

CATALOGUE 2025-26

**COMPLETE SOLUTIONS FOR
BALLISTIC FIRING RANGES,
DRDO, CFSL'S, DFSL'S,
DEFENCE PSU'S, ARMS &
AMMUNITION MANUFACTURERS,
FORENSIC SCIENCE UNIVERSITIES**



BALLISTIC TESTING EQUIPMENTS

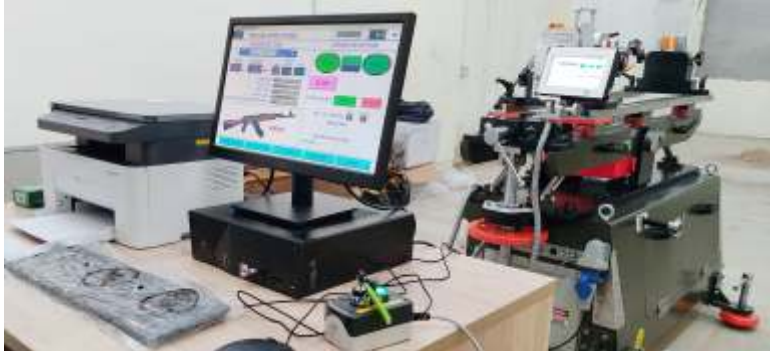
19
YEARS OF
EXCELLENCE

**COMPLETE FABRICATION
FACILITY IN-HOUSE**



ABOUT US

Established in 2006 in Mohali, Priority Solutions began as a precision component manufacturer and has since grown into a trusted provider of Customized Tooling, Special Purpose Machines, and Ballistic Testing Equipment. From concept to execution, we deliver test benches and complete solutions for test ranges and proof ranges dedicated to arms and ammunition testing. Our focus on innovation, and advanced production methodologies enables us to serve Defence sectors with precision and reliability.



BALLISTIC TESTING EQUIPMENTS

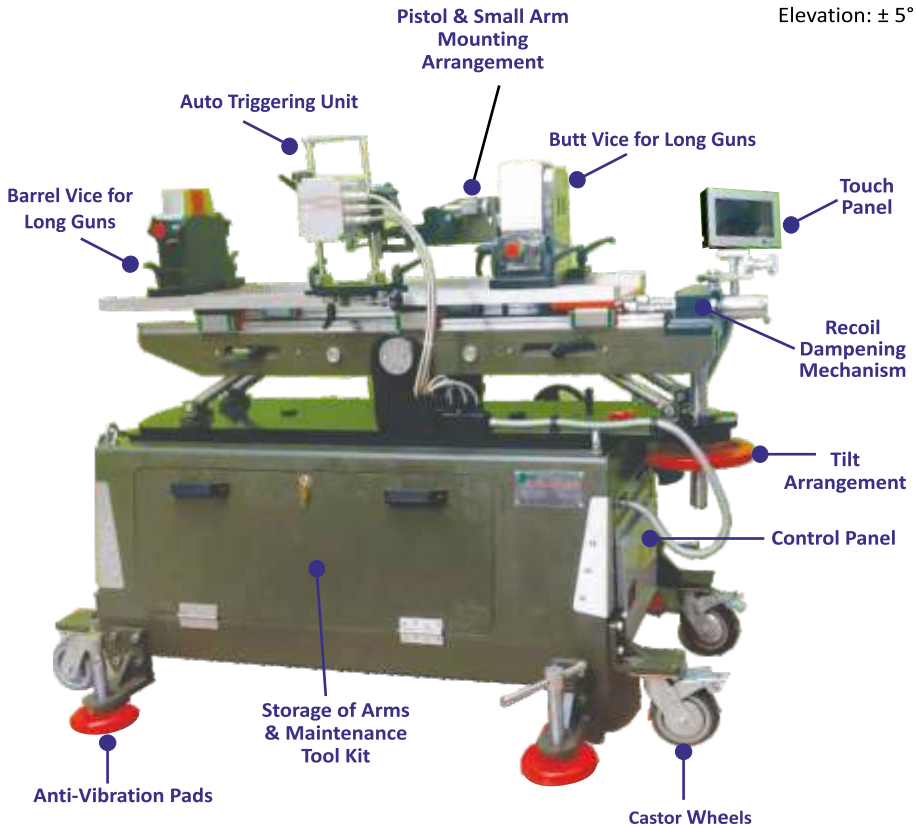
- Mobile Firing Rest Table / Universal Weapon Mount for Small Arms.
- Auto Triggering Unit with Trigger Pull Measurement.
- Velocity Measurement System (VMC)
- Bullet Recovery System (Water Based)
- Bullet Recovery Box (Cotton Based)
- Vertical Bullet Traps / Catchers
- Bullet Catchers (Proofing & Functional)
- Bullet Puller & Reloading Presses
- Ball Drop Test Equipment (Electro-Mechanical)
- Target Table (4 Axis) - Servo Controlled
- Head form (NIJ) Aluminum Ballistic
- Metal Panel Holding Fixture
- Bulletproof Glass Holding Fixture
- Vibration Tables (IS: 17051:2018)
- Thermal Fluid Tank (IS: 17051:2018)
- Conditioning Chambers & Environment Chambers
- Gun / Barrel Mounts for 30mm and above as per design
- Other allied Equipments (Custom Made)

