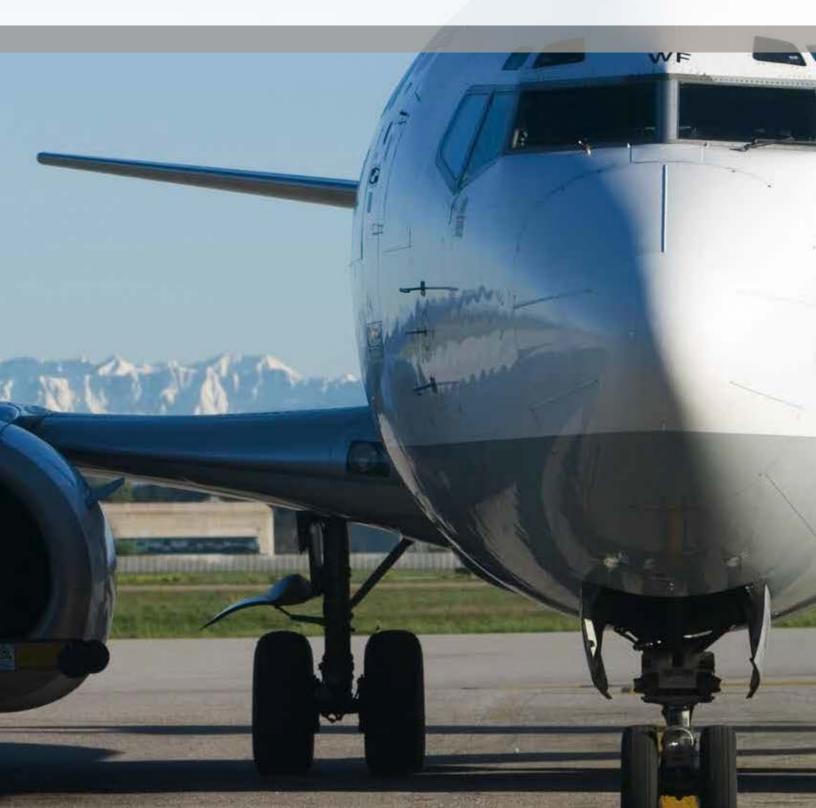
# Caplugs Reach New Heights with Caplugs

Protective Caps & Plugs | Masking Solutions | Hydraulic Component Protection | Electronic Connector & Component Protection



## company overview

*For more than 65 years, Caplugs* has been the leader in product protection with innovative plastic and rubber molded components that solve industry-wide challenges for the aviation market. We have over *12,000 standard products that include* plastic caps and plugs, netting, tubing, masking products, hose protection and other molded components.

*If one of our 400 million parts in stock* doesn't meet your needs, a dedicated team of in-house design engineers will collaborate with you every step of the way to develop a custom part to fit your exact requirements. We offer a wide range of molding processes, hundreds of material options and a stringent, certified quality management system.

class sales and service team, Caplugs is your trusted source – for plastic component solutions you can rely on.

Caplugs has been servicing the OEM & MRO customers in the aviation industry since 1948. We don't just sell parts – we're here to ensure your needs are met with the right part that protects your product or component during shipment, storage, assembly, repair, refurbishment and finishing processes. Caplugs' vast molding capabilities, aviation industry expertise and global reach make us an **ideal partner** and single source for all of your molded component needs.

### unmatched service and support

## aviation solutions made easy

#### most comprehensive product line and custom molding capabilities



## aviation industry experience and expertise

and MROs. We are a trusted supplier because we understand the specific demands of the aviation industry and are built to meet them. The wide range

#### Built for OEMs

- Caps and plugs are used to protect open ports from impact and FOD
- Plastic parts are used to cushion delicate threads
- Hose guard protects hydraulic hoses during
- during shipping before assembly
- Finishing parts, including plugs for open holes in
- Wing and landing gear protection
- Stud protectors
- Bearing protectors

#### Built for tier suppliers

- When shipping delicate components to assembly
- assembly guides
  - Printed with instructions
  - Designed to be removed before assembly, for

#### Built for MROs

- finishing processes
- Masking tapes and window masks for
- Edge liners and grommets refresh a



**Protective Parts** Caps Plugs Netting



**Electronic Connector and Component Protection** Conductive Static dissipative

Non-sloughing

## Masking Caps and plugs Tapes and discs Kit assemblies

High performance materials are used in our molded components to offer parts that are fire-retardant, conductive, UV resistant, chemical resistant and more.







