



RELI-A-PAK®

Bolt, Nut, & Gasket Sets

BY **RELIABLE FASTENERS, INC.**

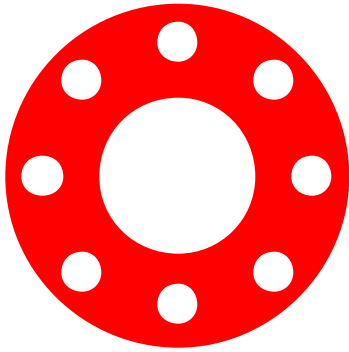
SMYRNA, GEORGIA

PHONE: (800) 697-6501 FAX (877) 777-4732

PHONE: (770) 432-4783 FAX (770) 434-3821

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Reliable Fasteners, Inc. has been providing quality fasteners with dependable service at competitive prices since 1979. A customized computer system with experienced employees dedicated to our high standards of quality products and dependable service provide our customers with professional fastener support. We strive to meet customer needs with prompt quotations, consistent pricing, detailed submittals, and fast deliveries. Reliable Fasteners, Inc. is committed to be the best vendor for your company to efficiently meet your customer needs profitably.

You can customize your Reliable Fasteners, Inc. Net Price List with only the items you want. If you need a different price to be competitive in your area, just let us know and we will do our best to meet your needs. Your company part number will be on your price list, quotations, packing lists, invoices, and the products to maximize efficiency for all areas of your company. Reliable Fasteners, Inc. has over 15,000 different RELI-A-PAK® KITS already set up in our computer system to give you instant pricing for most inquiries. With Reliable Fasteners, Inc., you can have the best quality product at the best price with the best service!

Freight prepaid in the continental U.S.A. for orders over \$1500.00.

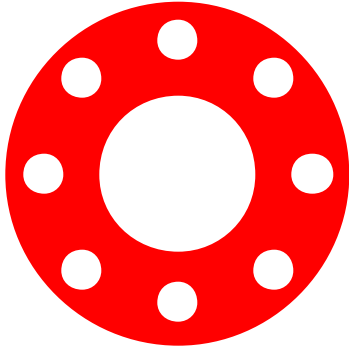
TERMS AND CONDITIONS:

- *Credit terms are subject to the approval of Reliable Fasteners, Inc.
- *Shipping discrepancies must be reported within seven days.
- *All returned merchandise is subject to a minimum 25% Restocking Charge. Returned merchandise requires advance approval with a written Return Authorization and merchandise being returned in original cartons and in good, re-sellable condition within thirty days of original invoice date for credit to be valid. Special order items are not returnable.
- *There is no warranty either written or implied on any products provided by Reliable Fasteners, Inc. beyond the original purchase price or replacement of any incorrect items.
- *Quotation prices are good for a period of 30 days unless quote is noted otherwise. All pricing is subject to change. All items are subject to prior sale.

***NOTE:** This catalog reflects what standard parts are used by Reliable Fasteners, Inc. to build RELI-A-PAK® kits. If the standard parts reflected in this catalog do not fit your application, let us know and we will build special kits to meet your specific requirements.

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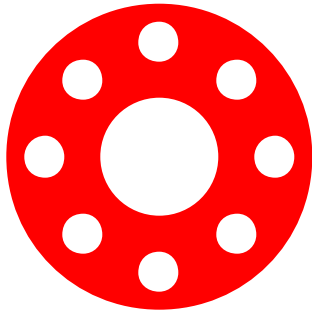
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RELI-A-PAK®

Bolt, Nut, & Gasket Sets
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RELI-A-PAK® KITS ARE ORDERED BY:

- * PIPE SIZE AND PRESSURE
- * KIT TYPE (for flanges, lug butterfly valves, etc.)
- * GASKET MATERIAL, STYLE, AND THICKNESS
- * BOLT OR STUD TYPE AND NUT TYPE
- * PLATING (if applicable)

STD. RELI-A-PAK® KITS FOR FLANGES CONSIST OF BOLTS, NUTS, AND A GASKET (can be ordered without gasket)

***LBF* RELI-A-PAK® KITS FOR LUG BUTTERFLY VALVES CONSIST OF DOUBLE BOLTS (no nuts) FOR BOTH SIDES OF LUG BUTTERFLY VALVE (can be ordered special with gaskets)**

***WBF* RELI-A-PAK® KITS FOR WAFER BUTTERFLY VALVES CONSIST OF STUDS WITH DOUBLE NUTS (can be ordered special with gaskets)**

STUD RELI-A-PAK® KITS FOR FLANGES CONSIST OF STUDS WITH DOUBLE NUTS AND A GASKET (can be ordered without a gasket)

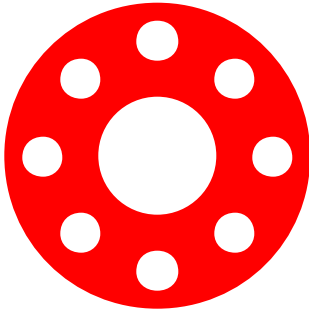
***PF* RELI-A-PAK® KITS FOR PLASTIC FLANGES CONSIST OF BOLTS, NUTS, DOUBLE FLATWASHERS, AND A FULL FACE GASKET (can be ordered without a gasket)**

***INS* RELI-A-PAK® KITS TO INSULATE FLANGES CONSIST OF BOLTS, NUTS, DOUBLE SAE FLATWASHERS (for reinforcement), DOUBLE PHENOLIC INSULATING WASHERS, POLYETHYLENE INSULATING SLEEVES, AND A NON-ASBESTOS INSULATING FULL FACE GASKET. OTHER INSULATION MATERIALS ARE AVAILABLE. (insulating parts can be ordered separate without bolts and nuts or without a gasket)**

*** RELI-A-PAK® KITS CAN BE CUSTOM BUILT SPECIAL TO YOUR SPECIFICATIONS**

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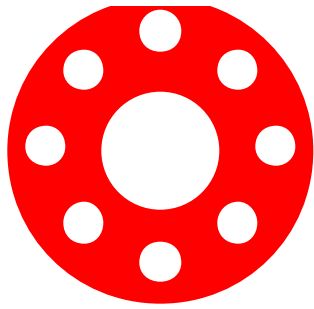
- * **BOLTS & NUTS ARE COUNTED ON HIGH-SPEED ELECTRONIC COUNTING EQUIPMENT**
- * **BOLTS & NUTS ARE SEALED INSIDE A HEAVY DUTY 5 MIL POLY BAG**
 - * PRESERVES THE COUNT ACCURACY
 - * PROTECTS THE FASTENERS FROM CORROSION
 - * PROTECTS THE GASKET FROM BEING DAMAGED BY THE FASTENERS
- * **STURDY CORRUGATED BOXES**
 - * PREVENTS DAMAGE WHILE BEING STOCKED IN YOUR WAREHOUSE
 - * LONGER STORAGE LIFE AT JOBSITES
- * **CUSTOMIZED LABELS WITH:**
 - * YOUR COMPANY NAME
 - * YOUR PURCHASE ORDER NUMBER (for traceability)
 - * COMPLETE PIPE SIZE AND DESCRIPTION
 - * YOUR COMPANY PART NUMBER (for maximum efficiency in your warehouse)
- * **CONSISTENT CASE QUANTITIES, PALLETIZED AND WRAPPED**
- * **PREPAID FREIGHT FOR ORDERS OVER \$1500.00**
- * **“SERVICE YOU CAN DEPEND ON!”**
- * **DOMESTIC FASTENERS ARE AVAILABLE ON REQUEST**
- * **MANY STANDARD KIT TYPES ARE AVAILABLE**
 - * STANDARD FLANGE BOLT KITS
 - * STANDARD FLANGE STUD KITS
 - * LUG BUTTERFLY BOLT KITS
 - * WAFER BUTTERFLY STUD KITS
 - * PLASTIC FLANGE BOLT KITS
 - * FLANGE INSULATION KITS (with or without bolts & nuts)
 - * SPECIAL KITS AS PER YOUR SPECIFICATIONS
- * **RELI-A-PAK® KITS COULD CONSIST OF SOME OF THE FOLLOWING PARTS:**

<p>*STUDS</p> <p>A193 GR.B7 or GR.B16 A193 GR.B8 or GR.B8M A320 GR.B8 or GR.B8M A320 GR.L7</p> <p>*GASKET STYLES</p> <p>RING FULL FACE ENVELOPE</p> <p>*GASKET MATERIALS</p> <p>NON-ASBESTOS RED RUBBER CLOTH INSERTED RUBBER NEOPRENE HYPALON WHITE BUNA GRAPHITE TEFLON</p>	<p>*STD. HEX HEAD BOLTS</p> <p>A307 GR.A or J429 GR.2 GR.5 GR.8 BRASS STD.18-8 STAINLESS STD. 316 STAINLESS</p> <p>*FINISHED HEX NUTS</p> <p>A563 BRASS GR.5 GR.8 STD.18-8 STAINLESS STD. 316 STAINLESS</p>	<p>*HEAVY HEX HEAD BOLTS</p> <p>A307 GR.B A325 A193 GR.B7 or GR.B16 A193 GR.B8, or GR.B8M A320 GR.L7, GR.B8, or GR.B8M</p> <p>*HEAVY HEX NUTS</p> <p>A563 A325 A194 GR.2H, GR.4, GR.7, GR.8, or 8M STD.18-8 STAINLESS STD. 316 STAINLESS</p>
<p>INTERTEX SQ-S VITON BUNA-N EPDM “SPECIALS”</p>	<p>THERMOSEAL (KLINGER) C-4401 C-4430 BILTRITE Style 10 20 35 37 Style 40 48 51 475 GARLOCK 2400 2900/2950 3000 3200 3300 3400 3700 3500 3504 3510 3521 3530 3540 3545 IFG5500 IFG5507 HTC9800 HTC9850 9518 FLEXITALLIC CG CGI LS R RIR</p>	

Note: This is only a partial list of items commonly used in RELI-A-PAK® kits. Other grades, brands, materials, and specials are available on request.

