ThruScan® Metal Detectors

Renaissance in Metal Detection

NIJ and **ECAC** Compliance

***ECAC** (European Civil Aviation Conference)
NIJ (National Institute of Justice - USA)

SINCE 1978

Yesterday, today, tomorrow...
Always with you!..

ThruScan®

Metal Detectors

Elektral A.S., founded in 1978 by Mr. Sayil Dincsoy, M.Sc., is one of the largest security technology manufacturers in Türkiye and the Middle East, operating in a total of 20,000 m² of integrated production facilities. With more than 50 years of manufacturing experience, Elektral combines advanced technology with certified quality systems and high-capacity production infrastructure.

Our facilities include R&D laboratories, electronics production lines, SMT lines, plastic injection and thermo-forming units, metal press groups, moulding workshops, CNC machining centers, welding and robotic welding stations, and paint plants, enabling full in-house production. Elektral also cooperates with recognized partners in the EU, Germany, USA, Asia, and the Far East for OEM, ODM, co-production and representation projects.

Elektral's products comply with NIJ 0601.02 / NIJ 0601.03, ECAC Doc 30, CE Standards, and ISO 9001:2015 Quality Management Systems. Most of our technologies were produced for the first time in Türkiye and today are exported to more than 60 countries.

Elektral's Walk-Through and Hand-Held Metal Detectors are widely used by prominent institutions, including the Ministry of National Defense, Turkish National Police, State Airports Authority (DHMI), Gendarmerie General Command, Revenue Administration, and many international organizations. Our ThruScan® WTMDs are deployed in a broad range of applications such as airports, government buildings, presidential facilities, military bases, courthouses, prisons, embassies, stadiums, seaports, hotels, event centers, tourism venues, industrial sites, metro stations, and critical infrastructure.

Designed with end-user expectations in mind, Elektral detectors offer user-friendly programming interfaces, easy installation, and high discrimination and immunity performance to prevent false alarms caused by environmental or moving metals. All system connections are pre-configured to avoid incorrect operation.

With strong R&D capabilities and continuous innovation, Elektral remains a leading manufacturer in the International Security & Defence sectors, providing long-life, low-maintenance, high-tech products backed by reliable after-sales support. Our mission is to deliver top-quality, cost-effective and globally competitive security solutions while continuously investing in technology and customer satisfaction.

ELEKTRAL®

ThruScan sX-i

ThruScan®
Metal Detectors

ThruScan fully complies with Internationally accepted Security Standards such as ECAC Doc 30, Std-1/ Std-2 /Std-3, NIJ 0601.02 (Small–Medium–Large objects), NIJ 0601.03 (MD Class 1–Class 2–Class 3), CE European Union Norms and is produced under ISO 9001: 2015 QMS.

ULTRA HIGH SENSITIVITY, Ferrous / Non-Ferrous, Magnetic /Anti-Magnetic Metals and Mixed Alloys, Small-Medium-Large Objects Detected Easily with High Accuracy.

Excellent Reliability and Discrimination Capability, High Efficiency. Detects threat objects and warns with alarm, allows non-threat objects

State of the art Mobile/Tablet Application for remote control and easy adjustments.

ANDROID APP ON Google play

Download on the App Store

Wi-fi Connection

Ethernet Connection

USB Connection

Eliminating Environmental Interferences using AUTOMATIC FREQUENCY SELECTION feature. Not affected by two-way radios, walkie-talkies or RF interference.

Due to the Auto Calibration and Auto Configuration feature, it does not need re-calibration when the detector is relocated or new Magnetic Objects brought Near-By.

Automatic Installation System feature simplifying setup to one-touch of a button.

Up to 60 persons per minute throughput, Transit Speed Detection, Fast / Slow Speed Alarm warning.

Communication capability using Mobile Phone, Tablet or PC through Wi-Fi, Ethernet, USB, RS-232, allowing access (through Mobile Network and/or Internet) to settings and statistics from any location all over the world.

One device can connect to and control MULTIPLE Walk Through Metal Detectors.

Smart Counter feature providing the elimination of repeated/fake counts during WTMD scans in airports.

User-friendly interface; very easy to install and assemble.

