

| S.No. ITEM DESCRIPTION PAGE No. | | | | | | |
|---------------------------------|--|-------|--|--|--|--|
| | | | | | | |
| 1.0 | PROTOCOL APPROVAL | 2 | | | | |
| 2.0 | OVERVIEW: | 3 | | | | |
| 2.1 | Objective | 3 | | | | |
| 2.2 | Purpose | 3 | | | | |
| 2.3 | Scope | 3 | | | | |
| 2.4 | Responsibility | 3-4 | | | | |
| 2.5 | Execution Team | 5 | | | | |
| 3.0 | ACCEPTANCE CRITERIA | 6 | | | | |
| 4.0 | REQUALIFICATION CRITERIA | 6 | | | | |
| 5.0 | INSTALLATION QUALIFICATION PROCEDURE | 7 | | | | |
| 5.1 | System Description | 7-8 | | | | |
| 5.2 | Instruction for filling the checklist | 9 | | | | |
| 5.3 | Installation checklist | 10-11 | | | | |
| 5.4 | Identification of major components | 12-22 | | | | |
| 5.5 | Verification of material of construction | 23-24 | | | | |
| 5.6 | Identification of supporting utilities | 25 | | | | |
| 5.7 | Identification of safety features | 26 | | | | |
| 5.8 | Identification of component to be calibrated | 27 | | | | |
| 5.9 | Identification of standard operating procedure (sop) | 28 | | | | |
| 5.10 | Verification Of Drawing And Documents | 29 | | | | |
| 5.11 | Abbreviation | 30 | | | | |
| 5.12 | Deficiency And Corrective Action(s) (Reports) | 31 | | | | |
| 5.13 | Annexure (S) | 32 | | | | |
| 6.0 | INSTALLATION QUALIFICATION FINAL REPORT | 33 | | | | |
| 6.1 | Summary | 33 | | | | |
| 6.2 | Conclusion | 33 | | | | |
| 6.3 | Final Report Approval | 34 | | | | |

PHARMA DEVILS

1.0 PROTOCOL APPROVAL:

Signing of this approval page of Protocol indicates agreement with the qualification approach described in this document. If modification to the qualification approach becomes necessary, an addendum shall be prepared and approved .The protocol cannot be used for execution unless approved by the following authorities.

This Installation Qualification protocol of Soft Gelatin Encapsulation System (CAP-X-8) has been reviewed and approved by the following persons:

| FUNCTION | NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|-------------|------|-------------|----------------|-----------|------|
| | | | | | |
| PREPARED BY | | | QUALITY | | |
| | | | ASSURANCE | | |
| REVIEWED BY | | | QUALITY | | |
| | | | ASSURANCE | | |
| | | | ENGINEERING | | |
| | | | | | |
| | | | PRODUCTION | | |
| | | | | | |
| APPROVED BY | | | HEAD OPERATION | | |
| | | | | | |
| | | | QUALITY | | |
| | | | ASSURANCE | | |



2.0 OVERVIEW:

2.1 **OBJECTIVE:**

The objective of developing and executing this protocol is to collect sufficient data pertaining to the Soft Gelatin Encapsulation System and define the installation qualification requirements and acceptance criteria for the Soft Gelatin Encapsulation System (CAP-X-8). Successful completion of these installation qualification requirements will provide assurance that the Soft Gelatin Encapsulation System was installed as required in the manufacturing area.

The Qualification of Soft Gelatin Encapsulation System (CAP-X-8) performed in view of Soft Gelatin Encapsulation area of manufacturing facility.

2.2 PURPOSE:

The purpose of this protocol is to establish documentary evidence to ensure that the Soft Gelatin Encapsulation System (CAP-X-8) received matches the Design specification and also to ensure that it is properly and safely installed.

2.3 SCOPE:

This Protocol is applicable to installation of Soft Gelatin Encapsulation System (CAP-X-8) in soft Gel Encapsulation area of the manufacturing facility & the subsequent documentation.

2.4 **RESPONSIBILITY:**

In accordance with protocol, following functions shall be responsible for the qualification of system.

