

PRODUCTION DEPARTMENT

USER REQUIREMENT SPECIFICATION		
NAME OF ITEM: HI-CARD MACHINE PROTOCOL No		
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# USER REQUIREMENT SPECIFICATION

NAME OF THE ITEM: HI- CARD MACHINE

FUNCTIONAL AREA: PACKING AREA

PROTOCOL No.:



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## 1.0 URS APPROVAL:

## **Protocol Prepared By:**

Functional area	Name	Signature	Date

## **URS Reviewed By:**

Functional area	Name	Signature	Date

## **URS Approved By:**

Functional area	Name	Signature	Date
Head Engineering			
Head Manufacturing			
Head Quality			



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#### 2.0 Objective:

The purpose of this document is to ensure that all the critical aspects of the Equipment, cGMP & Safety features have been considered in designing the equipment/instrument and is properly documented.

#### 3.0 Responsibilities:

#### 3.1 Preparation of Document

- User department to prepare the URS
- Ensures that the document is in compliance with current policies and procedures of cGMP regulations.
- Ensures that the content is sufficient, clearly defined, technically sound and accurate.
- It is a Guidance document to prepare the URS.

#### 3.2 Review of Document

To be reviewed by Head of the user department and functional department (Engineering & Quality assurance)

#### 3.3 Approval of Document

• Approval of document by Head Manufacturing/Head Engineering/Head Quality.

#### 4.0 Equipment Description & Identification:

#### 4.1 Scope:

This document covers all aspects of Users requirements for the Equipment along with all Attachment, Spare Parts, Change Parts and Accessories to be used in ......

Scope incorporates understanding and documentation of critical requirements such as system requirements, cGMP requirements, safety requirements, documentation requirements and operational requirements.

#### 4.2 Purpose:

For the packing of Bottle/ampoules in cartons on packing area.



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## 5.0 USER REQUIREMENTS

## 5.1 System Requirements:

Sr. No.	SYSTEM COMPONENTS	SYSTEM REQUIREMENTS
01.	Identification	Details of Make, Name, Serial. No., Capacity, Model and Year of
	(In case of	manufacture should be available
02.	Equipment /Instrument) Model/Type	To pack in carton of various sizes of Bottle <b>confirming</b> to cGMP
02.	Model/Type	requirements.
03.	Capacity	20 ml to 114 ml bottle with Minimum 240 Bottle/ minute
04.	Potential Suppliers	1.PAM
05.	Contact parts (In case of Equipment)	SS304 with matt finish
06.	Non contact parts (In case of Equipment)	SS304 with matt finish
07.	Non metallic contact parts (In case of	1. Durable.
	Equipment /Instrument)	2. Must be easily cleanable.
08.	Motor & Electrical installations (In case	Machine should be operated through PLC mounted on separate
	of Equipment /Instrument)	electrical control panel.
09.	Machine assemblies (In case of Equipment /Instrument)	Must be covered with SS 304 with matt finish.
10.	Machine adjustments (In case of Equipment /Instrument)	Setting with Zero clearance with good accuracy.
11.	Packaging & Transport	Should be packed and transported in such a way to avoid any
		damage during transportation.
12.	No. of requirements	01
13.	Requirements for any power failure backup's (In case of Equipment /Instrument)	To be backed up by installed in-house DG set.
14.	Gear box specifications(In case of Equipment /Instrument)	As per cGMP model



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## 5.2 Technical Description

Sr. No.	SPECIFICATION	SYSTEM REQUIREMENTS
1.	Machine should be operated by manual and auto mode on PLC.	YES
2.	21 CFR part 11 compliant software	YES
3.	Machine should be PLC based control.	YES
4.	Machine Should be provide with WFI ampoule feeder & dropper feeder	YES
5.	<ol> <li>Machine should consist of Fallowing sections.</li> <li>Carton magazine</li> <li>Rear size flap closing</li> <li>Product pushing</li> <li>Over printing/Embossing station</li> <li>Product feeding</li> <li>Front side flap closing</li> </ol>	YES
6.	Three level passwords should be provide in PLC.	YES
7.	Machine should be provide all failure history	YES