CE

CERTIFIED ISO 9001:2015 COMPANY

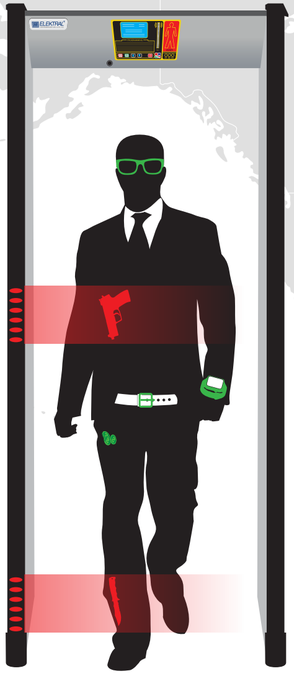
ECAC • CEAC

GlobalGROUP ISO 9001

UKAS QUALITY MANAGEMENT

ThruScan sX-i

ThruScan®
Metal Detectors



DISCRIMINATION

Distinguishes non-threat objects

Warns for threat objects with alarm

The Excellent Discrimination ability of the detector allows to easily distinguish between Threat Objects and Non-Threat Objects from the top to the bottom of the Walk Through Metal Detector.

Adjustable Total Alarm rate according to the pre-set Random Alarm Rate and if required optionally selected ETD Alarm Rate ratio, also allowing different alarm tones.

44 sensitivity levels with 300 adjustable sensitivity steps at each, several Sensitivity Program and 20 pre-set Security Programs.

Separate Sensitivity Adjustment for Different Detection Zones, Individual Detection and/or in Combination Detection capability.
Secondary adjustable Alarm Level for Threat Objects

0-100% adjustable Random Alarm Feature enabling to scan required number of clean visitors.

Adjustable ETD Alarm Rate (0-100%) allowing to set the WTMD to randomly alarm with a different tone for persons with or without triggering metal alarms.

Fast Scanning from top to bottom and high performance achieved by accurately pointing at the area where metals are detected on the people passing through.

Optional REAL-TIME VIDEO PROSECUTION UNIT / FACE RECOGNITION UNIT enabling recording of Alarmed /All Visitors photos or videos.

The immunity of the detector to the Environmental Interferences and Environmental Noise makes it suitable to be used in all sorts of environments, especially in Military Premises, Courts and Airports.

Standard menu language in English, German, Spanish, (Optional Russian, Japanese, Polish, Bulgarian... etc.)

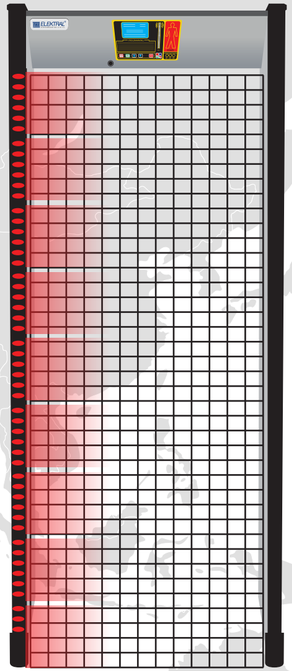
64 x 128 GLCD, Seven digits IN/OUT counter, Metal Density Display by 10-level-VU meter, Green / Red bi-colour traffic LEDs.

Human Health friendly Very Low Frequency (VLF) technology, No harm caused to Pace Makers, Pregnant and Magnetic Media.

Weather Resistant IP 65 Protection (EN 60529), EN 60068, EN 60950 Class1, Certified in Compliance to EN 61000-6-3, EN 61000-6-1 regulations and in compliance with DIRECTIVE 2002/95/EC.

Real Time Environmental Magnetic Noise Level Numerical Display and BITE - Built In test Equipment allowing automatic display of failures.

Built-in UPS enabling 2 hours operation without mains and Non-Volatile Micro-Processor Memory Settings.



Multi-Zone Detection.

35 different alarm tones 10 Volume Levels

Four-digit changeable digital Pin Code and Mechanical Lock.

Technical Features

Ambient Temperature: -20°C to+70°C
Opr. Voltage: 110 (Opt 70) VAC–240 VAC/ 50Hz-60Hz
Power: 10W Standby-20W Alarm
Net Passage: 72 x 68 x 200 cm
External: 83 x 68 x 220 mm

Package Dimensions (W x L x H):
Box 1: 80 × 42 × 25 cm (≈65.5 kg)
Box 2: 80 × 21 × 232 cm (12.5 kg)
Net Weight: 78 kg

