

ICSN-1R1 ISOTECH COOLING TOWER/CHILLER NON-SEISMIC

File No.: ISOIN-ICSN-1R1-100 - 4500

Date: 03/29/22

ISOCS-ICSN-1R1-100-4500, Installation Instructions Document, to be Reviewed for Installation

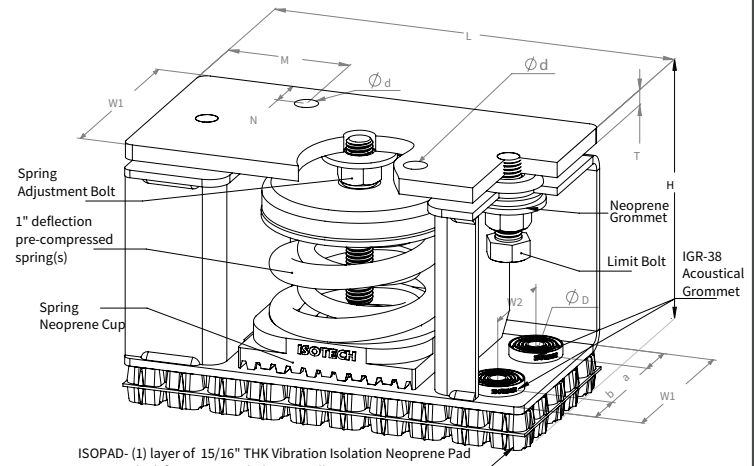
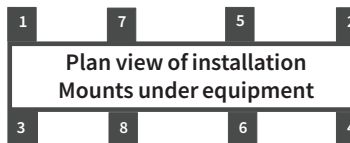
SPECIFICATIONS : ICSN-1R1, 1" DEFLECTION RESTRAINED SPRING ISOLATOR C/W(1)LAYER OF ISOTECH VIBRATION ISOLATION PAD, ISOPAD-24

Model	Rated Load		Rated Deflection		Spring Color		Approx. WT.	
	lbf.	kN	in	mm	outer	inner	lbs.	kg
ICSN-1R1-100	100	0.445	2.0	50.8	RED	---	23.50	8.62
ICSN-1R1-200	200	0.89	2.0	50.8	RED	GREY	23.90	8.70
ICSN-1R1-300	300	1.335	2.0	50.8	RED	ORANGE	23.90	8.75
ICSN-1R1-400	400	1.78	2.0	50.8	RED	YELLOW	23.90	8.80
ICSN-1R1-500	500	2.225	2.0	50.8	RED	GREEN	24.00	8.85
ICSN-1R1-600	600	2.669	2.0	50.8	BROWN	GREY	24.10	8.90
ICSN-1R1-800	800	3.559	2.0	50.8	BLUE	---	24.10	9.00
ICSN-1R1-1000	1000	4.449	2.0	50.8	GREEN	---	24.10	9.00
ICSN-1R1-1200	1200	5.338	2.0	50.8	GREEN	ORANGE	24.10	9.30
ICSN-1R1-1500	1500	6.673	2.0	50.8	GREY	---	24.10	9.20
ICSN-1R1-1800	1800	8.007	2.0	50.8	GREY	YELLOW	24.20	9.43
ICSN-1R1-2000	2000	8.897	2.0	50.8	GREY	WHITE	24.30	9.25
ICSN-1R1-2300	2300	10.231	2.0	50.8	GREY	RED	24.40	9.52
ICSN-1R1-2500	2500	11.121	2.0	50.8	ORANGE	---	24.40	9.34
ICSN-1R1-2800	2800	12.455	2.0	50.8	ORANGE	YELLOW	24.50	9.70
ICSN-1R1-3000	3000	13.345	2.0	50.8	BLACK	---	24.60	9.52
ICSN-1R1-3500	3500	15.569	2.0	50.8	BLACK	WHITE	25.00	9.89
ICSN-1R1-3800	3800	16.904	2.0	50.8	BLACK	RED	25.30	10.06
ICSN-1R1-4000	4000	17.793	2.0	50.8	BLACK	BLUE	25.50	10.16
ICSN-1R1-4500	4500	20.017	2.0	50.8	BLACK	BROWN	26.00	11.80