### 6.0 COMPLEMENTARY ASPECTS

### 6.1 Training

6.1.1 The vendor Shall supply all available information for the adequate exploitation of equipment. For the Compliance of this purpose at the Job site and/ or at the Vendors Shop. Vendor's technical staff shall train customer's personnel. The scope of the Training will be agreed during the contract signature.  6.1.2 The supplier is to include the personnel training activities. The contractor is to specify the foreseen time for:  • Operator/Supervisor training • Manager Training • Electrical maintenance training • Mechanical Maintenance training • Mechanical Maintenance training	Sr. No.	Specification	SYSTEM REQUIREMENTS
Job site and/ or at the Vendors Shop. Vendor's technical staff shall train customer's personnel. The scope of the Training will be agreed during the contract signature.  6.1.2 The supplier is to include the personnel training activities. The contractor is to specify the foreseen time for:  • Operator/Supervisor training • Manager Training • Electrical maintenance training • Mechanical Maintenance training	6.1.1		YES
train customer's personnel. The scope of the Training will be agreed during the contract signature.  6.1.2 The supplier is to include the personnel training activities. The contractor is to specify the foreseen time for:  • Operator/Supervisor training • Manager Training • Electrical maintenance training • Mechanical Maintenance training			
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contractor is to specify the foreseen time for:  Operator/Supervisor training  Manager Training Electrical maintenance training Mechanical Maintenance training		Training will be agreed during the contract signature.	
contractor is to specify the foreseen time for:  Operator/Supervisor training  Manager Training Electrical maintenance training Mechanical Maintenance training			
<ul> <li>Operator/Supervisor training</li> <li>Manager Training</li> <li>Electrical maintenance training</li> <li>Mechanical Maintenance training</li> </ul>	6.1.2		YES
<ul> <li>Manager Training</li> <li>Electrical maintenance training</li> <li>Mechanical Maintenance training</li> </ul>		contractor is to specify the foreseen time for:	
<ul> <li>Electrical maintenance training</li> <li>Mechanical Maintenance training</li> </ul>		Operator/Supervisor training	
Mechanical Maintenance training		Manager Training	
č – – – – – – – – – – – – – – – – – – –		Electrical maintenance training	
6.1.3 The contractor is to specify the personnel background needed for each VES		Mechanical Maintenance training	
0.1.5 The conductor is to specify the personner background needed for each 12.5	6.1.3	The contractor is to specify the personnel background needed for each	YES
of the operators maintenance.		of the operators maintenance.	



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6.2 Pre Delivery Qualifications (FAT)				
Sr. No.	Specification	SY	STEM REQUIREMENTS	
6.2.1	The System or its parts as provided for in the scope of supply shall be pre-installed at the vendors shop prior to delivery to customer site. Installation will be completed and documented including mechanical parts as well as electrical connections of all parts to facilitate taking over	YES		

### **6.3 Supplier Technical Documentation Requirements:**

tests at Vendors shop prior to delivery.

Sr. No.	COMPONENTS	REQUIREMENTS
6.3.1	Drawings	Pre Installation Requirements will be supplied by Vendor
	<ul> <li>Equipment/Systems electrical drawing.</li> </ul>	
	<ul> <li>Point to point wiring diagram</li> </ul>	
6.3.2	LIST.	
	<ul> <li>Equipment and instrument list with Component description</li> </ul>	YES
	Electrical component parts list with Description.	YES
	Function check list.	YES
	Documentation list.	YES
	Spare part list	List of spares required for smooth operation will be provided by the Vendor at the time of ordering.

