

levelling elements in cast iron  
type V PH



## levelling elements in cast iron version V PH

A combination of base in cast iron and levelling screw in version PH - pendulum action with cap nut for angle compensation. Base in cast iron and cap nut, in which the levelling thread is placed, are tightly connected to each other with a counter screw.

standard colour of the base in cast iron: RAL 9006 white-aluminium  
other colour tones according to RAL on request

optional: special electro-plating for the bases in cast iron and levelling screws in nickel or chrome, as well as stainless steel screws

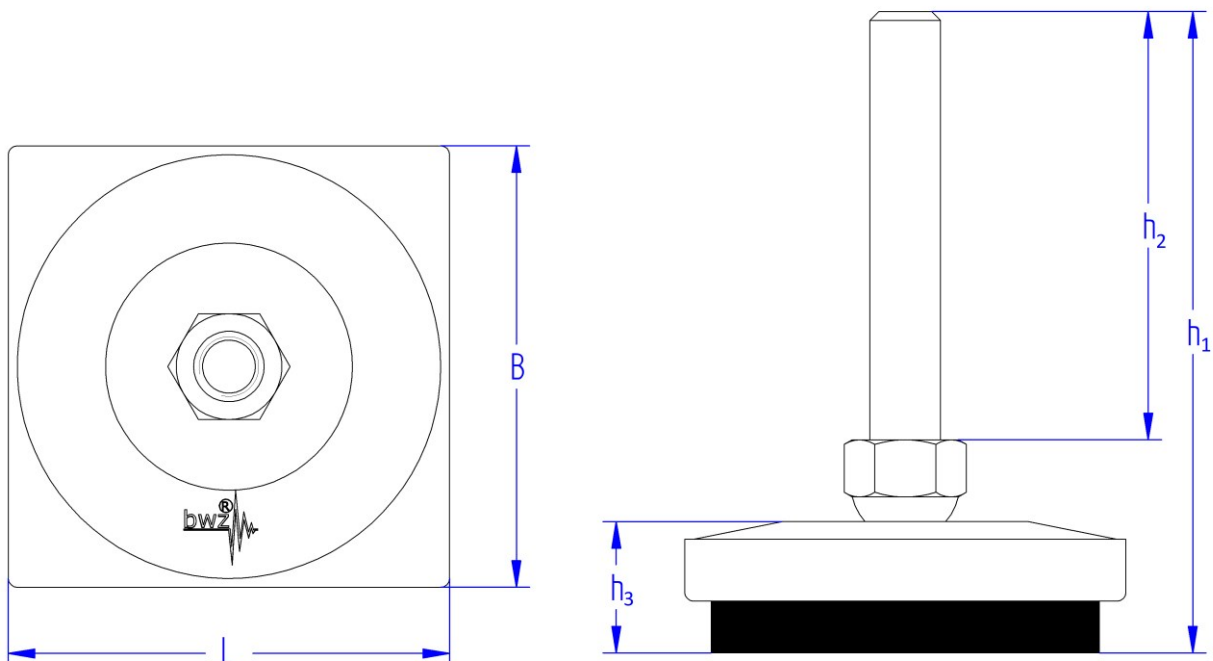
levelling screws are supplied with the following accessories

2 x nut DIN 934 / ISO 4032  
1 x washer DIN 125 / ISO 7089  
1 x washer DIN 9021 / ISO 7093  
from thread size M24 upwards  
2 x nut DIN 934 / ISO 4032  
2 x washer DIN 125 / ISO 7089

length specification  $h_2$  of the levelling screw relates to the net thread length

assembly of the levelling screws with the nuts and washers, individual packaging of levelling elements in quick-lock mechanism bags and customized article labelling available at extra charge

### schematic illustration version V PH



### levelling elements in cast iron type V PH with elastomer NBR 5514

applications: passive isolation e.g. for metrology equipment, scales, dosage units and optical devices  
 elastomer surface smooth, without tread pattern