Model					
DIMENSION : ICSN-1R1-100-4500 WITH (1) LAYER OF ISOTECH VIBRATION ISOLATION PAD, ISOPAD-24					
L		W1		H	
in	mm	in	mm	in	mm
9 7/8	251	5 1/8	131	6 1/4	159
T		W2		øD	
in	mm	in	mm	in	mm
3/8	10	2 1/2	64	3/8	10
ød		M		N	
in	mm	in	mm	in	mm
9/16	15	3.0	77	1.0	26
a		b		SPRING BOLT ADJUSTMENT	
in	mm	in	mm		
1 1/2	39	1.1	28	5/8"	

ISOLATOR'S LOCATIONS

1:	5:
2:	6:
3:	7:
4:	8:

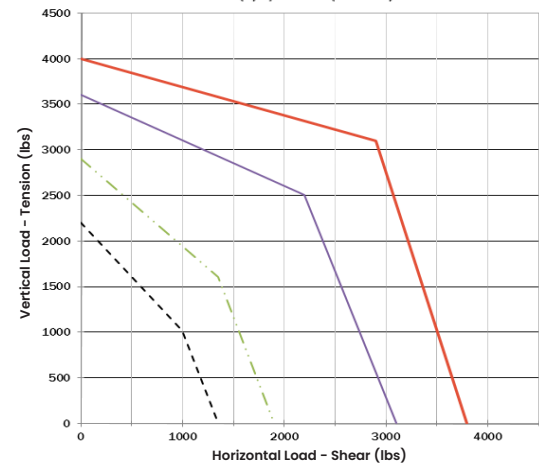


ISOPAD- (1) layer of 15/16" THK Vibration Isolation Neoprene Pad
50 Duro Black for capacities below 3000 lbs
60 Duro Orange for capacities above 3000 lbs

* Load Capacity Envelope: Concrete loads are based on 4000 psi reinforced concrete with minimum 6" edge distance and can be considered for non seismic applications only.

ICSN-1R1-100-4500 LOAD CAPACITY ENVELOPE

- Attached to Steel Structure with (4) 5/8" Bolts(Grade 5) and Nuts
- - Attached to Concrete Structure with (2) 1/2" Hilti KB TZ (2" Embedment) -4" Slab
- - Attached to Concrete Structure with (2) 5/8" Hilti KB TZ 4" Embedment -6" Slab
- Attached to steel structure with (4) 1/2" Bolts(Grade 5) and Nuts



Notes:

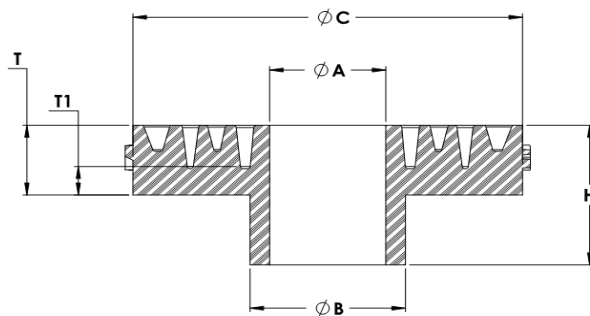
- ICSN-1R1-100-4500 Isolators are all Pre-Compressed to allow the lowest overall installation height and to offer significant labor saving during installation
- All springs have additional travel to solid equal to 50% of the Rated Deflection with minimum Kx/Ky ratio of 1.0 - All Elements are safe at solid load
- Spring(s) are powder - coated to provide maximum corrosion resistance , and are color-coded for easy identification at site - see table above
- Hot-Dip Galvanized finish for Housing to offer maximum corrosion resistance for isolator - Hardware and Spring Compression Cup are zinc -electroplated
- ICSN-1R1-100-4500 isolators are designed to allow replacement of Neoprene grommet without disturbing equipment. Neoprene grommet are installed to prevent metal to metal contact.
- Same Thickness and dimensions of isolator top plate, must be installed on top of isolator, when less than 80% of isolator's top plate is covered.

