



...more than
50 years of
innovative mulching
technology



...designed
and produced
in Germany



Hydraulic
Safety-Mulcher



Embankment
Safety-Mulcher



Front
Safety-Mulcher

Safety Mulcher



Side
Safety-Mulcher

Safety mulching machines



humus is symbolic for more than 50 years of innovative mulching technology for fruit and vine growing and for community service surface care.

We grew up with the design and manufacturing of mulching machines. Our machines, which are marketed under the brand name "humus" and are of great significance for fruit and vine growing, community services and for forestry.

We pioneered development of the first mulching machines for fruit growing applications in 1957, and still enjoy continuing success today. At present, the „humus“ product range comprises more than 100 different machine models.

For more than 50 years, the Maschinenfabrik Bermatingen has stood for competence and innovation. We invest large sums in research and development. We constantly strive to adapt our products to the requirements of our customers as well as to those of the market.

Our design engineers always keep two objectives in mind: on the one hand the realisation of advanced technical solutions with the development of user-friendly machinery and equipment, and on the other hand to consider a multitude of requirements which allow environmentally sound solutions.

Modern technology, ease of operation and proven safety are standard for us when developing our equipment - this has been documented by means of internationally valid certification.



Up to date productions systems assure a high standard of quality

All of our company divisions are united at the company headquarters in Bermatingen near Lake Constance, where administration, R&D, parts production and final assembly work together efficiently. Over the years, production floor space has grown over 7,000 m² and we are already considering further expansion.

Qualified and motivated employees assure the fulfilment of our ambitious business objectives with their exceptional commitment and team spirit. After all, industry leaders have to be willing to give more than just 100 %, and we stick to this principle. Continuous investment guarantees our high quality standard of our products. Systematic inspection and testing accompany all stages of the product: R&D, all production sequences up to shipment to our customers all over the world.

Precision work for satisfied customers

All of our products are the result of in-house R&D, where they are refined until they are ready for series production. In so far as it is feasible and economically viable for us, we also produce all parts ourselves.

Trained staff operates most modern production equipment. CNC welding robots, press brakes, CNC milling machines and our own Laser Centre are other essential prerequisites for a reliable and continuous fulfilment of our own quality requirements as well as those of our customers.

All our products receive its protective coating in our own painting system. Our Quality requirements apply to purchased standard parts as well, and we only use products which fulfil the toughest of international standards.



The company headquarters in Bermatingen near Lake Constance: Our expansive grounds provide us with ample opportunity for further expansion.



Our subsidiary, "Humus S.A.", represents us in France.

humus Safety mulching machines



Page



**humus Safety-Mulcher -
the revolutionary mulching
technology with convincing
advantages**

1



**Pedestrian controlled
Safety-Mulcher**

Working width 0.60 m

2



**Front Safety-Mulcher SM / SME
for mounting to compact tractors
and single axle carriers**

Working widths SM 0.85 to 2.20 m
Working widths SME 0.85 to 1.25 m

3



**Hydraulic Safety-Mulcher SMH / SMA
for mulching and hedge cutting**

Working widths SMH 0.85 to 2.20 m
Working width SMA 1.25 m

4



**Embankment Safety-Mulcher BMS
for mulching and hedge cutting**

Working widths 1.05 and 1.25 m

5



**Side Safety-Mulcher SSG
for mulching and hedge cutting**

Working widths 1.05 to 1.45 m

6



**Side Safety-Mulcher SSP
for mulching and hedge cutting**

Working widths 1.25 to 2.20 m

7/8

The humus Safety-Mulcher can not only be applied as a serial mounting equipment. You can also modify it for various special requirements:
e.g. in combination with remote controlled mulching crawlers or as mid-mount mower.



...designed and
produced in Germany



*humus mowers of
fine-grained steel*
★ lighter ★ stronger
★ of more stable value!

humus Safety-Mulcher -
the revolutionary mulching
technology with
convincing
advantages...



