# Supplier Packaging Policy

**Document Revision Chart**

| #.# | Section Modified and Revision Description | Date | Author |
|---|---|---|---|
| 1.0 | Creation | 3/18/2024 | Timara Baldwin |
| 2.0 | Updated Language | 11/08/2024 | Timara Baldwin |
| | | | |

## 1.0 Purpose

This document outlines INNIO Waukesha's packaging requirements for materials destined for any INNIO Waukesha site. Our aim is to ensure a smooth, efficient flow of materials through an optimized packing system. This aligns with our commitment to quality, environmental sustainability, safety, and operational efficiency. All products must undergo a qualification process, supporting our logistics needs while upholding our ecological and operational standards.

Procedure ☒ Work Instruction ☐ Training or other ☐

## 2.0 Scope Definition

These guidelines are applicable to all INNIO suppliers and serve as a supplement to the General Terms and Conditions of Purchase. They are designed to uphold the integrity of our supply chain and reinforce our dedication to operational excellence.

## 3.0 Definitions and Acronyms

| Term | Definition |
|---|---|
| Single Packaging | Package containing one component. |
| Packing unit | Package containing several components of the same part number or mixed containers. |
| Overpack | Package containing several individual packages or multiple packing units |
| Unit Load / Unitization | Items or packages held together by one or more means and shaped or fitted for handling, transporting, stacking, and storing as a unit |
| Primary packaging | Packaging designed to come in direct contact with the component |
| Secondary packaging | Designed to contain one or more primary packaging together with any protective materials |
| Tertiary packaging, transport packaging | Packaging designed to contain one or more packages or bulk material for the purpose of transport, handling or distribution |
| Packing List | This document details the specific contents of each package or container, including the type and quantity of goods, their individual weights, and any marks or numbers used to identify them |
| Bill of Lading | (Delivery Bill) A contract between the owner of the goods and the carrier. It serves as a receipt for the goods, evidence of the contract of carriage, and document of title |
| Consignment Note (CMR) | This document confirms that the carrier has received the goods and has a contract from the supplier to carry them |

| | |
|---|---|
| Master Label | Shipping label - used to identify a larger container that holds multiple smaller packages. It provides information about the contents of the larger container. |

| Acronym | Definition |
|---|---|
| FPQ | First Piece Qualification |
| BOL | Bill of Lading |
| ISPM-15 | International Standards for Phytosanitary Measures |
| IPPC | International Plant Protection Convention |
| VCI | Volatile Corrosion Inhibitors |

### 3.1 INNIO Standards

The following INNIO Standards will be provided by the SQE together with SQR-0001, if applicable.

| | |
|---|---|
| SQR-0001 | Supplier Quality Requirements |
| JWN 890 115 | Jenbacher Cleanliness Standards |
| STD-02-086 | Waukesha Cleanliness Standards |
| JWN 890 110 | Jenbacher General Packaging Guidelines for brought in parts |
| ISO 9001/ IATF 16949 | Quality Management System Requirements |
| ISO 14001:2015 | Environmental Management System Requirements |
| ISO 45001:2018 | Health and Safety Management System Requirements |
| OHSA<br>OSHA<br>EU-OSH | Occupational Health and Safety Act - Ontario<br>Occupational Safety and Health Administration – USA<br>The Health and Safety at Work Act – Austria |
| INNIO-TRS002 | Supplier Compliance Requirements – Declaration of Hazardous and Regulated Substances & Materials |

### 4.0 Packaging Qualification

Suppliers are responsible for preparing and submitting a packaging proposal, which shall include an INNIO packaging data sheet (PDS), for each INNIO Waukesha part number. This shall be in accordance with the requirements outlined in this document, the Supplier Quality Requirements SQR-0001 and all applicable regulations established by federal, state, provincial, and local governments. The PDS shall establish and maintain documented procedures for handling, storage, packaging, preservation, and delivery of the part(s), ensuring a minimum storage period of 12 months without causing corrosion, damage, or any degradation in the quality of the parts (see Appendix 1)

Packaging qualifications shall be required, but not limited to the following scenarios:

- PPAP (FPQ) process for new or current suppliers
- Occurrences of design, process or material change by the supplier or at INNIO Waukesha
- When non-conformance quality issues arise at the supplier or INNIO Waukesha
- After a period of three or more years without producing or shipping the specific part
- Circumstances involving the shipment of prototype parts to INNIO Waukesha
- Changes in legal or regulatory requirements pertaining to packaging

### 4.1 Packaging Approval Process

Upon receipt of the PDS from Suppliers, INNIO Waukesha will conduct an evaluation. Should there be a need for modifications, a change proposal will be sent to the supplier. Once the PDS is approved by the Quality Packaging Representative and SQE, it will be assigned a unique document code and endorsed with signatures. The supplier may proceed with the delivery of the part(s) in the series after written qualification approval, validated with the unique PDS document code and signatures. Suppliers are required to provide packaging prototypes upon request. Nothing in this document constitutes any offer or acceptance of an offer by INNIO Waukesha nor creates any obligation of INNIO Waukesha. Further, nothing in this document limits or restricts any rights or remedies INNIO Waukesha may have. INNIO Waukesha reserves all rights.

It is important to note that the approval of packaging qualification does not absolve suppliers of their responsibility to ensure the parts are delivered without damage, in accordance with INNIO Waukesha standards for quality, sustainability, and operational efficiency. Failure to comply may lead to a corrective action request. Furthermore, the supplier may be held liable for any additional costs associated with repackaging work, handling operations, or waste disposal, as well as for reductions in quality due to inadequate or contaminated packaging.

### 4.2 Supplier Deviation Request

In the event of a known deviation, risk mitigation strategy or continuous improvement from an approved packaging qualification, the supplier shall submit an INNIO SDR form to the responsible SQE as promptly as possible. A copy of the approved SDR form shall be included with the packaged part(s).

