



Gasket & Foam-in-Place Sealing Solutions for Metal Packaging

JIANG YIN JIN YU
Packaging Materials Co., Ltd.
江阴市瑾瑜包装材料有限公司

EVA | NR | EPDM | Silicone | 1K PVC FIP | 2K PU FIP | Equipment | Accessories

▶▶▶ Compliance

Let's Talk Sealing



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Send us your lid drawing or sample — we respond within 24 hours.



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So That "Closed" Truly Means Tight

Metal packaging—from paint buckets and chemical drums to food cans — must remain leak-proof through filling, stacking, transport, drops, and long-term storage. A failed seal means contamination, complaints, regulatory violations, and costly recalls.

Your packaging must survive:

 **Drop & impact**

The seal must maintain integrity after repeated mechanical stress.

 **Chemical attack**

Solvents, acids, alkalis, and oils test seal resistance daily.

 **Temperature swings**

From -40° C cold-chain to +80° C warehouse heat.

 **Regulatory compliance**

Food-contact, UN hazmat, and environmental regulations.

Jinyu's Answer: One Partner for the Complete Sealing System

We provide the material, the process know-how, and the equipment — matched to your specific lid, media, and production line. From traditional EVA/rubber gaskets to automated Foam-in-Place (FIP) solutions, we cover every metal packaging sealing scenario.



Paint



Chemical



Food



General

Why Jinyu?

Your Trusted Partner in Metal Packaging Sealing Systems

6

Core Material Systems

50–1900mm

Supported Lid Diameters

10+

Years Experience

400million

Lids Sealed Annually



Key Differentiators

Comprehensive Material Portfolio: From cost-effective EVA to high-performance 2K PU, we deliver the exact chemistry your media and environment demand.

Material & Equipment Synergy: We don't just supply compounds. We provide perfectly matched EVA lining machines and FIP dispensing systems for seamless production integration.

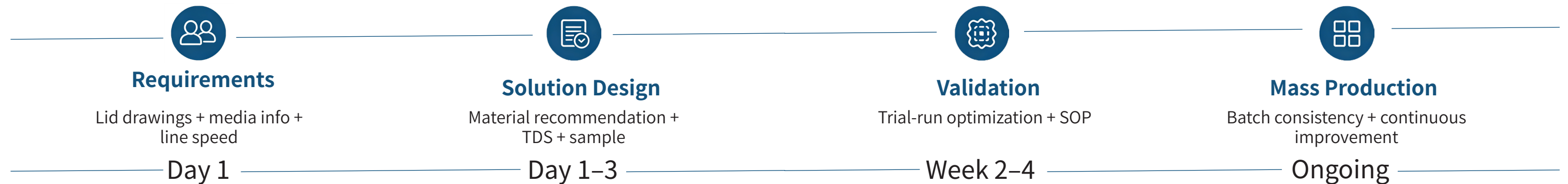
True Turnkey Solutions: A genuine one-stop shop encompassing raw materials, automated machinery, and precision can-making accessories.

Rapid Engineering Response: Submit your lid drawings and media specs, and receive a tailored technical recommendation within 24 hours.

Company Snapshot

Jiangyin Jinyu Packaging Materials Co., Ltd. is a premier manufacturer and innovator in metal packaging sealing technology. Specializing in advanced Foam-in-Place (FIP) solutions and high-performance elastomers, we bridge the gap between chemical formulation and automated application. Our commitment extends beyond supplying products; we provide end-to-end engineering support—from initial material selection and validation to mass production optimization.

From Inquiry to Stable Production



1 Technical Scoping (Day 1)

Input: Lid CAD drawings, media chemical properties, and production line speed requirements.

Action: Engineering team feasibility analysis and geometry assessment.

2 Custom Formulation & Prototyping (Day 1-3)

Input: Application-specific material matching.

Output: Tailored material recommendation, comprehensive Technical Data Sheet (TDS), and physical prototype samples.

3 Line Validation & Standardization (Week 2-4)

Action: On-site or simulated trial runs to optimize dispensing trajectory and curing parameters.

Output: Finalized Standard Operating Procedures (SOP) for consistent yield.

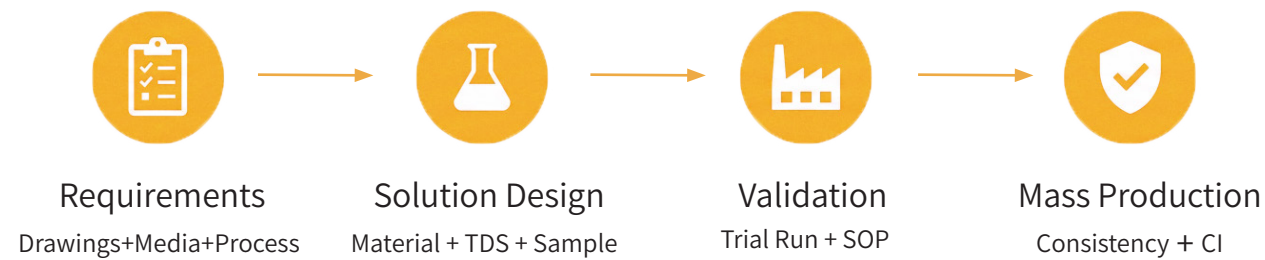
4 Scaled Production & CI (Ongoing)

Action: Seamless transition to high-volume manufacturing.

Output: Uncompromising batch-to-batch consistency and Continuous Improvement (CI) tracking.

