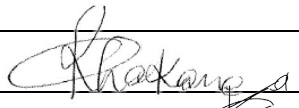
Description: (Specification for the Messer Plasma cutters spares supply, major service execution and call out contract)				
Compiled By:	Rosy Chakane		Date:	12/03/2025
Recommended By:	Kholisile Rabela		Date:	12/03/2025
Approve By:	MW Ramahlaha		Date:	13.03.2025
Location:	Bloemfontein			

Contents

1. Scope of Work

This specification requirement covers all the requirements that will be needed to inform the supplier/vendor/manufacture/service provider to carry out what is expected from him/her:

This specification states the minimum requirements relating to the work and in no way absolves the contractor from responsibility for sound maintenance engineering practice. Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering Contract Manager at tender stage and optional prices for addressing such omissions must be provided.

Only bidders that have a valid certification, proven experience, or letter of competency from the OEM indicating that the bidder is certified or competent to work on the Messer plasma cutters will be considered for award. A copy of the certificate or letter must be submitted with the tender.

2. Specific Requirements:

- Comply with the Occupational Health and Safety Act (Act85 of 1993), as amended.
- Adhere to the Construction Regulations of the Occupational Health and Safety Act (Act85 of 1993), as amended.
- The contractor to have SHE INDUCTION and have valid permits when entering Transnet Engineering.
- The contractor to have a SHE FILE, and SITE INSTRUCTION BOOK on site at all times.
- All measurements and amounts must be stipulated in quote.
- Contractor's name board will always be visible.
- A supervisor will always be on site.
- The correct PPE for all hazards that the contractor's employers may be exposed to, must always be worn.

- Failure to comply will result in a SHE Stop Certificate being issued, and the supplier will be required to leave the site until the situation is rectified.

- All scaffolding used to be SANS approved. (SANS 10085-1:2004)
- All employees who will be working at height to have medical fitness certificate to declare employee fit to work on heights, and proof of working at heights competency training thereof.
- Valid letter of good standing with Workman's Compensation.
- Comply with Transnet SHE Specification for contract work Version 02.

3. Technical Requirements:

All equipment and installation whether detailed in this specification or not shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993 as amended. Sudden power losses will not have an adverse effect on equipment and shall not unduly delay return to operation after power is restored.

4. Testing:

The tenderer shall indicate the performance/s standard which the spares will be subjected to.

5. Specific Requirements:

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	Specification for the Messer Plasma cutters Spares Supply, Major Service Execution and Breakdown Call Out Contract	
1.	**Scope of work:**	
1.1	Supply spares for the Messer Plasma Cutters.	
1.2	Respond to break down call outs as and when required.	
1.3	General	

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
2.	**Spares for Messer Plasma Cutters.**	
2.1	Contractor shall supply spares of Messer Plasma Cutters listed on Annexure C.	
2.2	The contractor shall be able to supply Transnet with spares when required and at the shortest lead time.	
2.3	The contractor shall fill in the tables on the following annexures and submit it with their tender: **Annexure A: Labour and travelling cost schedule.** **Annexure B: List of machines** **Annexure C: Mechanical, electrical and electronics spares.** **See list of Note the contract will not be limited to the spares on annexures. Contractor will be expected to supply other Messer Plasma Cutters spares that are not reflected on the annexures.**	
2.4	The contractor should share information regarding the spares being supplied to Transnet Engineering, e.g., material certificates, quality documents providing assurance that spares are within the write tolerances and design standards as stipulated on OEM manufacturing drawings.	
2.5	The contractor should indicate the minimum life span of the spares. If the spare fails before the stipulated life span, the contractor must conduct failure investigation and provide root cause analysis report (report should also contain the proposed solution that will be implemented to prevent failures) to the Plant Engineer and Maintenance Manager. **Note: Should the spare part fail before its life span has elapsed, the contractor will be expected to supply another spare part at his/her own cost. Unless thorough investigation is conducted, which will prove that the failure of the spare part is a result of an inherent failure of the system that the spare is part of.**	
2.6	Should machine not work and components or spares must be ordered by the contractor from the OEM, the contractor shall report this to Transnet Engineering. This is required to ensure that the working area is optimally utilized while the contractor is waiting for	

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	spares or components.	
2.7	Should the contractor notice that any component is in a worn-out state, they should request to change the component if they feel that the component will not last till the next maintenance cycle. If it will last until the next maintenance cycle, notice should be given to ensure that the component can be purchased in the meantime to limit downtime by replacing the component during a maintenance interval.	
2.8	Contractor should advise Transnet on spares that are obsolete and modification that needs to be carried out to replace obsolete parts on the system.	
3.	**Respond to break down call outs.**	
3.1	Call out response must be within 24 hours from receiving a phone call which will be followed by an official e-mail request from the Plant Manager, Plant Engineer, or Maintenance Manager of Transnet Engineering.	
3.2	Should the contractor be called in to assist with an emergency breakdown. The contractor will write a report stipulating the cause of breakdown and recommend corrective and preventative actions. This report should be shared with the maintenance manager and the supervisor.	
3.3	The Contractor shall report any damage, found during repairs, to Transnet Engineering. At the completion of all the maintenance work, the supplier must produce a report describing the following: • Root cause of the problem. • What action was taken to rectify the fault (inclusive of spares) • What preventative action should be taken to prevent the failure reoccurring.	
3.4	Before any work can take place the contractor with the Transnet Supervisor should check that the machine is locked out. The contractor shall ensure that the machine and working area are safe and clean. If required, the area shall be marked with chevron tape	

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	to indicate working boundaries.	
3.5	The contractor shall not commence work until they have reported to the local supervisor of Transnet Engineering, who will take note of its presence in the working area.	
3.6	Contractor should allow Plant, Equipment & Machinery Maintenance team to observe and ask questions during any fault finding and maintenance conducted on the Messer Plasma Cutters No information should be concealed from the PEMM team.	
3.7	Any modifications to the Messer Plasma Cutters for whatever reason shall first be approved by the Plant Manager or Plant Engineer in writing before implementation.	
3.8	Where machines hours are over 16000 hours and no major service was done, contractor will be instructed by the Plant Engineer/Plant Manager to conduct a major service, with intentions to get the machines to be reliable.	

