

1. GENERAL INFORMATION

SU-8M – Mounted Universal Pneumatic Precision Planter

SU-8M planters are intended for planting of calibrated and non-calibrated sorted seeds of corn, sunflower and other crops with simultaneous fertilizer application and compacting of soil in rows.

Precision planters ensure planting to a preset depth without the need for manual labor, making a required distance between the plants. The pneumatic seeding units installed on a precision planter reduce seeds crushing by 10 times compared to mechanical seed meters.

SU-8M planter is operated with tractors ranging from 0.9 – 2.0 ton drawbar power or 60 – 80 hp, however it can be operated by 45 hp and up.

The principle functioning of the planter is as follows:

- The seed disks and fertilizer distributor augers are driven by support-and-drive wheels through the gear mechanism.
- The seeds are held on the seeding disc holes by vacuum and are transported from the suction area to the dropping area. The excessive seeds are removed from the holes and sent back to the suction area by a comb ejector ensuring high-precision single-seed planting.
- The coulter makes a furrow and places the fertilizer covering it with soil, after that a seed is dropped in the same furrow on a layer of soil, so it does not contact the fertilizer. The “coverers” cover the furrow, the compacting wheel compacts the soil providing a soil-to-seed contact and moisturizing conditions, and the seedbed leveler levels the field surface creating a mulched layer of soil.

The vacuum in the SU-8M planter is created by PTO - driven VR-1 fan, which is installed on the planter and rotates at 4700 RPM, while the tractors' PTO speed is 540 RPM. The carrier bar of the planter's frame acts as a receiver for its pneumatic system.

The SU-8M planter is equipped with a pivoted-disc hydraulic marker providing a clearer and more visible line on the unplanted portion of the field in order to ensure guess rows during the next pass of the machine. The markers are lifted and lowered by a mechanism, which is operated from the tractor cabin.

The planter is provided with plastic hoppers for dry fertilizer and grain.

The field slope should not exceed eight (8) degrees. The surface layer of the soil must be loosened and leveled before sowing in accordance with the agronomic rules for the relevant area. The soil throughout the seeding depth should be small-grained; weight content of soil lumps ranging from 1 to 10 mm in size should be less than 50%. Large stones and lumps exceeding 30mm in size are not allowed. The surface layer of soil should be free from clusters of weeds, crop and straw residue exceeding the preset seeding depth. The height of the ridges and depth of furrows should not exceed 20mm. Soil moisture content in the seeding area should not exceed 15-25% for depths from 0 to 5cm ; 18-30% for depths from 5 to 10cm. The hardness of the loosened layer during secondary tillage must not exceed 0,5 -1,5kg/cm² for depths from 0 to 5cm ; 1,5-4,5 kg/cm² for depths from 5-12cm.

The following sets of disks may be supplied to separate orders:

- Disks with 40 holes in diameter 2.2mm – for sugar beet and fodder beet, sorghum and small sunflower seeds;
- Disks with 40 holes in diameter 3mm; - Disks with 30 holes in diameter 3mm – for coated beet and sunflower seeds;
- Disks with 30 holes in diameter 4mm; - Disks with 30 holes in diameter 5.5mm – for corn;
- Disks with 60 holes in diameter 2.2 – for sugar beet and fodder beet, sorghum seeds;
- Disks with 60 holes in diameter 4mm; - Disks with 72 holes in diameter 4mm; - Disks with 80 holes in diameter 4mm – for soya.
- Disks with 80 holes in diameter 1mm – for small seeds;
- Disks without holes that can be used as blanks to fabricate the seeding disks for a variety of crops depending on your needs.

2. MAIN TECHNICAL SPECIFICATIONS

Description	U/M	Value
Machine type		Mounted
Aggregated with tractors	hp	45 and up, 60 - 80 recommended
Number of rows	pcs	8
Row spacing (can be adjusted)	mm	700
Sowing depth	mm	40-120
Working speed on main operations, NMT	Km/h	3,6-9
Working width (without marker)	m	5,6
Performance per normal working hour	ac/hr	4.9 / 13.5
Total hoppers capacity:		
seed hoppers	liters	200
fertilizer hoppers	liters	192
Seed application rate	pcs/m	2/42
Fertilizer application rate	kg/hectare	25/250
Dimensions in working position (without markers extension):		
width	mm	5700
length	mm	1950
height	mm	1100
Dimensions in transport position:		
width	mm	1950
length	mm	5700
height	mm	1450
Service personnel required	pers.	1 tractor driver
Weight	kg	930 ± 25
Travelling speed, NMT	Km/h	15
Max. road clearance in transport position	mm	400
Warranty period	months or ac	6 or 500