...Safety

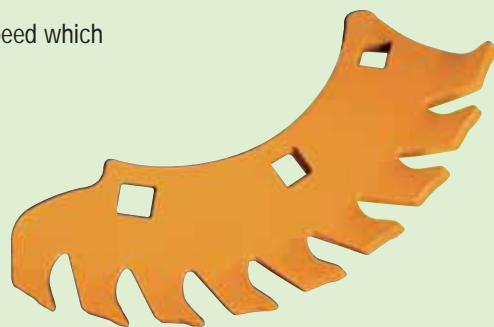
The special design and arrangement of the blades fixed on the rotor eliminates nearly 95% of the danger of stones and other materials being thrown out during mowing and lifting the machine.

...Performance

The Safety-Mulcher features an adjustable cutting speed which can lead to increased productivity.

...Quality

The numerous cutting edges, characteristic for the three-cutters-system with the Safety-Mulcher, assure a clean cut and perfect pulverization of the material to be mown.



...Service

The centre of the Safety-Mulcher technology is the helicoidally rotor, which is fitted with multi-toothed cutting blades made of hardened steel. The separate cutter segments can be easily and quickly replaced without requiring any special tools, thus saving you time and money with servicing.



The patented Safety mulching
technology is awarded multiply!





Safety-Cut

Pedestrian controlled Safety-Mulcher

Range of application

- Mulching of grass - even in slopes
- Turf care and landscape care
- Tree nurseries and other cultivations
- Municipal appliances
- Marginal strip grass
- Forestry and Christmas tree cultivations

The humus Safety-Cut is a compact machine and extremely light in weight which makes it easy to maneuver. It is popular for its clean cutting capabilities in either short or long growth.

Even with light or old dried out undergrowth, it has no problems.



Safety-Cut 60 H 10

Working width	60 cm
Drive	hydrostatic
Tyres	AS tread 3.50-6
Motor capacity	model 60 H 10: 10 hp / 7.3 kW
Driving speed	forward 0 - 6 km/h, reverse 0 - 3 km/h
Weight	153 kg
Size of mown area	with 2.5 km/h = 1,500 m ² /h
Handle bar	single guiding bars (can be swung to the side without needing tools)
Differential lock	100% to connect, controlled at the handle bar
Additional equipment	equipment for working in a slope



Operation of the machine is easy...

- All important operating elements are arranged at the handle bars
- The cutting speed is infinitely variable with a star-grip
- The cutting height adjustment is controlled with a three-stage control-lever
- The comfort safety switching allows an easy starting of the Safety-Cut

...with Hydrostatic Drive

- A solid and maintenance free hydrostatic drive guarantees a reliable drive even on a slope
- The 100% differential lock which can be connected and controlled from the handle bar assures an easy handling on every terrain
- The serial agricultural tread achieves an optimal wheel grip



SM Front Safety-Mulcher model range

Range of application

- Mulching of grass
- Grassland care
- Turf care and landscape care
- Municipal appliances
- Marginal strip grass
- Mowing of large areas in combination with side mulchers



The humus SM has been designed to be an extremely compact machine which is suitable for all models of compact tractors and special carrier vehicles up to 1.75 m.

It has a flexible mounting system which makes it extremely simple to attach to the carrier vehicle.

Safety-Mulcher SM: Now also available with hydraulic side shift!



SME - for single-axle carriers - standard equipment

- Flange for mounting, suitable for the carrier vehicle
- Skids
- Roller for good surface adaptation and proper cutting height adjustment
- Brake gearbox for braking the cutter rotor in 7 sec.



SM - with gearbox drive - standard equipment

- Front mounting suitable for the carrier vehicle
- Skids
- Roller for good surface adaptation and proper cutting height adjustment
- Gearbox with drift and pivoting device
- Adjustable coupling triangle suitable for the carrier vehicle



Safety-Mulcher	Version	SM 085 SME 085	– SME 090	SM 105 SME 105	SM 125 SME 125	SM 145 –	SM 155 –	SM 175 –	SM 180 –	SM 200 –	SM 220 –
Working width	m	0.85 0.85	– 0.90	1.05 1.05	1.25 1.25	1.45 –	1.55 –	1.75 –	1.80 –	2.00 –	2.20 –
Overall width	m	0.95 0.95	– 1.00	1.25 1.15	1.35 1.35	1.55 –	1.65 –	1.85 –	1.90 –	2.10 –	2.30 –
Power requirement* min. kW / hp		8 / 11 8 / 11	– 7 / 9	12 / 16 12 / 16	17 / 23 17 / 23	22 / 30 –	26 / 36 –	28 / 38 –	30 / 41 –	36 / 49 –	44 / 60 –
Rpm of drive shaft	rpm	540 / 1.000 / 2.000 / 2.200 / 2.500 according to indication of carrier vehicle						–	–	540 –	540 –
Weight	approx. kg	120 140	– 97	150 158	180 165	220 –	250 –	285 –	500 –	530 –	560 –