Execution Team (Comprising members from Production, Engineering and Quality Assurance) and their responsibilities are following:

- Prepares the qualification protocol.
- Ensures that the protocol is in compliance with current policies and procedures on system Qualification.
- > Distributes the finalized protocol for review and approval signatures.
- Execution of Qualification protocol.
- > Review of protocol, the completed qualification data package, and the final report.



- > The installation checks, operational checks, calibration, SOP identification, identification features, identification of utility supply shall be carried out by engineering persons
- > The production operator / supervisor shall carry out the cleaning and operation of machine.

Head – Production/ Engineering:

- Review of protocol, the completed qualification data package, and the final report.
- Assist in the resolution of validation deficiencies.

Head – Operation and Quality Assurance:

> Review and approval of protocol, the completed qualification data package, and the final report.

2.5 **EXECUTION TEAM:**

The satisfactory installation of the Soft Gelatin Encapsulation System (CAP-X-8) shall be verified by executing the qualification studies described in this protocol. The successfully executed protocol documents that the Soft Gelatin Encapsulation System (CAP-X-8) is installed satisfactorily.

Execution team is responsible for the execution of installation of Medicament Holding Vessel. Execution team comprises of:

| NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|------|-------------|------------|-----------|------|
| | | | | |
| | | | | |
| | | | | |

ACCEPTANCE CRITERIA: 3.0

- The Soft Gelatin Encapsulation System (CAP-X-8) shall meet the system description given in 3.1 design qualification.
- 3.2 The Soft Gelatin Encapsulation System (CAP-X-8) shall meet with the acceptance criteria mentioned under the topic "Identification of major components"
- All material of constructions of the contact parts to be checked as per the specifications. 3.3



4.0 **REQUALIFICATION CRITERIA:**

The machine shall be requalified if

- There are any major changes in system components which affect the performance of the system
- After major breakdown maintenance is carried out.
- As per revalidation date and schedule

5.0 INSTALLATION QUALIFICATION PROCEDURE:

5.1 SYSTEM DESCRIPTION:

| 1. | Equipment Name | : | Soft Gelatin Encapsulation Machine |
|----|-----------------------|---|------------------------------------|
| 2. | Supplier/Manufacturer | : | ARBES TOOL PVT. LTD. |
| 3. | Model | : | ARBES-CAP-X-8 |
| 4. | Serial no. | : | 484 |
| 5. | Overall Dimensions | : | 1590 mm X 1070 mm X 2055 mm |
| 6. | Location | : | Soft Gelatin Manufacturing Area. |

The Soft Gelatin Encapsulation Machine (CAP-X-8) Line consists of three Components:

- 1. Chiller: It consists of following component.
 - Compressor: To generate the necessary energy to obtain air conditioning.
 - Cold Heat Exchanger: To chill the air by exchanging heat with the refrigerant.
 - Condenser Fan: To exhaust the heat from the condenser (air cooled heat exchanger).
 - Process Fan: To pass air over the evaporator (air cooled heat exchanger).
 - Pressure Transmitters: Safety controls for the refrigeration system.
- 2. Encapsulation Machine: It consists of following component with their features:
 - 8 inch long and 4 inch diameter Capsulators (die rolls).
 - Stainless Steel cladding matte finish.
 - Contact Parts: SS 316, Food-grade and D-3 HCHCr (High Carbon, High Chromium) material.
 - Spreader box with adjustable width lip.
 - Emergency STOP button.



