

YU-BOLT

D-ROD



The structure of crucial piping systems across various projects necessitates continuous durability and maintenance to avert unexpected major issues. Ensuring the pipes, their surfaces, and supporting equipment such as pipe hangers & supports remain well-maintained is imperative to mitigate rapid corrosion and deterioration caused by water accumulation underneath them or the vibrating or rusty or weather condition.

YU-Bolt is the solution for pipe line lifespans and eliminate failure consequences.

YU-Bolt & D-ROD are engineered to cater to a wide-range of pipe support and structural applications, including Bolting and Insulation. Recognized for its strength, resistance to corrosion, use of high-quality materials, and adherence to international standards and also precisely tailoring materials for extra requirements.

We have got several materials for YU-Bolt, D-ROD, (Thermal Plastic Insulator), YU-Pad and YU-Bolt shank insulator to suit for specific job and for maximum protection efficiency.



DURABILITY & RELIABILITY

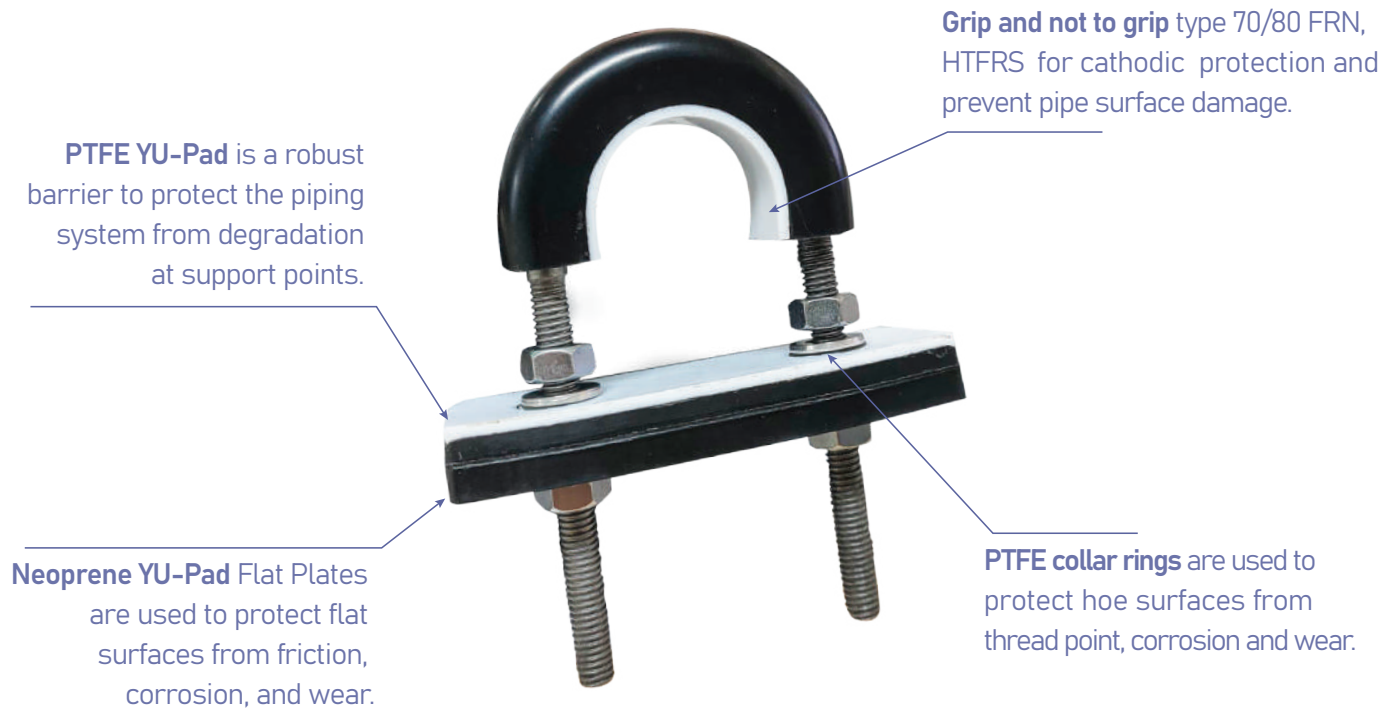
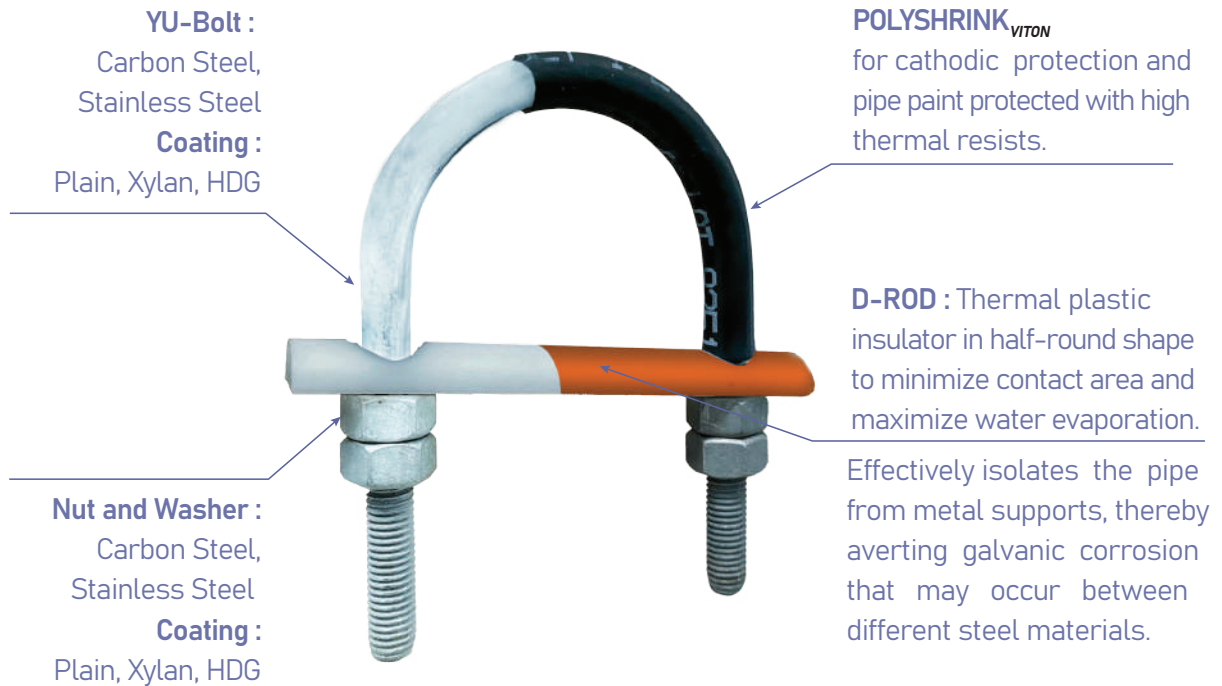
High quality material prevents rust and corrosion. Resistant to heat, oil, petrochemical, acid, detergent, corrosion material, weather condition in a long service life.



FULLY INSULATED YU-BOLT

Protected with fully insulated covering that is heat & weather resistant. And particularly in Stainless Steel FRP, PVC or CPVC piping system, we also have 70/80 FRN, HTFRS grip insulated for maximum pipe contact area.

YU-BOLT PACKAGE



YU-BOLT

CARBON STEEL

Carbon steel, in contrast to stainless steel, is an iron-carbon alloy prized for its strength and versatility. The key characteristic of carbon steel is its carbon content, which determines its hardness and strength. While it may not possess the same corrosion resistance as stainless steel, carbon steel offers exceptional durability, making it ideal for applications where high strength is paramount.