*The power requirement also depends upon the kind and quantity of the material to be mown.



SMA Hydraulic Safety-Mulcher model range

Range of application

- Mulching of grass
- Grassland care
- Turf care and landscape care
- Municipal appliances
- Marginal strip grass
- Hedge cutting
- Mulching at trenches and embankments
- Mowing of large areas in combination with side mulchers

Heavy mulcher with hydraulic drive, appropriate for front mounting as well as mounting to big extension mower, wheel loader, digger etc.. The mulching head is characterized by an extremely robust housing and strong bearings.

Special fixing system

SMH - with hydraulic drive - standard equipment

- Housing with special fixing system which guarantees a fast mounting to the carrier vehicle
- Skids
- Roller for good surface adaptation and proper cutting height adjustment
- Overload protection by flexible v-belt drive

SMA - with hydraulic drive - standard equipment

- Housing with special fixing system which guarantees a fast mounting to the carrier vehicle
- Skids
- Roller for good surface adaptation and proper cutting height adjustment
- Overload protection by flexible v-belt drive

Safety-Mulcher	Version	SMA 125	SMA 155	SMA 180	SMA 200	SMA 220
Working width	m	1.25	1.55	1.80	2.00	2.20
Overall width	m	1.40	1.70	1.95	2.15	2.45
Power requirement* min. kW/hp		17 / 23	22 / 30	30 / 41	36 / 49	44 / 60
Oil motors	l	25 - 130				
Weight	approx. kg	350	510	520	530	560

*The power requirement also depends upon the kind and quantity of the material to be mown.



- Also available as type KMA with fine-edge blade system or "Y"-type blades



Extension arm Safety-Mulcher model range BMS on page 5



The Safety-Mulcher SM is also available with small flail shaft in its model range SMK in working width 0.85 - 1.55 m.

Safety-Mulcher	Version	SMH 085	SMH 105	SMH 125	SMH 145	SMH 155	SMH 175
Working width	m	0.85	1.05	1.25	1.45	1.55	1.75
Overall	m	0.95	1.25	1.35	1.55	1.65	1.85
Power requirement* min. kW/hp		8 / 11	12 / 16	17 / 23	22 / 30	26 / 36	28 / 38
Oil motors	l	25 - 130					
Weight	approx. kg	120	150	180	220	250	285

*The power requirement also depends upon the kind and quantity of the material to be mown.



BMS Embankment Safety-Mulcher model range

Range of application

- Mulching of grass in trenches and on embankments
- Turf care and landscape care
- Municipal appliances
- Marginal strip grass
- Verge and hedge cutting



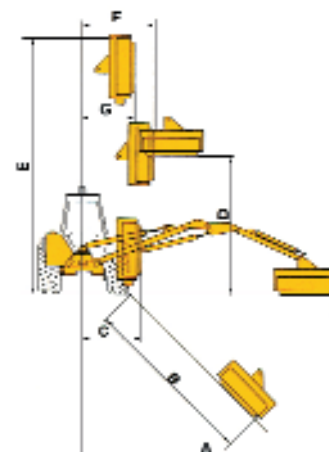
Hydraulic extension for small tractors and carrier vehicles up to 40 kW.

Further extension mowers on request!