SOFT GELATIN ENCAPSULATION MACHINE

- ACVF for step less speed control of die roll rpm.
- Auto-tuning sensors for segment and spreader box temperature control and measurement.
- Pneumatic die roll loading arrangement.
- Food-grade conveyor (bidirectional) to transfer capsules into in-line semi-drier (conveyor length and orientation to be confirmed by client).
- Medicament Hopper with recirculation arrangement.
- Chilled-air cooled ribbon casting drums.
- AUTO adjusting Injection Timing mechanism for injection of medicament into die roll cavities (Gripper).
- Control Panel for machine operations and control wall-mounted or stand-alone with touch screen MMI panel.
- R+D kit comprising 4 inch long and 4 inch diameter die rolls and matching segment and spacers.
- **3.** Tumbler Drier:
 - Six baskets arrangement with blower unit.
 - Pneumatic conveyor ensures direct feed of capsules into first basket.
 - Baskets can be controlled to rotate at desired speed. •
 - Proprietary PLC ensures optimum drying time in each basket.
 - Mobile system can be arranged in-line with the CAPX-8 machine.

5.2 INSTRUCTION FOR FILLING THE CHECKLIST

- 5.2.1 In case of identification of major component actual observation should be written in specified location.
- 5.2.2 In case of the compliance of the test actual observation should be written in specified location.
- 5.2.3 For identification of utilities actual observation should be written in specified location.
- 5.2.4 Give the detailed information in the summary and conclusion part of the installation Qualification report.
- 5.2.5 Actual observation of the component should be written in specified location.
- Whichever column is blank or not used 'NA' shall be used. 5.2.6

PROTOCOL No.:



5.3 INSTALLATION CHECKLIST:

Installation checklist is as follows:

| S.No. | STATEMENT | METHOD OF VERIFICATION | OBSERVATION | VERIFIED BY SIGN/DATE |
|-------|---|---------------------------|-------------|--------------------------|
| 1. | Verify that the "As Built" drawing is complete and represents the design concept. | Visually | | |
| 2. | Verify that Purchase order copy is available. (write the P.O. No. in observation) | Visually | | |
| 3. | Verify that major components are securely anchored and shock proof. | Visually | | |
| 4. | Verify that there is no observable physical damage. | Visually | | |
| 5. | Verify that there is sufficient room provided for servicing. | Visually | | |
| 6. | Verify that there is no hanging cable. | Visually | | |
| 7. | Verify that all electrical connections are done according to the drawings. | Visually | | |
| 8. | All access ports are examined and cleared of any debris. | Visually | | |
| 9. | Safe electrical connections. | Visually | | |
| 10. | Equipment identification nameplate visible. | Visually | | |
| 11. | Units installed on foundation are secure in place as per manufacturer's recommendations. | Visually | | |

Remark: -----

Reviewed by (Sign/Date)

PROTOCOL No.:

5.4 IDENTIFICATION OF MAJOR COMPONENTS:

Describe each critical component and check them and fill the inspection checklist.

| Name of System Component | Desig | n Specification | Method Of Verification | Observation | Verified By Sign/Date |
|-----------------------------|-----------|-----------------------------|---------------------------|-------------|--------------------------|
| Machine Motor | Make: | Rotomotive | Visually on name plate | | |
| | Spec. | 2 HP, 3 Phase, 415 V AC | Visually on name plate | | |
| | Qty.: | 01 Nos. | Visually / Physically | | |
| | RPM: | 1440 | Visually on name plate | | |
| | Sr. No. | To be Recorded | Visually on name plate | | |
| | Direction | Clockwise | Visually / Physically | | |
| Machine Conveyor Motor | Make: | Panasonic | Visually / Physically | | |
| | Spec. | 25 W, 220 V AC & 3 Phase | Visually / Physically | | |
| | Qty | 01 Nos. | Visually / Physically | | |
| | RPM: | 1400 | Visually on name plate | | - |
| | Model No. | M8MX25GAYGA | Visually / Physically | | |
| Mangle Roller Motor | Make: | Panasonic | Visually / Physically | | |
| | Spec. | 25 W, 415 V AC & 3 Phase | Visually / Physically | | |
| | Qty | 01 Nos. | Visually / Physically | | |
| | Supply: | 220 V & 3 phase | Visually / Physically | | |
| | RPM | 1450 | Visually / Physically | | |
| | Sr. No. | To be recorded | Visually / Physically | | |