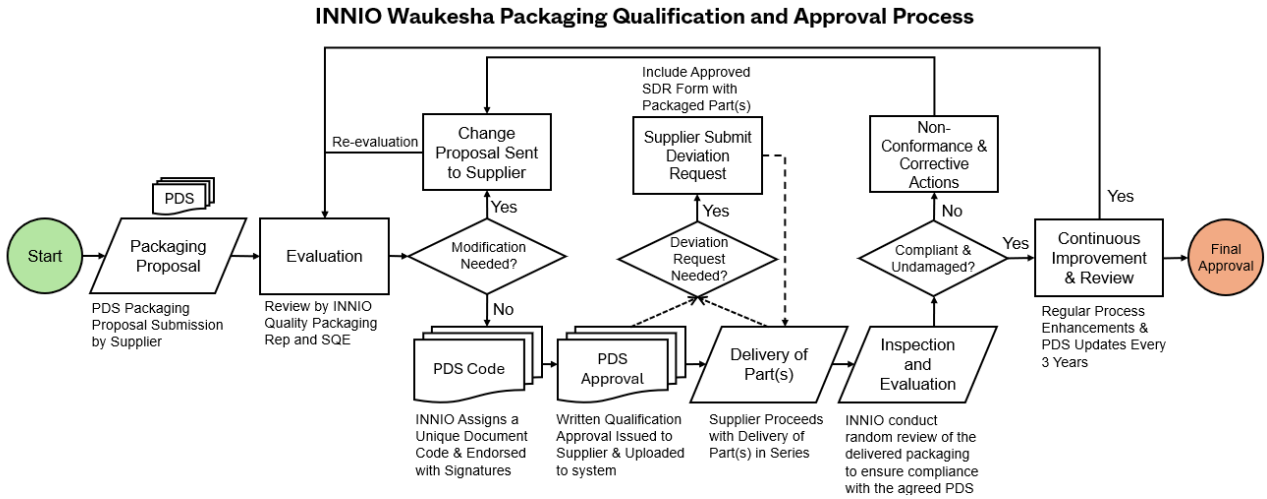



**Figure 4.0 – Packaging Qualification and Approval Process Flow**

### 5. 0 General Requirements

The selection of appropriate packaging is dependent on several variables including but not limited to, part properties, protection requirements, container strength, transportation duration and method, storage conditions, safety requirements and sustainable goals.

# Supplier Packaging Policy

Regardless of the chosen packaging, it is required to ensure safe delivery without damage or compromise to quality, following these standards:

- Compliance with STD-02-0860 / JWN 890 115 Part Cleanliness Standard shall be maintained.
- Packaging shall ensure that the parts can be used in subsequent further processing or assembly at INNIO without additional treatment or cleaning.
- All packaging materials shall be undamaged and suitable for use.
- All packages shall be assessed under conditions that replicate the transportation and storage environments to confirm that packaging and shipments reach their destinations as intended in good condition, without damages.
- All materials used shall be critically evaluated for environmental compatibility, sustainability, recyclability and devoid of hazardous substances. Adhering to the ecological principle of "avoidance before reduction before recycling". Adhere to ISO 14021.
- Compliance with occupational health and safety regulations (OHSA/OSHA/EU-OSA) and environment, health, and safety laws as per ISO 14001, ISO 45001, ISO 18601–18606 series shall be ensured.
- The supplier shall ensure that hazardous material shipments comply with all relevant regulations. If packaging contains legally defined "hazardous" materials, INNIO shall be informed and provided with the necessary "Material Safety Data Sheets". Suppliers are expected to follow the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for hazardous materials and provide MSDS/SDS as per the requirements of the destination country.
- Packaging shall permit safe and efficient handling, opening/closing, part removal and reduces picking effort.
- Proper markings and labeling shall be ensured. (Refer to 6.10 Label Requirements) Adhere to ISO 780:2015
- Each packaging unit shall contain only one INNIO part number. Mixing part numbers in packages is not permitted. If mixed pallet loads are unavoidable, they shall be clearly separated and identified with a “Mixed Consignment Label” “Mixed Pallet”
- Mandatory ISPM-15 compliant wood materials with visible IPPC marking on two adjacent sides shall be used, regardless of country origin or destination.
- Packaging shall adhere to consistent, established quantities. Any adjustments require formal approval from an authorized INNIO representative.
- Packages intended for manual handling shall not exceed 18 kg (40 lbs.) All packages over 18kg (40 lbs.) shall require a lifting base.
- Packages shall be designed to withstand environmental conditions reasonable to supply chain.
- Packaging shall be designed to comply with any specific regional or national standards or regulations applicable to the destination country.

## 6.0 Packing and Materials

### 6.1 Internal Packaging

- **Part Placement:** Parts and protection shall be arranged within the package to minimize the use of void fillers and facilitate easy unpacking and handling. All parts shall completely fill and securely fit within the packaging, with no protrusions allowed.
- **Void Fill:** All empty spaces shall be filled with appropriate, recyclable materials to prevent part movement. Select fillers that allow easy part removal and proper recycling.
- **Cushioning**: Non-abrasive, non-reactive, corrosion-resistant materials that absorb shock and do not absorb moisture when in contact with metal surfaces shall be used. All sharp edges, corners, bare metal, and machined areas such as threads and fittings shall be adequately protected with cushioning materials.
- **Dividers and Trays:** shall be designed to segregate and secure parts within the packages to minimize the need for additional void fillers. They should facilitate easy unpacking and handling. All parts shall fit completely, providing additional protection during transit. No part shall protrude from trays or dividers.
- **Internal Bocking and Bracing:** Use appropriate techniques to immobilize heavier parts and prevent movement during transit.
- **Materials:** Sustainable materials such as VCI materials, kraft paper, die cut kraft inserts, honeycomb, corrugated bubble wrap, biodegradable/recycled bubble wrap or foams shall be prioritized. The use of Styrofoam, loose fill packing peanuts, foam in place, insta foam or recessed plugs is not permitted. Efforts should be made to eliminate the use of bubble wrap, foam, and plastics. If plastics are used, they shall have the recycle symbol molded in to facilitate effective recycling.

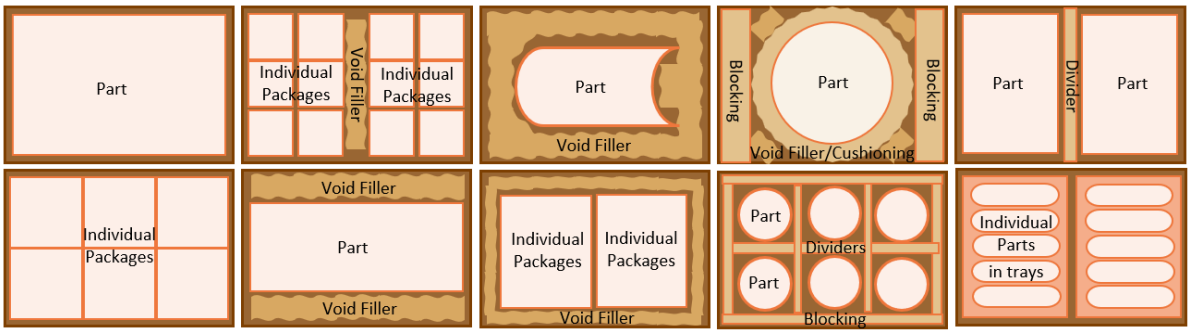



**Figure 6.1 – Examples of Internal Packaging Methods (Not Comprehensive)**

### 6.2 Preservation, Barrier and Corrosion Protection

Parts shall be safeguarded within the primary container using appropriate barrier and VCI materials to guard against corrosion and damage for a minimum of 12 months, post-delivery. If corrosion occurs within 12 months, the supplier may be held responsible for the necessary rework costs.

- **Preparation**: Prior to the application of any protective materials, ensure parts are clean, dry, defect-free and shall meet STD-02-0860 cleanliness class standards.
- **Barrier Materials:** Appropriate barrier materials shall be selected based on the application, metal type, storage duration, environmental conditions, and compatibility. Effective sealing

methods such as heat sealing, adhesives, or zip top closures shall be used to prevent air exposure and moisture ingress. Barrier seams shall be positioned to prevent water accumulation or trapping moisture.

