

2023/06/14م

اعلان عن تمديد مهلة قبول عروض عطاء عام لشراء معدات وأجهزة خاصة  
بالتفتيش الصناعي

تفيدكم لجنة العطاءات والمشتريات لشركة تقنية ليبيا للأعمال الهندسية، انه تقرر تمديد المهلة الزمنية لقبول عروض الشركات الراغبة في التقدم للعطاء أعلاه وذلك نظراً للتعديل الذي طرأ على جدول الكميات المراد شرائها وتوريدها كما هو مبين في الجداول أدناه،

عليه يطلب من المتقدمين تقديم عدد (3) خيارات لعروضهم التجارية المسعرة الخيار الأول لعدد جهاز واحد من كل نوع والخيار الثاني بعدد جهازين من كل نوع والخيار الثالث بعدد ثلاثة أجهزة من كل نوع وذلك قبل نهاية دوام يوم 2023/06/29م ولأي استفسار يرجى التواصل الكتابي مع عضو ومقرر لجنة العطاءات والمشتريات السيد/شمس الدين الحضيبي على البريد الالكتروني: [salhodairy@taknia.ly](mailto:salhodairy@taknia.ly)



\*ملاحظة: يرجى الاطلاع على شروط الدعوة المرفقة مع التمديد وجدول الكميات

المعدل



## PURCHASE REQUEST

### PHASED ARRAY TECHNIQUE

REQUEST No.: TAK/IID/NDT/001/23

DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Ahasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....1..... OF.....15.....

### Option one

QTY	PART NO.	DESCRIPTION
1	Q1000229	OmniScan X3-64 64:128PR and WeldSight Inspection/Analysis
1	U8100134	OMNI-A2-SPLIT128-4UT "Y" adaptor (splitter) with OmniScan connectors to support 2 phased array probes
1	U8750055	COBRA-K-4.5 Scanner Package COBRA scanner package for 0.84in to 4.5in OD pipes with encoder including a pair of flat SA15 wedges, a pair of all SA15 curved wedge models needed to cover the entire range (22 wedges total).
1	Q7500171	HSMT-FLEX2Second generation HSMT-Flex articulated semi-automated scanner for circumferential weld inspection of 4.5 inches pipe (O.D.) up to flat surfaces. Supports up to 4 UT probes or 2 UT probes plus 2 phased array probes
1	U8775296	ENCI-5-LM MINI ENCODERMini encoder, 5m cable, waterproof with Lemo connector for OmniScan MX2 and SX instruments. Includes bracket kit.
1	Q7750068	HydroFORM-K-AUT 7.5m HydroFORM corrosion mapping scanner kit for Automated inspection including water box system, carriage with 4 plastic wheels, one phased array probe (7.5L64-64X7-14-P-7.5-OM), irrigation parts, and 100 foam gaskets. For occasional manual scanning, the kit also includes a HydroFORM specific Mini-Wheel encoder
1	Q7500006	MAPSCANNER-MAG MapSCANNER hand scanner kit with magnetic wheels for encoded X-axis and Yaxis inspection of part with outside diameters from 4 inches up to flat. Includes one spring-loaded arms
1	Q3300321	5L64-32X10-A32-P-5-OM Standard Phased Array Probe, 5.0 MHz Linear Array, 64 Elements, 32x10 mm Total Active Aperture, 0.5 mm Pitch, 10 mm Elevation, A32 Case Type, Matching to Rexolite, PVC Sheathing, 5 m Cable Length,



