



CASE STUDY

Nationwide Security Screening for Bangladesh's Military & Public Administration Facilities

A custom-engineered walk-through metal detection solution deployed across government and military sites throughout Bangladesh

Client: Bangladesh Army

Location: Bangladesh

Sector: Government & Defense

Status: Produced, Delivered & Commissioned

polimek

www.polimek.com
2026

Background

Bangladesh Army one of the central procurement authority lunch a tender for a broad security upgrade initiative covering a wide range of facilities from military premises to government offices and public administration buildings serving the general population.

The scale and diversity of these facilities demanded a solution that could perform consistently across very different environments and usage contexts.

Challenge

The security need

The project required a standardized, high-performance personnel screening system deployable across both secured military premises and high-footfall public administration buildings two very different operational environments with distinct requirements.

Military sites demanded robust threat detection and tamper-proof operation. Public administration buildings required a system that could handle high daily traffic volumes reliably, guide the general public clearly through the screening process, and remain safe for all visitors including pregnant women and individuals with cardiac devices.

Beyond standard detection performance, the client specified a number of custom functional requirements including remote monitoring capability, traffic flow signaling, and uninterrupted operation during power outages that ruled out any off-the-shelf solution and required a purpose-built system.

Polimek SG-300A-N — Purpose-Built For This Deployment

Polimek designed and delivered a customized version of its SG-300A Archway Walk-Through Metal Detector, engineered specifically to meet all standard and custom requirements of the Bangladesh Army. The solution addressed four key areas: detection performance, public-facing usability, remote management, and operational continuity.

Custom Requirements Met:

Stop & Go traffic signage

Integrated display panels showing international STOP and GO signs guided the flow of the general public through screening checkpoints clearly and efficiently essential for high-footfall public administration buildings.

Remote Monitoring Via Wi-Fi Module

Polimek implemented a dedicated Wi-Fi module enabling real-time remote monitoring of each gate through centralized software. Security supervisors can oversee alarm activity, traffic counts, and system status across multiple locations without being physically present.

12-Hour Backup Power Supply

Each unit was equipped with a backup battery system providing up to 12 hours of continuous operation in the event of a power outage ensuring uninterrupted security screening at all times, critical for both military and public facilities.

High-Sensitivity Multi-Zone Detection

With 11 to 33 independent detection zones and sensitivity adjustable from level 0 to 300, the system delivers precise body-location alarming suitable for both high-security military checkpoints and mixed-use public entry points.

Detection zones	11–33 independent zones
Sensitivity range	Level 0 to 300 (adjustable)
Backup battery	12 hours continuous operation
Connectivity	Wi-Fi module for remote monitoring
Weather resistance	IP65 waterproof standard
Operating temperature	-20°C to +55°C
Certifications	SO 9001, ISO 14001, CE

PROCESS

A Rigorous, Trust-Based Delivery Process

Given the custom nature of the project and the high standards required for both military and public-sector use, Polimek followed a structured multi-phase delivery process to ensure full compliance at every stage.

► Custom Engineering & Specification Review

Polimek's engineering team designed a customized SG-300A variant incorporating all standard and bespoke requirements.

► Prototype Production & Client Validation

A first prototype unit was produced and submitted to the Bangladesh Army for formal evaluation. All custom features were tested and validated before full-scale production was authorized a critical quality gate for a procurement of this scale. This process took about 2 weeks

► Full Production Run

Following prototype approval, Polimek completed the full production and assembly order at its manufacturing facility in the Atatürk Organized Industrial Zone in İzmir, Türkiye. This process took about 12 weeks

► Pre-Shipment Inspection By Bangladesh Army Officer

A commissioned Bangladesh Army officer traveled to Polimek's factory in İzmir to conduct an official pre-shipment inspection, verifying all units including custom features met the agreed specifications before approving the delivery.

► Delivery & Remote Commissioning Support

Systems were shipped to Bangladesh and installed by the client's own teams. Polimek provided full remote technical support throughout commissioning, ensuring correct configuration of detection parameters, Wi-Fi connectivity, and backup power systems at every site.

End-to-end custom engineering delivered remotely at scale From bespoke feature development to nationwide commissioning support without a single on-site visit, this project demonstrates Polimek's ability to deliver complex, tailored security solutions to demanding clients across any geography.

OUTCOME

Results & Delivery

The project was completed successfully across every phase from custom engineering and prototype validation through factory inspection, delivery, and remote commissioning. Both military installations and public administration buildings across Bangladesh are now equipped with a purpose-built, high-performance security screening system that meets the precise operational demands of each environment.

Purpose-built solution with Stop/Go signage, Wi-Fi monitoring & 12h backup power	Prototype validated by client before full production approval	Factory inspection by Bangladesh Army officer in İzmir	Nationwide deployment across military & public administration sites	Full commissioning supported entirely via remote technical assistance
--	---	--	---	---