



# الامكانيات التكنولوجية والعملية

## بشركات الاتاج العربي

٢٠٢٣



وزارة الانتاج الحربي  
الهيئة القومية للإنتاج الحربي

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# المقدمة

تُعد وزارة الإنتاج الحربي مؤسسة صناعية متطرورة تعمل على المساهمة في تحقيق أوجه التنمية المستدامة والمشاركة في تنفيذ المشروعات الصناعية والتنموية والقومية ، اعتماداً على إمكانياتها التكنولوجية التصنيعية والمعملية والبشرية المتميزة في إطار منظومة تؤمن بالتحدي وتكافؤ الفرص. وتسهم وزارة الإنتاج الحربي بشكل فعال في تنمية الاقتصاد الوطني ، والنهوض بالصناعة الوطنية وسد احتياجات السوق المحلي من المنتجات الصناعية المختلفة والحد من إستيرادها اعتماداً على إمكانياتها والتي تضم ١٧ شركة صناعية في المجالات المختلفة ومنها الصناعات الهندسية ، الكيماوية ، المعدنية ، الكهربائية ، الإلكترونية ومنظومة بحث وتطوير متمثلة في مركز التميز العلمي والتكنولوجي الذي يعمل على تطوير المنتجات الصناعية وإستخدامات تكنولوجيات جديدة ، ويتم من خلاله ربط البحث العلمي بالصناعة بالإضافة إلى مركز متتطور في نظم وتكنولوجيا المعلومات والحواسيب يسهم في تحقيق خطة الدولة وسياستها للتحول الرقمي.. حصلت معامل شركات الإنتاج الحربي على الاعتماد الدولي طبقاً لمتطلبات المواصفة القياسية الدولية آيزو ١٧٠٢٥ ، وللإمكانيات المعملية الحديثة في معامل شركات الإنتاج الحربي دوراً هاماً في تطوير وتحديث الصناعة وخاصة ما يتم تصديره إلى الخارج حيث تشارك وزارة الإنتاج الحربي بشركاتها مع المؤسسات المدنية الصناعية والعلمية والبحثية آليات التطوير والتحديث في شتى المجالات. وتمتلك الشركات والجهات التابعة للهيئة القومية للإنتاج الحربي إمكانيات تكنولوجية معملية متميزة تتمثل في عدد (٤٣٧) جهاز قادر على تنفيذ عدد (١١٦٦) اختبار في مجال الإختبارات والمعاييرات (الكيميائية – الفيزيائية – الميكانيكية - الكهربائية) ، ونظراً لما تتمتع به الإمكانيات المعملية لدى وزارة الإنتاج الحربي من تعددية وتقنيات عالية تماشى مع أحدث أساليب الإختبار والمعاييرة بإستخدام أحدث الأجهزة والمعدات مما يعد ثروة داخل الإنتاج الحربي يمكن إستغلالها لتحقيق التكامل بين الشركات بالإضافة إلى دعم الشركات الصناعية بمصر في مجال الإختبارات والمعاييرة. وتحقيقاً للاستغلال الأمثل لتلك الإمكانيات المعملية قامت وزارة الإنتاج الحربي بإعداد هذا الدليل الذي يتضمن بيانات الإختبارات والمعاييرات وأسعارها التنافسية دعماً للشركات الصناعية الوطنية العامة والخاصة.

## وزارة الإنتاج الحربي

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1501	Antenna measurements system (StarLab)	France	2011	antennas mobile or laptops	Passive& active measurements	Frequency bands:( 0.8-18 GHz )	Microwave Researches & Design
1502	Desktop antenna Measurement system (DAMS 6000)	USA	2008	antennas	Far Field Measurement	up to 18 GHz	Microwave Researches & Design
1503	Vector network analyzer	Germany	2008	microwave circuits	S-Parameters	10 MHz to 40 GHz	Microwave Researches &Design
1504	Wide Bandwidth oscilloscope	U.K	2008	microwave signals intime domain	Eye Mask, Jitter Analysis, TDR, Oscilloscope	up to 50 GHz	Microwave Researches & Design
1506	Pulse Function Arbitrary Noise Generator	Malaysia	2011	Generating microwave different signals	Microwave Researches & Design	10MHz to 7GHz	Microwave Researches & Design
1507	Spectrum analyzer	Malaysia	2006	Measuring and analyzing microwave signals	Frequency Response	9 KHz to 26.5 GHz	Microwave Researches & Design
1508	Handheld Spectrum analyzer	China	2011	Measuring and analyzing microwave signals	Frequency Response	100 KHz to 7 GHz	Microwave Researches & Design
1509	LPKF ProtoMat S100	Canada	2010	PCB prototyping production	Electrical & Microwave PCB/Microstrip	100 Um	Electrical & Microwave PCB/Micro strip
1510	Noise figure analyzer	U.K	2006	Measuring properties of microwave circuits	Measuring Noise Parameters	10 MHz to 26.5 GHz	Microwave Researches & Design
1511	Frequency counter (Agilent 53152A)	USA	2006	System measurements (transceiver )	Frequency & Power	up to 46 GHZ	Microwave Researches & Design

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1513	Dual output DC power supply	Malaysia	2006	DC Bias to Microwave Circuits.	Electrical Research and Design testing	Power: -70dBm to +44dBm	Electrical Research and Design testing
1514	System DC power supply	Malaysia	2011	DC Bias to Microwave Circuits	Electrical Research and Design testing	0-35V,1.4A/ 0-60V,0.8A	Electrical Research and Design testing
1515	V.90 Analyzer (Distributed network analyzer: Agilent J6801A)	USA	2007	Computer Network, ATM25, T1/E1, GigaEthernet-x, V.35	Network Monitor	Up to 1 Gbps	Network Administration & Testing
1516	TCP/IP Analyzer (Distributed network analyzer MX: Agilent J6802B)	USA	2007	Computer Network, ATM25, T1/E1, GigaEthernet-x, V.35	Network Monitor	Up to 1 Gbps	Network Administration & Testing
1517	Logic Analyzer : Agilent 1683A	Malaysia	2006	Digital Circuits (e.g. FPGA boards) in-circuit Measurement	Digital Signal Measurement	200 MHz State Up to 800 MHz Timing	Electronic Design Debugging of digital circuits.
1518	Digital Oscilloscope: TDS-2024 Tektronix	USA	2006	Electrical Signal Measurement	Electrical Signal Measurement	Acqn. Rate: Up to 180 waveforms/s/channel (Vertical),Analog	Testing Electric circuits for Electronic Design
1519	Speed goat xpc target box Performance real time target machine	USA	2012	Modeling Design	Simulation in Real-time	analog ch: -10V : +10V sample rate: 10KHz	rapid control prototype /Simulat. with
1520	Xpctarget box	USA	2005	Electrical and mechanical systems & Modeling Design	Simulation Test	analog ch: -10V : +10V sample rate: 1Khz	Simulation& Simulink and Realtime app
1521	Thermo gravimetric analysis (TGA)	USA	2010	polymer, organic materials	Thermal analysis	25-1000 oC	Thermal decomposition degrees
1522	Thermo mechanical analyzer (TMA)	USA	2010	polymers & alloys	Thermal analysis	25-1000 oC	Dimension/temp.c hange

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1523	Differential scanning calorimetric (DSC)	USA	2010	Polymer & composite materials	Thermal analysis	(-80) - 350 °C	determination of Tg, Tc, Tm
1524	Dynamic mechanical analyzer (DMA)	USA	2010	Polymers	Thermo-Mechanical analysis	25-600 °C	determination of storage modules
1525	Four point probe sheet resistance(FPP-1000)	Hungary	2016	semiconductor, Thin Film	Electric Test	resistivity range: 0.05 Ω/sq-2000 Ω/sq	sheet resistance, resistivity
1526	Stylus profiler	USA	2018	work on any flat material	Surface Test	From 1 nm to 300 μm	Surface Roughness & Topography
1527	Photo and Dark Conductivity Tester	USA	2018	I-layer of Solar Cell	Thermo- electric Test	up to 300 °C	Activation Energyof i-layer of SC
1528	Solar Simulator	Switzerland	2015	Research, Photovoltaic cells	Photovoltaic cell Test	up to 30x30 cm cell	Efficiency of solar cell, Voc, Isc
1529	Chemical Vapor Deposition (CVD)	USA	2013	Carbon nanotube (CNT)	Research Unite	Up to 1200 °C, 0.001 mbar	multiwall Carbon Nanotubes
1530	Heavy Duty Mixer	Italy	2015	produce non corrosive matter	Fabrication	T: up to 900; automatic control of RPM	Fabrication of organic materials
1531	High Pressure Autoclave	India	2015	produce materials need high pressure or high temperature	Fabrication	Up to 5 bar	prepns. of Nanomaterial
1532	Environmental chamber	USA	2010	Devices	Environmental Test	Temperature: 45°C to 190 °C, Humidity: 0-100	Half life time and Environmental effect
1533	Hybrid [physical vapor deposition – plasma enhanced chemical vapor deposition]	Italy	2011	Deposition of Ti, Al, AZO, Cu, Cr, Ag.	Deposition of thin films, Thicknessup to 10 micro,	T: up to 400C	Deposition of thin films, Thicknessup to 10 micro,

