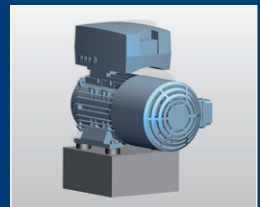




Metal Cushions



ONLINE
Calculation +
2D / 3D CAD Download



www.weforma.com

Metal Cushions

WG-XX



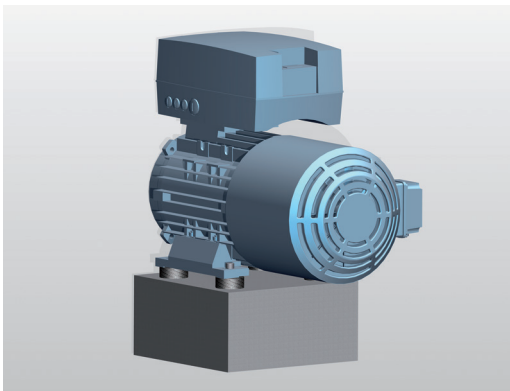
- **Material:** stainless steel
- Shock-absorbing and vibration-isolation
- Corrosion-resistant against solvents, acids, oils, greases, liquids and dust
- Resistant to age - no permanent deformation, no hardening and no creeping
- Temperature: -90°C to +400°C (-130°F to +752°F)

SELECTION

BASIC CRITERIA REQUIRED FOR SIZING:

1. Mass to be lifted m (kg)
2. Exciting frequency f (Hz)
3. Rate of revolutions (U)
4. Desired degree of isolation lg (%)
5. Number of metal cushions (n)
6. Temperature

VIBRATION ISOLATION

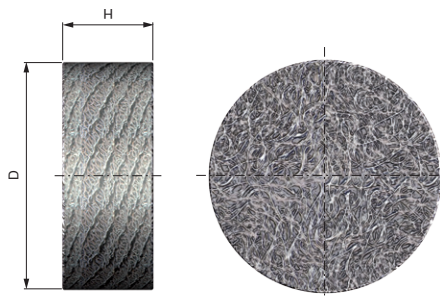


Selection

WG-FB 29,2x29,2x19x6,4

m = 100	$F_i \geq F$	$F = \frac{\text{kg} \times g}{n}$	0,75 kN > 0,25 kN
n = 4			
ferr. = 90 Hz	$f_o \leq \frac{f_{err}}{1,44}$		15 < 62,5 Hz
lg = 90 %	$l_t \geq l_g \leq 100\%$	$l_t = 1 - \frac{1}{\left(\frac{f_{err}}{f_o}\right)^2 - 1}$	97,1% > 90% < 100%
T = 20 °C	T		-90 °C < 30 °C < +400 °C

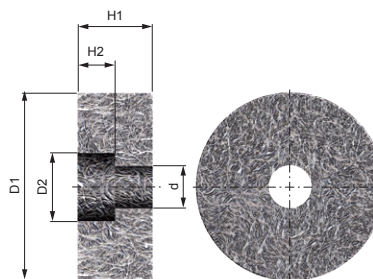
WG-RU Circular Type



SPECIFICATIONS

	D mm	H mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-RU 23,2x15	23,2 (0,91)	15 (0,59)	1250 (281,01)	15 - 20	4,5 (0,18)	11 (0,39)
WG-RU 25x15	25 (0,98)	15 (0,59)	1400 (314,73)	15 - 20	4,5 (0,18)	13 (0,46)
WG-RU 35,2x20	35,2 (1,39)	20 (0,79)	2000 (449,62)	15 - 20	6,2 (0,24)	30 (1,06)
WG-RU 44,2x20	44,2 (1,74)	20 (0,79)	2500 (562,03)	15 - 20	6,5 (0,26)	50 (1,77)
WG-RU 54,3x20	54,3 (2,14)	20 (0,79)	4000 (899,24)	15 - 20	6,5 (0,26)	70 (2,47)

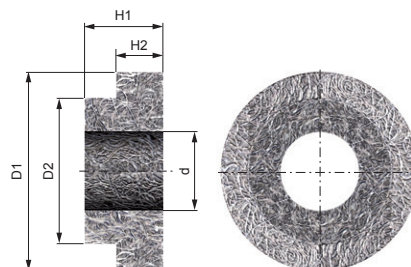
WG-RL Circular type for socket head cap screw fixing



