



Metallkissen Ganzmetalldämpfer

Metal Cushions, Metallic Cushion Dampers

Coussins Métalliques, Amortisseurs à Coussin Métallique

Cuscinetto Completamente in Metallo,

Ammortizzatore metallico con cuscino

Cojines Enteramente Metálicos, Amortiguadores de cojín metálico



ONLINE
Berechnung / Calculation
+ 2D / 3D CAD Download



www.weforma.com

Metallkissen · Metal Cushions

Coussins métalliques · Cuscineti completamente in metallo

Cojines enteramentes Metálicos



D

- **Material:** rostfreier Stahl
- Stoßdämpfend und schwingungsisolierend
- Korrosionsbeständig gegen Lösungsmittel, Säuren, Öle, Fette, Flüssigkeiten und Staub
- Alterungsbeständig - keine bleibenden Verformungen, kein Verhärten und kein Kriechen
- Temperaturbereich: -90°C bis +400°C

GB

- **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

F

- **Matériau:** Acier inoxydable
- Amortissement des chocs et isolation vibratoire
- Résistant à la corrosion due aux solvants, acides, huiles, graisses, liquides et poussières
- Non-vieillissant - aucune déformation durable, aucun durcissement et aucun fluage
- Température : -90°C jusqu'à +400°C

I

- **Materiale:** acciaio inossidabile
- Ammortizza gli urti e isola dalle oscillazioni
- Resiste alla corrosione da solventi, acidi, oli, grassi, liquidi e polvere
- Resiste all'usura - non si deforma permanentemente, non si indurisce e non striscia
- Temperatura: da -90°C a +400°C

E

- **Material:** acero inoxidable
- Amortiguación a choque y Antivibratorio
- Resistente al efecto corrosivo de disolventes, ácidos, aceites, grasas, líquidos y polvo
- Resistente al envejecimiento: no se deforma, no se endurece y no se escurre
- Temperaturas: de -90°C a +400°C

D Zur Berechnung werden folgende Angaben benötigt:

| | |
|----|--------------------------------|
| 1. | Anzuhebende Masse m (kg) |
| 2. | Erregerfrequenz f (Hz) |
| 3. | Drehzahl (U) |
| 4. | gewünschter Isoliergrad Ig (%) |
| 5. | Anzahl der Metallkissen (n) |
| 6. | Temperatur |

GB 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 Ig (%) |
| 5. | Number of metal cushions (n) |
| 6. | Temperature |

F Informations nécessaires pour le dimensionnement:

| | |
|----|-------------------------------------|
| 1. | Masse à lever m (kg) |
| 2. | Fréquence d'excitation f (Hz) |
| 3. | Nombre de tours (U) |
| 4. | Dégré d'isolation désiré Ig (%) |
| 5. | Nombre des coussins métalliques (n) |
| 6. | Température |

I Dati necessari per il calcolo:

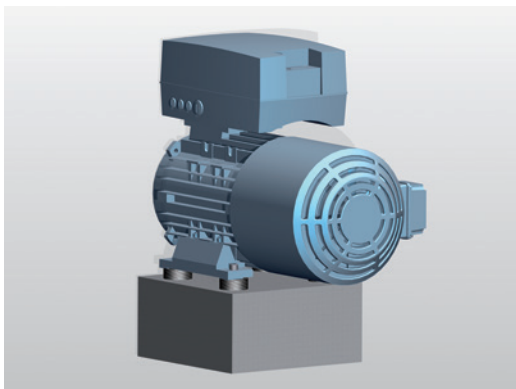
| | |
|----|---|
| 1. | Massa da sollevare m (kg) |
| 2. | Frequenza delle vibrazione f (Hz) |
| 3. | Il numero dei giri (U) |
| 4. | Grado d'isolamento desiderato Ig (%) |
| 5. | Numero di cuscinetto completamente in metallo (n) |
| 6. | Temperatura |