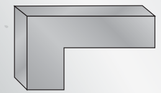
ThruScan sX-i MD Class 1 Objects Test

ThruScan®
Metal Detectors

MD Class 1 Objects

*(**Large Size** Objects Considered as Threat Objects)*

Steel Pistol

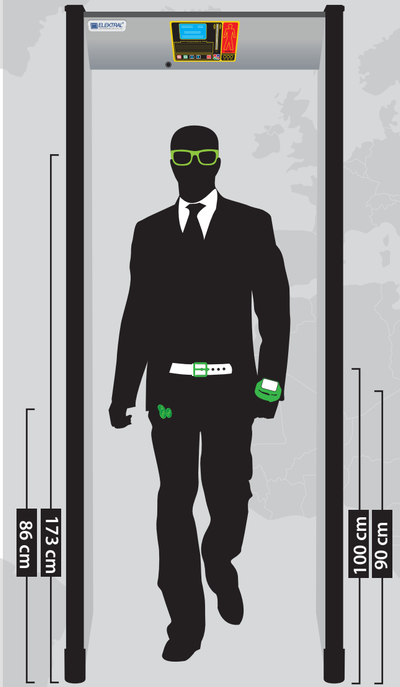


Zinc Pistol

Aluminum Pistol

CLEAN TEST

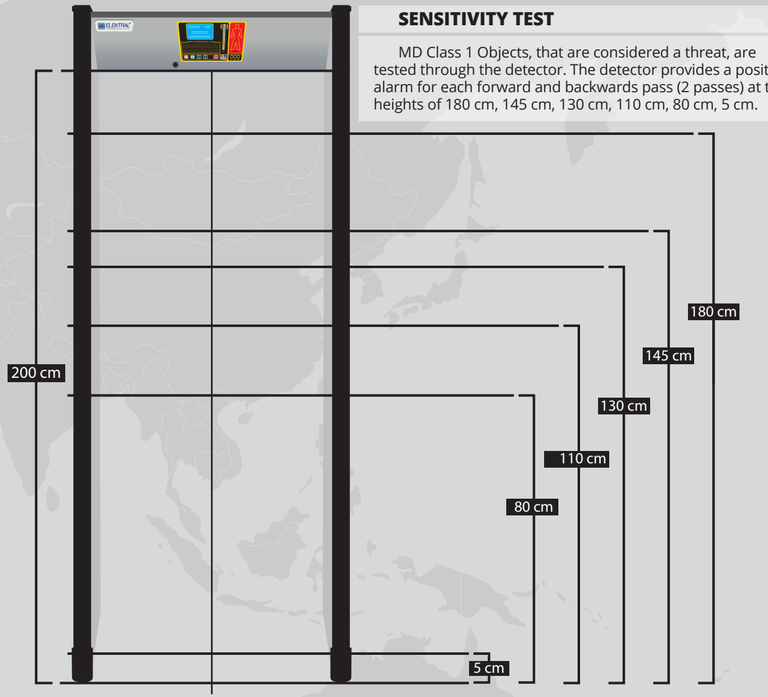
During the MD Class 1 CLEAN Test, a Clean tester (a person not carrying any electrically conductive objects such as metallic belt buckle, a cardiac pacemaker, jewelry, metallic surgical implants, or similar) passes 4 times at the speed of 0,5...1,0...1,5 m/s and the detector does not provide a positive alarm.



INNOCUOUS ITEMS TEST

During the MD Class 1 Test (Large Objects Test) without readjustments, ThruScan sX-i Walk Through Metal Detector does not provide more than 5 positive alarm indications for 25 consecutive trials when tested with the non-threat test objects of Eyeglasses, Coins, Watch and Belt Buckle on the person, passing through at a walking speed of 0,5...1,0...1,5 m/s.

The test is carried out while non-threat object Belt Buckle is at 100 cm, Coins at 86 cm, Watch at 90 cm and the Eyeglasses are at 173 cm position. This test shows that the probability of false alarm is less than 0.2 (or 20 %).



SENSITIVITY TEST

MD Class 1 Objects, that are considered a threat, are tested through the detector. The detector provides a positive alarm for each forward and backwards pass (2 passes) at the heights of 180 cm, 145 cm, 130 cm, 110 cm, 80 cm, 5 cm.