Commonly used in construction, manufacturing, and infrastructure, carbon steel demonstrates cost-effectiveness and reliability, showcasing its significance across a broad spectrum of industries.



STAINLESS STEEL

Stainless steel stands as a robust and heat-resistant iron-based alloy, recognized for its remarkable properties. It boasts durability, ensuring longevity in applications subjected to harsh conditions. Additionally, stainless steel maintains high hygiene standards, making it a preferred choice in critical environments like the medical and food industries. Its ease of maintenance and aesthetic qualities further enhance its appeal, making stainless steel a pivotal material in diverse sectors, including construction and manufacturing.

XYLAN COATING

How is XYLAN better ?

Xylan coating provides outstanding protection against corrosion in various environments. This fluoropolymer-based coating shields bolts and nuts from moisture, chemicals and corrosive elements, ensuring prolonged durability even in harsh conditions.

HOT-DIP GALVANIZED (HDG)

is a process that involves immersing bolts and nuts that have undergone surface preparation into molten zinc. This results in the formation of a zinc coating layer, characterized by a grayish appearance, with a thickness ranging from approximately 40 to 65 microns.

This thickness is considerably greater than the zinc plating thickness of 3-5 times, making HDG bolts and nuts more resistant to corrosion and Hot-Dip Galvanized (HDG) erosion caused by acids and alkaline solutions.



POLYSHRINK VITON

Applications

Made from a cross-linked fluoroelastomer compounds with superior impact, abrasion and cut through resistance. Especially used for applications requiring high resistance to corrosive fluids, fuels, lubricants, acids and solvents to prevent damages at elevated temperatures.

Characteristics

- Shrink ratio: 2:1
- High temperature resistant up to 200, excellent high and low temperature resistance.
- Excellent abrasion resistance and resistance to oil, diesel and hydraulic fluids.
- Very flexible, highly flame-retardant.
- RoHS and REACH compliant.

Operating temperature range

- Continuous operating temperature : -65°C-200°C
- Minimum shrink temperature : 150°C
- Minimum fully recovery temperature : 175°C

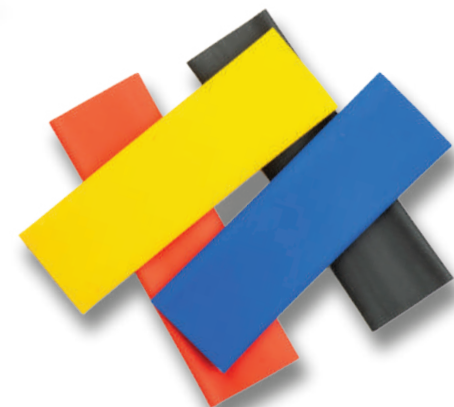


Approvals / Specifications

- SAE AMS-DTL-23053/13 UL E356992

Technical Data

Property	Requirement	Test Method	Typical data
Longitudinal shrinkage	≤10%	ASTM D 2671	≤5%
Tensile strength	≥8.2 MPa	ASTM D 2671	≥12 MPa
Elongation at break	≥250%	ASTM D 2671	≥400%
Elongation after ageing (250 °C, 168 hrs)	≥200%	ASTM D 2671	≥300%
Heat shock (300 , 4 hrs)	No crack	ASTM D 2671	No crack
Low temperature flexibility(-55 /4 hrs)	No crack	ASTM D 2671	No crack
Dielectric voltage withstand	2500V , 60sec no breakdown	ASTM D 2671	Pass
Dielectric strength	7.9kV/mm min	ASTM D 2671	12kV/mm
Volume resistivity	10 ⁹ Ω·cm min	ASTM D 2671	10 ⁹ Ω·cm min
Corrosion	No corrosion	ASTM D 2671	Pass
Flammability	Self extinguishing within 15s	ASTM D 2671	Pass
Fluids resistance (23 /24 hrs)			
Tensile strength	8.2MPa min	ASTM D 2671	≥12 MPa
Elongation at break	250% min	ASTM D 2671	≥400%



Standard color: Black, Blue, Yellow, Red



D-ROD is not just a support solution, but it is a shield against corrosion and a promoter of efficiency. Crafted from robust materials like ULTEM1000 or Peek or PTFE, this design not only provides sturdy structural support but also minimizes direct contact with corrosive elements. D-ROD acts as a protective barrier, ensuring a longer lifespan for your pipe support system. What's more, its half-round shape optimizes surface area, promoting efficient water evaporation in outdoor or challenging environments. Simple, effective, and designed with your needs in mind, our solution prioritizes longevity, reliability and efficiency for your pipe support requirements.



**MILL TEST CERTIFICATE PROVIDED
AND TRACEABLE TO MILL ORIGIN**

ULTEM 1000 (PEI)

Properties

Ultem 1000 stands out as a semi-transparent amorphous thermoplastic renowned for its exceptional steam and heat resistance, coupled with extraordinary dielectric properties. With a continuous service temperature of approximately 170°C, Ultem 1000 (PEI) is well-suited for applications demanding high strength and rigidity, especially in elevated temperature conditions.

Applications

Microwave-exposed parts, electricity insulating parts, parts for glass-manufacturing equipment, steam-cleaning automotive parts, food processing equipment, semiconductor manufacturing, and 3D printing heat-insulating sleeves, etc.

Characteristics

- High heat/Steam Resistance
- Excellent Dielectric Strength
- Non flammability



D-ROD

PEEK

Properties

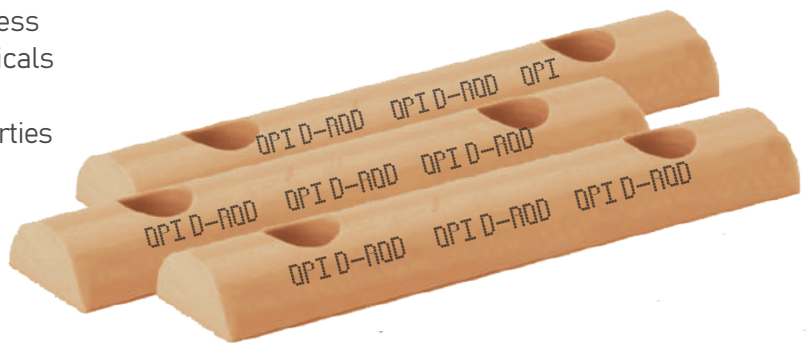
PEEK possesses outstanding mechanical strength, exceptional resistance to chemicals and hydrolysis, and is highly resilient to steam and radiation. With a continuous service temperature of approximately 250° C, it is well-suited for applications in elevated temperatures, maintaining its physical properties unaffected by external factors thanks to its excellent thermal characteristics.

Applications

Components associated with semiconductor facilities, LCD manufacturing facilities, precision machining facilities, chemical plants, electroplating facilities, and insulating materials.

Characteristics

- Excellent mechanical strength and stiffness
- High resistance to a wide range of chemicals
- Withstand high temperatures
- Possesses good electrical insulating properties
- Resistant to hydrolysis
- Resistance to radiation
- Maintains its dimensional stability under various environmental
- Low moisture absorption
- Non flammability



PTFE

Properties

PTFE is a versatile polymer renowned for its low friction coefficient, high-temperature resistance, excellent electrical insulation, nonstick properties, biocompatibility, and UV resistance. This combination makes it invaluable in various applications, from reducing friction in bearings to serving as a nonstick coating in cookware. Its stability, flexibility at low temperatures, and resistance to chemicals contribute to its widespread use across industries.

Applications

Parts requiring the high dimensional stability (gear, guide roller, bearing, etc), Parts used in a wet environment.