### **6.4 Technical Manuals**

Sr. No.	Specification	Requirements
6.4.1	Operating handbook	YES
6.4.2	Trouble Shooting Guide	YES
6.4.3	Equipment Description	YES
6.4.4	Equipment specification	YES
6.4.5	Calibration Instruction	YES
6.4.6	Maintenance Instruction	YES
6.4.7	Maintenance Handbook	YES



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### 7.0 SAFETY AND ENVIRONMENTAL PROTECTION

Sr. No.	Specification	Requirements
7.1	All motors have to be thermally Protected.	YES
7.2	All the Installation must be in accordance with the cGMP.	YES
7.3	The cGMP concerning safety must be applied.	YES
7.4	Safety interlock.	YES
	Air pressure minimum – machine stop.	
	Machine guard open – machine stop.	
	Hand wheel out - machine stop.	
	Vacuum pump off— machine stop.	
	Take out the carton – machine stop.	
	Bottle feeding fault- Machine stop	
	No Bottle /ampoule – machine stop	

#### 8.0 CLEANING MAINTENANCE AND SERVICE

Sr. No.	Specification
8.1	In accordance with cGMP guidelines the units must be easy to clean, to disinfect, and where necessary, to sterilize.
8.2	The Supplier should guarantee that, if required, a service team can be on site within one working day.
8.3	The design should be such as to allow mechanical cleaning of the surface and that the cleanliness of the surface can be checked easily.
8.4	All machine parts, in particular instrumentation, should be constructed so that they can be easily removed and calibrated.
8.5	All special tools required for running and maintenance should be best.
8.6	A spare parts delivery guarantee with in time.

#### 9.0 RULES AND REGULATION

These standards, recommendation and requirements are considered the minimum. Specifications that are more stringent or expansive take the precedence. In case of conflict between published requirements, final determination is the responsibility of the Owners Representative.



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### 10. SCOPE OF DELIVERY

S. No.	Specification	Requirements
10.1	Units described in the specific system requirements including all necessary controls and instrumentation.	YES
10.2	The complete mechanical and electrical installation.	YES
10.3	The Connections to all the necessary utilities, exhaust, and waste lines necessary for its operation.	YES
10.4	All piping and cabling of the units itself.	YES
10.5	Wiring and cable run: all wiring and cable run is part of the supply will supply the main power switches to be located in correspondence to the electrical and control cabinets delivered by the equipment supplier.	YES
10.6	All internal contacts of the supplied equipment for the required utilities.	YES
10.7	Unload on site of the equipment: the supplier is required to define all the necessary handling devices required to the unloading operation.  The supplier will inform at least 4 weeks in advance the day of delivery and the list of required handling devices.	YES
10.8	Assembling operation: the required consumable, the internal transportation, the assembling tools and the required personal are part of the supply.	YES
10.9	A complete set of commissioning spare parts.	YES
10.10	All special tools necessary for use and maintenance of the supplied equipment.	YES
10.11	A complete set of two years spare parts should be listed quoted and offered as option.	YES
10.12	All test activities as specified in this document.	YES
10.13	Training in the use and maintenance of the equipment.	YES
10.14	A complete set of documentation as specified In this document.	YES

### 11.0 INSTALLATION, COMMISSIONING AND TESTS

### 11.1 General

Sr. No.	Specification	Requirements
11.1.1	The Contractor must specify for each piece of equipment the Guaranteed performance and the guaranteed system performance. These values will be tested during the acceptance tests.	YES
11.1.2	In addition the functionality described in the user requirements and detailed in the system specifications will be tested.	YES



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### 11.2 INSTALLATION, COMMISSION