SPECIFICATIONS

	D1 mm	H1 mm	d mm	D2 mm	H2 mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-RL 20x12,5x5,4	20 (0,79)	12,5 (0,49)	5,4 (0,21)	9,5 (0,37)	5,5 (0,22)	225 (50,58)	15 - 20	2,8 (0,11)	7 (0,25)
WG-RL 20,2x13x6,3	20,2 (0,8)	13 (0,51)	6,3 (0,25)	11 (0,43)	6 (0,24)	300 (67,44)	15 - 20	3 (0,12)	7 (0,25)
WG-RL 25x15,5x6,9	25 (0,98)	15,5 (0,61)	6,9 (0,27)	12 (0,47)	8,5 (0,33)	400 (89,92)	15 - 20	3,5 (0,14)	14 (0,49)
WG-RL 35,5x20x9,9	35,5 (1,4)	20 (0,79)	9,9 (0,39)	16 (0,63)	11 (0,43)	500 (112,41)	15 - 20	6 (0,24)	25 (0,88)
WG-RL 52,5x23x11,2	52,5 (2,07)	23 (0,91)	11,2 (0,44)	18 (0,71)	10 (0,39)	3500 (786,84)	15 - 20	7 (0,28)	70 (2,47)

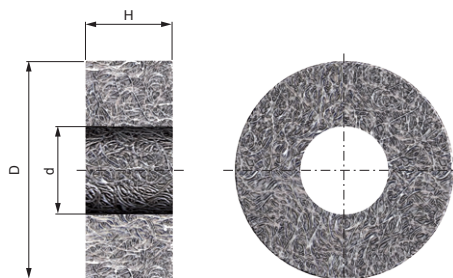
WG-BU Collar Type



SPECIFICATIONS

	D1 mm	H1 mm	d mm	D2 mm	H2 mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-BU 17x5,5x8,2	17 (0,67)	5,5 (0,22)	8,2 (0,32)	12,7 (0,5)	3,5 (0,14)	35 (7,87)	30 - 50	0,2 (0,01)	3 (0,11)
WG-BU 21,3x5,5x10,8	21,3 (0,84)	5,5 (0,22)	10,8 (0,43)	15,5 (0,61)	3,5 (0,14)	100 (22,48)	30 - 50	0,6 (0,02)	4 (0,14)
WG-BU 24,5x6,5x13,5	24,5 (0,96)	6,5 (0,26)	13,5 (0,53)	17,8 (0,7)	4,5 (0,18)	150 (33,72)	30 - 50	0,7 (0,03)	6 (0,21)
WG-BU 29,6x7,5x17,8	29,6 (1,17)	7,5 (0,3)	17,8 (0,7)	22,7 (0,89)	5 (0,2)	200 (44,96)	30 - 50	1,6 (0,06)	7 (0,25)
WG-BU 36,6x7,5x21,6	36,6 (1,44)	7,5 (0,3)	21,6 (0,85)	27,8 (1,09)	5 (0,2)	200 (44,96)	30 - 50	1,7 (0,07)	12 (0,42)

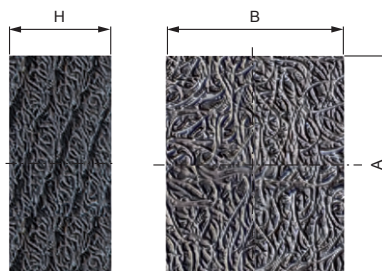
WG-RI Ring Type



SPECIFICATIONS

	D mm	H mm	d mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-RI 14,8x10x8,7	14,8 (0,58)	10 (0,39)	8,7 (0,34)	40 (8,99)	15 - 20	2,1 (0,08)	2 (0,07)
WG-RI 19,8x10x7,7	19,8 (0,78)	10 (0,39)	7,7 (0,3)	350 (78,68)	15 - 20	3,2 (0,13)	5 (0,18)
WG-RI 22x15,5x6,3	22 (0,87)	15,5 (0,61)	6,3 (0,25)	500 (112,41)	15 - 20	5,5 (0,22)	7 (0,25)
WG-RI 23,6x15,5x11,6	23,6 (0,93)	15,5 (0,61)	11,6 (0,46)	600 (134,89)	15 - 20	5,3 (0,21)	8 (0,28)
WG-RI 28,5x15x9,7	28,5 (1,12)	15 (0,59)	9,7 (0,38)	800 (179,85)	15 - 20	5,3 (0,21)	11 (0,39)
WG-RI 34,5x15x9,7	34,5 (1,36)	15 (0,59)	9,7 (0,38)	1000 (224,81)	15 - 20	5,5 (0,22)	18 (0,64)
WG-RI 40x20x11,8	40 (1,57)	20 (0,79)	11,8 (0,46)	1500 (337,22)	15 - 20	6,9 (0,27)	32 (1,13)
WG-RI 42,5x20x21,2	42,5 (1,67)	20 (0,79)	21,2 (0,83)	1500 (337,22)	15 - 20	5,8 (0,23)	32 (1,13)
WG-RI 53,6x20x19,8	53,6 (2,11)	20 (0,79)	19,8 (0,78)	2250 (505,82)	15 - 20	7 (0,28)	52 (1,84)
WG-RI 62,6x20x39,2	62,6 (2,46)	20 (0,79)	39,2 (1,54)	3000 (674,43)	15 - 20	5,8 (0,23)	60 (2,12)