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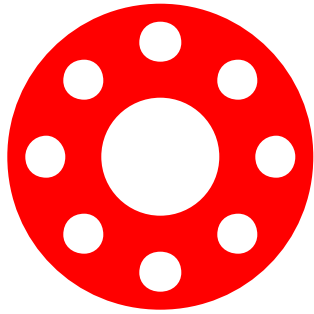
MACHINE BOLTS USED IN RELI-A-PAK® KITS

PIPE SIZE	150# BOLT		300# BOLT		400# BOLT		600# BOLT		900# BOLT		PIPE SIZE
	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	
1/2"	4	1/2X2	4	1/2X2-1/4	4	1/2X2-1/2	4	1/2X2-1/2	4	3/4X3-1/4	1/2"
3/4"	4	1/2X2	4	5/8X2-1/2	4	5/8X2-3/4	4	5/8X2-3/4	4	3/4X3-1/2	3/4"
1"	4	1/2X2	4	5/8X2-1/2	4	5/8X3	4	5/8X3	4	7/8X4	1"
1-1/4"	4	1/2X2-1/4	4	5/8X2-3/4	4	5/8X3	4	5/8X3	4	7/8X4	1-1/4"
1-1/2"	4	1/2X2-1/4	4	3/4X3	4	3/4X3-1/4	4	3/4X3-1/4	4	1X4-1/2	1-1/2"
2"	4	5/8X2-3/4	8	5/8X3	8	5/8X3-1/2	8	5/8X3-1/2	8	7/8X4-1/2	2"
2-1/2"	4	5/8X3	8	3/4X3-1/4	8	3/4X3-3/4	8	3/4X3-3/4	8	1X5	2-1/2"
3"	4	5/8X3	8	3/4X3-1/2	8	3/4X4	8	3/4X4	8	7/8X4-1/2	3"
4"	8	5/8X3	8	3/4X4	8	7/8X4-1/2	8	7/8X4-1/2	8	1-1/8X5-1/2	4"
5"	8	3/4X3-1/4	8	3/4X4	8	7/8X4-1/2	8	1X5-1/2	8	1-1/4X6	5"
6"	8	3/4X3-1/4	12	3/4X4	12	7/8X5	12	1X5-1/2	12	1-1/8X6-1/2	6"
8"	8	3/4X3-1/2	12	7/8X4-1/2	12	1X5-1/2	12	1-1/8X6-1/2	12	1-3/8X8	8"
10"	12	7/8X4	16	1X5-1/2	16	1-1/8X6	16	1-1/4X7	16	1-3/8X8	10"
12"	12	7/8X4	16	1-1/8X5-1/2	16	1-1/4X7	20	1-1/4X8	20	1-3/8X9	12"
14"	12	1X4-1/2	20	1-1/8X6	20	1-1/4X7	20	1-3/8X8	20	1-1/2X9	14"
16"	16	1X4-1/2	20	1-1/4X6	20	1-3/8X7	20	1-1/2X9	20	1-5/8X10	16"
18"	16	1-1/8X5	24	1-1/4X7	24	1-3/8X8	20	1-5/8X10	20	1-7/8X11	18"
20"	20	1-1/8X5	24	1-1/4X7	24	1-1/2X8	24	1-5/8X10	20	2X12	20"
22"	20	1-1/4X5-1/2	24	1-1/2X8	24	1-5/8X8					22"
24"	20	1-1/4X5-1/2	24	1-1/2X8	24	1-3/4X9	24	1-7/8X11	20	2-1/2X14	24"
26"	24	1-1/4X5-1/2	28	1-5/8X9	28	1-3/4X10	28	1-7/8X11			26"
28"	28	1-1/4X6			28	1-7/8X10					28"
30"	28	1-1/4X6	28	1-3/4X10	28	2X12	28	2X12			30"
36"	32	1-1/2X7	32	2X12	32	2X12	28	2-1/2X14			36"
42"	36	1-1/2X8	36	2X12	36	2-1/2X14	28	2-3/4X15			42"

Note: 26" and larger RELI-A-PAK® kit bolt sizes and quantities shown above are for Series A Flanges

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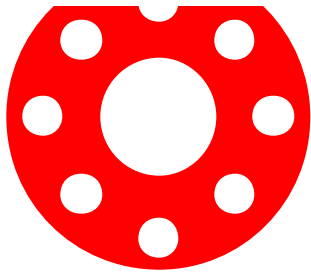
MACHINE BOLTS USED IN RELI-A-PAK® KITS

PIPE SIZE	150# LUG BUTTERFLY BOLT QTY.	150# LUG BUTTERFLY BOLT SIZE	150# PLASTIC FLANGE BOLT QTY.	150# PLASTIC FLANGE BOLT SIZE	150# INSULATION BOLT QTY.	150# INSULATION BOLT SIZE	150# INSULATION SLEEVE SIZE	PIPE SIZE
1/2"			4	1/2X2-1/2	4	1/2X2	1/2X1-1/4	1/2"
3/4"			4	1/2X2-1/2	4	1/2X2	1/2X1-3/8	3/4"
1"			4	1/2X2-3/4	4	1/2X2-1/4	1/2X1-1/2	1"
1-1/4"			4	1/2X2-3/4	4	1/2X2-1/4	1/2X1-5/8	1-1/4"
1-1/2"			4	1/2X2-3/4	4	1/2X2-1/2	1/2X1-3/4	1-1/2"
2"	8	5/8X1-1/4	4	5/8X3	4	5/8X2-3/4	5/8X1-7/8	2"
2-1/2"	8	5/8X1-1/2	4	5/8X3-1/2	4	5/8X3	5/8X2-1/8	2-1/2"
3"	8	5/8X1-1/2	4	5/8X3-1/2	4	5/8X3-1/4	5/8X2-1/4	3"
4"	16	5/8X1-3/4	8	5/8X3-3/4	8	5/8X3-1/4	5/8X2-1/4	4"
5"	16	3/4X2	8	3/4X3-3/4	8	3/4X3-1/2	3/4X2-1/4	5"
6"	16	3/4X2	8	3/4X4-1/2	8	3/4X3-1/2	3/4X2-3/8	6"
8"	16	3/4X2-1/4	8	3/4X4-1/2	8	3/4X3-3/4	3/4X2-5/8	8"
10"	24	7/8X2-1/2	12	7/8X5-1/2	12	7/8X4	7/8X2-3/4	10"
12"	24	7/8X2-1/2	12	7/8X5-1/2	12	7/8X4-1/2	7/8X2-7/8	12"
14"	24	1X2-1/2			12	1X4-1/2	1X3-1/8	14"
16"	32	1X2-1/2			16	1X4-1/2	1X3-1/4	16"
18"	32	1-1/8X3-1/2						18"
20"	40	1-1/8X3-1/2						20"
24"	40	1-1/4X4						24"
26"	48	1-1/4X4						26"
28"	56	1-1/4X4						28"
30"	56	1-1/4X4						30"

Note: 26" and larger RELI-A-PAK® kit bolt sizes and quantities shown above are for Series A Flanges

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Bolt, Nut, & Gasket Sets

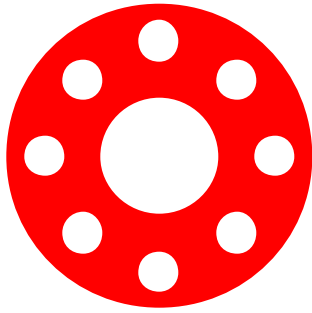
by RELIABLE FASTENERS, INC.
STUDS USED IN RELI-A-PAK® KITS

PIPE SIZE	150# STUD QTY.	150# STUD SIZE	300# STUD QTY.	300# STUD SIZE	400# STUD QTY.	400# STUD SIZE	600# STUD QTY.	600# STUD SIZE	900# STUD QTY.	900# STUD SIZE	PIPE SIZE
1/2"	4	1/2X2-1/4	4	1/2X2-1/2	4	1/2X3	4	1/2X3	4	3/4X4	1/2"
3/4"	4	1/2X2-1/4	4	5/8X3	4	5/8X3-1/4	4	5/8X3-1/4	4	3/4X4-1/2	3/4"
1"	4	1/2X2-1/2	4	5/8X3	4	5/8X3-1/2	4	5/8X3-1/2	4	7/8X5	1"
1-1/4"	4	1/2X2-1/2	4	5/8X3	4	5/8X3-3/4	4	5/8X3-3/4	4	7/8X5	1-1/4"
1-1/2"	4	1/2X2-3/4	4	3/4X3-1/2	4	3/4X4	4	3/4X4	4	1X5-1/2	1-1/2"
2"	4	5/8X3	8	5/8X3-1/4	8	5/8X4	8	5/8X4	8	7/8X5-1/2	2"
2-1/2"	4	5/8X3-1/4	8	3/4X3-3/4	8	3/4X4-1/2	8	3/4X4-1/2	8	1 X 6	2-1/2"
3"	4	5/8X3-1/2	8	3/4X4	8	3/4X5	8	3/4X5	8	7/8X5-1/2	3"
4"	8	5/8X3-1/2	8	3/4X4-1/2	8	7/8X5-1/2	8	7/8X5-1/2	8	1-1/8X7	4"
5"	8	3/4X3-3/4	8	3/4X4-1/2	8	7/8X5-1/2	8	1X6-1/2	8	1-1/4X8	5"
6"	8	3/4X3-3/4	12	3/4X5	12	7/8X6	12	1X6-1/2	12	1-1/8X8	6"
8"	8	3/4X4	12	7/8X5-1/2	12	1X6-1/2	12	1-1/8X7-1/2	12	1-3/8X9	8"
10"	12	7/8X4-1/2	16	1X6	16	1-1/8X7-1/2	16	1-1/4X8-1/2	16	1-3/8X9	10"
12"	12	7/8X4-1/2	16	1-1/8X6-1/2	16	1-1/4X8	20	1-1/4X8-1/2	20	1-3/8X10	12"
14"	12	1X5	20	1-1/8X7	20	1-1/4X8	20	1-3/8X9	20	1-1/2X11	14"
16"	16	1X5-1/2	20	1-1/4X7-1/2	20	1-3/8X9	20	1-1/2X10	20	1-5/8X11	16"
18"	16	1-1/8X6	24	1-1/4X7-1/2	24	1-3/8X9	20	1-5/8X11	20	1-7/8X13	18"
20"	20	1-1/8X6	24	1-1/4X8	24	1-1/2X10	24	1-5/8X11	20	2X14	20"
22"	20	1-1/4X6-1/2	24	1-1/2X9	24	1-5/8X10					22"
24"	20	1-1/4X7	24	1-1/2X9	24	1-3/4X11	24	1-7/8X13	20	2-1/2X16	24"
26"	24	1-1/4X7	28	1-5/8X10	28	1-3/4X12	28	1-7/8X13			26"
28"	28	1-1/4X8			28	1-7/8X12					28"
30"	28	1-1/4X8	28	1-3/4X11	28	2X13	28	2X14			30"
36"	32	1-1/2X9	32	2X14	32	2X14	28	2-1/2X16			36"
42"	36	1-1/2X9	36	2X14	36	2-1/2X16	28	2-3/4X18			42"

Note: 26" and larger RELI-A-PAK® kit bolt sizes and quantities shown above are for Series A Flanges

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by RELIABLE FASTENERS, INC.