SERVICES

- AMC / CMC for Systems
- Reconditioning & Upgradation of Equipments

● **FIRE ARM REST TABLE***
(WEAPON REST AS PER IS: 17051:2018)
Model No. : PS/FR-09

Technical Dimensions:-
Height: 1200mm
Length: 1350mm
Width: 740mm
Total Weight: 450kg to 800kg
Azimuth: $\pm 5^\circ$
Elevation: $\pm 5^\circ$



Fire Arm Rest Table (Weapon Rest Table) is Designed & Developed for Ballistic Testing, capable of Accomodating Long Guns & Pistols upto 12.7mm

Key Features :

- Remote operation ensures user-controlled firing with guaranteed safety under diverse environmental conditions over extended durations.

* Customization as per specific requirement can be done.

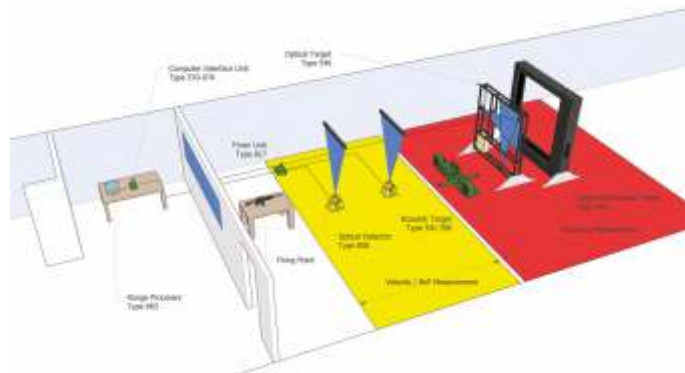
◆ VELOCITY MEASUREMENT SYSTEM (VMS)

Requirements and specification of VMS

- Velocity can be measured in the range of 50 to 1500 ms⁻¹
- Rate of fire can be measured in the range of 60 to 3000 min⁻¹
- Calibre of projectiles in the range of 5 to 20 mm
- Area observed > 0.6 metre².
- Time of flight is measured.
- Data presentation on standard PC (Desktop, Notebook). The software is suitable for Windows 10 or above version.
- Immediate display of velocity and rate of fire values.
- Presentation of Statistically Process Values (minimum, maximum, average)
- Calculation Drop of Velocity (Two VMS/Light gate required)
- Integrated evaluation unit equipped with Communication module, Ethernet interface.
- Customization as per requirement can be done.



Installation at SFSL Bhubaneswar



◆ BULLET RECOVERY BOX

Technical Specification of BRB

- Bullet Recovery Box is made of Stainless Steel Material (Rust Proof).
- Mobility is given with movable trolley with lock adjustment.
- Dimensions (L X B X H) at least: 10 x 2 x 2 feet (or 10 X 1.5 X 1.5 feet)
- Height from Ground: Proportionate to Mobile Firing Rest (1.6 Meter Approx.)
- BRB filled with Cotton for easy recovery of bullets avoiding any deformation for successful comparison.
- Fire Extinguisher attached to the BRB Stand.
- Separate removable separators for quick recovery of bullets.
- It has provision to protect the shooter from ejecting bullets.
- Customization as per requirement can be done.