E Para el dimensionado se requieren datos básicos:

| | |
|----|---|
| 1. | Masa a elevar m (kg) |
| 2. | Frecuencia de excitación f (Hz) |
| 3. | Número de revoluciones (U) |
| 4. | Grado de aislamiento deseado Ig (%) |
| 5. | Número de cojines enteramente metálicos (n) |
| 6. | Temperatura |

**SCHWINGUNGSISOLIERUNG - VIBRATION ISOLATION - ISOLATION DE VIBRATION
ANTI VIBRANTE - AISLAMIENTO ANTIVIBRATORIO**

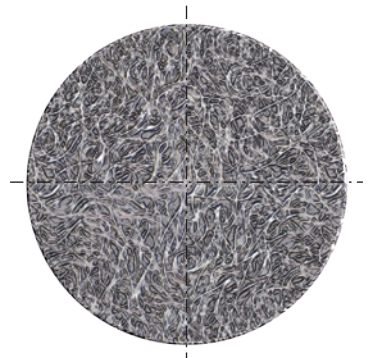
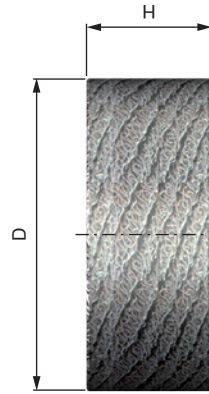
Auswahl - Selection
WG-FB 29,2x29,2x19x6,4



| | | | |
|---------------|---------------------------------|--|--------------------------|
| 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 |
| Ig = 90 % | $I_t \geq I_g \leq 100\%$ | $I_t = 1 - \frac{1}{\left(\frac{f_{err}}{f_o}\right)^2} - 1$ | 97,1% > 90% < 100% |
| T = 20 °C | T | | -90 °C < 30 °C < +400 °C |

WG-RU

Rundlager - Circular Type - Type Circulaire - Tipo Circolare - Tipo Circular

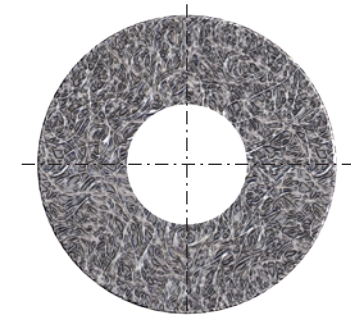
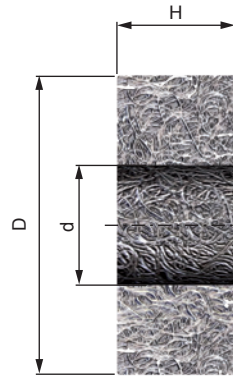


TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | D | H | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency - Fréquence propre Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica Deflexion | Gewicht - Weight Poids - Peso Peso |
|---------------|------|----|---|---|---|--|
| | mm | mm | kN (max.) | Hz | mm | g |
| WG-RU 23,2x15 | 23,2 | 15 | 1,25 | 15 - 20 | 4,5 | 11 |
| WG-RU 25x15 | 25,0 | 15 | 1,40 | 15 - 20 | 4,5 | 13 |
| WG-RU 35,2x20 | 35,2 | 20 | 2,00 | 15 - 20 | 6,2 | 30 |
| WG-RU 44,2x20 | 44,2 | 20 | 2,50 | 15 - 20 | 6,5 | 50 |
| WG-RU 54,3x20 | 54,3 | 20 | 4,00 | 15 - 20 | 6,5 | 70 |

