

Soil Tillage



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# **ABOUT US**

Makfarm, with its partner institutions, has been in the field with its quality, innovation, productivity and customer pleasure principles in sector together with its professional team.

Makfarm has been producing its products bu using CNC machines, laser and plasma cutting machines, robotic welder machines, hydraulic press machines, static dying ovens and production systems based on automation without any mistake and according to quality requirements.

The center of our company is in Konya which is an industrial and agricultural region of Turkey. Together with our partners production is being done in 6 different factories in 2 different cities in Turkey.

MAKFARM is making production under three main categories such as soil processing group, crop planting group and harvest machines. We are increasing our product quality, product variety and fertility day by day in accordance with our customers' demands from different countries on the world.

Together with our partners we are going to be your reliable work partner without any concessions from our QUALITY, FERTILITY and INNOVATIVE principles.





#### **COMPACT DISC TILLER**

**TIGER** 

TIGER and TIGER-K have a large usage alternatives on soil processing especially for seed bed preperation and stubble processing. Requested soil processing quality can be reached if it is worked until 15 km/h according to soil conditions. The high working capasity brings low costs and low fuel. 510 mm notched discs are tied to frame with rubber roll springs. It is an ideal machine for minimum soil processing that becomes important in the last years. It is possible with this machine to mix crumbling plant parts in the best way and to become useful faster for the plant, consequently to bring in biological balance of the soil again. You can see these differences in the next production season.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Transport Width	Weight	Power Requirement
TGR 20	Mounted	20	510 mm	250 cm	270 cm	1.540 kg	85-110 hp
TGR 24	Mounted	24	510 mm	300 cm	320 cm	1.710 kg	100-130 hp
TGR 28	Mounted	28	510 mm	350 cm	370 cm	1.850 kg	110-150 hp

560 mm disc diameter models are optional. The weight in the chart includes Cage Roller.

Power requirement my vary depending on soil conditions. All data are subject to change without prior notice.

# TIGER-K

### **COMPACT DISC TILLER**



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Transport Width	Weight	Power Requirement
TGR 32	Mounted	32	510 mm	400 cm	280 cm	2.650 kg	130-170 hp
TGR 32	Trailed	32	510 mm	400 cm	280 cm	3.750 kg	140-180 hp
TGR 36	Mounted	36	510 mm	450 cm	280 cm	2.840 kg	150-180 hp
TGR 36	Trailed	36	510 mm	450 cm	280 cm	3.940 kg	160-190 hp
TGR 40	Mounted	40	510 mm	500 cm	280 cm	3.050 kg	160-200 hp
TGR 40	Trailed	40	510 mm	500 cm	280 cm	4.150 kg	170-210 hp
TGR 48	Mounted	48	510 mm	600 cm	280 cm	3.390 kg	180-240 hp
TGR 48	Trailed	48	510 mm	600 cm	280 cm	4.490 kg	190-250 hp

560 mm disc diameter models are optional. The weight in the chart includes Disc Roller.

Power requirement my vary depending on soil conditions. All data are subject to change without prior notice.



#### **HEAVY DUTY DISC HARROW**

RIGMAX

**BIGMAX** is being manufactured from 20 discs to 28 discs and can be provided with more model alternatives with 22 cm disc spaces, 560 mm disc diameters, plain and notched type discs. These alternatives enable the farmers to choose the most suitable equipment for their own conditions. The disc direction angle that can be opened to 22 degree gets good soil working and also desired working depth. 2 pieces of land type tyres with the size 10.0/75 15.3 are used for each machines. It is a suitable machine minimum soil processing that has become important in the last years.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Transport Width	Weight	Power Requirement
BMX-20	Heavy	40	560	220 cm	250 cm	1460 kg	70 - 80 hp
BMX-22	Heavy	44	560	240 cm	270 cm	1520 kg	80 - 90 hp
BMX-24	Heavy	48	560	260 cm	290 cm	1580 kg	90 - 100 hp
BMX-26	Heavy	52	560	280 cm	310 cm	1640 kg	100 - 110 hp
BMX-28	Heavy	56	560	300 cm	330 cm	1680 kg	110 - 120 hp
BMX-30	Heavy	60	560	320 cm	350 cm	1850 kg	120 - 130 hp
BMX-32	Heavy	64	560	340 cm	370 cm	1930 kg	130 - 140 hp
BMX-34	Heavy	60	560	360 cm	390 cm	2010 kg	140 - 150 hp
BMX-36	Heavy	64	560	380 cm	410 cm	2100 kg	150 - 160 hp

Disc spacing is 230 mm.

610 mm and 660 mm disc diameter models are optional.

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

# **BIGMAX-K**

# **HEAVY DUTY FOLDING DISC HARROW**



BIGMAX-K provides the posibility of transportation by folding the side batteries and decreasing the working width for road security for the types with more than 40 discs. This machine that is predominantly used on primary soil preperation is prefered by the farmers who have a big strong tractors. It can reach more working depth in accordance with the soil conditions. It is a suitable machine minimum soil processing that has become important in the last years.

Model	Frame Type	Number of Discs	Disc Dia	Working Width	Transport Width	Weight	Power Requirement
BMX-K 40	Heavy	40	560	430 cm	3.485 cm	150-180 kg	130-170 hp
BMX-K 44	Heavy	44	560	480 cm	3.620 cm	170-200 kg	140-180 hp
BMX-K 48	Heavy	48	560	530 cm	3.770 cm	180-210 kg	150-180 hp
BMX-K 52	Heavy	52	560	580 cm	3.950 cm	210-240 kg	160-190 hp
BMX-K 56	Heavy	56	560	630 cm	4.220 cm	230-260 kg	160-200 hp
BMX-K 60	Heavy	60	560	680 cm	4.470 cm	250-280 kg	170-210 hp
BMX-K 64	Heavy	64	560	730 cm	4.725 cm	270-320 kg	180-240 hp

Disc spacing is 230 mm.

610 mm and 660 mm disc diameter models are optional.

All data are subject to change without prior notice.

### **HEAVY DUTY DISC HARROW, OFFSET**

ULTRAMAX

**ULTRAMAX** is being manufactured from 20 discs to 36 discs and can be provided with more model alternatives with 22 cm disc spaces, 660 mm disc diameters, plain and notched type discs. These alternatives enable the farmers to choose the most suitable equipment for their own conditions. The disc direction angle that can be opened to 22 degree gets good soil working and also desired working depth. 2 pieces of land type tyres with the size 10.0/75 15.3 are used for each machines. It is a suitable machine minimum soil processing that has become important in the last years.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
UMX 20	Heavy	20	560 mm	220 cm	1.850 kg	70-80 hp
UMX 22	Heavy	22	560 mm	240 cm	1.900 kg	80-90 hp
UMX 24	Heavy	24	560 mm	260 cm	1.950 kg	90-100 hp
UMX 26	Heavy	26	560 mm	280 cm	2.000 kg	100-110 hp
UMX 28	Heavy	28	560 mm	300 cm	2.050 kg	110-120 hp
UMX 30	Heavy	30	560 mm	320 cm	2.100 kg	120-130 hp
UMX 32	Heavy	32	560 mm	340 cm	2.150 kg	130-140 hp
UMX 34	Heavy	34	560 mm	360 cm	2.200 kg	140-150 hp
UMX 36	Heavy	36	560 mm	380 cm	2.250 kg	150-160 hp

Disc spacing is 230 mm.

610 mm and 660 mm disc diameter models are optional.

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

# LIGHTMAX

# **LIGHT TYPE DISC HARROW, OFFSET**



**LIGHTMAX** with a lighter chassis and different working widths is aimed at a more economical and easy-to-use machine. The disc direction angle that can be opened to 22 degree gets good soil working and also desired working depth. It provides a better part of the soil by ensuring the smoothness of the surface. As an option, a combination with a rear-mounted rotary harrow is available.

Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
LIGHTMAX 28	Light	28	460 mm	260 cm	1.630 kg	65-85 hp
LIGHTMAX 32	Light	32	460 mm	298 cm	1.730 kg	75-95 hp
LIGHTMAX 36	Light	36	460 mm	322 cm	1.860 kg	85-105 hp
LIGHTMAX 40	Light	40	460 mm	346 cm	1.960 kg	95-115 hp
LIGHTMAX 44	Light	44	460 mm	370 cm	2.060 kg	105-125 hp

Disc spacing is 230 mm.

510 mm and 560 mm Disc Diameter models are optional.

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.



### **V TYPE DISC HARROW, OFFSET**

VD

**VD** V-Type offset disc harrow is the preferred product in garden and small parcels with practical use. Tractor is used by connecting to three point hanging system. Models are available with disc diameters from 510 mm to 560 mm and /or 610 mm. The direction of the front battery and rear battery can be easily adjusted. Front-left and right-left parallelism settings should be made with tractor hanger arms.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
VD 16	Mounted	16	510 mm	170 cm	490 kg	50-60 hp
VD 18	Mounted	18	510 mm	190 cm	520 kg	60-70 hp
VD 20	Mounted	20	510 mm	210 cm	550 kg	70-80 hp
VD 22	Mounted	22	510 mm	230 cm	590 kg	80-90 hp
VD 24	Mounted	24	510 mm	250 cm	630 kg	90-100 hp

Disc spacing is 175 - 230 mm.

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

### MHD

### TRAILED AND MOUNTED DISC HARROW, OFFSET



**MHD** is a practical, easy-to-use product that can meet the needs of the farmer in other soil processes. As a drawback, it is a high-performance product that is used as a hanging type in transport. It can be used in soil processing after plow, mixing the dung into the soil, weed control, the processing of the trees in the garden, the preparation of the seed bed before planting. When compared with other tillage machines, the working speed is higher, the operating cost is low and more economical.

Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
MHD 24	Trailed and Mounted	24	460	200	625	50-60
MHD 28	Trailed and Mounted	28	460	235	700	60-70
MHD 32	Trailed and Mounted	32	460	270	730	70-80
MHD 36	Trailed and Mounted	36	460	305	850	80-100
MHD 40	Trailed and Mounted	40	460	340	940	100-110
MHD 44	Trailed and Mounted	44	460	375	1.020	120-130
MHD 48	Trailed and Mounted	48	460	410	1.105	140-150

Disc spacing is 175 mm.

510 mm disc diameter models are optional.

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

### X TYPE DISC HARROW, OFFSET

MTD hanging type tandem disc harrow is a practical product with high maneuverability. It is used as a secondary tillage tool in field and garden cultivation. It is used for mixing the soil and for mixing the fertilizers thrown into the garden or field. It is aimed to increase the shredding effect by selecting the interval of 175 mm. The option of notched disc can be preferred for more grassy and heavy soil conditions. Disc direction angles can be adjusted from the points where the batteries are connected to the frame. The existing work depth can be increased by adding additional weight (sandbag etc.) to the weight chamber on the frame.



Model	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
MTD-20	20	460 mm	215 cm	455 kg	40 - 60 hp
MTD-24	24	460 mm	230 cm	520 kg	50 - 70 hp
MTD-28	28	460 mm	245 cm	570 kg	60 - 80 hp
MTD-32	32	460 mm	260 cm	630 kg	70 - 100 hp

510 mm disc diameter model are optional. Power requirement may vary depending on soil conditions.

# VENT

### LIGHT COMPACT DISC TILLER



VENT has a large usage alternatives on soil processing, especially for seed bed preperation and stubble processing. It decreases the product costs by its combined design. Requested soil processing quality can be reached if worked until 15 km/h according to soil conditions. 510 mm notched discs are tied to frame with rubber roll springs. It is an ideal machine for minimum soil processing that becomes important in the last years. It is possible with this machine to mix by crumbling plant parts in the best way and to become useful faster for the plant, consequently to bring in biological balance of the soil again. You can see these differences in the next production season.

Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
VENT 20	Light	20	510 mm	250 cm	1.010 kg	80-85 hp
VENT 24	Light	24	510 mm	300 cm	1.160 kg	85-100 hp
VENT 28	Light	28	510 mm	350 cm	1.320 kg	90-110 hp
VENT 32	Light	28	510 mm	400 cm	1.480 kg	100-120 hp

560 mm disc diameter models are optional.

All data are subject to change without prior notice.



#### LIGHT COMPACT DISC TILLER

VENT-JNR

**VENT-JNR** is built for smaller HP Tractors. The sizes range from 2.5 m to 3.5 m and these are suitable for tractors with 70-110 HP. It is a multi-purpose tillage tool capable of tasks from light soil tillage and stubble preparation through to complete primary cultivation. It effectively mixes soil and plant debris together, improving the biological balance of the soil. Working the organic matter on the top of the soil is one of the most effective ways to increase crop yields.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weight	Power Requirement
VENT-JNR 12	Light	12	460 mm	150 cm	680 kg	50-60 hp
VENT-JNR 14	Light	14	460 mm	175 cm	785 kg	60-70 hp
VENT-JNR 16	Light	16	460 mm	200 cm	875 kg	70-75 hp
VENT-JNR 18	Light	18	460 mm	225 cm	975 kg	75-90 hp

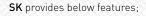
<sup>510</sup> mm disc diameter model are optional.

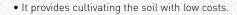
All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

SK

### **SUBSOILER**





- It protects moisture by enabling the rain water to be absorbed by the soil and it prevents soil erosion from the surface.
- It provides air, water and plant interaction in the soil in the best way.

The parts of this machine which operates with soil are produced with heat treatment from the alloyed steel whose permanent resistance is high.



Model	SK - SUBSOILER (FIXED)	SK-D - SUBSOILER (DEPTH ADJUSTMENT)
Number of Tines	1	1
Angle of Penetration	30	30
Chassis Height	80 cm	80 - 100 cm
Furrow Distance	56 - 73 cm	56 - 73 cm
Working Depth Max.	Max / Fixed	40-100 / Adjustable
Machine Weight	155 kg	175 kg
Required Tractor Power	60-90 hp	60-110 hp
All data are subject to chang	ge without prior notice.	

#### **SUPER SUBSOILER**

SSK

SSK Makfarm new and modern tool that in tillage tools farmers. its experience This tool penetrates and detonates substrates 1 meter deep in the field. In this way, minerals in the depth of the soil do not spread to the surface and underground water is filltered.



SSK-3	SSK-5	SSK-7	
3	5	7	
30	30	30	
80	80	80	
56 - 73	56-73	56-73	
180	250	360	
70-100 / Adjustable	70-100 / Adjustable	70-100 / Adjustable	
620	850	1350	
85-100	110-130	130-150	
	3 30 80 56 - 73 180 70-100 / Adjustable 620	3 5 30 30 80 80 80 80 56 - 73 56-73 180 250 70-100 / Adjustable 70-100 / Adjustable 620 850	

# **SUNGUR**

#### **SUBSOILER**



**SUNGUR** has been designed to work with low and medium horsepower tractors (70 - 160 Hp). The feet have a safety system that is protected by a pin and prevents any damage. With the double toothed roller system, it is ensured that the clods are shreded and the soil is leveled and a proper seed bed is prepared. Depth adjustment is made with the help of pistons. With this machine, the hard layer formed in the depth of the plow in the soil is shreded. Thus, the condition of getting ready in places with wetness problem due to the hard layer is eliminated, and early and timely planting is provided. The aeration of the soil and the water holding capacity of the soil increase. It becomes easier for the soil to absorb the nutrients found in the deep.

Model	Number of Feet	Foot Height	Work Depth	Foot Thickness	Foot Distance	Working Width	Power Requirement
SGR 5	5	75 cm	50 cm	30 mm	45 cm	250 cm	70-110 hp
SGR 7	7	75 cm	50 cm	30 mm	45 cm	350 cm	100-160 hp
SGR 9	9	75 cm	50 cm	30 mm	45 cm	350 cm	130-200 hp

Foot spacing is 45 cm.

All data are subject to change without prior notice.



### **HEAVY DUTY TYPE SPRING CULTIVATOR**

**KEPLER** 

KEPLER can be used for several soil processing with its compact and combine structure. It can provide an effective soil processing on stubble processing after harvest. The stubble is mixed to soil by being cut from its root, it becomes organic fertilizer for the next product season. Soil surface seed-bed is prepared in the most convenient way by levelling discs and roller combination. The models with 3 m and 3,5 m are mounted type and 4 m and more than 4 m are designed both mounted and trailed with wheels. You can determine and buy the model suitable for your conditions.



Model	Frame Type	Number of Discs	Disc Dia	Working Width	Weigh	Power Requirement
KPL-3	Heavy	10	300 mm	300 cm	2.400 kg	115-130 hp
KPL-3,5	Heavy	12	350 mm	350 cm	2.630 kg	120-170 hp
KPL-4	Heavy	13	400 mm	300 cm	3.640 kg	150-180 hp
KPL-5	Heavy	16	500 mm	300 cm	4.686 kg	200-250 hp
KPL-6	Heavy	19	600 mm	310 cm	7.120 kg	240-280 hp

All data are subject to change without prior notice.

The weight in the chart includes Disc Roller.

Power requirement may vary depending on soil conditions.

# **VESPER**

# **HEAVY TYPE SPRING CULTIVATOR**



VESPER can be used in stubble and seed bed preparation processes with its compact and combined structure. With the help of this, an effective soil tillage is provided in post-harvest stubble processing. It has been very successful in weed control. By means of roller, it can work easily by adjusting the working depth of 5 cm to 30 cm in shallow and deep soil processing. Soil surface seed-bed is prepared in the most convenient way by levelling discs and roller combination. Plant residues are ideally mixed into the soil. In this way, the desired stubble-soil mixture is provided in the best way and all these are achieved with low fuel use, that is, at low cost.

Model	Frame Type	Number of Tines	Working Width	Transport Width	Weight	Power Requirement
VPR 5	Mounted	5	250 cm	220 cm	745 kg	70-90 hp
VPR 7	Mounted	7	300 cm	310 cm	925 kg	90-130 hp
VPR 9	Mounted	9	350 cm	360 cm	1.105 kg	130-160 hp
VPR 11	Mounted	11	400 cm	420 cm	1.470 kg	160-190 hp

All data are subject to change without prior notice.

#### **FIXED CULTIVATOR**

### **VESPER-S**

**VESPER-S** can be used in stubble and seed bed preparation processes with its compact and combined structure. With the help of this, an effective soil tillage is provided in post-harvest stubble processing. Soil surface seed-bed is prepared in the most convenient way by levelling discs and roller combination. In this way, the desired stubble-soil mixture is provided in the best way and all these are achieved with low fuel use, that is, at low cost.



Model	Frame Type	Number of Foot	Road Width	Working Width	Weight	Power Requirement
VPR-S 5	Heavy	5	220 cm	200 cm	520 kg	70-90 hp
VPR-S 7	Heavy	7	310 cm	300 cm	620 kg	90-130 hp
VPR-S 9	Heavy	9	360 cm	350 cm	700 kg	130-160 hp
VPR-S 11	Heavy	11	420 cm	400 cm	840 kg	160-190 hp

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

### **MSN**

#### **SPRING CULTIVATOR**



MSN serves to prepare the desired seed bed as it vibrates in the soil. No blockage occurs in stubble processing due to the high roots and the large gap between the tines. In the stubble cultivation and in the spring to loosen the soil, narrow-edged and sweeping edge bars can be used successfully in hard and stripped soil conditions. It mixes the stubble, plant residues and fertilizers in the soil in the most appropriate way. In addition, it provides a good protective coating against water and wind erosion when partially remaining on the soil surface.

