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Tender Specification

Dry Chemical Powder Transfer Machine

SPECIFICATION

**PUBLISHED UNDER AUTHORITY
OF DEPARTMENT OF DEFENCE**

USAGE: Land

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Ownership and responsibility for approval and acceptance of this specification is detailed below.

Sponsoring Defence Group:	Defence Materiel Organisation		
Sponsoring Organisation:	Land Systems Division		
Sponsoring Appointment:	Director Combat Support Vehicle Systems Program Office		
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Executive Authority:	Brian Mills	Signed:	Jul 16

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TABLE OF CONTENTS

Para No		Page
1.	SCOPE	5
1.1.	Identification.....	5
1.2.	System Overview.....	5
1.3.	Document Overview.....	5
2.	DOCUMENTS	5
2.1.	General.....	5
2.2.	Order of precedence.....	5
3.	DEFINITIONS	5
3.1.	General.....	5
3.2.	Category of Requirement Annotations.....	5
3.3.	Requirements Verification.....	6
3.4.	Tenderer's Response.....	6
4.	TENDERER NOTES	6
4.1.	General.....	6
5.	REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE	7
5.1.	General.....	7
5.2.	Loading Operations.....	7
5.3.	Unloading Operations.....	7
5.4.	Performance Criteria.....	9
5.5.	Support.....	10
5.6.	Documentation.....	11

LIST OF ANNEXES

Annex A	Oshkosh STRIKER AT Data pack
Annex B	Rosenbauer PANTHER Data pack
Annex C	Dry Chemical Powder Data pack
Annex D	Document Improvement Proposal

1. SCOPE**1.1. Identification**

- 1.1.1. This document specifies requirements for a Dry Chemical Powder Transfer Machine (DCPTM) to be procured to satisfy a capability need identified by Department of Defence.

1.2. System Overview

- 1.2.1. Defence currently loads Dry Chemical Powder (DCP) to Defence Aviation Fire Tenders via a open funnel. This creates a number of personnel and environmental hazards which are treated through a number of measures. The DCPTM is to be used as a reduced risk means of loading and unloading DCP to Defence Aviation Fire Tenders which will allow use of DCP in fire incidents.
- 1.2.2. The DCPTM will be used within the Royal Australian Air Force (RAAF) by Fire Fighters or maintenance personnel. It will be used in support of Defence Aviation Rescue and Fire Fighting Tenders at both domestic and at deployed airfields.
- 1.2.3. When deployed it is advantageous if minor repairs and servicing can be done by service personnel.

1.3. Document Overview

- 1.3.1. This document details the minimum acceptable standards of functional and performance requirements for the DCPTM.
- 1.3.2. No part of this document is classified for security purposes.

2. DOCUMENTS**2.1. General**

- 2.1.1. The Australian Macquarie Dictionary is the reference source for all terms used in this specification, except for those defined in the Definitions section.

- 2.1.2. Not Used.

2.2. Order of precedence

- 2.2.1. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. However, nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. DEFINITIONS**3.1. General**

- 3.1.1. **Able, capable.** Requirements that include the adjectives able or capable or adjectives ending in -able or -ible shall be interpreted as being references to extant capabilities of the equipment or system without any form of future modification or enhancement, and all means and facilities to enable the satisfaction of those requirements shall be provided with and considered to be part of the equipment or system.

3.2. Category of Requirement Annotations**3.2.1. Essential.**

- 3.2.2. Indicates a requirement that has the highest level of priority and without which achievement of the capability may not be possible. Essential requirements are mandatory and a tender failing to meet any of these requirements would normally be excluded from further consideration.

- 3.2.3. **Important.** Indicates a requirement which is necessary to achieve the intended functionality and/or performance. While there is some latitude in complying with an "important" requirement, failure to meet a number of such requirements would normally exclude the tender from further evaluation.

- 3.2.4. **Desirable.** Indicates a requirement which is not a key factor in the achievement of the intended functionality and/or performance but which is perceived as beneficial. The provision of "desirable" requirements is discretionary on the part of tenderers, however, where provided they must represent value for money.