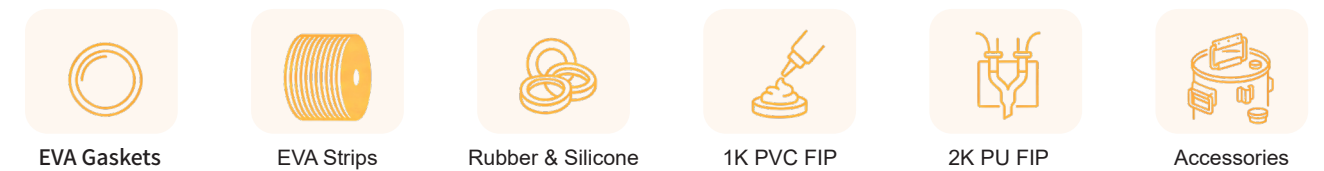
Quality Control

Stage	Control Items	Output
IQC(Incoming)	Raw material lot, viscosity, density	Inspection record
IPQC(In-process)	Bead weight, width/height, overlap	Patrol checklist
Curing	Oven temp curve / reaction time	Curve log
OQA(Finished)	Hardness, density, seal test	COA / report



Complete Sealing Product Family

Product Category	Highlights	Page
EVA Gaskets (rings / liners)	5 grades: Economy → Solvent-resistant	P10
EVA Gasket Strips (roll stock)	Custom width/thickness/length	P12
EVA Auto Lining Machine	Multi-head strip lining, hot-knife sealing	P14
NR / EPDM / Silicone Gaskets	Application-specific alternatives	P15-P18
1K PVC FIP + Machine	One-component, oven curing lines	P21-P23
2K PU FIP + Machine	Two-component, room temp reaction	P24
2K PU Compound TDS	Full property data for PU foam system	P26
Accessories	Handles, welding lugs/plates, press lids	P29-P33



Rapid Material Selection Matrix

Use this table for initial screening. Final recommendation based on your lid, media, and process.

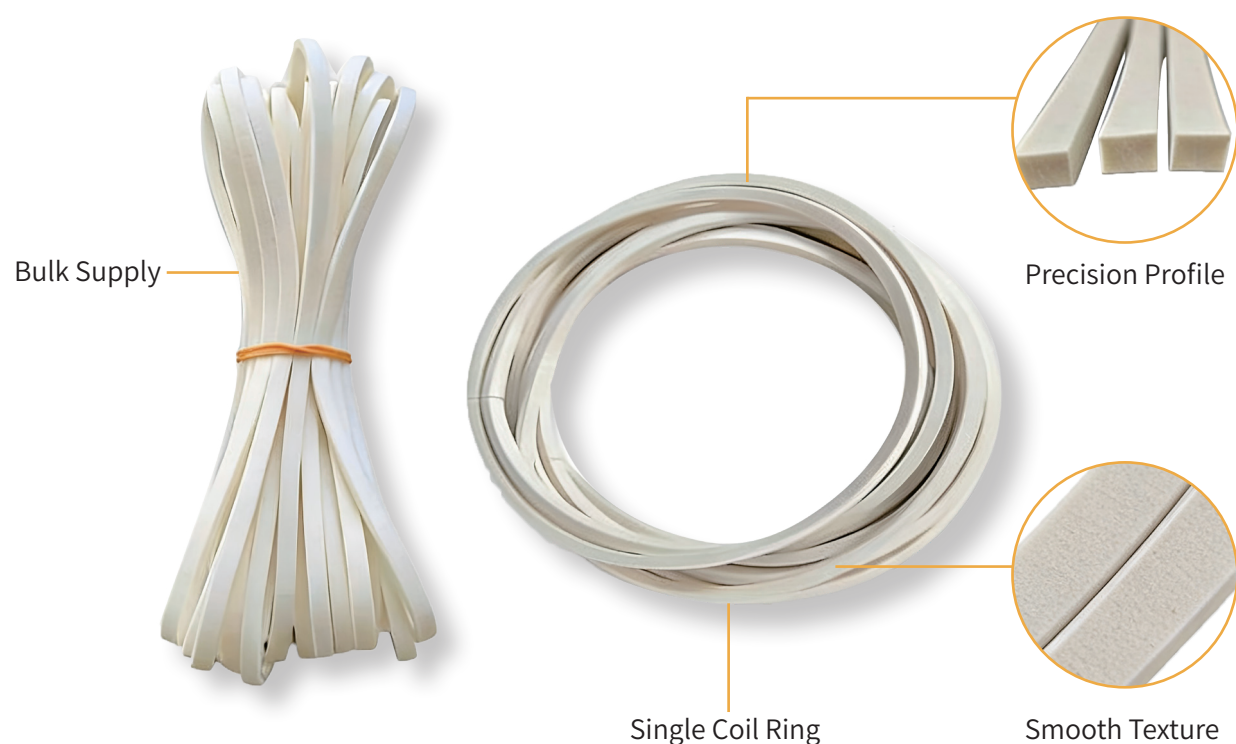
Material	Temp	Water	Oil	Solvent	Asphalt	Food	Cost	Recommended Scenario
EVA	-40~80° C	★★★	★★★	★★★	★★★	★★★	\$	Universal. Best cost-performance.
EPDM	-40~150° C	★★★	☆☆☆	★★☆	☆☆☆	☆☆☆	\$\$	Weather king. Water-based & outdoor.
NR	-50~80° C	★★☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	\$\$	High rebound. Oil-free only.
Silicone	-60~200° C+	★★★	★★☆	☆☆☆	★★☆	★★☆	\$\$\$	Extreme temp. Food/medical.
1K PVC	-20~80° C	★★☆	★★☆	☆☆☆	★★☆	★★☆	\$\$	FIP. Oven curing needed.
2K PU	-30~80° C	★★☆	★★★	★★☆	★★★	★★☆	\$\$\$	FIP. Heavy industry all-rounder.

★★★ =Excellent ★★☆ =Good ★☆☆ =Fair ☆☆☆ =Poor

To get started, provide:

- Lid diameter and groove dimensions (drawings or samples)
- Media information (coatings / solvents / acids / alkalis / food)
- Production process (oven? line speed? target cycle time?)

EVA Gaskets



Key Features

- Closed-Cell
- Flexible
- Resilient
- Chemically Inert

Applications

- Sealing
- Gasketing
- Cushioning
- Packaging

Why EVA?

Broadest chemical compatibility, lowest cost per seal, proven across paint, chemical, and food applications. Resists acids, alkalis, and most solvents.