BMS standard equipment

- 3-point rear mounting Cat. I or II
- Rightwing - if requested, also leftwing
- Obstacle safety device
- Left-hand and right-hand rotation of the cutter rotor
- Mulching head with floating mounting for an excellent soil adaptation
- No hydraulic connections required at the carrier vehicle



BMS	105	125
A m	3.20	3.30
B m	2.10	2.20
C m	0.90	0.90
D m	2.10	2.10
E m	3.70	3.80
F m	1.60	1.60
G m	0.80	0.80



Safety-Mulcher	Version	BMS 105	BMS 125
Working width	m	1.05	1.25
Overall width	m	1.25	1.35
Power requirement*	min. kW/hp	30 / 41	35 / 48
Rpm of drive shaft	rpm	540	540
Weight	approx. kg	350	360
Width of carrier vehicle	m	1.40	1.45
Weight of carrier vehicle	min. kg	1,400	1,500

*The power requirement also depends upon the kind and quantity of the material to be mown.



BMS accessories:
Hedge shears with 1.50 m working width - suitable for branches up to ø 3 cm.



SSG Side Safety-Mulcher model range

Range of application

- Mulching of grass -
in parks, under bushes and hedges
- Trenches and embankments
- Turf care and landscape care
- Municipal appliances
- Marginal strip grass - at bike paths
- Forestry - for waysides

The humus SSG is suitable for mounting on to all small tractors and is available for working either on the leftwing or rightwing of the carrier vehicle. Only a single or double acting control unit is required for the operation of the humus machine.

The humus SSG model has extra features that make it superior to a front mounted mower.

SSG standard equipment

- Rear mounting Cat. I or II
- Skids
- Roller for good surface adaptation and proper cutting height
- Right extension
- Mechanic obstacle safety device
- Adjustable throttle valve for a smooth lowering of the mulching head

Attention: Front mounting is only possible with a PTO rotation speed of 540 rpm or with hydraulic drive.

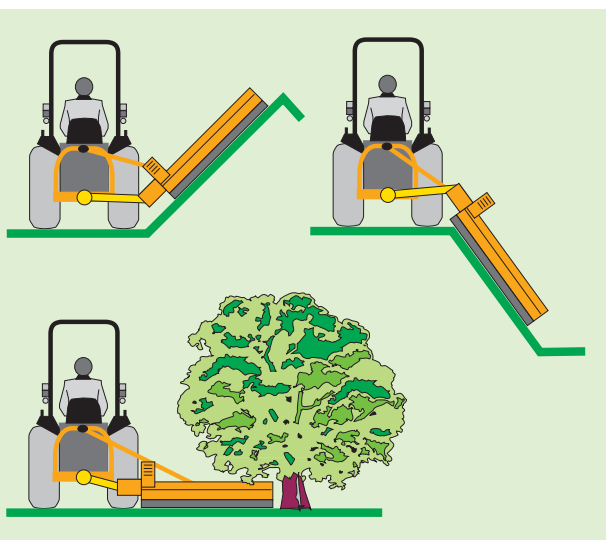


Stageless variable inclination of the mulching head

- SSG model range: 90° upwards / 30° downwards
- SSP model range: 90° upwards / 60° downwards

Safety-Mulcher	Version	SSG 105	SSG 125	SSG 145
Working width	m	1.05	1.25	1.45
Overall width	m	1.45	1.65	1.85
Power requirement* min. kW/hp		15 / 20	19 / 25	22 / 30
Rpm of drive shaft	rpm	540	540	540
Carrier vehicle minimum weight	kg	1,000	1,200	1,300
Weight	approx. kg	310	330	350

*The power requirement also depends upon the kind and quantity of the material to be mown.



SSP Side Safety-Mulcher model range

Range of application

- Mulching of grass / light brush-wood
- Trenches and embankments
- Turf care and landscape care
- Municipal appliances
- Marginal strip grass
- Mowing of large areas in combination with front mower - up to 4.40 m mowing width



The humus SSP machine is able to be used in various ways. It can be attached to the rear of the carrier vehicle or can be mounted to pivot sideways. The advantage of being able to pivot the machine enables the operator to mow trenches and embankments with ease.

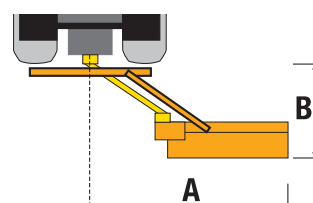


Attention:

Front mounting is only possible with a PTO rotation speed of 540 rpm or with hydraulic drive.