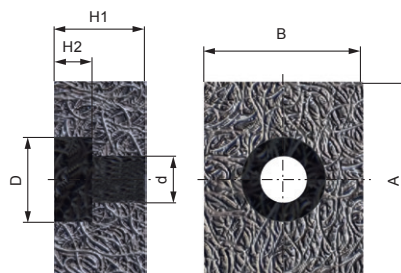
WG-FL Rectangular Type



SPECIFICATIONS

	A mm	B mm	H mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-FL 27,5x27,5x15,5	27,5 (1,08)	27,5 (1,08)	15,5 (0,61)	5000 (1124,05)	15 - 30	2,5 (0,1)	15 (0,53)
WG-FL 29x29x15,5	29 (1,14)	29 (1,14)	15,5 (0,61)	1500 (337,22)	15 - 30	4,5 (0,18)	17 (0,6)
WG-FL 46x37,5x21,5	46 (1,81)	37,5 (1,48)	21,5 (0,85)	12500 (2810,13)	15 - 30	3,2 (0,13)	60 (2,12)
WG-FL 60,5x31x11	60,5 (2,38)	31 (1,22)	11 (0,43)	2500 (562,03)	15 - 30	4 (0,16)	35 (1,24)

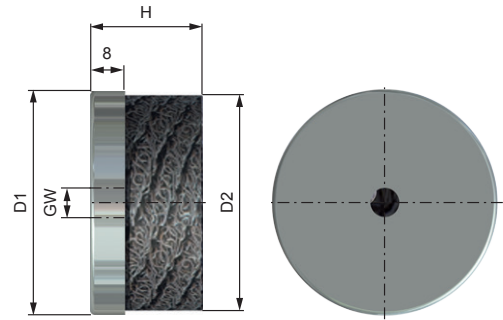
WG-FB Rectangular type for socket head cap screw fixings



SPECIFICATIONS

	A mm	B mm	H1 mm	d mm	D mm	H2 mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-FB 29,2x29,2x19x6,4	29,2 (1,15)	29,2 (1,15)	19 (0,75)	6,4 (0,25)	11 (0,43)	8,5 (0,33)	750 (168,61)	15 - 20	5,5 (0,22)	22 (0,78)
WG-FB 65x50x25x9	65 (2,56)	50 (1,97)	25 (0,98)	9 (0,35)	20 (0,79)	9 (0,35)	5000 (1124,05)	15 - 20	5,2 (0,2)	200 (7,06)

WG-GI Machine mount type with thread

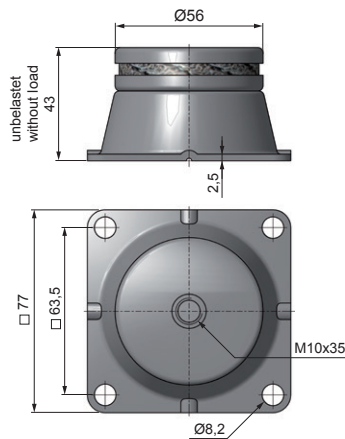


SPECIFICATIONS

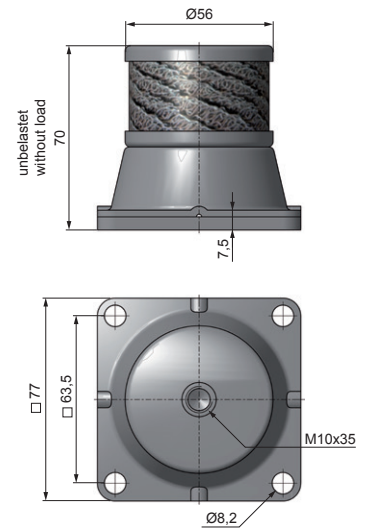
	D1 mm	H mm	D2 mm	GW mm	Load N (lbs) (max.)	Natural frequency Hz	Static deflection mm	Weight g (oz)
WG-GI 28x17,5	28 (1,1)	17,5 (0,69)	23,6 (0,93)	M6	600 (134,89)	15 - 20	4,2 (0,17)	20 (0,71)
WG-GI 40x17	40 (1,57)	17 (0,67)	34,5 (1,36)	M6	1000 (224,81)	15 - 20	4,8 (0,19)	40 (1,41)
WG-GI 45x22	45 (1,77)	22 (0,87)	40 (1,57)	M8	1500 (337,22)	15 - 20	5,6 (0,22)	60 (2,12)
WG-GI 58x22	58 (2,28)	22 (0,87)	53,6 (2,11)	M8	2250 (505,82)	15 - 20	6,3 (0,25)	100 (3,53)

