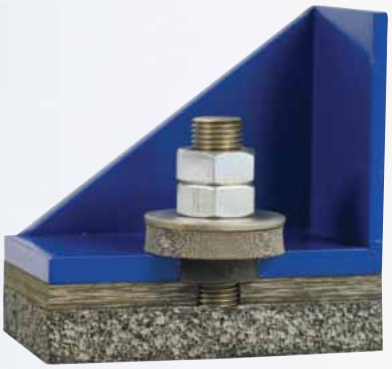
Isolation Washers & Bushings

FABREEKA®
VIBRATION & SHOCK CONTROL

Fabreeka isolation washers and bushings are used to eliminate metal-to-metal contact and break the vibration or shock transmission path. For example, the contact between a machine base and an anchor bolt as shown.



The properties of the Fabreeka bushing material are ideally suited for vibration isolation and structure-borne noise reduction.

Washers & bushings are typically used in conjunction with Fabreeka pads or Fabcel pads where the reduction of impact shock or isolation of transmitted vibration is required. Bushings are manufactured with the same properties as Fabreeka pad, and therefore offer years of service under the most severe operating conditions.

Fabreeka bushings are made to specified dimensions (OD, ID, length). A minimum wall thickness of 3/32" is recommended.

Features and Attributes

- **Isolation washers made from Fabreeka pad material can ultimately withstand loads up to 12,000 psi when used for "uplift" or rebound shock**
- **Isolation washers and bushings complete the isolation solution by eliminating the vibration and shock transmission path**
- **Washers can be die cut to any outside/inside diameter required for your application**
- **Fabreeka bushings meet the MIL-C-882 and MIL-E-5272 military specifications**

Fabreeka® Washer Dimensions & Bolt Torque Recommendations

Please note, the following chart is for a Fabreeka pad and Fabreeka washer combination. For any other combination of pad and washer materials, please contact Fabreeka's Engineering department for assistance with proper torque.

Fabreeka Washer Dimension					Guide to Proper Torque		
Bolt Dia-In	Washer OD-in	Washer ID-in	Washer Thk-in	Net Area in^2	Recommended in-lbs	Torque ft-lbs	Bolt Force lbs
3/16	9/16	3/16	1/8	0.212	5	0.50	106
1/4	**3/4**	**1/4**	**5/32**	**0.393**	**9**	**0.75**	**197**
5/16	7/8	5/16	5/32	0.574	18	1.50	287
3/8	**1**	**3/8**	**3/16**	**0.675**	**30**	**2.50**	**338**
7/16	1-1/4	7/16	15/64	1.076	47	4.00	540
1/2	**1-3/8**	**1/2**	**9/32**	**1.288**	**130**	**11.00**	**1,288**
9/16	1-1/2	9/16	9/32	1.517	170	14.50	1,517
5/8	**1-3/4**	**5/8**	**11/32**	**2.10**	**264**	**22.00**	**2,100**
3/4	2	3/4	11/32	2.70	406	34.00	2,700
7/8	**2-1/4**	**7/8**	**11/32**	**3.37**	**600**	**50.00**	**3,370**
1	2-1/2	1	1/2	4.12	840	70.00	4,120
1-1/8	**2-3/4**	**1-1/8**	**1/2**	**4.94**	**1,100**	**92.00**	**4,940**
1-1/4	3	1-1/4	1/2	5.84	1,500	125.00	5,840
1-3/8	**3-1/4**	**1-3/8**	**1/2**	**6.81**	**1,980**	**165.00**	**6,810**
1-1/2	3-1/2	1-1/2	5/8	7.85	2,370	200.00	7,850
1-5/8	**3-3/4**	**1-5/8**	**5/8**	**8.97**	**2,930**	**244.00**	**8,970**
1-3/4	4	1-3/4	5/8	10.16	3,560	297.00	10,160
1-7/8	**4-1/4**	**1-7/8**	**3/4**	**11.42**	**4,320**	**360.00**	**11,420**
2	4-1/2	2	3/4	12.76	5,080	425.00	12,760
2-1/4	**4-3/4**	**2-1/4**	**3/4**	**13.74**	**6,200**	**517.00**	**13,740**
2-1/2	5	2-1/2	3/4	14.72	7,400	615.00	14,720
2-3/4	**5-1/4**	**2-3/4**	**3/4**	**15.71**	**8,680**	**725.00**	**15,710**
3	5-1/2	3	3/4	16.69	10,080	900.00	16,690

Notes:

1) The above recommended torque takes into consideration the creep/set of Fabreeka with time, therefore, ***do not retorque***. In general, creep/set will reduce the torque to about one/half the above values. This usually occurs within 7 days of the original torquing.

2) The guide to proper torque is an aid to developing proper bolt force without overstressing the Fabreeka washers. Steel-to-steel torque values must **never** be used with Fabreeka washers because they would severely overstress the Fabreeka washers.

3) The Fabreeka washer sizes listed are based on standard (US Wrought) steel washer dimensions. Double steel washers can be used, if necessary, to avoid "dishing", which might load the Fabreeka washer at the ID to the point of failure. For machines having oversized anchor bolt holes, use single or double steel washers on both sides of the Fabreeka washer.

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