

- All metal multidirectional anti-vibration/shock mounts.
- Exceptional reliability and long life.
- High damping.
- No ageing - Corrosion resistant.
- Unequalled temperature range : -180°C +300°C.
- Minimum dynamic deflection capability over ±50 mm along the 3 axes.
- Non-magnetic.
- Low residual acceleration.

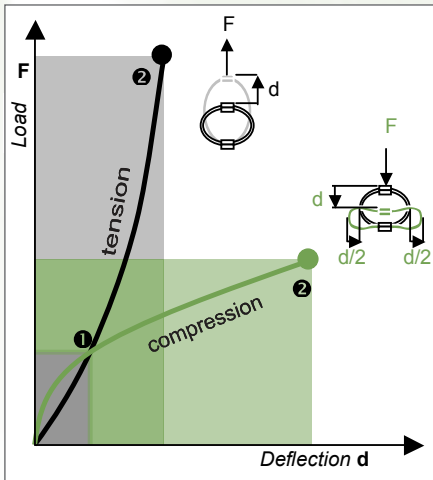
Dimensions are in mm. For reference only.

| Series   | Dimensions |     |     |      |      |              |       |       |      |           |           |                                       |                                       | Interfaces            | Bar 1                 |                                       |               |
|--|------------|-----|-----|------|------|--------------|-------|-------|------|-----------|-----------|---------------------------------------|---------------------------------------|-----------------------|-----------------------|---------------------------------------|---------------|
|  | Type       | H   | W   | L    | A    | B            | C     | I     | F    | G         | D / D1    | Mass (kg)                             | fixtures holes D / D1                 |                       | 4 through holes ø Dmm | 4 through holes ø Dmm countersunk 90° | 4 inserts MD1 |
| <b>Z</b><br>Cable: stainless steel AISI 316<br>Retainer bars: aluminium alloy/ SurTec (bar 2 in AISI 316 ZS both bars ZSS)<br>Screws/Inserts: stainless steel AISI 316<br><br>Other materials on request | 1480       | 134 | 174 | 146  | 7.5  | 2 holes only |       | 131   |      | 14.5      | 16        | 6.4 / 6                               | 0.7                                   | Bar 1                 | 4 through holes ø Dmm | 4 through holes ø Dmm countersunk 90° | 4 inserts MD1 |
|  | 1664       | 134 | 174 | 146  | 7.5  | 2 holes only |       | 131   |      | 14.5      | 16        | 6.4 / 6                               | 1                                     |                       |                       |                                       |               |
|  | 1479       | 137 | 186 | 217  | 30.7 | 44.5         | 111.1 | 155.6 | 16.5 | 25.5      | 8.4 / 8   | 1.8                                   | Bar 2                                 | 4 through holes ø Dmm | no suffix             | not standard                          | not standard  |
|  | 1663       | 138 | 188 | 217  | 30.7 | 44.5         | 111.1 | 155.6 | 16.5 | 25.5      | 8.4 / 8   | 2.3                                   | 4 through holes ø Dmm                 | no suffix             | not standard          | not standard                          |               |
|  | 1478       | 140 | 190 | 217  | 30.7 | 44.5         | 111.1 | 155.6 | 20.5 | 25.5      | 8.4 / 8   | 3.2                                   | 4 through holes ø Dmm                 | CM                    | CM2                   | not standard                          |               |
|  | 1665       | 146 | 193 | 267  | 37.9 | 54.6         | 136.7 | 191.3 | 26.5 | 25.5      | 10.5 / 10 | 4                                     | 4 through holes ø Dmm countersunk 90° | CM                    | CM2                   | not standard                          |               |
| 1709   | 159        | 212 | 368 | 50.7 | 76.2 | 190.5        | 266.7 | 38    | 39   | 13.4 / 12 | 11        | 4 through holes ø Dmm countersunk 90° | CM                                    | CM2                   | not standard          |                                       |               |
| 1710   | 185        | 250 | 523 | 72.5 | 108  | 270          | 378   | 51    | 51   | 18.5 / 16 | 22        | 4 inserts MD1                         | IM                                    | CIM                   | IM2                   |                                       |               |
| 1711   | 182        | 244 | 523 | 72.5 | 108  | 270          | 378   | 51    | 51   | 18.5 / 16 | 26        | 4 inserts MD1                         | IM                                    | CIM                   | IM2                   |                                       |               |