Inside View

◆ Vertical Bullet Trap

(3m x 3m) – Design & BOM

Layered Construction from Impact Face:

1. **Rubber Tile (50 mm)**
 - Energy absorber and fragment containment layer.
 - Protects back-layers from direct impact.
2. **Wooden Ply Board (19 mm / 3/4")**
 - Structural support and containment of granules.
 - Not meant to absorb any ballistic energy.
3. **Rubber Granules (100 mm)**
 - Shock dispersion and thermal dissipation.
4. **Wooden Ply Board (19 mm / 3/4")**
 - Structural support and containment of granules.
 - Not meant to absorb any ballistic energy.
5. **Steel Plate (3/8" ≈ 9.5 mm)**
 - deflection surface.



Bottom Tray Construction

- **Rubber Tiles backed by Wood and Granules backed by Wooden Ply and Steel Sheet 6mm maintaining total of 500 mm thickness.**
- **3 meter total length, with modular structures fastened.**

Key Features :-

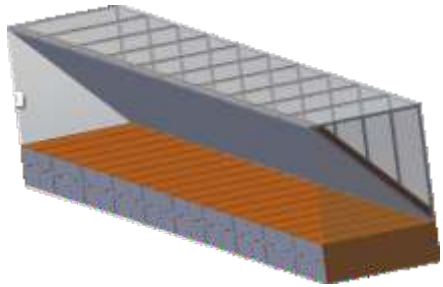
- Lead dust control as absorber by the system.
- Maintenance access and Inspection easy being Modular.
- Dust free as Sand free design.

Vertical Bullet Catcher

(Size Height 8mtr. x Width 2.5mtr.)

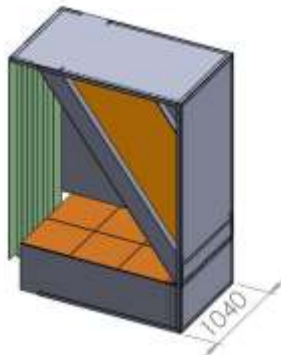
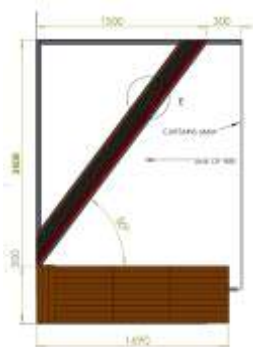
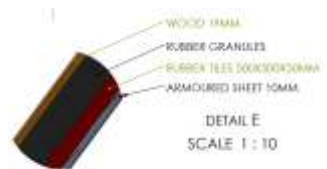
Construction:

- Front Plate: 10 mm Armored Steel (Protection 500)
- Absorption Layer: Rubber Tile 50mm & Rubber Granules 100mm
- Backup Plate : Wood 19mm
- Frame: ISMC 150/200 channel



Safety:

- Lead dust control with exhaust fans
- Sealing and shielding on all sides
- Maintenance access and inspection points



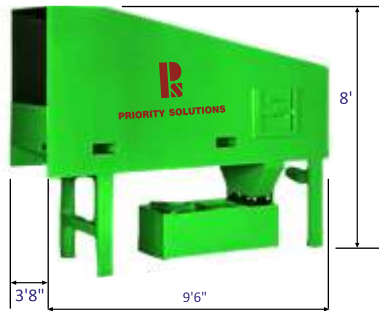


◆ Bullet Trap Functional : Model : PS / BTF-44

Designed for Ballistics Labs, Firearms Manufacturers, and Military Facilities. Box Trap Series is engineered for professionals to eliminating environmental health and safety concerns. Our Box Traps significantly minimize airborne lead, ensuring a safer environment for users.