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1534	Three axis filament winding	Macedonia	2011	producing of cylinders using polyester and fiberglass	Fabrication	up to 3m length and up to 1m diameter	Fabn. of pipes - LPG cylinders- CNG cylinders
1535	Pultrusion	India	2011	polyester and fiberglass	Fabrication	up to 6 m length and wide range of cylindrical rods	Fabn. of C-channel-rod-strip-tube
1536	Powdered X-ray Diffract meter	Switzerland	2013	Powder, Pharmaceuticals Minerals, Metals,	Phase Identification Test	3 degree, End angle: 140 degree	Crystallinity of powder, metal, thin film
1537	GC - Mass	Italy	2014	small molecular weight Liquid	Qualitative and quantitative analysis	0-1000 Mwt	Weight % of Organic materials
1538	HPLC	Japan	2011	Organic materials	Qualitative and quantitative analysis	All ranges	Weight % of Organic materials
1539	plasma enhanced chemical vapor deposition	Italy	2010	deposition on any material	Thin film deposition	T:800C; D:up to 6 cm; Flow gases: up to 60 sccm	Fabrication of thin film silicon solar cell
1540	Viscometer	USA	2011	liquid	Physical test	0-15000 pa s	Viscosity
1541	Micro indentation hardness tester	Japan	2011	Metal	Mechanical Test	25-2000 g	Determine Micro indentation hardness of
1542	Universal testing machine	China	2011	Material max. load applied 27KN	Mechanical Test	max. load applied 27KN	Tensile, Compressive test, Bending test
1543	Impact testing machine	Germany	2011	Material that absorbs energy within range	Mechanical Test	0.5:50 J	Energy absorbed by the broken specimen

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1544	Fatigue testing machine	Italy	2011	Any material	Dynamic test (Destructive test)	0.200 inch pounds	Rotating parts
1545	Ultrasonic testing machine	Germany	2013	Material has sound of velocity through it	Nondestructive test)	45mm depth	Piping welding - Detecting cracks
1546	SLA 5000	United States	2005	Accura Xtreme, Si-10	3D Printing (stereo lithography technique	part size up to 508 x 508 x 584 mm	Plastic 3D printing
1547	Vacuum casting system 5/04	Germany	2006	Silicon Rubber, Polyurethane, Polyamide (nylon), Wax	Model Fabrication of mold	part size up to 400 x 400 x 600 mm	Rubber Casting
1548	Accelerometer 4507B&K	Denmark	2010	Mechanical Parts	Mechanical Vibrations &dynamic test	Mounted Resonance Frequency : 18 KHz • Sensitivity: 10	Dynamic & Vibrations Modal Analysis
1549	Impact test hammer 8206 B&K	Denmark	2010	Determine dynamic linear characteristic effects	Analysis of the simple dynamic structures	Voltage Sensitivity : 22.7 mV/N	Impact force measur., Freq response, struct.
1550	Vibrometer laser VH-1000-D	Germany	2010	The measurement of vibratory structures &unbalance rotary	Mechanical vibrations & unbalance rotary	Frequency : 0.5 Hz-22 KHz, Velocity: 0.02 to 0.5 um/s	Non-Contact measur. of Surface Vibration
1551	CMM coordinate measurement machine	Germany	2005	Mechanical Parts	Dimensional Measurement Test	up to 2.5 m x 1.5 m x 1.5 m	Dimensional, geometrical features
1552	Spectromax	Germany	2007	Metal & alloys	Chemical Analysis	Up to 100 %	Concentration of metal %
1553	Hand scan	Canada	2021	Mechanical parts	Dimensional Measurement Test	From 0 to 4000mm	Dimension geometric features
1554	VR	Taiwan	2021	Mechanical parts	Visual inspection	From 0 to 4000mm	Visual inspection
1555	Mark forged X7	U.S.A	2021	Onyx-carbon fiber- Fiber glass-Nylon White Spools	Printing 3D Mold	Part size up to 320x270x200mm	3D Printing

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
1556	German REPRAP X400	Germany	2021	PLA –ABS-TBU-BCS Filament Spools	Printing 3D mold	Part size up to 350x400x310	3D Printing
1558	Calorimeter- PARR 6200	USA	2011	Fuel	Physical Test	Up to 10000 Cal/gm.	Calorific value
1559	Thermal Evaporator	USA	2019	deposition o, Al, Cu.	deposition of thin films	Max pressure $2 \times 10^{-6}$ torr	Metallization



## شركة حلوان للمسبوكات (م/٩) العربي

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
901	Optical emission(ARL)	Switzerland	2004	Ferrous alloys,(cast-iron &steel)	Chemical Analysis	From ppm-100%	Element percent
902	Optical emission (Helger)	England	1986	Ferrous alloys,(cast-iron &steel)	Chemical Analysis	From ppm-100%	Element percentage
903	ARL Performa's Sequential(XRF)	Switzerland	2013	Refractors ,Ferroalloys ,Nonferrous alloys	Chemical Analysis	From ppm-100%	Element percentage
904	Tensile strength,(40Ton)	Germany	1964	Cast-iron & steel	Mechanical Test	100Kgf-40Ton	Tensile strength ,Yield strength ,Elongation,
905	Tensile strength,(25KN)	Germany	2004	Cast-iron & steel	Mechanical Test	0.01N till 25KN	Tensile strength ,Yield strength ,Elongation,
906	Tensile strength,(10Ton)	Germany	1975	Cast-iron & steel	Mechanical Test	100Kg till 10Ton	Tensile strength, Yield strength, Elongation,
907	Brinell Hardness Tester	Austria	1979	Cast-iron & steel	Mechanical Test	Upto 3000 Kg & Upto 600 HB	Brinell Hardness(HB)
908	Rockwell Hardness Tester	Austria	1993	Cast-iron & steel	Mechanical Test	Upto 150 Kg & Upto 70 HRC	Rockwell Hardness(HRC)
909	Digital universal Hardness Tester	Netherland	2019	Cast-iron & steel	Mechanical Test	up to 3000 Kg & up to 600 HB & upto 70 HRC & up to 1200 HV	Hardness(HB-HRC-HRB-HV)
910	X-ray radiography (CR)	Germany	2007	Cast iron, steel	Nondestructive test	Thickness till 10cm	internal defect
911	Carbon-Sulphur Analyzer	Germany	2012	Ferroalloys-Cast-iron-Steel-Coal-Graphite	Chemical Analysis	From ppm to 100%	Carbon & Super%-Ash content -Loss of Ignition



## شركة حلوان للمسبوكات (م/٩) العربي

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications	Price Exclude Tax.(L.E)
912	Surface Cracks defined (MT)	West Germany	1991	Steel	Nondestructive test	Upto5mmfromsurface	Surface defect	250/Sample
913	Ultrasonic app.(UT)	West Germany	2016	Steel	Nondestructive test	1MHz-5MHz	Internal defect	200/m2
914	Optical Microscope with digital Camera and software	Germany	2007	Cast-iron & steel	Metallurgical test	Magnificationtill50X	Phase%-Shape& Size of graphite-Grain Size	500/Sample
915	Permeability	Argentina	2018	Mold Sand and Its Additives	Physical test	0-100%	Permeability	150/Sample
916	Compact ability	Argentina	2018	Mold Sand and Its Additives	Physical test	0-100%	Compact ability	150/Sample
917	Universal tensile Tester	Argentina	2018	Mold Sand and Its Additives	Mechanical Test	0-100N/cm <sup>2</sup>	compression & hot tensile strength	350 without prep. 500 with prep.
918	Wet tensile strength	Argentina	2018	Mold Sand and Its Additives	Physical test	0-100N/cm <sup>2</sup>	Measure the wet tensile strength	350 without prep. 500 with prep./Sample
919	Dryer	Argentina	2018	Mold Sand and Its Additives	Physical test	0-100%	Measure the Moisture content	200/Sample
920	Sieve Set	Argentina	2018	Mold Sand and Its Additives	Physical test	0-14mm	Measure the Particle size	300/Sample



## شركة أبو قير للصناعات الهندسية (م / ١٠) الحربي

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
1001	SpectroMaxx	Germany	2014	Copper, Iron, Lead & Aluminum	Chemical Analysis	Up to 100%	Concentration of Metal & Alloy
1002	Hardness Tester	Italy	2019	Tests on metals and other materials, round and flat blocks	Hardness Tester	up to 3000 Kg & up to 600HB & upto 70HRC & up to 1200 Hv	Tests on metals and other materials, round and flat blocks



## شركة أبو زعب للكيماويات المتخصصة (م/١٨) الحربي

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
1801	Calorimeter - PARR 6200	USA	2008	Feul & Powder	Physical test	up to 1000 cal/gm	Calorific value
1802	Ion chromatograph - Dionex	USA	2008	Raw materials & final product	Chemical test	up to 1000 ppm	Concentration of organic Materials
1803	Spectrophotometer - Jasco	Japan	2013	Raw materials & final product	Physical test	400-1100 nm	Concentration of elements
1804	Moisture analyzer- DENVER	USA	2010	Raw materials & final product	Physical	up to 100%	Moisture content
1805	HPLC- (MERK -PERKIN ELMER)	USA	2012	Organic materials	Qualitative and quantitative analysis	All ranges	Weight % of organic materials
1806	Automatic titrator	Korea	2013	Raw materials & final product	Quantitative analysis	up to 100%	Determination of conc. of materials
1807	Karl Fisher	Switzerland	2006	Raw materials & final product	Chemical	up to 100%	Moisture content
1808	MCR Rheometer	Germany	2009	Raw materials And final product	physical	up to 106 CP	Viscosity measurements
1809	Gas Chromatography (TCD)	Germany	2005	Raw materials & final product	Qualitative and quantitative analysis	up to 100%	Low molecular weight material applications