#### Hydraulic Component Protection

Hose Guard

Rubber Seals

Valve Fitting Protection



## comprehensive engineering and manufacturing capabilities

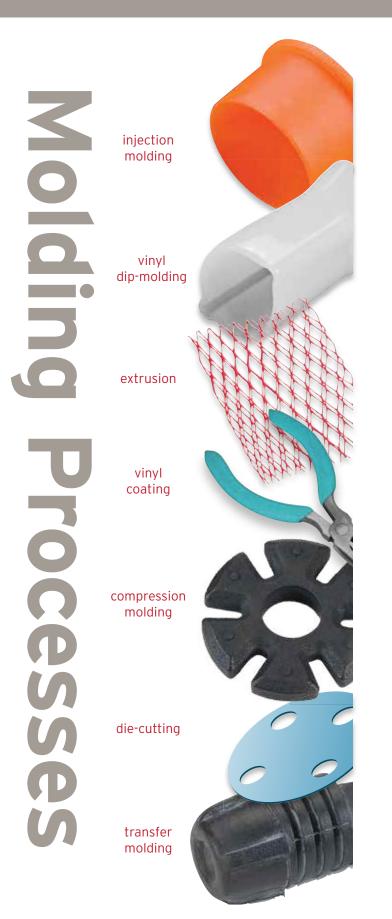
Our products protect hundreds of different components within the aviation market. With 7 different processes to work with, we can select the one to most effectively and cost efficiently meet your specific needs:

*Full in-house capabilities include:* 

- 3D modeling
- Rapid prototyping
- Advanced tool room
- 15 SolidWorks stations
- 3,000 production-ready custom molds available

We have **thousands of certified materials** to meet your performance needs, and our full staff of in-house engineers can also formulate and mix a custom compound for specific performance attributes and characteristics.





#### we're built for aviation

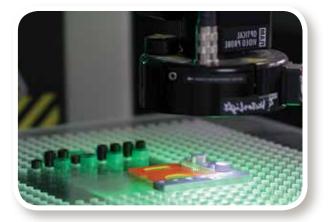
We understand the needs of the aviation industry and look forward to helping you soar with:

- > 24/7 customer support
- > Onsite visits from local sales team
- > 99% on-time delivery
- > JIT shipping if needed
- EDI inbound and outbound documentation with third-party system
- > Advanced shipping notice
- Inventory programs based on your planning documents
- > Quick quote turnaround
- > Fast turnaround on rapid functional prototypes



#### **REGISTERED** quality certification

- New York, Pennsylvania, Shanghai and Hangzhou, China facilities certified to ISO 9001 and ISO/TS 16949
- California and Texas facilities certified to ISO 9001
- New York, Pennsylvania, California, Shanghai and Hangzhou, China certified to ISO 14001
- New York facility has a Class 8 clean room with a certified quality management system



## quality management system

Caplugs' stringent quality management systems ensure the necessary process controls to provide our customers with consistent, quality products.

Our Production Part Approval Process (PPAP) and FAIR compliance are important components of a comprehensive quality management system that provide traceability, record retention and strict process controls to ensure aviation supplier specifications are met.

Over **400,000,000** parts in stock. **10,000,000** parts produced per day. Over **12,000** standard parts. Over **200** molding machines. Over **15** engineers. **6** global manufacturing facilities. The **1** partner you need.

Let our engineers collaborate with your team to develop unique solutions that meet your needs. To fully support our of custom molding capabilities, we have built an infrastructure that enables us to step in at any stage of your process.

#### **Comprehensive Collaboration**

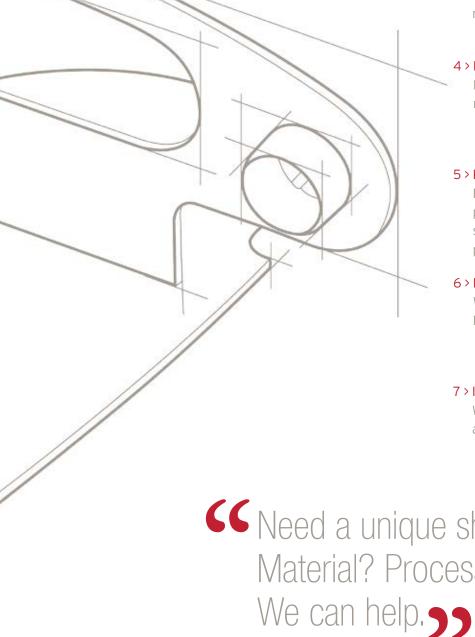
Our team takes you from R&D to prototyping through full production.

