

**STUN AND DYE MARKER GRENADE ASSEMBLING MACHINE**

**INPUT-** STUN & DYE MKR GDE BODY & H PLATE OF STUN GDE, PREPARED, H PLATE OF DYE MKR GDE, SHELLAC VARNISH, NC LACQUER, CHEMICAL-15 (GRANULES FORM) AND PREPARED CAP OF STUN GDE & DYE MKR GDE, ARALDITE.

- a) **STUN GRENADE** -- OD 56.2-0.2MM  
HEIGHT -64MM+0.2MM(GRENADE BODY).
- b) **DYE MKR GDE** -- OD 56.2-0.5MM  
HEIGHT -97.5±0.25MM (DYE MKR BODY).
- c) **H-PLATE (STUN GRENADE)** -- OD 49.5MM  
HEIGHT 19± 0.2MM.
- d) **PREPARED H-PLATE (DYE MKR GRENADE)** - OD 49.5MM  
HEIGHT 85.5±0.5 MM.
- e) **STUN GRENADE CAP** -- OD 61.2± 0.2MM  
HEIGHT 40.3± 0.50MM.
- f) **DYE MKR GRENADE CAP** -- OD 61.2± 0.20MM  
HEIGHT 43.8± 0.50MM (EXCLUDING STRIKER ASSEMBLY).
- g) **1 SEC DT/DM WITH FIXED CAP FOR DT** -- OD 14.75±0.20MM,  
HEIGHT=16.80+0.20MM

**OUTPUT** - **FINISHED PRODUCTS (STUN GDE & DYE MKR GDE):-**

**RATE** - 500 NO'S/HOUR.

**PROCESS:**

- APPLY ARALDITE ON OUTER THREADED PORTION OF H-PLATE (IN DYE MKR GRENADE).
- APPLY SHELLAC VARNISH ON OUTER THREADED PORTION OF H PLATE. (IN STUN GRENADE).
- SCREW FIT PREPARED H PLATE IN STUN GRENADE/ DYE MKR GRENADE (ALONG WITH CBT).

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- SCREW FIT 1 SEC. DT DM ON H-PLATE WITH CAP FOR DT IN BOTH TYPES OF GRENADES).
- PLACE 2 DROP OF NC LACQUER ON ONE SIDE OF H PLATE. IN BOTH TYPES OF GRENADES).
- DISPENSE CHEMICAL-15 (GRANULES FORM) 200 TO 250MG OVER NC LACQUER. (IN BOTH TYPES OF GRENADES).
- CHEMICAL-15 (GRANULES FORM) FOR STUN GDE IS 650 TO 700 MG.
- APPLY SILICON OIL ON OUTER THREAD OF GDE BODY OR INNER THREAD OF CAP.
- SCREW FIT PREPARED GRENADE CAP WITH GRENADE BODY. (IN BOTH TYPES OF GRENADES).

**QUALITATIVE REQUIREMENT:-**

1)	ALL MOVING PARTS OF MACHINE SHOULD BE CORROSION RESISTANT, FLAME AND SPARK PROOF AND MADE OF ISI / CLASS APPROVED QUALITY MATERIAL.
2)	SHOULD HAVE ARRANGEMENT TO SAFE UNLOADING AND STACK UP OF GRENADE.
3)	MACHINE SHOULD HAVE DIGITAL DISPLAY TO INDICATE FINISHED NOS OF STUN PRODUCTS.
4)	IN CASE OF MALFUNCTIONING, THE MACHINE WILL HAVE AUTOMATIC TRIPPING SYSTEM AND ALSO HAVE SOUND AND LIGHT INDICATION.
5)	ALL EQUIPMENT'S /COMPONENTS FITTED IN THE MACHINE SHOULD BE OF REPUTED BRAND AND OF ISO/ ISI CERTIFIED COMPANY.
6)	MACHINE SHOULD OPERATE PREFERABLY ON PLC CONTROL OF IEC-61131 STANDARD
7)	MACHINE WILL BE EARTHED TO DISCHARGE STATIC CHARGE.
8)	MACHINE SHOULD HAVE PROPER SAFEGUARDS FOR THE SAFETY OF OPERATOR.
9)	MACHINE SHOULD HAVE FACILITY OF DETECTION OF OMISSION AND MALFUNCTIONING AT ANY STAGES OF PROCESS AND SHOULD HAVE FACILITY TO SEPARATE THE REJECTED/ DEFECTIVE PRODUCT.