Sr. No.	Specification	Requirements
11.2.1	The commissioning tests will be carried out in accordance with a written test	YES
	plan developed by the supplier with clearly stated test procedures and acceptance	
	criteria.	
11.2.2	The contractor will approve successfully completed tests and will specify items	YES
	requiring additional work. Representatives from will attend and	
	participate in the commissioning tests as required.	
11.2.3	The installation and commissioning of the system will be performed at	YES
	the Facility by the contractor.	
11.2.4	The commissioning can only start once all the foreseen documents have been	YES
	delivered by the supplier to	
11.2.5	All equipment should be properly installed, adjusted, leveled, tagged, and	YES
	connected with utilities.	
11.2.6	Point to point checks on wiring and pneumatic should be performed.	YES
11.2.7	All instruments should be properly calibrated.	YES
11.2.8	A equipment (instrument) used for qualification must be listed and approved by	YES
11.2.9	The calibration equipment must have all the necessary documents to	YES
	demonstrate their maintenance & use.	
11.2.10	The last calibration of all this equipment must be less than 6 months old, and	YES
	evidenced by certificate.	
11.2.11	Verification that the interior surfaces of equipment are free of practices and dirt	YES
	and all points of product contact meet the specified material requirements.	
11.2.12	All the clearances and tolerances specified in the drawing or recommended by	YES
	component manufacturers are correct.	
11.2.13	On site verification that valves and other equipment with moving parts are in	YES
	their normal position if in a power down condition and move in the correct	
	direction with the correct speed and precision.	
11.2.14	Verification that all the Input and Output points are connected and labeled	YES
	according to the documentation and that all the along the input values have been	
	scaled in accordance with the system specification and process requirements.	
	That all equipment components requiring configuration	



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11.2.15	The commissioning should demonstrate that the system supplied by the	YES
	contractor has been properly installed and that the functions are in accordance	
	with User Requirements specifications, Vendors System	
	specifications Manuals and other Documentation.	

11.3 Site Acceptance Test (SAT)

Sr. No.	Specification	Requirements
11.3.1	This test will be carried out once the commissioning will be completed. The scope will be to verify the performance and the functionality of the system integrated with the other factory systems (Including sterility testing of at least 02 days).	YES
11.3.2	The test will be carried out to verify the system response with the expected productivity of the system.	YES
11.3.3	Details on the test realization will be defined during the project Phase. The supplier is asked to specify the proposed duration for SAT and the standard procedure proposed.	YES
11.3.4	During SAT the required functionality, performances and system reliability are met.	YES
11.3.5	The Functionality described in the User Requirements Specification and in the System Specifications are verified and met.	YES
113.6	All the documentation agreed has been delivered.	YES



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## 12.0 QUALIFICATION/VALIDATION

Sr. No.	Specification	Requirements
12.1	The maintenance Qualification is responsibility of the customer. However, the supplier is responsible for delivering the basic documents for maintenance qualification.	YES
12.2	This includes all side costs such as: calibration measuring equipment and instruments: manpower (IQ and OQ will take place completely on)	YES
12.3	Time Schedule for IQ/OQ execution will be developed by With the supplier.	YES
12.4	Suppliers personnel used for IQ/OQ must be well trained and experienced. This should be documented.	YES
12.5	The onsite test run performed by the supplier might become part of the IQ.	YES
12.6	Main IQ/OQ steps such as calibration must be performed and documented in accordance to a SOP approved by	YES
12.7	All equipment used for qualification must be listed and approved by	YES
12.8	The last Recalibration of all this equipment should be less than 06 month old. Proofed by Certificate.	YES
12.9	OQ can only start after IQ approved by	YES
12.10	IQ will be carried out by	YES
12.11	Part of the OQ will be carried out by During commissioning and SAT phase. OQ will include the tests performed by the contractor.	YES
12.12	After installation of the equipment at customers site. Complementary IQ & OQ tests will be performed by the Customer and may be supervised by a member of Technical staff.	YES
12.13	Qualification documents (In case of equipments/Instruments)	DQ, IQ, OQ & PQ

### 13.0 GAURANTEE/WARRANTEE

Sr. No.	Specification	Requirements
14.1	The System must be guaranteed including all the sub- system and components for a period of 12 months from the date of the system acceptance for a 03- shift operation.	YES
14.2	The servicing companies involved for the Sub- systems maintenance must be declared and the maintenance group organization described. Furthermore, the contractor will be directly responsible of the system assistance and the required operation will be co- ordinate by him.	YES
14.3	In case of failures, the intervention will be guaranteed by the contractor within a maximum time limit. The contractor is asked to specify the maximum time limit.	YES
14.4	The supplier is asked to propose as option maintenance and assistance contract after the guarantee expiration.	YES