PTFE Characteristics

- Excellent mechanical properties
- High wear resistance
- High dimensional stability
- High chemical resistance
- Low moisture absorption



INSULATED YU-BOLT

Introduction

As part of its extensive product offering, WITCHLINER products suit Stainless Steel, Duplex, Super Duplex Piping and incorporate the following moulded isolation/encasing materials.

Temperature range

- 70/80 FRN : 30°C to 120°C
- HTFR Silicone : 40°C to 300°C

Both materials offer extensive performance qualities and can be utilised in a wide-range of pipework installations.

Principal benefits

- Clamping damage restraint to thin wall pipes.
- Prevention of electrolytic erosion between dissimilar metals.
- Curtailment of noise and vibration.
- Cost effective and time saving.
- Large standard ranges available.
- Other special designs and models available to suit customer requirements.

Properties & Isolating material

The steel part of both the YU-Bolts and Clamps are isolated from the pipe utilising either extruded 70/80 FRN (conforming to 854255) or HTFRS rubber elastomer.

70/80 FRN

is one of the most commonly used synthetic rubbers. This material is strong, resilient, and achieves an extremely high performance in the reduction of noise and vibration in pipework. 70/80 FRN also has an outstanding resistance to a wide range of chemicals, including acids, alkalis, fats, oils, greases and solvents. It has advantageous physical properties including tear and abrasion resistance, ozone and weathering.

Colour : Green

Working Temp Range : -30°C to 120°C

Specification

Properties for : 70/80 FRN		
Hardness	Shore A	65
Density	kg/m ³	1320
Tensile Strength	MPa	6
Elongation	%	575
Min Service Temp	°C	-30
Max Service Temp	°C	120

HTFR SILICONE RUBBER ELASTOMER

Silicone rubber is a chemically inert synthetic elastomer which differs from other synthetic and natural rubbers in that it is able to maintain excellent elasticity and resilience over a wide temperature range. It has excellent resistance to fire, very low toxicity, and can perform at temperatures up to 300°C (max) with minimum loss of characteristics.

The material has excellent resistance to ozone, weathering, and a wide range of chemicals, solvents, oils and greases.

Colour : Mid-Grey

Working Temp Range : -40°C to 300°C

Specification

Properties for : HTFRS		
Hardness	Shore A	63
Density	kg/m ³	1390
Tensile Strength	MPa	6.4
Elongation	%	190
Min Service Temp	°C	-40
Max Service Temp	°C	300

Surface finish (Metallic Components)

As a standard finish, YU-Bolt, is HDG in accordance with ASTM A123. All such components are also available in stainless steel.

Xylan coating is available upon request.

WITCHLINER



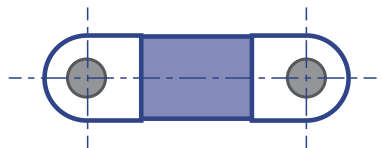
GRIP / NOT TO GRIP NEOPRENE / ELASTOMER INSULATED TYPE

NEOPRENE / PTFE YU-PAD

NEOPRENE

is an all purpose elastomer and an extremely versatile synthetic rubber use in thousands of applications. Neoprene rubber resists degradation from sun, ozone and weather and performs well in contact with oils and chemicals.

Neoprene rubber maintains its strength, flexing, twisting and elongation very well over a wide temperature range while having outstanding physical toughness. Many grades of neoprene are available depending on the application. Cloth inserted neoprene, anti-static ESD neoprene and even FDA approved neoprene is readily available. Please send your drawings if you need rubber gaskets or rubber parts made.



D - Shape

Specification

Properties for : Neoprene

Density after sulfuration	kg/m ³	1600
Elongation	%	200
Tensile strength	MPa	2.5
Hardness	Shore A	65
Max. Service Temp	°C	120

EMBOSSABLE & INKJET PRINTABLE



EMBOSSABLE NEOPRENE & INKJET PRINTED POLYSHRINK

PTFE collar rings

Applications

PTFE collar rings are used for protect hole surfaces from thread point, corrosion, and wear.

Characteristic

Chemical resistance
Heat resistance

Weather Resistance

Operating temperature range : -80 ~ 260 °C



WE ALSO SUPPLY...

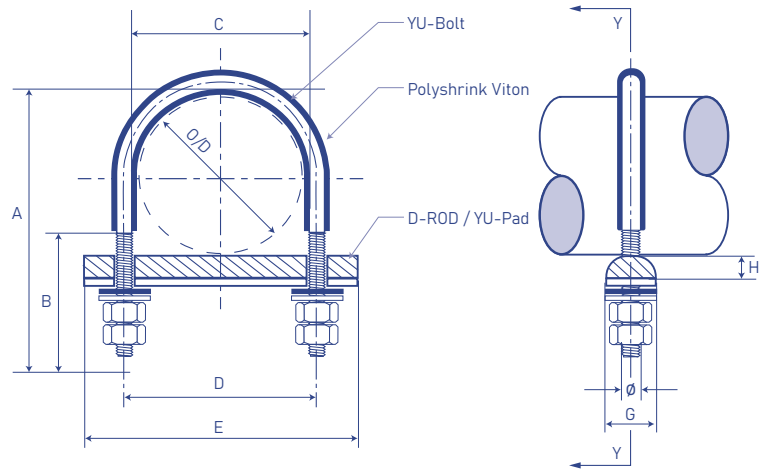
YU-BOLT TYPE 1 : YU-BOLT WITH VITON NORMAL SERIES



POLYSHRINK_{VITON} & D-ROD

POLYSHRINK_{VITON} & D-Pad

Part no.	Material			Coating			POLYSHRINK _{VITON}		D-ROD			YU-Pad	
	Carbon steel	SS304	SS316	None	HDG	Xylan Blue	Inclusive	Exclusive	PTFE	Ultem 1000	Peek	Neoprene	Neoprene + PTFE
YB1XX-C121R1	•				•		•		•				
YB1XX-C121R2	•				•		•			•			
YB1XX-C121R3	•				•		•				•		
YB1XX-C121W1	•				•		•					•	
YB1XX-C121W2	•				•		•						•
YB1XX-C131R1	•					•	•		•				
YB1XX-C131R2	•					•	•			•			
YB1XX-C131R3	•					•	•				•		
YB1XX-C131W1	•					•	•					•	
YB1XX-C131W2	•					•	•						•
YB1XX-C122R1	•				•			•	•				
YB1XX-C122R2	•				•			•		•			
YB1XX-C122R3	•				•			•			•		
YB1XX-C122W1	•				•			•				•	
YB1XX-C122W2	•				•			•					•
YB1XX-C132R1	•					•		•	•				
YB1XX-C132R2	•					•		•		•			
YB1XX-C132R3	•					•		•			•		
YB1XX-C132W1	•					•		•				•	
YB1XX-C132W2	•					•		•					•
YB1XX-S111R1		•		•			•		•				
YB1XX-S111R2		•		•			•			•			
YB1XX-S111R3		•		•			•				•		
YB1XX-S111W1		•		•			•					•	
YB1XX-S111W2		•		•			•						•
YB1XX-S112R1		•		•				•	•				
YB1XX-S112R2		•		•				•		•			
YB1XX-S112R3		•		•				•			•		
YB1XX-S112W1		•		•				•				•	
YB1XX-S112W2		•		•				•					•
YB1XX-S211R1			•	•			•		•				
YB1XX-S211R2			•	•			•			•			
YB1XX-S211R3			•	•			•				•		
YB1XX-S211W1			•	•			•					•	
YB1XX-S211W2			•	•			•						•
YB1XX-S212R1			•	•				•	•				
YB1XX-S212R2			•	•				•		•			
YB1XX-S212R3			•	•				•			•		
YB1XX-S212W1			•	•				•				•	
YB1XX-S212W2			•	•				•					•



