## Primary Packaging Solutions for Pharmaceutical Manufacturing

Constellation Health supplies primary packaging solutions manufactured by Yangtze Primary Packaging Co., Limited. Yangtze is a pharmaceutical manufacturer with more than 50 years of industry heritage, serving pharmaceutical and biotechnology companies worldwide.

Our core offering is the ready-to-use (RTU) vial: washed, depyrogenated, sterilized, and packaged for direct use on aseptic filling lines. All products are supplied ready to use (RTU).

Vials are available in tray and nest-and-tub formats for manual and automated aseptic filling lines. Configurations can be customized to meet specific process and budget requirements.

Yangtze's RTU manufacturing facility uses German-made washing equipment and a tunnel depyrogenation oven. Annual production capacity is 400 million vials, with current production of 240 million vials per year. The RTU process operates under Grade A cleanroom conditions, using a sterilization temperature of 315 °C and a sterility assurance level (SAL) of $10^{-6}$.

Constellation Health supports your packaging needs with responsive service and a focus on manufacturing transparency and supplier qualification.






# 50

## years of pharmaceutical expertise behind every RTU solution

**YANGTZE**
**PHARMACEUTICAL MANUFACTURER**



# Manufacturer Quality & Documentation

Yangtze is dedicated to quality assurance.

## GMP

Good Manufacturing Practice

## ISO 9001

Quality Management

## ISO 14001

Environmental Management System

## ISO 15378

Primary Packaging Materials Quality Management

## DMF

U.S. Drug Master File

Yangtze manufacturing quality documentation supports supplier qualification. RTU specifications reference USP <71>/EP 2.6.1 (sterility), USP <85>/EP 2.6.14 (bacterial endotoxins), USP <788>/EP 2.9.19 (particulate matter), and USP <660>/EP 3.2.1 (pharmaceutical glass containers). ISO standard series vials conform to ISO 8362-1. The sterilization process is designed to achieve a sterility assurance level (SAL) of $10^{-6}$. Confirm the applicable manufacturer certifications and DMF details for the selected product during qualification.