| Hex Roller /Brush | Make: | Panasonic | Visually / | |
|-------------------|------------|------------------|--------------------------|---|
| Assembly Motor | | | Physically | 4 |
| | Spec. | 90 W, 220 V AC & | Visually / | |
| | | 3 Phase | Physically | |
| | Qty | 01 Nos. | Visually / | |
| | | | Physically | |
| | Model | M9MZ90G4YGA | Visually / | |
| | | | Physically | |
| | RPM | 1400 | Visually / | |
| | | | Physically | |
| | Sr. No. | To be recorded | Visually / | |
| | | | Physically | |
| Segment | Make | Fuji | Visually / | |
| Temperature | | 5 | Physically | |
| Controller | Qty.: | 01 Nos. | Visually / | 1 |
| | × | | Physically | |
| | Model No | PXR4NCY1- | | 1 |
| | Model No | 1VM70 | Visually / | |
| | | | Physically | - |
| | Sr. No. | To be recorded | Visually / | |
| | | | Physically | |
| Left Spreader Box | Make: | Fuji | Vienelly / | |
| Temp. Controller | | | Visually / Physically | |
| | | | Fliysically | |
| | Qty. | 01 Nos. | Visually / | |
| | | | Physically | |
| | Model No. | PXR4NCY1- | | |
| | 100001100. | 1VM70 | Visually / | |
| | | 1 / 1/17 0 | Physically | |
| | Sr. No. | To be recorded | Visually / | |
| | | | Physically | |
| | | | inysicany | |
| Right Spreader | Make | Fuji | Visually / | |
| Box Temp. | | | Physically | |
| Controller | Qty. | 01 Nos. | Visually / | |
| | | | Physically | |
| | Model No.: | PXR4NCY1- | | 1 |
| | | 1VM70 | Visually / | |
| | | 1 1 111/0 | Physically | |
| | Sr. No. | To be recorded | Visually / | 1 |
| | 51.110. | | Physically | |
| Drive for Machine | M-1 | A 11 D 11 | | |
| Motor (VFD) | Make | Allen Bradley | Visually / | |
| | | | Physically | |



| | Qty. | 01 Nos. | Visually / Physically | |
|--------------------------------------|----------|----------------|--------------------------|--|
| | Model No | Power Flex 4M | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Mangle Roller Speed Control | Make | Allen Bradley | Visually / Physically | |
| (VFD) | Qty. | 01 Nos. | Visually / Physically | |
| | Model No | Power Flex 4M | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Conveyor Speed Control (VFD) | Make | Allen Bradley | Visually / Physically | |
| | Qty. | 01 Nos. | Visually / Physically | |
| | Model No | Power Flex 4M | Visually / Physically | |
| | Sr. No. | to be recorded | Visually / Physically | |
| Hex Roller Speed Controller (VFD) | Make | Allen Bradley | Visually / Physically | |
| | Qty. | 01 Nos. | Visually / Physically | |
| | Model No | Power Flex 4M | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Medicine Recirculation | Make | Allen Bradley | Visually / Physically | |
| Pump Speed Control (VFD) | Qty. | 01 Nos. | Visually / Physically | |
| | Model No | Power Flex 4M | Visually / Physically | |



| | Sr. No. | to be recorded | Visually / Physically | |
|-----------------------------------|------------|----------------------|--------------------------|--|
| Control Logic (PLC) of Machine | Make | Allen Bradley | Visually / Physically | |
| | Qty. | 01 Nos. | Visually / Physically | |
| | Model No. | ML 1400 | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| HMI for Machine | Make: | Allen Bradley | Visually / Physically | |
| | Qty. | 01 Nos. | Visually / Physically | |
| | Model No. | PVP 1000 | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Medicament Dosing Pipe | Make | Festo | Visually / Physically | |
| | Qty. | 24 Nos. | Visually / Physically | |
| | Model No.: | PUN-H-6X1 | Visually / Physically | |
| Segment Sensor | Make | Exotherm | Visually / Physically | |
| | Qty. | 02 Nos. | Visually / Physically | |
| | Model No. | PT 100 | Visually / Physically | |
| Spreader Box Heater | Make: | S.S. SON CONTROLS | Visually / Physically | |
| | Spec. | 750 W | Physically | |
| | Qty. | 04 Nos. | Visually / Physically | |
| Segment Heater | Make: | S.S. SON CONTROLS | Visually / Physically | |