WG-RI

Ringlager - Ring Type - Type Bague - Tipo Anello - Tipo Junta

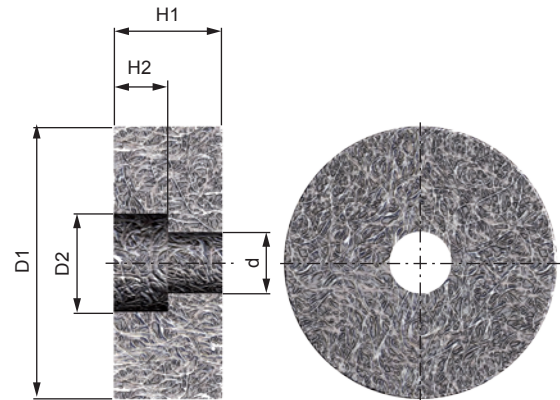


TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | D | H | d | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica Deflexion | Gewicht - Weight Poids - Peso Peso |
|----------------------|------|------|------|---|---|---|--|
| | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-RI 14,8x10x8,7 | 14,8 | 10,0 | 8,7 | 0,04 | 15 - 20 | 2,1 | 2 |
| WG-RI 19,8x10x7,7 | 19,8 | 10,0 | 7,7 | 0,35 | 15 - 20 | 3,2 | 5 |
| WG-RI 22x15,5x6,3 | 22,0 | 15,5 | 6,3 | 0,5 | 15 - 20 | 5,5 | 7 |
| WG-RI 23,6x15,5x11,6 | 23,6 | 15,5 | 11,6 | 0,6 | 15 - 20 | 5,3 | 8 |
| WG-RI 28,5x15x9,7 | 28,5 | 15,0 | 9,7 | 0,8 | 15 - 20 | 5,3 | 11 |
| WG-RI 34,5x15x9,7 | 34,5 | 15,0 | 9,7 | 1,0 | 15 - 20 | 5,5 | 18 |
| WG-RI 40x20x11,8 | 40,0 | 20,0 | 11,8 | 1,5 | 15 - 20 | 6,9 | 32 |
| WG-RI 42,5x20x21,2 | 42,5 | 20,0 | 21,2 | 1,5 | 15 - 20 | 5,8 | 32 |
| WG-RI 53,6x20x19,8 | 53,6 | 20,0 | 19,8 | 2,25 | 15 - 20 | 7,0 | 52 |
| WG-RI 62,6x20x39,2 | 62,6 | 20,0 | 39,2 | 3,0 | 15 - 20 | 5,8 | 60 |

WG-RL

Rundlager mit Befestigungsloch - Circular type for socket head cap screw fixing
 Type Circulaire avec trou de Fixation - Tipo circolare con foro di fissaggio
 Tipo circular con agujero para fijación

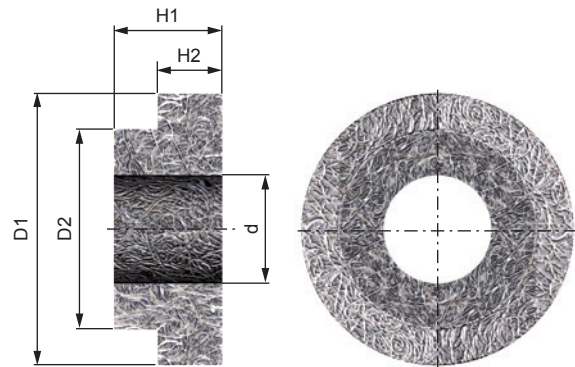


TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | D1 | H1 | d | D2 | H2 | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica | Gewicht - Weight Poids - Peso |
|--------------------|------|------|------|------|------|---|---|--|----------------------------------|
| | mm | mm | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-RL 20x12,5x5,4 | 20,0 | 12,5 | 5,4 | 9,5 | 5,5 | 0,225 | 15 - 20 | 2,8 | 7 |
| WG-RL 20,2x13x6,3 | 20,2 | 13,0 | 6,3 | 11,0 | 6,0 | 0,3 | 15 - 20 | 3,0 | 7 |
| WG-RL 25x15,5x6,9 | 25,0 | 15,5 | 6,9 | 12,0 | 8,5 | 0,4 | 15 - 20 | 3,5 | 14 |
| WG-RL 35,5x20x9,9 | 35,5 | 20,0 | 9,9 | 16,0 | 11,0 | 0,5 | 15 - 20 | 6,0 | 25 |
| WG-RL 52,5x23x11,2 | 52,5 | 23,0 | 11,2 | 18,0 | 10,0 | 3,5 | 15 - 20 | 7,0 | 70 |