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
1810	Gas Chromatography (FID)	Germany	2005	Raw materials & final product	Qualitative and quantitative analysis	up to 100%	Low molecular weight material applications
1811	Atomic absorption	England	2005	Raw materials & final product	Quantitative analysis	up to 100 ppm	Conc. of elements
1812	DR/2500 Scanning photometer	USA	2005	Raw materials & final product	Physical test	All ranges	Drinking water, wastewater, and boiler water
1813	Refract meter	Spain	2017	Raw materials & final product	Physical test	All ranges	Refractive index
1814	Particle size analyzer, Fischer	England	1979	Raw materials & final product	Physical test	0.2 - 50 micron	Particle size of powder
1815	Fisher sieves	USA	1997	Raw materials & final product	Physical test	up to 100%	Determination of particular size
1816	Melting point	England	2017	Raw materials	Physical test	up to 350 °C	Melting degree of powder



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
2701	Universal testing machine	England	1995	Brass/aluminum/steel	Mechanical Test	300 kN	Used for measure strengh & elongation
2702	SpectoMaxx.	Germany	2020	Copper, Iron, Lead ,Aluminum & Tin	Chemical Analysis	Up to 100%	Concentration of Metals & metal Alloys
2703	Hardness testing machine	England	2017	Brass/aluminum/steel/tombac	Mechanical Test	150 kg	Measure hardness (Vickers/brinell/rickwell)
2704	Optical Microscope with digital camera and software	Japan	2022	cupper/aluminum/steel	Metallurgical test	Magnification till 50X	Grain-size for metals
2705	Motor tester	Italy	1985	motor performance test 3 hp to 15 hp	Electrical Test	Ampere : till 22 A Rpm- temperature Watt :till 10000 watt	Induction motor (Electrical performance test)
2706	Power motor(watt)	German	1960	Power test	Electrical Test	from 3/4 hp to 25 hp	Watt test
2707	Siemens motor testing program(amper-watt-volt)	Italy	2005	Motor test	Electrical Test	from 3/4 hp to 25 hp	Power/Ampere/Volt
2708	Insulation break Down tester	Italy	2005	Insulation test	Electrical Test	5000 v, from 3/4hp to 25 hp	break Down insulation test of motor winding
2709	Dial gauge tester	Japan	1990	Dial gauge	Dimensional Test	0 -25 mm	Measure accuracy of dial gauge



<b>Test Code</b>	<b>Instrument name</b>	<b>Country of origin</b>	<b>Date of start running</b>	<b>Material/product tested</b>	<b>Types of test</b>	<b>Range of measurements</b>	<b>Scope of work &amp; Applications</b>
2710	Vernier caliper tester	Japan	1990	Vernier caliper	Dimensional Test	0-670 mm	Measure the accuracy of vernier caliper
2711	Short circuit tester	Italy	1985	Short circuit between winding	Electrical Test	0-3 KV	Electric short between body of motor and stator



## شركة المعصرة للصناعات الهندسية (م/٤٥) الحربي

Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of test	Range of measurements	Scope of work & Applications
4501	Universal Hardness Testing Machine	United Kingdom	2017	Raw material (copper – iron–aluminum)& Semi &final products	Mechanical test	Up to 500 HB Up to 900HV Up to 74 HRC 60–95HRA 10–100HRB	Metallic materials
4502	Rockwell hardness tester	Switzerland	1985	Raw material (copper – iron–aluminum)& Semi &final products	Mechanical test	Up to 100HRC	Hardness of metallic material in HRC scale
4503	Brinell hardness tester	Switzerland	1985	Raw material (copper – iron–aluminum)& Semi &final products	Mechanical test	25 – 70 for Steel 60–170 for Copper 35 – 110 for Al.	Hardness of soft metals in HB scale
4504	Universal testing machine (Tensile machine)	Switzerland	1985	Raw material (copper – iron–aluminum)& Semi &final products	Mechanical test	30 Ton 3Ton 10 Ton	Tensile strength Compression
4505	Spectrolab spark analyzer	Germany	1998	Raw material (copper – iron–aluminum)	Chemical test	up to 100%	Chemical composition
4506	Gas emission analyzer	Germany	1998	Compustion gases from chemny	Chemical test	up to 2000ppm	Concentration of gases like: CO, CO2, NO2, NO3, SO2
4507	Coating thickness measurements	Switzerland	2010	Raw material (ferrous , non ferrous)& Semi &final products	Chemical test	(0-5mm) ferrous (0-2.5 mm)non-ferrous	Measuring of coating thickness on metallic materials

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of testes	Range of measurements	Scope of work & Applications
4508	water, waste water analysis	Germany	2019	Sewage and industrial water	Chemical test	Up to 950 nanometer	Concentration of elements e.g : Cr , Ni ,Cu , COD , total phosphate
4509	Cyanide electrode	Germany	2019	Sewage and industrial water	Chemical test	Up to 1000 mg/L	Concentration of CN in water
4510	Separating funnel	United Kingdom	2019	Sewage and industrial water	Chemical test	Up to 1000 mg oil/Lwater	Concentration of oil , grease in water
4511	Graduated conical	United Kingdom	2019	Sewage and industrial water	Chemical test	Up to 1000 mL/L	Concentration of total dissolved matter in water
4512	PH meter	Germany	2000	Liquids	Chemical test	(0-7) acidic solutions (7-14) alkaline solution	All liquids
4513	Denisto	Germany	2020	Liquids	Chemical test	Up to 100%	Density of all liquids e.g : solar alcohol Conc Of Alcohol , H <sub>2</sub> SO <sub>4</sub> (20%)
4514	Micro – hite plus M- 900	Germany	2015	Raw material (ferrous , non-ferrous)& Semi &final products	Dimensions		Measuring of Length ( internal , external steps ) , heights , depth dimensions , distance
4515	Viscometer	Switzerland	1980	Oils	Chemical test	Kinematic viscosity @ 40 c , 100 c	Viscosity of oils



Test code	Instrument name	Country of origin	Date of start running	Material \product tested	Types of Test	Range of Measurement	Scope of work & Applications
6301	SPECTRO MAX	GERMANY	2007	NON FERROUS ALLOYS	CHEMICAL ANALYSIS	Chemical element analysis by wave length from 170 to 400 nm	Element Percentage
6302	Tensile machine 2.5 ton	GERMANY	1954	Copper & steel alloys	Mechanical analysis	Maximum load 2.5 ton	Tensile strength .Yield Strength. Elongation
6303	Tensile machine half ton	GERMANY	1954	Copper & steel alloys	Mechanical analysis	Maximum load half ton	Tensile strength .Yield Strength. Elongation
6304	Torsion test machine	GERMANY	1954	Wire steel & cables	Mechanical analysis	Digital counter from 0 to 999 for maximum of 40 rolls depending on the wire diameter	No Of turns in cable
6305	Micro Ohm meter	GERMANY	1954	Copper alloy steel (6201)	Electrical analysis	From 1mΩ to 100mΩ	Conductor resistance
6306	lay ratio for conductor outer surface	-----	-----	cables	-----	From 1kΩ to 10000kΩ	Mathematical calculation
6307	Determination of direction lay	-----	-----	cables	Mechanical analysis	-----	Right/left
6308	Optical microscope	-----	1985	Non ferrous alloys	Metallographic analysis	Zoom from 10 to 75 times	Size of grains
6309	Tensile test machine 25 ton	Italy	2018	Non ferrous alloys	Tension and bending options for all alloys and product 85%.70%.72%	Maximum load limit 20 ton	Tensile strength .Yield



## شركة حلوان للصناعات غير الحديدية (م/٦٣) الحربي

Test code	Instrument name	Country of origin	Date of start running	Material \product tested	Types of Test	Range of Measurement	Scope of work & Applications	Price Exclude Tax (L.E)
6320	Tensile test machine 2.5KN	Germany	2021	Insulation	Mechanical analysis	Maximum load limit 2.5 KN	Tensile strength .Yield Elongation OF Insulation	350without prep. 500 with prep
6321	Hot Set test	Germany	2021	Insulation	Mechanical analysis	Elongation percentage at (40 – 200 °C )	Cross link for insulation Elongation under load Elongation after cooling	350 / cable with preparation
6322	Insulation Resistance	Japan	2021	Insulation	Electrical analysis	1 to 500 V	Measure insulation resistance	350 / cable with preparation
6323	Conductor Resistance Ohm meter	Japan	2021	cables	Electrical analysis	1 $\mu\Omega$ -30k $\Omega$	Measure conductor resistance	350 / cable with preparation
6324	Digital Hipot tester	Japan	2021	cables	Electrical analysis	AC 1 to 70 KV DC 1 to 50 KV	Voltage test for cable	350/ cable with preparation
6325	Profile projector	Japan	2021	Insulation	Mechanical analysis	Thickness of insulation vertical 100 mm/ horizontal 200 mm	Thickness of insulation	200/ sample
6326	Carbon black content tester	France	2021	Insulation	Analytical Test	Concentration of carbon black ashes &moisture in insulation( 200gm)	Concentration of carbon black ashes &moisture in insulation	200 / sample
6327	Deep Drawing Machine	Germany	2020	Copper & Aluminum Sheets	Mechanical analysis	compression up to 60 ton	(Earing-Olsen -Ericson) Testes	500 / sheet with preparation