Model	Number of Tines	Distance Between Rows	Number of Bearings	Max Weight	Total Length	Total Height	Total Width	Working Width	Power Requirement	
MSN-19	19		6	540 kg		130 cm	225 cm	225 cm	60-70 hp	
MSN-21	21	12,5 cm		6	610 kg		130 cm	250 cm	250 cm	70-80 hp
MSN-25	25		8	685 kg		130 cm	300 cm	300 cm	80-90 hp	
MSN-29	29			8	780 kg		130 cm	350 cm	350 cm	90-100 hp
MSN-33	33		8	850 kg	077	130 cm	410 cm	400 cm	100-110 hp	
MSN-K-41	41		8	960 kg	274 cm	200 cm	410 cm	400 cm	110-120 hp	
MSN-K-51	51		12	1.120 kg		240 cm	510 cm	500 cm	120-130 hp	
MSN-K-61	61	10 cm	12	1.325 kg		280 cm	610 cm	600 cm	130-140 hp	
MSN-K-71	71		12	1.550 kg		320 cm	710 cm	700 cm	140-150 hp	
MSN-K-81	81		12	1.778 kg		360 cm	810 cm	800 cm	150-160 hp	

All data are subject to change without prior notice.



#### INTER ROW SPRING CULTIVATOR

IRSC

**IRSC** is ideal for the plants such as beet, corn, cotton, sun flower, tobacco and vegetables which are cultivated in order and it does not fall through the floor, provides the protection of moisture in the soil and it also provides an exact struggle against weeds. It keeps hoeing depth constant and saves 70-80% of labor thanks to the units moving independently from each other even in rough terrain conditions. The product grows early and it provides savings in irrigation. In addition, a fertilizer box can be mounted on the tool upon request.



Model	Number of Units	Distance Between Rows	Total Length	Weight	Power Requirement
IRSC-5	5	70-90 cm	3000 mm	560 kg	50-70 hp
IRSC-7	7	70-90 cm	4300 mm	760 kg	60-80 hp
IRSC-9	9	70 cm	6000 mm	1050 kg	80-110 hp
IRSC-K7	7	70-75 cm	3000 mm	1040 kg	70-100 hp
IRSC-K9	9	70-75 cm	3000 mm	1260 kg	100-130 hp

The weight in the chart includes Fertilizer System.

Power requirement may vary depending on soil conditions.

All data are subject to change without prior notice.

### **CTM**

### MOUNTED AND TRAILED ROLLER



**CTM** is used within small parcels. Basic duty of the rollers is to press the soil. They are used to pulverize the clods which can not be broken with cultivation tools and to smooth the field surface. Rollers may be used before and after the planting. Before the planting, it presses on the soil by breaking the clods of the cultivated field; and a balance between air holes, water-air ratio of the soil is regulated and a well seed bed is prepared. After the planting, it helps to increase the contact of the seeds with the soil, to close the water in lower compartments to the seed area and thereby germination.

Model	Roller Diameter	Maximum Weight	Total Lenght	Total Height	Total Width	Working Width	Power Requirements
CTM-U-250		965	245 cm	80 cm	265 cm	250 cm	50-60 hp
CTM-U-280		1095	245 cm	80 cm	295 cm	280 cm	50-60 hp
CTM-U-320		1225	245 cm	80 cm	335 cm	320 cm	60-70 hp
CTM-U-350		1355	245 cm	80 cm	365 cm	350 cm	70-80 hp
CTM-U-400	F0	1485	245 cm	80 cm	425 cm	400 cm	70-80 hp
CTM-T-250	50 cm	870	336 cm	195 cm	265 cm	250 cm	50-60 hp
CTM-T-280		990	336 cm	195 cm	295 cm	280 cm	50-60 hp
CTM-T-320		1.115	336 cm	195 cm	335 cm	320 cm	60-70 hp
CTM-T-350		1240	336 cm	195 cm	365 cm	350 cm	70-80 hp
CTM-T-400		1.360	336 cm	195 cm	425 cm	400 cm	60-70 hp

All data are subject to change without prior notice.

# **HEAVY TYPE ROLLER**

**ATM** 

**ATM** provides compaction and leveling of the top layer of soil. The roller applied before sowing is the guarantee of the smooth operation of the sowing machine and the germination of the sown seed. You get higher efficiency. Soil erosion is minimized and it provides moisture retention by squeezing the top layer of soil at approximately the planting depth. Side batteries can be folded for road condition. While being transported, the machine is carried on two terrain type tires of 10.0 / 75 15.3 dimensions.



Model	Code	Number Of Batteries	Working Width	Transport Width	Weight	Power Requirement
TUDED TYDE	ATM-B-45	3	450 cm	230 cm	1.760 kg	70-90 hp
TUBED TYPE	ATM-B-62	3	620 cm	230 cm	2.120 kg	110-130 hp
OALADDIDOS TVDS	ATM-M 45	3	450 cm	230 cm	2.480 kg	70-90 hp
CAMBRIDGE TYPE	ATM-M-62	3	620 cm	230 cm	2.840 kg	110-140 hp

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

# DP

# CHISEL PLOUGH



**DP** is used for the cultivation of soil without needing plow in the field after harvesting. Thanks to its long legs, it breaks up the hard upper crust formed under the plow. It carries out less clod soil cultivation during the dry summer months in which the plow cultivation cannot be done.

Model	Number of Tines	Distance Between Tines	Weight	Total Length	Total Width	Working Width	Power Requirement
DP-5	5		455 kg		170 cm	150 cm	40-60 hp
DP-7	7		560 kg		220 cm	200 cm	60-80 hp
DP-9	9		675 kg		270 cm	250 cm	80-100 hp
DP-11	11		885 kg	140	320 cm	300 cm	100-120 hp
DP-13	13		1060 kg		370 cm	350 cm	120-140 hp
DP-15	15		1130 kg		420 cm	400 cm	140-160 hp
DP-17	17	/0	1205 kg		470 cm	450 cm	160-180 hp
DPM-5	5	60 cm	590 kg		170 cm	150 cm	40-60 hp
DPM-7	7		720 kg		220 cm	200 cm	60-80 hp
DPM-9	9		860 kg		270 cm	250 cm	80-100 hp
DPM-11	11		1075 kg	200	320 cm	300 cm	100-120 hp
DPM-13	13		1265 kg		370 cm	350 cm	120-140 hp
DPM-15	15		1455 kg		420 cm	400 cm	140-160 hp
DPM-17	17		1650 kg		470 cm	450 cm	160-180 hp

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.



#### SPRING CHISEL PLOUGH

DP-Y

**DP-Y** is used for the cultivation of soil without needing plow in the field after harvesting. Thanks to its long legs, it breaks up the hard upper crust formed under the plow. It carries out less clod soil cultivation during the dry summer months in which the plow cultivation cannot be done. Feet are made of steel. EMP frames are made of 100x100x6 mm or 100x100x8 mm square profile according to the number of feet, and the leg connection heads are made of 80x20 sheet and with cut platinum sheet.



Model	Number of Blades	Distance Between Tines	Weight	Total Length	Total Width	Working Width	Power Requirement
DP-Y-5	5		540 kg		170 cm	150 cm	40-60 hp
DP-Y-7	7		800 kg	00000000000000000000000000000000000000	220 cm	200 cm	60-80 hp
DP-Y-9	9		1080 kg		270 cm	250 cm	80-100 hp
DP-Y-11	11		1360 kg	190	320 cm	300 cm	100-120 hp
DP-Y-13	13		1620 kg		370 cm	350 cm	120-140 hp
DP-Y-15	15		1800 kg		420 cm	400 cm	140-160 hp
DP-Y-17	17	/0	1885 kg		470 cm	450 cm	160-180 hp
DP-YM-5	5	60 cm	705 kg		170 cm	150 cm	40-60 hp
DP-YM-7	7		960 kg		220 cm	200 cm	60-80 hp
DP-YM-9	9		1260 kg		270 cm	250 cm	80-100 hp
DP-YM-11	11		1560 kg	250	320 cm	300 cm	100-120 hp
DP-YM-13	13		1860 kg		370 cm	350 cm	120-140 hp
DP-YM-15	15		2160 kg		420 cm	400 cm	140-160 hp
DP-YM-17	17		2245 kg		470 cm	450 cm	160-180 hp

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

# PHC-150

# POTATO HOEING MACHINE



**PHC-150** is designed for hoeing between rows of crops such as potatoes and tomatoes, giving sub-fertilizer and root filling. Fertilizer spreading can be done by wheel rotation or tail shaft rotation. With the help of the spirals in the warehouse, the fertilizer does not freeze and the ertilizer is continuously discharged from the grooves at the desired rate. Fertilizer spreading adjustment is simple and safe. Hoeing feet that are made of special steel and heat treated are resistant to abrasion. It breaks the upper-crust formed in the soil and allows rain water to penetrate into the soil. It aerates the soil and contributes to the growth of the crop by cleaning it from weeds.

Model	Туре	Width (cm)	Height (cm)	Length (cm)	Working Depth (cm)	Weight (kg)
PHC-150	Double Rows	100	145	165	25-30	310

## **FIXED ROTARY TILLER**

STR

STR is a secondary tillage tool used in preparing seed-beds, stubble-ploughing in especially farms, vineyards and gardens. It is also a multipurposed and long lasting environment-friendly machine that helps with the increase of the humus content of the soil by incorporating the plant residues and organic fertilizer into the soil and it does not make it a necessity to fight with the chemical weeds. Thanks to the protective cover made from sheet iron, it makes it possible for the soil that springs to be shredded and prevents it from harming the surroundings. The machine shafts have a safety arrangement and they prevent the tractor or the machine from being damaged in the event that stones or roots get caught in them.