- **VCI Materials**: Metal surfaces shall be fully wrapped or enclosed with appropriate VCI materials to create a sealed environment. Metal surfaces shall be dry and in direct contact with VCI material. Acidic and non-hygroscopic materials should not be placed inside a sealed VCI environment. VCI paper offers short-term, rapid release and absorbs moisture. VCI plastics provides long-term, slower release and water barrier.
- **Inspection:** Barrier/VCI materials shall be inspected for breaches that could compromise the seal and ensure packaging materials (bracing, blocking, filler) don't puncture or interfere. Do not seal high-moisture cellulose products, like wood, in VCI environment.
- **Protective and Rust Preventative Coatings:** If required, protective coatings shall be applied as specified in engineering drawings before packaging such as MIL-PRF-16173E, Grade 3, Class 1. Verify the compatibility of coatings with barrier/VCI manufacturers.
- **Desiccants:** If required**,** the quantity of desiccants used shall depend on type, container volume, and part properties, check with manufacturer. Desiccants immediately absorb moisture upon atmospheric exposure, check for saturation before use and replaced as needed. To prevent rust, avoid direct contact with metal parts.
- **Overseas Shipping:** For humid conditions or overseas shipping, the two-barrier method should be used. Seal parts in a VCI bag, then position desiccants outside the VCI bag, in second sealed barrier bag (poly or foil bag). This method ensures moisture reduction inside the container without compromising metal protection.
- **Electrostatic Protection**: Static shield barrier bags should be used to protect sensitive electronic components against electrostatic discharge during transport and storage. Anti-static bags prevent buildup of static but do not stop electrostatic discharge.
- **Openings Protection:** Openings in parts shall be adequately protected to prevent the ingress of debris and particles, as well as to guard against corrosion. The use of recessed plugs is strictly prohibited. If necessary, only use external caps, flange and bolt hole covers in yellow or red for easy removal. Exercise caution when protecting openings, threaded ends, and flange surfaces. Ensure sufficient corrosion protection by making sure all metal surfaces are in direct contact with the VCI and are fully sealed, preferably using VCI poly or VCI emitters. (Annex 3.0)

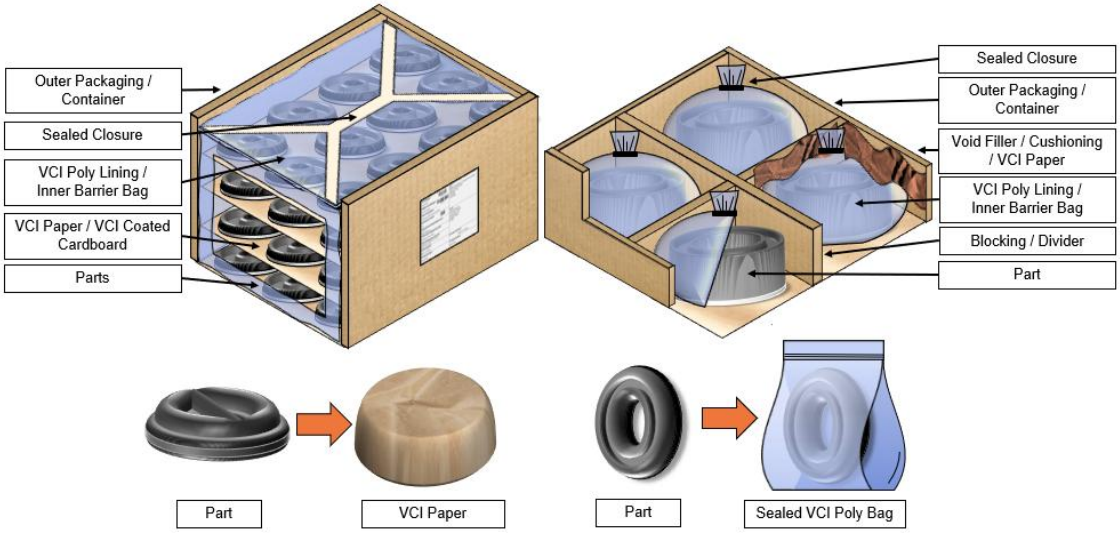



**Figure 6.2 – Examples of Barrier and VCI Methods (Not Comprehensive)**

### 6.3 Wood Material Requirements

- All wood materials and dunnage shall comply with the ISPM-15 requirements regardless of the country of origin or destination. Refer to - ISPM 15: Regulation of wood packaging material in international trade and https://www.ippc.int/
- IPPC markings shall be visible on two adjacent sides of wood materials. The supplier shall maintain and provide records of treatment process upon request. INNIO Waukesha shall validate compliance through visual inspection of IPPC markings and any signs of live pests.
- Wood shall be free of defects, bark, mold, fungal infestation, and live pests.
- A limited number of knots are permissible. Fasteners shall not be anchored in knots or defective areas.
- All wood materials shall be stored in a manner preventing potential infestation or damage.
- The moisture content of wood at the supplier's site shall be less than <20%.
- A protective barrier, such as VCI shall be used to prevent parts from direct contact with wood material.
- Sustainable sourcing of wood shall be prioritized, and waste shall be minimized.
- Any cost or fines resulting from non-compliance with Government Regulations shall be the supplier's responsibility.

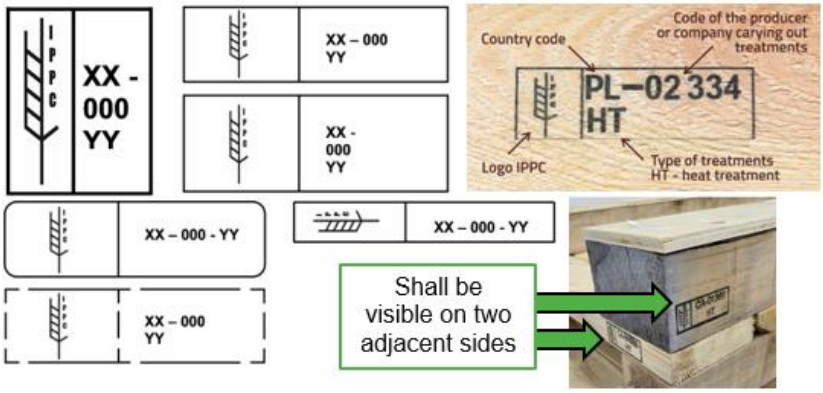



**Figure 6.3 – Acceptable IPPC Markings**

### 6.4 Crate Requirements

- **Load Carrier:** Crates shall require a load carrier base. (Refer to section 6.7 – Load Carriers)
- **Reinforcement:** Vulnerable points of crates shall be reinforced with additional wood, brackets or strapping to enhance durability during transport. Diagonal braces should be used on panels to increase strength and stability. To prevent part movement internal blocking, bracing or dunnage shall be used.
- **Fasteners:** Fasteners shall be driven into the side grain, not the end grain, in three-way corner construction. Fasteners used shall prevent wood splitting or fracturing during assembly. Twist nails, screws, or bolts should be of a corrosion-resistant material when used in humid or corrosive environments.
- **Closures**: Crates shall be securely closed using approved methods, such as screws, bolts, or heavy-duty latches. Closures must ensure that the crate remains sealed during transport and handling.
- **Material:** Wood used in crates shall be free of defects such as large knots, cracks, or warping that could compromise structural integrity. All wood shall be ISPM 15 compliant and have visible IPPC stamps on two adjacent sides.
- **Environmental:** Crates should be constructed from sustainably sourced wood, and suppliers should consider the environmental impact of their materials. Reusable crates are encouraged where applicable.
- **Restrictions:** Wire bound crates are not accepted.