TEST CODE	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
8101	Tensile strength 10 KN, Zwick	Germany	1993	Rubber & plastic	Mechanical Test	10 KN	Tensile strength, Yield strength, Elongation
8102	TINIUS TOISEN, Extrusion plastometer	USA	2012	Plastics, Fabrics & textile	Physical Test	Max. 450°C.	polymer behaver-Melting flow index
8103	Tensile strength, Hounsfield	China	2000	Plastic, Fabrics, textile	Mechanical Test	Test force:0.4-100%FS, Force control rate :0.005-5%	Tensile strength, Elongation
8104	Heraeus (xeno test 150S)	Germany	1990	Polymer	Weathering	Xenon lamp 230V±10%, water consumption for humidity max.0.0331/min	Ageing resistance, shelf life
8105	Viscosity, Gardener	Germany	1998	Varnishes, Resins	Physical Test	5T A1-A5 12T Z-U, 20T A-T 1-18T for color detection	Viscosity
8106	ATSFAAr	Italy	2010	Thermosets	molding	0-10 bar , 300 oC	Curing & Compression moulding
8107	Ruckprall elasticity tester	China	2011	Rubber	Visco-elastic	0-100%	Exposure of elastic material to stresses
8108	DIGI-Hardness testers	China	2011	Rubber	Visco-elastic	Shore A, B, C, D	Hardness
8109	Nabertherm Furnace	Germany	2005	Organic-inorganic materials	Quntitative Analysis	30 - 1280°C	Ash content, purity of materials
8110	Tanaka Softening	Japan	2010	Bitumen and aliphatic resins	ring and ball, 2tests	ambient : 200°C (392°F)	Softening point
8111	NORMALAB aniline point	France	2010	Petroleum products	Aniline point	Ambient : 150°C	Miscibility temp., Aromatic compounds in oil
8112	Pyncometer	UsA	2011	Powder	Physical Test	V:0.1-135cc,P:20psi	density
8113	Kern (senistive -balance)	Germany	2011	powders	gravimetric	Max620,Min 0.02,OT5-35oC	weight
8114	Gloss Meter	UK	2011	Paints & Varnishes	Physical Test	3 angles (20, 60, 85), HR:0-2000 and 0-1000GUtime: 0.5 s	Measuring of gloss intensity
8115	UV Shimadzu	Japan	2011	Ions in ppm	Photometric	190 to 1100 nm	Measuring of concentration of ions in ppm
8116	Moisture analyzer	Germany	2010	Powders and paste	Quntitative Analysis	up to 10 %	Moisture % in solid powder materials



## شركة هليوبوليس للصناعات الكيماوية (م/٨١ الحربى)

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
8117	Air permeability tester	Germany	1998	Fabrics and polymer	Physical Test	specific surface area 500-10000 sq.cm/gm	Barrier properties of polymers and fabrics
8118	Flame tester	Germany	1998	Fabrics and textiles	Physical Test	Sample size 10*30 cm	Quality of flame retardant matrices
8119	Stuart, Melting point tester	UK	2008	Solids powders	Physical Test	Ambient : 300 °C	Melting point, purity of elements
8120	TitroLine analytic titrator	Germany	2011	Acids- bases Solutions contained ions	Quantitative Analysis	0 to 14 pH	Measuring of concentration
8121	Flash point tester	Germany	2010	Solvent	Physical Test	10 °C : 110 °C	Flash point of solvents
8122	Particle size analyzer	UK	2003	powder	Physical Test	Max. 2000 micron	particles size
8124	Hegman fineness	UK	2000	paint	physical Test	up to 100 micron	degree of fineness of paints
8125	Dry film thickness	UK	1990	Paints & Varnishes	Physical Test	up to 200 micron	thickness
8126	Dry time of paint film	UK	1998	paint & Varnishes	Physical Test	up to 24 hrs	drying of paint film
8127	Wet abrasion resistance	UK	2010	paints	Physical Test	scraper angle 85 or 90. Maximum cycle 99999	abrasion resistance of paint film in wet condition
8128	Bending test of paints	UK	2005	Paints & Varnishes	mechanical	from 0.3 to 1mm coating thickness	the elasticity of paint film
8129	X ray radiography	USA	2011	shell different caliber	Physical Test	small, medium and large caliber	propellant homogeneity
8130	Ph meter	Germany	2005	Organic-inorganic materials	physical Test	0_14	determination of ph of organic and inorganic material
8131	Mechanical sieving	USA	2010	powder	physical Test	10 to 2000 micron	grain size
8132	Karl fischer	USA	2018	liquid	quantitative test	0.1 to 500mg	water content



Test Code	Instrument name	Country of origin	Date of running	Material/ product tested	Types of tests	Range of measurements	Scope of work& Applications
9901	Spectromaxx 4	Germany	2007	Fe Alloys-Cu Alloys-Al Alloys-Zn Alloys-Sn Alloys-Mg Alloys	Chemical test	upto100%	Chemical composition
9902	Carbon–Sulfur determinator	Germany	2004	Steel-cast iron	Chemical test	Low carbon range :(0.0001-0.1%) High carbon range :(0.1- 6.25 %) & Sulfur range :(0.0001-0.3%)	Chemical composition
9903	Spectrophotometer	Germany	2000	Solution West of water	Chemical test	0–20mg/l	Chemical composition
9904	Portosens	USA	2010	Gases	Chemical test	0–100ppm	Concentration of gases
9905	Quest L15°	USA	1999	Temperature environment	Physical test	0–40°C	Temperature
9906	Pressure cal. device	USA	2005	Pressure gauge	Calibration test	0–1000bar	Calibration of Pressure gauges
9907	Increasing pressure	Germany	2003	Pressure gauge of fire extinguisher	Pressure test	0–20bar	Pressure Measuring
9908	Universal test machine	Germany	1982	All materials	Mechanical test	0–400KN	Tensile-Bending Compression
9909	Tensile machine	England	2012	All materials	Mechanical test	0–250KN	Tensile
9910	Impact machine	Italy	2008	All materials	Mechanical test	0–300J	Impact



## شركة حلوان للصناعات الهندسية (م/٩٩ الحربي)

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
9911	KB pruftechik	Germany	2008	All materials	Mechanical test	1-15 Kp-250 Kp	Hardness
9912	Indenentec	England	1999	All materials	Mechanical test	20-65HRC	HardnessRockell
9913	Hardness(Shore A)	China	2006	Rubber	Mechanical test	0-100	Hardness(Shore A)
9914	Hardness(Shore D)	China	2006	Plastics	Mechanical test	0-100	Hardness(Shore D)
9915	Ultrasonic thickness gage	USA	2011	Iron, Copper, Aluminum, Iron(cast)Steel	Measurement of thickness	0.8mm-400mm	thickness
9916	Surfometer uin &Um	USA	1993	Steel and Aluminum	Mechanical test	Upto1000Uin Up to30UM	Roughness
9917	Coating thickness measuring instrument	Germany	1996	Aluminum, Copper zinc, steel	Coating thickness Measurement	Upto1000micrometer -40mils	Coating thickness
9918	Optical comparator 30"	USA	2003	All materials	Measurement of length	10x-20x&50x	length
9919	Torque measurement	USA	1998	Arm torque testing	Calibration test	UPto6000lb/in	Arm Calibration
9920	Universal length metros cop+600	Germany	1970	Micrometer Dial gauge Ring gauge	Calibration test	Internal400mm,external600mm	Calibration of Dial gauge Micrometer



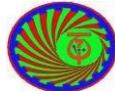
Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
9921	Universal horizontal length machine	Germany	1970	Passé meter Ring gauge	Calibration test	length 100 mm – diameter 4100mm	Passé meter Ring gauge
9922	Universal measuring microscope	Germany	1970	Vermeer caliper Micrometer	Calibration test	length 100 mm diameter 100 mm angel 360 °	Calibration of Vernier caliper Micrometer
9923	DH – 5 Roughness test machine	Swiss	1996	metals	Mechanical test	Up to 1000 Uin Up to 30 UM	Roughness
9924	Digital thermo – hygrometer temperature	China	1970	Used for measuring temperature & moisture	Physical Test	Temperature (0- 40 °C) Measurement (20 – 60 % )	Temperature
9925	Gauge block : set / 86 blocks –grade0	Germany	1970	Master	Calibration test	Dimension (0.5 – 90) mm	Calibration of grade A,B,C
9926	Gauge bloc : set / 87 blocks –gradeA	Germany	2004	Used for Calibration & Measurement process	Calibration test	Dimension (0.5 – 100) mm	Calibration of grade B,C measuring caliber venial
9927	Noise Dosimeter Quest 300	USA	1999	Noise	Physical Test	0-300 decibel	Noise
9928	Extech EA-30	Taiwan	2010	Light	Physical Test	0-30 F/C	Lightness
9929	pH meters 201	Taiwan	2012	liquid	Chemical test	0-14	measuring the concentration of H+ for liquid
9930	Nikon microscope	Japan	1996	Steel – copper Aluminum	Metallurgical inspection	up to 600 X	Micro (grain size)
9931	Cleveland flash point cup method	Italy	2004	Liquid	Physical Test	up to 360 C °	flash point