PROJECT INFORMATION		EQUIPMENT INFORMATION		CANADA	UNITED STATES
Customer:		Type:		8 High Meadow Place, North York, ON M9L 2Z5, CANADA	800-7700 Irvine Center Dr., Irvine, CA 92618, U.S.A.
Project:		Qty Required:		C: 416-831-3000	C: 714-264-8090
Drawing No:		Operating Weight:		www.isotechindustries.com	
Notes:					

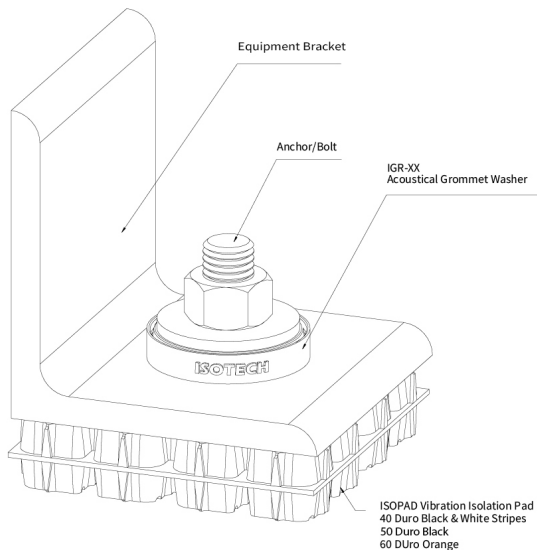
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SPECIFICATIONS : ACOUSTICAL GROMMET WASHER IGR-XX

Model	ϕA		ϕB		ϕC		H		T		T1	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
IGR-38	3/8	10	1/2	13	1 1/4	32	1/2	13	1/4	7	1/8	4
IGR-50	1/2	13	3/4	20	1 5/8	42	5/8	16	5/16	8	3/16	5
IGR-63	5/8	16	7/8	23	2	51	3/4	20	3/8	10	3/16	5

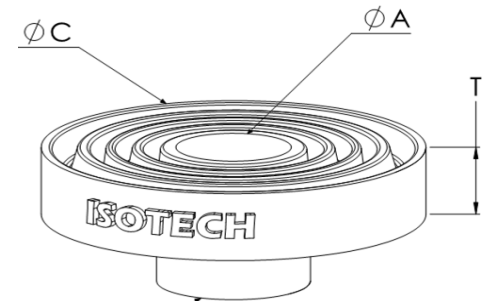


IGR - XX Section View

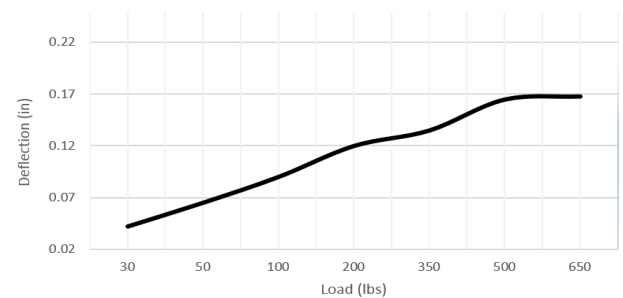


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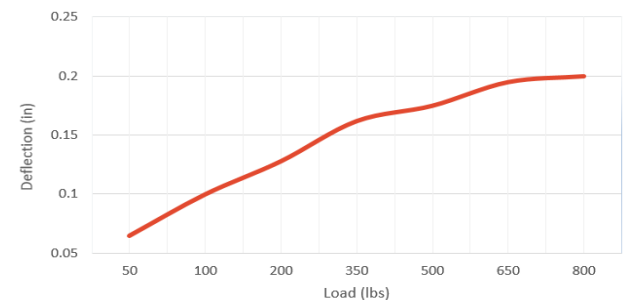
- Application of grooves and thicker material offers significant improvements on isolation efficiency of the system
- IGR Acoustical Grommet is available on 50 & 60 Duro Neoprene Material
- IGR Acoustical Grommet neoprene material is per ASTM D2000 Standards
- Anchor or bolt size to match ϕA dimension
- Deflection-Load graphs are based on 60 Duro Neoprene Material