*Polyshrink wall thickness : 0.89 +/- 0.18 mm

QU BOLT							D-ROD				YU-Pad								
Size	Norminal pipe size	Bolt Diameter	YU-Bolt Height	Thread length	Inside gap	PCD	PTFE	Utem 1000	Peek	D-ROD length	D-ROD hole diameter	D-ROD width	D-ROD height	Neoprene YU-Pad	Neoprene YU-Pad & PTFE	YU-Pad length	YU-Pad hole diameter	YU-Pad width	YU-Pad height
(XX)	NPS	A	B	C	D				E	F	G	H			E	F	G	K	
01	3/8"	1/4"	1-1/2"	7/8"	3/4"	[25.4]	YB101-R1	YB101-R2	YB101-R3	2"	3/8"	7/16"	1"	YB101-W1	YB101-W2	2"	3/8"	7/16"	[10]
02	1/2"	1/4"	1-1/2"	7/8"	7/8"	[28.58]	YB102-R1	YB102-R2	YB102-R3	2"	3/8"	7/16"	1"	YB102-W1	YB102-W2	2"	3/8"	7/16"	[10]
03	3/4"	1/4"	1-3/4"	1"	1-1/8"	[31.93]	YB103-R1	YB103-R2	YB103-R3	3"	3/8"	7/16"	1"	YB103-W1	YB103-W2	3"	3/8"	7/16"	[10]
04	1"	1/4"	2-3/8"	1-1/4"	1-3/8"	[41.33]	YB104-R1	YB104-R2	YB104-R3	3"	3/8"	7/16"	1"	YB104-W1	YB104-W2	3"	3/8"	7/16"	[10]
05	1"	5/16"	2-1/4"	1-1/8"	1-3/8"	[42.87]	YB105-R1	YB105-R2	YB105-R3	3"	1/2"	7/16"	1"	YB105-W1	YB105-W2	3"	1/2"	7/16"	[10]
06	1-1/8"	5/16"	2-1/4"	1-1/8"	1-1/2"	[46.04]	YB106-R1	YB106-R2	YB106-R3	3"	1/2"	7/16"	1"	YB106-W1	YB106-W2	3"	1/2"	7/16"	[10]
07	1-1/4"	5/16"	2-1/2"	1-1/4"	1-3/4"	[52.39]	YB107-R1	YB107-R2	YB107-R3	3-1/2"	1/2"	7/16"	1"	YB107-W1	YB107-W2	3-1/2"	1/2"	7/16"	[10]
08	1-1/2"	5/16"	3"	1-1/2"	2"	[58.74]	YB108-R1	YB108-R2	YB108-R3	4"	1/2"	7/16"	1"	YB108-W1	YB108-W2	4"	1/2"	7/16"	[10]
09	1-3/4"	5/16"	3"	1-1/2"	2-1/4"	[65.09]	YB109-R1	YB109-R2	YB109-R3	4"	1/2"	7/16"	1"	YB109-W1	YB109-W2	4"	1/2"	7/16"	[10]
10	2"	5/16"	3-1/2"	1-5/8"	2-1/2"	[71.44]	YB110-R1	YB110-R2	YB110-R3	4-1/2"	1/2"	7/16"	1"	YB110-W1	YB110-W2	4-1/2"	1/2"	7/16"	[10]
11	2-1/4"	5/16"	3-1/2"	1-5/8"	2-3/4"	[77.79]	YB111-R1	YB111-R2	YB111-R3	4-1/2"	1/2"	7/16"	1"	YB111-W1	YB111-W2	4-1/2"	1/2"	7/16"	[10]
12	2-1/2"	5/16"	4-1/4"	1-3/4"	3"	[84.14]	YB112-R1	YB112-R2	YB112-R3	5"	1/2"	7/16"	1"	YB112-W1	YB112-W2	5"	1/2"	7/16"	[10]
13	2-3/4"	5/16"	4-1/4"	1-3/4"	3-1/4"	[90.49]	YB113-R1	YB113-R2	YB113-R3	6"	1/2"	7/16"	1"	YB113-W1	YB113-W2	6"	1/2"	7/16"	[10]
14	3"	3/8"	4-1/2"	2"	3-1/2"	[98.43]	YB114-R1	YB114-R2	YB114-R3	6"	1/2"	7/16"	1"	YB114-W1	YB114-W2	6"	1/2"	7/16"	[10]
15	3-1/2"	3/8"	5"	2"	4"	[111.13]	YB115-R1	YB115-R2	YB115-R3	7"	1/2"	7/16"	1"	YB115-W1	YB115-W2	7"	1/2"	7/16"	[10]
16	4"	3/8"	5-3/4"	2"	4-1/2"	[123.83]	YB116-R1	YB116-R2	YB116-R3	7"	1/2"	7/16"	1"	YB116-W1	YB116-W2	7"	1/2"	7/16"	[10]
17	4-1/2"	3/8"	6-3/4"	2-1/4"	5"	[136.53]	YB117-R1	YB117-R2	YB117-R3	8"	1/2"	7/16"	1"	YB117-W1	YB117-W2	8"	1/2"	7/16"	[10]
18	5"	3/8"	6-3/4"	2-1/4"	5-1/2"	[149.23]	YB118-R1	YB118-R2	YB118-R3	8"	1/2"	7/16"	1"	YB118-W1	YB118-W2	8"	1/2"	7/16"	[10]
19	5-1/2"	3/8"	8"	2-1/2"	6"	[161.93]	YB119-R1	YB119-R2	YB119-R3	9"	1/2"	7/16"	1"	YB119-W1	YB119-W2	9"	1/2"	7/16"	[10]
20	6"	3/8"	8"	2-1/2"	6-1/2"	[174.63]	YB120-R1	YB120-R2	YB120-R3	9"	1/2"	7/16"	1"	YB120-W1	YB120-W2	9"	1/2"	7/16"	[10]
21	6-1/2"	3/8"	8-1/4"	2-3/4"	7"	[187.33]	YB121-R1	YB121-R2	YB121-R3	10"	1/2"	7/16"	1"	YB121-W1	YB121-W2	10"	1/2"	7/16"	[10]
22	7"	3/8"	9"	2-3/4"	7-1/2"	[200]	YB122-R1	YB122-R2	YB122-R3	10-1/2"	1/2"	7/16"	1"	YB122-W1	YB122-W2	10"	1/2"	7/16"	[10]
23	7-1/2"	3/8"	9-1/4"	3"	8"	[212.73]	YB123-R1	YB123-R2	YB123-R3	11"	1/2"	7/16"	1"	YB123-W1	YB123-W2	11"	1/2"	7/16"	[10]
24	8"	3/8"	10-1/2"	3"	8-1/2"	[225.43]	YB124-R1	YB124-R2	YB124-R3	11"	1/2"	11/16"	1-1/2"	YB124-W1	YB124-W2	11"	1/2"	11/16"	[10]
25	9"	3/8"	11"	3"	9-1/2"	[250.83]	YB125-R1	YB125-R2	YB125-R3	12-1/2"	1/2"	11/16"	1-1/2"	YB125-W1	YB125-W2	12-1/2"	1/2"	11/16"	[10]
26	10"	3/8"	12"	3-1/2"	10-1/2"	[276.23]	YB126-R1	YB126-R2	YB126-R3	13-1/2"	1/2"	11/16"	1-1/2"	YB126-W1	YB126-R2	13-1/2"	1/2"	11/16"	[10]
27	10-1/2"	3/8"	12-3/4"	3"	11"	[288.93]	YB127-R1	YB127-R2	YB127-R3	14"	1/2"	11/16"	1-1/2"	YB127-W1	YB127-R2	14"	1/2"	11/16"	[10]
28	11"	3/8"	15"	4"	12"	[314.33]	YB128-R1	YB128-R2	YB128-R3	15"	1/2"	11/16"	1-1/2"	YB128-W1	YB128-R2	15"	1/2"	11/16"	[10]
29	12"	3/8"	15"	4"	12-1/2"	[327.03]	YB129-R1	YB129-R2	YB129-R3	16"	1/2"	11/16"	1-1/2"	YB129-W1	YB129-R2	16"	1/2"	11/16"	[10]

**Larger sizes, alternative materials and other surface coatings, other insulators, inkjet printed or embossed printed on insulator surface are available upon request.

