

SCOPE OF WORK**Description of Safe and Armed Device (SAD) of Fuze FB-40:-**

The primary purpose of a safe and arm (S&A) device is to prevent accidental functioning of a main charge of explosive (military or otherwise) in a fuze prior to arming. Typically, in an electro-mechanical S&A device, a sensitive primary explosive is physically separated from a booster explosive by an interrupter or barrier component. The barrier component, often a slider or rotor, interrupts the explosive path and thus prevents detonation of the booster and main charge prior to arming. Arming occurs by moving the barrier component to align the explosive elements.

The artillery safety and arming device attached to a fuze and fired from L-70 gun remains out-of-line for at least Mechanical Safety Distance (approximately 50 meters) after leaving the barrel of the gun.

**(Monitoring instruction for inspection of Assembly S&A for Fuze FB-40 for 40mm PFFC (Ammn))**

1. The material testing by the supplier is to be carried out at any NABL accredited Lab or a Govt. recognized lab.
2. During pre-inspection the supplier will submit their result of testing against all parameter as mentioned in relevant drawing/specification.
3. Assembly S&A(filled) will be subjected to visual, shop test i.e. Non-Arming at 8000 RPM, Arming-2000RPM & Set back Force Test as per specification at OFK.
4. After satisfactory performance in Shop test, SAD will be subjected to static test i.e. Jolt, Jumble & Drop test.
5. After satisfactory performance in static test Assembly S&A(filled) will be subjected to dynamic test firing. Trial acceptance will be only after successful performance in static as well as in dynamic test trial.
6. For the detail study, technical query interested Firm is requested to visit MPF before participating in tender enquiry. Drawings of SAD can be collected by the Firm during visit. Bearing Drawing No :- DRG TRD 1-2-2094, DRG TRD 1-2-2095, DRG TRD 1-2-2096, DRG TRD 1-2-2097, DRG TRD 1-2-2099, DRG TRD 1-2-2101, DRG TRD 1-2-2102, DRG TRD 1-2-2103, DRG TRD 1-2-2104, DRG TRD 1-2-2105, DRG TRD 1-2-2107, DRG TRD 1-2-2108, DRG TRD 1-2-2109, DRG TRD 1-2-2111, DRG TRD 1-2-2112, DRG TRD 1-2-2113, DRG TRD 1-2-2114, DRG TRD 1-2-2115, DRG TRD 1-2-2116, DRG TRD 1-2-2117, DRG TRD 1-2-2118, DRG TRD 1-2-2119, DRG TRD 1-2-2120, DRG TRD 1-2-2121, DRG TRD 1-2-2122, DRG TRD 1-2-2123, DRG TRD 1-2-2127, DRG TRD 1-2-2132, DRG TRD 1-2-2274.
7. SAD should meet all the parameters for functioning, testing and storage of its Final assembly i.e. Fuze FB-40 which are mentioned below:-

Over all weight & size	125.8 $\pm$ 4 gms, 93.20 – 93.90 mm
Mechanical safety range	50 meter min
Electrical Safety Range	200 meter min
Minimum Operating Range	400 meters
Miss distance of functioning	$\approx$ 2 meters
Self-Destruction Time	7 to 10 seconds
Operating Temp	Max + 50 <sup>0</sup> C Min - 20 <sup>0</sup> C

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