RX SOLUTIONS GPO
SUPPLIES AND LOGISTICS

RX SOLUTIONS GPO
SUPPLIES AND LOGISTICS

# CHAPTER 1.1

## Ready-to-Use ISO Standard Vials





IS02-C-13-50

IS02-A-13-50

**ISO 2R**
16 x 35 mm

**ISO 4R**
16 x 45 mm



IS04-A-13-50



IS04-C-13-50



IS06-C-20-50



IS06-A-20-50

**ISO 6R**
22 x 40 mm

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**ISO 10R**
24 x 45 mm



IS10-A-20-50

IS10-C-20-50

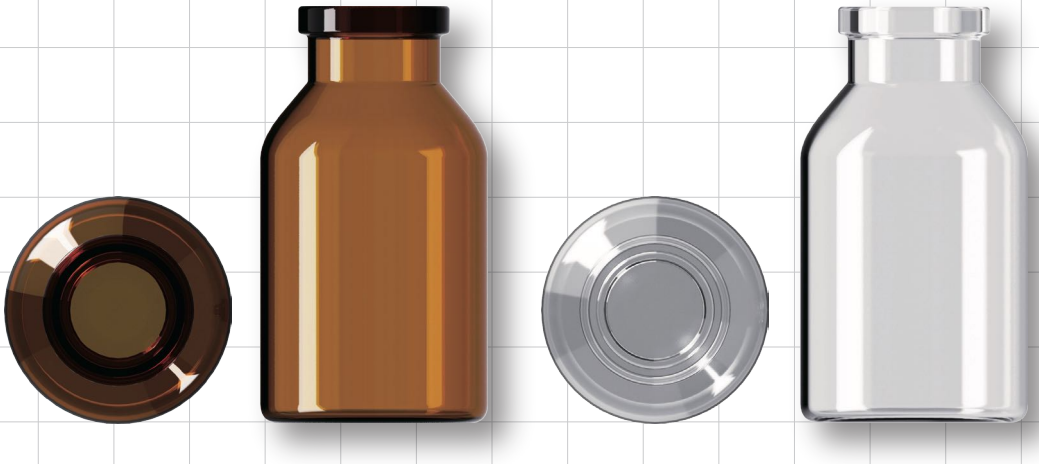


IS15-C-20-50

IS15-A-20-50

**ISO 15R**
24 x 60 mm

**ISO 20R**
30 x 55 mm



IS20-A-20-50

IS20-C-20-50




# STERIS Finn-Aqua Water for Injection
# Purity from the Source
# Triple-Pharmacopeial Compliance
# USP | EP | ChP

**Conductivity < 1.0 µS/cm**
**Bacterial endotoxins < 0.25 EU/mL**



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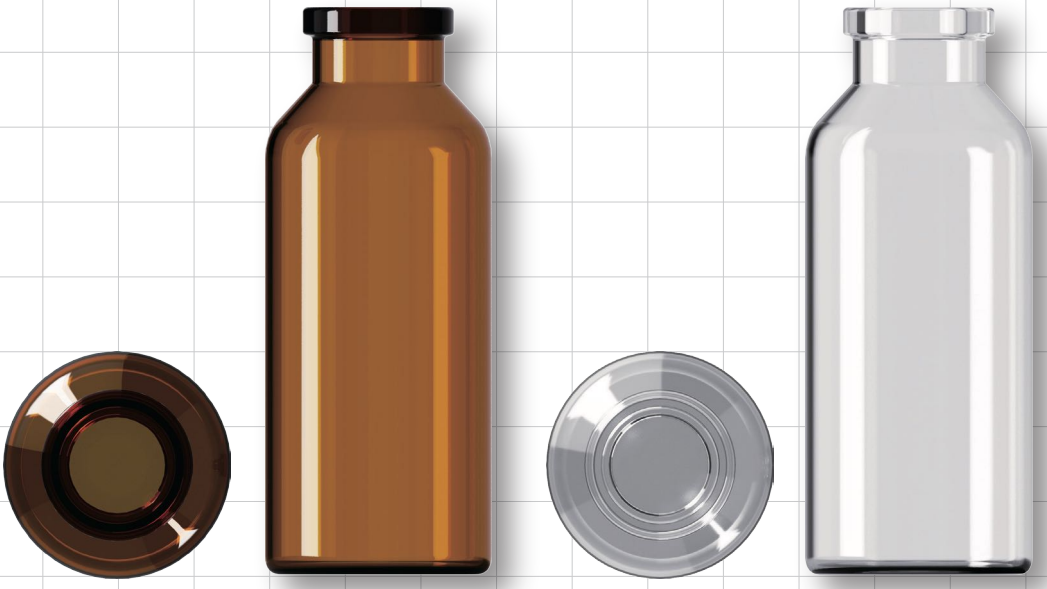
**ISO 25R**
30 x 65 mm