DDOTOCOL:



| PR(| UΊ | O | CU | L | Ν | 0. |
|-----|----|----------|----|---|---|----|
| | | | | | | |

| | Spec. | 1KW | Physically | |
|-------------------------------|--------------|----------------------|--------------------------|--|
| | Qty. | 02 Nos. | Visually / Physically | |
| Spreader Box Sensor | Make: | Exotherm | Visually / Physically | |
| | Qty.: | 02 Nos. | Visually / Physically | |
| | Model No. | PT 100 | Visually / Physically | |
| SS Fittings | Qty. | 02 Nos. | Visually / Physically | |
| | MOC | SS 316 | From Certificate | |
| TUMBLER DRI | ER (Equipmen | t No EQI/SGD/FTD/ | 001) | |
| Tumbler Drier Basket Motor | Make | Siemens | Visually / Physically | |
| | Power | 2.2 KW | Visually / Physically | |
| | Supply | 3 phase, 415 V ± 10% | Visually / Physically | |
| | RPM | 2880 | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Tumbler Drier Blower | Make | Ebm Popst | Visually / Physically | |
| | Model | G2D160-AF02-01 | Visually / Physically | |
| | Qty: | 6 Nos. | Visually / Physically | |
| | RPM | 2300 | Visually / Physically | |
| | Capacity | 320 W | Visually / Physically | |
| | Volt | 3 Phase, 400 V | Visually / Physically | |
| Tumbler Drier Blower VFD | Make | Allen Bradley | Visually / Physically | |
| | Qty.: | 01 Nos. | Visually / Physically | |



| | Model No.: | Power Flex 4M | Visually / Physically | |
|-------------------------------------|------------|------------------|---------------------------|--|
| | Sr. No. | To be recorded | Visually / Physically | |
| Tumbler Drier Basket VFD | Make | Allen Bradley | Visually / Physically | |
| | Qty.: | 01 Nos. | Visually / Physically | |
| | Model No.: | Power Flex 4M | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Air heater for Blower | Make | Stego | Visually / Physically | |
| DIUWCI | Туре | CS130 | Visually / Physically | |
| | Power | 1200 W | Visually / Physically | |
| Machine Lubricati | on System | | | |
| Machine Lubrication | Make: | Bonfiglioli | Visually on name plate | |
| Motor | Spec. | 0.18 KW, 3 phase | Visually / Physically | |
| | Model No. | BN 63 BA B5 | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Lubrication Tank | Make: | ARBES | Visually / Physically | |
| | MOC: | SS 304 | From Certificate | |
| | Capacity | 20 liters | Visually / Physically | |
| Lubrication Tank for Dosing pump | Make: | ARBES | Visually / Physically | |
| - | MOC: | SS 304 | From Certificate | |
| | Capacity | 2 liters | Visually / Physically | |



| Die Roll Housing | Assembly | | | |
|------------------------------|---|------------------------------------|--------------------------|---|
| Die roll Housing Assembly | 8 inch long die rolls | (Aluminum Alloy) | Visually / Physically | |
| | 8 inch segmen brass):Teflon | nt (Virgin lead free coated | Visually / Physically | |
| | Mangle Rollers | Serrated and Teflon coated | Visually / Physically | |
| | Die roll loading system | Pneumatic | Visually / Physically | |
| | | bly / Hex roller an independent | Visually / Physically | |
| Ribbon Lubrication | on System | | · · · · | ł |
| Miniature Pumps | Miniature pumps for each ribbon roller. | | Visually / Physically | |
| | Tank capacity | 5 liters, 2 Nos. | Visually / Physically | |
| | PLC Timer | For ON/OFF time adjustable | Visually / Physically | |
| Chiller Indoor Un | it (Equipment | No: EQI/SGD/CIU/ | 001) | |
| Motor | Make | Siemens | Visually / Physically | |
| | RPM | 1415 | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |
| Motor VFD | Make | Allen Bradley | Visually / Physically | |
| | Qty.: | 01 Nos. | Visually / Physically | |
| | Model No.: | Power Flex 4M | Visually / Physically | |
| | Sr. No. | To be recorded | Visually / Physically | |

