TECHNICAL SPECIFICATIONS COMPLIANCE

Tender Ref.	Date of issue of Bid	Date of Bid
	Project	THPA, Thessaloniki, Greece
	Bidder	Name

ITEM	DESCRIPTION AND REQUIREMENTS	COMPLIANCE or PROPOSAL	DEVIATIONS if any	COMMENTS
1. SCOPE OF SUPPLY				
Introduction				
Number of Magnetic Systems	1			
General Description	Telescopic Beam with suspended electromagnets about Lifting multiple strapped steel plates			
Manufacturer		Reference of the Bidder		
Model		Reference of the Bidder		
Country of manufacturing		Reference of the Bidder		
Installation	Generally on spreader of Konecranes Reach-Stackers	Yes/No		
Mounting	On Spreader with twist locks	Yes/No		
Power Source	Diesel Generator on Beam	Yes/No		
Delivery Time	18 weeks after order and final technical drawings confirmation	Yes/No		
Place of Delivey	In Thessaloniki Port (DAP), assembled, commissioned, ready for use	Yes/No		
Certification	Compliance with Greek regulation, CE Declaration	Yes/No		
Options				
Option 1	Autonomous System	Yes/No		
Option 2	Adjustable Telescopic Beam	Yes/No		
Option 3	Emergency Power Supply from Batteries	Yes/No		
Option 4	Adjustable Magnetic Force	Yes/No		
Option 5	Multisheet lifting Capability	Yes/No		
Option 6	Remote Control	Yes/No		
2. DESIGN CRITERIA				
Applicable standards and codes				
Certification	CE marking, compliance with Machinery Directive 2006/42/EC or other more applicable	Yes/No		
Structural steel	EN 10025, type S355J0 , S355J2, S355JR or equivalent	Yes/No		
Electrical installations	IEC standards, Low Voltage 2014/35/UE	Yes/No		
Hydraulic installations	ISO 5781 (2016) ; ISO 4413 (2010)	Yes/No		
Surface preparation and Painting	SSPC, ISO 8501-1, ISO 12944	Yes/No		
Welding	AWS, BSI, DIN	Yes/No		
Noise	ANSI S12.33, ISO 3742 , Noise test code	Yes/No		
Measuring units	International unit system	Yes/No		
HSE	OSHA, ISO 1182, ISO 2631	Yes/No		
Special Regulations	EN 13155, 2014/30/VE directive , DIN-VDE0580	Yes/No		
Quality process	ISO 9001 latest edition, ISO 14001 or equivalent, ELOT 1801: 2008 /OHSAS 18001: 2007 or 45001: 2018	Yes/No		
Environmental conditions				
Climate type	Mediterranean climate ; Exposure to snow (up to 20 cm) and rarely ice during winter months	Yes/No		
Atmosphere	Salt laden marine environment with fine sand	Yes/No		
Temperature	Ranging from -5°C to 40°C (direct sunlight)	Yes/No		
Relative humidity	Ranging from 50 to 100%	Yes/No		
Max wind speed during operations	24 m/s	Yes/No		
3. MAIN SPECIFICATIONS				
Main dimensions				
Max Total Dead Weight (kg)	25000. The minimum dead weight will be evaluated.	proposal		
Min Number of Suspended Magnets	4	proposal		
Min Sheet Lifting Capacity (kg)	20.000	proposal		
Min Steel Sheet Width for lifting (mm)	1.500	proposal		
Max Steel Sheet Width for lifting (mm)	3.000	proposal		
Min Steel Sheet Length for lifting (mm)	6.000	proposal		
Max Steel Sheet Length for lifting (mm)	18.000	proposal		
Min Steel Sheet Thickness for lifting (mm)	5	proposal		
Max Steel Sheet Thickness for lifting (mm)	30	proposal		
Total Min Multi-Sheet Thickness for lifting (mm) of strapped steel plates	100. The more it is proposed , the maximum it will be evaluated.	proposal		
Max expected air-gap (mm)	10	proposal		
4. MAIN COMPONENTS				
4.1 Telescopic Lifting Beam				
Min ideal Length of Beam (mm)	6.000	proposal		
Max ideal Length of Beam (mm)	12.000	proposal		
Suspension of beam from machine	Suspension positions on top for standard container spreader via twist locks	Yes/No		
Suspension of magnets from beam	Suspension positions on bottom equal to the number of magnets	Yes/No		
Mounting of magnets on beam	Suspended not fixed	Yes/No		
Dead weight of Beam		proposal		
Colour	RAL 1004, yellow	Yes/No		
Additional drawings & data required	To be submited by the Seller	Yes/No		
4.2 Magnets				
Type of Magnets	To be specified by the Seller	proposal		
Number of Magnets		proposal		
Magnet Length (mm)		proposal		
Magnet Width (mm)		proposal		
Distances between magnets in closed configuration (mm)		proposal		
Distances between magnets in open configuration (mm)		proposal		
Dead Weight of Magnet (kg)		proposal		
Total Dead Weight of Magnets (kg)		proposal		
Total Pull-Off Strenth (DIN-VDE0580) warm magnets		proposal		
Total Lifting Capacity (DIN-VDE0580) warm magnets		proposal		
Magnetic Force Adjustment capability	To be specified by the Seller. The Max power will be evaluated.	proposal		
Partial Magnet Energization capability	To be specified by the Seller	proposal		
Min. Magnetic Field Depth (mm)	90	Yes/No		
Electric Power (kW)		proposal		
Electric Voltage (V/DC)	220	Yes/No		
Electric Current (A)		proposal		
Type of coil and insulation	anodized aluminum	Yes/No		
Insulation compound		proposal		
Insulation class	Min ""N" => 200C according to IEC 60085:2009	Yes/No		
ED (duty cycle)	75% for cold application	Yes/No		
Electrical connection	Fixed terminal box	Yes/No		
Type of Suspension	Via chains	Yes/No		
Colour	RAL 1004, yellow	Yes/No		
Additional drawings & data required	To be submited by the Seller	Yes/No		
4.3 Electronic Controler for Magnets				
Controler Cabinet Dimentions (mm)		proposal		
Controler Cabinet Weight (kg)		proposal		
Power Transformer Cabinet Dimentions (mm)		proposal		
Power Transformer Cabinet weight (kg) *if different*		proposal		
Output Power (kW)	Min: 20 kW	Yes/No		
Output Voltage	Min: 220V DC	Yes/No		
Mounting on lifting beam	Shock absorbing bases	Yes/No		
Insulation Class	IP54	Yes/No		
Applied regulations	Low Voltage 2014/35/VE, Electromagnetic Compatibility 2014/30/VE	Yes/No		
Protection Devices	To be specified by the Seller	proposal		
Additional Features	To be specified by the Seller	proposal		
4.4 Diesel Generator - Normal Power Supply				
Power Supply for Electro Magnets	Diesel Driven Engine	Yes/No		
Emission regulation	EU Stage 5	Yes/No		
Engine Manufacture / Type	To be specified by the Seller	proposal		
Characteristics	Turbo-charged 4 stroke, water cooled, auto starter	Yes/No		
Cylinders	To be specified by the Seller	Yes/No		
Output power	Min. 20 kW	proposal		
Fuel tank capacity (lt)	Min. for 8hour operation	proposal		
Safety Features	Safety switches for Overheating & Low oil, etc.	Yes/No		
Display	Operation Data & Error Messages	Yes/No		
Air inlet	diesel Driven Engine	Yes/No		
Exhaust system	Heavy duty manufactured from stainless steel 316L	Yes/No		
AC Generator Voltage (V - 50Hz)		proposal		
Generator Manfacturer / Type	To be specified by the Seller	proposal		
Control Unit	PLC Electronic Control Unit (ECU)	Yes/No		
Safety Features	Short Circuit & Over Current Identification	Yes/No		
Mounting Location	On beam frame with protective covers and vibration absorbing bases	Yes/No		
Overal Dimentions of Power Unit (L x W x H in mm)	To be specified by the Seller	proposal		
Overal Weight of Power Unit (in kg)	To be specified by the Seller	proposal		
Additional Features	To be specified by the Seller	proposal		
Additional drawings & data required	To be submited by the Seller	Yes/No		
4.5 Emergency Power Supply				
Battery Type		proposal		
Number of Batteries		proposal		
Battery Capacity	The max Capacity will be evaluated.	proposal		
Nominal Voltage (V/DC)	220	Yes/No		
Min. Holding Time (min) at 20C	10	Yes/No		