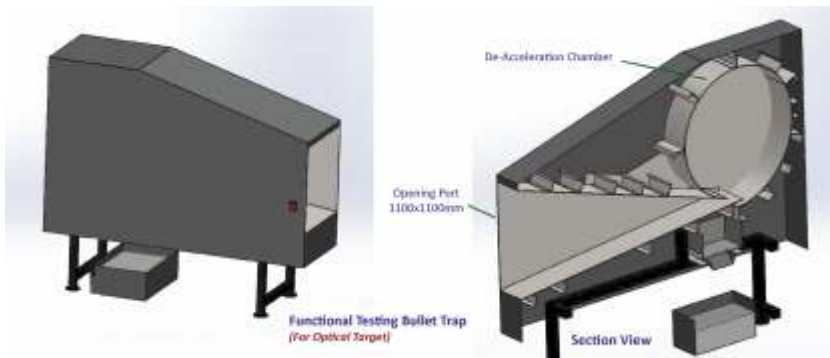
Key Features :-

- Reduces airborne lead particles, enhancing environmental safety.
- Low Angle Ramps: Deflect bullets into the deceleration chamber, effectively slowing them down.
- Deceleration Chamber: Ensures bullets lose energy efficiently and drop into a collection tray for easy retrieval.



The Box Trap Series is the ideal solution for those who prioritize safety, accuracy, and efficiency in their ballistic testing and firearms manufacturing processes..

- ❖ Eliminates lead dust hazard
- ❖ Fully welded one piece construction
- ❖ Low maintenance
- ❖ Captures bullets safely for recycling
- ❖ Self-contained lead-recovery tank





◆ Bullet Trap Proofing : Model : PS / BTP-09

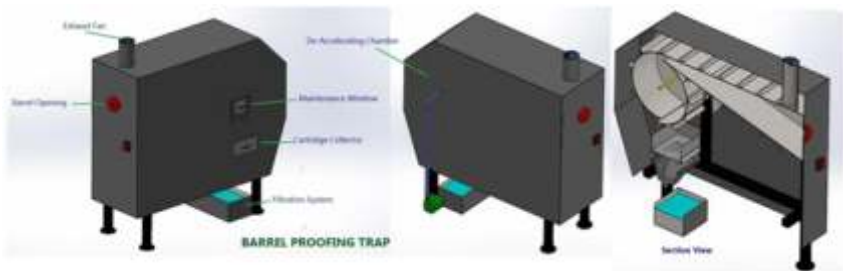
Bullet Trap Barrel Proofing - These shall be having a Rubber Mount at the front with a cutout of 2", where in the barrel shall rest and firing can be done. This one is best suited for shooting range use with a variety of firearms and is for Barrel proofing.

Key Features :-

- Wet Technology: Reduces airborne lead particles, enhancing environmental safety.
- Low Angle Ramps: Deflect bullets into the deceleration chamber, effectively slowing them down.
- Deceleration Chamber: Ensures bullets lose energy efficiently and drop into a collection tray for easy retrieval.

The Box Trap Series is the ideal solution for those who prioritize safety, accuracy, and efficiency in their ballistic testing and firearms manufacturing processes..

- ❖ Eliminates lead dust hazard
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Environment Chamber for Sample Conditioning and Thermal cycle testing as per IS 17051:2018

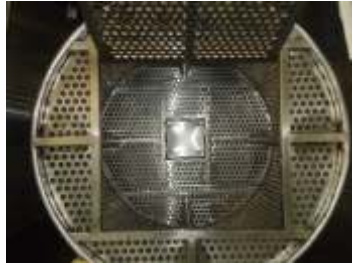
- 13.1. Chamber size: 1 m x 1m (min vol)
- 13.2. Uniform air temperature and humidity inside the test chamber
- 13.3. Verification of air temperature and humidity by using verification sensors.
- 13.4. Temperature range: -40 to 180oC
- 13.5. Accuracy of System: air temperature ± 1 °C and humidity is within ± 3 % of Rh.
- 13.6. Display resolution of Humidity: 1.0% Rh
- 13.7. Rate of change of heating and cooling: +/- 3°C/min
- 13.8. Calibration intervals must meet ANSI or ISO guidelines ,
- 13.9. Operating voltage 230V, 50 Hz.
- 13.10. Display type: 7" color touch screen
- 13.11. Equipment should be programmable for at-least 10 days for performing following test

Time(hr)	Temperature(°C)	Relative humidity(%)
2	25	50
2	15	N/A
2	5	N/A
2	-5	N/A
2	-15	N/A
2	0	N/A
2	15	N/A
2	30	50
2	45	50
2	60	50
2	75	50
2	90	50



◆ Environment Chamber with Tumbler Drum

(AS PER IS: 17051:2018)



a) Thermal:

Temperature : $65 \pm 5^{\circ}\text{C}$

Humidity : 80 ± 5 percent

Time : 10 days \pm 1 h

Dimensions of Tumbler Drum

a) Diameter : $832 \text{ mm} \pm 6 \text{ mm}$

b) Depth : $651 \text{ mm} \pm 6 \text{ mm}$

b) Mechanical

(Rotating and tumbling device) :

Rotation rate : $5 \pm 1 \text{ rpm}$

◆ Stands for Guns & Barrels (Customized)



Gun Stand for
2A42 30mm Gun



Barrel Stand for 30mm Barrel
with Shock Absorber Assembly.