STUDS USED IN RELI-A-PAK® KITS

PIPE SIZE	1500# STUD QTY.	1500# STUD SIZE	2500# STUD QTY.	2500# STUD SIZE	150# WAFER BUTTERFLY STUD QTY.	150# WAFER BUTTERFLY STUD SIZE	PIPE SIZE
1/2"	4	3/4X4	4	3/4X5			1/2"
3/4"	4	3/4X4-1/2	4	3/4X5			3/4"
1"	4	7/8X5	4	7/8X5-1/2			1"
1-1/4"	4	7/8X5	4	1X6			1-1/4"
1-1/2"	4	1X5-1/2	4	1-1/8X7	4	1/2X4	1-1/2"
2"	8	7/8X5-1/2	8	1X7	4	5/8X5	2"
2-1/2"	8	1X6	8	1-1/8X8	4	5/8X5	2-1/2"
3"	8	1-1/8X7	8	1-1/4X9	4	5/8X5-1/2	3"
4"	8	1-1/4X8	8	1-1/2X10	8	5/8X5-1/2	4"
5"	8	1-1/2X10	8	1-3/4X12	8	3/4X6	5"
6"	12	1-3/8X10	8	2X14	8	3/4X6-1/2	6"
8"	12	1-5/8X12	12	2X15	8	3/4X6-1/2	8"
10"	12	1-7/8X13	12	2-1/2X19	12	7/8X7	10"
12"	16	2X15	12	2-3/4X21	12	7/8X8	12"
14"	16	2-1/4X16			12	1X8	14"
16"	16	2-1/2X17			16	1X9	16"
18"	16	2-3/4X19			16	1-1/8X10	18"
20"	16	3X21			20	1-1/8X12	20"
24"	16	3-1/2X24			20	1-1/4X13	24"
26"					24	1-1/4X14	26"
28"					28	1-1/4X14	28"
30"					28	1-1/4X14	30"

Note: 26" and larger RELI-A-PAK® kit bolt sizes and quantities shown above are for Series A Flanges

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

APPROXIMATE WEIGHT PER STD. BOLT KIT

PIPE SIZE	150# KITS STD.BOLT FIN. NUT GASKET	300# KITS STD.BOLT FIN. NUT GASKET	400# KITS STD.BOLT FIN. NUT GASKET	600# KITS STD.BOLT FIN. NUT GASKET	900# KITS STD.BOLT FIN. NUT GASKET	150# KITS STD.BOLT HVY. NUT GASKET	300# KITS STD. BOLT HVY. NUT GASKET	400# KITS STD.BOLT HVY. NUT GASKET	600# KITS STD.BOLT HVY. NUT GASKET	900# KITS STD.BOLT HVY. NUT GASKET	PIPE SIZE
1/2"	0.8	0.9	0.9	0.9	2.7	0.9	1.0	1.0	1.0	3.0	1/2"
3/4"	0.8	1.6	1.7	1.7	2.8	0.9	1.7	1.8	1.8	3.1	3/4"
1"	0.8	1.6	1.8	1.8	4.3	0.9	1.7	1.9	1.9	4.7	1"
1-1/4	0.9	1.7	1.9	1.9	4.3	1.0	1.8	2.1	1.9	4.7	1-1/4
1-1/2	0.9	2.8	2.7	2.7	7.3	1.0	2.9	3.0	3.0	6.9	1-1/2
2"	1.7	3.5	3.7	3.7	9.4	1.8	3.8	4.1	4.1	10.1	2"
2-1/2	1.8	5.4	5.8	5.8	15.5	2.0	5.9	6.4	6.4	14.6	2-1/2
3"	1.8	5.5	6.1	6.1	9.4	2.0	6.2	6.6	6.6	10.1	3"
4"	3.6	6.2	10.1	9.4	19.0	4.0	6.9	10.9	10.3	20.5	4"
5"	5.6	6.3	10.9	14.7	25.8	6.2	7.0	11.8	15.8	27.8	5"
6"	5.6	9.3	16.1	21.8	31.5	6.2	10.2	17.4	23.5	33.8	6"
8"	6.2	14.4	22.2	31.9	58.1	6.9	15.7	23.9	34.2	61.6	8"
10"	13.4	27.6	42.3	56.9	77.4	14.7	29.9	45.5	60.8	82.0	10"
12"	13.5	38.2	56.9	77.4	104.8	14.8	41.2	60.8	82.3	110.6	12"
14"	19.6	50.0	70.8	96.4	128.3	21.3	53.8	75.7	102.2	136.0	14"
16"	26.1	64.5	88.3	128.6		28.4	69.4	94.1	136.0	175.0	16"
18"	36.2	85.3	116.0			39.5	91.1	122.9	175.0	258.0	18"
20"	45.2	85.4	116.2			48.9	91.2	123.0	209.0	318.0	20"
22"	61.3	142.0				66.2	151.0	183.0			22"
24"	61.4	142.3				66.3	151.1	232.0	310.0		24"
26"	76.0					79.7	229.0	290.0	361.0		26"
28"	90.6					97.4		340.0			28"
30"	90.9					97.7	290.0	445.0	445.0		30"
36"	175.0					192.0	508.0	510.0			36"
42"	215.0					228.0	571.0				42"
48"	261.0					278.0					48"
54"						516.0					54"

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

APPROXIMATE WEIGHT PER BOLT KIT

PIPE SIZE	150# KITS HVY.BOLT HVY. NUT GASKET	300# KITS HVY.BOLT HVY. NUT GASKET	400# KITS HVY.BOLT HVY. NUT GASKET	600# KITS HVY.BOLT HVY. NUT GASKET	900# KITS HVY.BOLT HVY. NUT GASKET	150# KITS HVY. BOLT LUG BUTTERFLY	150# KITS STD. BOLT LUG BUTTERFLY	150# KITS STD. BOLT NUT/GASKET INSULATION	150# KITS STD. BOLT NUT/GASKET PLASTIC FLANGE	PIPE SIZE
1/2"	1.0	1.1	1.1	1.1	3.1			1.0	1.4	1/2"
1/2"	1.0	1.8	1.9	1.9	3.2			1.0	1.4	3/4"
1"	1.0	1.8	2.0	2.0	4.9			1.1	1.4	1"
1-1/4	1.1	1.9	2.1	2.0	4.9			1.1	1.4	1-1/4
1-1/2	1.1	2.9	3.0	3.0	7.0			1.2	1.4	1-1/2
2"	2.0	3.9	4.2	4.2	10.4	1.6	1.5	2.0	2.6	2"
2-1/2	2.1	6.1	6.6	6.6	15.0	1.7	1.6	2.2	2.8	2-1/2
3"	2.1	6.3	6.8	6.8	10.4	1.7	1.6	2.3	2.8	3"
4"	4.1	7.0	11.3	10.6	20.8	2.8	3.5	4.6	5.7	4"
5"	6.4	7.1	12.0	16.1	28.2	6.4	6.0	7.0	8.5	5"
6"	6.4	10.4	17.7	24.0	34.2	6.4	6.0	7.0	9.6	6"
8"	7.0	16.2	24.4	34.6	62.2	6.9	6.5	7.8	9.6	8"
10"	15.2	30.5	46.0	61.6	82.8	15.7	14.8	16.3	21.6	10"
12"	15.2	41.8	61.6	83.3	111.6	15.7	14.8	17.3	21.6	12"
14"	21.8	54.6	76.7	103.2	137.0	21.5	20.4	23.3		14"
16"	29.1	70.4	95.1	137.0	177.0	28.5	27.1	31.1		16"
18"	40.1	92.3	124.0	177.0	260.0	45.5	44.1			18"
20"	49.7	92.4	124.1	212.0	319.0	56.8	55.1			20"
22"	67.4	152.5	185.0							22"
24"	67.5	152.6	235.0	312.0		80.8	78.8			24"
26"	81.1	231.0	293.0	364.0		96.8	94.4			26"
28"	98.8		343.0			113.0	110.0			28"
30"	99.1	293.0	450.0	447.0		113.0	110.0			30"
36"	194.0	511.0	510.0							36"
42"	230.0	574.0								42"

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RELI-A-PAK® Bolt, Nut, & Gasket Sets

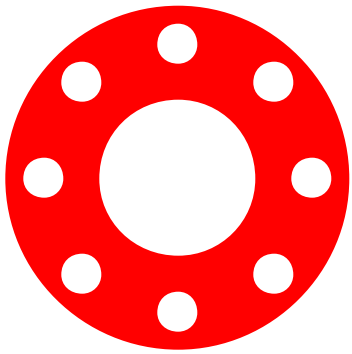
by RELIABLE FASTENERS, INC.

APPROXIMATE WEIGHT PER STUD KIT

PIPE SIZE	150# KITS STUD HVY. NUT GASKET	300# KITS STUD HVY. NUT GASKET	400# KITS STUD HVY. NUT GASKET	600# KITS STUD HVY. NUT GASKET	900# KITS STUD HVY. NUT GASKET	1500# KITS STUD HVY. NUT GASKET	2500# KITS STUD HVY. NUT GASKET	150# KITS STUD HVY. NUT WAFER BUTTERFLY	PIPE SIZE
1/2"	1.0	1.1	1.2	1.2	3.5	3.5	4.0		1/2"
3/4"	1.0	2.0	2.1	2.1	3.7	3.7	4.0		3/4"
1"	1.1	2.0	2.1	2.1	5.7	5.7	6.1		1"
1-1/4	1.1	2.0	2.2	2.2	5.7	5.7	9.2		1-1/4
1-1/2	1.1	3.3	3.5	3.5	8.7	8.7	12.3	1.4	1-1/2
2"	2.1	4.1	4.6	4.6	12.1	12.1	20.1	2.7	2"
2-1/2	2.2	6.8	7.5	7.5	18.4	18.4	26.8	2.7	2-1/2
3"	2.3	7.0	8.0	8.0	12.1	24.7	36.1	2.9	3"
4"	4.5	7.7	12.3	12.3	24.9	33.6	59.4	5.7	4"
5"	7.0	7.8	13.7	19.5	30.2	59.5	96.0	9.2	5"
6"	7.1	12.2	20.3	29.1	40.3	73.0	144.0	9.7	6"
8"	7.7	18.8	29.5	39.2	68.6	122.0	226.0	9.7	8"
10"	17.0	37.3	47.9	70.1	91.2	175.0		21.7	10"
12"	17.0	47.9	67.5	87.4	122.0	301.0		23.7	12"
14"	25.6	62.2	84.1	113.8	158.0			33.5	14"
16"	35.9	81.1	114.0	149.0	191.0			48.2	16"
18"	46.3	97.3	137.0	191.0	291.0			62.9	18"
20"	57.5	101.2	147.0	229.0	360.0			88.7	20"
22"	74.8	166.9	216.0						22"
24"	78.1	167.0	272.0	349.0				117.0	24"
26"	93.8	252.0	335.0	407.0				149.0	26"
28"	118.3							174.0	28"
30"	118.6	318.0	479.0	503.0				174.0	30"
36"	223.0	575.0	575.0						36"
42"	251.0	647.0							42"

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

RELI-A-PAK® CASE QUANTITIES

PIPE SIZE	150# LUG B'FLY	150# FIBER RING	300# FIBER RING	150# FIBER Full Face	300# FIBER Full Face	150# RUBBER RG or FF	300# RUBBER RG or FF
1/2"	X	36	36	32	32	12	12
3/4"	X	36	36	32	32	12	12
1"	X	36	36	32	32	12	12
1-1/4"	X	36	36	32	32	12	12
1-1/2"	X	36	36	32	32	12	12
2"	40	36	32	32	28	12	12
2-1/2"	40	32	32	28	20	12	6
3"	40	32	28	20	9	12	6
4"	20	28	20	9	9	12	6
5"	12	20	9	9	7	6	6
6"	12	9	9	7	7	6	
8"	12	7	7	5	5	6	
10"	6	5	5	5			
12"	6	5	5				

LARGER RELI-A-PAK® KITS ARE SHIPPED AS INDIVIDUAL CARTONS

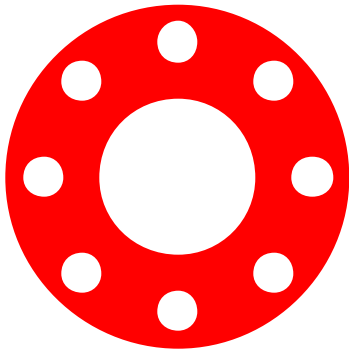
*NOTE: RELI-A-PAK® KITS MAY BE PURCHASED IN ANY QUANTITY.
ORDERING CASE QUANTITY WILL PREVENT MIXED CARTONS.