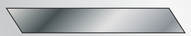
ThruScan sX-i MD Class 2 Objects Test

ThruScan®
Metal Detectors

MD Class 2 Objects

***(Medium Size** Objects Considered as Threat Objects)*

Steel Knife



Aluminum Knife

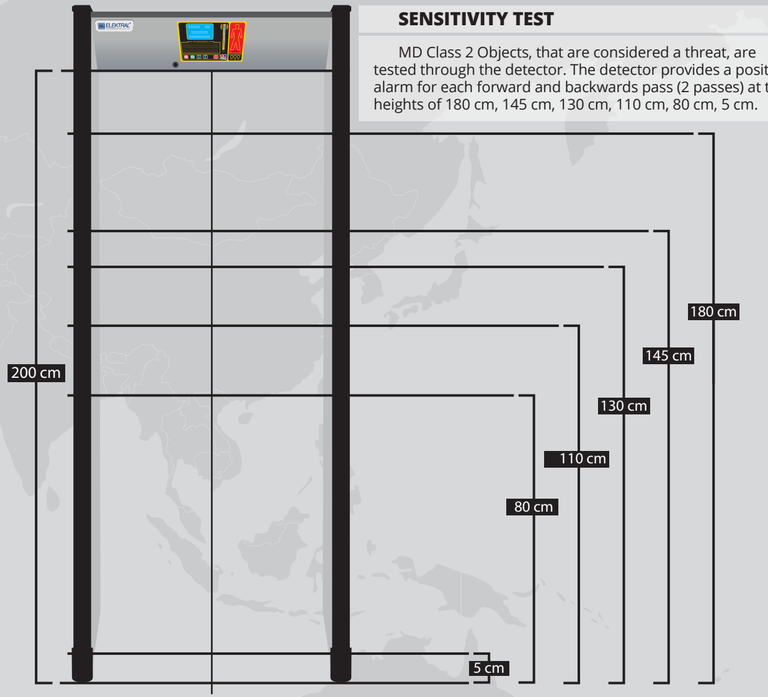
CLEAN TEST

During the MD Class 2 CLEAN Test, a Clean tester (a person not carrying any electrically conductive objects such as metallic belt buckle, a cardiac pacemaker, jewelry, metallic surgical implants, or similar) passes 4 times at the speed of 0,5...1,0...1,5 m/s and the detector does not provide a positive alarm as same as in MD Class 1 Objects Clean Test.

INNOCUOUS ITEMS TEST

During the MD Class 2 Innocuous Items Test (Medium Objects Test) without readjustments, ThruScan sX-i Walk Through Metal Detector does not provide more than 5 positive alarm indications for 25 consecutive trials when tested with the non-threat test objects of Eyeglasses and Belt Buckle on the person, passing through at a walking speed of 0,5...1,0...1,5 m/s.

The test is carried out while non-threat object Belt Buckle is at 100 cm and the Eyeglasses are at 173 cm position. This test shows that the probability of false alarm is less than 0.2 (or 20 %) for MD Class 2 Test.



SENSITIVITY TEST

MD Class 2 Objects, that are considered a threat, are tested through the detector. The detector provides a positive alarm for each forward and backwards pass (2 passes) at the heights of 180 cm, 145 cm, 130 cm, 110 cm, 80 cm, 5 cm.

ThruScan sX-i MD Class 3 Objects Test

ThruScan®
Metal Detectors

MD Class 3 Objects

*(**Small Size** Objects Considered as Threat Objects)*

NIJ-0601.02

Stainless Steel Knife

Screwdriver Bit

Handcuff Key

NIJ-0601.03

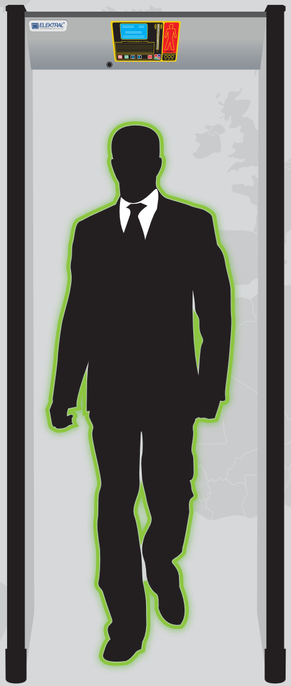
Razor Blades

Small Steel Rods

Bullets

CLEAN TEST

During the MD Class 3 CLEAN Test, a Clean tester (a person not carrying any electrically conductive objects such as metallic belt buckle, a cardiac pacemaker, jewelry, metallic surgical implants, or similar) passes 8 times at the speed of 0,5...1,0...1,5 m/s. The detector does not provide a positive alarm during all 8 passes.



INNOCUOUS ITEMS TEST

During the MD Class 3 Innocuous Items Test (Small Objects Test) without readjustments, ThruScan sX-i Walk Through Metal Detector does not provide any positive alarm indications for 8 consecutive trials when tested without any items on the person, passing through at a walking speed of 0,5...1,0...1,5 m/s.