Model	Model Number of Blade		Working Depth	Weight	Power Requirement
STR 160	36	160 cm	175 cm	415 kg	45-55 hp
STR 185	42	185 cm	200 cm	475 kg	50-60 hp
STR 210	48	210 cm	225 cm	540 kg	55-65 hp

The rotor speed is 209 (rpm/m) and PTO speed is 540 (rpm/m) for all models.

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

### MTR

# ROTARY TILLER MECHANICAL SIDE SHIFTING



MTR is a multi-purposed machine that facilitates your works such as preparing the seedling seed-beds, hoeing and the incorporation of organic materials into the soil and aeration of the land as well as preparing seed-beds and stubble-ploughing soil in vineyards and orchards. By the sliding the transmission mechanically, it comes much closer to the depths of vine stocks and trees and shreds, mixes and swells the soil well enough. The transfer of the motion coming from the power-take-off to the blades is made possible with the gear system; in this way, it makes a savings on the power and the fuel in proportion to the chain system. The machine shafts have a safety arrangement and they prevent the tractor or the machine from being damaged in the event that stones or roots get caught in them.

Model	Number of Blade	Working Width	Working Depth	Weight	Power Requirement
MTR 160	36	160 cm	175 cm	390 kg	45-55 hp
MTR 185	42	185 cm	200 cm	420 kg	50-60 hp
MTR 210	48	210 cm	225 cm	450 kg	55-65 hp

The rotor speed is 218 (rpm/m) and PTO speed is 540 (rpm/m) for all models.

All data are subject to change without prior notice.



#### ROTARY TILLER HYDRAULIC SIDE SHIFTING

HTR

HTR is an environment-friendly machine that helps increase the humus content in the soil by incorporating the plant residues and the organic fertilizer into the soil and it does not make it a necessity to begin a chemical weeding by destroying the weeds mechanically. The working position is adjusted with a hydraulic remote control by the driver of the tractor. The machine is slid to the depths of the vine stocks and trees with a hydraulic piston to the right of the tractor and the inter-row and aboverow parts are processed at the same time thus saving the fuel and time. The transfer of the motion coming from the power take-off to the blades is made possible with the gear system; in this way, it makes savings on the power and the fuel in proportion to the chain system.



Model	Number of Blade	Working Width	Working Depth	Weight	Power Requirement
HTR 160	36	160 cm	175 cm	470 kg	45-55 hp
HTR 185	42	185 cm	200 cm	500 kg	50-60 hp
HTR 210	48	210 cm	225 cm	530 kg	55-65 hp

The rotor speed is 209 (rpm/m) and PTO speed is 540 (rpm/m) for all models.

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

# MK-DF

#### **VERTICAL POWER HARROW**



**MK-DF** is the most successful among the machines that cultivate the land and prepare the seed-bed in respect of their help to both the soil and the plant. Thanks to its roller at the back of the machine, it applies pressure on the soil and ensures that the soil is damp and heated. It provides the most ideal granular structure in the soil in terms of water and air permeability. It prepares the conditions of optimum seed-bed for germination and development and provides an increase in the plant yield and its economic value after a successful farm output. Thanks to the shaft with safety system used in the machine, any failure that could occur in the tractor or in the machine in the event that the machine stumbles on stones or roots is eliminated.

Model	Weight (kg)	P.T.O. Rpm	Working Width	Blade Number	Working Depth	Tractor Power
MK-DF-120/170	908		175	n.14		60-70
MK-DF-120/350	995		205	n.16		80-90
MK-DF-120/200	1166	540-1000	255	n.20		90-110
MK-DF-220/300	1320		300	n.24	8-27	100-120
MK-DF-120/250	1510		350	n.28		100-120
MK-DF-220/350	1370		300	n.24		140-160
MK-DF-120/300	1565		350	n.28		150-170
MK-DF-220/400	1820	750-1000	400	n.32		170-200
MK-DF-220/450	2130	750-1000	450	n.36		180-220
MK-DF-220/500	2417		490	n.40		200-240
MK-DF-220/600	2810		585	n.48		220-260

# **POST HOLE DIGGER**

PHD

**PHD** can be used for digging holes as well as planting various tree and fruit saplings. Thanks to the hydraulic piston that provides easy power transfer, it shows very high performance while digging a hole and therefore it is a very useful agricultural machine. The hydraulic piston hole digger can be adjusted according to the hardness of the area with the control rod while digging



Model	Working Depth (mm)	Working	Machine Weight (kg)	Power Requirement (hp)	
PHD-50M	1000	Diameter 15-20-25-30	(holes/per hour) 75-60-45-30	160	45
PHD-100M	1000	Diameter 15-20-25-30-35-40-45-50-60	(holes/per hour) 75-60-45-30-25-20-20-15-10	170	45
PHD-100H	1000	Diameter 20-30-40-45-60	(holes/per hour) 80-70-60-50-40	170	45







**BIGGEST** is used to make the levelling with the less cost in the shorter time and without mistake by the help of laser system. The otomatic laser system is integrated with the strong and rigid structure of the machine. You can level our field as zero , mono or dual grade. The levelling of the agricultural fields is an important factor for product proceeds. It is not necessary to make excavation cushion map of the field. Only it must be done to measure codes from some specific points by the laser system. The machine is brought to working and transportation position by the hydraulic control easily. On the field that had been levelled by Land Leveller, water consumption decraeses aproximately %35-40 and needless grass problem is decreased.

Model	Working Width (cm)	Transport Width (cm)	Weight (kg)	Power Requirement (hp)
BIGGEST 35	350	250	2.050	85-120
BIGGEST 40	400	250	2.100	100-140
BIGGEST 50	500	250	2.290	120-180
BIGGEST 60	600	250	2.640	160-210
BIGGEST 50-A	500	250	3.510	120-180
BIGGEST 60-A	600	250	3.680	160-210

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

### LAZER LAND LEVELLER

TWIST

**TWIST** is a machine that can be preferred by farmers engaged in agricultural activities in small parcels. The laser-controlled leveling machine ensures that the leveling process can be done without error and at the desired slope. There is no need for a detailed excavation and filling map of the land, only leveling can be started directly by measuring the level with the machine laser system from certain points.



Model	Model Working Width (cm) Transport Width (cm)		Weight (kg)	Power Requirement (hp)
TWIST 2500	250	250	980	60-80
TWIST 3000	300	300	1.082	70-90

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

# **HTM**

#### PRECISION MECHANIC LAND LEVELLER



**HTM** is used for leveling precisely by giving the desired slope after measuring the land and preparing the excavation-fill map. Leveling of agricultural land is very important in terms of product productivity. With leveling; The use of water is optimum, the growing conditions of the plant are uniform, the weed problem is reduced, the productivity increases, the machines to be used in other processes work without any problems. Excavation and transportation can be done easily with the shovel structure. It is designed for heavy working conditions. You can choose the suitable model according to your tractor size and work capacity. When used with a tractor with appropriate power, its maneuver is quick and practical.

Model	Working Width (cm)	Transport Width (cm)	Weight (kg)	Power Requirement (hp)	
HTM-30	300	370	905	70-80	
HTM-35	350	370	1.045	90-100	
HTM-40	400	370	1.200	110-130	
HSTV50	500	470	1.310	140-160	
HTM-60	600	470	1.420	180-200	

All data are subject to change without prior notice.

**SKR**, with its smooth and practical structure, is used in rough leveling processes involving heavy excavation-handling-fill before fine leveling. It is designed for heavy working conditions. It is a machine that should be used to reduce the cost of leveling. With its boiler structure, the excavation and transportation process can be made with more capacity, thus reducing the total leveling cost. Before starting the work, the land should be measured and mapped. With the hydraulic control, it can be easily taken to the scraping, carrying and filling positions. When used with a tractor with appropriate power, its maneuver is quick and practical.



Model	Working Width (cm)	Capacity (m³)	Weight (kg)	Power Requirement (hp)	
SKR-03	180	0,65	700	50-70	
SKR-04	210	0,75	750	70-90	
SKR-05	280	1	950	90-120	

All data are subject to change without prior notice. Power requirement may vary depending on soil conditions.

# SKR-C

## **CARRY ALL DUMP SCRAPER**



**SKR-C** is scraper is used for soil transport & precision leveling. It has a gate for transporting material and a bowl that pivots then dumps the material where needed. The reinforced frame is designed to comply with higher horse powered tractors and heavier load capacities. Its carry-all scrapers are the perfect solution to a wide range of material moving challenges and are ideally suited for moving bulk material at low cost and fast turnaround. It is designed for use in agriculture, land leveling and; general, road construction; site preparation; pond building; cutting and maintaining irrigation ditches. It is built with heavy duty plate frame construction welded for maximum strength and rigidity.

Model	Capacity (m³)	Working Width (cm)	Tire Size	Weight (kg)	Power Requirement (hp)
6 SKR-C 7	4.6	210	12,5 X 15,3	2.930	75-150
10 SKR-C 7	7.6	210	13 X 24	5.830	150-200

All data are subject to change without prior notice.

#### LEVELLING BLADE

**LBM** 

**LBM** is mounted to tractors by three point linkage system. These levelling blades can be used in various purposes like making a field way, land levelling, opening ditches and filling. By the help of their 360° working angle they can be used in different directions. Blades are produced from special steel to prevent corrosion and breakings. Also both sides of these removable blades can be used.