### 6.5 Corrugated Cartons Requirements

- **Material**: Carton materials shall be adequate strength for the packaged parts. (Refer to Table 6.4)
- **Load Carrier:** A load carrier base is required for cartons over 18 kg (40 lbs.) Cartons shall adhere to specified dimensional tolerances to ensure compatibility with load carriers and storage systems as outlined by carriers and in section 6.7 – Load Carriers
- **Stacking:** Flute direction shall be vertical to optimize compression strength. Cartons shall be designed to withstand stacking without deformation.

- **Markings:** A visible box maker's certificate, displaying ECT or Burst strength is required on the assembled carton. Carton packaging should not display any supplier specific branding or markings. Whenever possible, unbranded corrugated cartons should be used.
- **Closures:** Cartons shall have a lid/closure and be sealed after packing.
- **Environmental:** Corrugated cartons shall incorporate recycled content where feasible and comply with environmental regulations, ensuring recyclability and biodegradability in accordance with ISO 18601–18606. Preference shall be given to fiber-based solutions that reduce plastic use and support closed-loop recycling.
- **Quality Validation:** Suppliers shall verify carton strength and performance by conducting and documenting standardized tests such as drop, crush, and compression testing (ASTM/ISTA methods) to confirm compliance with the specified burst or ECT rating
- **Restrictions:** Cartons shall not contain hazardous materials, liquids or fluids.

| Weight | Min Burst Test | Min ECT Test | Materials |
|---|---|---|---|
| <65 lbs. | 200 | 32 | Corrugated Single Wall |
| 66 – 100 lbs. | 275 | 44 | Corrugated Single Wall |
| 101 – 120 lbs. | 350 | 51 | Corrugated Double Wall or Crate |
| 121 – 160 lbs. | 500 | 71 | Corrugated Double Wall or Crate |
| 160 – 180 lbs. | 600 | 82 | Corrugated Double Wall or Crate |
| 240 – 280 lbs. | 900 | 115 | Corrugated Triple Wall or Crate |
| 290> lbs. | | | Crate |

**Table 6.4 – Corrugated Carton Requirements**

### 6.6 Reusable Containers and Dunnage

- **Size and Type**: The size and type of reusable containers and dunnage shall be appropriate for the items being stored or transported, ensuring a secure fit and even load distribution to prevent overloading or uneven stress.
- **Load Carrier:** Reusable containers shall be compatible with standard load carrier dimensions or shall utilize reusable pallets with top caps/lids to ensure stability, stackability and protection during handling and transport.
- **Weight Capacity and Stacking:** Reusable containers and dunnage shall comply with the manufacturer's weight capacity and stacking limits.
- **Condition and Cleanliness:** Reusable containers and dunnage shall be clean, free of debris, and in a safe, good-working condition. They must be easy to clean and sanitize without compromising structural integrity.
- **Labeling and Markings**: Old labels, markings, or barcodes shall be removed before reuse. New labels shall be applied according to label standards. Containers shall display recycling symbols and plastic identification numbers in accordance with industry standards.
- **Color Specifications:** Black or grey containers shall be used. The use of colored plastics shall be limited due to environmental factors, such as recyclability and the reduction of chemical additives. Any use of colored containers must be approved and justified.
- **Durability and Maintenance:** Containers and dunnage shall be durable enough to withstand repeated use. Any damaged containers or dunnage shall be repaired or replaced promptly. Suppliers should maintain records of inspections and maintenance performed.

- **Safety and Ergonomics:** Containers and dunnage should include safety features such as rounded edges or reinforced corners to minimize risk of injury. Consider ergonomics to reduce manual handling risks, including features like handles and lifting points.
- **Return and Reuse Program:** A system for the return and reuse of containers and dunnage shall be established before use. This system shall include guidelines for cleaning, repair, markings, tracking of returned items and ownership.