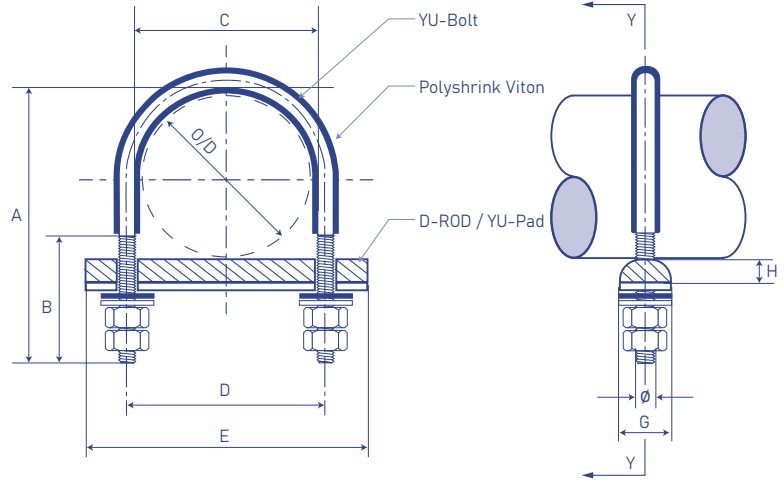
YU-BOLT TYPE 2 : YU-BOLT WITH VITON HEAVY SERIES



POLYSHRINK_{VITON} & D-ROD



POLYSHRINK_{VITON} & D-Pad



Part no.	Material	Coating			POLYSHRINK _{VITON}		D-ROD			YU-Pad	
	Carbon steel	None	HDG	Xylan Blue	Inclusive	Exclusive	PTFE	Ultem 1000	Peek	Neoprene	Neoprene + PTFE
YB2XX-C121R1	•		•		•		•				
YB2XX-C121R2	•		•		•			•			
YB2XX-C121R3	•		•		•				•		
YB2XX-C121W1	•		•		•					•	
YB2XX-C121W2	•		•		•						•
YB2XX-C131R1	•			•	•		•				
YB2XX-C131R2	•			•	•			•			
YB2XX-C131R3	•			•	•				•		
YB2XX-C131W1	•			•	•					•	
YB2XX-C131W2	•			•	•						•
YB2XX-C122R1	•		•			•	•				
YB2XX-C122R2	•		•			•		•			
YB2XX-C122R3	•		•			•			•		
YB2XX-C122W1	•		•			•				•	
YB2XX-C122W2	•		•			•					•
YB2XX-C132R1	•			•		•	•				
YB2XX-C132R2	•			•		•		•			
YB2XX-C132R3	•			•		•			•		
YB2XX-C132W1	•			•		•				•	
YB2XX-C132W2	•			•		•					•