PACKAGED FASTENERS

PACKAGE QUANTITY						CASE QUANTITY				
SIZE	FINISH HEX NUT	HEAVY HEX NUT	ROD COUPLING NUT	FLAT WASHER	BOLTS	FINISH HEX NUT	HEAVY HEX NUT	ROD COUPLING NUT	FLAT WASHER	SIZE
3/8	100	100	100	100	100	3500	2500	1500	400	3/8
1/2	50	50	50	50	50	1700	1200	800	2000	1/2
5/8	25	25	25	25	25	750	600	250	1000	5/8
3/4	20	20	20	20	20	500	400	200	700	3/4
7/8	15	15	15	15	15	300	225	150	450	7/8

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

FASTENERS STANDARDS

(PARTIAL LISTING)

ASTM STANDARDS		SAE STANDARDS	ANSI/ASME STANDARDS
153 Zinc coating (hot-dip) on iron and steel hardware	A540/A540M Alloy steel bolting materials for special applications	J82 Mechanical and quality requirements for machine screws	B1.1 Unified inch screw threads (UN and UNR thread form)
A165 Electrodeposited coating of cadmium on steel	A563 Carbon and alloy steel nuts	J104 Square and hex nuts	B18.2.1 Square and hex bolts and screws (inch series)
A193/A193M Alloy steel and stainless steel bolting materials for high temperature service	A687 High strength non-headed steel bolts and studs	J105 Hex bolts	B18.2.2 Square and hex nuts (inch series)
A307 Carbon steel externally threaded standard fasteners	F436 Hardened steel washers	J122 Surface discontinuities on nuts	B18.6.1 Wood screws (inch series)
A320/A320M Alloy steel bolting materials for low temperature service	F467 Nonferrous nuts for general use	J123 Surface discontinuities on bolts, screws, and studs	B18.6.3 Machine screws and machine screw nuts
A325 High strength bolts for structural steel joints	F468 Nonferrous bolts, hex cap screws and studs for general use	J429 Mechanical and material requirements for external threaded fasteners	B18.15 Forged eyebolts
A354 Quenched and tempered alloy steel bolts, studs and other externally threaded fasteners	F541 Alloy steel eyebolts	J488 Plain washers	B18.21.1 Lock washers (inch series)
A449 Quenched and tempered steel bolts and studs	F593 Stainless steel bolts, hex cap screws and studs	J489 Lock washers	B18.22.1 Plain washers
A489 Carbon steel eyebolts	F594 Stainless steel nuts	J995 Mechanical and material requirements for steel nuts	B18.2.6 Fasteners for use in structural applications
A490 Heat treated steel structural bolts, 150 ksi tensile strength	F959 Compressible washer type direct tension indicators for use with structural fasteners	J1061 Surface discontinuities on general application bolts, screws, and studs	

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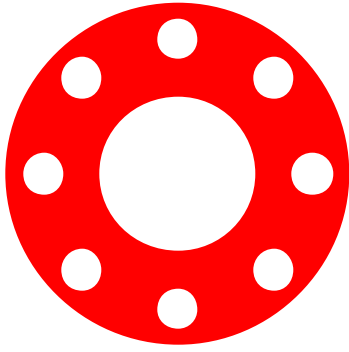
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FASTENER SPECIFICATION INFORMATION (PARTIAL LISTING)

SPECIFICATION	MATERIAL	FASTENER DESCRIPTION	HEX TYPE	NOMINAL SIZE	TENSILE STRENGTH MIN. ksi	ROCKWELL HARDNESS		SUITABLE NUT
						MIN.	MAX.	
SAE J429 GRADE 2	LOW OR MEDIUM CARBON STEEL	BOLTS	STD. HEX	¼ - ¾ over ¾ - 1 ½	74 60	B80 B70	B100 B100	ASTM A563
ASTM A307 GRADE A	LOW OR MEDIUM CARBON STEEL	BOLTS	STD. HEX	¼ - 4	60	B69	B100	ASTM A563
ASTM A307 GRADE B	LOW OR MEDIUM CARBON STEEL	BOLTS	HEAVY HEX	¼ - 4	60/100	B69	B95	ASTM A563
SAE J429 GR.5 ASTM A449 Type1	MEDIUM CARBON STEEL QUENCHED & TEMPERED	BOLTS	STD. HEX	¼ - 1 over 1 - 1 ½	120 105	C25 C19	C34 C30	ASTM A563 GRADE 5
SAE J429 GR.8 ASTM A354 GR.BD	MEDIUM CARBON ALLOY STEEL QUENCHED & TEMPERED	BOLTS	STD. HEX	¼ - 1 ½	150	C33	C39	GRADE 8
STD. 18-8 STAINLESS	18-8 STAINLESS 302, 303, 304, 305, XM7	BOLTS	STD. HEX	¼ - 5/8 ¾ - 1 ½	100/150 85/140	B95 B80	C32 C32	STD. 18-8 STAINLESS
STD. 316 STAINLESS	316 STAINLESS	BOLTS	STD. HEX	¼ - 5/8 ¾ - 1 ½	100/150 85/140	B95 B80	C32 C32	316 STAINLESS
ASTM A193 GRADE B7	4140, 4142, 4145, ALLOY STEEL (CrMo)	BOLTS / STUDS FOR HIGH TEMPERATURE SERVICE	HEAVY HEX	¼ - 2 ½	125	—	—	ASTM A194 GRADE 2H
ASTM A193 GRADE B16	CrMoVa ALLOY STEEL	BOLTS / STUDS FOR HIGH TEMPERATURE SERVICE	HEAVY HEX	¼ - 2 ½	125	—	—	ASTM A194 GRADE 4
ASTM A193 GRADE B8 CLASS 1	AISI 304 STAINLESS	BOLTS / STUDS FOR HIGH TEMPERATURE SERVICE	HEAVY HEX	¼ & larger	75	B96		ASTM A194 GRADE 8
ASTM A193 GRADE B8M CLASS 1	AISI 316 STAINLESS	BOLTS / STUDS FOR HIGH TEMPERATURE SERVICE	HEAVY HEX	¼ & larger	75	B96		ASTM A194 GRADE 8M
ASTM A320 GRADE L7	4140, 4142, 4145, ALLOY STEEL (CrMo)	BOLTS / STUDS FOR LOW TEMPERATURE SERVICE	HEAVY HEX	¼ & larger	125	—	—	ASTM A194 GRADE 7
ASTM A320 GRADE B8 CLASS 1	AISI 304 STAINLESS	BOLTS / STUDS FOR LOW TEMPERATURE SERVICE	HEAVY HEX	¼ & larger	75	B96		ASTM A194 GRADE 8
ASTM A320 GRADE B8M CLASS 1	AISI 316 STAINLESS	BOLTS / STUDS FOR LOW TEMPERATURE SERVICE	HEAVY HEX	¼ & larger	75	B96		ASTM A194 GRADE 8M

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

HEX MACHINE BOLTS

(STANDARD HEX HEAD DIMENSIONS)

(ANSI B18.2.1)

BOLT SIZE	HEX HEAD DIAMETER	HEX HEAD HEIGHT	THREAD LENGTH (if < 6"long)	THREAD LENGTH (if > 6"long)
1/4	7/16	5/32	3/4	1
5/16	1/2	13/64	7/8	1-1/8
3/8	9/16	15/64	1	1-1/4
7/16	5/8	9/32	1-1/8	1-3/8
1/2	3/4	5/16	1-1/4	1-1/2
9/16	13/16	23/64	1-3/8	1-5/8
5/8	15/16	25/64	1-1/2	1-3/4
3/4	1-1/8	15/32	1-3/4	2
7/8	1-5/16	35/64	2	2-1/4
1"	1-1/2	39/64	2-1/4	2-1/2
1-1/8	1-11/16	11/16	2-1/2	2-3/4
1-1/4	1-7/8	25/32	2-3/4	3
1-3/8	2-1/8	27/32	3	3-1/4
1-1/2	2-1/4	15/16	3-1/4	3-1/2

HEAVY HEX MACHINE BOLTS

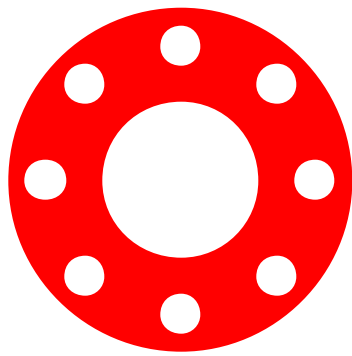
(HEAVY HEX HEAD DIMENSIONS)

(ANSI B18.2.1)

BOLT SIZE	HEAVY HEX HEAD DIAMETER	HEAVY HEX HEAD HEIGHT	THREAD LENGTH (if < 6"long)	THREAD LENGTH (if > 6"long)
1/2	7/8	11/32	1-1/4	1-1/2
5/8	1-1/16	27/64	1-1/2	1-3/4
3/4	1-1/4	1/2	1-3/4	2
7/8	1-7/16	37/64	2	2-1/4
1	1-5/8	43/64	2-1/4	2-1/2
1-1/8	1-13/16	3/4	2-1/2	2-3/4
1-1/4	2	27/32	2-3/4	3
1-3/8	2-3/16	29/32	3	3-1/4
1-1/2	2-3/8	1	3-1/4	3-1/2
1-3/4	2-3/4	1-5/32	3-1/4	4
2	3-1/8	1-11/32	4-1/4	4-1/2

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets
by **RELIABLE FASTENERS, INC.**

HEX NUT DIMENSIONS

(ANSI B18.2.2)

