

**J&K STATE AGRO INDUSTRIES DEVELOPMENT CORPN. LTD.  
LAL MANDI, SRINAGAR.**

**ANNEXURE "A" TO TERMS AND CONDITIONS OF TENDER NOTICE NO:  
Agro/DMA/ST-184 Dated: -22-11-2017**

**TECHNICAL SPECIFICATIONS**

**Description of mobile seed processing/grading plant capacity 1 TPH( based on wheat at 12% moisture content & 10% impurities)**

The mobile seed processing/grade unite shall have capable of processing all crop seeds such as wheat, paddy, maize, pulses, beans, sunflowers, oils seed, soya bean, gram, mustered, jute, forest seed etc .

Mobile seed processing/grading unite shall be consisting of fallowing machines/ accessories.

S.No.	Particular	Quantity
1	Seed Grader (two oscillating screens) capacity one ton per hour (based on wheat) complete with suitable cyclone dust collector, air bend & air trunks-complete	1 no.
2.	Indented cylinder grader (single cylinder) capacity: 1 ton per hour (based on w2heat) attached to seed grader as built in unite- complete.	1 no.
3.	Vertical bucket elevator capacity @TPH to feed bin of the specific gravity separator from seed Grader-complete.	1 no.
4.	Specific gravity separator (3-fan) complete.	1 no.
5.	Electric control panel-complete.	1 no.
6.	Mobile trolley with 4 wheels & other arrangements with heavy duty steel chasis-complete.	1 no.
7.	Additional set of screen-each set consist of 1 no. Top screen & 1 no. bottom screen.	1 no.

The seed grader with cyclone dust collector. Indented cylinder grade, V.B Elevator, specific gravity separator. diesel generating set, electric control panel etc. Shall be mounted on a strong & sturdy trolley made steel structure frame & shall be portable on 4 no's pneumatic wheels (tyre size &-15-16. Rim size 16 no.) With axle. The whole unite can be towed through draw bar by the tractor/jeep with maximum towable speed of 10-20 KMPH.

The detail specifications of the machines are given below.

**1. Seed Grader.**

Capacity: 1 TPH (based on wheat)It has two flat oscillating screens double stage air aspiration. Variable air control, feed control, variable shoe shake. All steel construction with sturdy & compact structural frame work of M.S Channel. It shall be remove dirt & dust chaff mud balls, over size impurities. Undersize seed material & other lighter impurities like bevel infested grains etc from the raw seed lot. Regulated feed hopper with feed roller& aspiration duct, dynamically balanced fan. Air chamber, screen deck & spout are self cleaning type. The perforation of the top screen cleaned by beaters where as perforation of the bottom screen are cleaned by the travelling nylon brushes. The

feed hopper is at low level & feeding to the seed grader from feed hopper is with pneumatic lift as such no feeding elevator is required.

The machine shall be complete with suitable cyclone dust collector. One set of 2 screens (factory fitted) for one particular crop seed (i.e 1 No. Top screen & 1 no. Bottom screen) required air trunks & air bends 5H.P electric motor of Kirloskar/Crompton make & other standard features.

#### **TECHINICAL SPECIFICATION.**

Electric Motor: 5 H.P, 3ph.440b, 50c/s, A.C supply.

No. Of Grading: 1

No. Of Scalping: 1

No. Of Aspirations: 2

Screen Size: Top screen 66.0 x 74.5 cm, bottom screen 66.0 x 130.0 cm.

### **2. Indented cylinder seed grader (single cylinder)**

As independent single cylinder unit which can be coupled directed to the seed grader as an in built unit for removing cut/broken grain & or short particles.

#### **SPECIFICATION**

Capacity: 1.0 TPH (Based on wheat)

No. of cylinder: 1

Size of cylinder: not less than 475 dia. X 1450 Lmm.

Electric Motor: 1.0 H.P 3ph 440v. 50 c/s AC supply.

The machine shall be having indented cylinder of 5.2mm indent size for wheat made of 14 gauge M.S sheets, safety, rejected & final seed are at bagging off height suitable for holding bags & equipped with bags holding clamps. The indented cylinder is quickly interchangeable & segmented type for ease in replacement & maintenance. The indents are of drop type. Unit is provided with variable rotational speed arrangement for cylinder adjustable angle of rejection trough with auger for conveying out the rejected cut/broken grains.

The unit shall be complete with 1H.P electric motor of Crompton/kiriloskar make & other standard feature.

- 3. V.B Elevator (to feed specific gravity Separator) of matching Capacity.** Self supporting, centrifugal discharge, single leg vertical bucket elevator complete with 1h.p electric motor of kirloskar/crompton with standard reduction system. One way discharger, suitable discharge pipe of 5" dia discharge pipe angle sections & other standard features.

### **4. Specific gravity separator (3-fan)**

It is meant for removing impurities on specific density principle, grains those are same in size but different in weight are separated. It is suitable for all type of grain/seeds & granular products. Rectangular deck 3 fan specific gravity separator with variable length wise & sidewise inclination of deck feeding is regulated, variable deck speed & individual air controls, built in air filter panels on all sides are provided, adjustable seed collection from deck.

#### **SPECIFICATION.**

Electric Motor: 5 H.P, 440V, 3ph, 50 C/S, A/C supply.

Deck size: 1590 x 800 mm (L x W) wooden rectangular

No. Of fans: 3

The machine is complete with electric motor, deck, assembly for coarse seed side air filter panels & other standard features.

**5. Electric control panel.**

This manually operated electric control panel shall be totally enclosed & weather-proof. It shall be pre-wired & connected to the electric motors of the seed grader. Indented cylinder seed grade, V.B elevator & specific gravity separator. The control panel shall be equipped with main ON-OFF switch. Voltmeter, ammeter, phase indicators, change over switch. MCB & starter for each Electric motor 2 no's-5/15 Amps 220v for operating other accessories like bag closer, lights, fans etc.

**6. Mobile trolley.**

All the above machines/equipments are installed on this trailer complete with all the ducting, pipings, frames etc. Necessary to achieve an efficient flow of material through the plant.

Heavy duty steel chassis trolley shall be made of high quality M.S steel construction/ structural frame & shall be provided with 4Nos. Pneumatic wheels (tyre size 7-15-16) heavy duty twin axles & bearings. Tow bar fitted with ring type hitch & supplied with towing pin to suit tractor/jeep towing. The front two wheels & front axle are articulated with turn table for negotiating the turn easily. The size of platform shall be 6M x 2M & 1.0 M high from the ground level. The maximum towards speed is 20 KMPH (on highway) 10 KMPH (off Highway) with good stability. The back of the trolley shall be provided with red reflectors for road worthy conditions & light for extended working facility. 6 Nos. Of suitable capacity, heavy duty, adjustable levelling screws are also provided for stability, levelling & to absorb the vibrations of the unit during operation. Tool box is provided for day maintenance.

**7. Additional set of screen.**

The screen are made of 0.8mm thick CRCA M.S perforated sheet & fitted on seasoned hard wood frame/steel frame. The screens are free from curvature & burns & suitably inclined in the machine.

**SPECIAL FEATURES.**

- i) The feeding of the raw seed is done from the ground level.
- ii) The rejections are collected directly into the bags on the ground level through spouts & bag holding clamps.
- iii) The final seed is also collected directly into the bags at ground level through spouts & bag holding clamps.
- iv) Tool box with lock & set tools for carrying out ordinary repair & maintenance is also provided.
- v) Arrangement for keeping the additional screens.
- vi) Ladder for coming on the platform is also provided
- vii) Spare wheel with tyre & tube fitted.