WG-BU

Bundlager - Collar Type - Type Épaulement - Tipo Collare - Tipo Collar



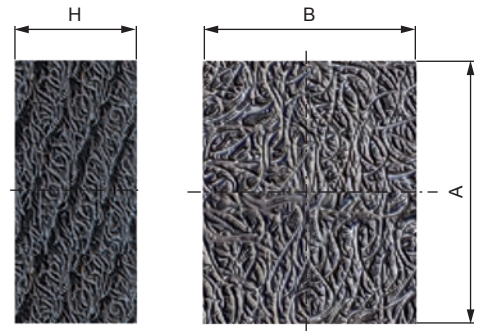
TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | D1 | H1 | d | D2 | H2 | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica | Gewicht - Weight Poids - Peso |
|---------------------|------|-----|------|------|-----|---|---|--|----------------------------------|
| | mm | mm | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-BU 17x5,5x8,2 | 17,0 | 5,5 | 8,2 | 12,7 | 3,5 | 0,035 | 30 - 50 | 0,2 | 3 |
| WG-BU 21,3x5,5x10,8 | 21,3 | 5,5 | 10,8 | 15,5 | 3,5 | 0,1 | 30 - 50 | 0,6 | 4 |
| WG-BU 24,5x6,5x13,5 | 24,5 | 6,5 | 13,5 | 17,8 | 4,5 | 0,15 | 30 - 50 | 0,7 | 6 |
| WG-BU 29,6x7,5x17,8 | 29,6 | 7,5 | 17,8 | 22,7 | 5,0 | 0,2 | 30 - 50 | 1,6 | 7 |
| WG-BU 36,6x7,5x21,6 | 36,6 | 7,5 | 21,6 | 27,8 | 5,0 | 0,2 | 30 - 50 | 1,7 | 12 |



WG-FL

Flachlager - Rectangular Type - Type Rectangulaire
 Tipo Rettangolare - Tipo Rectangular

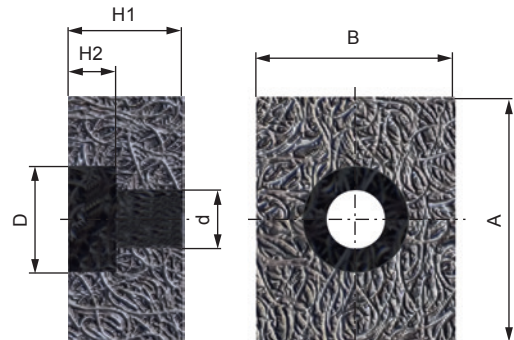


TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | A | B | H | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica Deflexion | Gewicht - Weight Poids - Peso Peso |
|----------------------|------|------|------|---|--|---|--|
| | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-FL 27,5x27,5x15,5 | 27,5 | 27,5 | 15,5 | 5,0 | 15 - 30 | 2,5 | 15 |
| WG-FL 29x29x15,5 | 29,0 | 29,0 | 15,5 | 1,5 | 15 - 30 | 4,5 | 17 |
| WG-FL 46x37,5x21,5 | 46,0 | 37,5 | 21,5 | 12,5 | 15 - 30 | 3,2 | 60 |
| WG-FL 60,5x31x11 | 60,5 | 31,0 | 11,0 | 2,5 | 15 - 30 | 4,0 | 35 |

WG-FB

Flachlager mit Befestigungsloch - Rectangular type for socket head cap screw fixings
 Type Rectangulaire avec tou de fixation - Tipo rettangolare con foro di fissaggio
 Tipo rectangular con agujero de fijación

