replaced quickly and easily







Dipstick to check oil level

Segmented design

Easy access

# Maize cob silage (MCS) harvesting.



#### Adapter.

The adapter allows a six or eight-row combine harvester maize picker to be attached to the JAGUAR. The robust transfer gearbox transmits the drive from the JAGUAR. The adapter has a feed roller to optimise the crop flow from the front attachment to the JAGUAR intake.

Maize cob silage (MCS) harvesting with the combine picker on the JAGUAR.

MCS is forage with a high energy concentration and is primarily used in cattle farming for milk and meat production.

The following additional equipment is recommended for high-quality WCS or MCS silage harvesting:

- Friction bar wedge fitted behind the mounting block
- Friction concave plates
- MULTI CROP CRACKER with fine meshed rollers and 60 % speed difference
- Micro-rasp bars for the JAGUAR 800 series
- MULTI CROP CRACKER MAX





Friction bar for JAGUAR 800 series



Micro-rasp bars for JAGUAR 800 series





MULTI CROP CRACKER MAX



MULTI CROP CRACKER CLASSIC



Maize cob silage (MCS)

## Advantages at a glance.



#### Common features:

- The availability of appropriate front attachments for different crops opens up flexible opportunities for machine use
- Convenient fitting and removal
- Drive via quick-coupler
- Can be switched on and reversed under full load and in the upper rated speed range
- Outstanding ground-contour adaptation through CON-TOUR and AUTO CONTOUR ground pressure control
- Safe and comfortable on-road travel with oscillation damping
- Compliance with statutory axle-load regulations thanks to integrated transport system

#### PICK UP:

- Ideal ground-contour adaptation as pick up is free to swivel as required and guide wheels are optimally positioned
- Twin roller crop press for optimal crop flow
- Hydraulic auger elevation for optimal accessibility when searching for foreign objects
- Wear components can be replaced quickly

#### DIRECT DISC:

- Mower bed with quick knife change system
- Various possibilities for adjustment to different crops and field conditions
- Consistent and continuous crop flow
- DIRECT DISC with MAX CUT mower bed
- Optional side knives available

#### ORBIS:

- Extremely free-running drive with low starting torque and low power requirement
- Designed for high throughput
- Universally suitable for harvesting stalked crops
- High work quality
- Very low maintenance requirement

#### Adapter for combine harvester maize picker:

- The adapter allows the maize picker to be attached for harvesting maize cob silage (MCS)
- Powerful yet gentle picking

Compatibility of front attachments with JAGUAR								
	PICK UP 380 / 300	DIRECT DISC 600 P / 500 P 600 / 500	ORBIS 900	ORBIS 750	ORBIS 600 SD / 600	ORBIS 450		
JAGUAR								
900 series	0/0	0/0	0	0	0/0	0		
800 series	0/0	0/0	_	0	0/0	0		

PICK UP front attachments				
PICK UP		380	300	
Working position	mm	4660	3680	
Working width, tine to tine	mm	3600	2620	
Transport width	mm	3976	3000	
Length	mm	1440	1440	
Height	mm	1450	1450	
Weight	kg	1580	1390	

Direct cutterbars					
DIRECT DISC		600 P	600	500 P	500
Working width	mm	5959	5959	5132	5132
Transport width	mm	6015	6015	5189	5189
Transport length on trailer	mm	10900	10900	10000	10000
Length	mm	2590	2205	2590	2205
Height	mm	1750	1750	1750	1750
Weight	kg	3330	3030	3080	2830

Maize front attachments							
ORBIS		900	750	600 SD	600 NEW	450 NEW	
Working width	mm	9170	7450	6040	6007	4480	
Transport width	mm	3290	2995	2995	2995	2995	
Length	mm	2450	2244	2345	2345	2345	
Height in working position	mm	1425	1460	1460	1460	1330	
Height in transport position	mm	2300	2290	1725	2175	1330	
Weight	kg	4240	3400	3000	2900	2500	

ORBIS 900 / 750 with transport system: wheelbase to JAGUAR					
JAGUAR		Distance from centre of axle of ORBIS transport system to centre of JAGUAR drive axle			
900	mm	1300			
800	mm	1480			

Adapter for JAGUAR with maize picker									
		Compatible with JAGUAR Type:							
Adapter dimensions		Front attachments	Rows	496	497	498	499	502	
Weight	530 kg	CONSPEED	6	0	0	0	0	0	
Width	2320 mm	CONSPEED	8	-	-	0	0	0	
Height	1110 mm	CORIO	6	0	0	0	0	0	
Length	725 mm	CORIO	8	-	-	0	0	0	

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Standard ○ Option □ Available - Not available

● Standard ○ Option □ Available — Not available



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