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR5514  | 7203 0001      | 85x85   | 141            | 100            | 23             | M12        | 19        | 55       | 180  |
| 10V PH NBR5514 | 7213 0001      | 100x100 | 146            | 100            | 28             | M16        | 24        | 55       | 300  |
| 12V PH NBR5514 | 7223 0001      | 126x126 | 150            | 100            | 31             | M16        | 24        | 55       | 400  |
| 15V PH NBR5514 | 7233 0001      | 150x150 | 207            | 150            | 35             | M20        | 30        | 55       | 700  |
| 17V PH NBR5514 | 7234 0001      | 178x178 | 208            | 150            | 37             | M20        | 30        | 55       | 1000 |

### levelling elements in cast iron type V PH with elastomer NBR 5518

applications: passive isolation e.g. for metrology equipment, scales, dosage units and optical devices  
 elastomer surface with tread pattern - higher insulation effect as compared to type with NBR 5514

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR5518  | 7203 0002      | 85x85   | 145            | 100            | 27             | M12        | 19        | 55       | 180  |
| 10V PH NBR5518 | 7213 0002      | 100x100 | 150            | 100            | 32             | M16        | 24        | 55       | 300  |
| 12V PH NBR5518 | 7223 0002      | 126x126 | 154            | 100            | 35             | M16        | 24        | 55       | 400  |
| 15V PH NBR5518 | 7233 0002      | 150x150 | 211            | 150            | 39             | M20        | 30        | 55       | 700  |
| 17V PH NBR5518 | 7234 0002      | 178x178 | 212            | 150            | 41             | M20        | 30        | 55       | 1000 |

### levelling elements in cast iron type V PH with elastomer NBR 7516

applications: damping / insulation e.g. for highly dynamic machinery, presses, shears, punches, compressors and pumps  
 elastomer surface with tread pattern

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR7516  | 7203 0003      | 85x85   | 142            | 100            | 24             | M12        | 19        | 75       | 560  |
| 10V PH NBR7516 | 7213 0003      | 100x100 | 147            | 100            | 29             | M16        | 24        | 75       | 800  |
| 12V PH NBR7516 | 7223 0003      | 126x126 | 151            | 100            | 32             | M16        | 24        | 75       | 1200 |
| 15V PH NBR7516 | 7233 0003      | 150x150 | 209            | 150            | 37             | M20        | 30        | 75       | 1800 |
| 17V PH NBR7516 | 7234 0003      | 178x178 | 210            | 150            | 39             | M20        | 30        | 75       | 2800 |

### levelling elements in cast iron type V PH with elastomer NBR 7525

applications: damping / insulation e.g. for highly dynamic machinery, presses, shears, punches, compressors and pumps  
 elastomer surface with tread pattern - higher insulation / damping effect as compared to type with NBR 7516

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR7525  | 7203 0004      | 85x85   | 152            | 100            | 34             | M12        | 19        | 75       | 560  |
| 10V PH NBR7525 | 7213 0004      | 100x100 | 157            | 100            | 39             | M16        | 24        | 75       | 800  |
| 12V PH NBR7525 | 7223 0004      | 126x126 | 161            | 100            | 42             | M16        | 24        | 75       | 1200 |
| 15V PH NBR7525 | 7233 0004      | 150x150 | 218            | 150            | 46             | M20        | 30        | 75       | 1800 |
| 17V PH NBR7525 | 7234 0004      | 178x178 | 219            | 150            | 48             | M20        | 30        | 75       | 2800 |

### levelling elements in cast iron type V PH with elastomer NBR 8516

applications: damping of e.g. general ( CNC ) machine tools, textile machines, graphic machines  
and machines with horizontal thrust  
elastomer surface with tread pattern

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR8516  | 7203 0005      | 85x85   | 142            | 100            | 24             | M12        | 19        | 90       | 700  |
| 10V PH NBR8516 | 7213 0005      | 100x100 | 147            | 100            | 29             | M16        | 24        | 90       | 1000 |
| 12V PH NBR8516 | 7223 0005      | 126x126 | 151            | 100            | 32             | M16        | 24        | 90       | 1600 |
| 15V PH NBR8516 | 7233 0005      | 150x150 | 209            | 150            | 37             | M20        | 30        | 90       | 2300 |
| 17V PH NBR8516 | 7234 0005      | 178x178 | 210            | 150            | 39             | M20        | 30        | 90       | 3400 |