PROTOCOL No.:



| Die roll cutting | Make | SMC | Visually / Physically | |
|----------------------------|-------|---------------------------|--------------------------|--|
| | Range | 0-10 kg/cm ² | Visually / Physically | |
| Die roll low | Make | SMC | Visually / Physically | |
| | Range | 0-10 kg/cm ² | Visually / Physically | |
| GEL flow V Valve | Make | SMC | Visually / Physically | |
| | Range | 0-10 kg/cm ² | Visually / Physically | |
| FRL | Make | SMC | Visually / Physically | |
| | Range | 0-10 kg/cm ² | Visually / Physically | |
| Flap opening | Make | SMC | Visually / Physically | |
| | Range | 0-10 kg/cm ² | Visually / Physically | |
| Die roll loading system | Make | Denvar | Visually / Physically | |
| | Range | 0-10.6 kg/cm ² | Visually / Physically | |

Remark: -----

_____ _____



PROTOCOL No.:

7

| Name Of Components | Material Of Construction | Method Of Verification | Observation | Verified By Sign/Date | |
|---------------------------------|-----------------------------|---------------------------|-------------|-----------------------------|--|
| Cladding | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Ribbon Casting Drums | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Ribbon rollers | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Mangle Rollers | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Medicament Hopper | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Tumble dryer Cladding | SS 316/ SS | By Molybdenum Kit/ Test | | | |
| | 304 | Certificate | | | |
| Tumble dryer Baskets | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Top connecting plate | SS 316 | By Molybdenum Kit/ Test | | | |
| fittings for medicine hopper | | Certificate | | | |
| Top connecting plate | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Pump outlet connection | SS 316 | By Molybdenum Kit/ Test | | | |
| plates. | | Certificate | | | |
| Pump side Banks | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Shut- Off assembly | SS 410 | Test Certificate | | | |
| (Top plate) | | | | | |
| Segment head | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Idler Rollers | SS 316 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Tube Below Gelatin | SS 316 | By Molybdenum Kit/ Test | | | |
| Flow Valve | | Certificate | | | |
| Tumble Dryer Air Duct | SS 304 | By Molybdenum Kit/ Test | | | |
| | | Certificate | | | |
| Tumble Dryer Outlet | SS 316 | By Molybdenum Kit/ Test | | | |
| Tray | | Certificate | | | |



PROTOCOL No.:

| Medicament Transfer | Silicon Food | Test Certificate | |
|------------------------------|--------------|------------------|--|
| Tubing | Grade | | |
| Gelatin Transfer Pipe | Food Grade | Test Certificate | |
| Pump gaskets | Food Grade | Test Certificate | |
| Dozing Pipes | Food Grade | Test Certificate | |
| Pump top plate. | HcHcr | Test Certificate | |
| Pump slide valve | HcHcr | Test Certificate | |
| Pump slide valve side plates | HcHcr | Test Certificate | |
| Pump Centre Blocks | HcHcr | Test Certificate | |

Remark: -----



PROTOCOL No.:

5.6 IDENTIFICATION OF SUPPORTING UTILITIES:

| S.No. | Utility | Method Of Verification | Observation | Checked By Sign & Date |
|-------|--|--------------------------------|-------------|---------------------------|
| 1 | Licenicity | Physically with clamp meter | | |
| 2 | Compressed Air (6 kg/cm ²) | Physically | | |

Remark: -----





5.7 IDENTIFICATION OF SAFETY FEATURES:

Identify and record the safety/interlocking features (if any) and their function in following tables:

| Safety Features Description | Function | Method of verification | Observation | Checked By Sign & Date |
|--|--|------------------------|-------------|---------------------------|
| Earthing of motor | To avoid the accident due to the leakage of current. | Visually | | |
| Emergency Stop on CAP-X-8 M/C, and Tumbler Drier | For operator safety | Visually | | |
| Thermal Relay in Control panel | For operator and Equipment safety. | Visually | | |