WG-LB Machine mount type with plate

WG-LB 7710 / 7720



WG-LB 7750 / 7760

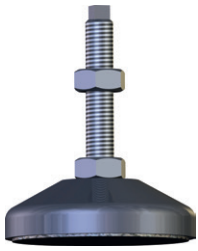


SPECIFICATIONS

	Load (static)		Load (dynamic)		Natural frequency Hz	Weight g (oz)
	N (lbs) (min. - max.)		Push (N)	Pull (N)		
WG-LB 7710	50 - 300 (11,24 - 67,44)		1500 (337,22)	1500 (337,22)	15 - 22	180 (6,35)
WG-LB 7720	200 - 2500 (44,96 - 562,03)		12500 (2810,13)	6000 (1348,86)	15 - 22	180 (6,35)
WG-LB 7750	250 - 600 (56,2 - 134,89)		1800 (404,66)	750 (168,61)	8 - 10	350 (12,36)
WG-LB 7760	500 - 1700 (112,41 - 382,18)		5100 (1146,53)	1500 (337,22)	8 - 10	350 (12,36)

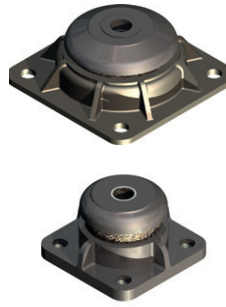
Metallic Cushion Dampers

WG-MB*



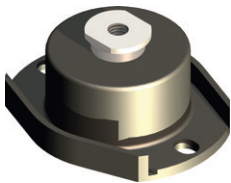
- Resilient elements holder in malleable cast iron
- Resilient element fabricated from stainless steel wire
- Surface protection: painted

WG-VR / WG-VRD*



- Multi-directional damper
- Resilient elements holder and housing in malleable cast iron
- Can be used in tension

WG-MF*



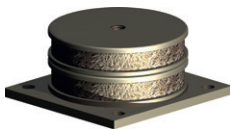
- Top cup and base: iron
- Centre mounting stud – high strength aluminium alloy
- The arrangement and form of the whole resilient elements in the damper allowed the admission of high horizontal forces and tractive powers

WG-FVD*



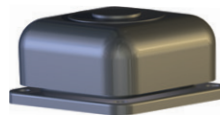
- Base plate with damping unit and cover plate in steel
- Sealed damping unit with highly viscous damping fluid
- Springs in spring steel

WG-MP*



- Top cup and base: steel
- Resilient element: stainless steel wire
- Mountings with 2 cushions with low resonant frequency.

WG-MD*



- Top cup and base: cast iron
- The arrangement of the whole resilient elements in the damper allowed the admission of high horizontal forces and tractive powers

WG-DL*



- Base plate and cover plate: steel
- Cushion plates: cast iron
- Reduced natural frequency when multiple cushions are stacked
- The arrangement and form of the whole resilient elements in the damper allowed the admission of horizontal forces

WG-AE*



- Strain element and equipment: steel
- Resilient element: stainless steel wire
- Protection: Zink plated

*Technical information can be found at www.weforma.com

WG-RU, -RI, -RL,
-BU, -FL, FB



WG-MB*



WG-VR*



WG-LB



WG-VRD*



WG-MF*



Machine Tool	•	•	•	•	•	•
Mobile Systems			•	•	•	•
Air Conditioners	•			•		
Compressors	•			•		•
Pumps	•			•		•
Generators			•	•		•
Mills			•		•	•
Exhaust Pipes	•					
Switchboards	•			•		
Transformers	•		•		•	•
Pipelines	•		•		•	•
Presses, Shears		•	•		•	
Fans						
Motors	•			•		•
Natural frequency (Hz)	15 - 40	15 - 40	15 - 30	8-22	15 - 20	15 - 20
Static load(kN)	0,1 - 30	0,5 - 45	0,5 - 70	0,05 - 2,5	0,3 - 9	0,7 - 14
Loading direction	Push	Push	Push, Pull	Push	Push, Pull	Push, Pull, side load
Breakaway securing			•	•	•	•

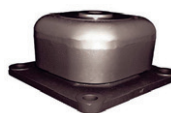
WG-FVD*



WG-MP*



WG-MD*



WG-DL*



WG-AE



Machine Tool		•		•	
Switchboards	•				
Transformers		•			•
Pipelines			•	•	
Motors			•		
sensitive Equipment	•				
Air Conditioners	•				
Sieve	•				
Tomography	•				
Textile machinery	•				
Presses	•			•	
Ships: exhaust pipes					•
Natural frequency (Hz)	3 - 4	13-20	18 - 25	9 - 20	9 - 20
Static load(kN)	4 - 32	1,2-70	3,5 - 350	2,5 - 280	10 - 800 kg
Loading direction	Push	Push	Push, Pull, side load	Push	Pull
Breakaway securing			•		•

*Technical information can be found at www.weforma.com