Ambient Temperature	-5C to +40C	Yes/No		
Steel Casing	To be specified by the Seller	Yes/No		
Suitable for Marine External Environment	To be specified by the Seller	Yes/No		
Resistance in Shocks	To be specified by the Seller	Yes/No		
Maintenance Free	To be specified by the Seller	Yes/No		
Automatic turn on in case of power failure	To be specified by the Seller	Yes/No		
Electronic auto-charge	To be specified by the Seller	Yes/No		
Low Voltage Warning Signals	To be specified by the Seller	Yes/No		
Additional Features	To be specified by the Seller	Yes/No		
Additional drawings & data required	To be submited by the Seller	Yes/No		
4.6 Remote Control				
Magnet Operation Functions	All	Yes/No		
Diesel Engine Operations	Start & Stop	Yes/No		
Power Supply (1)	From rechargable batteries	Yes/No		
Power Supply (2)	From 24V reach stacker plug	Yes/No		
Integrated Display for main functions	To be specified by the Seller	Yes/No		
Emergency Button	To be specified by the Seller	Yes/No		
4.7 Autonomus System				
Magnetic System	Operation by all machines with standard container spreader & sufficient lifting capacity	Yes/No		
Ready for Use	After delivery and basic assembly	Yes/No		
All equipment	Integrated at lifting beam frame	Yes/No		
Max Total Dead Weight of Autonomus System (kg)	25.000	Yes/No		