Grade Classification

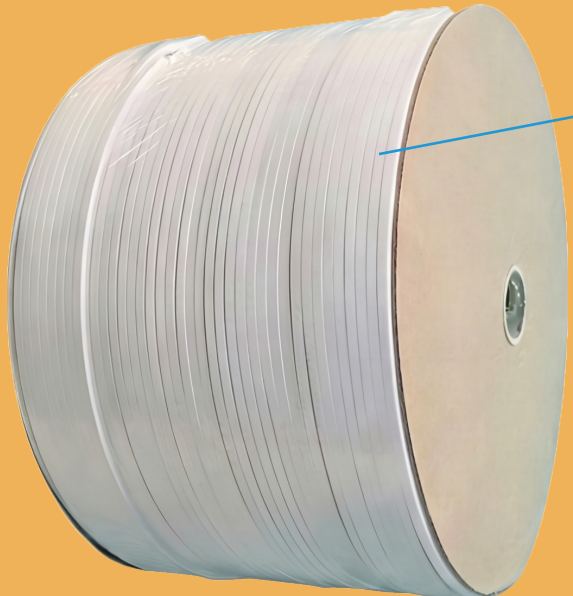
Grade	Density	Hardness	Recommended Scenario
Economy EVA	85±5 kg/m ³	40-45°	Asphalt, waterproof, high-viscosity. Stack <75 kg.
High-Density	125+ kg/m ³	50-60°	Engineering coatings. Stack <125 kg.
Food-Grade	85±5 kg/m ³	40-45°	Suitable for many commonly used industrial chemicals; compatibility should be verified with the actual media. Declaration on request.
High-Elastic Food	180±5 kg/m ³	45-50°	With superior sealing and instant rebound performance, it can completely replace rubber rings and PU/PVC foam. It performs exceptionally well in hydraulic testing and also features food-grade release properties.
Solvent-Resistant	150+ kg/m ³	50-60°	Aggressive solvents & chemicals. Premium resistance for industrial coatings. (Tolerable to all commonly used chemicals on the market)

EVA Technical Data Sheet


Property	Economy	High-Density	Food-Grade	High-Elastic	Solvent-Res
Density (kg/m ³)	85±5	125+	85±5	180±5	150+
Shore C	40-45°	50-60°	40-45°	45-50°	50-60°
Tensile (MPa)	0.6	1.5	1.15	1.9	1.7
Elongation	≥ 110%	≥ 160%	≥ 140%	≥ 220%	≥ 180%
Components	EVA/LDPE/CaCO ₃	EVA/LDPE/CaCO ₃	LDPE	EVA/LDPE/POE	EVA/LDPE/RUBBER
MEK Test	No reaction	No reaction	No reaction	No reaction	No reaction
Toluene	Slight swell	Slight swell	Slight swell	Slight swell	Pro-resistant
Storage	2 years	3-5 years	3 years	3-5 years	3-5 years

Note: All data are typical values. Verification testing recommended.


EVA Gasket Strips (Roll Stock)



INDIVIDUAL OPTIMIZED ROLL

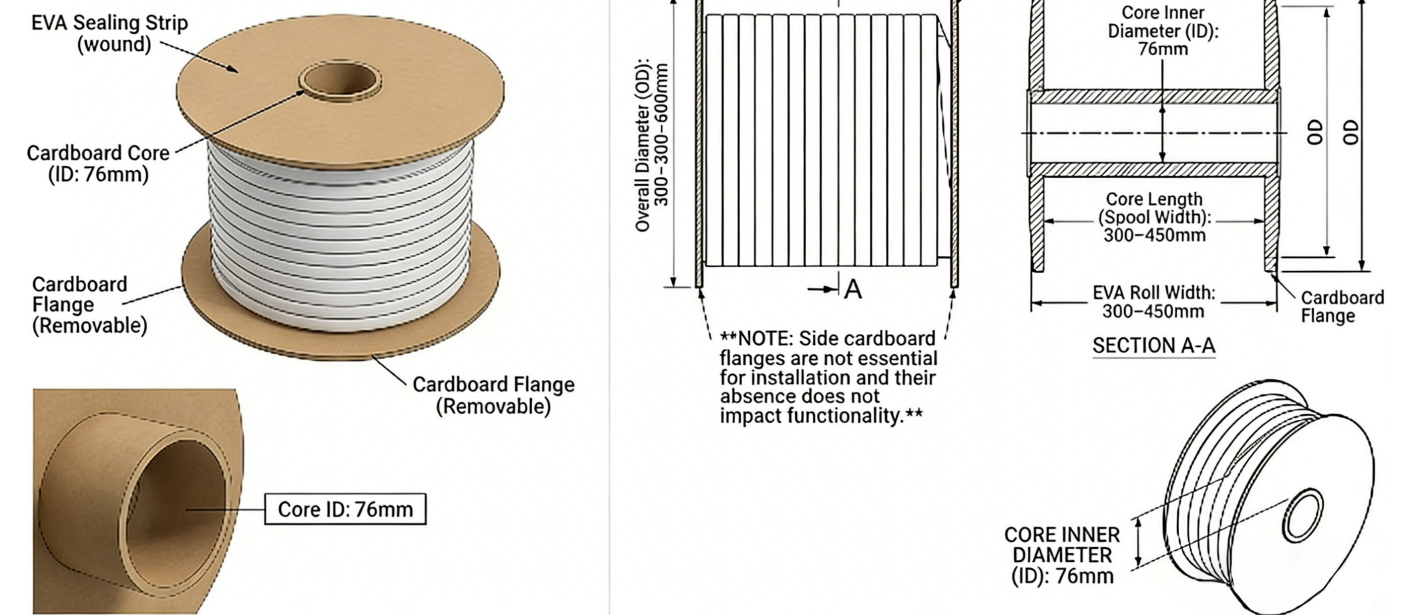


PRECISION FOAM PROFILES



OPTIMIZED BULK SHIPPING/STORAGE GRID

Industrial EVA Sealing Strip Roll packaged on I-beam flange (reel)



All EVA grades available in strip form.

Custom width, thickness, roll length.

Clean cutting, stable dimensions.