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
9932	Salt spray test	Germany	1987	Coating	Physical Tes	5% NaCl at 60 C °	corrosion
9933	HAS - DUST	USA	2009	Dust	Physical Test	0 - 100 mg/m3	Concentration of dust
9934	Spectromaxx 7	Germany	2021	Fe Alloys-Cu Alloys-Al Alloys-Zn Alloys - Sn Alloys-Mg Alloys Ni- Cr Alloys	Chemical test	Up to 100 %	Chemical composition



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
10001	Automatic Analyzers for Carbon and Sulphur	Germany	1978	steel	Chemical analysis	up to 3.5% for carbon & up to 0.3 for sulphur	Carbon and Sulphur analyzer
10002	Micro-hardness tester	American	1995	steel	Mechanical test	Ø up to 35mm	Micro-hardness measurements
10003	Microscope	Germany	1980	steel	surface inspection	Ø up to 35mm	Carborizing and Nitriding depth
10004	Portable digital ultrasonic flaw Detectors	Germany	2006	steel	non-destructive test	Ø up to 900mm	Inspection for internal depth up to Ø 900mm
10005	X-ray flaw detectors	Denmark	2008	steel	non-destructive test	Ø up to 35mm	Inspection for internal depth up to thickness 35mm
10006	Radiation dosimeter	Denmark	2008	Atmosphere	Radiation test	Ø up to 30mm	Radiation dosing measurements
10007	Crack depth measurement	Germany	2010	steel	non-destructive test	Ø up to 10mm	Crack depth measurements up to 2mm
10008	Tensile testing machine, 20KN	Germany	1978	steel	Mechanical test	up to 20 KN	Tensile strength, Yield strength, Elongation,
10009	Tensile testing machine, 200 KN	Germany	1978	steel	Mechanical test	up to 200 KN	Tensile strength, Yield strength, Elongation,
10010	Impact testing machine	Germany	1978	steel	Mechanical test	up to 300 J	Energy to break the steel
10011	Universal hardness tester	Germany	1978	steel	Mechanical test	up to 150 Kg - up to 600 HB - Up to 70 HRC -up to 1200 HV	Hardness (HB-HRC-HV)



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
10012	Wilson instruments	Germany	2010	steel	Mechanical test	up to 150 Kg - up to 70 HRC	Hardness (HB-HRC-HV)
10013	Hardness tester equotip	Swiss	2010	steel	Mechanical test	up to 600 HB - up to 1200 HV	Hardness (HB-HRC-HV)
10014	Leeb hardness tester	Germany	2002	steel	Mechanical test	up to 70 HRC	Hardness (HRC)
10015	Magnetic crack detection unit	Germany	1997	Steel pipe	non-destructive test	up to 700mm	Crack Detection
10016	Magnetic crack detection unit	Germany	1997	steel	non-destructive test	up to 1200mm	Crack Detection
10017	Magnetic particle test equipment	American	1997	steel	non-destructive test	free	Crack Detection
10018	Digital coating thickness gauge	China	2011	Non magnetic	Physical test	up to 999 $\mu$	coating thickness measurements
10019	Hardness testing machines	American	2010	steel	Mechanical test	up to 3000 Kg - up to 600 HB	Brinell hardness HB
10020	Spectronic 21	American	1980	steel	Chemical analysis	up to 100 %	Copper element %
10021	tensile testing machine, 100 KN	Germany	2006	Steel coil	Mechanical test	up to 100 KN	Tensile strength, Yield strength, Elongation



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
10022	tensile testing machine, 200 KN	Germany	2006	Steel plate	Mechanical test	up to 200 KN	Tensile strength, Yield strength ,Elongation
10023	tensile testing machine,600 KN	Germany	2006	Steel plate	Mechanical test	up to 600 KN	Tensile strength, Yield strength ,Elongation,
10024	tensile testing machine, 1200 KN	Italy	2006	Steel	Mechanical test	up to 1200 KN	(Tensile strength, Yield strength, Elongation)or bending
10025	Impact testing machine	Germany	2006	Steel	Mechanical test	up to 300 J	Energy to break thesteel plate
10026	Automatic Pendulum Impact test	Italy	2011	Steel	Mechanical test	up to 600 J	Impact test of steel plate
10027	Universal hardness tester	Germany	2008	Steel plate & coil	Mechanical test	up to 750 Kg - up to 600 HB - up to 70 HRC	Hardness (HB-HRC-HV) for steel plate
10028	Rockwell hardness tester	Germany	2006	Steel plate & coil	Mechanical test	up to 150 kg - up to 70 HRC	Rockwell Hardnessof steel plate
10029	Drop weight impact tester	China	2007	Steel plate	Mechanical test	8000J-30000J	Drop Weight Impactof steel plate
10030	Drawability tester	Germany	2007	Steel coil	Mechanical test	up to 134 kgf	Erichsen test of steel coil
10031	ARL metal analyzer	Swiss	2006	Steel	Chemical analysis	up to 18 elements up to 100% concentration	Chemical composition of steel



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
10032	Optical emission spectrometer	Italy	2011	Steel	Chemical analysis	up to 29 elements up to 100% concentration	Chemical composition of steel
10033	Gas analyzer (O, N & H)	Germany	2008	Steel	Chemical analysis	Up to 3 gases	Determination of gases in steel (O <sub>2</sub> , N <sub>2</sub> , H <sub>2</sub> )
10034	Metallographic microscopes with digital camera & Software	Germany	2006	Steel plate & coil	metallographic analysis	Up to 1000 magnification	Microstructure examination of steel
10035	Trolley (portable) ultrasonic probes	Germany	2007	Heavy Steel plates	non- distractive test	5 MHZ	Inspection for steelplate (internal defects)
10036	Spectrophotometer	American	2006	Aqueous solutions	Chemical analysis	Wavelength: 320- 1100 nm	Chemical properties of water& aqueous solution
10037	Spectrometer analysis	Swiss	1995	Steel	Chemical analysis	100 mm <sup>3</sup>	Steel Samples element %
10038	Spectrometer analysis mobile	Germany	2006	Steel	Chemical analysis	up to 100%	Steel Samples element %
10039	Axio-Imager M2 m	Germany	2010	Steel	metallographic analysis	2 x 2cm	microstructure of N.M.I, grain size, St. Phase
10040	Low power microscopic	Germany	1995	Steel	metallographic analysis	magnification 120 times	microstructure of steel phase



شركة أبو زعبل للصناعات الهندسية (م/١٠٠) العربي  
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Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
10041	Gas analyzers	Germany	2005	Steel	Chemical analysis	up to 1g	Determination of gases in steel (O2 , N2, H2)
10042	Gas analyzers	Germany	2016	Steel	Chemical analysis	up to 1g	Determination of gases in steel (O2 , N2, H2)
10044	Impact testing machine	Germany	2007	Steel	Mechanical test	up to 450 J	Impact test
10045	Hardness Rockwell tester	England	2007	Steel	Mechanical test	up to 68 HRC	Rockwell Hardness
10046	Brinell Hardness tester	England	2007	Steel	Mechanical test	up to 750 HB	Brinell Hardness
10047	Hardness testing machine portable	England	2007	Steel	Mechanical test	up to 68 HRC	Rockwell Hardness

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
14401	Cesium Beam atomic clock 5071A	USA	2000	Counters	frequency	up to 26.5 GHz	Electrical Calibration
14402	Universal counter HP53132A	USA	2000	Signal generator	frequency	up to 26.5 GHz	Electrical Calibration
14403	Power MeterHP E4418A	USA	2000	Signal generator	Level	10 mW	Electrical Calibration
14404	Power Sensor HP 8481A	USA	2000	Signal generator	Level	-30 dBm to 20dBm	Electrical Calibration
14405	Range calibrator HP11683A	USA	2000	Power meter	Level	10 mW	Electrical Calibration
14406	Audio analyzer HP8903B	USA	2000	AM & FM	Frequency Modulation	up to 100 KHz	Electrical Calibration
14407	Measuring receiver HP8902	USA	2000	Frequency&amplitude	level, Frequency, Modulation	up to 26.5 GHz& -130 dBm	Electrical Calibration
14408	STD resistorSR 104	USA	2000	Resistance	Resistance	100 Kohm	Electrical Calibration
14409	Calibrator TM5006A	USA	2000	Resistance	Oscilloscope	300 V	Electrical Calibration

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
14410	Calibrator Fluke 5500A	USA	2000	DMM	V, A, R	100 Mohm, 1000 V, 11 A,	Electrical Calibration
14411	Calibration Kit Agilent 8505B	USA	2000	Network analyzer	S-paramete	Up to 26.5 GHz	Electrical Calibration
14412	Verification Kit Agilent 85055A	USA	2000	Network analyzer	S-paramete	Up to 26.5 GHz	Electrical Calibration
14413	STD Cells Fluke 732B	USA	2000	Calibrators	10 V	10 V, 1.018 V	Electrical Calibration
14414	Calibrator Fluke 5720A	USA	2000	DMM	V,A,R	1000 V, 2.2 A, 100 Mohm	Electrical Calibration
14415	D.M.M HP3458A	USA	2000	Calibrators	V,A,R	1000 V, 1.5 A, 100 Mohm	Electrical Calibration
14416	AC measurements Fluke 5790A	USA	2000	Calibrators	V,A.	1000 V, 20 A,	Electrical Calibration
14417	Capacitance Bridge 2500A	USA	2000	Capacitors	Capacitors	100 F	Electrical Calibration
14418	STD Capacitor 1409-T	USA	2000	LCR meter	C	10 micro Farad	Electrical Calibration
14419	STD Indictor 1482-B	USA	2000	LCR meter	L	1 Farad	Electrical Calibration
14420	Attenuator (1000W) Bird 8327-300	USA	2010	Power meter	Amplitud	1000 Watt	Electrical Calibration
14421	Pressure calibration Mensor CPC6000	USA	2012	Pressure Gauge	Pressure	-1 to 10 bar	Pressure Calibration