		Omniscan Connector
1	Q3300256	A32-N55S-IHC Standard Wedge for Angle Beam PhasedArray Probe Type A32, Normal scan, in Steel, Shear Wave, with IHC option (Irrigation, Holes and Carbides).
1	Q3300257	SA32-N55S-IHC-AOD4.5 Standard Wedge for Angle Beam PhasedArray Probe Type A32, matching from 4 inches to 4.5 inches Pipe inspection of Circumferential Welds.
1	Q3300258	SA32-N55S-IHC-AOD5.563 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 5 inches to 5.563 inches for inspection of Circumferential Welds.
1	Q3300259	SA32-N55S-IHC-AOD6.625 Standard Wedge for Angle Beam PhasedArray matching from 5.563 inches to 6.625 inches Pipe for inspection of Circumferential welds.
1	Q3300260	SA32-N55S-IHC-AOD8.625 Standard Wedge for Angle Beam PhasedArray matching f 7.625 inches to 8.625 inches Pipe for inspection of Circumferential weld
1	Q3300261	SA32-N55S-IHC-AOD10.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 8.625 inches Pipe for inspection of Circumferential Welds
1	Q3300262	SA32-N55S-IHC-AOD12.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 10.75 inches to 12.75 inches Axial Pipe for inspection of Circumferential Welds.
1	Q3300263	SA32-N55S-IHC-AOD16 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 12.75 inches to 16 Pipe for inspection of Circumferential Welds.
1	Q3300264	SA32-N55S-IHC-AOD24 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 16 inches to 24 inches Pipe for inspection of Circumferential Welds.
1	Q3300824	5DL32-9.6X10-A10-P-5- OM PROBE Custom Phased Array Probe, 5 MHz Dual Linear Array, Dual 16 Element Transducers.
1	U8720886	SA10-N55S-IHC Standard PA Standard wedge for phased-array probe A10, normal scan.
1	U8720778	SA10-N55S-IHC-AOD4 WEDGE Standard wedge for phased-array probe A10, normal scan, curvature matching 4 inches (OD) pipe for inspection of circumferential welds
1	U8720779	SA10-N55S-IHC-AOD5.563 WEDGE Standard wedge for phased-array probe A10, wedge features a curvature matching 5.563 inches (OD) pipe for inspection of circumferential welds
1	U8720780	SA10-N55S-IHC-AOD6.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 6.625 inches (OD) pipe for inspection of circumferential welds
1	U8720781	SA10-N55S-IHC-AOD8.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 8.625 inches (OD) pipe for inspection of circumferential welds



	U8720782	SA10-N55S-IHC-AOD10.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 10.75 inches diameter (OD) pipe for inspection of circumferential welds
1	U8720783	SA10-N55S-IHC-AOD12.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 12.75 inches (OD) pipe for inspection of circumferential welds
1	U8721014	SA10-N55S-AOD14 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides).The wedge features a curvature matching 14 inches (OD) pipe for inspection of circumferential welds
1	U8721015	SA10-N55S-AOD16 STANDARD WEDGE Custom wedge for angle beam phasedarray probe A10, Normal Scan, 55? degree shear wave, plain wedge (without irrigation, holes, carbides).The wedge features a curvature matching 12 inches to 16 inches (OD) pipe for inspection of circumferential welds
1	U8721016	SA10-N55S-AOD18 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 18 inches (OD) pipe for inspection of circumferential welds
1	U8721017	SA10-N55S-AOD20 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 20 inches (OD) pipe for inspection of circumferential weld
1	Q3300204	4DM16X2SM-16X6-A27-P5-OM Custom Phased Array Probe, 4.0 MHz Dual 1.5 D Matrix Array, Two 16x2 Element Arrays Incremented along Secondary Axis with Elements Mirrored, 16x6 mm Total Active Apertures, 1.0 mm Primary Pitch, 3.0 mm Secondary Pitch, A27 Case Type, Impedance Matched to Rexolite, PVC Sheathing, 5 m Cable Length, 1X Omniscan Connector
1	Q7200129	SA27-DN55L-KIT One 55°L flat wedge plus 11 curves 55°L wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes. Focus Dept design to be at 15mm from the surface in steel.
1	Q7200130	SA27-CR-KIT One Creeping wave flat wedge plus 11 curved creeping wave wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes.
1	Q3301041	2.25DL32-32X12-A26-P-5- OM Standard Phased Array Probe, 2.25 MHz Dual Linear Array, Dual 32 Element Transducers, 32x12 mm Total Active Aperture, 1.00 mm Pitch, 12 mm Elevation, A26 Case Type, Impedance Matching to Rexolite, PVC