This test shows that the Walk Through Metal Detector does not provide a positive alarm when there are no metal items on the person passing through.

In the other hand the detector provides positive alarm if the person carries MD Class 3 (Small Objects) Threat Objects such as Stainless Steal Knife, Handcuff Key, Screwdriver Bit, Razor Blade, Small Stainless Steel Rod or Bullets while passing through.

SENSITIVITY TEST

MD Class 3 Objects, that are considered a threat, are tested through the detector. The detector provides a positive alarm for each forward and backwards pass (2 passes) at the heights of 180 cm, 145 cm, 130 cm, 110 cm, 80 cm, 5 cm.

ThruScan®
Walk-Through Metal Detectors
Comparison Chart

NO	FEATURES	ThruScan/s3	ThruScan/s6	ThruScan/s9	ThruScan/sX	ThruScan/sX-i Novo	ThruScan/sX-WP
1	**MultiZone Multiple Detection Zones**	3 VERTICAL 3 ZONES	6 MATRICES 6 ZONES	9 MATRICES 9 ZONES	70 ZONES	MULTIPLE PARALLEL ZONES 101 ZONES	70 ZONES
2	**Different Regional Sensitivity Adjustment Feature**	YES	YES	YES	Yes (The ability to adjust settings separately for each region)	Yes (The ability to adjust settings separately for each region)	Yes (The ability to adjust settings separately for each region)
3	**Sensitivity Levels and Security Level Programs**	15 Levels / 255 Sub Sensitivity Settings 1 Standard preset international security program	15 Levels / 255 Sub Sensitivity Settings 1 Standard preset international security program	15 Levels / 255 Sub Sensitivity Settings 1 Standard preset international security program	25 Levels, 16 of which are adjustable / 300 Sub-sensitivity Levels 9 Pre-set International Security Programs	44 Levels, 25 of which are adjustable / 300 Sub-sensitivity Levels 19 Pre-set International Security Programs (ADJ NIJ, INCLUDING NIJ SMALL)	25 Levels, 16 of which are adjustable / 300 Sub-sensitivity Levels 9 Pre-set International Security Programs
4	**Tri-Color Metal Density Indicator (LED Bar)**	YES	YES	YES	YES	YES	YES
5	**Auto Calibration**	YES	YES	YES	YES	YES	YES
6	**Immunity to Magnetic Interference**	From Fixed Metals at 10 cm, and from Moving Metals at 100 cm	From Fixed Metals at 10 cm, and from Moving Metals at 100 cm	From Fixed Metals at 10 cm, and from Moving Metals at 100 cm	From Fixed Metals at 10 cm, and from Moving Metals at 150-200 cm	From Fixed Metals at 10 cm, and from Moving Metals at 150-200 cm	From Fixed Metals at 10 cm, and from Moving Metals at 150-200 cm
7	**Mechanical Lock & PIN Code for Menu Access**	MECHANICAL LOCK + 4 Digit PIN CODE Protection	MECHANICAL LOCK + 4 Digit PIN CODE Protection	MECHANICAL LOCK + 4 Digit PIN CODE Protection	MECHANICAL LOCK + 4 Digit PIN CODE Protection	MECHANICAL LOCK + 4 Digit PIN CODE Protection	MECHANICAL LOCK + 4 Digit PIN CODE Protection
8	**LCD**	2*16 Character LCD	2*16 Character LCD	2*16 Character LCD	64*128 Graphic (GLCD)	64*128 Graphic (GLCD)	64*128 Graphic (GLCD)
9	**IP Protection Level**	IP 20 (EN 60529)	IP 20 (EN 60529)	IP 44 (EN 60529)	IP 44 (EN 60529)	IP 65 (EN 60529)	IP 65 (EN 60529)
10	**Automatic Frequency Selection Feature for Interference**	NO	NO	NO	YES	YES	YES
11	**Battery Backup Operation / UPS Mode (up to 2 hours)**	Operates without mains power with up to 2 hours of battery backup.	Operates without mains power with up to 2 hours of battery backup.	Operates without mains power with up to 2 hours of battery backup.	Operates without mains power with up to 2 hours of battery backup.	Operates without mains power with up to 2 hours of battery backup.	Operates without mains power with up to 2 hours of battery backup.

Economic Series
ThruScan/s3 , ThruScan/s6

Mid-Range Series
ThruScan/s9 , ThruScan/sX

High-Precision Series
ThruScan/sX-i Novo

Elektral A.S. manufactures security Walk Through and Hand Held Metal Detectors under the brand ThruScan. There are 7 different models of Walk Through Metal Detectors and 4 different models of Hand Held Metal Detectors, making the product range suitable for all needs.

