

 Buyer's Guide

# COVER, PROTECT, GO: A QUICK GUIDE TO PIPE & FLANGE PROTECTION

# POPULAR PIPE AND FLANGE SOLUTIONS

**For the oil, gas and utilities industry, pipe, flange and thread protection are essential.**

It's not just contamination during and after storage you have to worry about, but damage during manufacturing treatments and transport. Without the right solutions, you could be looking at high costs to repair – even replace – drill and oil-well pipes.

Essentra Components can help you avoid those problems with the solutions you need, from [plastic end caps](#) to [plastic ribbed plugs](#). For example, some of our pipe caps have a valve, or vent holes, to control pressure that builds in a metal pipe fitted with cap protection and loaded onto a container going from a cold shipping port – for instance, Holland – to a hot shipping port, such as Dubai.

We recommend that you try before you buy to ensure you get the perfect pipe thread protector cap, push in plastic pipe plugs or flange protector caps – in short, whatever it is you need.

Simply request [free samples](#) now at <https://www.essentracomponents.com/en-us/samples>.

## RAISED FACE FLANGE PROTECTORS

The raised machine face on your flange is the critical area that needs protection. The flange protectors will help you maintain optimum condition and prevent leakage in storage or before installation.

PERFECT FOR:  
**EASY  
FITTING FACE  
PROTECTION**

### FEATURES:

- Available in four key profiles: Studded, Plug, Adhesive and Push-In. All are quick and easy to install and stand up to sand blasting.

### MATERIAL:

- Durable PE is ozone, weather and petroleum resistant.

### SPECIFICATION:

- Protects DIN and ANSI flanges. Solutions available in a range of sizes.

### STUDDED RAISED FACE FLANGE PROTECTORS

[View online](#) 

- Push Fit to apply.
- No fasteners required.



### RAISED FACE FLANGE PROTECTOR PLUGS

[View online](#) 

- Tapered design provides snug fit.
- No fasteners required.



### ADHESIVE RAISED FACE FLANGE PROTECTORS

[View online](#) 

- Resistant to petrol, oil and non-oxidation acids.



### PUSH-IN RAISED FACE FLANGE PROTECTORS

[View online](#) 

- Protects internally coated flanges.
- Easy to fit and flexible.
- Durable.





## FULL FACE FLANGE PROTECTORS

Keep your flanges in top condition for a perfect fit while guarding against corrosion and dirt ingress during transport around the factory and shipyards.

PERFECT FOR:  
DIN2627-2638,  
150 BS5504  
AND ANSI  
B16.5

### FEATURES:

- Protects the entire surface of the flange or leaves bolts/bolt holes free to access. Available in five key profiles: Studded, Plug, Adhesive, Push-In and Bolt Hole.

### MATERIAL:

- PE protects during finishing, storage and transit. Bolt hole flange protectors' PP material is cost-effective and offers good chemical and fatigue resistance.

### SPECIFICATION:

- Available in a range of sizes to support DIN and ANSI flanges.

### STUDDED FULL FACE FLANGE PROTECTOR

[View online](#)

- Provides full coverage to SAE Code 61 & Code 62 flanges.



### FLANGE PROTECTOR RETAINER PLUGS

[View online](#)

- Secures full face protective disk to flange surface.



### ADHESIVE FULL FACE FLANGE PROTECTORS

[View online](#)

- Tight bond.
- Peel and stick design.
- Leaves no residue.



### PUSH-IN FULL FACE FLANGE PROTECTORS

[View online](#)

- Flexible fins for snug fit.
- Fasteners not required.
- DN 10-300, ANSI ½in – 12in.



### BOLT HOLE FLANGE PROTECTORS

[View online](#)

- Attach with cable ties.
- Cost effective.
- DN 10-600, ANSI ½in – 32in.



## PIPE PLUGS

Eliminate costly downtime by preventing debris from entering the pipe and damaging vital threads.

PERFECT FOR:  
NPT LINE PIPE  
& DRILL PIPE

### FEATURES:

- Ribbed pipe plugs are available in two styles with flexible ribs of different diameters to fit multiple schedules of NPT and drill pipe.

### MATERIAL:

- Tough LDPE offers weather and chemical resistance.

### SPECIFICATION:

- The straight wall on the plug's O.D. provides a secure friction fit with the mating pipe's Inside Diameter for excellent protection against contaminants. Compatible nominal pipe diameters range from .217in – 24.606in (5.5mm – 625mm).

### RIBBED PIPE-END PLUGS

[View online](#)

- Secure friction fit with mating pipe's I.D.
- Excellent protection against contaminants.



### RIBBED PIPE-END PLUGS

[View online](#)

- Flexible fins with a rib diameter for a snug fit.
- Excellent protection against contaminants.



## PIPE CAPS

Minimize the threat of rust and pollution to the pipe's contents by preventing the entry of contaminants and foreign objects with a pipe end cap.

