

Elasto®- Circular Rubber-Metal Elements

for Vibration Isolation and Structure-Borne Noise Reduction



- **Load capacity up to 15 kN**
Vertical natural frequency 6.2 Hz (minimum)

- **Mode of Function**

The transmission of intermittent or periodic impact force is considerably reduced by the vibration isolation bedding of machines and plants on G+H bearing elements.

- **Advantages**

- Elasto®-Circular Rubber-Metal Elements are made of natural rubber with vulcanised metal plates. Natural rubber has better elastic properties compared to synthetic materials.
- Elasto®-Circular Rubber-Metal Elements have a relatively high material damping. This serves to reduce the vibration amplitude of the elastically supported system when passing through the resonant frequency and also to shorten the decay time of the oscillation, in case of sudden impacts.

- **Installation conditions**

Elasto®-Circular Rubber-Metal elements are constructed exclusively for compressive or shear loads. Tensile loads are not allowed.

During installation care must be taken to allow for lateral expansion of the mounts, as the rubber volume is constant. Elasto®-elements must be protected against oil, grease, and fuel. An occasional and slight moistening with oil however has no adverse effect on their function or lifetime.

- **Temperature Range**
-20°C to +70°C

- **Construction and types**

Elasto®-Circular Rubber-Metal Elements are made of natural rubber and have vulcanised metal parts, corrosion protected (galvanised and yellow chromate, lacquered for diameter D > 100 mm).

Elasto®-elements are supplied in two shore-hardness, according to DIN 53505:

rubber-hardness a: 43 ± 5 Shore A

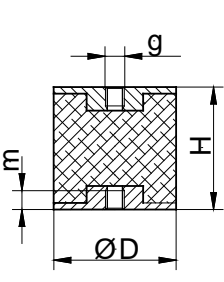
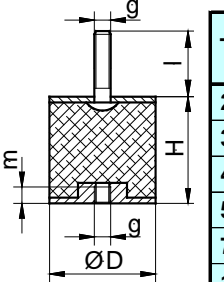
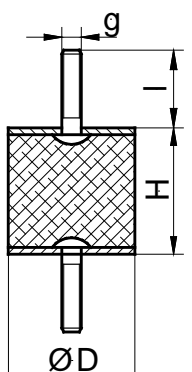
rubber-hardness f: 57 ± 5 Shore A

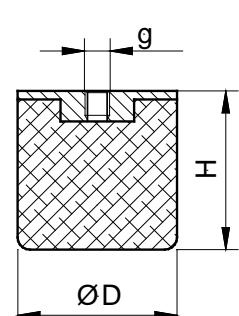
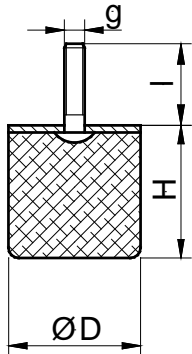
These tolerances of the rubber-hardness can result in a possible ± 20 % deviation of the spring rate.

- **Accessories**

- **Protective coating of paint – A:**
For protection against oil and for outer using with protection against UV-radiation and ozone