IS25-A-20-50

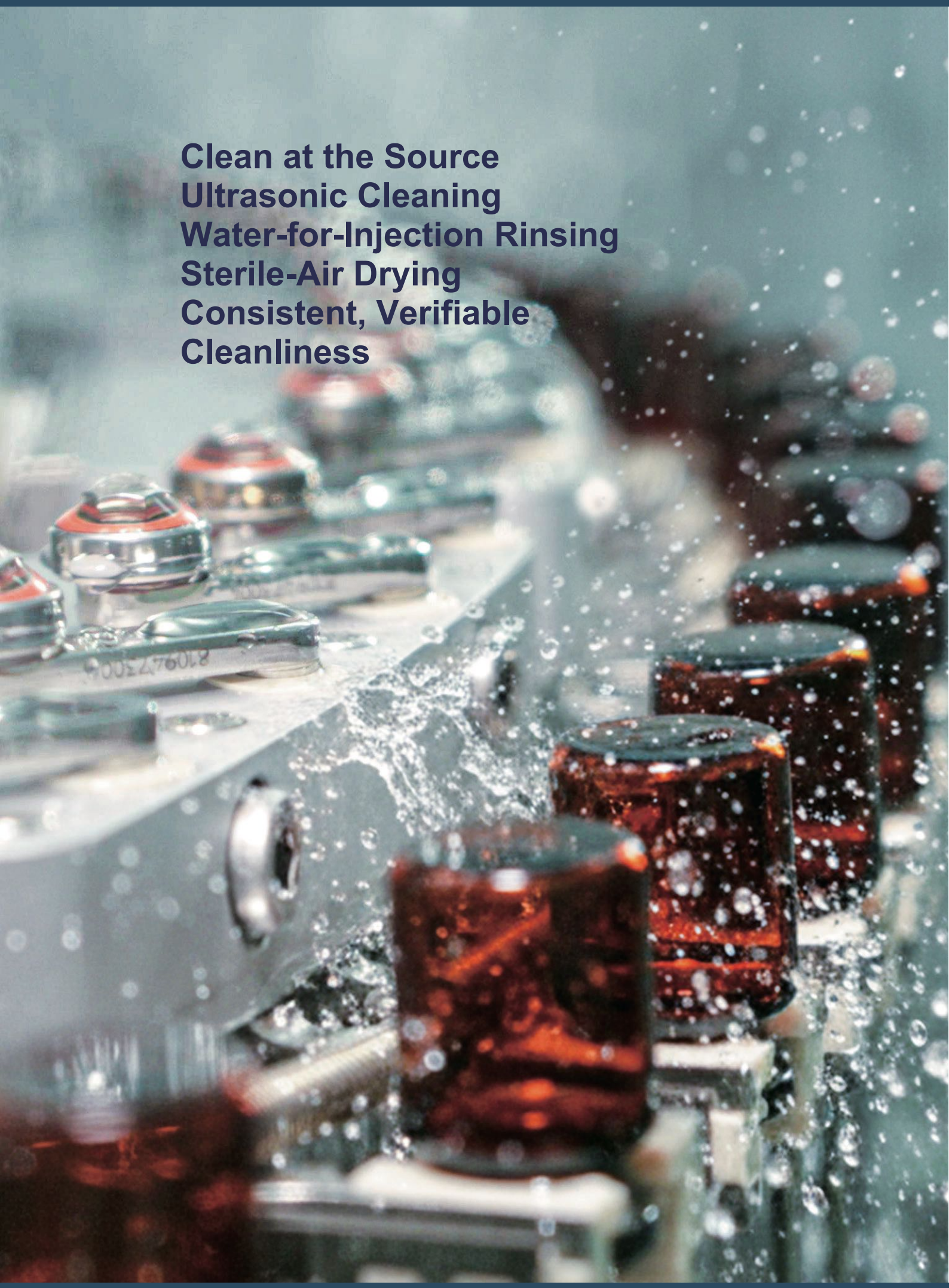
IS25-C-20-50

**ISO 30R**
30 x 75 mm



IS30-A-20-50

IS30-C-20-50

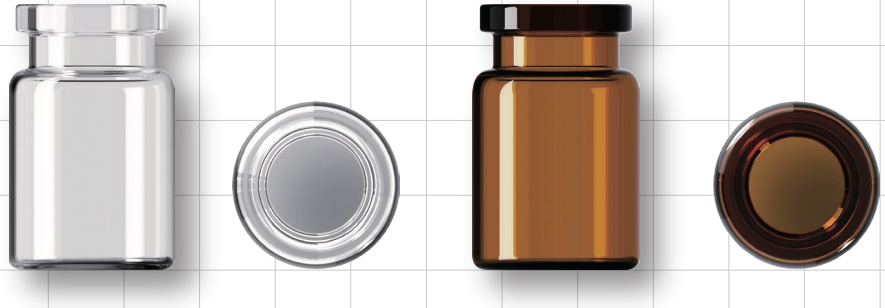

Clean at the Source
Ultrasonic Cleaning
Water-for-Injection Rinsing
Sterile-Air Drying
Consistent, Verifiable
Cleanliness