		Sheathing, 5 m Cable Length, 1X Omniscan Connector
1	Q7201894	SA26-DN55L-FD25-SS-IHCAOD6.62 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm). Axial (AOD) Pipe for inspection of Circumferential Welds.
1	Q7201895	SA26-DN55L-FD25-SS-IHCAOD8.625 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm) to 8.625 inches (219.1 mm) Axial (AOD) Pipe for inspection of Circumferential Welds
1	Q7201896	SA26-DN55L-FD25-SS-IHCAOD10.75 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides), 10.75 in. (273.05 mm) and can range from 224.5-273.05 mm Axial (AOD) Pipe for inspection of Circumferential Welds.
1	Q7201897	SA26-DN55L-FD25-SS-IHCAOD12 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides)
1	Q7202010	SA26-DN55L-FD25-SS-IHCAOD14 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides) 14in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
1	Q7201173	SA26-DN55L-FD25-SS-IHCAOD16 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). 16in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
1	Q7202467	SA26-DN55L-FD25-SS-IHCAOD18 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). This wedge features a curvature matching 18in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
1	U8435019	C542-SM : Angle Beam Transduce Angle Beam Transducer, 2.25MHz, 0.25 Element Diameter, CentraScan Case Style and Straight microdot Connector
1	U8435021	C544-SM : Angle Beam Transduce Centrascan Composite Angle Beam Transducer, 10.0MHz, 0.25Element Diameter, Miniature Screw-In Case Style and Straight microdot Connector
2	U8710141	ST1-45L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 45° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).

2	U8710151	ST1-60L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 60° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
2	U8710161	ST1-70L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 70° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
1	U8800624	LCM-74-5M: Cable Cable, Lemo 00 to Microdot, RG174, 5 meters. Gage Single, Flaw Detector Single.
1	U8767077	OMNI-A-CHRG : External battery External battery charger.
1	U8760010	OMNI-A-BATT : Omniscan battery Lithium Ion battery pack for OmniScan MX / MX2 / SX / X3
		ASNT PAUT level II training (Each candidate) 18 days for five candidates
		Operational training for MX3 (Per day) 10 days for 5 candidates
ORIGINATOR BY:		VERIFIED BY:
Assets Integrity Specialist		Actin Industrial Inspection Manager





**PURCHASE REQUEST DATE:**

REQUEST No.: TAK/HD/NDT/001/23

14 / 06 / 2023

**PHASED ARRAY  
TECHNIQUE**

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET .....6..... OF.....15.....

**Option Two**

QTY	PART NO.	DESCRIPTION
2	Q1000229	OmniScan X3-64 64:128PR and WeldSight Inspection/Analysis
2	U8100134	OMNI-A2-SPLIT128-4UT "Y" adaptor (splitter) with OmniScan connectors to support 2 phased array probes
2	U8750055	COBRA-K-4.5 Scanner Package COBRA scanner package for 0.84in to 4.5in OD pipes with encoder including a pair of flat SA15 wedges, a pair of all SA15 curved wedge models needed to cover the entire range (22 wedges total).
2	Q7500171	HSMT-FLEX2Second generation HSMT-Flex articulated semi-automated scanner for circumferential weld inspection of 4.5 inches pipe (O.D.) up to flat surfaces. Supports up to 4 UT probes or 2 UT probes plus 2 phased array probes
2	U8775296	ENC1-5-LM MINI ENCODERMini encoder, 5m cable, waterproof with Lemo connector for OmniScan MX2 and SX instruments. Includes bracket kit.
2	Q7750068	HydroFORM-K-AUT 7.5m HydroFORM corrosion mapping scanner kit for Automated inspection including water box system, carriage with 4 plastic wheels, one phased array probe (7.5L64-64X7-14-P-7.5-OM), irrigation parts, and 100 foam gaskets. For occasional manual scanning, the kit also includes a HydroFORM specific Mini-Wheel encoder
2	Q7500006	MAPSCANNER-MAG MapSCANNER hand scanner kit with magnetic wheels for encoded X-axis and Yaxis inspection of part with outside diameters from 4 inches up to flat. Includes one spring-loaded arms
2	Q3300321	5L64-32X10-A32-P-5-OM Standard Phased Array Probe, 5.0 MHz Linear Array, 64 Elements, 32x10 mm Total Active Aperture, 0.5 mm Pitch, 10 mm Elevation, A32 Case Type, Matching to Rexolite, PVC Sheathing, 5 m Cable Length, Omniscan Connector