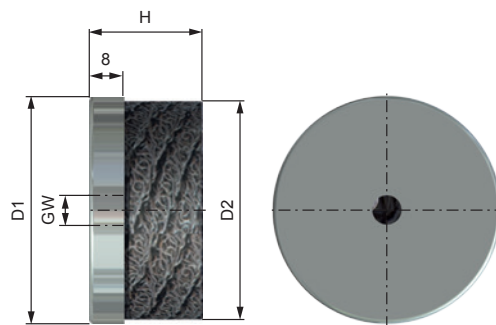


TECHNISCHE DATEN - SPECIFICATIONS - DONNÉES TECHNIQUES - DATI TECNICI - DATOS TÉCNICOS

| | A | B | H1 | d | D | H2 | Tragkraft - Load Charge - Peso Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica Deflexion | Gewicht - Weight Poids - Peso Peso |
|------------------------|------|------|----|-----|----|-----|--|--|---|--|
| | mm | mm | mm | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-FB 29,2x29,2x19x6,4 | 29,2 | 29,2 | 19 | 6,4 | 11 | 8,5 | 0,75 | 15 - 20 | 5,5 | 22 |
| WG-FB 65x50x25x9 | 65,0 | 50,0 | 25 | 9,0 | 20 | 9,0 | 5,0 | 15 - 20 | 5,2 | 200 |

WG-GI

Metalldämpfer mit Innengewinde - Machine mount type with thread
 Type Montage Bloc Machine avec Filetage Borne - Tipo macchina con piastra e foro di fissaggio filettato - Tipo montaje maquina con rosca



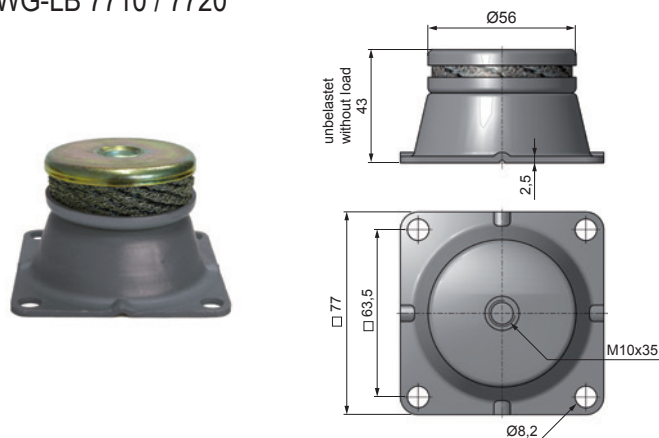
TECHNISCHE DATEN • SPECIFICATIONS • DONNÉES TECHNIQUES • DATI TECNICI • DATOS TÉCNICOS

| | D1 | H | D2 | GW | Tragkraft - Load - Charge Peso - Carga | Eigenfrequenz - Natural frequency Fréquence propre - Frecuencia propia Frecuencia propia | Einfederung - Static deflection Deformacion - Deflessione statica Deflexion | Gewicht - Weight Poids - Peso Peso |
|---------------|----|------|------|----|---|--|---|--|
| | mm | mm | mm | mm | kN (max.) | Hz | mm | g |
| WG-GI 28x17,5 | 28 | 17,5 | 23,6 | M6 | 0,6 | 15 - 20 | 4,2 | 20 |
| WG-GI 40x17 | 40 | 17,0 | 34,5 | M6 | 1,0 | 15 - 20 | 4,8 | 40 |
| WG-GI 45x22 | 45 | 22,0 | 40,0 | M8 | 1,5 | 15 - 20 | 5,6 | 60 |
| WG-GI 58x22 | 58 | 22,0 | 53,6 | M8 | 2,25 | 15 - 20 | 6,3 | 100 |

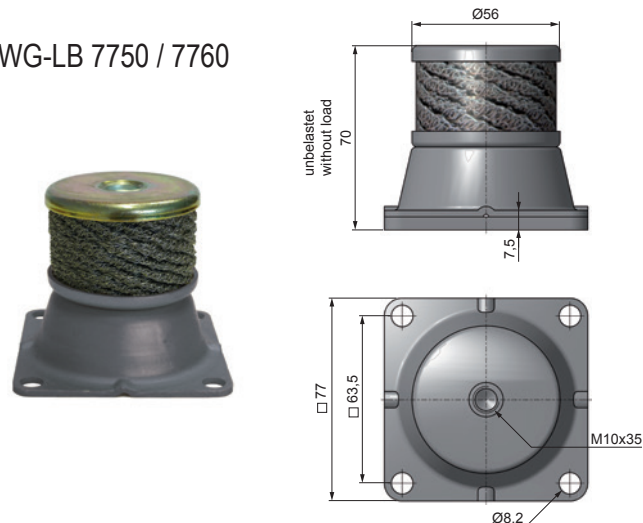
WG-LB

Lagerbock - Machine mount type with plate - Type Montage Bloc Machine
 Tipo macchina con piastra, foro di fissaggio filettato e flangia di fissaggio
 Tipo montaje máquina con brida

