

T S GRENADE ASSEMBLY MACHINE

INPUT FILLED GRENADE
a) IGNITER (1.1 SEC)
b) STRIKER ASSEMBLY

OUTPUT SEMI FINISHED MUNITIONS

RATE 800 NOS / HRS(MINIMUM).

PROCESS AS PER FLOW CHART AS PER **APPENDIX - 'N-1'**

QUALITATIVE REQUIREMENTS

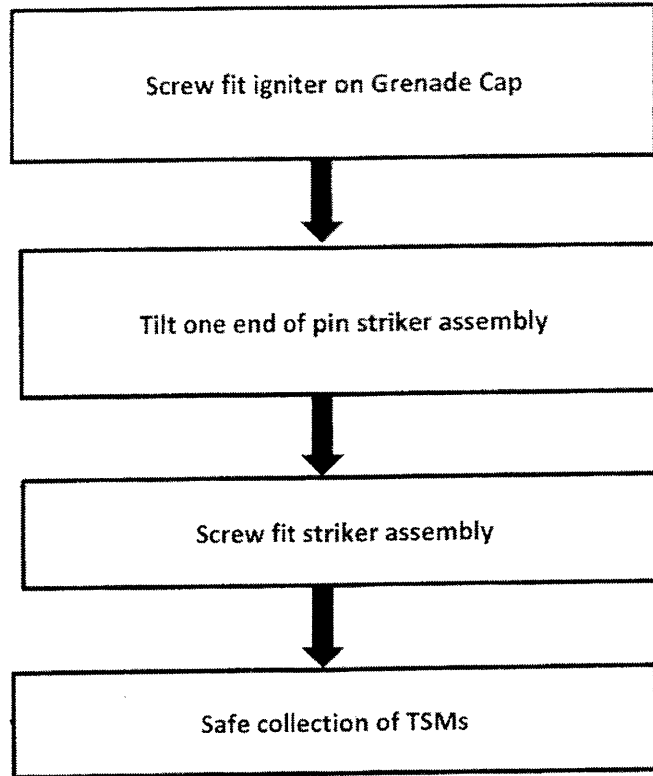
1)	ALL MOVING PARTS OF MACHINE SHOULD BE CORROSION RESISTANT, FLAME AND SPARK PROOF AND MADE OF ISI / CLASS APPROVED QUALITY MATERIAL
2)	MACHINE SHOULD HAVE EARTHED TO DISCHARGE STATIC CHARGE.
3)	IN CASE OF MALFUNCTIONING, THE MACHINE SHOULD HAVE AUTOMATIC TRIPPING SYSTEM ALONGWITH AUDIO AND VISUAL INDICATORS.
4)	ALL ELECTRIC EQUIPEMENTS / COMPONENTS FITTED IN THE MACHINE SHOULD BE OF REPUTED BRAND AND OF ISO CERTIFIED COMPANY.
5)	MACHINE SHOULD HAVE DIGITAL DISPLAY TO INDICATE NUMBER OF SHELLS PREPARED.
6)	MACHINE SHOULD WORK PREFERABLY ON PNEUMATIC BASE.
7)	TUBES CONNECTING THE MACHINE TO PNEUMATIC MACHINE SHOULD BE OF REQUISITE DIMENSIONS AND ISI MAKE.
8)	MACHINE WILL HAVE PROPER SAFEGUARDS FOR THE SAFETY OF THE OPERATOR.
9)	MACHINE SHOULD OPERATE PREFERABLY ON PLC CONTROL OF IEC-61131 STANDARD
10)	SEPARATION GUARD BETWEEN STATIONS SHOULD BE PROVIDED.
11)	THERE SHOULD BE SCOPE FOR EXPANSION BY ADDING MORE STATIONS.
12)	MACHINE SHOULD HAVE FACILITY OF DETECTION OF OMISSION AND MALFUNCTIONING AT ANY STAGES OF PROCESS AND SHOULD HAVE FACILITY TO SEPARATE THE REJECTED/ DEFECTIVE DT/DM.

[Handwritten signatures and notes at the bottom of the page]