2	Q3300256	A32-N55S-IHC Standard Wedge for Angle Beam PhasedArray Probe Type A32, Normal scan, in Steel, Shear Wave, with IHC option (Irrigation, Holes and Carbides).
2	Q3300257	SA32-N55S-IHC-AOD4.5 Standard Wedge for Angle Beam PhasedArray Probe Type A32, matching from 4 inches to 4.5 inches Pipe inspection of Circumferential Welds.
2	Q3300258	SA32-N55S-IHC-AOD5.563 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 5 inches to 5.563 inches for inspection of Circumferential Welds.
2	Q3300259	SA32-N55S-IHC-AOD6.625 Standard Wedge for Angle Beam PhasedArray matching from 5.563 inches to 6.625 inches Pipe for inspection of Circumferential welds.
2	Q3300260	SA32-N55S-IHC-AOD8.625 Standard Wedge for Angle Beam PhasedArray matching f 7.625 inches to 8.625 inches Pipe for inspection of Circumferential weld
2	Q3300261	SA32-N55S-IHC-AOD10.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 8.625 inches Pipe for inspection of Circumferential Welds
2	Q3300262	SA32-N55S-IHC-AOD12.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 10.75 inches to 12.75 inches Axial Pipe for inspection of Circumferential Welds.
2	Q3300263	SA32-N55S-IHC-AOD16 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 12.75 inches to 16 Pipe for inspection of Circumferential Welds.
2	Q3300264	SA32-N55S-IHC-AOD24 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 16 inches to 24 inches Pipe for inspection of Circumferential Welds.
2	Q3300824	5DL32-9.6X10-A10-P-5- OM PROBE Custom Phased Array Probe, 5 MHz Dual Linear Array, Dual 16 Element Transducers.
2	U8720886	SA10-N55S-IHC Standard PA Standard wedge for phased-array probe A10, normal scan.
2	U8720778	SA10-N55S-IHC-AOD4 WEDGE Standard wedge for phased-array probe A10, normal scan, curvature matching 4 inches (OD) pipe for inspection of circumferential welds
2	U8720779	SA10-N55S-IHC-AOD5.563 WEDGE Standard wedge for phased-array probe A10, wedge features a curvature matching 5.563 inches (OD) pipe for inspection of circumferential welds
2	U8720780	SA10-N55S-IHC-AOD6.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 6.625 inches (OD) pipe for inspection of circumferential welds
2	U8720781	SA10-N55S-IHC-AOD8.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 8.625 inches (OD) pipe for inspection of circumferential welds





2	U8720782	SA10-N55S-IHC-AOD10.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 10.75 inches diameter (OD) pipe for inspection of circumferential welds
2	U8720783	SA10-N55S-IHC-AOD12.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 12.75 inches (OD) pipe for inspection of circumferential welds
2	U8721014	SA10-N55S-AOD14 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides).The wedge features a curvature matching 14 inches (OD) pipe for inspection of circumferential welds
2	U8721015	SA10-N55S-AOD16 STANDARD WEDGE Custom wedge for angle beam phasedarray probe A10, Normal Scan, 55? degree shear wave, plain wedge (without irrigation, holes, carbides).The wedge features a curvature matching 12 inches to 16 inches (OD) pipe for inspection of circumferential welds
2	U8721016	SA10-N55S-AOD18 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 18 inches (OD) pipe for inspection of circumferential welds
2	U8721017	SA10-N55S-AOD20 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 20 inches (OD) pipe for inspection of circumferential weld
2	Q3300204	4DM16X2SM-16X6-A27-P5-OM Custom Phased Array Probe, 4.0 MHz Dual 1.5 D Matrix Array, Two 16x2 Element Arrays Incremented along Secondary Axis with Elements Mirrored, 16x6 mm Total Active Apertures, 1.0 mm Primary Pitch, 3.0 mm Secondary Pitch, A27 Case Type, Impedance Matched to Rexolite, PVC Sheathing, 5 m Cable Length, 1X Omniscan Connector
2	Q7200129	SA27-DN55L-KIT One 55°L flat wedge plus 11 curves 55°L wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes. Focus Dept design to be at 15mm from the surface in steel.
2	Q7200130	SA27-CR-KIT One Creeping wave flat wedge plus 11 curved creeping wave wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes.
2	Q3301041	2.25DL32-32X12-A26-P-5- OM Standard Phased Array Probe, 2.25 MHz Dual Linear Array, Dual 32 Element Transducers, 32x12 mm Total Active Aperture, 1.00 mm Pitch, 12 mm Elevation, A26 Case Type, Impedance Matching to Rexolite, PVC Sheathing, 5 m Cable Length, 1X Omniscan Connector