#### Design Consultation and Production

Our team will review your team's performance features, such as material, installation ergonomics and more.

#### **Production Only**

the material and finalizes all other features of the part. Our team partners with you for production.



1 > Concept and Design

Dedicated technical sales specialists

compatible with all CAD platforms

design solution options with 3D modeling,

### caplugs comprehensive in-house process

#### 2 > Rapid Prototyping

and engineers assigned to each project will

Prototypes built in-house confirm fit requirements before production approval

#### 3 > In-House Tool Fabrication

Molds made in-house for greater process control, shorter lead times and easier modifications

#### 4 > Full Production Capability

From small volume runs to millions of parts

#### 5 > PPAP and FAIR Compliance

Formal verification that part design and production processes comply with all your specifications, including chemical and physical analysis and full lot traceability

#### 6 > Packaging

We can meet special requirements like polybagging and corrugate-free

#### 7 > Inventory Management

We can inventory parts for JIT, Kanban and other warehousing requirements

# Need a unique shape? Size? Color? Material? Process requirements?



# protective caps and plugs

tapered caps and plugs

**TV SERIES** 

Flexible injection

CC SERIES

FAN SERIES

Flange covers

with bolt holes

Flange covers

molded vinyl cap/plug

**T SERIES** 

**C SERIES** 

Straight-sided

**EZC SERIES** 

Non-threaded caps

for NPT fittings

**J SERIES** 

Tear-tab caps for

NPT pipe threads

**TS SERIES** 

Tapered silicone

caps and plugs

utility caps

Tapered body gives

snug fit as cap/plug

non-threaded caps

- > Wide selection of standard protective parts ideal for the aviation industry
- > Prevent FOD and damage during shipping and storage
- > Available in various materials, including plastic, vinyl, aluminum and more
- > Available in standard carton and mini-pack quantities

WWX SERIES

Extra-wide, thick

flange cap/plug

**EPN-240** 

Recessed pipe caps

**FFP SERIES** 

Finger-lock

**OF SERIES** 

threaded connectors

Caps for long-

flange covers

SERIES



WW SERIES

Wide, thick flange

**COF SERIES** 

Round caps for

tubing and rods

FF SERIES

Square, hexagonal

**OE SERIES** 

Open-end thread

protectors

and triangular caps

cap/plug

**W SERIES** 

Wide-flanged

**CE SERIES** 

Plastic caps for

FCR SERIES

Heavy-wall caps

for round tubing

MOC SERIES

Mobile oxygen caps

threaded pipe ends

cap/plug

An economical vinyl material ideal for one-time use recommended for temperatures up to 500°F