- **Dimensions, Weights**

| Model GFII | | Model GFIS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------|----------|--------|-------------|-------------|-------------|------|----|----|----|-----|------|------|----|----|----|-----|------|------|----|----|----|------|------|------|----|----|----|------|------|------|-----|----|----|------|------|------|-----|----|----|------|------|--|---|------|----------|--------|--------|--------|---|-------------|------|----|----|----|---|-----|------|------|----|----|----|---|-----|------|------|----|----|----|---|-----|------|------|----|----|----|----|------|------|------|----|----|----|----|------|------|------|-----|----|----|----|------|------|
|  | <table border="1"> <thead> <tr> <th>Type</th> <th>Ø D [mm]</th> <th>H [mm]</th> <th>m [mm]</th> <th>g</th> <th>Weight [kg]</th> </tr> </thead> <tbody> <tr> <td>3030</td> <td>30</td> <td>30</td> <td>8</td> <td>M 8</td> <td>0,04</td> </tr> <tr> <td>4040</td> <td>40</td> <td>40</td> <td>8</td> <td>M 8</td> <td>0,10</td> </tr> <tr> <td>5030</td> <td>50</td> <td>30</td> <td>10</td> <td>M 10</td> <td>0,16</td> </tr> <tr> <td>7550</td> <td>75</td> <td>50</td> <td>12</td> <td>M 12</td> <td>0,45</td> </tr> <tr> <td>1060</td> <td>100</td> <td>60</td> <td>16</td> <td>M 16</td> <td>0,95</td> </tr> <tr> <td>1575</td> <td>150</td> <td>75</td> <td>16</td> <td>M 16</td> <td>2,65</td> </tr> </tbody> </table> | Type | Ø D [mm] | H [mm] | m [mm] | g | Weight [kg] | 3030 | 30 | 30 | 8 | M 8 | 0,04 | 4040 | 40 | 40 | 8 | M 8 | 0,10 | 5030 | 50 | 30 | 10 | M 10 | 0,16 | 7550 | 75 | 50 | 12 | M 12 | 0,45 | 1060 | 100 | 60 | 16 | M 16 | 0,95 | 1575 | 150 | 75 | 16 | M 16 | 2,65 |  | <table border="1"> <thead> <tr> <th>Type</th> <th>Ø D [mm]</th> <th>H [mm]</th> <th>l [mm]</th> <th>m [mm]</th> <th>g</th> <th>Weight [kg]</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>20</td> <td>20</td> <td>15</td> <td>6</td> <td>M 6</td> <td>0,02</td> </tr> <tr> <td>3030</td> <td>30</td> <td>30</td> <td>20</td> <td>8</td> <td>M 8</td> <td>0,05</td> </tr> <tr> <td>4040</td> <td>40</td> <td>40</td> <td>23</td> <td>8</td> <td>M 8</td> <td>0,10</td> </tr> <tr> <td>5050</td> <td>50</td> <td>50</td> <td>28</td> <td>10</td> <td>M 10</td> <td>0,20</td> </tr> <tr> <td>7550</td> <td>75</td> <td>50</td> <td>37</td> <td>12</td> <td>M 12</td> <td>0,45</td> </tr> <tr> <td>1060</td> <td>100</td> <td>60</td> <td>45</td> <td>16</td> <td>M 16</td> <td>1,00</td> </tr> </tbody> </table> | Type | Ø D [mm] | H [mm] | l [mm] | m [mm] | g | Weight [kg] | 2020 | 20 | 20 | 15 | 6 | M 6 | 0,02 | 3030 | 30 | 30 | 20 | 8 | M 8 | 0,05 | 4040 | 40 | 40 | 23 | 8 | M 8 | 0,10 | 5050 | 50 | 50 | 28 | 10 | M 10 | 0,20 | 7550 | 75 | 50 | 37 | 12 | M 12 | 0,45 | 1060 | 100 | 60 | 45 | 16 | M 16 | 1,00 |
| Type | Ø D [mm] | H [mm] | m [mm] | g | Weight [kg] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3030 | 30 | 30 | 8 | M 8 | 0,04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4040 | 40 | 40 | 8 | M 8 | 0,10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5030 | 50 | 30 | 10 | M 10 | 0,16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7550 | 75 | 50 | 12 | M 12 | 0,45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1060 | 100 | 60 | 16 | M 16 | 0,95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1575 | 150 | 75 | 16 | M 16 | 2,65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | Ø D [mm] | H [mm] | l [mm] | m [mm] | g | Weight [kg] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020 | 20 | 20 | 15 | 6 | M 6 | 0,02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3030 | 30 | 30 | 20 | 8 | M 8 | 0,05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4040 | 40 | 40 | 23 | 8 | M 8 | 0,10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5050 | 50 | 50 | 28 | 10 | M 10 | 0,20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7550 | 75 | 50 | 37 | 12 | M 12 | 0,45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1060 | 100 | 60 | 45 | 16 | M 16 | 1,00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Model GFSS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Type | Ø D [mm] | H [mm] | l [mm] | g | Weight [kg] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020 | 20 | 20 | 15 | M 6 | 0,02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3030 | 30 | 30 | 20 | M 8 | 0,06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4040 | 40 | 40 | 23 | M 8 | 0,10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5030 | 50 | 30 | 28 | M 10 | 0,15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7550 | 75 | 50 | 37 | M 12 | 0,50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1060 | 100 | 60 | 45 | M 16 | 1,05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | Model GPI | | Model GPS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------|-----------|--------|-------------|---|-------------|------|----|----|---|-----|------|------|----|----|----|------|------|------|----|----|----|------|------|--|--|------|----------|--------|--------|---|-------------|------|----|----|----|-----|------|------|----|----|----|------|------|------|----|----|----|------|------|
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| Type | Ø D [mm] | H [mm] | m [mm] | g | Weight [kg] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3017 | 30 | 17 | 8 | M 8 | 0,02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5021 | 50 | 21 | 10 | M 10 | 0,10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7525 | 75 | 25 | 12 | M 12 | 0,22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | Ø D [mm] | H [mm] | l [mm] | g | Weight [kg] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3017 | 30 | 17 | 20 | M 8 | 0,03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5021 | 50 | 21 | 28 | M 10 | 0,09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7525 | 75 | 25 | 37 | M 12 | 0,23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