PROFESSIONAL HIGH-DENSITY EVA SEALING ROLLS

EXCELLENT SEALING PROPERTIES

MOISTURE-PROOF & RESILIENT

ACOUSTIC INSULATION [cite: 12]



Parameter	Unit	Range	Note
Width	mm	4-15	Custom
Thickness	mm	2-12	Match groove
Roll Length	m	500-2,000	Per requirement
Core ID	mm	30/38/76	Standard
Weight	kg	5-25	Varies
Color	—	White	Custom OK

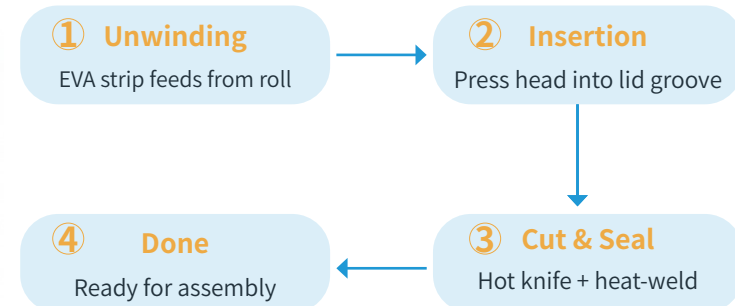
EVA Automatic Gasket Lining Machine

Strip Lining vs Foam-in-Place

FIP dispenses liquid that foams in groove. Strip Lining presses pre-formed EVA strip directly into groove — faster, no curing, immediate assembly. Choose based on lid type, volume, and cost.



How It Works



Key Advantages

- No oven required — gasket ready immediately.
- Multi-head (5–7 stations): high throughput.
- Hot knife + heat-weld: seamless joint.
- Optional: micro-dot glue dispenser for extra retention.
- PLC + touchscreen: recipe management for different lids.



NR / EPDM / Silicone Gaskets

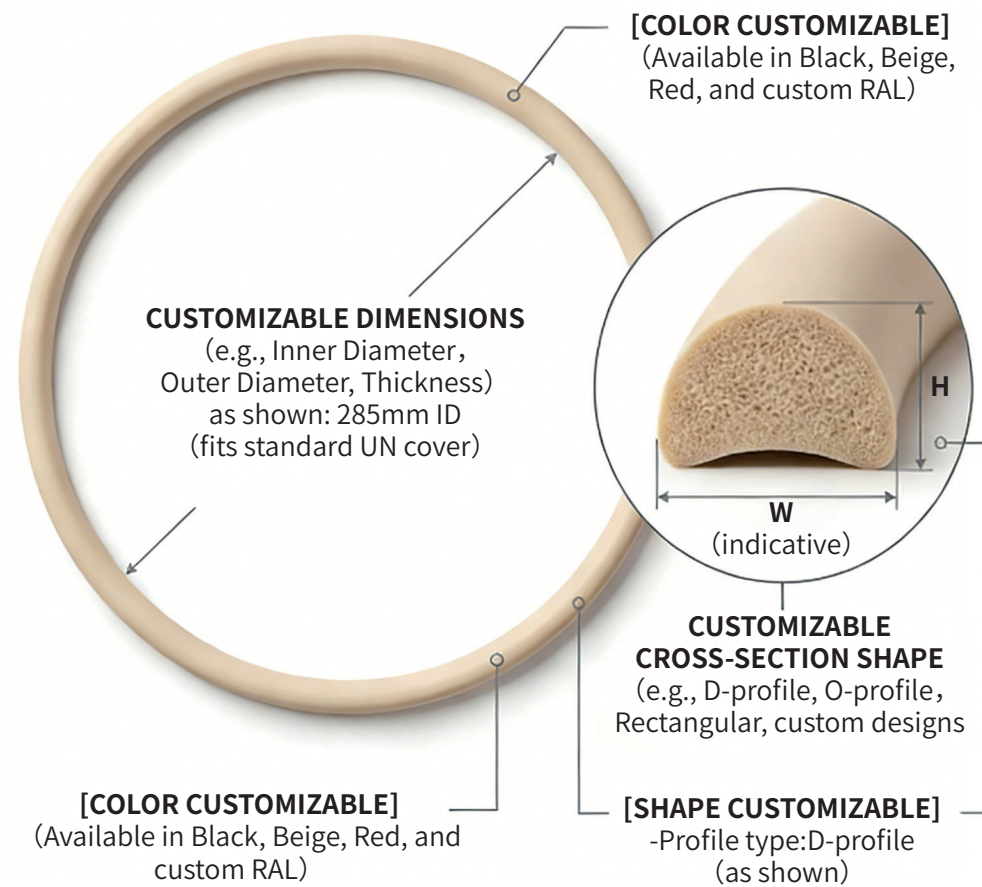


Material	Key Strength	Best For	Caution
NR	Excellent resilience	Shock absorption, oil-free	Weak chemical resistance
EPDM	Weather/UV resistance	Water-based, outdoor	No lubricants/gasoline
Silicone	Widest temp (-60~200° C+)	High-heat food, medical	No strong solvents



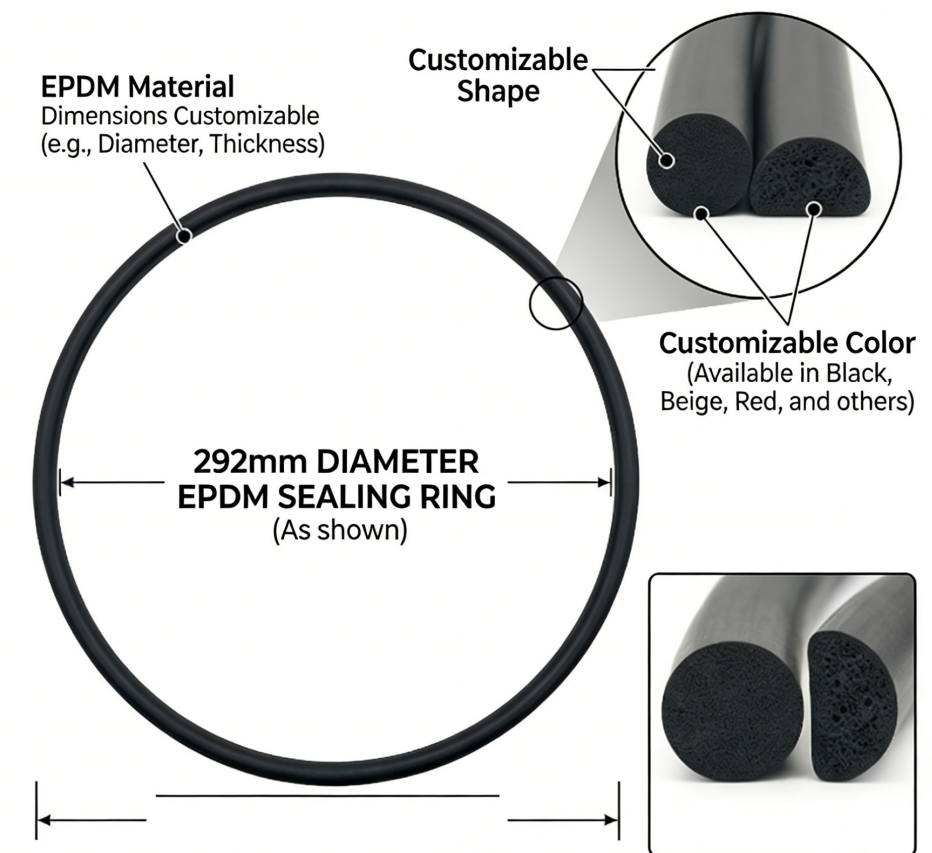
NATURAL RUBBER (NR) SEAL RING FOR UN COVER