threaded caps

DC SERIES

threaded cans

Push-on

EPN-250

Bevel edge open-

**FPC SERIES** 

Fabricated pipe caps

end protectors

SERIES



HCR SERIES Flex500® hightemperature caps



**VAC SERIES VAS SERIES** Vinyl angle caps Vinvl ASA

**VC SERIES** Flexible vinvl caps

VCF SERIES Round vinvl caps with flange

**VRR SERIES** Rounded-top vinvl caps and grips

**VSR SERIES** Caps for flanged and flange mounted

flange covers

VTC SERIES **VVC SERIES** Vinyl tethered caps Vented vinyl caps



Black neoprene plugs

**DO SERIES** 

Dome, ribbed

tubing plugs

Snap-in flange

protectors

**BN-SH SERIES BP SERIES** 

Button plugs with

**DOP SERIES** 

Dome plugs

recessed-type heads

fittings



flush-type heads

**DP SERIES** 

Conductive caps/plugs

**BPFE SERIES** Ergonomic button plugs with flush-type

heads





**FC SERIES** 

**FLGV SERIES FP SERIES** Valve flange Finishing plugs for protectors square tubing

**FP-SH SERIES** Rubber flangeless plugs



**K SERIES** Plugs for round tubing

MPP SERIES Multi-purpose snap-in plugs





**PP-SH SERIES** PTP SERIES EPDM pull plugs Tapered paper plugs

Hollow washer plugs Plugs for female connectors

**PZP SERIES** Unified plugs

**RCK-SH SERIES** Regular cork plugs

Tear-tab caps for straight threads

**JS SERIES** 



**PSC SERIES** Straight-sided paper caps

UVCP-SH

SERIES

Silicone venting cap/plug

**W SERIES** 

Wide-flanged

cap/plug

PTC SERIES

Tapered paper caps

WC-SH SERIES

Silicone washer caps

PZC SERIES Multi-purpose caps/plugs

Finishing and protection for raised-head screws

WW SERIES

Wide, thick flange

cap/plug

**RH/RHW SERIES** 

WWX SERIES

Extra-wide, thick

flange cap/plug



**ZC-SH SERIES** Zerk caps



EPN-310

Outside fitting

**FTC SERIES** 

Caps for flareless

tube and nut

assemblies

SERIES

protectors

Push-on metric caps

**SFC SERIES** Silicone flange caps



SF SERIES connections

Caps for split-flange

SC-SH SERIES Silicone caps

PM SERIES

**EVC SERIES** 

Eraonomic

vented caps

**GC SERIES** 

grease fitting caps

Color-coded

**PN SERIES** Push-on caps for

NPT fittings











**HFC SERIES** Flex500® flexible caps with flat pull-tab





Flex500<sup>®</sup> flexible round caps



**VHC SERIES** Vinyl hanger caps



Vinyl hex caps for MS-style fittings





**VRF SERIES** Flat-topped vinyl caps and grips



Plugs for round tubing