WG-LB 7710 / 7720



WG-LB 7750 / 7760



TECHNISCHE DATEN • SPECIFICATIONS • DONNÉES TECHNIQUES • DATI TECNICI • DATOS TÉCNICOS

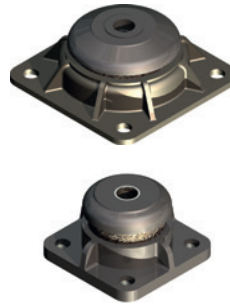
| | Tragkraft (stat.) - Load (static) Charge (statique) Peso (statico) Carga (estático) | Tragkraft (dyn.) - Load (dynamic) Charge (dynamique)- Peso (dinamico) Carga (dinámica) | Eigenfrequenz - Natural frequency Fréquence propre Frecuencia propia - Frecuencia propia | Gewicht Weight Poids - Peso Peso | |
|------------|--|--|--|---|-----|
| | kN (min. - max.) | Druck - Push - Compression Compressione - Compresión (kN) | Zug - Pull - Traction Estensione - Tracción (kN) | Hz | |
| WG-LB 7710 | 0,05 - 0,3 | 1,5 | 1,5 | 15 - 22 | 180 |
| WG-LB 7720 | 0,2 - 2,5 | 12,5 | 6,0 | 15 - 22 | 180 |
| WG-LB 7750 | 0,25 - 0,6 | 1,8 | 0,75 | 8 - 10 | 350 |
| WG-LB 7760 | 0,5 - 1,7 | 5,1 | 1,5 | 8 - 10 | 350 |

WG-MB*



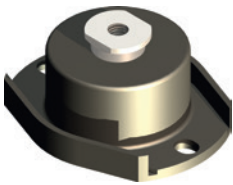
- Kissensitz aus Stahlguss
- Ganzmetallkissen aus rostfreiem CrNi-Stahldraht
- Oberflächenschutz: lackiert
- Resilient elements holder in malleable cast iron
- Resilient element fabricated from stainless steel wire
- Surface protection: painted

WG-VR / WG-VRD*



- Vielrichtungsdämpfer
- Kissensitz und Gehäuse aus Stahlguss
- Zugbelastungen können aufgenommen werden
- Multi-directional damper
- Resilient elements holder and housing in malleable cast iron
- Can be used in tension

WG-MF*



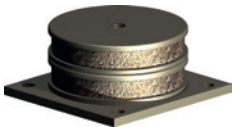
- Gehäuse und Unterteil aus Stahl
- Achse in hochfester Aluminiumlegierung
- Die Anordnung und Form der Ganzmetallkissen im Dämpfer erlaubt die Aufnahme von hohen Horizontal- und Zugkräften
- Top cup and base: iron
- Centre mounting stud – high strength aluminium alloy
- The arrangement and form of the whole resilient elements in the damper allowed the admission of high horizontal forces and tractive powers

WG-FVD*



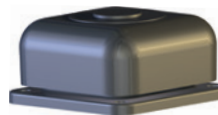
- Grundplatte mit Dämpfungseinheit und Deckplatte aus Stahl
- Geschlossene Dämpfungseinheit mit hochviskosem Dämpfungsmedium
- Federn aus Federstahldraht
- Base plate with damping unit and cover plate in steel
- Sealed damping unit with highly viscous damping fluid
- Springs in spring steel

WG-MP*



- Platte und Kissensitz aus Stahl
- Ganzmetallkissen aus rostfreiem CrNi-Stahldraht
- Verringerung der Eigenfrequenz bei zwei Dämpfungskissen übereinander
- Top cup and base: steel
- Resilient element: stainless steel wire
- Mountings with 2 cushions with low resonant frequency.