RX SOLUTIONS GPO
SUPPLIES AND LOGISTICS

# CHAPTER 1.2

## Ready-to-Use LyoPro Series Vials





LP2235-C-20-50

LP2235-A-20-50

**LYOPRO**
22 x 35 mm



**LYOPRO**
22 x 50 mm

LP2250-A-20-50

LP2250-C-20-50

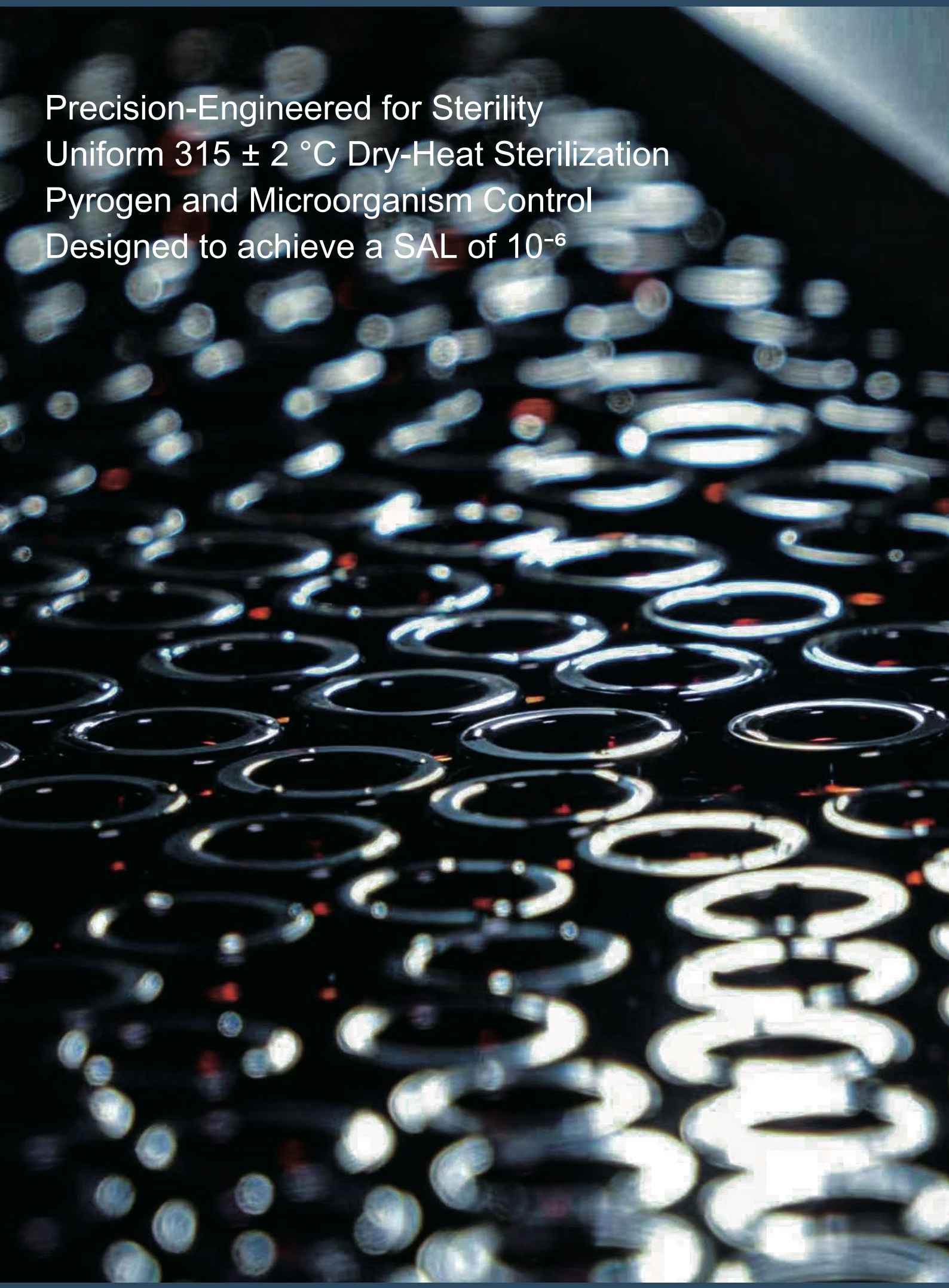
**Vial Geometry Optimized for Lyophilization**
**Designed for drying efficiency, product stability, and process compatibility.**