**GN-SH SERIES** 

Green neoprene plugs

**CEP SERIES** Conductive plugs for threaded connectors



**EPN-305** SERIES Push-in protectors



Plugs for Type L and Type M tubing







**HUPH-SH SERIES** Hollow silicone plugs with handles



Plugs for Type K style tubing





**RER SERIES** 

Rectangular load-

bearing plugs

**HFPP-SH SERIES** Hollow-flanged pull plugs



**RERV SERIES** Flexible rectangular load-bearing plugs

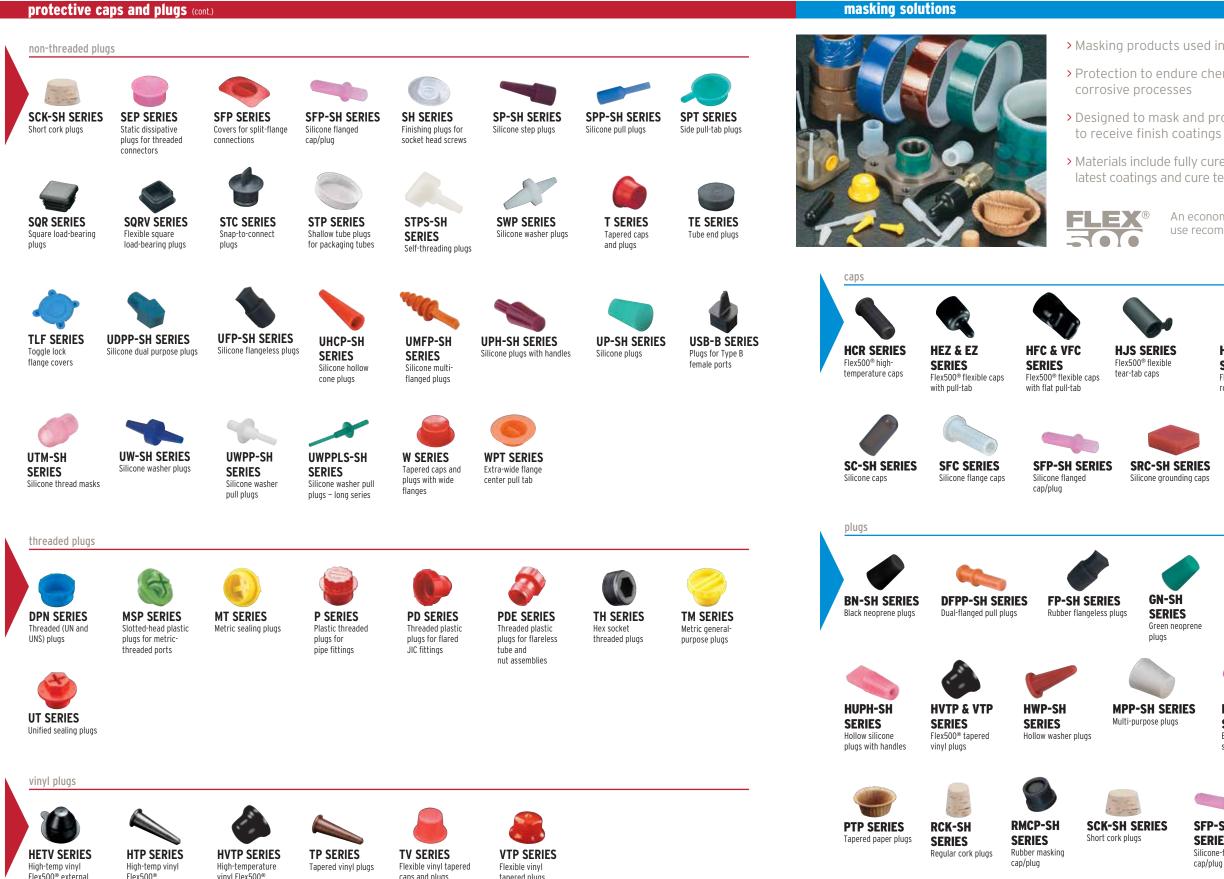
**HUP-SH SERIES** Hollow silicone plugs



**MT-SH SERIES** Mouse-tail pull plugs



**RJ SERIES** RJ45 ethernet jack protective plug



Flex500<sup>®</sup> external thread plugs

vinvl Flex500® tapered plugs tapered plugs

caps and plugs

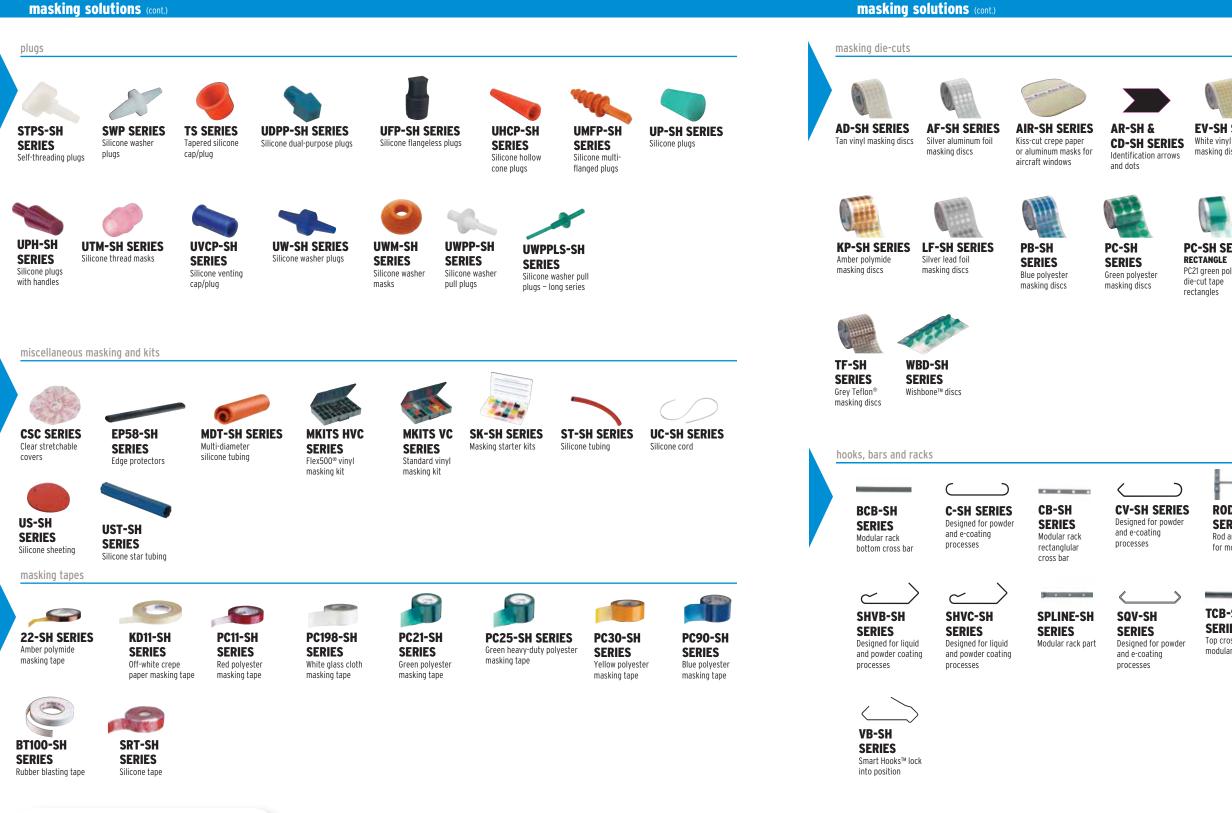
tapered plugs

**MPP-SH SERIES** Multi-purpose plugs

plugs

- > Masking products used in all finishing processes
- > Protection to endure chemical stripping, media blasting and other
- > Designed to mask and protect parts in production, as well as parts being prepared
- > Materials include fully cured silicone that removes cleanly and are compatible with the latest coatings and cure temperatures to optimize performance and minimize cost
  - An economical vinyl material ideal for one-time use recommended for temperatures up to 500°F





Try our conductive silicone material for powder coating process.



**EV-SH SERIES** masking discs



PC-SH SERIES RECTANGLE PC21 green polyester die-cut tape



Off-white crepe paper masking discs



SQUARE PC21 green polyester die-cut tape squares



GC-SH SERIES White glass cloth masking discs



PCD-SH SERIES PC21 green polyester die-cut tape donuts



**KD-SH SERIES** Off-white crepe paper masking discs



PR-SH SERIES Red polyester masking discs

**ROD-SH** SERIES Rod and clip set for modular rack

TCB-SH SERIES Top cross bar for modular rack



TH-SH SERIES "T" hook for

modular rack



000000

SB-SH

SERIES

Smart Bar™

**UWH-SH** SERIES Spin hooks



SERIES Designed for liquid and powder coating processes

**V-SH SERIES** Designed for powder and e-coating processes

#### hydraulic component protection

## selector guide

electronic connector and components protection



**AFO SERIES** 

hydraulic fittings

CXT SERIES

Center cross

pull-tab plug

L SERIES

plugs

Lift-tab tapered

externally threaded parts

**TPN SERIES** 

Square-head plugs

thick flanges