285mm ID (Inner Diameter) UN Cover Seal Ring (as shown)



High-performance Natural Rubber (NR) compound.
Excellent resilience and sealing performance for selected oil-free media.
Custom compounds (e.g., FDA compliant) available.

EPDM Sealing Ring (for 292mm Hoop/Clamp Cover)



Shape Customizable
(Profile and Cross-section)

EPDM Material
(Ethylene Propylene Diene Monomer)

Color Customizable
(e.g., Black, Beige)

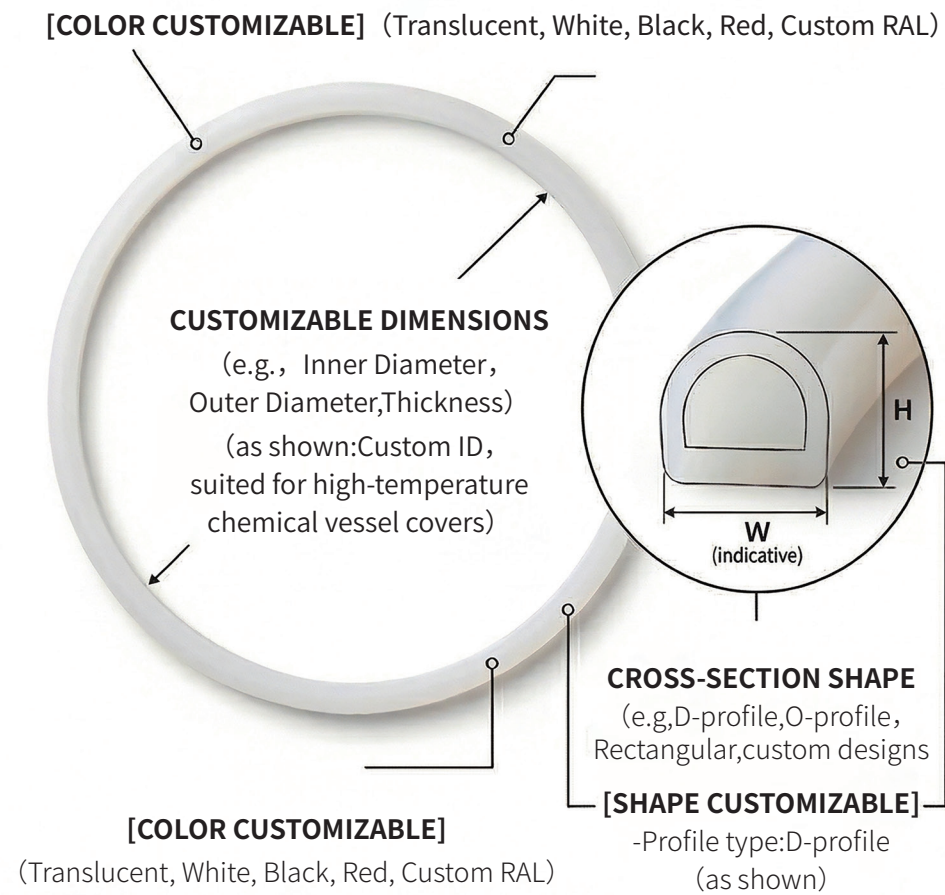
EPDM Material
(Ethylene Propylene Diene Monomer)

Dimensions Customizable
(e.g., Diameter, Cross-section Size)

High Resilience & Weather-resistant

HIGH-TEMPERATURE SILICONE (SI) SEAL RING FOR CHEMICAL INDUSTRIAL VESSEL COVERS

As shown: Custom ID (Inner Diameter) Silicone Seal Ring (D-profile)



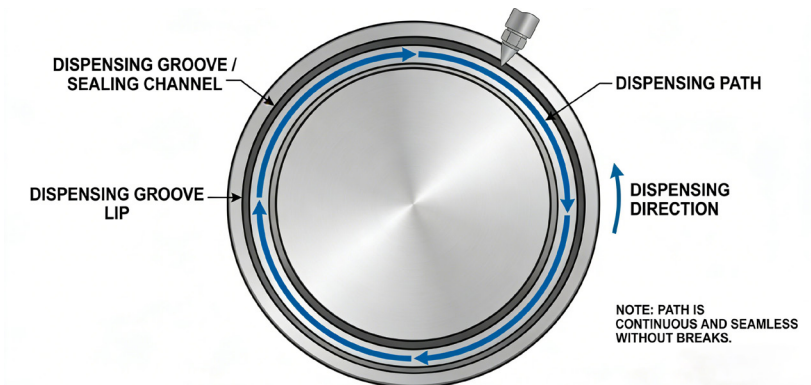
High-performance Silicone (SI) compound engineered for high-temperature and demanding chemical environments. Features excellent resilience, robust chemical resistance, and superior sealing performance. Food-grade and specialized compounds available for critical industrial applications.

Foam-in-Place Sealing: The Automated Solution

What is FIP?

A liquid compound is dispensed into the lid groove by a CNC machine. It foams and cures into a seamless, closed-cell gasket — precisely matched to groove geometry. No die-cutting waste, no manual assembly.