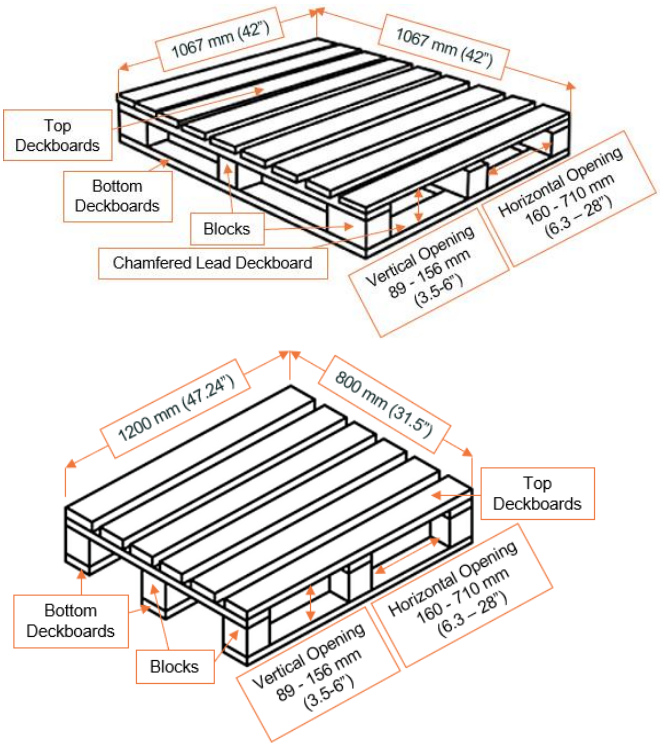
### 6.7 Load Carriers

- **Dimensions**: Load carriers shall be of standard dimensions and designed for 4-way or partial 4-way entry. Pallets must not be less than 36" (914mm) in length to ensure compatibility with racking systems. Combining multiple pallets to create a larger unit is not permitted. Approval is required for the use of non-standard dimensions. (Table 6.5).
- **Load Capacity:** Load carriers shall be capable of safely supporting a maximum load capacity of 1000kg (2200 lbs.). Prior approval is required for loads exceeding this limit.
- **Weight Distribution**: Weight shall be evenly distributed across the load carrier, with no overhang permitted. Heavier items should be centered and placed at the bottom. If a single load carrier's capacity is exceeded, additional carriers shall be used. Uneven surfaces and high points should be avoided to maintain stability.
- **Positioning**: Tall, narrow, or irregular units shall be positioned flat and horizontally. If this is not possible, an oversized load carrier shall be used to accommodate off-center gravity. In such cases, label per ISO 780:2015 standards.
- **Entry Openings**: Primary entry openings shall be 89 - 156 mm (3.5-6”) vertically and 160 - 710 mm (6.3 – 28”) horizontally.
- **Top deck boards:** Spacing shall be adequate to prevent direct contact with equipment and prevent components from falling through. Load protector pads may be used if necessary.
- **Bottom deck boards:** The base of the load carrier shall be designed to be compatible with pallet-jack equipment. It is recommended to have the bottom lead deck board chamfered to facilitate easy access to handling equipment.
- **Quality**: Load carriers shall be durable and in a safe, quality condition, capable of withstanding impact, moisture, and temperature changes. There shall be no missing or broken boards, large cracks, or damages. Regular checks for visible defects and cleanliness shall be conducted. Any load carrier not meeting these standards shall be repaired or replaced per ISO 18613 standards.
- **Blocking and Bracing:** External blocking and bracing shall be used to prevent movement of heavy parts or parts that can roll. A minimum two fasteners in each end shall be used to prevent pivoting. These shall be placed tightly against the load and appropriate barrier materials shall be used.

| Dimensions in millimeters | Dimensions in inches | Preference |
|---|---|---|
| 1016 x 1219 | 40 x 48 | 4-way entry Block/Stringer |
| 1067 x 1067 | 42 x 42 | 4-way entry Block/Stringer |
| 800 x 1200 | 31.5 x 47.24 | Euro Pallet |

**Table 6.5 – Pallet Dimension Requirements**

**4-Way Entry Block Pallet**




**Partial 4-Way Entry Notched Stringer Pallet**

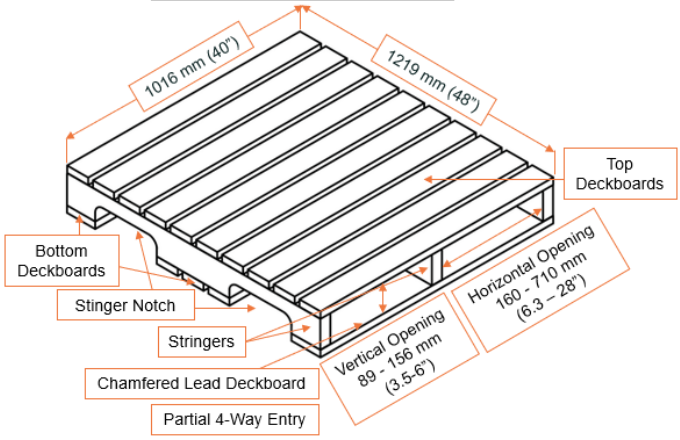



**Figure 6.5 – Pallet Dimension Requirements**

### 6.8 Stacking

Single, unit and outer packages shall be stackable. Rational unit loads shall be maintained, adhering to safe weight limits, ensuring even distribution, and stability for efficient shipping.

- **Non-Stackable**: For loads that cannot be stacked, label(s) shall be clearly displayed on two adjacent sides of outer packaging. The use of “Do not stack” labels and cones will not exempt the supplier from damaged product claims.
- **Part Stacking**: Parts within packaging shall be stacked in a manner that prevents damage or deformation. Direct contact between critical surfaces or corrosion-prone parts shall be avoided by using appropriate separators or dividers. The stacking method used must not compromise the integrity or cause corrosion of the part or its function.
- **Stack Height**: Carrier consultation is required to determine specific height restrictions. Units shall be 635-1016mm (25-40”) height to fit in rack system. Approval is required for stacking exceeding a height of 1016mm (40”). Heaviest loads shall be placed at the base of the stack. Avoid stacking dissimilar sized packages to prevent instability, crushing or other damages.
- **Load Protectors**: The use of load-protector pads or honeycomb between layers is recommended for weight distribution, surface leveling, protection from fastener and to prevent slippage.

- **Edge Protectors**: Full-length angle boards or corner protectors shall be used in conjunction with blocking and bracing to safeguard against compression and maintain stacking integrity.

### 6.9 Load Securing and Closures

All packages shall be properly closed, safely secured to load carriers for optimal tensile strength and shall have suitable weight rating in compliance with industry standards. Packages should be easy to open and, if required, resealable.

- **Banding and Strapping**: All crates and bulk containers shall have a minimum of two bands and carton loads shall have four-way banding. Edge protectors are mandatory for horizontal banding applications. All banding methods shall allow for easy equipment access. A non-corrosive barrier material shall be used between banding and component. Use PP or if necessary, metal banding.
- **Fasteners:** Appropriate fasteners for load weight shall be used for securing components, allowing easy removal. Fastener heads shall be flush or countersunk to prevent contact with components, not exceeding 3 mm (1/8”) from the surface.
- **Stretch film:** Transparent LLDPE or bio-based films shall be used. Loads shall be minimum triple wrapped with 50% overlap, film extending an inch below the pallet deck and covering the top. Regular inspections for film integrity, tares, or punctures. Stretch wrap is recommended for multi-package loads to ensure additional stability.
- **Package Sealing:** Packages, containers, and crates shall be sealed securely using appropriate closures (such as hardware, tape, adhesives, or staples) rated for the package's weight and size. Sealing shall not damage components and shall provide effective protection against external elements.

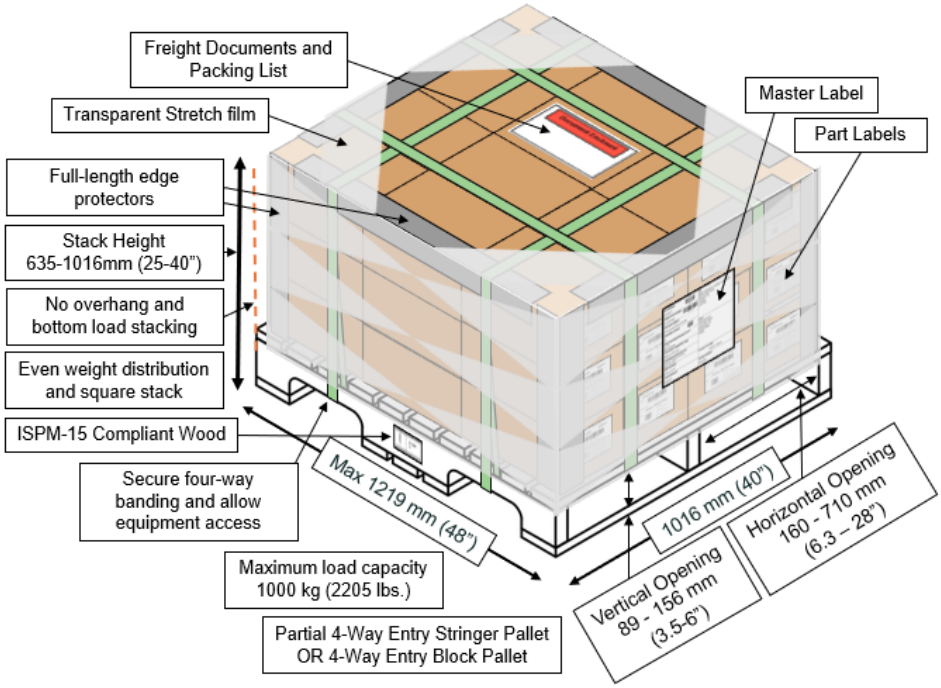



**Figure 6.6 – Examples of Load Carrier Unit (Not Comprehensive)**

**6.10 Labeling Requirements**

All labels shall be securely affixed to flat surfaces for maximum adhesion, easily visible on the largest front facing surface, weatherproof, and in English. Do not place adhesive labels directly on parts and painted surfaces.