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
14422	Temp. Readout +RTDFluke 1502A+5626	USA	2012	oven	temperature	-200 to 1200 C	Temperatuqe Calibration
14423	Measuring Receiver FSMR 26	Germany	2014	Signal generator	Level & frequency	13 to 20 dBmUp to 26.5 GHz	Electrical Calibration
14424	Trans conductance amplifier 52120A	USA	2014	High current	Current	3000 A	Electrical Calibration
14425	Shaking and vibration system	china	2017	Random shokh	Shaking and vibration	5-2500 Hz	Electric
14426	ELECTRICAL SAFTEY ANALYZER (Fluke ESA1620)	USA	2012	SAFETY OF MEDICAL DEVICE	ELECTRICAL	UP TO 250 v & up to 20 A	Electrical calibration
14427	Noninvasive blood pressure simulator (NIP) PUMP 0	USA	2012	MONITOR AND BLOOD PRESSURE DEVICES	PRESSURE	UP to 250mmhg	PRESSURE
14428	DEFIBRATOR PACEMAKER ANALYZER (FLUKE 7000DP)	USA	2012	DEFIBRATOR EQUIPMENT	POWER	UP 600 JOUL	Electrical calibration
14429	PATUENT SIMULATOR (Fluke ,PS 450)	USA	2012	MONITOR	PRESSURE /TEMPERTURE	UP TO 250 MML HG & up to 45 C	Electrical calibration/TEMP/PRESSURE
14430	VENTALATOR ANALYZER (FLUCK VTPlus)	USA	2012	VENTALATOR EQUIPMENT	PRESSURE	UP to 250mmhg	PRESSURE
14431	Incubator analyzer (flucK inc III)	USA	2016	Incubator EQUIPMENT	TEMPERTURE /HUMIDITY	UP TO 45 C / UP TO 95%	TEMPERTURE /HUMIDITY
14432	PATIENT OXIMETER SIMULATOR (FLUKE INDEX 2)	USA	2012	PULSE OXIMETER (spo2)equipment	P ERCENTAGE OF OXYGEN IN BLOOD	80%TO 100%	N.A

Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
14433	ELECTROSURGERY EQUIPMENT ANALYZER (FLUKE QA ESIII)	USA	2016	ELECTROSURGERY EQUIPMENT	POWER	UP to 200watt	Electrical calibrators
14434	Infusion pump analyzer (fluke ida -4plus	USA	2012	INFUSION and pump	Flow rate	UP TO 100/SEC	N.A
14435	Ultrasound wattmeter (ohmic UPM- DT-J av)	USA	2012	Ultrasound equipment	watt	Up to 400watt	Electrical calibrators



## مصنع إنتاج وإصلاح المدربات (م/٢٠٠٠ الحربى)

Test Code	Instrument Name	Count of Origin	Date of Start Running	Material / Product Tested	Types of Tests	Range of Measurements	Scope of Work & Applications
20001	Coordinate Measuring Machine	UK	1993	Mechanical Parts	Dimensional Measurement & Calibration	X =1000mm, Y = 600 mm, Z = 400mm	Inspection and calibration of mechanical devices
20002	Measuring Machine	USA	1993	Mechanical Parts	Dimensional Measurement	Ext = 300mm Int = 200mm	Calibration of external and internal dimensions and screws
20003	Optical Comparator	USA	1993	Mechanical Parts	Dimensional Measurement &Calibration	X=300mm, y=190mm	Measurement of parts dimensions and calibration of geometric dimensions
20004	Laser Tracker	USA	2010	Mechanical Parts	Dimensional & Measurement Calibration	40 m	Three-dimensional measurement & inspection of mechanical parts
20005	Laser Horizontal Sweep (Hamar Laser)	USA	1994	Mechanical Parts	Calibration & Dimensional Measurement	5m	Measuring and inspecting mechanical parts, and leveling machines
20006	Gage Block Comparator	USA	1994	Mechanical Parts	Calibration Test	100 m	Calibration of measuring templates
20007	Torque Tester	USA	2009	Mechanical Parts	Calibration Test	0-2000 N.m	Torque arm calibration
20008	Reference Multimeter	USA	2003	Electrical Parts	Calibration Test	Multi Ranges	Calibration of electrical quantities
20009	Calibration System	USA	2010	Electrical Parts	Calibration Test	Multi Ranges	Calibration of electrical quantities
20010	Pressure Electronic Tester	USA	2010	Pressure Parts	Calibration Test	0-700 bar	Calibration of oil pressure gauges
20011	Thermocouple Type (S)	USA	2007	Thermometers	Calibration Test	0-1600 oC	Calibration of thermometers
20012	Temperature Pressure Calibrator	USA	2007	Thermometers & Pressure Parts	Calibration Test	Multi Ranges	Calibration of pressure and temperature devices



## مصنع إنتاج وإصلاح المدربعات (م/ ٢٠٠٠ الحربي)

Test Code	Instrument Name	Count of Origin	Date of Start Running	Material / Product Tested	Types of Tests	Range of Measurements	Scope of Work & Applications
20013	Portable Furnace (Dry Well)	USA	2005	Thermometers	Calibration Test	20-1200 oC	Calibration of thermometers
20014	Oil Bath Temperature	USA	2011	Thermometers	Calibration Test	20-220 oC	Calibration of thermometers
20015	Ultralow- Temperature Bath	USA	2011	Thermometers	Calibration Test	-80 oC	Calibration of thermometers
20016	Rockwell Hardness Tester	USA	1994	Mechanical Parts	Mechanical Test	40-70 HRC	Recoll's hardness measurement for minerals
20017	Rockwell Hardness Tester (Super Facial)	USA	1994	Mechanical Parts	Mechanical Test	N&T	Recoll's hardness measurement for minerals
20018	Universal Testing Machine	USA	1994	Mechanical Parts	Mechanical Test	1 Ton	Tensile, compressive and bending tests of metals
20019	Brinell Hardness Tester	USA	1994	Mechanical Parts	Mechanical Test	100-600 HB	Brinell hardness measurement for minerals
20020	Foundary Master UV	Germany	2010	Alloys of (Fe&Al&Sn)	Chemical Analysis	Up to 100%	Analysis of metal ratios in iron, aluminum and tin alloys
20021	Corrosion Test Cabinet	USA	2010	Mechanical Parts	Rust Resistance Test	Max 2x1 m	Determination of rust resistance of painted surfaces
20022	IR Calibrator	USA	2019	Thermo Meters	Calibration Test	30-500 oC	Calibration of measuring devices
20023	Calibration of Glass Pipette (0.1-1000ml)	Germany	2020	Volume part	Calibration Test	(0.1-1000 ml)	remote heat
20024	Calibration of Automatic (> 100-1000 µl)	Germany	2020	Volume part	Calibration Test	(> 100-1000 µl)	Volumetric calibration
20025	Oil Test Set	UK	2021	Chemical	Chemical Test	UP to 11 kv	Volumetric calibration
20026	Load Cell	Germany	2009	Mechanical Parts	Calibration of UTM	500 kv	Electrical transformer oil insulation tests up to 11 kV



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
27001	Atomic absorption	England	2002	Drinking water& waste water	Chemical analysis	$\lambda:180 - 900\text{nm}$ Absorption (0.15 – 3 A)	concentration of (Fe , Mn , Pb)
27002	Spectrophotometer	USA	2013	Drinking water& waste water	Chemical analysis	$\lambda ( 190 - 900\text{nm} )$	concentration of (T.N.R, $\text{SO}_4$ – Fe – Mn – Cu)
27003	Spectrophotometer	Germany	2002	Drinking water	Chemical analysis	$\lambda ( 320 - 1100\text{nm} )$	concentration of (Fe, Mn, COD)
27004	Conductivity	England	2016	Drinking water, waste water & deionized water	Physical test	Conductivity: 0-1990 ms, TDS:0- 1990 mg/l	Conductivity& total dissolved solid
27005	pH meter	Germany	2002	Drinking water & wastewater	physical analysis	0-14	$[\text{H}^+]$ for Varnish material, batteries solution
27006	pH meter	Europe (Romania)	2010	Acidity and basicity for water & wastewater	physical analysis	0-14	$[\text{H}^+]$ for Varnish material, batteries solution
27007	pH meter	USA	2015	Acidity and basicity for water & wastewater	physical analysis	0-14	$[\text{H}^+]$ for Varnish material, batteries solution
27008	Melting point Tester	Germany	2002	Powder ,(T.N.R , Lactose)	physical analysis	25-400 °C	melting point of Powder samples
27009	Melting point Tester	USA	2002	Powder	physical analysis	25-400 °C	Melting point of Powder samples
27010	Automatic titrator	USA	2013	T.N.R	physical analysis	Filling time ( 20-999 s)	Calibration of Acid-base materials
27011	Viscosity Tester	Germany	2002	Fluid	physical analysis	3- 2000000 mpas	Viscosity of solutions