WG-MD*



- Gehäuse und Unterteil aus Stahlguss
- Die Anordnung der Ganzmetallkissen im Dämpfer erlaubt die Aufnahme von hohen Horizontal- und Zugkräften
- 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*



- Grund- und Deckplatte aus Stahl
- Kissensitze aus Stahlguss
- Verringerung der Eigenfrequenz bei mehreren Dämpfungskissen übereinander
- Die konische Form der im Dämpfer verwendeten Ganzmetallkissen erlaubt auch seitliche Belastbarkeit
- 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*



- Abspannelement und Zubehör aus Stahl
- Ganzmetallkissen aus rostfreiem CrNi-Stahldraht
- Oberflächenschutz: verzinkt
- Strain element and equipment: steel
- Resilient element: stainless steel wire
- Protection: Zinc plated

*Technische Information finden Sie unter www.weforma.com
 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*



| | | | | | | |
|--|---------------|---------------|--------------------------|---------------|--------------------------|---|
| Werkzeugmaschinen / Machine Tool | • | • | • | • | • | • |
| Mobilanlagen / Mobile Systems | | | • | • | • | • |
| Klimageräte / Air Conditioners | • | | | • | | |
| Kompressoren / Compressors | • | | | • | | • |
| Pumpen / Pumps | • | | | • | | • |
| Generatoren / Generators | | | • | • | | • |
| Mühlen / Mills | | | • | | • | • |
| Abgasleitungen / Exhaust Pipes | • | | | | | |
| Schaltanlagen / Switchboards | • | | | • | | |
| Transformatoren / Transformers | • | | • | | • | • |
| Rohrleitungen / Pipelines | • | | • | | • | • |
| Pressen, Scheren Presses, Shears | | • | • | | • | |
| Ventilatoren / Fans | | | | | | |
| Motoren / Motors | • | | | • | | • |
| Eigenfrequenz / Natural frequency (Hz) | 15 - 40 | 15 - 40 | 15 - 30 | 8-22 | 15 - 20 | 15 - 20 |
| Statische Last / Static load(kN) | 0,1 - 30 | 0,5 - 45 | 0,5 - 70 | 0,05 - 2,5 | 0,3 - 9 | 0,7 - 14 |
| Belastungsrichtung / Loading direction | Druck Push | Druck Push | Druck, Zug Push, Pull | Druck Push | Druck, Zug Push, Pull | Druck, Zug, seittl. Belastung Push, Pull, side load |
| Abreißsicherung / Breakaway securing | | | • | • | • | • |

WG-FVD*



WG-MP*



WG-MD*



WG-DL*



WG-AE



| | | | | | |
|---|---------------|---------------|---|---------------|-------------|
| Werkzeugmaschinen / Machine Tool | | • | | • | |
| Schaltanlagen / Switchboards | • | | | | |
| Transformatoren / Transformers | | • | | | • |
| Rohrleitungen / Pipelines | | | • | • | |
| Motoren / Motors | | | • | | |
| empf. Geräte / sensitive Equipment | • | | | | |
| Klimageräte / Air Conditioners | • | | | | |
| Siebe / Sieve | • | | | | |
| Tomographien / Tomography | • | | | | |
| Textilmaschinen / Textile machinery | • | | | | |
| Druckmaschinen / Presses | • | | | • | |
| Schiffe: Abgasleitungen Ships: exhaust pipes | | | | | • |
| Eigenfrequenz / Natural frequency (Hz) | 3 - 4 | 13-20 | 18 - 25 | 9 - 20 | 9 - 20 |
| Statische Last / Static load(kN) | 4 - 32 | 1,2-70 | 3,5 - 350 | 2,5 - 280 | 10 - 800 kg |
| Belastungsrichtung / Loading direction | Druck Push | Druck Push | Druck, Zug, seittl. Belastung Push, Pull, side load | Druck Push | Zug Pull |
| Abreißsicherung / Breakaway securing | | | • | | • |

*Technische Information finden Sie unter www.weforma.com
 Technical information can be found at www.weforma.com