**Example Z1478-08CM2**

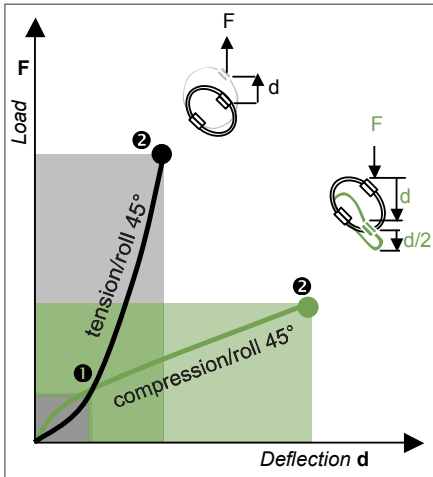
|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|
| Z | 1 | 4 | 7 | 8 | - | 0 | 8 | C | M | 2 |
|---|---|---|---|---|---|---|---|---|---|---|

- Prefix: 'helical' mount from the Z series
- Model: 1478 height: 140mm width: 190mm mass: 3,2kg
- Number of loops (4 to 8)
- Suffix: CM2 4 through holes ø Dmm countersunk 90° in bars 1 and 2



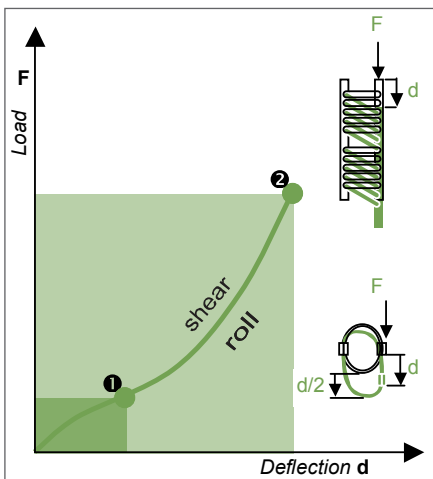
**Compression and Tension**

| Series Z         | Model | 1480 | 1664 | 1479 | 1663 | 1478 | 1665 | 1709 | 1710  | 1711  |
|------------------|-------|------|------|------|------|------|------|------|-------|-------|
| 1. Max Static    | F daN | 7,0  | 12,4 | 39,2 | 69,2 | 121  | 271  | 670  | 1200  | 1885  |
|                  | d mm  | 17,3 | 17,3 | 17,2 | 17,3 | 16,2 | 15,3 | 12,7 | 13,8  | 13,3  |
| 2. Max Shock     | F daN | 21,0 | 37,2 | 118  | 208  | 363  | 813  | 2010 | 3598  | 5656  |
|                  | d mm  | 94   | 94   | 93   | 94   | 88   | 83   | 69   | 75    | 72    |
| 3. Max Vibration | 2a mm | 10,3 | 10,3 | 10,2 | 10,3 | 9,7  | 9,1  | 7,6  | 8,3   | 7,9   |
|                  | f Hz  | 4,1  | 4,1  | 4,1  | 4,0  | 4,2  | 4,4  | 4,9  | 4,7   | 4,8   |
| 1. Max Static    | F daN | 7,0  | 12,4 | 39,2 | 69,2 | 121  | 271  | 670  | 1200  | 1885  |
|                  | d mm  | 15,4 | 15,3 | 15,1 | 15,2 | 14,8 | 14,3 | 12,7 | 13,8  | 13,3  |
| 2. Max Shock     | F daN | 72,0 | 126  | 400  | 702  | 1287 | 2966 | 8125 | 15113 | 22976 |
|                  | d mm  | 73   | 71   | 71   | 71   | 72   | 71   | 70   | 81    | 74    |
| 3. Max Vibration | 2a mm | 8,0  | 7,9  | 7,8  | 7,8  | 7,9  | 7,9  | 7,7  | 8,9   | 8,1   |
|                  | f Hz  | 5,2  | 5,2  | 5,3  | 5,2  | 5,3  | 5,4  | 5,6  | 5,3   | 5,5   |