6. PAINTING, LOGOS AND NAMEPLATES				
Painting and corrosion protection	Surface preparation and shot-blasting: Sa2.5 in accordance with DIN 55928	Yes/No		
	Painting thickness: 3 coats, total 180 microns min for marine environment	Yes/No		
	Frame colors: RAL 1004, yellow, to be confirmed during design review	Yes/No		
	All exterior surface coatings shall be of a high durability (>5 years)	Yes/No		
	Yellow/black safety strapping on chassis (front/rear/sides)	Yes/No		
Logos and nameplates		Yes/No		
	Buyer's name and logo, to be validated during design review	Yes/No		
	Manufacturer's name and date of manufacture	Yes/No		
	A plate showing main specifications will be installed at a notable location of the frame	Yes/No		
	Any danger / warning signs as per EU regulations, legends in Greek & English	Yes/No		

7. ACCEPTANCE TESTS				
Testing program	Testing program about load test and function tests shall be totally arranged by the Contractor. The load test has to be done by a third party certified Company according to the Greek Legislation.	Yes/No		
	Testing shall be conducted at the factory and at the Buyer's terminal.	Yes/No		
	The Buyer reserves the right to appoint third party inspectors and/or supervisors	Yes/No		
Documentation Submission	The following documentation will be submitted before field testing and commissioning.			
	Test reports and qualification certificates of various materials used for the magnetic system	Yes/No		
	Test reports and qualification certificates of purchased components	Yes/No		
	Qualification certificates of welds	Yes/No		
	Qualification reports of assembly quality	Yes/No		
	Painting qualification certificates	Yes/No		
Acceptance Report	After all above tests have all been successfully completed and passed an acceptance certificate shall be drafted and the tests results and conclusion will be listed.	Yes/No		

8. DOCUMENTATION				
Technical Documents	All documentation shall be provided in hard and soft copies	Yes/No		
	2 Operator's Manuals in Greek	Yes/No		
	2 Electrical Circuit Diagrams with legends 1 in English & 1 in Greek	Yes/No		
	2 Hydraulic Circuit Diagrams with legends 1 in English & 1 Greek	Yes/No		
	2 Detailed drawings with legends 1 in English & 1 in Greek	Yes/No		
Maintenance Manual	1 copy in English & 1 copy in Greek			
	Detailed maintenance plan including procedures, spare parts, schedule	Yes/No		
	Procedure of assembly and disassembly of main components	Yes/No		
	Magnet maintenenance manuals and spare parts books			
	Engine & Generator maintenance manuals and spare parts books	Yes/No		
	List of alarms and faults codes with associated procedure	Yes/No		
	Lubrication charts	Yes/No		
	Detailed list of spare parts with references, price and Delivery time to THPA. Price include the delivery cost.	Yes/No		

9. AFTER SALE SERVICES				
Training				
Language	in Greek	Yes/No		
Training supports	Operation and Maintenance Training Manuals in hard and soft copies in Greek language	Yes/No		
Location	ThPA facilities	Yes/No		
Program	Training sessions shall include 2 groups of technicians (2 days, 5 persons per group) and 1 group of operators (1 day minimum, 5 persons per group)	Yes/No		
Agency/representation in Greece				
	Name of local agent	proposal		
	Location of local agent near Thessaloniki	proposal		
	Stock of spare parts in Greece	Yes/No		

10. LIST OF AUTHORIZED SUPPLIERS		**PROPOSAL**	**COUNTRY OF ORIGIN**	
Engine	PERKINS, VOLVO, CUMMINS, MERCEDES MTU	proposal	Country of origin	
Hydraulic components	Vickers, Parker, Bosch Rexroth, Atos	proposal	Country of origin	

11. WARRANTY		**COMPLIANCE or PROPOSAL**	**DEVIATIONS if any**	**COMMENTS**
General	2 years	proposal		
Structure & chassis	5 years	proposal		
Paintwork & galvanizing	5 years	proposal		

12. DELIVERY TIME		**COMPLIANCE or PROPOSAL**		**COMMENTS**
EXW	18 weeks in total	proposal		
DAP Port of Thessaloniki		proposal		
Erection - Installation - Commissioning		proposal		