### levelling elements in cast iron type V PH with elastomer NBR 8525

applications: damping of e.g. general ( CNC ) machine tools, textile machines, graphic machines  
and machines with horizontal thrust  
elastomer surface with tread pattern - higher damping effect as compared to type with NBR 8516

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR8525  | 7203 0006      | 85x85   | 152            | 100            | 34             | M12        | 19        | 90       | 700  |
| 10V PH NBR8525 | 7213 0006      | 100x100 | 157            | 100            | 39             | M16        | 24        | 90       | 1000 |
| 12V PH NBR8525 | 7223 0006      | 126x126 | 161            | 100            | 42             | M16        | 24        | 90       | 1600 |
| 15V PH NBR8525 | 7233 0006      | 150x150 | 218            | 150            | 46             | M20        | 30        | 90       | 2300 |
| 17V PH NBR8525 | 7234 0006      | 178x178 | 219            | 150            | 48             | M20        | 30        | 90       | 3400 |

### levelling elements in cast iron type V PH with elastomer NBR 9014

applications: damping of e.g. machining centres, transfer units, ( CNC ) machine tools, circular- and flat-grinding machines,  
long-bedded machines with low intrinsic rigidity, drilling and milling devices  
elastomer surface smooth, without tread pattern

| type           |                | L / B   | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | thread (G) | key width | hardness | load |
|----------------|----------------|---------|----------------|----------------|----------------|------------|-----------|----------|------|
| description    | article number | mm      | mm             | mm             | mm             |            | mm        | ±5 Shore | daN  |
| 7V PH NBR9014  | 7203 0007      | 85x85   | 142            | 100            | 24             | M12        | 19        | 90       | 700  |
| 10V PH NBR9014 | 7213 0007      | 100x100 | 147            | 100            | 29             | M16        | 24        | 90       | 1000 |
| 12V PH NBR9014 | 7223 0007      | 126x126 | 151            | 100            | 32             | M16        | 24        | 90       | 1600 |
| 15V PH NBR9014 | 7233 0007      | 150x150 | 207            | 150            | 35             | M20        | 30        | 90       | 2300 |
| 17V PH NBR9014 | 7234 0007      | 178x178 | 208            | 150            | 37             | M20        | 30        | 90       | 3400 |

## screw options

| thread      |                      |
|-------------|----------------------|
| description | net thread length mm |
| M8          | on request           |
| M10         | 100, 150, 200, 250   |
| M12         | 100, 150, 200, 250   |
| M14         | on request           |
| M16         | 100, 150, 200, 250   |
| M18         | on request           |
| M20         | 100, 150, 200, 250   |
| M24         | 100, 150, 200, 250   |
| M30         | 100, 150, 200, 250   |

Special thread lengths, alternative electro-plating with nickel or chrome, threads with special fine pitch, stainless steel levelling screws or special materials on request.

Custom solutions and modifications as per customer's request are possible any time, owing to our high internal manufacturing depth ( CNC and conventional ).

length specifications of the levelling screws relate to the net thread length  $h_2$  - further net thread lengths on request

## data on materials and tolerances

### components in cast iron

according to DIN EN ISO 8062-3 DCTG 10 -/- manufacturing tolerance: according to ISO 2768-mk  
materials: EN GJL 200 / EN GJL 250

### elastomers

shore-hardness A measurement: according to DIN 53505 or rather DIN ISO 7619-1  
tolerances for dimensions with tool-form based elastomer parts according to DIN ISO 3302-1, class M3  
materials: NBR 55° / 75° / 90° ±5 shore A, dimensional tolerance ±1 mm

### threads / levelling screws

according to DIN 976 -/- manufacturing tolerance: according to ISO 2768-mk  
materials: steel blank 4.8 - steel zinc-coated 4.8 - stainless steel A2

### manufacturing components from hexagonal bar material

according to EN 10277/10278 -/- manufacturing tolerance: according to ISO 2768-mk  
materials: steel blank 11SMn30+C -/- stainless steel 1.4305

Technical modifications subject to change! Any previous versions of this document are herewith null and void!