SEALING COMPOUND DISPENSING PATH (CONTINUOUS CLOSED-LOOP)



BEFORE CURING (LIQUID STATE)

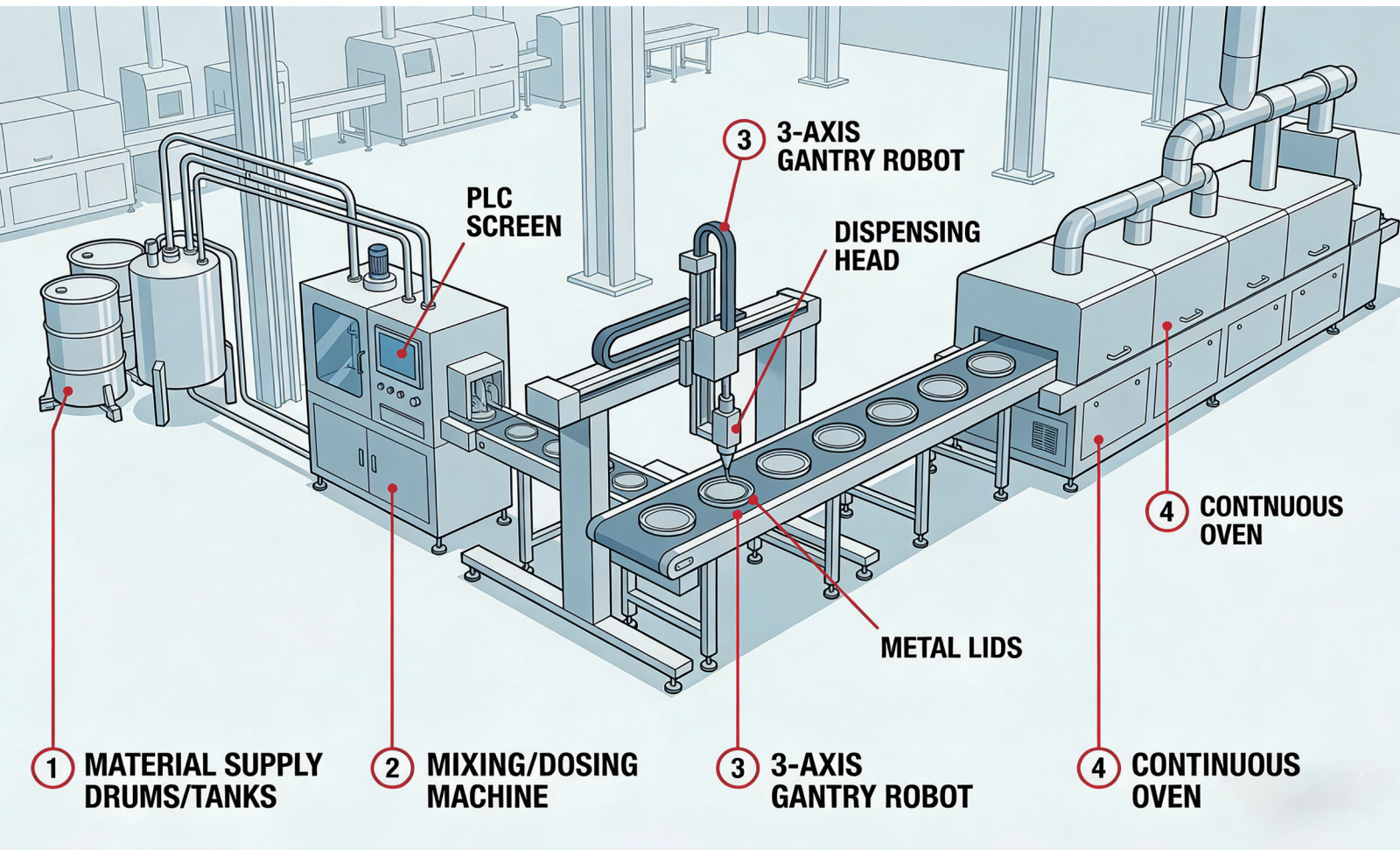


CURING & FOAMING PROCESS (EXPANSION)



(FOAMED STATE) AFTER CURING





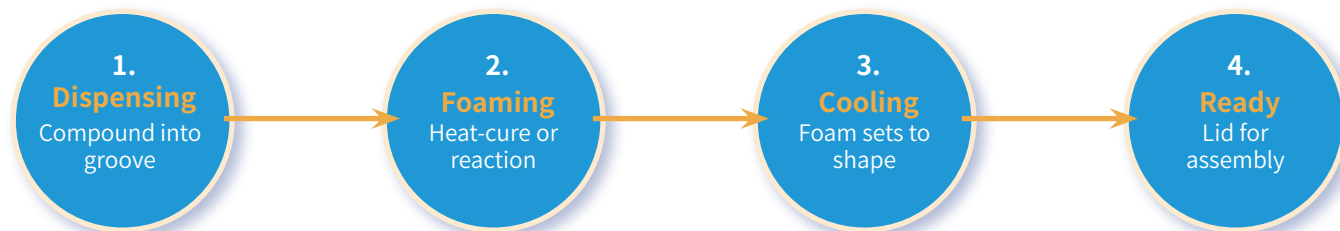
1K PVC Foam-in-Place Compound

Product Description

One-component polyvinyl chloride (PVC) plastic systems, based on PVC paste resin and environmentally friendly plasticizers, all components are environmentally friendly materials, and food-grade contact levels can be customized.



[AI/Gemini] Use FIP cross-section SVG (fip_crosssection.svg) here — showing uncompressed vs compressed ~50% foam in groove.



One-component PVC plastisol for continuous oven curing lines.

Oven curing: 155–210° C for 2–5 minutes.

Recipe-based control: bead adjustable per lid type.

Food-grade option: phthalate-free, EU 10/2011 compliant.