- Pack and Master load labels shall be displayed as an EAN 128 B barcode, conforming to ISO/IEC 15417:2007 standard. Barcode height shall be min 13mm (0.5") https://barcode.tec-it.com/en
- Crate stenciling must be black nonfading paint in block-lettering. Use the largest possible stencil for the panel size.
- For parts that do not require containers or crates attach a stainless-steel engraved nameplate, plywood, or plastic cutouts to the support frame.
- Labels shall be placed to ensure that barcodes and text do not interfere with each other.
- Labels shall not be placed on seams and around edges of container.
- Master load labels shall be used to identify the total contents of exterior packaging unit and be placed outside of stretch film in front of the unit.
- Container labels shall be placed visible facing outwards.

Each shipped unit must have the necessary labels listed below, clearly marked on two adjacent exterior sides of the packaged unit.

- Master Label – Mandatory on every unit.
- Freight Documents and Packing List – Mandatory on every unit.
- Prototype Label for any prototype deliveries.
- FPQ labels for any First Piece Qualification
- Mixed Consignment Label - Each packaging unit shall contain only one INNIO part number. Mixing of part numbers in packages is not permitted. If mixed pallet loads are unavoidable, they shall be clear separated and identified with a "Mixed Consignment Label"
- Sets/Kits Labels – For INNIO part numbers in a set/kit. Do not send parts separately.
- Handling Instructions, Cautionary markings and Hazardous materials per ISO 780:2015 (see Appendix 3)
- Center of Gravity is required on unstable packaging.

| **Single and Unit Packaging Label** (Figure 3) | **Master Label (Supply On)** |
|---|---|
| • INNIO Part number<br>• Part description<br>• Quantity of parts in a package<br>• Weight<br>• Date packed (Following the ISO 8601 standard date format "YYYY-MM-DD")<br>• Supplier Code | • Purchase Order Number (PO) - EAN 128 B barcode<br>• INNIO part number - EAN 128 B barcode<br>• Part description<br>• Quantity of parts in a unit - EAN 128 B barcode<br>• Quantity of units in PO<br>• Unit gross weight lbs. (kg)<br>• Unit dimensions millimeters/centimeters (inches) Length x Width x Height<br>• Date packed |

| | |
|---|---|
| | • Postal address of the recipient<br>• Postal address of the Supplier – Include country of origin<br>• For Castings or Machined parts include - Serial number |

**Table 6.7 – Container Label Requirements**

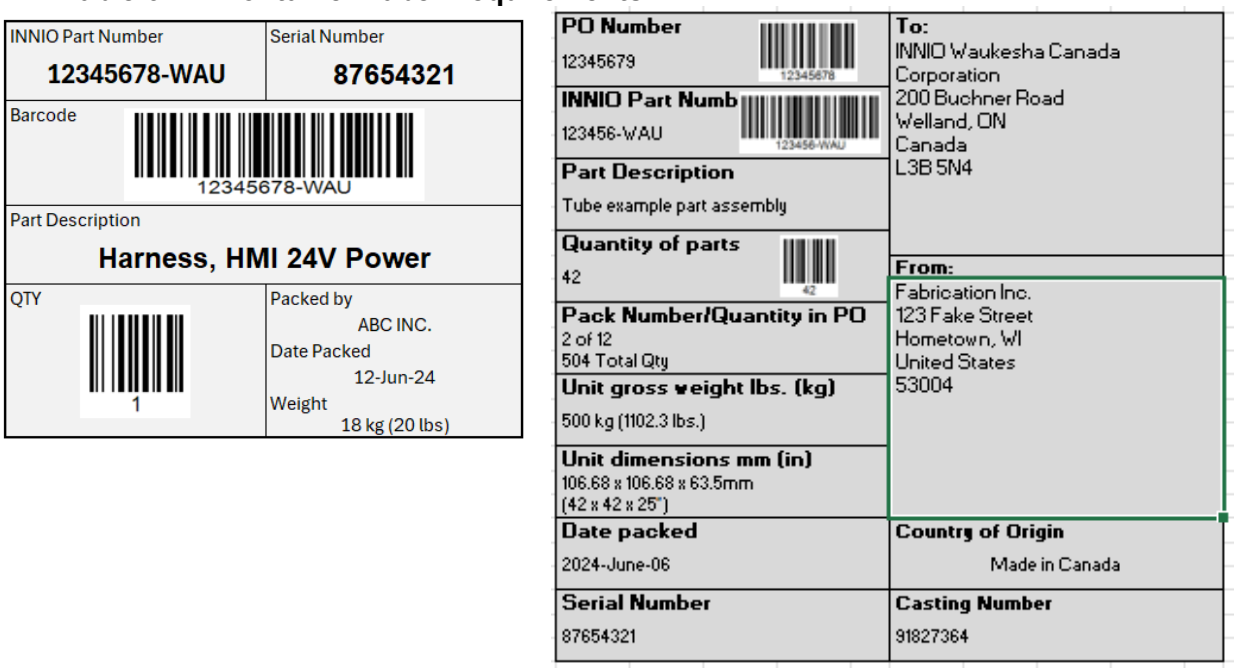



**Figure 6.8 – Example of Single/Unit packaging label and Master label**

## 6.11 Sustainability and Environmental Characteristics

At INNIO, we are committed to mitigating our environmental impact collectively and consider every step towards this goal to be of significant importance. We adhere to the ecological principle of "avoidance before reduction before recycling", and in line with this, we place a strong emphasis on the critical assessment of all materials used in packaging for their environmental compatibility and recyclability.

Our mandate is to utilize recyclable materials for both disposable and reusable packaging, with a distinct preference for reusable solutions. This approach, adopted in collaboration with our suppliers, is rooted in the principle of using "as much as necessary, as little as possible". It contributes consistently to waste prevention and aligns with the waste management goal of environmental legislation.

Suppliers are expected to align with this mandate, ensuring that packaging materials are not only environmentally friendly and recyclable, but also safe and free from hazardous substances. We encourage the use of minimal packaging materials, without compromising the

quality of the parts, and stress the use of a limited variety of materials to facilitate the recycling process. Any deviations from these guidelines must be explicitly agreed upon.
Through these measures, we strive to make a consistent contribution to environmental sustainability.