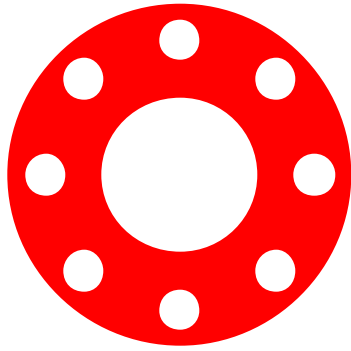
NUT SIZE	HEAVY HEX DIAMETER	HEAVY HEX HEIGHT	FINISHED HEX DIAMETER	FINISHED HEX HEIGHT
1/4	1/2	15/64	7/16	7/32
5/16	9/16	19/64	1/2	17/64
3/8	11/16	23/64	9/16	21/64
1/2	7/8	31/64	3/4	7/16
5/8	1-1/16	39/64	15/16	35/64
3/4	1-1/4	47/64	1-1/8	41/64
7/8	1-7/16	55/64	1-5/16	3/4
1"	1-5/8	63/64	1-1/2	55/64
1-1/8	1-13/16	1-7/64	1-11/16	31/32
1-1/4	2	1-7/32	1-7/8	1-1/16
1-3/8	2-3/16	1-11/32	2-1/16	1-11/16
1-1/2	2-3/8	1-15/32	2-1/4	1-9/32
1-5/8	2-9/16	1-19/32		
1-3/4	2-3/4	1-23/32		
1-7/8	2-15/16	1-27/32		
2"	3-1/8	1-31/32		

WASHER DIMENSIONS

WASHER SIZE	USS I.D.	USS O.D.	USS thickness	SAE I.D.	SAE O.D.	SAE thickness
1/4	5/16	3/4	16ga. 1/16	9/32	5/8	16ga. 1/16
5/16	3/8	7/8	14ga. 5/64	11/32	11/16	16ga. 1/16
3/8	7/16	1	14ga. 5/64	13/32	13/16	16ga. 1/16
1/2	9/16	1-3/8	12ga. 7/64	17/32	1-1/16	13ga. 3/32
5/8	11/16	1-3/4	10ga. 9/64	21/32	1-5/16	13ga. 3/32
3/4	13/16	2	9ga. 5/32	13/16	1-1/2	10ga. 9/64
7/8	15/16	2-1/4	9ga. 11/64	15/16	1-3/4	10ga. 9/64
1"	11/16	2-1/2	8ga. 11/64	1-1/16	2	10ga. 9/64
1-1/8	1-1/4	2-3/4	8ga. 11/64	1-3/16	2-1/4	10ga. 9/64
1-1/4	1-3/8	3	8ga. 11/64	1-5/16	2-1/2	9ga. 5/32
1-3/8	1-1/2	3-1/4	7ga. 3/16	1-7/16	2-3/4	9ga. 5/32
1-1/2	1-5/8	3-1/2	7ga. 3/16	1-9/16	3	9ga. 5/32
1-5/8	1-3/4	3-3/4	7ga. 3/16			
1-3/4	1-7/8	4	7ga. 3/16			
1-7/8	2	4-1/4	7ga. 3/16			
2"	2-1/8	4-1/2	7ga. 3/16			

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

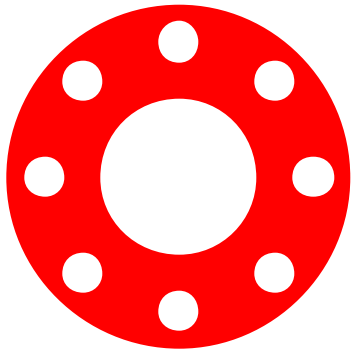
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HEX MACHINE BOLTS – WEIGHT PER EACH

LENGTH	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1"	1-1/8	1-1/4	1-3/8	1-1/2
3/4	.0164	.0267	.0396									
1"	.0189	.0308	.0456	.093	.169							
1-1/4	.0223	.0354	.0516	.105	.187							
1-1/2	.0256	.0407	.0592	.117	.204	.319	.460	.657				
1-3/4	.0290	.0459	.0668	.131	.221	.344	.495	.703				
2"	.0324	.0512	.0744	.145	.242	.370	.531	.749				
2-1/4	.0357	.0564	.0820	.159	.263	.399	.566	.795				
2-1/2	.0391	.0617	.0896	.172	.284	.430	.607	.841	1.11	1.47	1.78	2.24
2-3/4	.0425	.0669	.0971	.186	.306	.460	.648	.895	1.17	1.54	1.86	2.35
3"	.0458	.0722	.1050	.200	.326	.491	.689	.948	1.24	1.61	1.95	2.46
3-1/4	.0492	.0774	.1120	.214	.347	.521	.731	1.00	1.31	1.70	2.06	2.56
3-1/2	.0526	.0827	.1200	.228	.368	.551	.772	1.06	1.37	1.78	2.16	2.69
3-3/4	.0559	.0879	.1270	.242	.389	.581	.813	1.11	1.44	1.87	2.27	2.81
4"	.0593	.0932	.1350	.256	.410	.612	.854	1.17	1.51	1.95	2.37	2.94
4-1/2	.0661	.1040	.1500	.283	.452	.672	.937	1.27	1.65	2.12	2.58	3.19
5"	.0728	.1150	.1660	.311	.494	.732	1.02	1.38	1.78	2.29	2.79	3.44
5-1/2	.0796	.1260	.1810	.338	.536	.793	1.11	1.49	1.92	2.45	3.00	3.69
6"	.0865	.1370	.1970	.365	.578	.853	1.19	1.60	2.05	2.62	3.21	3.94
6-1/2	.0922	.1450	.2090	.386	.616	.909	1.28	1.70	2.18	2.78	3.41	4.17
7"	.0989	.1560	.2250	.409	.658	.969	1.35	1.80	2.32	2.95	3.62	4.42
7-1/2	.1060	.1660	.2400	.435	.700	1.03	1.43	1.91	2.45	3.11	3.83	4.67
8"	.1120	.1770	.2550	.461	.741	1.09	1.51	2.02	2.59	3.28	4.04	4.92
8-1/2			.2700	.488	.783	1.15	1.59	2.13	2.72	3.45	4.24	5.17
9"			.2850	.515	.824	1.21	1.68	2.23	2.86	3.62	4.46	5.42
9-1/2			.3010	.542	.866	1.27	1.76	2.34	3.00	3.79	4.66	5.67
10"			.3160	.570	.908	1.33	1.84	2.45	3.13	3.95	4.88	5.92
11"			.3460	.623	.991	1.45	2.01	2.66	3.40	4.29	5.30	6.42
12"			.3760	.676	1.07	1.58	2.17	2.88	3.68	4.62	5.72	6.92
13"				.730	1.15	1.70	2.34	3.09	3.95	4.96	6.14	7.42
14"				.784	1.23	1.82	2.50	3.31	4.22	5.30	6.56	7.92
15"				.838	1.32	1.94	2.67	3.52	4.49	5.63	6.98	8.42
16"				.892	1.40	2.06	2.83	3.74	4.76	5.97	7.39	8.92

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

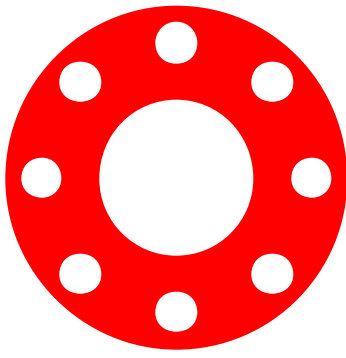
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HEAVY HEX MACHINE BOLTS – WEIGHT PER EACH

LENGTH	1/2	5/8	3/4	7/8	1"	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2"
1-1/4	.117	.200									
1-1/2	.128	.217	.339	.495							
1-3/4	.141	.235	.365	.530							
2"	.155	.256	.390	.566	.788						
2-1/4	.168	.277	.420	.601	.834						
2-1/2	.182	.298	.450	.642	.880	1.15	1.52				
2-3/4	.195	.319	.481	.683	.940	1.21	1.59				
3"	.209	.340	.511	.724	.990	1.28	1.67	2.00	2.52	3.67	5.06
3-1/4	.222	.360	.541	.766	1.04	1.34	1.75	2.11	2.62	3.82	5.25
3-1/2	.236	.381	.571	.807	1.10	1.41	1.83	2.21	2.75	3.96	5.44
3-3/4	.249	.402	.601	.848	1.15	1.48	1.92	2.32	2.87	4.11	5.63
4"	.262	.423	.632	.889	1.20	1.55	2.00	2.42	3.00	4.28	5.82
4-1/2	.289	.465	.692	.980	1.31	1.68	2.17	2.63	3.25	4.62	6.23
5"	.316	.507	.752	1.06	1.42	1.82	2.34	2.84	3.50	4.96	6.68
5-1/2	.343	.549	.813	1.14	1.53	1.96	2.51	3.05	3.75	5.30	7.12
6"	.370	.591	.873	1.22	1.63	2.09	2.67	3.26	4.00	5.64	7.57
6-1/2	.394	.629	.929	1.30	1.73	2.22	2.83	3.46	4.23	5.95	7.98
7"	.421	.671	.990	1.38	1.84	2.35	3.00	3.67	4.48	6.30	8.42
7-1/2	.448	.713	1.05	1.46	1.95	2.49	3.17	3.88	4.73	6.63	8.87
8"	.475	.755	1.11	1.55	2.06	2.63	3.33	4.09	4.98	6.98	9.32
8-1/2	.502	.797	1.17	1.63	2.16	2.76	3.50	4.29	5.23	7.32	9.76
9"	.529	.839	1.23	1.71	2.27	2.90	3.67	4.51	5.48	7.66	10.20
9-1/2	.556	.881	1.29	1.79	2.38	3.03	3.84	4.71	5.73	8.01	10.65
10"	.583	.923	1.35	1.88	2.49	3.17	4.01	4.93	5.98	8.34	11.10
11"	.636	1.00	1.48	2.04	2.70	3.44	4.34	5.35	6.48	9.02	11.98
12"	.690	1.09	1.60	2.21	2.91	3.71	4.68	5.77	6.98	9.70	12.87
13"	.744	1.17	1.72	2.37	3.13	3.99	5.01	6.19	7.48	10.39	13.76
14"	.798	1.26	1.84	2.54	3.34	4.26	5.35	6.61	7.98	11.05	14.65
15"	.852	1.34	1.96	2.70	3.56	4.53	5.68	7.03	8.48	11.75	15.54
16"	.905	1.42	2.08	2.86	3.77	4.80	6.02	7.44	8.98	12.43	16.45

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

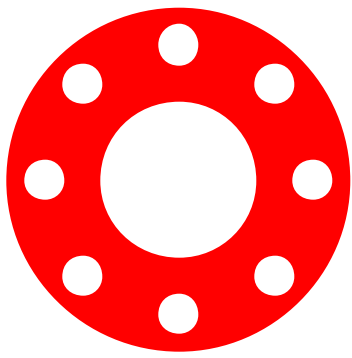
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FULLY THREADED STUDS (no nuts) – WEIGHT PER EACH