Compound Properties

Property	Range
Appearance	White/Beige (custom colors)
Viscosity	2000–7,500 mPa.s
Liquid density	1.08–1.4 g/cm ³
Density (cured)	0.35–0.90 g/cm ³
Full cure	2-5 mins
Oven temperature	155-210 ° C
Oven baking evaporation	0.01%
Hardness	12–55 Shore A / 50–90 Shore 00
Temp resistance	-10 to +70° C
Water absorption	<1%
Food-grade	Phthalate-free, EU 10/2011 (on request)

Packaging & Storage

Item	Component A
Container	Openable iron drum
Weight options	20/25 kg or 200 kg drum
Storage	Dry, sealed, Avoid exposure to the sun
Shelf life	9 months

1K PVC Foam-in-Place Machine



Machine Specifications

Parameter	Spec	Note
Machine size	2400×2,300×1800 mm	L×W×H
Lid diameter range	30-700 mm	Customizable
Bead width	1.5–30 mm	Nozzle + recipe
Accuracy	0.1mm (±0.1mm repeat)	Servo-driven
Speed	0–30 m/min	3-axis linear
Output rate	0.5–15.5 g/s	Adjustable
Feed precision	0.3 g/s	
Tanks	50-200L	304 SS
Control	PLC + HMI	17" touch
Power	3–4 KW (50/60 Hz)	No AC/chiller needed
Installation	2.5×2.5 m	Minimum footprint

2K PU Foam-in-Place System + Machine



Machine Specifications

Parameter	Spec	Note
Machine size	3,900×2,700×2,100 mm	L×W×H
Stroke (X×Y×Z)	2,500×1,300×200 mm	Customizable
Bead width	5–40 mm	Nozzle + recipe
Accuracy	0.01mm (±0.01mm repeat)	Servo-driven
Speed	0–30 m/min	3-axis linear
Output rate	0.5–4.5 g/s	Adjustable
Feed precision	0.1 g/s	BORMAG gear pumps
Mix ratio (A:B)	1:10 ~ 10:1	Adjustable
Mix head speed	0–3,000 rad/min	Dynamic mixing
Tanks	A: 40L + B: 40L	304 SS, double-wall
Control	Dual-core robot teaching + 17" touch	Windows, 128GB, CAD
Cleaning	High-pressure water (auto)	4-hole turbocharged
Power	3–4 KW (50/60 Hz)	No AC/chiller needed
Installation	4×4 m	Minimum footprint

Two-component PU with precision metering and on-demand mixing.

Room temperature reaction — no oven required.

High precision mixing head — 0.1 g/s single-component accuracy.

High-pressure water cleaning — ecological, zero solvent waste.

3-axis CNC + robot teaching + built-in CAD. Power only 3–4 KW.

2K PU Foam Sealing Compound

— Technical Data

Product Description

Two-component polyurethane foam system based on polyol (A) and MDI hardener (B). Solvent-free, plasticizer-free, no halogenated hydrocarbons — eco-friendly. For FIPFG (Formed-In-Place Foam Gasket) and molded foam strips. Hardness adjustable via A/B ratio. ROHS compliant.

Uncured Properties (A & B Components)

Property	Component A (Polyol)	Component B (MDI Hardener)
Appearance	Black viscous liquid	Yellow/brown liquid
Relative density	1.05–1.20 g/cm ³	1.16–1.24 g/cm ³
Viscosity (23° C)	30,000–50,000 mPa.s	350–800 mPa.s
Flash point	160.5±26.5° C	154.0±31.3° C
Mix ratio	3–8 parts	1 part



Cured Properties

Property	Value	Note
Appearance	Black (custom grey or other colors)	—
Gel time (23° C, 60% RH)	55–60 seconds	—
Tack-free time	20 minutes	—
Full cure	2 hours	—
Bead W:H ratio	2:1, 2.5:1, 3:1 selectable	—
Hardness (24h, Shore 00)	45–70	—
Density (30ml cup foam)	280–350 kg/cm ³	—
Temperature range (long-term)	-30° C to +80° C	—
Temperature range (short-term)	Up to +120° C	—

Packaging & Storage

Item	Component A	Component B
Container	Removable lid plastic drum	Screw-cap iron/plastic drum
Weight options	30/25 kg or 200 kg drum	20/25 kg
Storage	Dry, sealed, <5° C freeze-protect	Dry, sealed, <5° C (crystallization risk)
Shelf life	12 months	6 months (N ₂ sealed) / 9 months (gas-packed)

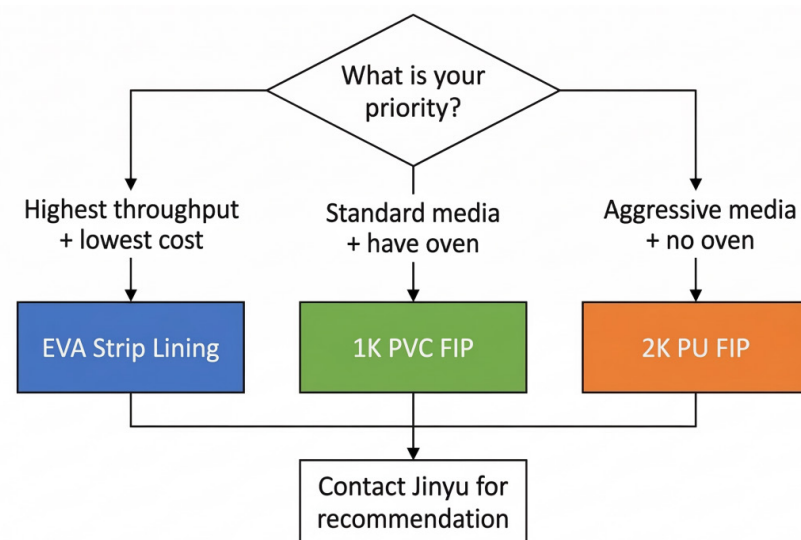
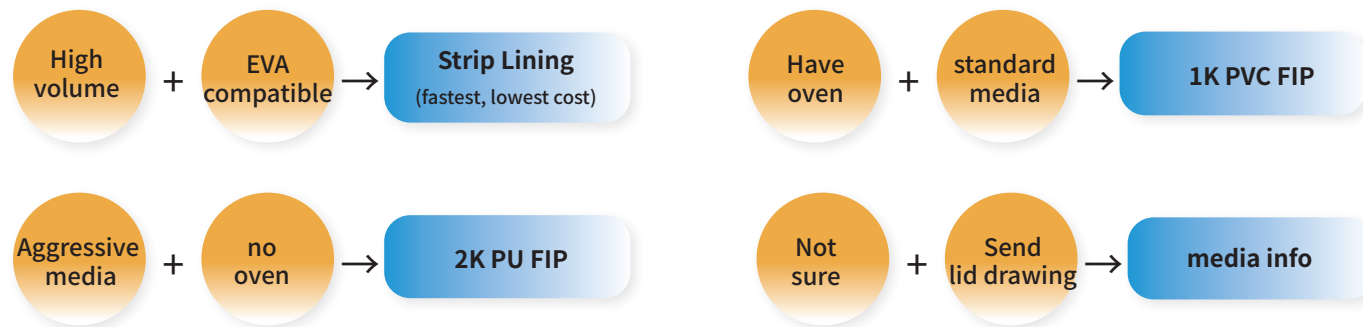


Note: A component tends to settle; must be stirred before use. Maintain A density at 1.05–1.15 g/cm³ through gas replenishment during stirring. B component is moisture-sensitive — keep tightly sealed.