Remark: -----



PROTOCOL No.:

5.8 IDENTIFICATION OF COMPONENT TO BE CALIBRATED

| Name of Components | Range | Make | ID | Location | Identified By Sign/Date |
|--------------------|-------|------|----|----------|----------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Remark: -----

INSTLAATION QUALIFICATION PROTOCOL FOR



SOFT GELATIN ENCAPSULATION MACHINE

IDENTIFICATION OF STANDARD OPERATING PROCEDURE (SOP) 5.9

The following Standard Operating Procedures were identified as important for effective performance of Soft Gelatin Encapsulation system operation.

| S.No. | SOP Title | Verified By Sign/Date |
|-------|-----------|-----------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Remark: -----

_____ _____

PROTOCOL No.:

PHARMA DEVILS

5.10 VERIFICATION OF DRAWING AND DOCUMENTS:

Following documents are reviewed and attached as listed below:

| S.No. | Drawing And Document Detail | Verified By Sign/Date |
|-------|-----------------------------|--------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Remark: | | | |
|---------|------|------|------|
| | | | |
| | | | |
| | | | |
| | | | |



SOFT GELATIN ENCAPSULATION MACHINE

5.11 **ABBREVIATIONS**

Following Abbreviations are used in the installation qualification protocol of Soft Gelatin Encapsulation system.

| MOC | : | Material of construction |
|-------|---|-----------------------------|
| V | : | Volts |
| HZ | : | Hertz |
| Mm | : | Millimeter |
| Spec. | : | Specification |
| Qty. | : | Quantity |
| ltrs. | : | Liters |
| NA | : | Not applicable |
| Thk. | : | Thickness |
| GMP | : | Good manufacturing Practice |
| HcHcr | : | High Carbon, High Chromium |



DEFICIENCY AND CORRECTIVE ACTION (S) REPORT (S) 5.12

Following deficiency was verified and corrective actions taken in consultation with the Engineering

Department.

Description of deficiency:

Corrective action(s) taken:

Deviation accepted by (Sign/Date)

Deviation Approved by (Sign/Date)



PROTOCOL No.:

| HAKMA DEVILS | |
|--------------|--|
| | |
| | |
| | |

5.13 Annexure (S)

| Annexure No. | Details Of Annexure |
|-------------------|---------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Remarks (if any): | I |
| | |

Done By & Date:

Verified By & Date:

| PHARMA DEVILS | INSTLAATION QUALIFICATION PROTOCOL FOR SOFT GELATIN ENCAPSULATION MACHINE | PROTOCOL No.: | | |
|--|---|---------------|--|--|
| 6.0 INSTALLATION QUALIFICATION FINAL REPORT: | | | | |

6.1 SUMMARY:

6.2 CONCLUSION:

Prepared By Sign/ Date Checked By Sign/ Date



6.3 FINAL REPORT APPROVAL

It has been verified that all tests required by this protocol are completed, reconciled and attached to this protocol or included in the qualification summary report. All amendments and discrepancies are documented, approved and attached to this protocol. If applicable, Signature in the block below indicates that all items in this qualification report of Soft Gelatin Encapsulation system have been reviewed and found to be acceptable and that all variations or discrepancies have been satisfactorily resolved. After the successful installation qualification of the Soft Gelatin Encapsulation system, the equipment can be taken for operational qualification.

| FUNCTION | NAME | DESIGNATION | DEPARTMENT | SIGNATURE | DATE |
|----------------|------|-------------|----------------------|-----------|------|
| REVIEWED BY | | | QUALITY ASSURANCE | | |
| | | | ENGINEERING | | |
| | | | PRODUCTION | | |
| APPROVED BY | | | HEAD OPERATION | | |
| | | | QUALITY ASSURANCE | | |