Model	Thickness of Body (mm)	Working Width (cm)	Working Depth (cm)	Height (cm)	Weight (kg)
LBM-200-6	6	200	45	110	200
LBM-220-6	6	220	45	110	220
LBM-220-8	8	220	45	110	280
LBM-240-8	8	240	45	110	290
LBM-220-10	10	220	45	110	305
LBM-250-10	10	250	45	110	325

# DLB

## **DOUBLE SIDE LEVELLING BLADE**



**DLB** is mounted to tractors by three point linkage system and is used for two way hydraulic levelling the surface of the soil. Blades are produced from special steel to prevent corrosion and breakings. It can be used in various purposes like making a field way, land levelling, opening ditches and filling. In addition, it can be used for cleaning the animal barns and, opening the snow covered roads, etc. Also both sides of these removable blades can be used.

Model	Working Width (cm)	Height (cm)	Length (mm)	Maneuverability	Blade Height (cm)	Blade Thickness (mm)	Weight (kg)	Power Requirement (hp)
DLB-220-6-H	220	177	148	40° Right/Left	10	70	305	50





# MK-HM

### UNIVERSAL COMBINE SEED DRILL



**MK-HM** is a sowing machine that transfers the seed, pulses, feed grains and fertilizer to the seed bed opened by the discs, thanks to the helical sheaves, with the requested quantity and depth with the help of levelling system. Thanks to its structure, the hopper prevents seed and fertilizer to accumulate and therefore, an efficient seeding is performed by protecting bearing with the dusting system using dry system double bearings on the discs and by automatic or hydraulic disc penetration setting, that allows easy planting of the seed or fertilizer into the requested depth. It is easy to clean thanks to its discharging levers on each hopper.

Model	Length (mm)	Width (mm)	Height (mm)	Working Width (mm)	Hopper Length (mm)	Disc Distance (mm)	Dipping Depth of the Disc (mm)	Fertilizer Hopper Volume (Dm³)"	Seed Hopper Volume (Dm³)	Net Weight (kg)	Tractor Power (Min. Hp)	Wheel Size
MK-HM 12	2530	3270	1470	1704	1870	125 or 142	0-150	218	327	760	.5	6.00x16
MK-HM 14	2810	3270	1470	1988	2150	125 or 142	0-150	245	370	850	types	6.00x16
MK-HM 16	3090	3270	1470	2272	2430	125 or 142	0-150	272	412	910		6.00x16
MK-HM 18	3370	3270	1470	2556	2710	125 or 142	0-150	300	456	1010	tractor	7.50x16
MK-HM 20	3660	3270	1470	2840	3000	125 or 142	0-150	327	500	1085	all	7.50x16
MK-HM 22	3940	3270	1470	3124	3280	125 or 142	0-150	354	542	1140	le to	7.50x16
MK-HM 24	4220	3270	1470	3408	3560	125 or 142	0-150	381	584	1240	atib	7.50x16
MK-HM 26	4510	3270	1470	3692	3850	125 or 142	0-150	408	626	1325	Compatible to	7.50x16
MK-HM 28	4636	3270	1470	3976	4130	125 or 142	0-150	435	668	1400	Ö	7.50x16

All data are subject to change without prior notice.

## PNEUMATIC PRECISION PLANTER (AXE TYPE)

**MK-PMB** 

**MK-PMB** enables precise sowing of all kinds of seeds (beet, corn, sunflower, cotton, soybean, peanut, melon, cucumber, onion, etc.) on a row at the desired planting distances. Thanks to the planting units designed in the shape of an axe, it is possible to plant successfully especially in stony land and in all soil conditions. Seeds are sown using the front wheel inner pressure. Axes are made of special alloyed cast steel. The pressure adjustment of the rear wheels to the ground can be made with a single lever. With the deep adjustment spring pressure placed on the parallelogram unit system, sowing can be done to the desired depth in any soil condition.



Model	Number of Units	Total Lenght (Chassis) (mm)	Width (mm)	Height (mm)	Distance Between Rows (cm)	Seed Hopper Volume (Dm³)	Fertilizer Hopper Volume (Dm³)	P.T.O. (Rpm)	Tractor Power (Min. Hp)	Weight (With Fertilizer System) (kg)
MK-PMB-4	4	2800	2000	1600	45-70-75-95	30x4	160x2	540	65	880
MK-PMB-5	5	3000	2000	1600	45-70-75-95	30x5	200x2	540	70	1000
MK-PMB-6	6	4000	2000	1600	45-70-75-95	30x6	200x2	540	75	1200
MK-PMB-8	8	5600	2000	1600	45-70-75-95	30x8	200x4	540	95	1480

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

#### MK-PMD

# PNEUMATIC PRECISION PLANTER (DISC TYPE)



**MK-PMD** is particularly suitable for precision seeding, for multipurpose use and it is suitable for all kinds of tilled land. It is pneumatically operated. Pneaumatic seed drill is used especially with the special seed discs and different accessories. The crops such as corn, cotton, sugar, beet, sunflower, chickpea, bean, tomato can be sowed by the special seed discs easily. And also the interrow distance of the machine is manually adjustable.

Model	Number of Units	Total Lenght (Chassis) (mm)	Width (mm)	Height (mm)	Distance Between Rows (cm)	Seed Hopper Volume (Dm³)	Fertilizer Hopper Volume (Dm³)	P.T.O. (Rpm)	Tractor Power (Min. Hp)	Weight (With Fertilizer System) (kg)
MK-PMD-4	4	2300	2800-3200	1600	45-70-75-95	35x4	160x2	540	60	1100
MK-PMD-5	5	2300	3000-3200	1600	45-70-75-95	35x5	160x2	540	70	1200
MK-PMD-6	6	2300	4000	1600	45-70-75-95	35x6	200x2	540	80	1400
MK-PMD-8	8	2300	5600	1600	45-70-75-95	35x8	200x4	540	100	2000

All data are subject to change without prior notice.



#### UNIVERSAL COMBINE CEREAL SEEDER WITH GEARBOX

MK-HMT

**MK-HMT** is hanged type combined seeding machine that can place the seed and fertilizer in requested amount, depth and in equal line. By en-stringed steel axe type discs seed and fertilizer can be placed in the same depth and germination rate is in maximum level. By special designed gearbox with 3 eccentric that works silently, seed discs can rotate in minimum speed and also the smaller seeds can be placed smoothly. Besides, by this gearbox, it is possible to sow in requested kg. If requested, it can be manufactured as hydraulic persistence system with or without fertilizer. By swallow type harrow string, putting out the soil and covering the soil can be done easily.



Model	Working Width (mm)	Disc Quantity	Seed Hopper Volume (Lt.)	Fertilizer Hopper Volume (Lt.)	Approximately Weight With Fertilizer (kg)	Width (mm)	Length (mm)	Height (mm)	Wheel Size	Tractor Power (Hp)
MK-HMT 20	2500	21	300	333	870	2540	2670	1640	600x16	60
MK-HMT 24	3000	25	365	407	985	2540	3150	1640	600x16	80
MK-HMT 28	3500	29	431	481	1115	2540	3650	1640	600x16	90
MK-HMT 32	4000	33	498	555	1195	2540	4100	1640	600x16	100

All data are subject to change without prior notice.

Power requirement may vary depending on soil conditions.

#### PPM-SUPER

## **AUTOMATIC TWO-ROW POTATO PLANTER**



**PPM-SUPER** is designed for the rapid and professional planting of potato seeds in large fields. There are 4 different pot options according to seed size for quality sowing. Planting is done automatically without the help of any worker. The row planting distance can be adjusted using the gears on the machine. Planting teeth are adjusted according to the appropriate planting depths and seeds are left at the same depth. It does not put pressure on the ground with the help of spring foot and does not damage the growth of plants. The sowing amount in each row is the same.

Model	Туре	Working Depth (cm)	Foot	Width (cm)	Length (mm)	Height (cm)	Weight (kg)
PPM-SUPER	Chained	10-20	3	170	190	140	560

#### **AUTOMATIC TWO-ROW POTATO PLANTER**

PPM-100

**PPM-100** is offers innovative, effective, fast and powerful solutions. It is possible to change the pot according to the size of the potato and with its specially adjustable vibration mechanism, the potatoes can be planted one by one. It has a storage capacity of 400 kilos and also there are seed discharge covers. The planting capacity is of 3 to 5 decares per hour. It is possible to adjust the sowing distance on the row in 8 different steps by changing the transmission gears. There is a special belt conveyor system that provides tailor-made sewing.



Code	Inner Width (cm)	Width (cm)	Height (cm)	Length (cm)	Working Depth (cm)	Storage Capacity (kg)	Weight (kg)
PPM-100	75	170	160	170	20-60	400	520