Please see below our 4 different models of Hand Held Metal Detector products comparison chart. For more information you can visit our web sites: www.elektral.com and www.elektral.com.tr

Hand Held Metal Detectors	Weight & Dimensions (H x W x L)	Sensitivity Adjustment	Charger & Charge Time	Chargeable Battery	Operation Temperature & Storage Temperature	Current Consumption	Min Detection Distance (Pistol)	Min Detection Distance (Paper Blade)
ThruScan dX-X	~ 435 gr & 42 mm x 83 mm x 410 mm	Available	First Charge ~15 then 10 hrs. & 220V AC 50Hz - 12V DC 1 A	9V 200 mA Ni-MH	-20°C - +70° & -30°C - +75°C	Standby 4 mA, Alarm ~13 mA	9 mm MKE Pistol at 35 cm	Paper Blade (2x13 cm) at 17 cm
ThruScan dX	~ 435 gr & 42 mm x 83 mm x 410 mm	Available	First Charge ~15 then 10 hrs. & 220V AC 50Hz - 12V DC 1 A	9V 200 mA Ni-MH	-20°C - +70° & -30°C - +75°C	Standby 4 mA, Alarm ~13 mA	9 mm MKE Pistol at 17 cm	Paper Blade (2x13 cm) at 10 cm
ThruScan	~ 435 gr & 43 mm x 83 mm x 410 mm	N / A	First Charge ~15 then 10 hrs. & 220V AC 50Hz - 12V DC 1 A	9V 200 mA Ni-MH	-20°C - +70° & -30°C - +75°C	Standby 5 mA, Alarm ~17 mA	Pistol Browning 14 at 17 cm	Paper Blade (1,8x10 cm) at 6 cm
ThruSec	~ 390 gr & 43 mm x 83 mm x 410 mm	N / A	First Charge ~15 then 10 hrs. & 220V AC 50Hz - 12V DC 1 A	9V 200 mA Ni-MH	-10°C - +45° & -20°C - +55°C	Standby 11 mA, Alarm ~20 mA	Pistol Browning 14 at 10 cm	Paper Blade (2x13 cm) at 3 cm

References

Turkish Security Forces
FORMULA 1 GRAND PRIX / Istanbul
T.C. HOUSE OF THE STATE PRESIDENCY of TURKEY / ANKARA
UNIVERSIADE / Olympics-Izmir
Kale Pratt & Whitney
MINISTRY OF DEFENCE / TURKEY (NATION WIDE)
T.C. PRESIDENCY of TURKEY – ANKARA
VIENNA AIRPORT
FRANKFURT AIRPORT
HEADQUARTERS OF
ARMY HEADQUARTERS – SRI LANKA
(CAAB) AIRPORT
TURKISH NAVAL FORCES – ANKARA
AUTHORITY OF BANGLADESH
CITIBANK
Izmir Metro
GENDARME HEADQUARTERS JORDAN
GLOBAL SERVICES, MUMBAI
TURKISH BORDER POLICE STATIONS
UNITECH
MINISTRY OF JUSTICE / INDIA
CONSTRUCTION, DELHI
National Direction Of Security
Havelsan Smart Technologies
INDIRA GHANDHI CENTER OF
SWISS HOTEL Izmir
TAIWAN AIRPORT AUTHORITY (P.R.C)
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Dar Es Salaam Hotels in Tanzania
Anitkabir Mausoleum
HSBC, COLOMBO
SIRNAK AIRPORT
BITLIS AIRPORT
BHARAT FORGE LTD, PUNE
PAKISTAN RANGERS FORCES COMMAND
GODREJ, MUMBAI
Turkish Atomic Energy Authority
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GERMAN, ISRAEL, MACEDONIA, POLAND JAILHOUSES
BHAVINI POWERDISTRIBUTION CHENNAI
ERZURUM 2011 OLYMPICS
MINISTRY OF JUSTICE – GERMANY
ATATURK MAUSOLEUM
EGYPT PUBLIC BANKS
HILTON HOTEL Izmir
TURKISH REPUBLIC
Turkish Public Hospitals Institution
Roketsan Defense Industries
MINISTRY OF JUSTICE
MUMBAI STOCK EXCHANGE HOUSE
NUCLEAR POWER CORP. OF INDIA,CHENNAI

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LITHUANIA
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AFGHANISTAN
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Nearing Half Century

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