2	Q7201894	SA26-DN55L-FD25-SS-IHCAOD6.62 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm). Axial (AOD) Pipe for inspection of Circumferential Welds.
2	Q7201895	SA26-DN55L-FD25-SSIHCAOD8.625 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm) to 8.625 inches (219.1 mm) Axial (AOD) Pipe for inspection of Circumferential Welds
2	Q7201896	SA26-DN55L-FD25-SSIHCAOD10.75 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides), 10.75 in. (273.05 mm) and can range from 224.5-273.05 mm Axial (AOD) Pipe for inspection of Circumferential Welds.
2	Q7201897	SA26-DN55L-FD25-SS-IHCAOD12 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides)
2	Q7202010	SA26-DN55L-FD25-SS-IHCAOD14 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides 14in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
2	Q7201173	SA26-DN55L-FD25-SS-IHCAOD16 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). 16in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
2	Q7202467	SA26-DN55L-FD25-SS-IHCAOD18 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). This wedge features a curvature matching 18in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
2	U8435019	C542-SM : Angle Beam Transduce Angle Beam Transducer, 2.25MHz, 0.25 Element Diameter, CentraScan Case Style and Straight microdot Connector
2	U8435021	C544-SM : Angle Beam Transduce Centrascan Composite Angle Beam Transducer, 10.0MHz, 0.25Element Diameter, Miniature Screw-In Case Style and Straight microdot Connector
4	U8710141	ST1-45L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 45° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).

4	U8710151	STI-60L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 60° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
4	U8710161	STI-70L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 70° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
2	U8800624	LCM-74-5M: Cable Cable, Lemo 00 to Microdot, RG174, 5 meters. Gage Single, Flaw Detector Single.
2	U8767077	OMNI-A-CHRG : External battery External battery charger.
2	U8760010	OMNI-A-BATT : Omniscan battery Lithium Ion battery pack for OmniScan MX / MX2 / SX / X3
		ASNT PAUT level II training (Each candidate) 18 days for five candidates
		Operational training for MX3 (Per day) 10 days for 5 candidates
ORIGINATOR BY:		VERIFIED BY:
Assets Integrity Specialist		Actin Industrial Inspection Manager

*M. [Signature]*

*[Signature]*





## PURCHASE REQUEST

### PHASED ARRAY TECHNIQUE

REQUEST No.: TAK/IID/NDT/001/23

DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....11..... OF.....15.....

### Option Three

QTY	PART NO.	DESCRIPTION
3	Q1000229	OmniScan X3-64 64:128PR and WeldSight Inspection/Analysis
3	U8100134	OMNI-A2-SPLIT128-4UT "Y" adaptor (splitter) with OmniScan connectors to support 2 phased array probes
3	U8750055	COBRA-K-4.5 Scanner Package COBRA scanner package for 0.84in to 4.5in OD pipes with encoder including a pair of flat SA15 wedges, a pair of all SA15 curved wedge models needed to cover the entire range (22 wedges total).
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3	U8775296	ENC1-5-LM MINI ENCODER Mini encoder, 5m cable, waterproof with Lemo connector for OmniScan MX2 and SX instruments. Includes bracket kit.
3	Q7750068	HydroFORM-K-AUT 7.5m HydroFORM corrosion mapping scanner kit for Automated inspection including water box system, carriage with 4 plastic wheels, one phased array probe (7.5L64-64X7-14-P-7.5-OM), irrigation parts, and 100 foam gaskets. For occasional manual scanning, the kit also includes a HydroFORM specific Mini-Wheel encoder
3	Q7500006	MAPSCANNER-MAG MapSCANNER hand scanner kit with magnetic wheels for encoded X-axis and Yaxis inspection of part with outside diameters from 4 inches up to flat. Includes one spring-loaded arms
3	Q3300321	5L64-32X10-A32-P-5-OM Standard Phased Array Probe, 5.0 MHz Linear Array, 64 Elements, 32x10 mm Total Active Aperture, 0.5 mm Pitch, 10 mm Elevation, A32 Case Type, Matching to Rexolite, PVC Sheathing, 5 m Cable Length, Omniscan Connector