plugs for flat-

faced O-ring

Threaded aluminum

> Variety of thread protection, including SAE, NPT, JIC, UN/UNS and more

> Hose protection

> Rubber materials for ideal pressure testing



**ASC SERIES** 

Aluminum caps for

seal-flared fittings

**EC SERIES** 

PDF SERIES

Threaded plastic plugs

**RP SERIES** 

Threaded plugs

**TPN-F SERIES** 

Square-head with

flange plugs

for flat-faced O-ring

hvdraulic fittings

Caps for threaded or

smooth connectors

**ASP SERIES** 

Threaded aluminum

plugs for 37° flared

fittings and straight-

ECP SERIES

Ergonomic center

pull-tab plugs

PDH SERIES

Threaded plastic plugs

**RPO SERIES** 

Threaded plugs

**TPSD SERIES** 

Threaded plugs with

square drive

for flat-faced O-ring

hvdraulic fittings

threaded ports

An economical vinyl material ideal for one-time use recommended for temperatures up to 500°F

**CD-M Series** 

for metric fittings

**FF SERIES** 

Caps for flanged and

flange-mounted fittings

**PDO SERIES** 

Threaded plastic

SC SERIES

Straight-sided

sleeve caps

**TV SERIES** 

vinyl cap/plug

Flexible injection-molded

pluas for SAE

0-ring ports

Threaded plastic caps

**CPT SERIES** 

Center pull-tab

tapered plugs

**HC SERIES** 

and hose ends

Hose caps for tube

**PIP SERIES** 

Push-in plugs

SF SERIES

connections

Caps for split-flange

**UPP SERIES** 

Universal pull plugs

**VS SERIES** 

Vinyl pull caps

**CPT-NF SERIES** 

**HEX SERIES** 

Hexagonal caps

**PIP-TAB SERIES** Push-in plugs with pull-tab

SFP SERIES

**UTP SERIES** 

Universal thread plugs

**VSC SERIES** 

Vinyl square caps

connections

Covers for split-flange

Center pull-tab

tapered plugs

without flange

**CD SERIES** 

Plastic caps for

tubing and

**ETV SERIES** 

Flex500® flexible vinv

external thread plugs

PDI SERIES

Threaded plastic

pluas for inverted

**RPO-M SERIES** 

Threaded plugs

**TUV SERIES** 

Flexible tear-tab caps

flared fittings

flared fittings



Threaded aluminum plugs for flareless tube and hose assemblies



**CSW SERIES** Cut Sleeve-Web® netting



**HSF SERIES** High-pressure split-flange covers



**RC SERIES RCL SERIES** Extra long-bodied caps for





snug fit as cap/plug



**VAS SERIES** Vinvl ASA flange covers

**VSE SERIES** 

Vinvl square

end caps



**VC SERIES VF SERIES** Vinyl flange covers



Tapered caps and pluas with wide.