3 Automated Sealing Paths: Choose Yours

Factor	EVA Strip Lining	1K PVC FIP	2K PU FIP
Process	Strip pressed into groove	Liquid dispensed, oven-cured	Liquid dispensed, room temp
Curing	None (immediate)	155–210° C, 2–5 min	Room temp, gel 55–60s
Throughput	Very high (multi-head)	Medium	Medium
Material cost	Lowest	Low–Medium	Medium–High
Chemical resistance	Excellent (EVA)	Good	Excellent
Temp range	-40~120° C (150° C short)	-20~80° C (120° C short)	-30~80° C (120° C short)
Best for	High-volume paint/chemical lids	Standard pkg, oven lines	Heavy industry, aggressive media
Joint quality	Heat-welded splice	Seamless	Seamless
Oven required?	No	Yes	No

Quick Decision Guide



Accessories & Logistics

A complete range of precision metal can components covering five product categories: Finger Caps, Screw Nozzles & Caps, Riveted Joints, Hoop Type, and Welding Class accessories.

01 Finger Caps 指压盖类

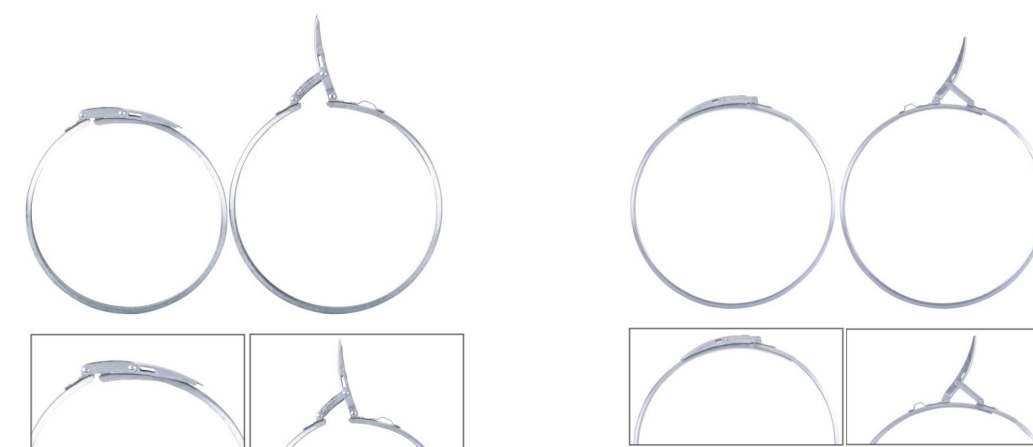


Size	Dimensions (inner / outer)	Key Components	Notes
32	φ32 mm / φ41 mm H11 mm	Finger cap, Japan-style ring, iron outer seal, rubber inner cap, duck-tongue tab	White porcelain / standard; optional Japanese-text version
42	φ42 mm / φ57.3 mm H11 mm	Finger cap, Japan-style ring, iron outer seal, rubber inner cap, duck-tongue tab	Standard
60	φ60 mm / φ74.3 mm H12.7 mm	Finger cap, Japan-style ring, iron outer seal, rubber outer seal, rubber inner cap, duck-tongue tab	Standard

Size	Dimensions	Components Available	Finish
30	φ30 mm / φ41 mm H8 mm	Screw nozzle, screw cap, iron inner cap, aluminium foil gasket	Silver aluminium
32	φ32 mm / φ41 mm H13.4 mm	Screw nozzle, screw cap, iron inner cap, pressure gasket, rubber inner cap, pull cap	Silver aluminium
42	φ42 mm / φ57.8 mm H12-19.7 mm	Standard & high-neck screw nozzle, screw cap, iron inner cap, pressure gasket, rubber inner cap	Silver aluminium
47	φ47 mm / φ61.6 mm H11.5 mm	Screw nozzle, screw cap, rubber inner cap	Gold finish available
55	φ55 mm / φ68.6 mm H19.8 mm	Screw nozzle, screw cap, pressure gasket, rubber inner cap	Silver aluminium
70	φ70 mm / φ87.5 mm H13.8-20 mm	Standard & high-neck screw nozzle, screw cap, gasket, rubber inner cap; also 18 mm mini-nozzle	Gold finish available

02 Screw Nozzles & Caps 螺丝咀、盖类

03 Hoop Type 抱箍类



Application	Hoop Variants	Lid / Cap Options
20 L steel drum	Square-type, plug-pin, iron-pin, socket-joint, rubber-gasket types	Hoop cap (gold / silver finish)
20-50 L steel drum	Rubber-gasket hoop, drum hoop	—
200 L steel drum	Drum hoop (heavy-duty)	—

04 Welding Class 焊接类



Product	Variants / SKUs	Application
Bow-type handles	No.1 Japanese-style, No.2, No.3; iron & rubber tube types	18 L / 20 L / 30 L round & square cans
Welding lugs & plates	18 L square / 20 L round / 30 L / 50 L lug & plate sets	Metal drum handle mounting
Rubber / plastic handles	4 L square (iron / rubber / plastic), 18 L square (rubber grips, multiple colours), 50 L drum	Bucket & drum carrying handles
Plastic caps (pull & press)	32 pull cap, 32 food-grade pull cap, 42 pull cap; BMW-style caps (multiple colours); rubber tube	Nozzle dust cover & child-safety caps

Compliance & Documentation

Category	Available	Note
Regulatory	SDS, COA, Food-contact (EU 10/2011), ROHS	On request
Testing	Hardness, density, compression set	Per standard/customer
Media verification	Immersion / sealed storage / leak test	Actual conditions
Appearance	Color, surface defect inspection	White foam easier

Disclaimer

All products and specifications are for reference only. Actual performance depends on lid structure, media, process, and environment. Verification testing recommended. We provide samples, guidance, and support.