3	Q3300256	A32-N55S-IHC Standard Wedge for Angle Beam PhasedArray Probe Type A32, Normal scan, in Steel, Shear Wave, with IHC option (Irrigation, Holes and Carbides).
3	Q3300257	SA32-N55S-IHC-AOD4.5 Standard Wedge for Angle Beam PhasedArray Probe Type A32, matching from 4 inches to 4.5 inches Pipe inspection of Circumferential Welds.
3	Q3300258	SA32-N55S-IHC-AOD5.563 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 5 inches to 5.563 inches for inspection of Circumferential Welds.
3	Q3300259	SA32-N55S-IHC-AOD6.625 Standard Wedge for Angle Beam PhasedArray matching from 5.563 inches to 6.625 inches Pipe for inspection of Circumferential welds.
3	Q3300260	SA32-N55S-IHC-AOD8.625 Standard Wedge for Angle Beam PhasedArray matching f 7.625 inches to 8.625 inches Pipe for inspection of Circumferential weld
3	Q3300261	SA32-N55S-IHC-AOD10.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 8.625 inches Pipe for inspection of Circumferential Welds
3	Q3300262	SA32-N55S-IHC-AOD12.75 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 10.75 inches to 12.75 inches Axial Pipe for inspection of Circumferential Welds.
3	Q3300263	SA32-N55S-IHC-AOD16 Standard Wedge for Angle Beam PhasedArray Probe A32, curvature matching from 12.75 inches to 16 Pipe for inspection of Circumferential Welds.
3	Q3300264	SA32-N55S-IHC-AOD24 Standard Wedge for Angle Beam PhasedArray Probe A32 matching from 16 inches to 24 inches Pipe for inspection of Circumferential Welds.
3	Q3300824	5DL32-9.6X10-A10-P-5- OM PROBE Custom Phased Array Probe, 5 MHz Dual Linear Array, Dual 16 Element Transducers.
3	U8720886	SA10-N55S-IHC Standard PA Standard wedge for phased-array probe A10, normal scan.
3	U8720778	SA10-N55S-IHC-AOD4 WEDGE Standard wedge for phased-array probe A10, normal scan, curvature matching 4 inches (OD) pipe for inspection of circumferential welds
3	U8720779	SA10-N55S-IHC-AOD5.563 WEDGE Standard wedge for phased-array probe A10, wedge features a curvature matching 5.563 inches (OD) pipe for inspection of circumferential welds
3	U8720780	SA10-N55S-IHC-AOD6.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 6.625 inches (OD) pipe for inspection of circumferential welds
3	U8720781	SA10-N55S-IHC-AOD8.625 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 8.625 inches (OD) pipe for inspection of circumferential welds