LENGTH	1/2	5/8	3/4	7/8	1"	1-1/8	1-1/4	1-3/8	1-1/2	1-5/8	1-3/4	1-7/8	2"
2"	.0875	.1500											
2-1/4	.1000	.1700											
2-1/2	.1125	.1900	.285										
2-3/4	.1250	.2100	.315										
3"	.1375	.2300	.345	.495									
3-1/4	.1500	.2500	.375	.535									
3-1/2	.1625	.2700	.405	.575	.870								
3-3/4	.1750	.2900	.435	.615	.925								
4"	.1875	.3100	.465	.655	.980	1.095	1.263						
4-1/4	.2000	.3300	.495	.695	1.035	1.160	1.345						
4-1/2	.2125	.3500	.525	.735	1.090	1.225	1.428						
4-3/4	.2250	.3700	.555	.775	1.145	1.290	1.510						
5"	.2375	.3900	.585	.815	1.200	1.355	1.593	2.00	2.35	2.88			
5-1/4	.2500	.4100	.615	.855	1.255	1.420	1.675	2.10	2.47	3.02			
5-1/2	.2625	.4300	.645	.895	1.310	1.485	1.758	2.20	2.59	3.16			
5-3/4	.2750	.4500	.675	.935	1.365	1.550	1.840	2.30	2.71	3.30			
6"	.2875	.4700	.705	.975	1.420	1.615	1.923	2.40	2.83	3.44	3.96		
6-1/4	.3000	.4900	.735	1.015	1.475	1.680	2.005	2.50	2.95	3.58	4.12		
6-1/2	.3125	.5100	.765	1.055	1.530	1.745	2.088	2.60	3.07	3.72	4.28		
6-3/4	.3250	.5300	.795	1.095	1.585	1.810	2.170	2.70	3.19	3.86	4.44		
7"	.3375	.5500	.825	1.135	1.640	1.875	2.253	2.80	3.31	4.00	4.60	5.32	5.90
7-1/4	.3500	.5700	.855	1.175	1.695	1.940	2.335	2.90	3.43	4.14	4.76	5.50	6.11
7-1/2	.3625	.5900	.885	1.215	1.750	2.005	2.418	3.00	3.55	4.28	4.92	5.68	6.32
7-3/4	.3750	.6100	.915	1.255	1.805	2.070	2.500	3.10	3.67	4.42	5.08	5.86	6.54
8"	.3875	.6300	.945	1.295	1.860	2.135	2.583	3.20	3.79	4.56	5.24	6.04	6.75
8-1/2		.6700	1.005	1.375	1.970	2.265	2.748	3.40	4.03	4.84	5.56	6.40	7.18
9"		.7100	1.065	1.465	2.080	2.395	2.913	3.60	4.27	5.12	5.88	6.76	7.60
9-1/2		.7500	1.125	1.535	2.190	2.525	3.078	3.80	4.51	5.40	6.20	7.12	8.03
10"		.7900	1.185	1.615	2.300	2.655	3.243	4.00	4.75	5.68	6.52	7.48	8.46
11"			1.305	1.775	2.520	2.915	3.573	4.40	5.23	6.24	7.16	8.20	9.32
12"			1.425	1.935	2.740	3.175	3.903	4.80	5.71	6.80	7.80	8.92	10.18
13"			1.545	2.095	2.960	3.435	4.233	5.20	6.19	7.36	8.44	9.64	11.04
14"			1.665	2.255	3.180	3.695	4.563	5.60	6.67	7.92	9.08	10.36	11.90
15"			1.785	2.415	3.400	3.955	4.893	6.00	7.15	8.48	9.72	11.08	12.76
16"			1.905	2.575	3.620	4.215	5.223	6.40	7.63	9.04	10.36	11.80	13.62

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

WEIGHTS PER EACH

SIZE	FINISHED HEX NUT	HEAVY HEX NUT	ROD COUPLING NUT	USS FLAT WASHER	SAE FLAT WASHER
1/4	.0074	.0116	.0190	.0067	.0045
5/16	.0110	.0172	.0450	.0115	.0052
3/8	.0160	.0314	.0350	.0149	.0072
1/2	.0375	.0654	.0550	.0385	.0183
5/8	.0733	.1190	.1800	.0770	.0277
3/4	.1190	.1930	.2800	.1100	.0474
7/8	.1900	.2970	.5500	.1530	.0630
1"	.2830	.4250	.7100	.1880	.0830
1-1/8	.4030	.5920	.8610	.2200	.1090
1-1/4	.5430	.7860	.9500	.2600	.1600
1-3/8	.7300	1.0200		.3330	.1900
1-1/2	.9430	1.3100		.3850	.2400
1-5/8		1.6200		.4480	
1-3/4		2.0400		.5000	
1-7/8		2.4100		.5690	
2"		2.9900		.6300	

THREADED ROD

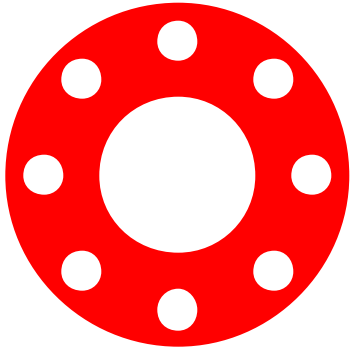
(Available in 3,6,10,12 foot lengths)

MISCELLANEOUS

SIZE	PIECES PER TUBE	WEIGHT PER FOOT	INTERNAL DROP-IN ANCHOR			ROUND SLOTTED TOGGLE BOLT		
			SIZE	QTY	WT.	SIZE	QTY	WT.
1/4	50	.12	1/4	100	.045	1/4 x 3	50	.065
5/16	35	.20	3/8	100	.090	1/4 x 4	50	.080
3/8	25	.29	1/2	50	.160	1/4 x 6	50	.100
1/2	12	.53	5/8	25	.300	3/8 x 4	25	.185
5/8	8	.83	3/4	25	.500	3/8 x 6	25	.230
3/4	5	1.25	FENDER WASHERS			FLAT PHILLIPS WOOD SCREWS		
7/8	4	1.65						
1"	2	2.25	SIZE	QTY	WT.	SIZE	QTY.	WT.
1-1/8	1	2.80	1/4X1-1/4	100	.0217	14X1-1/2	100	.0165
1-1/4	1	3.55	3/8X1-1/2	100	.0303	14X2	100	.0213
1-3/8	1	4.12	1/2X 2	100	.0541	14X2-1/2	100	.0268
1-1/2	1	5.10				14X3	100	.0321
1-3/4	1	7.00						
2"	1	8.75						

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

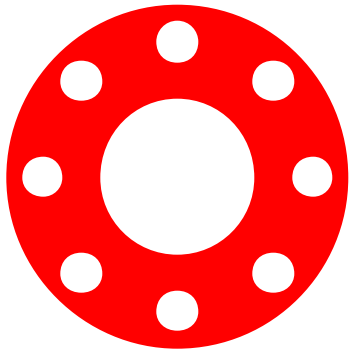
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GASKET DIMENSIONS

PIPE SIZE	GASKET I.D.	150# O.D. RING	300# O.D. RING	150# O.D. FULL FACE	300# O.D. FULL FACE
1/2"	27/32	1-7/8	2-1/8	3-1/2	3-3/4
3/4"	1-1/16	2-1/4	2-5/8	3-7/8	4-5/8
1"	1-5/16	2-5/8	2-7/8	4-1/4	4-7/8
1-1/4"	1-21/32	3	3-1/4	4-5/8	5-1/4
1-1/2"	1-29/32	3-3/8	3-3/4	5	6-1/8
2"	2-3/8	4-1/8	4-3/8	6	6-1/2
2-1/2"	2-7/8	4-7/8	5-1/8	7	7-1/2
3"	3-1/2	5-3/8	5-7/8	7-1/2	8-1/4
4"	4-1/2	6-7/8	7-1/8	9	10
5"	5-9/16	7-3/4	8-1/2	10	11
6"	6-5/8	8-3/4	9-7/8	11	12-1/2
8"	8-5/8	11	12-1/8	13-1/2	15
10"	10-3/4	13-3/8	14-1/4	16	17-1/2
12"	12-3/4	16-1/8	16-5/8	19	20-1/2
14"	14	17-3/4	19-1/8	21	23
16"	16	20-1/4	21-1/4	23-1/2	25-1/2
18"	18	21-5/8	23-1/2	25	28
20"	20	23-7/8	25-3/4	27-1/2	30-1/2
22"	22	26	27-5/8	29-1/2	33
24"	24	28-1/4	30-1/2	32	36
26"	26	30-1/2	32-7/8	34-1/4	38-1/4
28"	28	32-3/4	35-3/8	36-1/2	40-3/4
30"	30	34-3/4	37-1/2	38-3/4	43
36"	36	41-1/4	44	46	50
42"	42	48	50-3/4	53	57
48"	48	54-1/2	58-3/4	59-1/2	65
54"	54	61		66-1/4	
60"	60	67-1/2		73	
72"	72	80-3/4		86-1/2	
84"	84	93-1/2		99-3/4	
96"	96	106-1/4		113-1/4	

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

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GASKET INFORMATION (page 1 of 2)

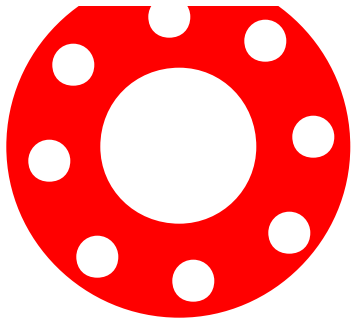
*NOTE: Gasket properties are dependent upon media, pressure, and other conditions

GARLOCK	Description	Maximum Pressure*	Tensile Strength*	Elongation (%)*	Temperature Range* (general guideline)
700 (Non-Asbestos)	Aramid / Synthetic Fiber Nitrile Binder	1000	1500	N/A	-100°F min 700°F max 400°F continuous max
2400 Green	Aramid / Synthetic Fiber Nitrile Binder	1000	1750	N/A	-40°F min 700°F max 400°F continuous max
2900 / 2950 Black / Green	Aramid / Synthetic Fiber Nitrile Binder	1000	1500	N/A	-100°F min 700°F max 400°F continuous max
3000 Blue	Aramid / Synthetic Fiber Nitrile Binder	1000	2250	N/A	-100°F min 700°F max 400°F continuous max
3200 / 3400 Off White / Grey	Aramid / Synthetic Fiber SBR Binder	1200	2250	N/A	-100°F min 700°F max 400°F continuous max
3300 Black	Aramid / Synthetic Fiber Neoprene Binder	1200	2250	N/A	-100°F min 700°F max 400°F continuous max
3700 Light Grey	Aramid / Synthetic Fiber EPDM Binder	1200	2500	N/A	-100°F min 700°F max 400°F continuous max
3500	Fawn Gylon® PTFE with Silica	1200	2000	N/A	-450°F minimum 500°F continuous max
3504	Blue Gylon® PTFE with Glass Microspheres	800	2000	N/A	-450°F minimum 500°F continuous max
3510	Off White Gylon® PTFE with Barium Sulfate	1200	2000	N/A	-450°F minimum 500°F continuous max
3530	Black Gylon® PTFE with Graphite	1200	3000	N/A	-450°F minimum 500°F continuous max
3540 / 3545	White Gylon® Microcellular PTFE	1200	2000	N/A	-450°F minimum 500°F continuous max
3565 Envelon®	White Exterior / Blue Interior Gylon® PTFE with Glass Microspheres	1200	1800	N/A	-450°F minimum 500°F continuous max
IFG 5500 Grey	Inorganic Fiber Nitrile Binder	1200	1500	N/A	-100°F min 800°F max 550°F continuous max
IFG 5507 Sage	Inorganic Fiber EPDM Binder	1200	1500	N/A	-100°F min 800°F max 550°F continuous max
HTC 9800 Black	Carbon Fiber SBR Binder	2000	1500	N/A	-100°F min 900°F max 650°F continuous max
HTC 9850 Black	Carbon Fiber Nitrile Binder	2000	1800	N/A	-100°F min 900°F max 650°F continuous max
9518 Black	Fluoroelastomer Type A (Viton)	250	1000	175	-15°F min 400°F max cont. max not published

This is only a partial listing of some gaskets commonly used in RELI-A-PAK® KITS. Other brands, materials, and specials are available.