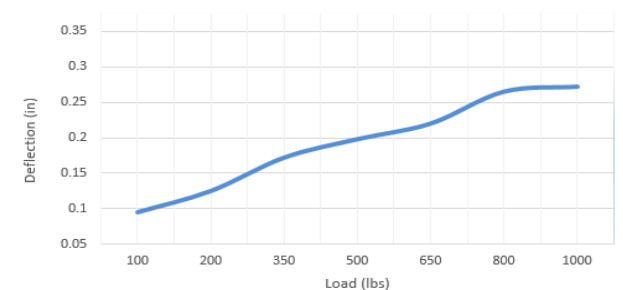
IGR-38



IGR-50



IGR-63



PROJECT INFORMATION		EQUIPMENT INFORMATION		CANADA 8 High Meadow Place, North York, ON M9L 2Z5, CANADA C: 416-831-3000 UNITED STATES 800-7700 Irvine Center Dr., Irvine, CA 92618, U.S.A. C: 714-264-8090  www.isotechindustries.com
Customer:		Type:		
Project:		Qty Required:		
Drawing No:		Operating Weight:		
Notes:				

ISOPAD-24 ISOTECH VIBRATION ISOLATION PAD

File No. : ISOPAD-24

Date: 03/29/22

ISOIN-ISOPAD-24, Installation Instructions document, to be Reviewed for Installation

ISOPAD 40 Duro Black with White Stripes

ISOPAD-X-40	x		Load range		Optimum load		Approx. WT.	
	in	mm	lbf.	kN	lbf.	kN	lbs.	kg
	2.0	50	40 - 180	0.176 - 0.79	120	0.53	0.09	0.05
	3.0	75	90 - 405	0.396 - 1.78	270	1.20	0.21	0.1
	4.0	100	160 - 720	0.704 - 3.17	480	2.14	0.38	0.18
	6.0	150	360 - 1620	1.584 - 7.13	1080	4.81	0.84	0.39
	9.0	225	810 - 3645	3.564 - 16.04	2430	10.81	1.93	0.88
	12.0	300	1440 - 6480	6.336 - 28.51	4320	19.22	3.38	1.54
	18.0	450	3240 - 14580	14.256 - 64.15	9720	43.24	3.38	1.54
	24.0	600	5760 - 25920	25.344 - 114.05	17280	76.87	13.50	6.13

ISOPAD 50 Duro Black

ISOPAD-X-50	X		Load range		Optimum load		Approx. WT.	
	in	mm	lbf.	kN	lbf.	kN	lbs.	kg
	2.0	50	80 - 280	0.352 - 1.23	180	0.80	0.10	0.05
	3.0	75	180 - 630	0.792 - 2.77	405	1.80	0.23	0.11
	4.0	100	320 - 1120	1.408 - 4.93	720	3.20	0.40	0.19
	6.0	150	720 - 2520	3.168 - 11.09	1620	7.21	0.91	0.42
	9.0	225	1620 - 5670	7.128 - 24.95	3645	16.21	2.07	0.94
	12.0	300	2880 - 10080	12.672 - 44.35	6480	28.83	3.63	1.65
	18.0	450	6480 - 22680	28.512 - 99.79	14580	64.86	3.63	1.65
	24.0	600	11520 - 40320	50.688 - 177.41	25920	115.30	14.50	6.58