Safety-Mulcher	Version	SSP 125	SSP 145	SSP 155
Working width	m	1.25	1.45	1.55
Overall width	m	1.70	1.90	2.03
Track gauge	min. m	1.20	1.40	1.50
Power requirement*	min. kW/hp	25 / 34	30 / 41	35 / 48
Rpm of drive shaft	rpm	540	540	540
Carrier vehicle minimum weight	kg	1,300	1,400	1,500
Weight	approx. kg	515	535	555

*The power requirement also depends upon the kind and quantity of the material to be mown.



SSP	125	145	155
A = m	2.45	2.65	2.75
B = m	1.90	1.90	2.00
C = m	1.25	1.45	1.55
D = m	0.30	0.30	0.37
E = m	1.80	1.80	1.80

SSP standard equipment

- Rear mounting:
Cat. I or II (1.25 to 1.55 working width)
Cat. I or III (1.80 to 2.20 working width)
- Skids
- Roller for good surface adaptation and proper cutting height
- Mechanic obstacle safety device
- Mounting height can be adapted to the type of carrier vehicle (adjustable with 1.25 to 1.55 working width)
- Stop valves assure a safe positioning of the mower



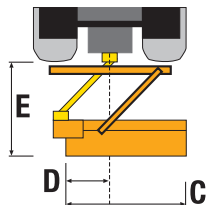
The strong collision protection assures maximum protection when driving against an obstacle.



Removable mounting Cat. II for more space of the PTO.



Appealing performance as well with large areas:
In combination with a front mulcher you can achieve a working width of up to 4.40 m.



155	180	200	220
2.75	2.95	3.15	3.35
2.00	2.00	2.00	2.00
1.55	1.80	2.00	2.20
0.37	0.37	0.37	0.27
1.80	1.80	1.80	1.80

Safety-Mulcher	Version	SSP 155	SSP 180	SSP 200	SSP 220
Working width	m	1.55	1.80	2.00	2.20
Overall width	m	1.70	2.30	2.50	2.70
Track gauge	min. m	1.80	1.80	2.00	2.20
Power requirement*	min. kW/hp	60 / 82	59 / 81	66 / 90	66 / 90
Rpm of drive shaft	rpm	540	540	540	540
Carrier vehicle minimum weight	kg	2,500	2,600	3,000	3,000
Weight	approx. kg	900	980	1,000	1,050

*The power requirement also depends upon the kind and quantity of the material to be mown.



- Innovative technology
- Excellent working results
- Easy to operate
- Reliability
- High quality
- Solid design
- Service-friendly

Recognised and awarded technology is part of our motivation to keep on endeavouring to offer always the perfect solutions to our customers.

Our wide dealer network guarantees our customer the best quality service and support for many years after purchasing a humus machine.



We reserve the right to vary technical specifications and colours without prior notice. 062.2010

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**Phone +49 (0) 75 44 95 06-0, Fax -20
service@mabe-info.de**

Your specialised dealer



www.humus-mulchgeraete.de



Rotary mowers

Rotary mowers for fruit- and vine-growing, especially well proven due to their low overall height. Depending on the single machine model, the mulchers have a variable working width.

Please ask for your **rotary mower** brochure.



Flail mulchers

The cutter rotor mulches the growth exactly in the set height. The mown material is transported along the housing via the rear roller and spread equally behind the machine.

Please ask for your **flail mulcher** brochure.



Side mulchers

For mulching at paths and embankments - fitted with "Y"-type blades, system flails or the "Safety" blade rotor.

Please ask for your **flail mulcher** and **Safety-Mulcher** brochure.

humus is also strongly committed with the technology of the equipment, and offers a broad range of practical assistance for the harvest in the fruit growing and pruning...



...humus forklifts for mounting

All fork lifts are fitted with double-effective lifting cylinder for pushing and a quick lowering, hydraulic top link, upward folding and multi-adjustable teeth.

	Type	I	A	B
Lifting height	m	2.50	2.00	2.60
Lifting capacity	kg	1,000	1,500	1,500
Height	m	1.85	1.70	2.00
Width	m	0.80	1.03	1.03
Weight	kg	260	380	410



...Felco -
electronic pruning shears



...humus
cutting equipment