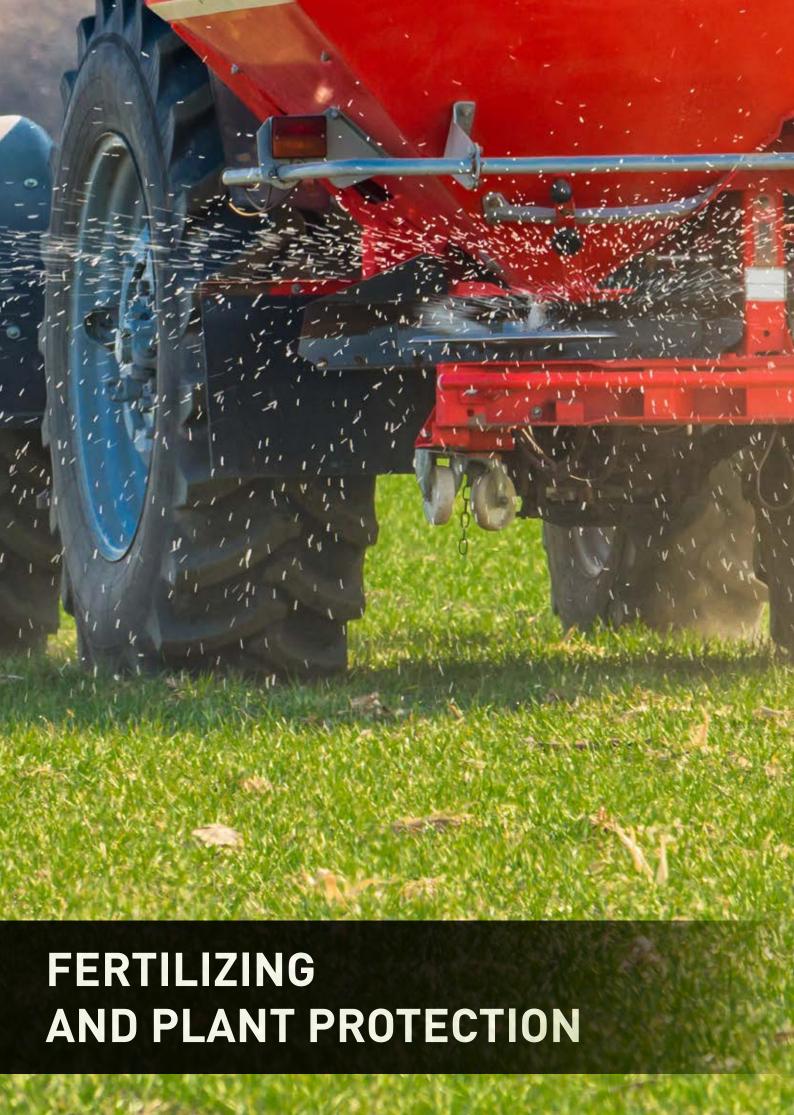
#### PPM-110

## **FOUR-ROW POTATO PLANTER**



**PPM-110** is a four line machine with 70 cm between rows and can be planted at 14 decare per hour. But thanks to the ability to move the planter on the main frame, the distance between rows can be reduced to a minimum of 65 cm and can be expanded to a maximum of 75 cm. Because of the large seed storage, it is used more effectively due to factors such as going to less filling station and getting fewer maneuvers at the beginning of the field. All standard parts of the machine are placed in this range. It is possible to adjust the sowing distance on the row in 8 different steps by changing the transmission gears. There is a special belt conveyor system that provides tailor-made sewing.

Model	Width (cm)	Height (cm)	Length (cm)	Sowing Range (cm)	Store Capacity (kg)	Weight (kg)
PPM-110	200	140	320	20-60	800	860



#### VERTICAL MIXER FERTILIZER SPREADER

VMFS which is manufactured as a hanging type, can be produced between 650 liters and 1000 liters in accordance with the need. Fertilizer spreaders can be controlled hydraulically, and thanks to the hydraulic valve, fertilizers can be spreaded on the right and left sides separately. The fertilizer spreading working width of the machine is between 10-24 m and the working width can be adjusted depending on the disc and wing lengths. Fertilizer spreading distance may vary depending on the type of fertilizer. The fertilizer tank is divided into two with an inverted V-shaped separator plate at the bottom and the fertilizer flow is provided uninterruptedly by the vertical mixer inside.





Model	VMFS - 650	VMFS - 850	VMFS - 1000
Spreader Disc Palette Locating Angle	18	18	18
Number of Spreader Disc Speed (d/dak/rpm)	720 d/dak/rpm	720 d/dak/rpm	720 d/dak/rpm
Number of Palette In Spreader Disc	2	2	2
Gearbox Transmission Rate	1/1	1/1	1/1
Dead Weight of The Machine (kg)	200 kg	210 kg	220 kg
Fertilizer filling Capacity (kg)	650kg	850kg	1000kg
Height of The Machine (mm)	1410 mm	1520 mm	1630 mm
Width of The Machine (mm)	1200 mm	1200 mm	1200 mm
Lenght of The Machine (mm)	1820 mm	1820 mm	1820 mm
Operation Speed	5-8	5-8	5-8
Operation Width	10-24	10-24	10-24

# **HMFS**



# HORIZONTAL MIXER FERTILIZER SPREADER

**HMFS** which are manufactured as hanging type, are produced between 900 liters and 3500 liters in accordance with the needs. Fertilizer spreaders can be controlled hydraulically, and thanks to the hydraulic valve, you can spray fertilizers on the right and left sides separately. Fertilizer spreading distance may vary depending on the type of fertilizer. The fertilizer tank is divided into two by an inverted V-shaped separator plate at the bottom and the fertilizer flow is provided uninterruptedly by the horizontal mixer inside.

Model	HMFS - 900	HMFS - 1200	HMFS - 1500	HMFS - 3500
Spreader Disc Palette Locating Angle	18	18	18	18
Number of Spreader Disc Speed (d/dak/rpm)	720 d/dak/rpm	720 d/dak/rpm	720 d/dak/rpm	720 d/dak/rpm
Number of Palette In Spreader Disc	2	2	2	2
Gearbox Transmission Rate	1/1	1/1	1/1	1/1
Dead Weight of The Machine (kg)	360 kg	400 kg	425 kg	600 kg
Fertilizer filling Capacity (kg)	900 kg	1200 kg	1500 kg	3500 kg
Height of The Machine (mm)	1100 mm	1230 mm	1360 mm	2050 mm
Width of The Machine (mm)	2050 mm	2050 mm	2050 mm	2700 mm
Lenght of The Machine (mm)	1320 mm	1320 mm	1320 mm	1750 mm
Operation Speed	8-12	8-12	8-12	8-12
Operation Width	10-36	10-36	10-36	10-36



#### HORIZONTAL MIXER TRAILED TYPE FERTILIZER SPREADER

MAX

**MAX** is manufactured as single axle and trailed type as 2000 lt, 2500 lt, 3000 lt. Horizontal mixer, chrome discs, chrome mixer and chrome chain, traffic set, tent and ladder are offered as standard. Fertilizer spreaders can be controlled hydraulically, and thanks to the hydraulic valve, you can spray fertilizers on the right and left sides separately. Fertilizer spreading distance may vary depending on the type of fertilizer. The fertilizer tank is divided into two by an inverted V-shaped separator plate at the bottom and the fertilizer flow is provided uninterruptedly by the horizontal mixer inside.



Model	MAX - 2000	MAX - 2500	MAX - 3000
Spreader Disc Palette Locating Angle	18	18	18
Number of Spreader Disc Speed (d/dak/rpm)	720 d/dak/rpm	720 d/dak/rpm	720 d/dak/rpm
Number of Palette In Spreader Disc	2	2	2
Gearbox Transmission Rate	1/1	1/1	1/1
Dead Weight of The Machine (kg)	500 kg	515 kg	530 kg
Fertilizer filling Capacity (kg)	2000 kg	2500 kg	3000 kg
Height of The Machine (mm)	1620 mm	1750 mm	2000 mm
Width of The Machine (mm)	2050 mm	2050 mm	2700 mm
Lenght of The Machine (mm)	1320 mm	1320 mm	1750 mm
Operation Speed	8-12	8-12	8-12
Operation Width	10-36	10-36	10-36

### **SDFS**





**SDFS** is produced as hydraulic and towable types are mounted to tractor through three point linkage system. Fertilizer spreading is easy at the borderline from tractor cabin by hydraulic remote controller so that unnecessary fertilizer consuming is prevented by closing it swiftly. Spreading width of the machine can be between 10-24 meters however these adjustments must be performed by changing the the angle and the length of the wings on the disk depending on the fertilizer types. The fertilizer tank is halved by a separator sheet in reverse V shape at the bottom and the mixer in it is located vertically and the fertilizer flow is provided uninterruptedly.

Model	Height (mm)	Width (mm)	Weight (kg)	Capacity (lt)	Working Width (cm)
SDFS 400	1080	1140	400	130	16
SDFS 500	1200	1400	500	138	16
SDFS 600	1300	1400	600	138	16
SDFS 800	1210	1650	800	168	16

#### **VINEYARD FERTILIZER SPREADER**

VES

**VFS** is connected to the tractor with three-point linkage system and is operated by PTO via shaft. It spreads to the left, to the right, or sides. Through the specially designed outlet holes equal fertilization is provided on both sides. The side conveyors allow for localized spreading on row cultivation of 1.5 - 5 meters: the defectors are adjustable and enable the fertilizer to be discharged where it is needed, thus avoiding unnecessary waste.



Model	Height (mm)	Width (mm)	Weight (kg)	Capacity (lt)	Working Width (cm)
VFS-350	1130	1150	80	350	16
VFS-500	1200	1125	85	500	16

# **ITFS**

# ITALIAN TYPE FERTILIZER SPREADER



**ITFS** is connected to the tractor with three-point linkage system. The machine is operated by PTO via shaft. It spreads fertilizer to furthest point in balance with 6 wings and its spreading width is 16m. It spreads to the left, to the right, or sides. Through the specially designed outlet holes equal fertilization is provided on both sides.

Model	Model Height (mm)		Weight (kg)	Capacity (lt)	Working Width (cm)	
ITFS-350	1190	1160	81	350	16	
ITFS-500	1260	1300	87	500	16	



#### **ROUND TYPE FERTILIZER SPREADER**

RTFS

RTFS is mounted to tractor by three point linkage system and driven by PTO shaft. It enriches the soil by spreading the fertilizer to plants as wheat, barley, oats, sorghum, canola, cotton, sugar beet, sunf lower, corn, beans, and sunflower. It is produced as single discs and the spreading width of the machine can be arranged between 15-18 meters.



Model	Height (mm)	Width (mm)	Weight (kg)	Capacity (lt)	Working Width (cm)
RTFS 350	1360	960	82	350	16

# **OPTUS**

# **GARDEN SPRAYER**



**OPTUS** can be used in narrow spaces between rows, small-scale vineyards, gardens, greenhouses, orchards and similar areas and has a high-pressure powerful pump. Provides ideal spraying for fruit trees and other low lying plants. Tank body is made of polyethylene. The tank surface is resistant to the negative effects of ultraviolet rays and pesticides and does not form bacteria and algae. All of the spray guns are made of chrome plated brass and the injector plates are made of stainless steel. Because of this feature, there is no clogging problem in the spray gun caused by corrosion.