- 13) MACHINE SHOULD BE ABLE TO OPERATE WITHIN OPERATING TEMPERATURE $25 \pm 10^{\circ}C$ AND OPERATING HUMIDITY 40-15%.
- 14) PELLETS FILLED ARE SOFT IN NATURE. ASSEMBLY SHOULD BE IN SUCH A MANNER THAT THESE PELLET DO NOT BREAK.
- 15) ALL ELECTRIC WIRING AND ELECTRICAL COMPONENTS SHOULD BE PROPERLY CASED AND FLAME PROOF AND EASILY ACCESSIBLE FOR REPAIR AND MAINTENANCES.
- 16) MACHINE SHOULD BE COMPACT TO SAVE SPACE AND EASY TO ACCESS FOR REPAIR AND MAINTENANCES.
- 17) BASIC STRUCTURE OF MACHINE SHOULD BE MADE OF ISI / CLASS APPROVED QUALITY METAL, RESISTANT TO CORROSION / RUSTING AND FLAME.
- 18) USER MANUAL WITH REQUIRED ILLUSTRATIONS TO BE PROVIDED WITH MACHINE.
- 19) INSTRUCTION ON REPAIR & MAINTENANCE TO BE PROVIDED WITH MACHINE.
- 20) RUNNING SPARE PARTS WITH ILLUSTRATED LIST SHOULD BE PROVIDED WITH MACHINE.
- 21) OPERATIONAL TRAINING SHOULD BE ARRANGED FOR 1 WEEKS FOR MINIMUM 15 PERS.
- 22) REPAIR AND MAINTENANCE TRAINING SHOULD BE ARRANGED FOR 1 WEEKS FOR MINIMUM 10 PERS.
- 23) SPECIFIC GAUGES AND MAINTENANCE TOOLS SHOULD BE PROVIDED WITH MACHINE.
- 24) **GUARANTEE / WARRANTY:-**
 - i) MACHINE SHOULD HAVE 2 YEARS GUARANTEE / WARRANTY AFTER COMMISSIONING.
 - ii) PREVENTIVE MAINTENANCE ONCE IN 3 MONTH DURING GUARANTEE / WARRANTY PERIOD.
 - iii) GUARANTEE/ WARRANTY WILL BE COMPREHENSIVE i.e INCLUSIVE OF SPARE PARTS.
- 25) AMC PERIOD SHOULD BE 05 YEARS AFTER EXPIRY OF GUARANTEE / WARRANTY PERIOD.

[Handwritten signature and scribbles]

T S GRENADE ASSEMBLY MACHINE



PO [Signature] M-1 [Signature] M-2 [Signature] M-3 [Signature] M-4 [Signature] Co-M-1 [Signature] Co-M-2 [Signature] Co-M-3 [Signature] Co-M-4 [Signature]

APPENDIX-'AN'

T S GRENADE FILLING MACHINE

SL NO	QUALITATIVE / REQUIREMENTS	METHODOLOGY	COMPLIED / NOT COMPLIED
1	ALL MOVING PARTS OF MACHINE SHOULD BE CORROSION RESISTANT, FLAME AND SPARK PROOF AND MADE OF ISI / CLASS APPROVED QUALITY MATERIAL	The firm should submit national / International accredited Lab test report for this aspect	
2	MACHINE SHOULD HAVE EARTHED TO DISCHARGE STATIC CHARGE.	Physical Verification by BOOs	
3	IN CASE OF MALFUNCTIONING, THE MACHINE SHOULD HAVE AUTOMATIC TRIPPING SYSTEM ALONGWITH AUDIO AND VISUAL INDICATORS.	The firm should submit national / International accredited Lab test report for this aspect & Physical Verification by BOOs	
4	ALL ELECTRIC EQUIPEMENTS / COMPONENTS FITTED IN THE MACHINE SHOULD BE OF REPUTED BRAND AND OF ISO CERTIFIED COMPANY .	The firm should submit national / International accredited Lab test report for this aspect.	
5	MACHINE SHOULD HAVE DIGITAL DISPLAY TO INDICATE NUMBER OF SHELLS PREPARED.	Physical Verification by BOOs	
6	MACHINE SHOULD WORK PREFERABLY ON PNEUMATIC BASE.	Physical Verification by BOOs	
7	TUBES CONNECTING THE MACHINE TO PNEUMATIC MACHINE SHOULD BE OF REQUISITE DIMENSIONS AND ISI MAKE.	Physical Verification by BOOs	
8	MACHINE WILL HAVE PROPER SAFEGUARDS FOR THE SAFETY OF THE OPERATOR.	Physical Verification by BOOs	
9	MACHINE SHOULD OPERATE PREFERABLY ON PLC CONTROL OF IEC-61131 STANDARD)	The firm should submit national / International accredited Lab test report for this aspect	
10	SEPARATION GUARD BETWEEN STATIONS SHOULD BE PROVIDED.	Physical Verification by BOOs	
11	THERE SHOULD BE SCOPE FOR EXPANSION BY ADDING MORE STATIONS.	Physical Verification by BOOs	
12	MACHINE SHOULD HAVE FACILITY OF DETECTION OF OMISSION AND MALFUNCTIONING AT ANY STAGES OF PROCESS AND SHOULD HAVE FACILITY TO SEPARATE THE REJECTED/ DEFECTIVE DT/DM.	Physical Verification by BOOs	
13	MACHINE SHOULD BE ABLE TO OPERATE WITHIN OPERATING TEMPERATURE 25 ± 10° C AND OPERATING HUMIDITY 40 ± 15%.	Physical Verification by BOOs	

PO MB M-1 [Signature] M-2 [Signature] M-3 [Signature] M-4 [Signature] Co-M-1 [Signature] Co-M-2 [Signature] Co-M-3 [Signature] Co-M-4 [Signature]

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PO

M-1

M-2

M-3

M-4

Co-M-1

Co-M-2

Co-M-3

Co-M-4