**6.12 Shipping**

Regardless of the mode of transport, packaging shall be optimized to reduce shipping costs and protect enclosed parts. Compliance with all relevant shipping and handling regulations, including those related to hazardous materials is mandatory. Packaging design must consider freight classification, density, and stackability requirements to ensure compliance with carriers and to optimize transportation costs. Consultation with carriers to adhere to their specific space and weight restrictions shall be conducted, and shipments shall be loaded to facilitate ease of offloading.

- **Sea Freight**: Packaging shall withstand varied climates, moisture, and intense handling stresses. Sufficient VCI corrosion protection for long, humid sea transits shall be used (refer to section 6.2). Secure lashing points shall be included to prevent cargo shift. Shipments containing dangerous goods shall comply with the IMDG Code.
- **Air Freight**: Packaging shall be space-efficient and lightweight to reduce costs. Compliance with both the International Air Transport Association (IATA) and ICAO Technical Instructions is required, particularly when shipping hazardous materials.
- **Ground Freight**: Packaging shall be designed to withstand temperature variations and provide structural protection for multi-terminal handling and stacking with other loads. In regions where NMFC (or equivalent classification systems) applies, compliance with such standards is required. For Europe, shipments shall comply with the ADR Agreement. In other regions, packaging and shipping classification must meet local/regional carrier or regulatory requirements and be documented.
- **Documentation**: All necessary shipping documents shall be prepared and provided as per routing guide. Including but not limited to Bill of Lading, CMR, Packing list, Dangerous goods declaration, Purchase orders and Master labels.

**7.0 Quality Standards**

- **Inspections and Evaluations**: INNIO shall conduct random inspections and audits of suppliers' packaging performance for compliance with agreed PDS documents in accordance with ISO-9001 standards. Any deviations shall be communicated to the supplier. The supplier is responsible for establishing an appropriate final inspection to ensure that only parts that comply with the agreed-upon PDS document are delivered to INNIO.
- **PDS Review**: The packaging proposals and PDS documents shall be subject to review and revisions every 3 years.
- **Documentation:** INNIO shall record any non-conformance defects related to packaging in an incident management system as outlined in the Supplier Quality Requirements SQR-0001.
- **Non-Conformance and Corrective Actions**: Suppliers shall be informed if any shipments are found non-compliant. Such shipments may be rejected and returned to the supplier for necessary corrections. Any costs arising from non-compliance may be invoiced to the supplier. Recurring violations shall necessitate a written corrective action plan approved by

INNIO Waukesha. As outlined in section 3.5.5 in the Supplier Quality Requirements SQR-0001.

- **Process Improvement***:* INNIO and suppliers shall continuously strive for process improvements to increase efficiency, reduce waste and enhance quality of packaging. As outlined in section 3.5.12 in the Supplier Quality Requirements SQR-0001.
- **Risk Identification and management**: INNIO and suppliers shall identify and assess potential risks in the packaging process, including but not limited to material failure, transport damage, material shortages and emergencies related to packaging. Proactive measures such as quality checks, improved packing methods, and the development of packaging contingency plans or alternative suppliers, shall be implemented to mitigate these risks. Regular review and update to these risks and mitigations shall be carried out to ensure continuous improvement and adaption to changing circumstances.

### 7.1 Responsibilities

| Responsibility | Job Title / Position |
|---|---|
| Who is the process owner / responsible for the described activities (if not specified in section 4.0)? | **Director of Quality** |
| Who is responsible for updating this document? | **Packaging Specialist** |
| Who is responsible for approving this document? | **Director of Quality** |
| Who is responsible for notifying and/or training? | **Packaging Specialist** |

### 7.2 Quality Records

| Records Requirements | Record Data |
|---|---|
| Which records are stored? | NC, PDS, SDR, Audits |
| Who is the record owner? | Quality and Supply Chain |
| Who is responsible for protecting records? | Director of Quality – ensures records meet ISO 9001 retention/protection requirements |
| How are records protected? | Controlled access within Oracle/Incident Management Systems, SharePoint/Supplier Portal |
| How are records stored? | Electronically |
| Where are records stored? | Oracle system, Q-Case/incident management, Sharepoint |
| Record retention time? | Minimum 3 years from last part delivery or as required by ISO 9001 / customer contract, whichever is longer |

### 7.0 References

1. For **IPPC** (International Plant Protection Convention) visit www.ippc.int
2. For **IPPC/Standards** visit https://www.ippc.int/en/core-activities/standards-setting/ispms/
3. For **International Air Transport Association** visit https://www.iata.org/
4. For **OSHA** (U.S. Occupational Safety and Health Administration), visit www.osha.gov
5. For **OHSA** (Ontario Health and Safety Association), visit www.ihsa.ca.
6. For **EU-OSA**, visit the European Agency for Safety and Health at Work website at https://osha.europa.eu/en

7. Information about **GHS** can be found on the United Nations Economic Commission for Europe (UNECE) website. Visit www.unece.org
8. Guidelines for **MSDS** can be found on the official websites of the regulatory bodies of the respective countries.
9. **MIL-PRF-16173E** – U.S. Department of Defense performance specification for solvent-cutback, cold-applied corrosion-preventive compounds that leave thin, removable films. *Class 1* denotes the conventional formulation (higher VOC); *Class 2* is the low-VOC alternative (≤ 2.8 lb/gal). *Grade 3* refers to a water-displacing CPC that dries to a soft/semi-firm amber film for indoor or covered storage/shipments of machined metal parts. Films are removable and generally compatible with lubricating oils. Typical indoor protection is up to ~12 months at the specified film thickness, depending on environment and packaging.

# Supplier Packaging Policy

Appendix 1 - Form is available on https://supplier.innio.com/en

| | | |
|---|---|---|
| Waukesha INNIO | **Packaging Data Sheet** | **Sequence Number**<br>*Part # - Context/Model - Supplier - PDS* |

Refer to blueprints for part dimensions. Representations and drawings below are not to scale, just for reference.

**Part Data**

| | | |
|---|---|---|
| Innio Part Number: | | *Add photo of part (delete this text)* |
| Part Description: | | |
| Part Weight: | kg (lbs.) | |
| Part Dimensions: | L x W x H in mm | |
| Part Material: | | |
| Cleanliness Class: | PER STD-02-0860 | |

| **Supplier Contact** | | **INNIO Contact** | |
|---|---|---|---|
| Supplier number | | Address | |
| Supplier | | Postal Code / City / Country | |
| Address | | Production site | |
| Postal Code / City / Country | | Packaging Quality Control | |
| Contact Person | | Supplier Quality Engineer | |
| Tel. | | Global Commodity Leader | |
| E-Mail | | Buyer | |
| Production site | | Planner | |

**Packaging Data**

**Single packaging:** Packaging containing one part.
**Packaging unit:** Packaging containing several parts of the same part number (or mixed containers) **Outer packaging:** Packaging containing multiple packaging units.