***Polyshrink wall thickness : 0.89 +/- 0.18 mm**

YU-BOLT							D-ROD							YU-Pad					
Size	Normal pipe size	Bolt Diameter	YU-Bolt Height	Thread length	Inside gap	PCD	PTFE	Utem 1000	Peek	D-ROD length	D-ROD hole diameter	D-ROD width	D-ROD height	Neoprene YU-Pad	Neoprene YU-Pad & PTFE	YU-Pad length	YU-Pad hole diameter	YU-Pad width	YU-Pad height
(XX)	NPS	A	B	C	D					E	F	G	H			E	F	G	K
01	1/2" [12.7]	3/8" [9.53]	[60]	[35]	1" [25.4]	[34.93]	YB201-R1	YB201-R2	YB201-R1	3" [76.2]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB201-W1	YB201-W2	3" [76.2]	1/2" [12.7]	1" [25.4]	[10]
02	3/4" [19.05]	3/8" [9.53]	[60]	[35]	1-1/8" [28.58]	[38.11]	YB202-R1	YB202-R2	YB202-R1	3" [76.2]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB202-W1	YB202-W2	3" [76.2]	1/2" [12.7]	1" [25.4]	[10]
03	1" [25.4]	3/8" [9.53]	[75]	[35]	1-1/2" [38.1]	[47.63]	YB203-R1	YB203-R2	YB203-R1	3" [76.2]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB203-W1	YB203-W2	3" [76.2]	1/2" [12.7]	1" [25.4]	[10]
04	1-1/4" [31.75]	3/8" [9.53]	[75]	[35]	1-3/4" [44.45]	[53.98]	YB204-R1	YB204-R2	YB204-R1	3-1/2" [88.9]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB204-W1	YB204-W2	3-1/2" [88.9]	1/2" [12.7]	1" [25.4]	[10]
05	1-1/2" [38.1]	3/8" [9.53]	[80]	[45]	2" [50.8]	[60.33]	YB205-R1	YB205-R2	YB205-R1	4" [101.6]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB205-W1	YB205-W2	4" [101.6]	1/2" [12.7]	1" [25.4]	[10]
06	2" [50.8]	3/8" [9.53]	[100]	[50]	2-1/2" [63.5]	[73.03]	YB206-R1	YB206-R2	YB206-R1	4-1/2" [114.3]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB206-W1	YB206-W2	4-1/2" [114.3]	1/2" [12.7]	1" [25.4]	[10]
07	2-1/2" [63.5]	3/8" [9.53]	[110]	[50]	3" [76.2]	[85.73]	YB207-R1	YB207-R2	YB207-R1	5" [127]	1/2" [12.7]	1" [25.4]	7/16" [11.11]	YB207-W1	YB207-W2	5" [127]	1/2" [12.7]	1" [25.4]	[10]
08	3" [76.2]	1/2" [12.7]	[140]	[75]	3-1/2" [88.9]	[101.6]	YB208-R1	YB208-R2	YB208-R1	6" [152.4]	5/8" [15.88]	1" [25.4]	7/16" [11.11]	YB208-W1	YB208-W2	6" [152.4]	5/8" [15.88]	1" [25.4]	[10]
09	4" [101.6]	5/8" [15.88]	[165]	[91]	4-1/2" [114.3]	[130.18]	YB209-R1	YB209-R2	YB209-R1	8" [203.2]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB209-W1	YB209-W2	8" [203.2]	3/4" [19.05]	1" [25.4]	[10]
10	5" [127]	5/8" [15.88]	[190]	[90]	5-1/2" [139.7]	[155.58]	YB210-R1	YB210-R2	YB210-R1	9" [228.6]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB210-W1	YB210-W2	9" [228.6]	3/4" [19.05]	1" [25.4]	[10]
11	6" [152.4]	5/8" [15.88]	[230]	[100]	6-3/4" [171.45]	[187.33]	YB211-R1	YB211-R2	YB211-R1	10" [254]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB211-W1	YB211-W2	10" [254]	3/4" [19.05]	1" [25.4]	[10]
12	7" [177.8]	5/8" [15.88]	[225]	[100]	7-1/2" [190.5]	[206.38]	YB212-R1	YB212-R2	YB212-R1	10-1/2" [266.7]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB212-W1	YB212-W2	10-1/2" [266.7]	3/4" [19.05]	1" [25.4]	[10]
13	8" [203.2]	5/8" [15.88]	[280]	[100]	8-3/4" [222.25]	[238.13]	YB213-R1	YB213-R2	YB213-R1	11" [279.4]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB213-W1	YB213-W2	11" [279.4]	3/4" [19.05]	1" [25.4]	[10]
14	8" [203.2]	3/4" [19.05]	[280]	[100]	8-3/4" [222.25]	[241.3]	YB214-R1	YB214-R2	YB214-R1	11" [279.4]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB214-W1	YB214-W2	11" [279.4]	7/8" [22.23]	1-1/2" [38.1]	[10]
15	10" [254]	5/8" [15.88]	[320]	[110]	10-3/4" [273.05]	[288.93]	YB215-R1	YB215-R2	YB215-R1	14" [355.6]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB215-W1	YB215-W2	14" [355.6]	3/4" [19.05]	1" [25.4]	[10]
16	10" [254]	3/4" [19.05]	[320]	[110]	10-3/4" [273.05]	[292.1]	YB216-R1	YB216-R2	YB216-R1	14" [355.6]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB216-W1	YB216-W2	14" [355.6]	7/8" [22.23]	1-1/2" [38.1]	[10]
17	12" [304.8]	5/8" [15.88]	[392]	[110]	12-3/4" [323.85]	[339.73]	YB217-R1	YB217-R2	YB217-R1	16" [406.4]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB217-W1	YB217-W2	16" [406.4]	3/4" [19.05]	1" [25.4]	[10]
18	12" [304.8]	3/4" [19.05]	[392]	[110]	12-3/4" [323.85]	[342.9]	YB218-R1	YB218-R2	YB218-R1	16" [406.4]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB218-W1	YB218-W2	16" [406.4]	7/8" [22.23]	1-1/2" [38.1]	[10]
19	12" [304.8]	7/8" [22.23]	[392]	[110]	12-3/4" [323.85]	[346.08]	YB219-R1	YB219-R2	YB219-R1	16" [406.4]	1" [25.4]	1" [25.4]	7/16" [11.11]	YB219-W1	YB219-W2	16" [406.4]	1" [25.4]	1" [25.4]	[10]
20	14" [355.6]	5/8" [15.88]	[436]	[110]	14-1/2" [368.3]	[384.18]	YB220-R1	YB220-R2	YB220-R1	17" [431.8]	3/4" [19.05]	1" [25.4]	7/16" [11.11]	YB220-W1	YB220-W2	17" [431.8]	3/4" [19.05]	1" [25.4]	[10]
21	14" [355.6]	3/4" [19.05]	[436]	[110]	14-1/2" [368.3]	[387.35]	YB221-R1	YB221-R2	YB221-R1	17-1/2" [444.5]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB221-W1	YB221-W2	17-1/2" [444.5]	7/8" [22.23]	1-1/2" [38.1]	[10]
22	14" [355.6]	7/8" [22.23]	[436]	[110]	14-1/2" [368.3]	[390.53]	YB222-R1	YB222-R2	YB222-R1	18" [457.2]	1" [25.4]	1-1/2" [38.1]	11/16" [17.46]	YB222-W1	YB222-W2	18" [457.2]	1" [25.4]	1-1/2" [38.1]	[10]
23	14" [355.6]	1" [25.4]	[436]	[110]	14-1/2" [368.3]	[393.7]	YB223-R1	YB223-R2	YB223-R1	18" [457.2]	1-1/8" [28.58]	1-1/2" [38.1]	11/16" [17.46]	YB223-W1	YB223-W2	18" [457.2]	1-1/8" [28.58]	1-1/2" [38.1]	[10]
24	16" [406.4]	3/4" [19.05]	[486]	[110]	16-1/2" [419.1]	[438.15]	YB224-R1	YB224-R2	YB224-R1	19" [482.6]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB224-W1	YB224-W2	19" [482.6]	7/8" [22.23]	1-1/2" [38.1]	[10]
25	16" [406.4]	7/8" [22.23]	[486]	[110]	16-1/2" [419.1]	[441.33]	YB225-R1	YB225-R2	YB225-R1	19-1/2" [495.3]	1" [25.4]	1-1/2" [38.1]	11/16" [17.46]	YB225-W1	YB225-W2	19-1/2" [495.3]	1" [25.4]	1-1/2" [38.1]	[10]
26	16" [406.4]	1" [25.4]	[486]	[110]	16-1/2" [419.1]	[444.5]	YB226-R1	YB226-R2	YB226-R1	19-1/2" [495.3]	1-1/8" [28.58]	1-1/2" [38.1]	11/16" [17.46]	YB226-W1	YB226-W2	19-1/2" [495.3]	1-1/8" [28.58]	1-1/2" [38.1]	[10]
27	18" [457.2]	3/4" [19.05]	[558]	[110]	18-1/2" [469.9]	[488.95]	YB227-R1	YB227-R2	YB227-R1	21" [533.4]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB227-W1	YB227-W2	21" [533.4]	7/8" [22.23]	1-1/2" [38.1]	[10]
28	18" [457.2]	7/8" [22.23]	[558]	[110]	18-1/2" [469.9]	[492.13]	YB228-R1	YB228-R2	YB228-R1	21-1/2" [546.1]	1" [25.4]	1-1/2" [38.1]	11/16" [17.46]	YB228-W1	YB228-W2	21-1/2" [546.1]	1" [25.4]	1-1/2" [38.1]	[10]
29	18" [457.2]	1" [25.4]	[558]	[110]	18-1/2" [469.9]	[495.3]	YB229-R1	YB229-R2	YB229-R1	21-1/2" [546.1]	1-1/8" [28.58]	1-1/2" [38.1]	11/16" [17.46]	YB229-W1	YB229-W2	21-1/2" [546.1]	1-1/8" [28.58]	1-1/2" [38.1]	[10]
30	24" [609.6]	3/4" [19.05]	[698]	[110]	24-1/2" [622.3]	[641.35]	YB230-R1	YB230-R2	YB230-R1	27-1/2" [698.5]	7/8" [22.23]	1-1/2" [38.1]	11/16" [17.46]	YB230-W1	YB230-W2	27-1/2" [698.5]	7/8" [22.23]	1-1/2" [38.1]	[10]
31	24" [609.6]	7/8" [22.23]	[698]	[110]	24-1/2" [622.3]	[644.53]	YB231-R1	YB231-R2	YB231-R1	27-1/2" [698.5]	1" [25.4]	1-1/2" [38.1]	11/16" [17.46]	YB231-W1	YB231-W2	27-1/2" [698.5]	1" [25.4]	1-1/2" [38.1]	[10]
32	24" [609.6]	1" [25.4]	[698]	[110]	24-1/2" [622.3]	[647.7]	YB232-R1	YB232-R2	YB232-R1	28" [711.2]	1-1/8" [28.58]	1-1/2" [38.1]	11/16" [17.46]	YB232-W1	YB232-W2	28" [711.2]	1-1/8" [28.58]	1-1/2" [38.1]	[10]

****Larger sizes, alternative materials and other surface coatings, other insulators, inkjet printed or embossed printed on insulator surface are available upon request.**