◆ BULLET RECOVERY SYSTEM



Dimensions

Length	: 8.00 ft.
Width	: 2.2 ft.
Height	: 6 ft.
Liquid Capacity	: 500 Litres
Weight of the System (without Water)	: 400 kg. Approx.
Weight of the System (with Water)	: 900 Kg. Approx.

Less than 30 Seconds to recover a Bullet !!

Technical Specification

- Cylindrical Tunnel Inclined at 30°
- Tunnel of Steel, Thickness 4mm.
- Diameter of Tunnel Tube is 600mm.
- End Plates (6 mm) easily replaceable for Inspection and Cleaning.
- Firing Port Slot of 5" Dia with Guide for Barrel is Incorporated
- PLC Controlled with 7" HMI display.
- Tunnel is Rubber Lined from inside so as not to damage the bullet.
- Filtrations and Disinfectants System for long usage of water.
- Lockable Castors and Toe Bar Incorporated for Mobility.



◆ HEADFORM (NIJ STANDARDS) (AS PER IS: 17051:2018)

- Head Form (NIJ) Aluminum Ballistic.
- Material used is Special Aluminium Alloy.
- Heavy Base Plate for Clamping to Dial Plate with set of 2 clamps provided
- CNC Machined with Close Tolerance
- Size : Small, Medium and Large
- Weight of Head form : 10kg (Approximately).
- Finish: Buff
- Customization as per requirement can be done.



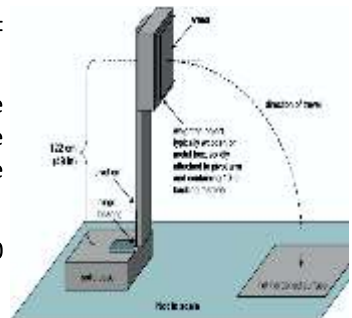
◆ Hard Armor Drop Testing

According to NIJ Standard-0101.06./IS 17051:2018

7.1. At a minimum free fall height of 1200 mm \pm 10mm (90° from horizontal)

from the flat hardened surface and with the strike face of the armor pointing down, drop the weighted fixture twice. Impacts must occur at the center of the face (not at an edge).

7.2. Total weight on the armour shall be 10 kg \pm 100 g and total weight of clay shall be 4.5 kg \pm 100 g.



◆ BULLET PULLER & RELOADER PRESSES

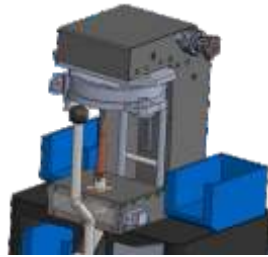
- Bullet Puller and Reloader Equiped for Calibers 0.32", 0.38", 5.56, 7.62, 7.65, 8mm / 0.315", 9, 12.7 mm etc.
- Sturdy Alloy Cast Body and Tool Steel Indexer.
- Impact Puller, Jig and Collet for removing the bullet.
- Antistatic funnel Set of dies for varied cartridges.
Different Collets for varied Calibers.



Single Station
Model : PS/BPR-01



Multi Station
Model : PS/BPR-02



Crimping Press for all Calibers
Model : PS/CR-01

◆ SELF PROTECTION BALLISTIC SHIELD

PS/SBPS-015

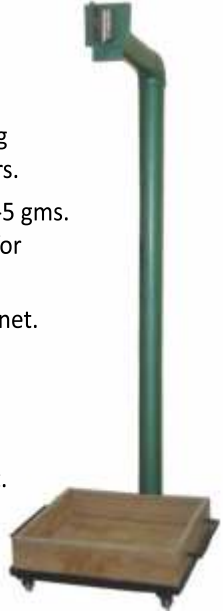
It's a Self Protection Ballistic Shield to be used for Fireman while doing Validation of BP Material via. JACKETS, HELMETS, etc.