3	U8720782	SA10-N55S-IHC-AOD10.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 10.75 inches diameter (OD) pipe for inspection of circumferential welds
3	U8720783	SA10-N55S-IHC-AOD12.75 WEDGE Standard wedge for phased-array probe A10, normal scan, 55-degree shear wave, with IHC option (with irrigation, holes and carbides). The wedge features a curvature matching 12.75 inches (OD) pipe for inspection of circumferential welds
3	U8721014	SA10-N55S-AOD14 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides).The wedge features a curvature matching 14 inches (OD) pipe for inspection of circumferential welds
3	U8721015	SA10-N55S-AOD16 STANDARD WEDGE Custom wedge for angle beam phasedarray probe A10, Normal Scan, 55? degree shear wave, plain wedge (without irrigation, holes, carbides).The wedge features a curvature matching 12 inches to 16 inches (OD) pipe for inspection of circumferential welds
3	U8721016	SA10-N55S-AOD18 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 18 inches (OD) pipe for inspection of circumferential welds
3	U8721017	SA10-N55S-AOD20 STANDARD WEDGE Standard wedge for phased-array probe A10, lateral scan, 55-degree shear wave, plain wedge (without irrigation, holes and carbides). The wedge features a curvature matching 20 inches (OD) pipe for inspection of circumferential weld
3	Q3300204	4DM16X2SM-16X6-A27-P5-OM Custom Phased Array Probe, 4.0 MHz Dual 1.5 D Matrix Array, Two 16x2 Element Arrays Incremented along Secondary Axis with Elements Mirrored, 16x6 mm Total Active Apertures, 1.0 mm Primary Pitch, 3.0 mm Secondary Pitch, A27 Case Type, Impedance Matched to Rexolite, PVC Sheathing, 5 m Cable Length, 1X Omniscan Connector
3	Q7200129	SA27-DN55L-KIT One 55°L flat wedge plus 11 curves 55°L wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes. Focus Dept design to be at 15mm from the surface in steel.
3	Q7200130	SA27-CR-KIT One Creeping wave flat wedge plus 11 curved creeping wave wedges to cover nominal pipe sizes (NPS) with outside diameters from 3.5in to 48in. To fit A27 Dual Matrix probes.
3	Q3301041	2.25DL32-32X12-A26-P-5- OM Standard Phased Array Probe, 2.25 MHz Dual Linear Array, Dual 32 Element Transducers, 32x12 mm Total Active Aperture, 1.00 mm Pitch, 12 mm Elevation, A26 Case Type, Impedance Matching to Rexolite, PVC Sheathing, 5 m Cable Length, 1X Omniscan Connector



3	Q7201894	SA26-DN55L-FD25-SS-IHCAOD6.62 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm). Axial (AOD) Pipe for inspection of Circumferential Welds.
3	Q7201895	SA26-DN55L-FD25-SSIHCAOD8.625 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides). The wedge features a curvature matching from 6.625 inches (168.3 mm) to 8.625 inches (219.1 mm) Axial (AOD) Pipe for inspection of Circumferential Welds
3	Q7201896	SA26-DN55L-FD25-SSIHCAOD10.75 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides), 10.75 in. (273.05 mm) and can range from 224.5-273.05 mm Axial (AOD) Pipe for inspection of Circumferential Welds.
3	Q7201897	SA26-DN55L-FD25-SS-IHCAOD12 Wedge for Dual Phased Array probe A26, Normal Scan, in Stainless Steel, Longitudinal Wave, Focus Depth of 25 mm, with IHC option (irrigation, holes and carbides)
3	Q7202010	SA26-DN55L-FD25-SS-IHCAOD14 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides) 14in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
3	Q7201173	SA26-DN55L-FD25-SS-IHCAOD16 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). 16in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
3	Q7202467	SA26-DN55L-FD25-SS-IHCAOD18 Wedge for Dual A26 probe, Normal scan, in Stainless Steel, Longitudinal Wave, Focus depth of 25mm, with IHC option (Irrigation, Holes and Carbides). This wedge features a curvature matching 18in (355.6 mm) Axial (AOD) Pipe for inspection of Circumferential Welds.
3	U8435019	C542-SM : Angle Beam Transduce Angle Beam Transducer, 2.25MHz, 0.25 Element Diameter, CentraScan Case Style and Straight microdot Connector
3	U8435021	C544-SM : Angle Beam Transduce Centrascan Composite Angle Beam Transducer, 10.0MHz, 0.25Element Diameter, Miniature Screw-In Case Style and Straight microdot Connector
6	U8710141	ST1-45L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 45° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).

6	U8710151	STI-60L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 60° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
6	U8710161	STI-70L-IHS Standard Wedge for Conventional TOFD UT Probe, Panametrics Type, Element Diameter, 70° Refracted Angle in Steel, Longitudinal Wave, with IHS Option (Irrigation, Holes and SS frame).
3	U8800624	LCM-74-5M: Cable Cable, Lemo 00 to Microdot, RG174, 5 meters. Gage Single, Flaw Detector Single.
3	U8767077	OMNI-A-CHRG : External battery External battery charger.
3	U8760010	OMNI-A-BATT : Omniscan battery Lithium Ion battery pack for OmniScan MX / MX2 / SX / X3
		ASNT PAUT level II training (Each candidate) 18 days for five candidates
		Operational training for MX3 (Per day) 10 days for 5 candidates
ORIGINATOR BY:		VERIFIED BY:
Assets Integrity Specialist		Actin Industrial Inspection Manager