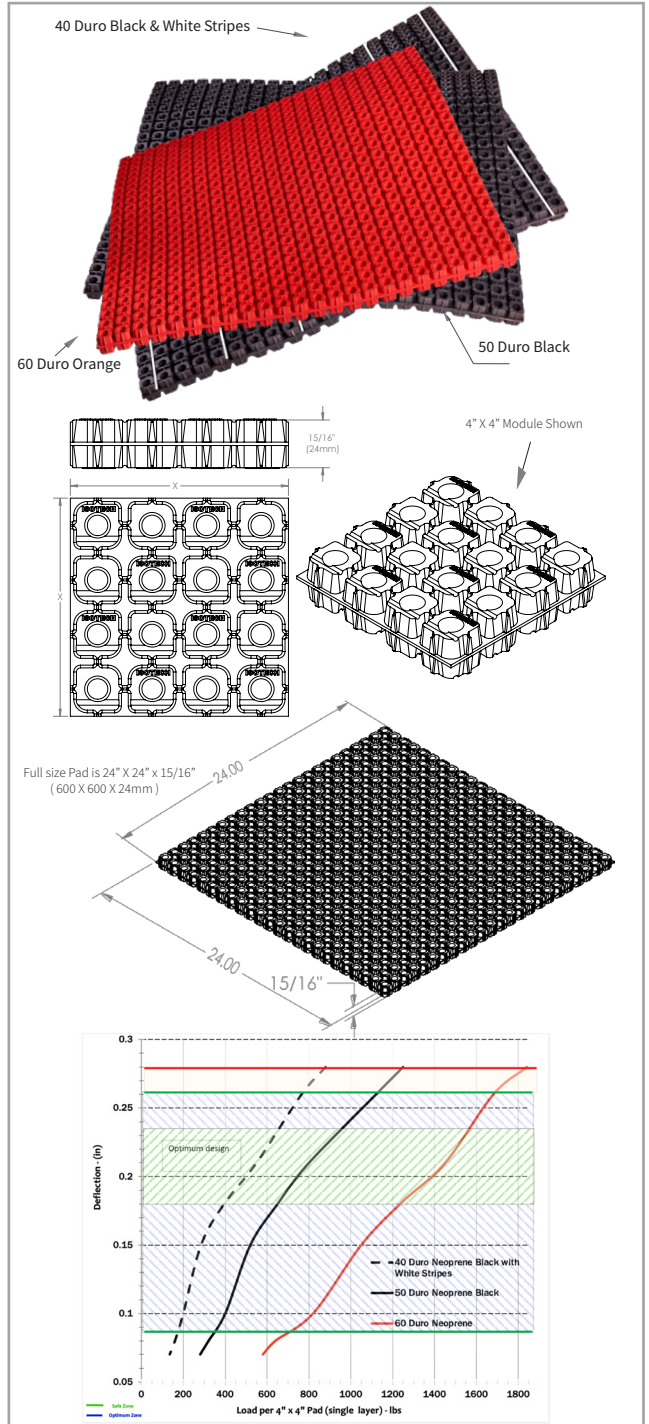
ISOPAD 60 Duro Orange

ISOPAD-X-60	X		Load range		Optimum load		Approx. WT.	
	in	mm	lbf.	kN	lbf.	kN	lbs.	kg
	2.0	50	160 - 420	0.704 - 1.85	320	1.42	0.11	0.05
	3.0	75	360 - 945	1.584 - 4.16	720	3.20	0.24	0.11
	4.0	100	640 - 1680	2.816 - 7.39	1280	5.69	0.43	0.2
	6.0	150	1440 - 3780	6.336 - 16.63	2880	12.81	0.97	0.44
	9.0	225	3240 - 8505	14.256 - 37.42	6480	28.83	2.21	1.01
	12.0	300	5760 - 15120	25.344 - 66.53	11520	51.24	3.88	1.76
	18.0	450	12960 - 34020	57.024 - 149.69	25920	115.30	8.61	3.91
	24.0	600	23040 - 60480	101.376 - 266.11	46080	204.97	15.50	7.04

Thickness		Deflection Range		Optimum Deflection	
in	mm	in	mm	in	mm
15/16	24.0	0.08 To 0.26	2.0 to 6.4	0.21	5.3

Notes:

- Full size pad is 24"x 24" x 15/16" (600 x 600 x 24mm) - a total of 144 - 2" modules
- Pad is designed to have thin web between modules that allows quick and easy cut with utility knife on site.
- 24" x 24" pad size offers minimum waste on site and provides evenly dimensioned pads such as 2" x 2" (50 x 50mm), 2" x 4" (50 x 100mm), 4" x 4" (100 x 100mm)
- Pads are made of high quality AASHTO Bridge-Bearing Neoprene material for maximum life service, excellent oil resistance and vibration isolation performance.
- ISOPAD-24 is available in 40 Duro- Color coded Black with White stripes - 50 Duro Black and 60 Duro Orange. Review table and graph for safe design and performance
- Pads can be stacked with 16 ga (1.5mm) Galvanized sheet metal to increase deflection and isolation efficiency. When two layers are laminated, they can provide double the deflection under the same load as shown in table and graph.



☐ Mark this Box if distribution plate is required. Product code ISOPAD-XM

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