**YU-BOLT TYPE 3 :
YU-BOLT WITH INSULATED
(TO GRIP)**

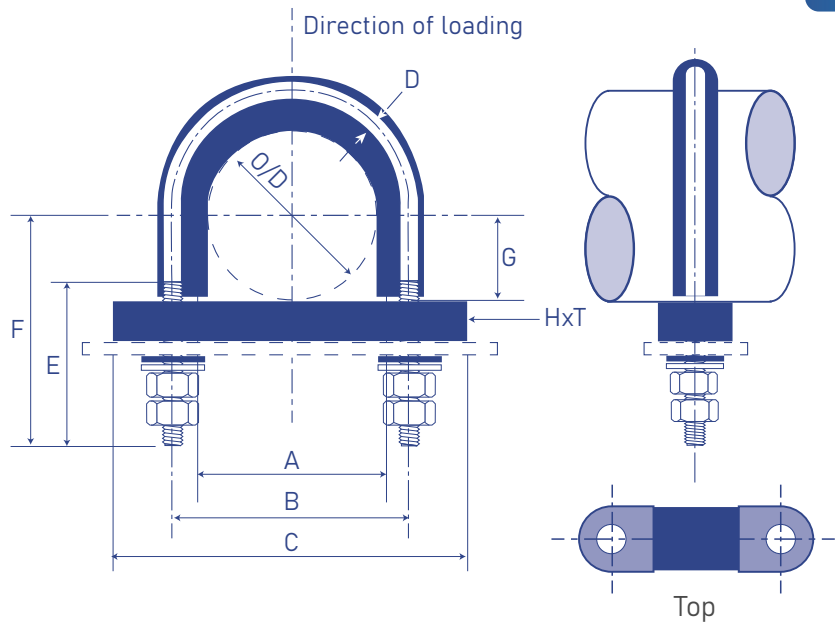
**TYPE : 70/80 FRN & HT/FRS
SIZE : NORMAL**

***Polyshrink wall thickness : 0.89 +/- 0.18 mm**

YU-B

Stainless Steel 304		Stainless Steel 316		Carbon Steel with A123 HDG	
70/80 FRN	HT/FRS	70/80 FRN	HT/FRS	70/80 FRN	HT/FRS
YB301-S113N1	YB301-S113N2	YB301-S213N1	YB301-S213N2	YB301-C123N1	301-C123N2
YB302-S113N1	YB302-S113N2	YB302-S213N1	YB302-S213N2	YB302-C123N1	YB302-C123N2
YB303-S113N1	YB303-S113N2	YB303-S213N1	YB303-S213N2	YB303-C123N1	YB303-C123N2
YB304-S113N1	YB304-S113N2	YB304-S213N1	YB304-S213N2	YB304-C123N1	YB304-C123N2
YB305-S113N1	YB305-S113N2	YB305-S213N1	YB305-S213N2	YB305-C123N1	YB305-C123N2
YB306-S113N1	YB306-S113N2	YB306-S213N1	YB306-S213N2	YB306-C123N1	YB306-C123N2
YB307-S113N1	YB307-S113N2	YB307-S213N1	YB307-S213N2	YB307-C123N1	YB307-C123N2
YB308-S113N1	YB308-S113N2	YB308-S213N1	YB308-S213N2	YB308-C123N1	YB308-C123N2
YB309-S113N1	YB309-S113N2	YB309-S213N1	YB309-S213N2	YB309-C123N1	YB309-C123N2
YB310-S113N1	YB310-S113N2	YB310-S213N1	YB310-S213N2	YB310-C123N1	YB310-C123N2
YB311-S113N1	YB311-S113N2	YB311-S213N1	YB311-S213N2	YB311-C123N1	YB311-C123N2
YB312-S113N1	YB312-S113N2	YB312-S213N1	YB312-S213N2	YB312-C123N1	YB312-C123N2
YB313-S113N1	YB313-S113N2	YB313-S213N1	YB313-S213N2	YB313-C123N1	YB313-C123N2
YB314-S113N1	YB314-S113N2	YB314-S213N1	YB314-S213N2	YB314-C123N1	YB314-C123N2
YB315-S113N1	YB315-S113N2	YB315-S213N1	YB315-S213N2	YB315-C123N1	YB315-C123N2

****Larger sizes, alternative materials and other surface coatings are available on request.**



OLT

Pipe NB	Pipe O/D	A	B	C	D (Dia.)	E	F	G	HxT	Max Load
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
20	26.9	27	43	70	M6	60	65	13.5	25x10	220
32	42.4	43	69	95	M10	70	80	21.5	25x10	545
50	60.3	61	87	110	M10	75	90	30.5	25x10	1000
80	88.9	89	115	140	M12	75	100	44.5	30x10	1635
150	168.3	168	210	250	M16	120	180	84	50x10	3405
250	273.0	273	324	375	M20	130	235	136.5	50x10	
350	355.6	356	407	460	M20	130	280	178	50x10	

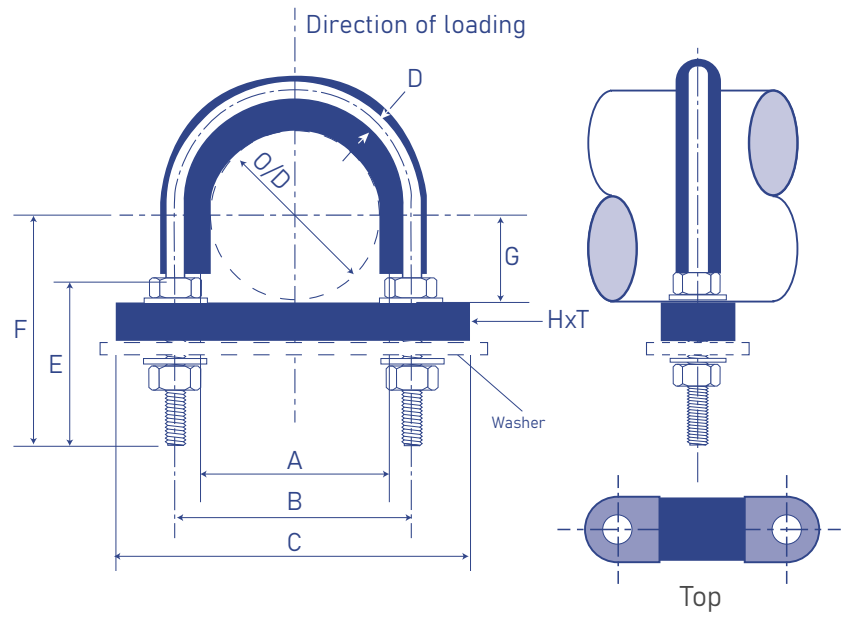
**YU-BOLT TYPE 4 :
YU-BOLT WITH INSULATED
(NOT TO GRIP)**