*M. ...*

*[Signature]*







## PURCHASE REQUEST

Magnetic Flux Leakage  
Technique  
(MFL)

REQUEST No.: TAK/IID/NDT/002/23

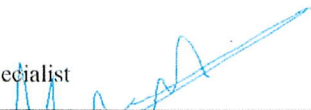
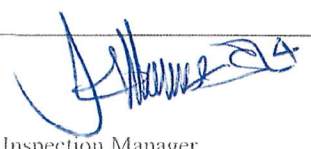
DATE: 14/ 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....1..... OF.....3.....

### Option One

QTY	PART NO.	DESCRIPTION
1		SILVERWING floromap X Eddyfi
		ASNT NDT level I&II ( per Candidate) for 5 candidates
		5 days Silverwing based training and examination for 5 candidates.
ORIGINATOR BY:  Assets Integrity Specialist 		VERIFIED BY:  Acting Industrial Inspection Manager



**PURCHASE REQUEST DATE:**

Magnetic Flux Leakage  
Technique  
(MFL)

REQUEST No.: TAK/IID/NDT/002/23

14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....2..... OF.....3.....

**Option Two**

QTY	PART NO.	DESCRIPTION
2		SILVERWING floromap X Eddyfi
		ASNT NDT level I&II ( per Candidate) for 5 candidates
		5 days Silverwing based training and examination for 5 candidates.
ORIGINATOR BY: Assets Integrity Specialist		VERIFIED BY: Acting Industrial Inspection Manager



## PURCHASE REQUEST

Magnetic Flux Leakage  
Technique  
(MFL)

REQUEST No.: TAK/ID/NDT/002/23

DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET .....3..... OF .....3.....

### Option Three

QTY	PART NO.	DESCRIPTION
3		SILVERWING floromap X Eddyfi
		ASNT NDT level I&II ( per Candidate) for 5 candidates
		5 days Silverwing based training and examination for 5 candidates.
ORIGINATOR BY: Assets Integrity Specialist		VERIFIED BY: Acting Industrial Inspection Manager



**PURCHASE REQUEST**

**REMOTE MOTION  
SCANNER  
(RMS)**

REQUEST No.: TAK/IID/NDT/003/23

DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....1..... OF.....3.....

**Option One**

QTY	PART NO.	DESCRIPTION
1		- SILVERWING RMS PAUT Eddyfi
		5 days RMS based training and examination for 5 candidates.
		2 weeks level I&II ASNT course for 5 candidates
ORIGINATED BY:  Assets Integrity Specialist		VERIFIED BY:  Acting Industrial Inspection Manager

*M. P. ...*

*J. ...*



## PURCHASE REQUEST

REMOTE MOTION  
SCANNER  
(RMS)

REQUEST No.: TAK/IID/NDT/003/23


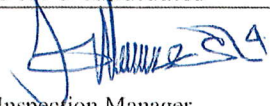
DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET .....2..... OF.....3.....

### Option Two

QTY	PART NO.	DESCRIPTION
2		- SILVERWING RMS PAUT Eddyfi
		5 days RMS based training and examination for 5 candidates.
		2 weeks level I&II ASNT course for 5 candidates
ORIGINATED BY: Assets Integrity Specialist 		VERIFIED BY:  Acting Industrial Inspection Manager



**PURCHASE REQUEST**

**REMOTE MOTION  
SCANNER  
(RMS)**

REQUEST No.: TAK/IID/NDT/003/23


DATE: 14 / 06 / 2023

DELIVER TO: Taknia Libya Engineering  
Company 167 Alnasser street Tripoli Libya

DELIVER DATE: a.s.a.p

SHEET.....3..... OF.....3.....

**Option Three**

QTY	PART NO.	DESCRIPTION
3		- SILVERWING RMS PAUT Eddyfi
		5 days RMS based training and examination for 5 candidates.
		2 weeks level I&II ASNT course for 5 candidates
ORIGINATED BY:  Assets Integrity Specialist		VERIFIED BY:  Acting Industrial Inspection Manager

*M. P. A.*