6. ANNEXURE A: LABOUR AND TRAVELLING COST SCHEDHULE

Centre	Labour Rate/hour Normal	Estimated Labours Hours per year	Total Labour per year
Bloemfontein Main Centre	R	500	R
Centre	**Labour Rate/hour Saturday/Sunday**	**Estimated Labours Hours per year**	**Total Labour per year**
Bloemfontein Main Centre	R	500	R

Travelling Cost	Cost per return trip	Estimated Number of trips per year (Qty)	Total Estimate Amount per trip
Departure City: _____ To Bloemfontein	R	36	R

7. ANNEXURE B: LIST OF MACHINES

Asset Number	Asset description	Plant
28032612	Messer Plasma Cutters.	Bloemfontein
28037771	Messer Plasma Cutters.	Bloemfontein
28024956	Messer Plasma Cutters.	Bloemfontein

8. ANNEXURE C: MECHANICAL; ELECTRICAL AND ELECTRONICS SPARES

Machine	Description	Part number	Quantity	Cost per unit	Total Cost
Messer Plasma Cutters.	Micro limit switches		8		
Messer Plasma Cutters.	Motor		3		
Messer Plasma Cutters.	PCB		3		
Messer Plasma Cutters.	Torch limit switch		6		
Messer Plasma Cutters.	Head ballscrew		3		
Messer Plasma Cutters.	Head servo motor		3		
Messer Plasma Cutters.	Head switch card		3		
Messer Plasma Cutters.	Signal case		3		
Messer Plasma Cutters.	Linear bearings		12		
Messer Plasma Cutters.	Stainless steel band		4		
Messer Plasma Cutters.	Console card		3		
Messer Plasma Cutters.	Mixer card		3		
Messer Plasma Cutters.	Hyperpherm mem card		3		
Messer Plasma Cutters.	Water pump		3		
Messer Plasma Cutters.	Water trap limit switch		3		
Messer Plasma Cutters.	X-Drive		3		
Messer Plasma Cutters.	USB control box		3		
Messer Plasma Cutters.	Fibre cable T/R		3		
Messer Plasma Cutters.	Air valves		50		

Messer Plasma Cutters.	Air valves consumables		100		
Messer Plasma Cutters.	Screen emergency stop		6		
Messer Plasma Cutters.	Power buttons		3		
Messer Plasma Cutters.	Stop/Start buttons		3		
Messer Plasma Cutters.	Torch lifter switches		6		
Messer Plasma Cutters.	Joy stick		3		
Messer Plasma Cutters.	X tractor filters		75		
Messer Plasma Cutters.	Torch leads 15mt		8		
Messer Plasma Cutters.	Cable trunking		60mtr		
Messer Plasma Cutters.	Fan 60x60x25mm		6		
Messer Plasma Cutters.	Light bus PC interface card		3		
Messer Plasma Cutters.	Controller with drive		3		
Messer Plasma Cutters.	Flow switch		3		
Messer Plasma Cutters.	Control card		3		
Messer Plasma Cutters.	x40 cable		3		
Messer Plasma Cutters.	IDE Cable		3		
Messer Plasma Cutters.	c-moss battery		6		
Messer Plasma Cutters.	HDD& SOFTWARE		3		
Messer Plasma Cutters.	Torch HPR 260		6		
Messer Plasma Cutters.	MOTOR		3		
Messer Plasma Cutters.	PISTON		3		
Messer Plasma Cutters.	FIBRE FIRE RETARDANT FILTERS NF 40008		72		
Messer Plasma Cutters.	AIR VALVES WITH LIMITS		60		
Messer Plasma Cutters.	LINEAR BEARING		30		

Messer Plasma Cutters.	COOLANT PUMP HYPERTHERM	3			
Messer Plasma Cutters.	Temperature sensor	3			
Messer Plasma Cutters.	Pressure transducer	3			
Messer Plasma Cutters.	Check valve: 1/4" FPT	6			
Messer Plasma Cutters.	Kit: Pump with clamp	3			
Messer Plasma Cutters.	Motor with clamp	3			
Messer Plasma Cutters.	Control PCB	6			
Messer Plasma Cutters.	Power distribution PCB	6			
Messer Plasma Cutters.	Flow switch assembly	6			
Messer Plasma Cutters.	Heat exchanger assembly	3			
Messer Plasma Cutters.	Relay: pilot arc	12			
Messer Plasma Cutters.	PCB: I/O	4			
Messer Plasma Cutters.	Contactor	9			
Messer Plasma Cutters.	10" fan :450-550 CFM, 120 VAC 50-60 HZ	6			
Messer Plasma Cutters.	bus terminal (light bus)	6			
Messer Plasma Cutters.	Lift saddle switch	6			
Messer Plasma Cutters.	Fibre cable 40 meter, one pare (nb!!!)	6			
Messer Plasma Cutters.	8 slot pc fibre card	3			
Messer Plasma Cutters.	3 sets of cable trucking	3			