WWX SERIES Tapered caps and plugs with extra-wide. extra-thick flanges

**VFC SERIES** Vinyl caps with flat pull-tab





**VFT SERIES** Vinyl caps with flat Double-dipped vinyl ergonomic pull-tab pull-tab caps

hydraulic hose protection



**CTW SERIES** Cut tube wraps



SHG SERIES Hose bend restrictors Standard hose quards



- during shipping

AS138 SERIES **C** SERIES Electrical connector Straight-sided

dust caps

**CEC SERIES** Conductive caps for threaded

**CEG SERIES** Conductive edge

**DS SERIES** 

**E SERIES** Striaght-sided utility plugs

EC SERIES Caps for threaded connectors

and non-threaded connectors

EMC SERIES Static dissipative and conductive protectors for electro miniature connectors

liners

**RJ SERIES** 

**SEC SERIES** Static dissinative caps for threaded connectors

more protection

**CAB SERIES** 

**TSO SERIES** 

Square open-

end tubina

Cable ties



**CBW SERIES CVC SERIES** 

**CVV SERIES** Hinged containers Two-piece vials

**SW SERIES** 

Sleeve-Web® netting

**SWI SERIES** Standard-duty Sleeve-Web® with rust inhibitor

netting

**PMW SERIES** Flat sheet netting













Cut Bottle-Web™























**MSC SERIES** FSD connector cans ESD connector plugs



utility caps















> Variety of protection solutions for electronic connectors and components used in delicate and specialized systems in the aviation industry

Protect against both physical and static electrical damage that could occur

> Conductive materials meet application requirements



Conductive plugs for threaded connectors





**DCC SERIES** D-subminiature rectangular connectors



**IEC SERIES** Plugs for female connectors



connectors with flared shells



Plugs for round tubina

**USB-B SERIES** 

Plugs for Type B

female ports



DP SERIES For ITT Cannon-style connectors



**MDC SERIES** Caps for Micro-D connectors



**SEP SERIES** Static dissinative plugs for threaded



**EP SERIES** 

connectors

Plugs for threaded

connectors



**USB-A SERIES** Cans for USB Type A cable ends



Hose bend restrictors





**TSC SERIES** Square closed-end

tubina

We can die-cut corrugated cardboard into any shape for an inexpensive packaging solution.



**TRC SERIES** Closed-end tubing

**GRO SERIES** Grommets for holes in sheet metal





#### Hydraulic Component Protection

Aluminum caps with butyl disk inserted for sealing, skydrol and hydraulic fluids



#### **Stud Protection**

Manufactured in a performance material that is flame retardant



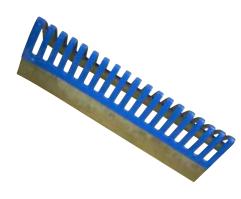
#### Vinyl Caps

Vinyl caps produced in flame retardant material and double dipped for easy installation and removal



#### Vinyl Dipping

Tool dipping allows us to vinyl coat racks, tools and any other metal pieces for a cushioned finish in a variety of colors



#### **HEX Series**

Hexagonal caps are designed to protect hex style bolts or nuts from damage and contaminants. A dual bead feature allows parts to securely lock in place.



#### AS138 Series

Electrical connector dust caps protect circular electrical connectors. This part is the only line of caps in the industry that meets the new SAE Aerospace specification AS85049/138.



## ready-to-ship catalog products

#### FUF Series

Plastic caps are designed to protect tube fittings in high vibration hydraulic systems typically found in aerospace and military aviation applications.



#### **AIR-SH Series**

Kiss-cut crepe paper or aluminum masks for aircraft windows to safeguard them by forming an impenetrable barrier against chemical action. The masks are pre-cut to aircraft window sizes from high-quality pressure sensitive aluminum foil.



Caplugs is the leader in product protection with manufacturing locations and sales representatives all over the world to serve every customer efficiently.



• Manufacturing Plants • Sales Representatives

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