■ Technical Data

| Model | Rubber-hardness a (43 Shore A) | | | | | | | Rubber-hardness f (57 Shore A) | | | | | | |
|-------|--------------------------------|--|--|--|--|---|----------------------|--------------------------------|--|--|--|--|---|----------------------|
| | Type | Load Capacity vertical F _{vzul} [N] | Load Capacity horizontal F _{hzul} [N] | Spring Constant vertical C _v [N/mm] | Spring Constant horizontal C _h [N/mm] | Natural Frequency vertical ¹ | | Type | Load Capacity vertical F _{vzul} [N] | Load Capacity horizontal F _{hzul} [N] | Spring Constant vertical C _v [N/mm] | Spring Constant horizontal C _h [N/mm] | Natural Frequency vertical ¹ | |
| | | | | | | n _{ov} [1/min] | f _{ov} [Hz] | | | | | | n _{ov} [1/min] | f _{ov} [Hz] |
| GFII | 3030a | 260 | 90 | 75 | 17 | 556 | 9,3 | 3030f | 450 | 160 | 145 | 30 | 679 | 11,3 |
| | 4040a | 450 | 160 | 90 | 20 | 463 | 7,7 | 4040f | 780 | 260 | 185 | 40 | 583 | 9,7 |
| | 5030a | 1250 | 250 | 620 | 55 | 730 | 12,2 | 5030f | 2000 | 450 | 1200 | 105 | 927 | 15,4 |
| | 7550a | 2400 | 560 | 330 | 60 | 384 | 6,4 | 7550f | 3700 | 1000 | 630 | 110 | 494 | 8,2 |
| | 1060a | 3900 | 1000 | 550 | 90 | 389 | 6,5 | 1060f | 7000 | 1850 | 1050 | 165 | 463 | 7,7 |
| | 1575a | 7600 | 2300 | 970 | 150 | 370 | 6,2 | 1575f | 15000 | 4250 | 1900 | 270 | 426 | 7,1 |
| GFIS | 2020a | 140 | 40 | 65 | 11 | 706 | 11,8 | 2020f | 250 | 70 | 120 | 20 | 829 | 13,8 |
| | 3030a | 280 | 90 | 80 | 15 | 554 | 9,2 | 3030f | 520 | 150 | 150 | 28 | 643 | 10,7 |
| | 4040a | 450 | 160 | 100 | 20 | 488 | 8,1 | 4040f | 750 | 260 | 180 | 35 | 586 | 9,8 |
| | 5050a | 700 | 250 | 120 | 25 | 429 | 7,1 | 5050f | 1300 | 410 | 230 | 47 | 503 | 8,4 |
| | 7550a | 2100 | 560 | 320 | 60 | 404 | 6,7 | 7550f | 3500 | 1000 | 580 | 105 | 487 | 8,1 |
| | 1060a | 3600 | 1000 | 520 | 85 | 394 | 6,6 | 1060f | 6700 | 1850 | 980 | 160 | 458 | 7,6 |
| GFSS | 2020a | 110 | 40 | 50 | 9 | 699 | 11,6 | 2020f | 180 | 70 | 100 | 19 | 892 | 14,9 |
| | 3030a | 250 | 90 | 65 | 13 | 528 | 8,8 | 3030f | 400 | 150 | 135 | 25 | 695 | 11,6 |
| | 4040a | 430 | 160 | 80 | 16 | 447 | 7,4 | 4040f | 720 | 260 | 170 | 30 | 581 | 9,7 |
| | 5030a | 750 | 250 | 240 | 44 | 586 | 9,8 | 5030f | 1300 | 470 | 515 | 80 | 753 | 12,6 |
| | 7550a | 1650 | 560 | 270 | 54 | 419 | 7,0 | 7550f | 2800 | 1000 | 570 | 100 | 540 | 9,0 |
| | 1060a | 3000 | 1000 | 440 | 80 | 397 | 6,6 | 1060f | 5000 | 1850 | 910 | 150 | 510 | 8,5 |
| GPI | 3017a | 360 | 85 | 210 | 35 | 791 | 13,2 | 3017f | 530 | 160 | 380 | 65 | 1013 | 16,9 |
| | 5021a | 1300 | 240 | 610 | 80 | 710 | 11,8 | 5021f | 1700 | 450 | 1120 | 145 | 971 | 16,2 |
| | 7525a | 3200 | 550 | 1400 | 150 | 685 | 11,4 | 7525f | 4200 | 1000 | 2580 | 270 | 938 | 15,6 |
| GPS | 3017a | 310 | 85 | 150 | 30 | 721 | 12,0 | 3017f | 490 | 160 | 270 | 55 | 888 | 14,8 |
| | 5021a | 1000 | 240 | 410 | 65 | 663 | 11,1 | 5021f | 1500 | 450 | 760 | 120 | 852 | 14,2 |
| | 7525a | 2900 | 550 | 890 | 120 | 574 | 9,6 | 7525f | 3700 | 1020 | 1650 | 215 | 799 | 13,3 |

¹ at maximum load capacity

| | Dynamic factor k _d | Damping Ratio D |
|--------------------------------|-------------------------------|-----------------|
| Rubber-hardness a (43 Shore A) | 1.2 | 0.02 - 0.03 |
| Rubber-hardness f (57 Shore A) | 1.6 | 0.03 - 0.06 |

The data given in this product information are based on our present state of know ledge, reflect the state-of-the-art technology and are subject to change. Warranty is granted only on the basis of individual contracts and execution by G+H Schallschutz.