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
27012	Muffle oven	Germany	2013	Lactose	physical analysis	Up to 1200°C	Ash content of material
27013	Muffel oven	USA	2014	Solid- Powder	physical analysis	Up to 1500°C	Ash content of material
27014	Turbidity Tester	USA	2014	Drinking water, waste water	physical analysis	0-10000 NTU	Turbidity of water
27015	Turbidity Tester	Germany	2014	Drinking water, waste water	physical analysis	0.01-1100 NTU	Turbidity of water
27016	Sieves Analyzier	Germany	2002	Solid - Powder	physical analysis	38-2360 Micron	Determine the Grain size of solid materials
27017	Deionizer App.	Germany	2014	Water	N.A	Max. 0.055 ms	Deionized of Water
27018	Determination of Coagulant Material App.	USA	2010	Water	Chemical composition	Product water	Coagulant Material in Water
27019	Piston pressure calibrator	Germany	2004	Piston	Calibration	300 Ton	Pressure calibration
27020	Millimeter Calibration	UK	2004	Voltage and Ampere Devices	Calibration	1000 V - 20 A	Measures volt and amp. and resistance
27021	Pressure Calibration	UK	2004	The manometer	Calibration	200 bar	Manometer pressure Calibration
27022	Calibration of thermal devices	UK	2004	Furnaces - Bathrooms - Heaters	Calibration	0 - 1200 oC	Temperature Calibration
27023	Scales Calibration	China	2004	Electric or other Balances	Calibration	Up to 15 Kg	Balances Calibration



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
27024	Toolbox Measurement	Japan	2004	Bacolis, Micrometer, Watches	Calibration	25mm	Calibration of depth&lengths
27025	Toolbox Measurement	Japan	2004	Bacolis, Micrometer, Watches	Calibration	100mm	Calibration of depth&lengths
27026	Heights Scaler	Japan	2004	Rulers	Calibration	40.6mm	Measuring of lengths
27027	Avometer device	UK	2004	Voltage and current Devices	Electric test	1000 v, 3 A	Measuring of Voltage and current
27028	Avometer device	UK	2004	Voltage and current Devices	Electric test	1000 v, 10 A	Measuring of Voltage and current
27029	Heat and moisture device	UK	2004	Enviromental labs.	Enviroment test	60 °C	Record Temperatureand humidity
27030	Internal micrometer kit	Japan	2004	Dies	Internal diameters	15.997 mm	Measuring of Internal diameters
27031	Internal micrometer kit	Japan	2004	Dies	Internal diameters	9.992 mm	Measuring of Internal diameters
27032	Internal micrometer kit	Japan	2004	Dies	Internal diameters	44.99 mm	Measuring of Internal diameters
27033	COD Apparatus	USA	2017	Waste water	Quantitative analysis	428 nm, 525 nm, 568 nm, 635 nm	Chemical oxygen demand in waste water
27034	COD Digestion Apparatus	Taiwan	2002	Water	Quantitative analysis	200°C	Measure of COD



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
27035	Distillation Apparatus	UK	2002	Distill Water	Distilled water feeding	0 - 100°C	Produce Distilled Water
27036	Muffel oven	USA	2002	Solid- Powder	Physical analysis	up to 1100°C	Ash content of materials
27037	Biochemical oxygen demand (BOD)	Europe	2002	Water	Quantitative analysis	90 ; 250 ; 600 and 999 mg/l	BOD of waste water
27038	High Rate Discharge	Germany	2010	Batteries	Cracking performance test	(2-1000) A, (5-15) V	Batteries Sector
27039	Universal Batteries Tester	Germany	2010	Batteries	Nominal and reserve capacity test	(0.3-30) A, (10-18) V	Batteries Sector
27040	Climatic chamber tester	Turkey	2010	Batteries	Crack performance, Charge accepting	T (-40 : 150) , H (15: 98)	Measure Temp. and Humidity for Batteries,
27041	Climatic chamber tester	Germany	2006	Thermal Batteries	performance test	T (-50 : 150), H (0: 100)	Crack performance, Charge accepting
27042	Dynamics vibration test	Germany	2010	Batteries	Qualitative test	5-200 Hz.	Batteries
27043	Metal analyzer	England	2010	(Ca - sb – Pb) Alloys	Quantitative analysis	(130 – 680 nm)	Batteries and Pb materials
27044	Moisture analyzer (BRECICA)	Turkey	2010	Solid - Liquid materials	Quantitative analysis	(1 – 170 )° C	water content in Batteries or other materials



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
27045	Moisture analyzer (KERN)	England	2010	Solid - Liquid materials	Quantitative analysis	( 1 – 200 )°C	water content in Batteries or other materials
27046	Elyctrical analyzer	USA	2002	Copper alloy	Chemical analysis	50-80%	Determine copper metal
27047	Ionic Cromatography	USA	2011	Quantitative analysis	W Water/desolved powder	(0.5-500) ppm	Determination Cation & anion



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
30001	Fatigue Tester	Germany	2016	Springs	Mechanical Test	10 KN	fluctuating stresses and strains of Spring
30002	Impact Tester	Germany	2009	Metals raw materials	Mechanical Test	150 / 300 Jol	energy to break the metal
30003	Tensile Tester	Germany	2009	Metals raw materials	Mechanical Test	100 KN	Tensile,Yield, Elongation
30004	Tensile Tester	Germany	2009	Metals raw materials	Mechanical Test	20 KN	Tensile,Yield, Elongation
30005	Springs compression tester	Germany	2009	Steel Springs	Mechanical Test	20 KN	Compression of Large diameter Springs
30006	Vickers hardness tester	England	2009	Iron , Copper , Aluminium	Mechanical Test	up to 800 HV	Vickers hardness
30007	Rockwell hardness tester	England	2009	Metal parts after & before heat treatment	Mechanical Test	20-65 HRc	Rockwell hardness
30008	Brinell hardness tester	Italy	2009	Metals	Mechanical Test	up to 600 HB	Brinell hardness
30009	Micro Vickers hardness tester	England	2009	Small thickness of Metals	Mechanical Test	up to 800 HV	Vickers hardness after surface treatment
30010	Portable hardness testers	USA	2009	Metals Die and large parts	Mechanical Test	20-65 HRc	Rockwell hardness
30011	Light microscope	Germany	2009	Metals	Metallographic Analysis	1000 times	Known direction of fibers & Size and crystal shape



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
30012	Light microscope Axio imager zLm	Germany	2009	Metals	Metallographic Analysis	63 times	Known direction of fibers &Size and crystal shape
30013	SpectroMaxx	Germany	2009	Alloys of (AL-Cu-Zn-pb- Sn)	Chemical Test	Up to100%	Chemical composition
30014	Foundary master expert	Germany	2017	Alloys of (AL-Cu-Zn-pb- Sn)	Chemical Test	Up to100%	Chemical composition
30015	InferaRed Analyser	Germany	2007	Polymer/inorganic materials	Chemical analysis	-	Polymer/inorganic materials
30016	Flash point open ( open cup)	USA	2019	Lubricants	Flash point	0-400 Up to 100kv	Physical test
30017	Oil breakdown voltage tester	Austria	2019	INSULATING LIQUIDS	Oil voltage breakdown	0-u up to 100 kv	Insulating liquids
30018	FLASH POINT (CLOSED CUP)	Uk	2019	Lubricants	Flash point	0-360	Physical test
30019	Specific density measuring device	Germany	2019	Liquids	Density , alcohol conc.	-	Liquids , solvents , fuels
30020	TBN/TAN	JAPAN	2019	Lubricants	TBN-TAN	0-14	Lubricants
30021	Refractive index device (bench)	Germany	2019	Lubricants	Refractive index	Lubricants	MWF
30022	Ph meter	ITALY	2019	Liquids	Ph	0-14	Liquids , solvents , fuels
30023	Conductivity meter	ITALY	2019	Liquids	Conductivity	0-200 ms/cm	Liquids , solvents , fuels



Code test	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
36001	Cross hatch cutter paint tester	UK	2010	Organic coated metal	Physical test	1B-5B suitable for coatings under 60 microns	Coating adhesion test
36002	Statistical gloss meter	UK	2010	Coated surfaces	Physical test	measured at three angles of reflection at 20, 60, 80 degree	measuring gloss intension on flat surfaces
36003	Test metric spring compression tester	UK	2010	Spring	Mechanical test	Max. 99 kg	compression of Springs
36004	Shore Hardness Tester	Germany	2000	Rubber	Mechanical test	0 - 99 Shore	Shore Hardness
36005	pH-meter	Germany	2010	Aqueous solutions	Chemical test	0-14	Measuring the concentration of H <sup>+</sup>
36006	Humidity cabinet	UK	1986	Mechanical metal Parts/plated	Environmental test	95-100% humidity, 20-55°C temp	Effect of humidity& temp. on storage
36007	Environmental equip type (gas emission)	UK	2010	Compustion gases	Chemical test	up to 100%	Measure the gases% in the environment