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets by RELIABLE FASTENERS, INC.

GASKET INFORMATION (page 2 of 2)

*NOTE: Gasket properties are dependent upon media, pressure, and other conditions

Material	Description	Maximum Pressure*	Tensile Strength*	Elongation (%)*	Temperature Range* (general guideline)
Neoprene	60 durometer	not published	700	300	-20°F min 190°F max
Red Rubber (Red SBR)	75 durometer	not published	500	100	-20°F min 180°F max
Buna-N (Nitrile)	60 durometer	not published	1000	350	-30°F min 190°F max
White Buna (Food Grade)	60 durometer	not published	1000	300	-40°F min 200°F max
EPDM	60 durometer	not published	800	300	-40°F min 250°F max
Cloth Inserted Black SBR	65 durometer	not published	700	250	-20°F min 180°F max
Cloth Inserted Neoprene	70 durometer	not published	600	300	-20°F min 190°F max
Premium EPDM	60 durometer	not published	1800	350	-55°F min 300°F max
Hypalon	60 durometer	not published	1000	300	-30°F min 212°F max
Fluoroelastomer (Viton)	75 durometer	not published	1000	200	Dependant upon media
PTFE (Teflon)					-450°F min 500°F max 500°F continuous max
Graphite	Reinforced Laminate Graphite			N/A	Dependant upon media
Intertex SQ-S	Expandable PTFE	3000		N/A	-450°F min 600°F max

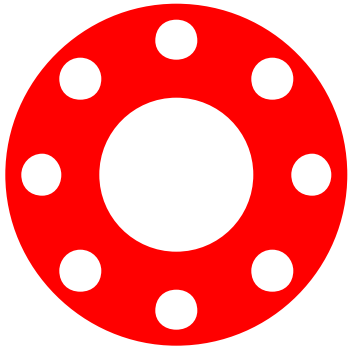
FLEXITALLIC SPIRAL WOUND GASKET

STYLES	WINDING MATERIALS	FILLER MATERIALS	GUIDE RING MATERIALS
CG	STAINLESS STEEL:	FLEXITE SUPER® (Non-Asbestos)	CARBON STEEL
CGI	317L 304		
LS	321 316L		
LSI	347 304L	FLEXICARB® (FLEXIBLE GRAPHITE)	STAINLESS STEEL: 304
R	430 309	THERMICULITETM 835	310 304L
RIR	17-7PH 310	THERMICULITETM 735	321 316
HE			347 316L
HE-CG	ALLOY 20		410 316Ti
HE-CGI	MONEL®	PTFE	INCONEL® 600
CG-RJ	TITANIUM®		625
625	NICKEL® 200	MICA	MONEL®
T	INCONEL® 600, 625, or X-750	CERAMIC	TITANIUM®
M	HASTELLOY® B2 or C276	NON-SINTERED PTFE	NICKEL
MC	INCOLOY® 800 or 825		INCOLOY® 800
MCS	DUPLEX		ALLOY 20
	ZIRCONIUM®		INCOLOY® 825
	TANTALUM®		HASTELLOY®
	COPPER		
	PHOS-BRONZE		
	CARBON STEEL		
			B2
			C276

This is only a partial listing of some gaskets commonly used in RELI-A-PAK® KITS. Other brands, materials, and specials are available.

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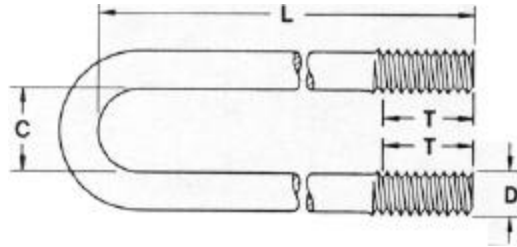
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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

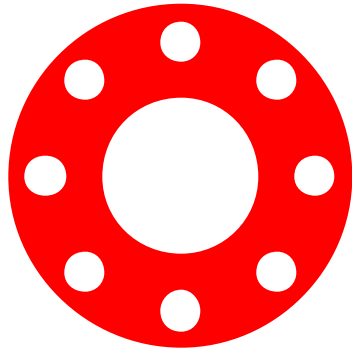


STANDARD PIPE SIZE U-BOLTS STYLE UB - 137

PIPE SIZE	ROD DIA. D	C	L	T	WEIGHT EACH
1/2"	1/4	15/16	3-1/4	2-3/8	.08
3/4"	1/4	1-1/8	3-5/16	2-3/8	.08
1"	1/4	1-3/8	3-7/16	2-3/8	.09
1-1/4"	3/8	1-11/16	3-3/4	2-3/8	.23
1-1/2"	3/8	2	4	2-1/2	.25
2"	3/8	2-7/16	4-1/2	2-1/2	.28
2-1/2"	1/2	2-15/16	5-1/4	3	.58
3"	1/2	3-9/16	5-13/16	3	.64
4"	1/2	4-9/16	6-13/16	3	.75
5"	1/2	5-5/8	7-13/16	3	.87
6"	5/8	6-3/4	9-1/2	3-3/4	1.63
8"	5/8	8-3/4	11-1/2	3-3/4	2.01
10"	3/4	10-7/8	13-13/16	4	3.65
12"	7/8	12-7/8	16-1/16	4-1/4	5.62
14"	7/8	14-1/8	17-5/16	4-1/4	6.19
16"	7/8	16-1/8	19-5/16	4-1/4	6.77
18"	1	18-1/8	21-11/16	4-3/4	10.4
20"	1	20-1/8	23-11/16	4-3/4	11.3
24"	1	24-1/8	27-11/16	4-3/4	13.3
30"	1	30-1/8	33-11/16	4-3/4	16.2
36"	1	36-1/8	39-11/16	4-3/4	19.0
48"	1	48-1/8	51-11/16	4-3/4	24.85

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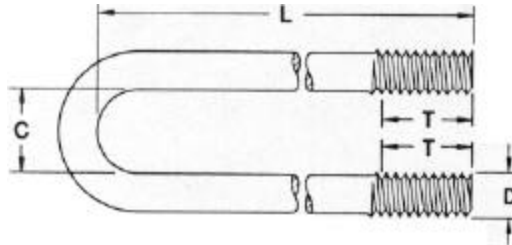
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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.



HEAVY PIPE SIZE U-BOLTS STYLE UB – 137 HEAVY

PIPE SIZE	ROD DIA. D	C	L	T	WEIGHT EACH
1/2"	3/8	15/16	3-1/4	2-3/8	.19
3/4"	3/8	1-1/8	3-5/16	2-3/8	.20
1"	3/8	1-3/8	3-7/16	2-3/8	.21
1-1/4"	1/2	1-11/16	3-3/4	2-3/8	.41
1-1/2"	1/2	2	4	2-1/2	.44
2"	1/2	2-7/16	4-1/2	2-1/2	.50
2-1/2"	5/8	2-15/16	5-1/4	3	.91
3"	5/8	3-9/16	5-13/16	3	1.02
4"	5/8	4-9/16	6-13/16	3	1.20
5"	5/8	5-5/8	7-13/16	3	1.38
6"	3/4	6-3/4	9-1/2	3-3/4	2.51
8"	3/4	8-3/4	11-1/2	3-3/4	3.04
10"	7/8	10-7/8	13-13/16	4	4.85
12"	1	12-7/8	16-1/16	4-1/4	7.70
14"	1	14-1/8	17-5/16	4-1/4	8.30
16"	1	16-1/8	19-5/16	4-1/4	9.27

LIGHTWEIGHT PIPE SIZE U-BOLTS STYLE UB – 120

PIPE SIZE	ROD DIA. D	C	L	T	WEIGHT EACH
1/2"	1/4	5/16	2-13/32	1-3/4	.06
3/4"	1/4	1-1/8	2-5/8	1-3/4	.07
1"	1/4	1-3/8	3-7/8	1-3/4	.07
1-1/4"	1/4	1-11/16	3-7/32	1-3/4	.08
1-1/2"	1/4	2	3-7/16	1-3/4	.09
2"	1/4	2-7/16	3-29/32	1-3/4	.10
2-1/2"	3/8	2-15/16	4-17/32	2	.29
3"	3/8	3-9/16	5-5/32	2	.35
4"	3/8	4-9/16	6-5/32	2	.39
5"	3/8	5-5/8	7-3/8	2-1/4	.47
6"	1/2	6-3/4	8-7/16	2-1/4	.95
8"	1/2	8-3/4	10-7/16	2-1/4	1.18
10"	5/8	10-7/8	12-11/16	2-1/2	2.26
12"	5/8	12-7/8	15	2-1/2	2.65

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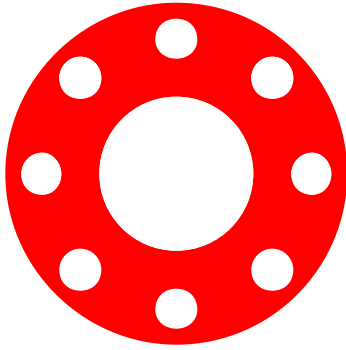
RELI-A-PAK® Bolt, Nut, & Gasket Sets by Reliable Fasteners, Inc.