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- 3.2.5. **Advice.** Indicates that the clause does not represent a requirement but provides advice, information, or clarification of requirements. There is no requirement to demonstrate compliance with an "advice" annotated clause.
- 3.2.6. A category of requirement annotation shall apply to all sentences in a requirement statement.
- 3.3. **Requirements Verification**
- 3.3.1. Requirements shall be verified by testing, demonstration, analysis and, inspection qualification methods. The means of verification of each individual requirement is tabulated within Section 5. A letter code in the table column headed by "Verification Type" shall indicate whether a Test, Demonstration, Analysis, or Inspection is required.
- 3.3.2. **Test (T).** A test is the operation of the system, or a part of the system, or equipment using instrumentation or other special test equipment to collect data for later evaluation. The Commonwealth often collects verification test data through the performance of trials. Trials shall be conducted in accordance with the appropriate Test and Evaluation Management Plan.
- 3.3.3. **Demonstration (D).** A demonstration is the operation of the system, or a part of the system, or equipment, that relies on observable functional operation not requiring the use of instrumentation, special test equipment, or subsequent analysis.
- 3.3.4. **Analysis (A).** Analysis is the processing of accumulated data obtained from other qualification methods or calculations. Examples of analysis include reduction, interpolation, or extrapolation of test results.
- 3.3.5. **Inspection (I).** Inspection is the visual examination of system components, documentation etc.
- 3.4. **Tenderer's Response**
- 3.4.1. A tenderer's response section is provided within Section 5 and includes the descriptors; Fully Complies and Does Not Comply. A definition for each of the aforementioned descriptors is provided below.
- 3.4.2. **Fully Complies (FC)** will be interpreted as meaning that the requirement is met by the tenderer's offer. In the case of an Advice category of requirement this will be interpreted as meaning that the requirement has been read and understood.
- 3.4.3. **Does Not Comply (NC)** will be interpreted as meaning that the requirement is not met by the tenderer's offer. Full details of the extent of non-compliance should be stated in the tenderer's response and reference to the relevant statement in the response indicated in the associated column.
4. **TENDERER NOTES**
- 4.1. **General**
- 4.1.1. Provision has been made for the tenderer to indicate their response to individual requirements that are tabulated within Section 5 of this document. The tenderer should place crosses in the table columns headed by the initial letters of FC or NC to indicate the way in which their offer satisfies the requirement indicated in each row.
- 4.1.2. The provision of responses within Section 5 does not relieve the tenderer of obligations stated in the tendering documentation.

5. REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE					
	Requirement	Category	Verification Type*	FC	NC
					Tenderer's Comments (or Reference)
5.1.	General	Not Applicable			
5.1.1.	The DCPTM will assist RAAF units to safely perform training and operations in preparing fire tenders for use on domestic and deployed airfields.	Advice			
5.2.	Loading Operations	Not Applicable			
5.2.1.	The ADF uses MONNEX DCP supplied in 25kg buckets and bags. The DCP specification is in the attached data pack	Advice			
5.2.2.	The DCPTM shall be capable of loading operations with no more than two personnel.	Important	T		
5.2.3.	The DCPTM shall be capable of transferring DCP to the target vehicle from 25kg buckets and bags.	Important	T		
5.2.4.	The DCPTM shall be capable of transferring DCP to the target vehicle from additional DCP package types.	Desirable	A		
5.2.5.	The DCPTM shall be able to load DCP to a Rosenbauer Panther DCP fill point as specified in the attached data pack.	Essential	T		
5.2.6.	The DCPTM shall be able to load DCP to an Oshkosh Striker AT DCP fill point as specified in the attached data pack.	Essential	T		
5.3.	Unloading Operations	Not Applicable			
5.3.1.	The ADF currently disposes of DCP in the same packaging it is received from the manufacturer. This packaging is not mandated for disposal purposes.	Advice			

5. REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE						
	Requirement	Category	Verification Type*	FC	NC	Tenderer's Comments (or Reference)
5.3.2.	The Tenderer shall specify the preferred target packaging for DCP disposal	Important	T			
5.3.3.	The DCPTM shall be capable of unloading operations with no more than two personnel.	Important	T			
5.3.4.	The DCPTM shall be capable of transferring DCP to the target disposal packaging from a RBI PANTHER.	Essential	T			
5.3.5.	The DCPTM shall be capable of transferring DCP to the target disposal packaging from an OSK Striker AT.	Essential	T			
5.3.6.	DCP shall be transferred off the source vehicles by the DCP fill point as described in the vehicle data packs.	Important	A			
5.3.7.	DCP shall be transferred off the source vehicles by capturing the flow from an activated DCP nozzle as described in the vehicle data packs.	Important	A			
5.3.8.	The DCPTM shall be capable of transferring DCP from the vehicle to additional DCP package types.	Desirable	A			
5.3.9.	When DCP is unloaded it may be reloaded back onto the vehicle.	Advice				
5.3.10.	The DCPTM shall be able to temporarily store DCP in a sealed manner in preparation for loading onto a vehicle or loading into target disposal packaging DCP packaging.	Desirable	T			
5.3.11.	The DCPTM shall be able to weigh DCP removed from a vehicle.	Desirable	T			

5. REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE					
Requirement	Category	Verification Type*	FC	NC	Tenderer's Comments (or Reference)
5.4. Performance Criteria	Not Applicable				
5.4.1. The DCPTM shall conduct transfers at a rate faster than 7kg/min.	Important	T			
5.4.2. The DCPTM shall require no more than 30mins for 2 personnel to set up.	Important	T			
5.4.3. The DCPTM shall require no more than 10mins for 2 personnel to set up.	Desirable	T			
5.4.4. The DCPTM shall require no more than 30mins for 2 personnel to take down.	Important	T			
5.4.5. The DCPTM shall require no more than 10mins for 2 personnel to take down.	Desirable	T			
5.4.6. The DCPTM shall operate from either: a) 240v 15 Amp single phase, or b) an integral diesel engine.	Important	A, T			
5.4.7. The DCPTM shall not permit DCP to escape from the system, target or source during normal operations.	Important	T			
5.4.8. The DCPTM shall permit operation without the use of PPE.	Desirable	T			
5.5. Movement Criteria	Not Applicable				
5.5.1. The DCPTM may be relocated to a deployed airfield via C130 aircraft. Deployed airfields may have compacted or unimproved surfaces, particularly away from the runway.	Advice				

5. REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE						
	Requirement	Category	Verification Type*	FC	NC	Tenderer's Comments (or Reference)
5.5.2.	The DCPTM shall be able to be packaged or other wise prepared for air transport by 2 personnel within 2 hours to be relocated to a deployed airfield via C130 or other defence aircraft.	Important	A, T			
5.5.3.	The DCPTM shall be relocatable by 2 personnel over a flat compacted, but unsealed ground surface.	Important	A, T			
5.5.4.	The DCPTM shall be relocatable by MHE (forklift) over a flat compacted, but unsealed ground surface.	Desirable	A, T			
5.6.	Environmental Conditions	Not Applicable				
5.6.1.	The DCPTM shall normally be located in Australia and may be required to operate either fully exposed or under cover but not in climatically controlled conditions.	Advice				
5.6.2.	The DCPTM shall be operated in ambient climatic conditions typical to any area of Australia.	Important	T			
5.6.3.	The DCPTM shall be stored without degradation in ambient climatic conditions typical to any area of Australia.	Important	A, I			
5.6.4.	The DCPTM shall be stored without degradation under cover but otherwise exposed to climatic conditions typical to any area of Australia.	Desirable	A, I			
5.7.	Support	Not Applicable				
5.7.1.	The DCPTM shall use AS compliant fittings and components.	Important	A, I			

5. REQUIREMENTS, VERIFICATION & TENDERER'S RESPONSE						
	Requirement	Category	Verification Type*	FC	NC	Tenderer's Comments (or Reference)
5.7.2.	The tenderer shall define and describe (including frequency, downtime and cost) the following support to Defence:	Advice				
5.7.2.1.	Training requirements for operators and maintainers.	Desirable	D			
5.7.2.2.	Servicing and maintenance requirements.	Desirable	D			
5.7.2.3.	Australian based parts holdings.	Desirable	D			
5.8.	Documentation	Not Applicable				
5.8.1.	The tenderer shall supply the following documentation:					
5.8.1.1.	An operation manual that outlines the instruction requirements for safe operation, handling safety precautions, hazard identification, periodic checks and operator maintenance requirements.	Essential	I			
5.8.1.2.	A maintenance manual outlining procedures for repairs and or servicing of the DCPTM. The manual may include any specialist tooling required supporting repairs and servicing.	Important	I			
5.8.1.3.	A spare parts manual for the DCPTM that details the manufacturer's part number details and parts break down of the equipment.	Important	I			
5.8.1.4.	Where one of the above manuals has not yet been created as the equipment requires some Design and Development, the tenderer may offer manuals that describe the above for a similar equipment as an example of the final manual.	Advice				
* Verification Type Code: A = Analysis, T = Test, D = Demonstration, I = Inspection.						