*AD 10/10/2018*


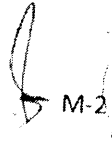







10)	MACHINE SHOULD WORK PREFERABLY ON PNEUMATIC BASE.
11)	TUBES CONNECTING THE MACHINE TO PNEUMATIC MACHINE SHOULD BE OF REQUISITE DIMENSIONS AND ISI MAKE.
12)	MACHINE SHOULD BE ABLE TO OPERATE WITHIN OPERATING TEMPERATURE $25 \pm 10$ ° C AND OPERATING HUMIDITY $40 \pm 15$ %.
13)	ALL ELECTRIC WIRING AND ELECTRICAL COMPONENTS SHOULD BE PROPERLY CASED AND FLAME PROOF AND EASILY ACCESSIBLE FOR REPAIR AND MAINTENANCES.
14)	MACHINE SHOULD BE COMPACT TO SAVE SPACE AND EASY TO ACCESS FOR REPAIR AND MAINTENANCES.
15)	BASIC STRUCTURE OF MACHINE SHOULD BE MADE OF ISI / CLASS APPROVED QUALITY METAL, RESISTANT TO CORROSION / RUSTING AND FLAME.
16)	USER MANUAL WITH REQUIRED ILLUSTRATIONS TO BE PROVIDED WITH MACHINE.
17)	INSTRUCTION ON REPAIR & MAINTENANCE TO BE PROVIDED WITH MACHINE.
18)	RUNNING SPARE PARTS WITH ILLUSTRATED LIST SHOULD BE PROVIDED WITH MACHINE.
19)	OPERATIONAL TRAINING SHOULD BE ARRANGED FOR 1 WEEKS FOR MINIMUM 15 PERS.
20)	REPAIR AND MAINTENANCE TRAINING SHOULD BE ARRANGED FOR 1 WEEKS FOR MINIMUM 10 PERS.
21)	SPECIFIC GAUGES AND MAINTENANCE TOOLS SHOULD BE PROVIDED WITH MACHINE.
22)	<b><u>GUARANTEE / WARRANTY:-</u></b> 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.
23)	AMC PERIOD SHOULD BE 05 YEARS AFTER EXPIRY OF GUARANTEE / WARRANTY PERIOD.

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APPENDIX 'AT'

**STUN AND DYE MARKER GRENADE ASSEMBLING 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	SHOULD HAVE ARRANGEMENT TO SAFE UNLOADING AND STACK UP OF GRENADE.	Physical Verification by BOOs	
3	MACHINE SHOULD HAVE DIGITAL DISPLAY TO INDICATE FINISHED NOS OF STUN PRODUCTS.	Physical Verification by BOOs	
4	IN CASE OF MALFUNCTIONING, THE MACHINE WILL HAVE AUTOMATIC TRIPPING SYSTEM AND ALSO HAVE SOUND AND LIGHT INDICATION.	The firm should submit national / International accredited Lab test report for this aspect & Physical Verification by BOOs	
5	ALL EQUIPMENTS / COMPONENTS FITTED IN THE MACHINE SHOULD BE OF REPUTED BRAND AND OF ISO/ ISI CERTIFIED COMPANY.	The firm should submit national / International accredited Lab test report for this aspect.	
6	MACHINE SHOULD OPERATE PREFERABLY ON PLC CONTROL OF IEC-61131 STANDARD	The firm should submit national / International accredited Lab test report for this aspect	
7	MACHINE WILL BE EARTHED TO DISCHARGE STATIC CHARGE.	Physical Verification by BOOs	
8	MACHINE SHOULD HAVE PROPER SAFEGUARDS FOR THE SAFETY OF OPERATOR.	Physical Verification by BOOs	
9	MACHINE SHOULD HAVE FACILITY OF DETECTION OF OMISSION AND MALFUNCTIONING AT ANY STAGES OF PROCESS AND SHOULD HAVE FACILITY TO SEPARATE THE REJECTED/ DEFECTIVE PRODUCT.	Physical Verification by BOOs	
10	MACHINE SHOULD WORK PREFERABLY ON PNEUMATIC BASE.	Physical Verification by BOOs	
11	TUBES CONNECTING THE MACHINE TO PNEUMATIC MACHINE SHOULD BE OF REQUISITE DIMENSIONS AND ISI MAKE.	Physical Verification by BOOs	

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12	MACHINE SHOULD BE ABLE TO OPERATE WITHIN OPERATING TEMPERATURE $25 \pm 10^{\circ}$ C AND OPERATING HUMIDITY $40 \pm 15$ %.	Physical Verification by BOOs	
13	ALL ELECTRIC WIRING AND ELECTRICAL COMPONENTS SHOULD BE PROPERLY CASED AND FLAME PROOF AND EASILY ACCESSIBLE FOR REPAIR AND MAINTENANCES.	The firm should submit national / International accredited Lab test report for this aspect & Physical Verification by BOOs	
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23	AMC PERIOD SHOULD BE 05 YEARS AFTER EXPIRY OF GUARANTEE / WARRANTY PERIOD.	Physical Verification by BOOs	

PO

M-1

M-2

M-3

M-4

Co-M-1

Co-M-2

Co-M-3

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