◆ DROP TEST EQUIPMENT

(AS PER IS: 17051:2018)

- A steel fabricated fixtures with adjustment for setting distance from centre of steel ball to clay to 2.0 meters.
- A Steel Ball Dia 63.5mm ± 0.05 mm and mass 1043 ± 5 gms. Heavy Duty Trolley with Castors for resting Clay Box for faster setting with the target.
- Ball hold and drop by remote controlled electro magnet.
- Finished:- Painted
- Loading Fixture for steel ball.
- Laser Guide to indicate point of Ball Drop.
- Wooden box for clay 2 nos. supplied with equipment.
- Customization as per requirement can be done.
- Installation of equipment is within our scope.



◆ PANEL SHEET HOLDING FIXTURES

- Available Sizes:- 300 X 300mm/ 500 X 500mm / 900 x 600mm
- Sheet Thickness of 4mm to 10mm can be clamped in this fixture.
- 4 Clamp Arrangement for Secure Clamping of sheets and to withstand shot impact.
- Clamping with Dial Plate of Target Table.
- Material of Fixture is Steel.
- Finish Powder Coated.
- Customization as per requirement can be done.



● VIBRATION TABLE (AS PER IS: 17051:2018)

Technical Specifications:-

- Vibration test with the use of package tester that imparts 25.4 mm peak to peak amplitude and circular synchronous motion to the table at a frequency of 5 Hz. for One hour.
- Size of the vibration table is 450mm X 450 mm.
- Sturdy Steel Structure to bear test load, peak-to-peak, and circular motion at a frequency of 5 Hz for One hour.
- Machine structure is covered from all sides with powder coated Steel Sheets.
- Digital timer incorporated to display completion time.
- Electrical Control Panel doe have MCB, emergency switch, and buzzer indicator for cycle completion.
- Power supply 3 phase 440V AC 50 Hz



● ARMOR SUBMERSION EQUIPMENT (AS PER IS: 17051:2018)

Technical Specifications:-

- Tank Size 1000x1000x600mm (length x height x width)
- Thermostat Incorporated for proper temperature range
- Working Temperature range is 27°C ± 5°C
- Tank is Equipped with Power. Heater On and Safety Trip Indicator.
- Material (Internal) of tank SS 304.
- Tank structure is insulated with Glass Wool.
- A Sliding door on top with proper sealing.
- Heater are at bottom of Tank
- Easily Replaceable Heaters.
- Level Gauge to maintain required water level
- Programmable Weekly Timer for early startup.
- Powdered Coated Electrical Control Panel
- An Indicator for Heater Conditions.
- Power supply 3 phase, 440V AC 50Hz



◆ TARGET TABLE (4 AXIS) (AS PER IS: 17051:2018)

- A 4 axis table for resting the clay box, LM guides with ball screws for X-axis and Z-axis with ball screws and joystick with servo motors and a touchscreen at a remote place.
- C Axis is driven by a heavy duty calibrated 10" Rotary table.
- Stainless Steel Dial Plate. Diameter 900mm with radial calibrations engraved.
- Height of table platform 700-1300mm (± 300 mm movement)
- Base body structure: 900*900*950mm
- Load Capacity:- 500 Kgs
- Travel:- X axis:- 300mm
Y axis:- 300 mm
- Customization as per requirement can be done.



◆ APPARATUS FOR WATER TIGHTNESS AMMUNITION TESTER

The machine is called APPARATUS FOR WATER TIGHTNESS AMMUNITION TESTER, is used to check leakages in the assembled ammunition upto 12.7 mm calibers. This equipment allows manufacturers to determine how well an item can withstand wet and humid conditions, which is critical for ensuring product safety and quality.

Our equipment is capable to perform tests on different standardized caliber ammunition, ensuring accurate and reliable results. It has the latest user friendly controls.