Model	Capacity (lt)	Hose Lenght (m)	Pump	Model	Capacity (lt)	Hose Lenght (m)	Pump	
OPTUS-01	100	15	PN-26	0PTUS-03	200	15	PN-26	
OPTUS-02	100	15	E-30	OPTUS-04	200	15	E-30	

#### MOUNTED TYPE FIELD SPRAYER

**OSKAR BASIC** 

**OSKAR BASIC P** provides superior performance by giving excellent results in growing cotton, sugar beet, wheat, corn and similar agricultural products. It offers convenience to farmers due to its high saving feature. Hydraulic mixing system easily mixes the pesticide to be sprayed with the water. Water level indicator can be easily seen by the user during filling and emptying. The booms are made of very hard, solid and thick profiles. Easy-to-clean, brass and long-lasting clamp injectors are used in the booms.



Model	Capacity (lt)	Chassis	Boom Lenght (m)	Pump	Model	Capacity (lt)	Chassis	Boom Lenght (m)	Pump
OSKAR BASIC-01	400	PROFILE	10	B-80	OSKAR BASIC-3	800	PROFILE	10	B-80
OSKAR BASIC-02	600	PROFILE	10	B-80	OSKAR BASIC-4	1000	PROFILE	10	B-80

# **PULSAR**

# MANUEL TRAILED TYPE FIELD SPRAYER



**PULSAR-F** enables easy operation and ensures proper control of the operation during performed applications. High precision of the injectors guarantees the highest quality at the lowest operating fluid consumption. Significant capacity of the tank allows for operation in extensive plantations and gain high operation efficiency. Precise nozzles, control valve, pump and additional equipment of the machine applied in the sprayer guarantee good quality of performed applications at optimal usage of plant protection products.

Model	Capacity (lt)	Chassis	Boom Lenght (m)	Pump	Model	Capacity (lt)	Chassis	Boom Lenght (m)	Pump
PULSAR -01	2.000	With lift	18	A-105	PULSAR-02	3.000	With lift	18	A-105

#### MOUNTED TYPE TURBO ATOMIZERS

**TRON BASIC** 

**TRON BASIC** is mounted to the tractor by three point hitch system, powered by PTO via a shielded shaft. Suitable for spraying orchards and gardens. Fan is operated with PTO and it sends out the pressured air. Pressured chemical liquid is sprayed by adjustable nozzles around the fan by air circulation and any sort of tree can be disinfected. Turbo fan is manufactured from galvanized, chromium (cr) or nickel (ni) sheet against corrosion .



Model	Capacity (lt)	Fan Diameter	Number of The Nozzle	Pump	Model	Capacity (lt)	Fan Diameter	Number of The Nozzle	Pump
TRON BASIC-01	400	Q 75	8	B-80	TRON BASIC-03	800	Q 75	12	A-105
TRON BASIC-02	600	Q 75	8	B-80	TRON BASIC-04	1000	Q 75	12	A-105

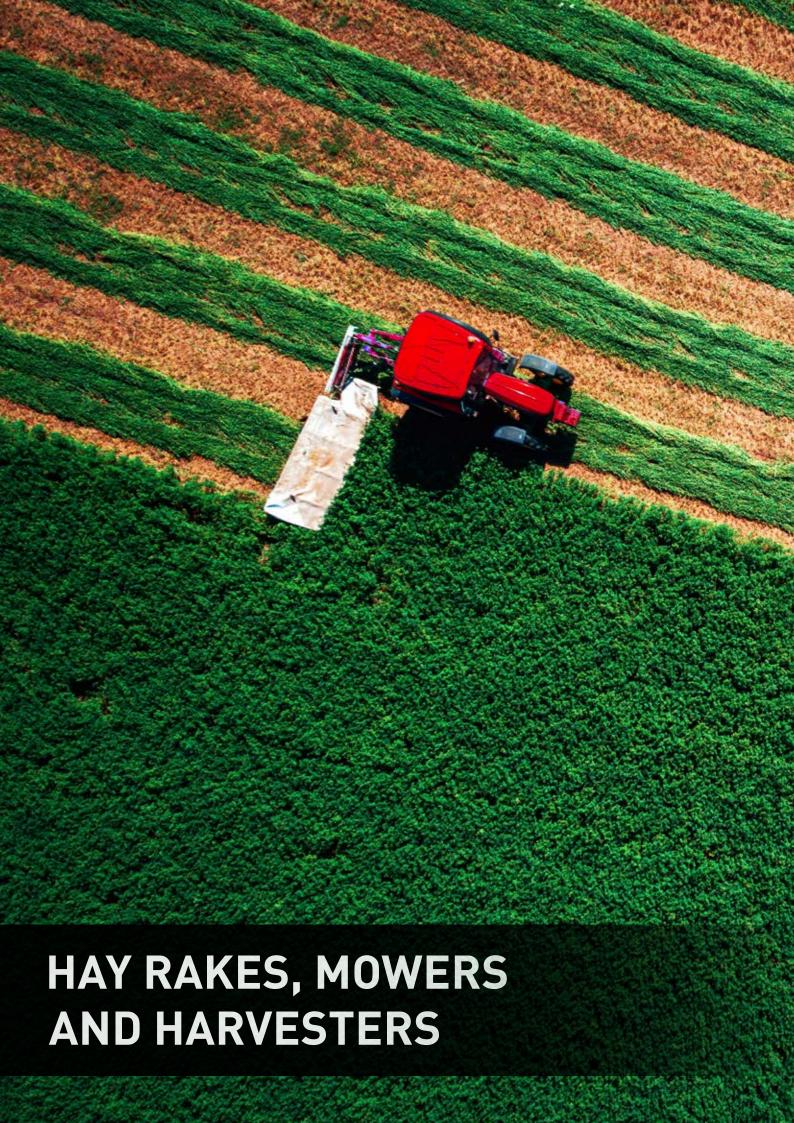
# **DORAX**

#### TRAILED TYPE TURBO ATOMIZERS



**DORAX** is used for forest, and forested areas . Air movement plays an important role in the penetration of medication. Turbo atomizer are equipped with high-pressure hydraulic membrane pumps. Turbo atomizer tanks are manufactured from Polyester and polyethylene material. All parts in related with the spraying are made of brass, stainless steel or corrosion-resistant plastic material . Turbo fan is manufactured from galvanized, chromium (cr) or nickel (ni) sheet against corrosion .

Model	Capacity (lt)	Fan Diameter	Number of The Nozzle	Pump	Model	Capacity (lt)	Fan Diameter	Number of The Nozzle	Pump
DORAX-01	600	Q 75	12	B-80	DORAX-04	1.600	Q 75	12	A-105
DORAX-02	1.000	Q 75	12	A-105	DORAX-05	2.000	Q 75	12	A-105
DORAX-03	1.200	Q 75	12	A-105	DORAX-06	3.000	Q 75	12	A-105





#### **DOUBLE-ROW POTATO HARVESTER**

PHM-120

**PHM-120** offers maximum performance with its strong main chassis and provides farmers with the best result and harvesting opportunity. It has 1400 mm Sieve Width and it separates the soil in the most appropriate way thanks to its double sieve system. It is resistant to abrasion and has the ability to work in all kinds of soil conditions, even in the winter season. It harvests 0.3 hectares per hour. (At a speed of 2km / hour).



Model	Width (cm)	Height (cm)	Length (cm)	Working Width (cm)	Working Depth (cm)	Weight (kg)
PHM-120	165	125	230	130-140	25-30	680

# **PHM-130**

# SINGLE-ROW POTATO HARVESTER



**PHM-130** designed to facilitate maximum performance and harvest. Besides having the ability to work under the most difficult conditions, it can work in all kinds of soil conditions, even in the winter season. It is made of abrasion resistant materials and has a ball bearing vibration system.

Model	Width (cm)	Height (cm)	Length (cm)	Working Width (cm)	Working Depth (cm)	Weight (kg)
PHM-130	125	140	260	90-100	25-30	450

RDM

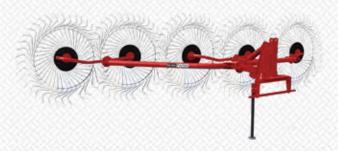
**RDM** cuts all kinds of forage plants, grass, shrubbery and wild plants with the counter-rotating blades on both drums and leaves them behind in rows. With adjustable and quality cutting height, the nutritional value of the plant is preserved and drying is ensured in a short time. It works at high performance with low energy requirement without tiring the tractor. It works quite successfully on rough terrain. The safety of the pulley mechanism is ensured by tightening the belts with the help of the spring.



Model	Number of Drums	Number of Bklades	Working Width (cm)	Working Speed (km/h)	Capacity (he/h)	Weight (kg)	Min. Power Requirement (hp)
RDM-135	2	6	135	10	1,35	330	55
RDM-165	2	6	165	10	1,65	380	55
RDM-190	2	8	190	10	1,9	550	55

SHR

## **SINGLE-ROW HAY RAKE**



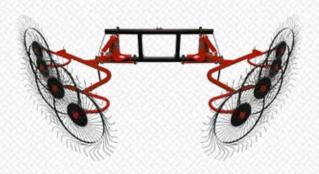
**SHR** is used for turning, raking, spreader and tedding any kind of grasses and clovers. It is operated by itself and easily adaptable to each type of tractor by its' three point linkage system. It is used for separating the green herb over the field to ventilate them to dry in a short time. It provides a lot of time and labor saving and offers an excellent performance on each kind of fields and it helps farmers to make work easier than previous. It puts the plant stalks[barley, wheat stalks] in a standard row by collecting them and by this way its provides extra time and gain.