**Compression/roll 45° - Tension/roll 45°**

| Series Z         | Model | 1480 | 1664 | 1479 | 1663 | 1478 | 1665 | 1709 | 1710  | 1711  |
|------------------|-------|------|------|------|------|------|------|------|-------|-------|
| 1. Max Static    | F daN | 5,3  | 9,3  | 29,4 | 51,9 | 90,8 | 203  | 502  | 900   | 1414  |
|                  | d mm  | 31,9 | 31,9 | 31,5 | 31,9 | 29,7 | 27,9 | 22,8 | 25,0  | 23,9  |
| 2. Max Shock     | F daN | 13,2 | 23,3 | 73,6 | 130  | 229  | 515  | 1294 | 2330  | 3644  |
|                  | d mm  | 141  | 141  | 140  | 141  | 132  | 125  | 104  | 113   | 108   |
| 3. Max Vibration | 2a mm | 15,5 | 15,5 | 15,3 | 15,5 | 14,5 | 13,7 | 11,4 | 12,4  | 11,9  |
|                  | f Hz  | 3,4  | 3,4  | 3,4  | 3,4  | 3,5  | 3,6  | 4,1  | 3,9   | 4,0   |
| 1. Max Static    | F daN | 5,3  | 9,3  | 29,4 | 51,9 | 90,8 | 203  | 502  | 900   | 1414  |
|                  | d mm  | 23,8 | 23,6 | 23,4 | 23,5 | 23,0 | 22,2 | 19,9 | 22,1  | 20,8  |
| 2. Max Shock     | F daN | 53,4 | 93,7 | 297  | 520  | 957  | 2210 | 6098 | 11371 | 17250 |
|                  | d mm  | 97   | 95   | 94   | 94   | 96   | 95   | 94   | 108   | 98    |
| 3. Max Vibration | 2a mm | 10,6 | 10,5 | 10,4 | 10,4 | 10,6 | 10,5 | 10,3 | 11,9  | 10,8  |
|                  | f Hz  | 4,6  | 4,6  | 4,6  | 4,6  | 4,7  | 4,7  | 4,9  | 4,6   | 4,8   |



**Shear or Roll**

| Series Z         | Model | 1480 | 1664 | 1479 | 1663 | 1478 | 1665 | 1709 | 1710 | 1711 |
|------------------|-------|------|------|------|------|------|------|------|------|------|
| 1. Max Static    | F daN | 3,5  | 6,2  | 19,6 | 34,6 | 60,5 | 135  | 335  | 600  | 943  |
|                  | d mm  | 32,9 | 32,9 | 32,5 | 32,9 | 30,8 | 29,0 | 24,1 | 26,2 | 25,2 |
| 2. Max Shock     | F daN | 21,1 | 37,2 | 118  | 209  | 386  | 920  | 2692 | 5052 | 7826 |
|                  | d mm  | 108  | 107  | 106  | 106  | 104  | 101  | 93   | 105  | 98   |
| 3. Max Vibration | 2a mm | 11,8 | 11,7 | 11,6 | 11,7 | 11,4 | 11,1 | 10,2 | 11,6 | 10,7 |
|                  | f Hz  | 3,9  | 3,9  | 3,9  | 3,9  | 4,0  | 4,1  | 4,3  | 4,1  | 4,3  |

1. Max static load (F) with corresponding deflection (d)  
 2. Max shock load (F) with corresponding deflection (d)  
 3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)  
 \*Important: Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us.

**Typical shock/vibration specifications:**

- Ground Forces: GAM EG13A, SEFT 001, MIL-STD-810, VG 95332.
- Air: AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810.
- Marine: GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044.
- Others: GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C.