3.1 Technical Data

Model:	PS/WTAT-01
Dimensions (max) (L-H-B):	800 X 750 X 500 mm
Weight overall	Less than 65 kg
Supply Voltage:	220V approx. / 50 Hz $\pm 5\%$
Current consumption:	1.0 Ampere
Test Time:	30 Seconds
Vacuum Test Pressure:	-50 Kpa
Control voltage:	24V DC $\pm 10\%$
Control method:	Front Panel Control



◆ PRIMER SENSITIVITY DROP TEST

The machine is called PRIMER SENSITIVITY TEST EQUIPMENT FOR PRIMER SENSITIVITY IN SMALL ARMS is used to validate live cartridges from 4.6mm to 12.7 calibre samples so as to determine the energy required to break or damage a material in which a defined weight falls onto a specimen or a component from a specific height and with a specific impact energy and velocity.

PRIORITY's Primer Sensitivity Test Equipment (PS/PSDT-800) with the measuring stand is a multifunctional device designed for testing of primers for cartridges for small arm weapons within the meaning of Manuals of Proof and Inspection Procedures for NATO ammunition (e.g. AC/225(LG/3-SG/1)D8, AC/225 (Panel III-SP.1) D/170) etc.). Primer is tested in appropriate cartridge case (primed cases taken from production line or gained by disassembling of cartridges).



Technical Data Sheet

Model	: PS/PSDT-800
Dimensions (max) dimensions (L-H-B)	: 700 X 1400 X 300 mm
Weight overall	: Less than 120 kg
Supply Voltage	: 230V approx. / 50 Hz \pm 5%
Current consumption	: 0.5 Ampere
Maximum Drop Height	: 800 MM
Maximum Impact velocity	: 3.2 m/s
Control voltage	: 24V DC \pm 10%
Control method	: Front Panel Control

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Training at a
Ballistic
Firing
Range



"The sole reason we are in business is to make life less difficult for our clients."

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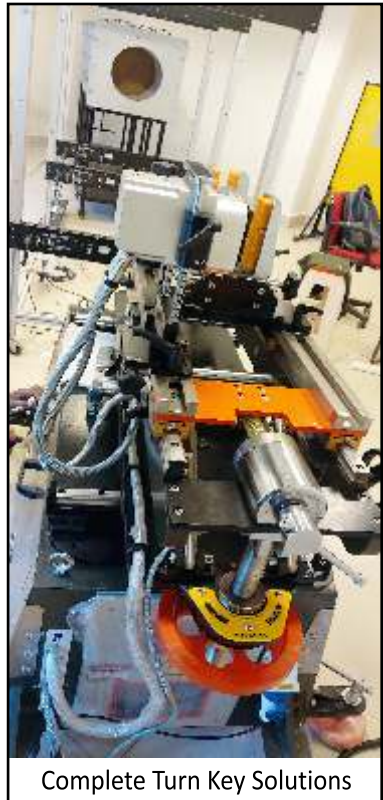
prioritysolutions@live.in ; priorityspm@gmail.com



E-068, Industrial Focal Point, Chanalon-140103 (Punjab)

COMPETENCIES

Our technological competencies are based on the extensive experience, qualifications and specialization of our multi disciplinary technical team and in-house production equipment.



FOUNDER PRENEURS

Gursewak Singh Uppal is a Graduate Mechanical Engineer from Punjab Technical University and certified software professional from IBM. Before starting this venture, he has worked with Jubilant Organosys Ltd. He has 22 years of industrial experience with core area been Automation and Product Integration. He has Good Analytical ability and is a Troubleshooter.



Sukhwinder Singh is a PD Tool Design (Gold Medalist) from Central Institute of Tool Design, Hyderabad & ADTDM (With Honors) from Central Tool Room, Ludhiana Before starting this venture, he has worked with Volvo Eicher Commercial Vehicles. He has 18 years of experience in New Product Development and Tool Engineering. He is a Techno Commercial and a Team Builder.



OUR ESTEEMED CUSTOMERS



गृह मंत्रालय
MINISTRY OF
HOME AFFAIRS



- + More than 25 Govt. Organisations.

◆ **INSTALLATION** • 100+ across India.



CERTIFICATIONS



◆ IN NEWS

DRDO chief Avinash Chander (left) and TBRL Director Manjit Singh (2nd from left) at the inauguration of the Ballistic Test Facility at TBRL at Ramgarh near Chandigarh. (Courtesy-Tribune Chandigarh)