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
90901	Spectro for chemical analysis of alloys	GERMANY	2007	Aluminum /Copper/Steel	Chemical Test	up to 100 %	Chemical Composition
90902	Hardness tester device ( equotip ) portable	SWIZERLAND	2005	Aluminum /Copper/Steel	Mechanical Test	Multi Ranges	Measure hardness (Vicker/brinell/rickwell)
90903	Total wall thickness device	ITALY	2016	Engine Bearings and Bushes	Measuring Test	Up to 45 mm	Total Thickness of the Bearing
90904	Total wall thickness device	ITALY	2016	Engine Bearings and Bushes	Measuring Test	Up to 45 mm	Total Thickness of the Bearing
90905	Measuring thickness device	ENGLAND	1980	Engine Bearings and Bushes	Measuring Test	Up to 45 mm	Total Thickness of the Bearing
90906	Rounding tester device	ENGLAND	1980	Engine Bearings and Bushes	Measuring Test	Up to 100 mm with 2000 magnification	Measuring the roundness of the Bushes
90907	Center line gauge device	GERMANY	2016	Engine Bearings and Bushes	Measuring Test	50 - 85 mm	Center line Unit of Bearing
90908	Coordinates Measuring Machine ( Three coordinates )	JABAN	1982	Diesel Engines Parts	Measuring Test	X-Y-Z Dimensions Up to 450 - 325 - 250 mm	Measure Diameters and axes (x-y-z)
90909	Dynamometer Diesel Engines FL511	GERMANY	2003	Diesel Engines	Final test of Diesel Engines	Multi Ranges	Final test of Diesel Engines
90910	LOAD BANK WITH ( ١٥٠٠ مترجكva ) DIGITAL INDUCTOR	GERMANY	1995	Generator sets	Final test of Generating units	ISO 8528	Final test of Generating units
90911	LOAD BANK WITH ( ١٥٠٠ مترجكva ) DIGITAL INDUCTOR	ENGLAND	1995	Generator sets	Final test of Generating units	ISO 8529	Final test of Generating units



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
9991	Measuring and calibrating the internal and external thread tester	Swiss	6/12/1977	many martials	Mechanical Test	Internal measurement rang on the base 0 -300 mm	calibrating the internal and external thread
9992	Vertical mechanical device for comparing the plug gauge	Russia	1/1/1967	many martials	Mechanical Test	0 - 200 mm	Calibration of internal and external plug gauge
9993	worm tester	Russia	1/1/1971	many martials	Mechanical Test	The largest diameter 200 mm	Measuring of angles and pitch worm
9994	Measuring tester of angles and scoop for knife gears	Russia	2/20/1971	many martials	Mechanical Test	The largest diameter of knife 270 mm	Measuring of angles and scoop
9995	Mechanical tester for measuring of the involution curve for gears	Russia	2/20/1972	many martials	Mechanical Test	Diameter $\leq$ 300 mm & distance $\leq$ 350 mm	Measuring of the involuting curve for gears
9996	general measurement microscope	Germany	4/30/1971	many martials	Mechanical Test	Movement in axis X : (0 - 200) mm Movement in axis Y : (0 -100) mm	Measurement of dimensions and angles
9997	Measuring tester of scoop	Russia	2/20/1971	many martials	Mechanical Test	up to 500 mm	Measuring of scoop
9998	Optical splitting device	Germany	6/27/1985	many martials	Mechanical Test	$360^{\circ}$ $\phi = 250$ mm $L = 1500$ mm	Measuring of division
9999	Optical splitting device	Russia	2/20/1971	many martials	Mechanical Test	$360^{\circ}$ $\phi = 250$ mm $L = 700$ mm	Measuring of division
99910	Measuring tester of the rack on pitch circle diameter for large gears	Russia	1/1/1967	many martials	Mechanical Test	Diameter up to 400 mm, angle up to $44^{\circ}$	Measuring of the rack on pitch circle diameter for gears
99911	Metroscope for measuring thread	Germany	3/4/1971	many martials	Mechanical Test	0 - 200 mm	Measuring threads
99912	Axial gears measuring tester	Germany	6/27/1985	many martials	Mechanical Test	200*250 mm	Measuring of scoop gears on diameter



Test Code	Instrument name	Country of origin	Date of start running	Material/product tested	Types of tests	Range of measurements	Scope of work & Applications
99913	general measurement microscope	Germany	6/27/1985	many martials	Mechanical Test	Movement in axis X : (0 -250) mm Movement in axis Y : (0 -125) mm	Measurement of dimensions and angles
99914	Measuring tester of scoop	England	10/17/1984	many martials	Mechanical Test	up to 1000 mm	Measuring of scoop
99915	Vertical mechanical device for comparing the plug gauge	Russia	1/1/1967	many martials	Mechanical Test	0 - 200 mm	Calibration of internal and external plug gauge
99916	general measurement microscope	Germany	4/30/1971	many martials	Mechanical Test	x = 0 - 25 mm movement in an axis Y = 0 -25 mm movement in an axis	Measurement of dimensions and angles
99917	Measuring tester of scoop	Russia	2/20/1971	many martials	Mechanical Test	up to 500mm	Measuring of scoop
99918	X - RAY (RT)	Germany	12/3/2001	Steel	Radiographic Test	Large tube ( 320 k.v ) Thickness of ( 5 - 70 mm ) Small tube ( 160 k. v ) Thickness of ( 2 - 40 mm )	Detection of defects of welds
99919	SPECTRO	Germany	8/1/2019	( Fe , Cu , Zn , Al ) base alloys	Chemical test	( Fe , Cu , Zn , Al ) base alloys	Concentration measurement ranges of elements in ( Fe , Cu , Zn , Al ) base alloys
99920	Measuring tester of scoop	Russia	2/20/1971	many martials	Mechanical Test	up to 1000 mm	Measuring of scoop
99921	Tensile and pressure test machine	Germany	11/27/1983	Steel	Mechanical Test	600 K N	Tensile and pressure test
99922	Impact test machine	Germany	10/20/1981	Steel	Mechanical Test	150 J	Energy to break the steel

**المسؤولون عن الرد على الاستفسارات الخاصة باسعار الاختبارات المعملية بشركات الانتاج الحربي**

الشركة	الاسم	الوظيفة	نомер الشركة	نوع التوكيل	الموبيل
مركز التميز العلمي والتكنولوجي	باحث / أحمد السيد العازى	مدير عام المعامل	02- 26586077	—	010-07893170
حلوان للمسبوكات (م/٩ الحربي)	م/ ايمان عادل دراج ; ك/ أحمد مصطفى عزت ك / ياسمين على محمد على	مدير عام المعامل	02-27841267	330	010-00418676
أبو قير للصناعات الهندسية (م/١٠ الحربي)	باسم عثمان رشوان	مدير عام المعامل			٠١٢٠٠١٤٢٢٣٢
أبو زعبل للكيماويات المتخصصة (م/١٨ الحربي)	هشام محمود عبدالله	مدير عام المعامل			٠١٢٢١٨٣٦٧٣٣
شبرا للصناعات الهندسية (م/٢٧ الحربي)	م/سلمي عماد عبد المنعم	قطاع مراقبة وتوكيد الجودة	02-24267712/ 24267090	1256	٠١٢٢١٥٥١٣٥٩
المعصرة للصناعات الهندسية (م/٤٥ الحربي)	م/مروه عبدالعزيز م/محمد عبدالحليم	مدير عام المعامل	23697873- 23697615	—	011-48577858
حلوان للصناعات غير الحديدية (م/٦٣ الحربي)	ك/ هبة محمود معوض	مدير ادارة المعامل	02-27841709	274	012-25555933
	ك/ ايناس محمد	رئيس قسم المعامل		286	012-29039763
هليوبوليس للصناعات الكيماوية (م/٨١ الحربي)	د/ أحمد محروس	رئيس قطاع الجودة	02-21816081	361	010-26999147
حلوان للصناعات الهندسية (م/٩٩ الحربي)	ك / محمد فوزى عبدالمعبود			—	٠١٠٠١٧٣٩٣٠٤
أبو زعبل للصناعات الهندسية (م/١٠٠ الحربي)	ك/ محمد نعman حسين م/ محمد اسماعيل م/أسلام سيد عبد الباسط ك/ انور محمد محمد السيد	مدير الجودة والمعامل	02-22814237	4186/4187	Moamednoaman201493@gmail.com ٠١٠٠٦٧٨١٠٤٠
	م / فريد احمد فريد	مدير المعمل			Hamzamalikeslam@gmail.com 010-21868080
إنتاج وإصلاح المدرعات (م/٢٠٠ الحربي)	-	م/ هشام حسن حسن م/أحمد سعيد قطب	013-3222447	—	011-20560650 01119433890
قها للصناعات الكيماوية (م/٢٧٠ الحربي)	م/الف محمد عطية	مدير عام	013-2600441	415	٠١١٤٩٩٥٣٦١٦

010-02562281			المعامل	ك/ رحاب عبد الجواد	
01030354749 ٠١٠٦٨٢٦٢٦٠٩			مدير عام المعامل كيميائي	م / بشارة حسن عبدالرحمن ك / وفاء احمد سعد	أبو زعل للصناعات المتخصصة (م / ٣٠٠) (الحربي)
010-02754188	400/440/44 1	02-27101088/90	مهندس جودة	م / نسرين أحمد محمد	حلوان للاجهزة المعدنية (م / ٣٦٠) (الحربي)
٠١٠٦٥٢٦٩٥٦	—	42202314- 42217314	رئيس قطاع الجودة	م / أحمد مبروك محمد	حلوان لمحركات дизيل (م / ٩٠٩) (الحربي)
011-14284398	314	02-27841800	مهندسة جودة	م / وفاء شمس الدين عباس	حلوان للآلات والمعدات (م / ٩٩٩) (الحربي)