**TYPE : 70/80 FRN & HT/FRS
SIZE : NORMAL**

***Polyshrink wall thickness : 0.89 +/- 0.18 mm**

YU-B					
Stainless Steel 304		Stainless Steel 316		Carbon Steel with A123 HDG	
70/80 FRN	HT/FRS	70/80 FRN	HT/FRS	70/80 FRN	HT/FRS
YB401-S113N1	YB401-S113N2	YB401-S213N1	YB401-S213N2	YB401-C123N1	YB401-C123N2
YB402-S113N1	YB402-S113N2	YB402-S213N1	YB402-S213N2	YB402-C123N1	YB402-C123N2
YB403-S113N1	YB403-S113N2	YB403-S213N1	YB403-S213N2	YB403-C123N1	YB403-C123N2
YB404-S113N1	YB404-S113N2	YB404-S213N1	YB404-S213N2	YB404-C123N1	YB404-C123N2
YB405-S113N1	YB405-S113N2	YB405-S213N1	YB405-S213N2	YB405-C123N1	YB405-C123N2
YB406-S113N1	YB406-S113N2	YB406-S213N1	YB406-S213N2	YB406-C123N1	YB406-C123N2
YB407-S113N1	YB407-S113N2	YB407-S213N1	YB407-S213N2	YB407-C123N1	YB407-C123N2
YB408-S113N1	YB408-S113N2	YB408-S213N1	YB408-S213N2	YB408-C123N1	YB408-C123N2
YB409-S113N1	YB409-S113N2	YB409-S213N1	YB409-S213N2	YB409-C123N1	YB409-C123N2
YB410-S113N1	YB410-S113N2	YB410-S213N1	YB410-S213N2	YB410-C123N1	YB410-C123N2
YB411-S113N1	YB411-S113N2	YB411-S213N1	YB411-S213N2	YB411-C123N1	YB411-C123N2
YB412-S113N1	YB412-S113N2	YB412-S213N1	YB412-S213N2	YB412-C123N1	YB412-C123N2
YB413-S113N1	YB413-S113N2	YB413-S213N1	YB413-S213N2	YB413-C123N1	YB413-C123N2
YB414-S113N1	YB414-S113N2	YB414-S213N1	YB414-S213N2	YB414-C123N1	YB414-C123N2
YB415-S113N1	YB415-S113N2	YB415-S213N1	YB415-S213N2	YB415-C123N1	YB415-C123N2

****Larger sizes, alternative materials and other surface coatings are available on request.**



OLT

Pipe NB	Pipe O/D	A	B	C	D (Dia.)	E	F	G	HxT	Max Load
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
20	26.9	29	43	70	M6	60	65	14.5	25x10	220
32	42.4	45	69	95	M10	70	80	22.5	25x10	545
50	60.3	64	87	110	M10	75	90	32	25x10	1000
80	88.9	92	115	140	M12	75	100	46	30x10	1635
150	168.3	172	210	250	M16	120	180	86	50x10	3405
250	273.0	278	324	375	M20	130	235	139	50x10	
350	355.6	362	407	460	M20	130	280	181	50x10	

**YU-BOLT TYPE 5 :
YU-BOLT WITH INSULATED & PTFE
(NOT TO GRIP)**

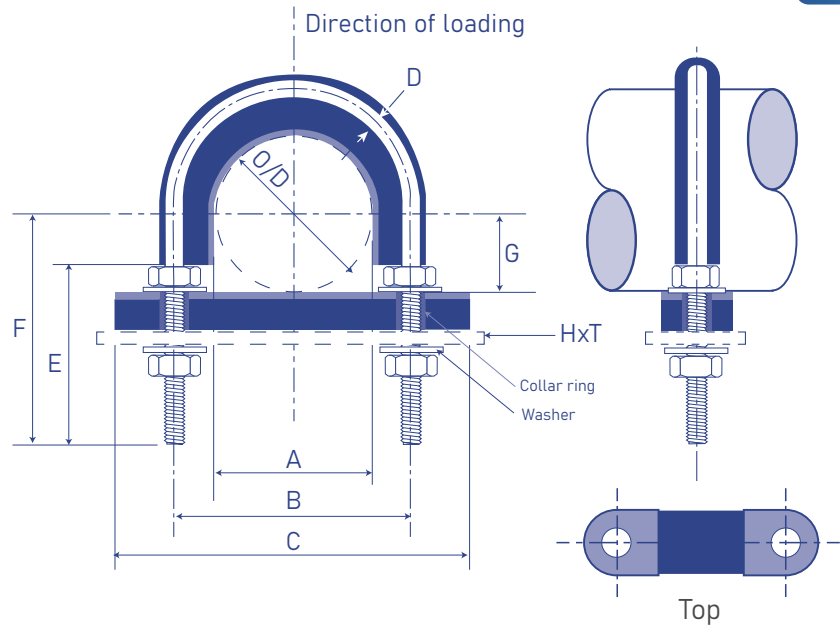
TYPE : 70/80 FRN & HT/FRS

SIZE : NORMAL

***Polyshrink wall thickness : 0.89 +/- 0.18 mm**

YU-B					
Stainless Steel 304		Stainless Steel 316		Carbon Steel with A123 HDG	
70/80 FRN	HT/FRS	70/80 FRN	HT/FRS	70/80 FRN	HT/FRS
YB501-S113N1	YB501-S113N2	YB501-S213N1	YB501-S213N2	YB501-C123N1	YB501-C123N2
YB502-S113N1	YB502-S113N2	YB502-S213N1	YB502-S213N2	YB502-C123N1	YB502-C123N2
YB503-S113N1	YB503-S113N2	YB503-S213N1	YB503-S213N2	YB503-C123N1	YB503-C123N2
YB504-S113N1	YB504-S113N2	YB504-S213N1	YB504-S213N2	YB504-C123N1	YB504-C123N2
YB505-S113N1	YB505-S113N2	YB505-S213N1	YB505-S213N2	YB505-C123N1	YB505-C123N2
YB506-S113N1	YB506-S113N2	YB506-S213N1	YB506-S213N2	YB506-C123N1	YB506-C123N2
YB507-S113N1	YB507-S113N2	YB507-S213N1	YB507-S213N2	YB507-C123N1	YB507-C123N2
YB508-S113N1	YB508-S113N2	YB508-S213N1	YB508-S213N2	YB508-C123N1	YB508-C123N2
YB509-S113N1	YB509-S113N2	YB509-S213N1	YB509-S213N2	YB509-C123N1	YB509-C123N2
YB510-S113N1	YB510-S113N2	YB510-S213N1	YB510-S213N2	YB510-C123N1	YB510-C123N2
YB511-S113N1	YB511-S113N2	YB511-S213N1	YB511-S213N2	YB511-C123N1	YB511-C123N2
YB512-S113N1	YB512-S113N2	YB512-S213N1	YB512-S213N2	YB512-C123N1	YB512-C123N2
YB513-S113N1	YB513-S113N2	YB513-S213N1	YB513-S213N2	YB513-C123N1	YB513-C123N2
YB514-S113N1	YB514-S113N2	YB514-S213N1	YB514-S213N2	YB514-C123N1	YB514-C123N2
YB515-S113N1	YB515-S113N2	YB515-S213N1	YB515-S213N2	YB515-C123N1	YB515-C123N2

****Larger sizes, alternative materials and other surface coatings are available on request.**



OLT

Pipe NB	Pipe O/D	A	B	C	Dia.D	E	F	G	HxT	Max Load
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
15	21.3	21	37	60	M6	60	60	10.5	25x10	220
20	26.9	27	43	70	M6	60	65	13.5	25x10	
25	33.7	34	50	75	M6	60	65	17	25x10	
32	42.4	43	69	95	M10	70	80	21.5	25x10	545
40	48.3	49	75	100	M10	70	80	24.5	25x10	
50	60.3	61	87	110	M10	75	90	30.5	25x10	
65	73.0	73	99	130	M12	75	95	36.5	30x10	1000
80	88.9	89	115	140	M12	75	100	44.5	30x10	
100	114.3	115	141	170	M12	75	110	57.5	30x10	
150	168.3	168	210	250	M16	120	180	84	50x10	1635
200	219.1	219	262	315	M16	120	200	109.5	50x10	
250	273.0	273	324	375	M20	120	235	136.5	50x10	
300	232.9	324	375	425	M20	120	265	162	50x10	3405
350	355.6	356	407	460	M20	120	280	178	50x10	
400	406.4	407	458	510	M20	120	305	203.5	50x10	