| | **Please check [x]** | | **Please check [x]** | | **Please check [x]** |
|---|---|---|---|---|---|
| Single packaging | | Corrugated Cardboard | | Strapping / Banding | |
| Packaging unit | | Paper / Oil / Wax Paper | | Closure / Tape / Adhesive | |
| Outer packaging | | Plastic Insert / Lid | | Stackable | |
| ISPM-15 / IPPC Mark | | Barrier Bag / VCI Bag / Foil | | External Wrapping | |
| On a pallet | | VCI Paper | | Edge / Corner Protectors | |
| Wooden box / crate | | Desiccants | | Packaging with INNIO logo | |
| Dunnage/ Bracing | | Void Filler / Cushioning | | Markings / Warning | |

| **Single Packing - External dimensions** | | **Packaging Unit - External Dimensions** | | **Outer Packaging - External dimensions** | |
|---|---|---|---|---|---|
| Length | mm | Length | mm | Length | mm |
| Width | mm | Width | mm | Width | mm |
| Height | mm | Height | mm | Height | mm |
| Weight | kg | Weight | kg | Weight | kg |
| Quantity | | Quantity | | Quantity | |

| **Load Carrier** | | | **Please check [x]** | **Free field / Comment / Special Feature** |
|---|---|---|---|---|
| Dimensions (L x W x H) | L x W x H in mm | Disposable packaging | | |

# Supplier Packaging Policy

| | | | |
|---|---|---|---|
| Quantity per layer | | Reusable packaging | |
| Number of layers | | If reusable | |
| Weight | kg | Blisters / compartments | |
| Handling Note | | Recyclability | |

**Pictures / Desc ription**

| **Primary / Internal Packaging** | **Secondary / Outer Packaging** |
|---|---|
| *add photo of internal packaging (delete this text)* | *add photo external packaging (delete this text)* |

| **Description** | | **Description** | |
|---|---|---|---|
| Materials Descriptions: | | Material Description: | |
| | | | |
| | | | |

| **Load Carrier / Shipping Unit** | **Marking / Labelling** |
|---|---|
| *add photo of shipping packaging (delete this text)* | *add photo of labels (delete this text)* |

| **Description** | | **Description** | |
|---|---|---|---|
| Materials Descriptions: | | Label: | |
| | | Storage Duration: | |

**R lease Supplier**

| | | | | | |
|---|---|---|---|---|---|
| Name | | Signature | | Date | |

**elease INNIO**

| | | | | | |
|---|---|---|---|---|---|
| SQE | | Signature | | Date | |
| Packaging Quality Control | | Signature | | Date | |

## Annex 2.0 Single and Packing unit label

| | |
|---|---|
| INNIO Part Number | Serial Number |
| Barcode | |
| Part Description | |
| QTY | Packed by |
| | Date Packed |
| | Weight |

## Annex 2.1 Master Label

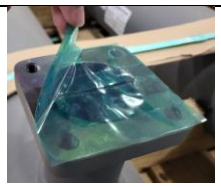
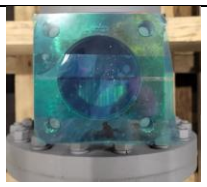
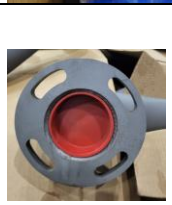
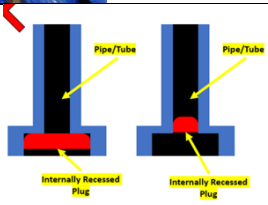
| | |
|---|---|
| **PO Number**<br>(EAN 128 B barcode) | **To:**<br>Postal address of the recipient |
| **INNIO Part Number**<br>(EAN 128 B barcode) | |
| **Part Description** | |
| **Quantity of parts**<br>(EAN 128 B barcode) | **From:**<br>Postal address of the Supplier |
| **Pack Number/Quantity in PO** | |
| **Unit gross weight lbs. (kg)** | |
| **Unit dimensions mm (in)**<br>(Length x Width x Height) | |
| **Date packed**<br>(Year - Month - Day) | **Country of Origin** |
| **Serial Number** | **Casting Number** |

## Annex 3.0 Guidelines for Protecting Blind and Through Holes

To ensure the protection of openings in parts during transportation, handling, and storage, it's crucial to provide adequate protection to prevent the ingress of debris, particles, and guard against corrosion. The use of recessed plugs is strictly prohibited. If necessary, only use external caps, flange and bolt hole covers in yellow or red for easy removal. The ideal solution is to wrap the part in a VCI poly bag or use VCI emitters. This provides corrosion protection and shields against moisture and contaminants. It's important that all metal surfaces are in direct contact with the VCI and are fully sealed. Regular inspections are necessary to maintain the security and integrity of these protective measures.

| Cover Type | Compatible End Types | Application Notes | Image Examples (not exhaustive; various styles available) |
|---|---|---|---|
| VCI Poly Bag or Tubing | General | **Ideal**: Wrap the part in a VCI poly bag or tubing to provide corrosion protection during storage and transport. Ensure the bag or tubing is sealed tightly to protect against moisture and contaminants without the use of caps. Parts must be clean, dry, and free of contaminants to prevent corrosion. |   |
| Bolt Hole Flange Cover | Flange End | Place over flange to shield bolt holes and face. Keeps bolt holes clear and protects against dirt and scratches. |  |
| Over the Flange Caps | Flange End | Place over the entire flange end to protect the face, sides and bolt holes. Ideal for coated and conical bore flanges |  |
| End Caps | Plain End, Square Cut End, Capped End | Push on to cover the entire end. Must fit securely over the end with no gaps. |  |

# Supplier Packaging Policy

| | | | |
|---|---|---|---|
| End Caps - Flexible Stretch Caps | Plain End, Beveled End, Grooved End, Swaged End, Bell End, Flange End | Push on to fully cover the end; flexible material conforms tightly to tapered or irregular shapes. Must fit securely without gaps to ensure complete protection from contaminants. |  |
| Beveled Edge Caps and Recessed End Cap | Plain End, Beveled End, Grooved End, Swaged End, Bell End | Push on to cover the entire end securely, including beveled edges, preventing dust and debris entry. Must fit snugly with no gaps for effective protection. |  |
| Threaded Plugs | Threaded End | Screw into the internal threading. Covering completely to protect against damage and contamination. For threaded ends only. Must allow easy removal. |   |
| Screw-On Caps | Threaded End | Screw onto the external threading. Covering completely to protect against damage and contamination. For threaded ends only |  |
| VCI Protective Film Cover or Flat End Cover | Flat End, Flanged End | Place over the entire flange end to protect the face, sides, and bolt holes. This thick, non-adhesive plastic sheet adheres through static cling, providing a barrier against moisture and contaminants. Ideal for ensuring the surface is protected during storage and transport. |   |
| VCI Stretch Wrap ✖ | General Pipes | **Not Acceptable**: While it provides corrosion protection, it does not create a secure seal over pipe ends, leaving them vulnerable to contamination and moisture ingress during transit |  |
| Internally Recessed Plug and Recessed Plug ✖ | General Pipes | **Not Acceptable**: Can become stuck in the pipe and does not provide a secure seal, leaving the interior vulnerable to contamination and moisture ingress. |    |