LP2840-C-20-50

LP2840-A-20-50

**LYOPRO**
28 x 40 mm


Precision-Engineered for Sterility
Uniform 315 ± 2 °C Dry-Heat Sterilization
Pyrogen and Microorganism Control
Designed to achieve a SAL of $10^{-6}$



# CHAPTER 2

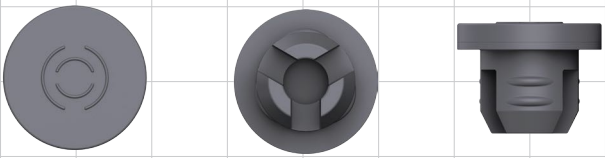
## Ready-to-Use Stoppers

**LYO**
13 mm



ST-LY13-2L-01

**LYO**
20 mm



ST-LY20-3L-01



ST-LY20-3L-02

**More sizes and configurations are available.**

**INJECTION**
13 mm

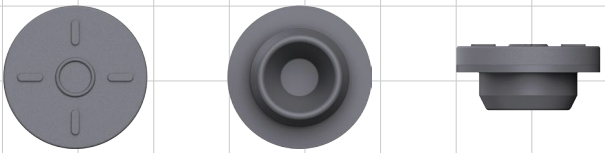


ST-IJ-13-01

**INJECTION**
20 mm



ST-IJ-20-02



ST-IJ-20-03

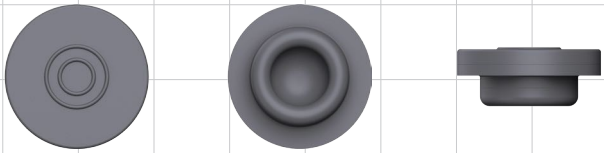
**More sizes and configurations are available.**

**LAMINATED**
13 mm



ST-IJ-13-02-FM

**LAMINATED**
20 mm



ST-IJ-20-01-FM

**Laminated stoppers help protect sensitive drug products by reducing direct contact with the stopper material.**

**Laminated versions are available for most stopper styles, with multiple sizes and configurations available on request.**