PERFECT FOR:  
PIPES  
TRANSPORTED  
BY CRANE  
HOOKS

### FEATURES:

- Flexible pipe caps offer a tight fit while recessed caps protect coatings, bevels and internal walls from damage during clamping by crane hooks.

### MATERIAL:

- Flexible pipe caps made of PE material are strong, durable and lightweight. Recessed pipe caps are made of LDPE for excellent chemical resistance to acids, alcohols, bases and esters.

### SPECIFICATION:

- Flexible pipe caps fit nominal pipe diameters, ranging from 2.374in – 64in (60.3mm – 1625.6mm). Recessed Caps are compatible with nominal pipe diameters that range from ½in – 48in (12.7mm – 1219.20mm)

### FLEXIBLE PIPE CAPS

[View online](#)

- Made of durable PE.
- Flexible for easy fit.



### OPEN-END PIPE CAPS

[View online](#)

- Made of flexible, yet rigid, LDPE.
- Accepts crane hooks.
- Available with or without vent hole.



### STANDARD SIZE PIPE CAPS

[View online](#)

- Made of flexible, yet rigid, LDPE.
- Internal ribs ensure tight fit and release after pressure build up.
- Also available with **Vent Hole**.



### TAPERED CAPS & PLUGS – STANDARD

[View online](#)

- Made of flexible, yet rigid, LDPE.
- Caps multiple O.D.s and plugs multiple I.D.s.



### TAPERED CAPS & PLUGS - HEAVY-DUTY

[View online](#)

- Made of flexible, yet rigid, LDPE.
- Rugged wall and seal rings for maximum protection.
- Caps multiple O.D.s and plugs multiple I.D.s



### TAPERED CAPS & PLUGS - WIDE FLANGE

[View online](#)

- Made of flexible, yet rigid, LDPE; designed as both tapered round plugs with flange as well as pipe flange caps.
- Added protection on bearing surfaces.
- Wider flange keeps plug from being pushed down through mating part.



## FLANGE COVERS

Perfect for protecting internally coated flanges, giving easy-to-fit, all-round flange protection.

PERFECT FOR:  
TIGHT FITTING  
FLANGE  
PROTECTION

### FEATURES:

- Suitable for all flange face types due to a durable and flexible nature. Also provides protection of bolt holes.

### MATERIAL:

- Available in flexible yellow Polyethylene and black HDPE.

### SPECIFICATION:

- Covers ANSI ½in – 30in.

### FLEXIBLE ANSI FLANGE COVERS

[View online](#)

- Complete all-round flange protection.
- Easy to fit, durable and flexible.
- **SAE J518 Flange Covers available.**



### SELF-LOCKING FLANGE PROTECTORS

[View online](#)

- Black HDPE Self-Locking Flange Protector has four attached arrows that insert into the diameter bolt hole circle to protect the full face.
- No fasteners required.



## GLOSSARY OF PIPE AND FLANGE TERMS

To help you, we've put together some of the most commonly used terms and abbreviations you're likely to hear regarding pipes and flanges.

**ANSI:** American National Standards.

The organization which sets the specifications for standard pipe

**ASME:** American Society of Mechanical Engineers. ASME refers to their standards

**BEARING LOAD:**

A compressive load supported by a member, usually a tube or collar, along a line where contact is made with a pin, rivet, axle or shaft

**BEVEL:** The angle formed between the prepared edge of the end of the pipe and a plane perpendicular to the surface. The bevel used for standard line pipe is 30°

**BEVELLED END:** Pipe with its ends cut at an angle to facilitate the weld joint used to join separate lengths of pipe

**BUSHING:** A pipe fitting, threaded on both the inside and outside, used for joining pipes with different diameters

**DIN:** Deutsches Institut für Normung.

In English: the German Institute for Standardization, which holds its own standards

**DN:** The metric equivalent of Nominal Pipe Size (NPS), conforming to the International Standards Organization (ISO)

**FITTING:** Any device used for connecting elements in fluid lines, including elbows, unions and flanges

**I.D.:** Inside diameter

**IPS:** Iron Pipe Size

**KSI:** K equals 1,000, thus the term is actually K (1,000) psi. The P has been dropped, and KSI is the new term (i.e. 50 KSI = 50,000 psi)

**LGTH:** Length or joint of pipe

**MPT:** Male pipe threads

**NPT:** National Pipe Thread (American standard thread)

**O.D.:** Outside Diameter

**RUN:** That portion of a fitting that goes in a straight line in the direction of the flow of the pieces of pipe to which it is connected

**TAPER:** A gradual change in the outside diameter of threads on pipe where the diameter at the ends of the pipe is the least

**TOLERANCE(S)** Permissible variations or deviation from a dimension

**UNION:** A fitting with three parts, two threaded ends with a nut between them, used to join two pieces of pipe such that they may be easily disconnected

**WALL THICKNESS:** A given size and schedule of the thickness of the pipe, which is fixed and defined in the ASME standard

**Y:** A fitting that joins three sections of pipe sometimes called WYE

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