

APPENDIX 'A'

SPECIFICATION/QRs OF AUTO PELLET PRESSING MACHINE (SINGLE SIDE)

SL NO	SPECIFICATION
1.	Machine to be able to make Compressed chemical pellets for various products changing the punches of following dimension :-
a)	OD 33 to 37 mm, Height 25 to 30 mm and weight 32+2 gms. (TS Shell)
b)	OD 47 to 50 mm, Height 24 to 27 mm and weight 58 + 2 gms.(TS Grenade)
c)	OD 30 to 34 mm, Height 25 to 28 mm and weight 23 + 2 gms. (TS Soft Nose)
2.	Power source of machine three phase AC 440 Volts
3.	Machine to have broadly:-
a)	Pellet pressing capability from single side.
b)	PLC (programmable logical Circuit)Control Panel. Programme to be supplied with manual.
c)	Power Pack with digital display of pressure in Kg/Cm ² (additional display options in other units may be provided)
4.	Capability of Machine follows
i.	Pellet pressing capability – Minimum 05 Nos at one time.
ii.	Machine to have capability to deliver 3000-3500 pellets per hour or 10-12 stroke per minute.
iii.	Machine to have mirror finishing hopper with transparent window to check material and of capacity of hopper not less than 75 ltrs
vi.	Material of hopper, machine, die & Punches should be corrosion & Spark resistant.
v.	Machine to be able to make compressed chemical pellets as per OD mentioned in Para-1 with center hole of 08 mm dia (OD, height, hole must be variable)
vi.	Machine to have an arrangement to adjust the fill height of pellets from 20 mm to 55 mm.
vii.	Machine to have sensors and digital display system to indicate applied pressure, height and weight of pellets.
viii.	Machine to have sound and light indicator for malfunction along with digital display of nature of malfunction.
ix.	Machine to have digital display counts of chemical pellets manufactured.
x.	Machine to have arrangement for proper auto lubrication of machine and molds and all moving parts.
xi.	Machine to have system for pellet stacking and soft unloading.
xii.	Machine to have an adjustable arrangement for pressing pellets from 30 to 175 KG/CM ² from each side. (Capacity of Machine – 35 MT)
xiii.	Machine to have easy loading and unloading Chemical composition in Hopper of auto pellet machine.
xiv.	Easy changing of die and punches i.e lock system so that can be changed externally.
xv.	Pressing unit should be vibration less.
xvi.	Machine and its components should be able to sustain in applied high pressures consistently up to 175 Kg/CM ² high.
xvii.	Machine to have proper cooling system (preferably oil cooling) for maintaining the oil temperature not exceeding 25 °C. (inlet temperature not exceeding 20°C)

5.	Automatic Control Panel (also should have provision for human interference in case of need)
i.	Control panel to have complete PLC based operating system for pellet press.
ii.	Digital meter with control in PLC. Operator to be able to make change in height, weight and pressure.
iii.	Some basic default programs can be saved for various pellets as program 1,2,3 etc in PLC.
iv.	Control panel to be kept at fair distance (3 Mtrs) or in other room from pellet press & power pack.
v.	Control panel to have digital display for indicating pressure for pellet pressing.
6.	Power Pack:-
i.	All Electric Connections to be flame proof.
i.	Power pack to be placed 3 to 3.5 Mtrs from pellet press.
i.	Digital meter for pressure (up to 220 kg/Cm ²) and other readings (such as oil level) along with visual interface.
v.	Power pack to have display to indicate oil temperature & Voltage of power pack.
7.	Safety Features:-
vi.	Temperature of machine not to exceed 25°C
vii.	The machine to be earthed to discharge static charge
viii.	In case of malfunctioning, the machine to have automatic tripping system and indication through light and sound.
	Proper safeguards for the safety of operator to be provided.
ix.	a) Shock Proof b) Proper indicators and alarming systems for specific fault, heat etc. c) Arrangement for preventing chemical dust and spillage from pellet press d) Proper dust proof guard to prevent spilling of composition during pressing & unloading e) machine should be encased in sealed and temperature/ humidity controlled tempered glass casing (to minimize human exposure) with access window for maintenance .
x.	All Electric Connections of power pack to be flame proof and shock proof.
8.	Free Maintenance for 3 years to be provided by manufacturer

Note- All firms are requested to provide the following.

1. Original Brochure of product by OEM.
2. Detail literature about the product.
3. Comprehensive comments for in-corporation in the specifications.

The Sub-group has decided to upload the QRs on MHA and BSF website for 15 days to invite the views/ comments/ suggestions of prospective bidders to make the QRs more broad based.

(Vikas Singh)
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