# CHAPTER 3

## Ready-to-Use Seals

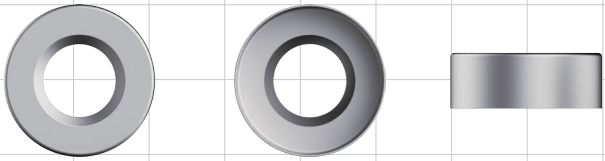


**ALU**
13 mm



SE-AU-13-01

**ALU**
20 mm



SE-AU-20-01



SE-AU-20-02

**More sizes and configurations are available.**
**See the color chart on page 20 for additional options.**

**ALU PLASTIC**
20 mm



SE-AP-20-01-MA



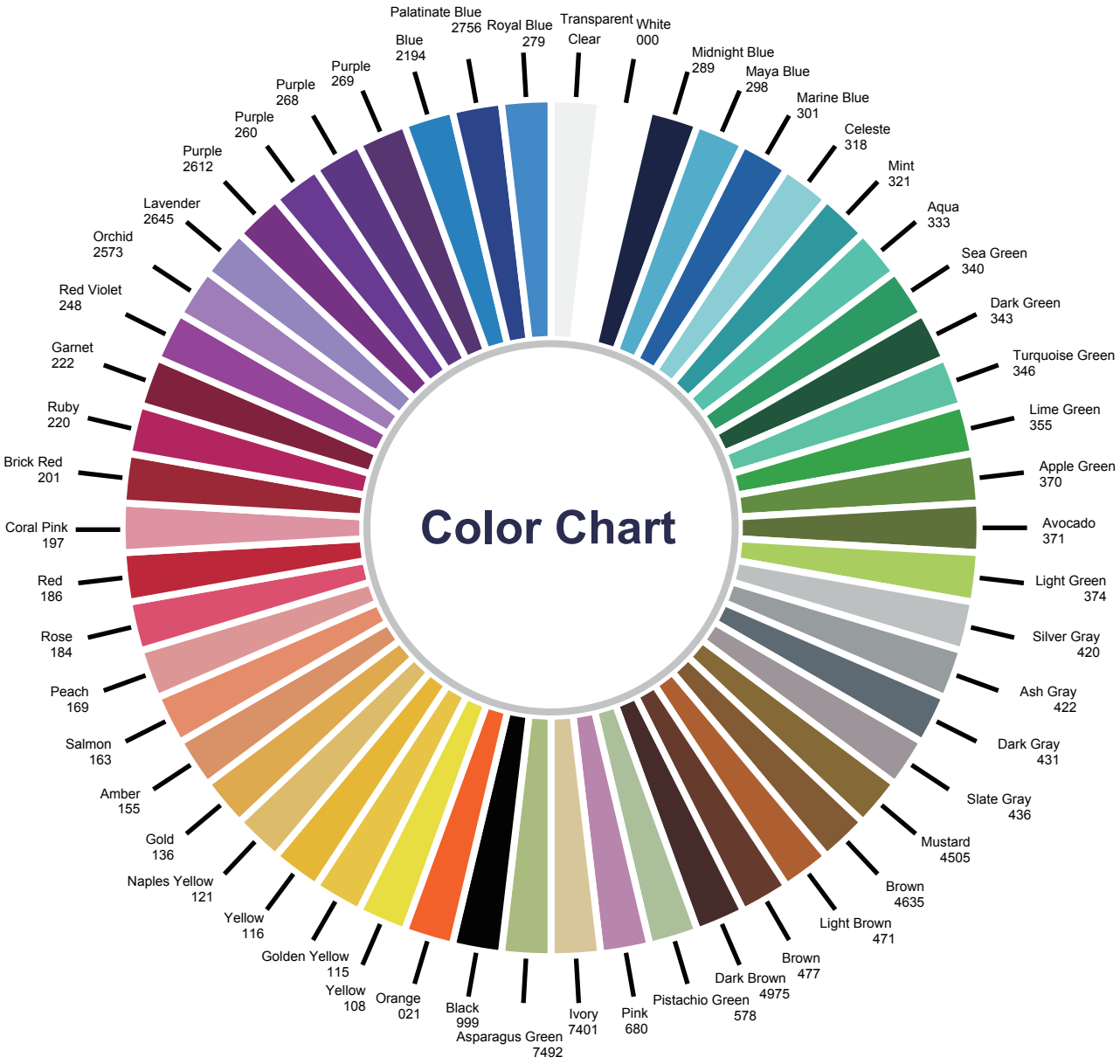
SE-AP-20-02



SE-AP-20-03

**More sizes and configurations are available.**
**See the color chart on page 20 for additional options.**

# Customize Your Colors



# CHAPTER 4

## Ready-to-Use Packaging System



# Standard Nest & Tub System



**Tyvek Lid**

**Tyvek Insert**

**Nest**

**Tub**



**Injection-molded nest and tub components with a full Tyvek barrier support dimensional stability and compatibility with high-speed automated equipment.**

**Designed for high-value biologics and cell and gene therapy applications, with product qualification against applicable FDA, EU GMP, or ISO 15378 requirements.**

# Nested Tray System



**Tyvek Lid**

**Tyvek Insert**

**Tray**



**Individual vial seating in a rigid nested tray with Tyvek lidding prevents vial-to-vial contact and provides physical protection.**

**Suited to RTU customers using automated fill-and-finish lines that require consistent vial integrity.**

# Yangtze Aero Nest & Tub System



Tyvek Lid

Tyvek Insert

Nest

Tub



**A nest-and-tub format with a Tyvek insert and lidding keeps vials individually separated and offers a clean presentation at a competitive price.**

**Suited to emerging biotechnology companies and mid-scale fill-and-finish operations seeking a cost-conscious upgrade from tray systems.**