Model	Number of Drum (pcs)	Total Length (mm)	Total Width (mm)	Working Width (mm)	Number of Spring (pcs)	Reguired Power (hp)	Total Weight (kg)
SHR-4	4	4000	2100	2200-2600	160	30-50	170
SHR-5	5	5300	2300	3300-3500	200	30-90	190



V TYPE HAY RAKE VTHR

VTHR V- Type hay rakes put the cut stalks, clover, meadows and grasses in line and provides easy collection with its fingers on the star wheels that take its movement from the ground by friction. It can be easily connected to any type of tractor with the tractor drawbar. Working position and road position can be changed easily without leaving the tractor with the help of hydraulic system. The rakes are manufactured in 2 types as 8-10 double rows according to the working width.



Model	Number of Drum (pcs)	Total Length (mm)	Transporting Width (mm)	Working Width (mm)	Number of Spring (pcs)	Reguired Power (hp)	Total Weight (kg)
VTHR-8	8	6700	3000	5200-6100	320	45-90	400
VTHR-10	10	7600	4100	5200-7100	400	45-90	450

RAK ROTARY RAKE



**RAK** facilitates the baling process by forming the harvested forage plants in rows at regular intervals. Stabilizer shock absorbers stabilize the machine when raised. In addition, the machine provides a smooth ride for the best quality raking. The gearbox is fully encapsulated and maintenance free. Height can be adjusted easily with the handle on the gear box. Since it does not leave stones or similar objects on the collected grass, it performs a quality collection by leaving clean stubble. After the rake arms that make up the collecting unit of the machine are disassembled, they are attached to the conveyor slots; in this way, the overall length of the machine is minimized by being properly folded for safe transport.

Model	Working Width (mm)	Transporting Width (cm)	Number of Arms per Rotor	Number of Double Fingers	Wheel Dimensions (in)	Number of Wheels	Machine Weight (kg)	Power Requirement (hp)
RAK-9-2	3300	1400	9	3	15 x 6 - 6	2	380	45
RAK-9-4	3400	1700	9	3	15 x 6 - 6	4	410	45
RAK-11-4	4100	1800	11	4	16 x 6,5 - 6	4	520	50



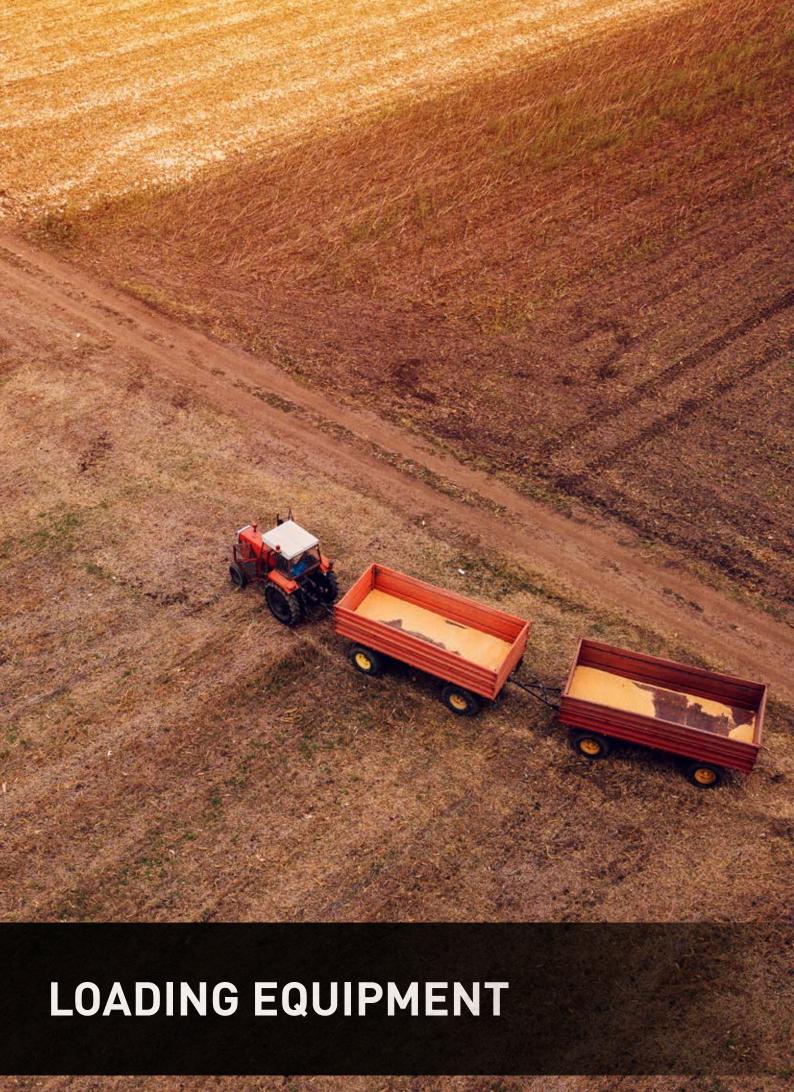
MAIZE CHOPPER MMC

MMC is able to perform high-quality cutting even at the maximum work speed with its mowing discs that are made from special steel material with a high degree of hardness and that have the automatic grinding unit; in this way, the nutrients of the plants and the water content in the plant are preserved. A crushing plate may be placed inside the cutting mechanism in order to crush the particularly dry corn particles. It blows the crushed material quickly from inside the discharge chimney towards the trailer thanks to its strong fan and blower wings on the fan. The discharge chimney can be directed with a remote control without tiring the user and it may be extended. Thanks to foldable chimney, one can easily use it on the lowest places.



Model	Working Width (mm)	Working Speed (mm)	Capacity	Number of Drums	Overall Height	Overall Width	Overall Lenght	Weight	P.T.O. Speed	Min. Power Requirement
MMC-T	550 mm	8-10 km/h	20 ton/h	2 pc	3100 mm	2300 mm	2300 mm	660 kg	540 Rpm	55 hp
MMC-S	1200 mm	10 km/h	40 ton/h	1 pc	4660 mm	3310 mm	3340 mm	1200 kg	Optional	95 hp





BIG BAG LIFTER

BBG

**BBG** is designed for loading and unloading of big-bag type bags. Hydraulic system of machine enable to operate freely and secure with single operator. Thanks to combined work of lifter and spreader there can be saved labour time and costs. Linkage with variable width is suitable for any tractor and fertilizer spreader. Quick and easy connection of lifter is provided by the help of connection adapters.



MODEL	BOOM MINIMUM (Lifting Capacity)	BOOM MAXIMUM (Lifting Capacity)	MACHINE WEIGHT
BBG-1200	1200 kg	530 kg	255 kg

**CBM** 

## **CONVEYOR BELT**



**CBM** is used for loading boxes, packages, sacks, gravel, sand, feed and similar products from the ground upwards or onto the vehicle. Loading height can be adjusted to the desired height with the hoist system depending on the total length of the machine. We had a production of 6 - 8 - 10 - 12 meters in length. The motion is driven by a three-phase or single-phase 63 rpm reducer electric motor. Various band patterns can be installed according to demand and operating conditions.

Model	Total Width (mm)	Total Lenght (mm)	Max. Conveying Height (mm)	Min. Conveying Height (mm)	Rotation of Belt (rpm)	Power of Motor (hp)
CBM-6	1800	600	2500	1700	63	1,5
CBM-8	1800	800	3500	2000	63	1,5
CBM-10	1800	1000	4500	2300	63	2
CBM-12	1800	1200	5000	2600	63	2



#### **AUGER CONVEYOR ELECTRIC**

ACE

**ACE** with various diameters and lengths are generally used for cereals and so on. They are easy-to-use machines that are used to transport all kinds of powder or granular materials from one place to another, to load and unload trucks, and save labor. The electric motor, the first belt pulley, the trans shaft and the second belt pulley transfer the movement to the spiral leaf, by pulling the product from the suction nozzle on the back of the pipe with the rotation of the leaf and carries the product to the desired place from the nozzle.



Model	Diameter of Pipe Ø (inch-mm)	Total Lenght (mm)	Total Width (mm)	Max. Convey- ing Height (mm)	Min. Conveying Height (mm)	Capacity of Conveying (t/h)	Weight of Machine (kg)	Power of Motor and Phase (hp/v)
ACE-4	4"-114	8000	1400	3000	1200	10 / 15	230	2 / 220
ACE-5	5"-139	8200	1650	3350	2250	15 / 20	270	3 / 220
ACE-6	6"-168	8200	1650	3350	2250	25 / 30	250	5.5 / 380
ACE-7	6"-168	8200	1650	3350	2250	45 / 50	300	7.5 / 380

# TRL and HRL

## TRACTOR REAR LOADER



**TRL and HRL** have a lifting capacity of 3 meters and is manufactured with or without extension. It is used for loading sand, farm manure, etc. materials by connecting to the three-point suspension at the rear of the tractor. It consists of two parts as hydraulic lifting and mechanical-hydraulic unloading mechanism. Tractor rear loader is of two types, single piston and double piston.

Model	Width (cm)	Height (cm)	Lifting Capacity (kg)	Weight (kg)	Power Requirement (hp)
TRL	80	450	200-300	200	40
HRL	120	300	200-300	250	40

## ASSISTANT REAR LOADER

ARL

**ARL** is used for cleaning manure channels, spreading manure soil, gravel, feed, wood etc. loads easily. Due to the use of special material in the scraper part, it is possible to scrape and level hard materials such as stone, gravel, soil with the assistant. This feature provides the equipment with a longer service life.



Model	Width (cm)	Height (cm)	Lifting Capacity (kg)	Weight (kg)	Power Requirement (hp)
ARL-A	120	430	250	350	40