EXTERNAL THREADS (CLASS 2A) INTERNAL THREADS (CLASS 2B)

NOMINAL SIZE THREADS/INCH SERIES		ALLOW -ANCE	MAJOR DIAMETER		PITCH DIAMETER			MINOR DIAMETER		PITCH DIAMETER			MAJOR DIA.
			MAX.	MIN.	MAX.	MIN.	TOLER.	MIN.	MAX.	MIN.	MAX.	TOLER.	MIN.
0-80	UNF	.0005	.0595	.0563	.0514	.0496	.0018	.0465	.0514	.0519	.0542	.0023	.0600
1-64	UNC	.0006	.0724	.0686	.0623	.0603	.0020	.0561	.0623	.0629	.0655	.0026	.0730
1-72	UNF	.0006	.0724	.0689	.0634	.0615	.0019	.0580	.0635	.0640	.0665	.0025	.0730
2-56	UNC	.0006	.0854	.0813	.0738	.0717	.0021	.0667	.0737	.0744	.0772	.0028	.0860
2-64	UNF	.0006	.0854	.0816	.0753	.0733	.0020	.0691	.0753	.0759	.0786	.0027	.0860
3-48	UNC	.0007	.0983	.0938	.0848	.0825	.0023	.0764	.0845	.0855	.0885	.0030	.0990
3-56	UNF	.0007	.0983	.0942	.0867	.0845	.0022	.0797	.0865	.0874	.0902	.0028	.0990
4-40	UNC	.0008	.1112	.1061	.0950	.0925	.0025	.0849	.0939	.0958	.0991	.0033	.1120
4-48	UNF	.0007	.1112	.1068	.0978	.0954	.0024	.0894	.0968	.0985	.1016	.0031	.1120
5-40	UNC	.0008	.1242	.1191	.1080	.1054	.0026	.0979	.1062	.1088	.1121	.0033	.1250
5-44	UNF	.0007	.1243	.1195	.1095	.1070	.0025	.1004	.1079	.1102	.1134	.0032	.1250
6-32	UNC	.0008	.1372	.1312	.1169	.1141	.0028	.1040	.1140	.1177	.1214	.0037	.1380
6-40	UNF	.0008	.1372	.1321	.1210	.1184	.0026	.1110	.1190	.1218	.1252	.0034	.1380
8-32	UNC	.0009	.1631	.1571	.1428	.1399	.0029	.1300	.1390	.1437	.1475	.0038	.1640
8-36	UNF	.0008	.1632	.1577	.1452	.1424	.0028	.1340	.1420	.1460	.1496	.0036	.1640
10-24	UNC	.0010	.1890	.1818	.1619	.1586	.0033	.1450	.1560	.1629	.1672	.0043	.1900
10-32	UNF	.0009	.1891	.1831	.1688	.1658	.0030	.1560	.1640	.1697	.1736	.0039	.1900
12-24	UNC	.0010	.2150	.2078	.1879	.1845	.0034	.1710	.1810	.1889	.1933	.0044	.2160
12-28	UNF	.0010	.2150	.2085	.1918	.1886	.0032	.1770	.1860	.1928	.1970	.0042	.2160
1/4-20	UNC	.0011	.2489	.2408	.2164	.2127	.0037	.1960	.2070	.2175	.2224	.0049	.2500
1/4-28	UNF	.0010	.2490	.2425	.2258	.2225	.0033	.2110	.2200	.2268	.2311	.0043	.2500
5/16-18	UNC	.0012	.3113	.3026	.2752	.2712	.0040	.2520	.2650	.2764	.2817	.0053	.3125
5/16-24	UNF	.0011	.3114	.3042	.2843	.2806	.0037	.2670	.2770	.2854	.2902	.0048	.3125
3/8-16	UNC	.0013	.3737	.3643	.3331	.3287	.0044	.3070	.3210	.3344	.3401	.0057	.3750
3/8-24	UNF	.0011	.3739	.3667	.3468	.3430	.0038	.3300	.3400	.3479	.3528	.0049	.3750
7/16-14	UNC	.0014	.4361	.4258	.3897	.3850	.0047	.3600	.3760	.3911	.3972	.0061	.4375
7/16-20	UNF	.0013	.4362	.4281	.4037	.3995	.0042	.3830	.3950	.4050	.4104	.0054	.4375
1/2-13	UNC	.0015	.4985	.4876	.4485	.4435	.0050	.4170	.4340	.4500	.4565	.0065	.5000
1/2-20	UNF	.0013	.4987	.4906	.4662	.4619	.0043	.4460	.4570	.4675	.4731	.0056	.5000
9/16-12	UNC	.0016	.5609	.5495	.5068	.5016	.0052	.4720	.4900	.5084	.5152	.0068	.5625
9/16-18	UNF	.0014	.5611	.5524	.5250	.5205	.0045	.5020	.5150	.5264	.5323	.0059	.5625
5/8-11	UNC	.0016	.6234	.6113	.5644	.5589	.0055	.5270	.5460	.5660	.5732	.0072	.6250
5/8-18	UNF	.0014	.6236	.6149	.5875	.5828	.0047	.5650	.5780	.5889	.5949	.0060	.6250
3/4-10	UNC	.0018	.7482	.7353	.6832	.6773	.0059	.6420	.6630	.6850	.6927	.0077	.7500
3/4-16	UNF	.0015	.7485	.7391	.7079	.7029	.0050	.6820	.6960	.7094	.7159	.0065	.7500
7/8-9	UNC	.0019	.8731	.8592	.8009	.7946	.0063	.7550	.7780	.8028	.8110	.0082	.8750
7/8-14	UNF	.0016	.8734	.8631	.8270	.8216	.0054	.7980	.8140	.8286	.8356	.0070	.8750
1"-8	UNC	.0020	.9980	.9830	.9168	.9100	.0068	.8650	.8900	.9188	.9276	.0088	1.0000
1"-12	UNF	.0018	.9982	.9868	.9441	.9382	.0059	.9100	.9280	.9459	.9535	.0076	1.0000
1"-14	UNS	.0017	.9983	.9880	.9519	.9463	.0056	.9230	.9380	.9536	.9609	.0073	1.0000
1 1/8-7	UNC	.0022	1.1228	1.1064	1.0300	1.0228	.0072	.9700	.9980	1.0322	1.0416	.0094	1.1250
1 1/8-8	UN	.0021	1.1229	1.1079	1.0417	1.0348	.0069	.9900	1.0150	1.0438	1.0528	.0090	1.1250
1 1/8-12	UNF	.0018	1.1232	1.1118	1.0691	1.0631	.0060	1.0350	1.0530	1.0709	1.0787	.0078	1.1250
1-1/4-7	UNC	.0022	1.2478	1.2314	1.1550	1.1476	.0074	1.0950	1.1230	1.1572	1.1680	.0096	1.2500
1-1/4-8	UN	.0021	1.2479	1.2329	1.1667	1.1597	.0070	1.1150	1.1400	1.1688	1.1780	.0092	1.2500
1-1/4-12	UNF	.0018	1.2482	1.2368	1.1941	1.1879	.0062	1.1600	1.1780	1.1959	1.2039	.0080	1.2500
1 3/8-6	UNC	.0024	1.3726	1.3544	1.2643	1.2563	.0080	1.1950	1.2250	1.2667	1.2771	.0104	1.3750
1 3/8-8	UN	.0022	1.3728	1.3578	1.2916	1.2844	.0072	1.2400	1.2650	1.2938	1.3031	.0093	1.3750
1 3/8-12	UNF	.0019	1.3731	1.3617	1.3190	1.3127	.0063	1.2850	1.3030	1.3209	1.3291	.0082	1.3750
1-1/2-6	UNC	.0024	1.4976	1.4794	1.3893	1.3812	.0081	1.3200	1.3500	1.3917	1.4022	.0105	1.5000
1-1/2-8	UN	.0022	1.4978	1.4828	1.4166	1.4093	.0073	1.3650	1.3900	1.4188	1.4283	.0095	1.5000
1-1/2-12	UNF	.0019	1.4981	1.4867	1.4440	1.4376	.0064	1.4100	1.4280	1.4459	1.4542	.0083	1.5000
1 5/8-8	UN	.0022	1.6228	1.6078	1.5416	1.5342	.0074	1.4900	1.5150	1.5438	1.5535	.0097	1.6250
1-3/4-5	UNC	.0027	1.7473	1.7268	1.6174	1.6085	.0089	1.5340	1.5680	1.6201	1.6317	.0116	1.7500
1-3/4-8	UN	.0023	1.7477	1.7327	1.6665	1.6590	.0075	1.6150	1.6400	1.6688	1.6786	.0098	1.7500
1 7/8-8	UN	.0023	1.8727	1.8577	1.7915	1.7838	.0077	1.7400	1.7650	1.7938	1.8038	.0100	1.8750
2-4.5	UNC	.0029	1.9971	1.9751	1.8528	1.8433	.0095	1.7590	1.7950	1.8557	1.8681	.0124	2.0000
2-8	UN	.0023	1.9977	1.9827	1.9165	1.9087	.0078	1.8650	1.8900	1.9188	1.9289	.0101	2.0000
2-1/4-4.5	UNC	.0029	2.2471	2.2251	2.1028	2.0931	.0097	2.0090	2.0450	2.1057	2.1183	.0126	2.2500
2-1/4-8	UN	.0024	2.2476	2.2326	2.1664	2.1584	.0080	2.1150	2.1400	2.1688	2.1792	.0104	2.2500
2-1/2-4	UNC	.0031	2.4969	2.4731	2.3345	2.3241	.0104	2.2290	2.2670	2.3376	2.3511	.0135	2.5000
2-1/2-8	UN	.0024	2.4976	2.4826	2.4164	2.4082	.0082	2.3650	2.3900	2.4188	2.4294	.0106	2.5000
2-3/4-4	UNC	.0032	2.7468	2.7230	2.5844	2.5739	.0105	2.4790	2.5170	2.5876	2.6013	.0137	2.7500
2-3/4-8	UN	.0025	2.7475	2.7325	2.6663	2.6580	.0083	2.6150	2.6400	2.6688	2.6796	.0108	2.7500
3-4	UNC	.0032	2.9968	2.9730	2.8344	2.8237	.0107	2.7290	2.7670	2.8376	2.8515	.0139	3.0000
3-8	UN	.0026	2.9974	2.9824	2.9162	2.9077	.0085	2.8650	2.8900	2.9188	2.9299	.0111	3.0000

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RELI-A-PAK®

Bolt, Nut, & Gasket Sets

by RELIABLE FASTENERS, INC.

PHONE: (800) 697-6501

FAX (877) 777-4732

PHONE: (770) 432-4783

FAX (770) 434-3821

CONVERSION TABLE

FRACTIONS * DECIMALS

FRACTIONS	DECIMALS	FRACTIONS	DECIMALS	FRACTIONS	DECIMALS
1/64	.01560	11/32	.34375	43/64	.67187
1/32	.03125	23/64	.35937	11/16	.68750
3/64	.04690	3/8	.37500	45/64	.70310
1/16	.06250	25/64	.39060	23/32	.71875
5/64	.07810	13/32	.40620	47/64	.73437
3/32	.09400	27/64	.42187	3/4	.75000
7/64	.10930	7/16	.43750	49/64	.76560
1/8	.12500	29/64	.45310	25/32	.78125
9/64	.14060	15/32	.46875	51/64	.79687
5/32	.15625	31/64	.48437	13/16	.81250
11/64	.17187	1/2	.50000	53/64	.82810
3/16	.18750	33/64	.51560	27/32	.84375
13/64	.20310	17/32	.53125	55/64	.85937
7/32	.21875	35/64	.54687	7/8	.87500
15/64	.23437	9/16	.56250	57/64	.89060
1/4	.25000	37/64	.57812	29/32	.90625
17/64	.26560	19/32	.59375	59/64	.92187
9/32	.28125	39/64	.60937	15/16	.93750
19/64	.29687	5/8	.62500	61/64	.95310
5/16	.31250	41/64	.64060	31/32	.96875
21/64	.32810	21/32	.65625	63/64	.98437

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