



Rubber Design

vibration and noise control



Photography: Roger van der Kraan

Conical Mountings





DOCUMENTATION SHEET

Conical Mountings

CONICAL MOUNTINGS

General

The range of conical marine mountings were designed specially with medium speed engines in mind. The conical design provides high deflection and load capacity combined with long service life. Although originally designed for main engine, auxiliary engine and generator installations, the mountings are particularly versatile and can be equally used for exhaust gas boilers and silencers. For applications like the suspension of deckhouses, accommodation rooms and control cabins, this mounting is an excellent isolator against structure borne vibration and noise, passive isolation. The acoustic properties of this type of mounting are excellent. The result of the measured structure borne vibration and noise transmission are available. In both vertical and horizontal directions the transfer functions show in the low frequency range a decrease of 12 dB/octave, an 'ideal mass-less spring characteristic'.

Specification

The characteristics of the mounting are provided by a conical rubber element designed to carry the vertical load in a combination of compression and shear. The rubber elements for the mountings are produced in several types. Type RD 113, 114, 214, 314 and 414 are produced with extra interleaf rings and type RD 115, 215, 315 and 415 without extra interleaf ring. The rubber elements are manufactured in six 'standard' rubber mixes: 45NR, 50NR, 55NR, 60NR, 65NR, 70NR and consequently cover a wide range of load / deflection requirements. Applicable up to 70°C continuous and 90°C peak temperatures. Next to that, for the high temperatures applications, there are special developed compounds for 90°C continuous and 110°C peak temperature - and 110°C continuous and 130°C peak temperature available in the above mentioned Shore hardness.

Mounting selection

It is advisable to seek expert advice before finalising an installation design. In practice most installations will be subjected to both translational and rotational excitations and in consequence an analysis of all six degrees of freedom will be necessary. We will be pleased to advise on mountings numbers, rubber mix and mounting positions to ensure a 'faultless' flexible mounted installation. Before we can commence the design of a mounting system detailed information is required. Vibration calculations are carried out using our specially developed computer programs to meet new standards for both crews and passengers.

Remark

It is our intention to maintain the excellent standard of our products. Modifications and improvements may be made from time to time, therefore we advise to contact us before ordering.





CONICAL MOUNTINGS

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DOCUMENTATION SHEET

Conical Mountings
Type RD 112

RD 112

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55
Max Marine load [kN]	75	83	92
Max Static load [kN]	92	103	112
Max Static vert. defl. [mm]	20	19	18

CHARACTERISTICS

Shockload	300 kN (all directions)
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SHOCKLOAD

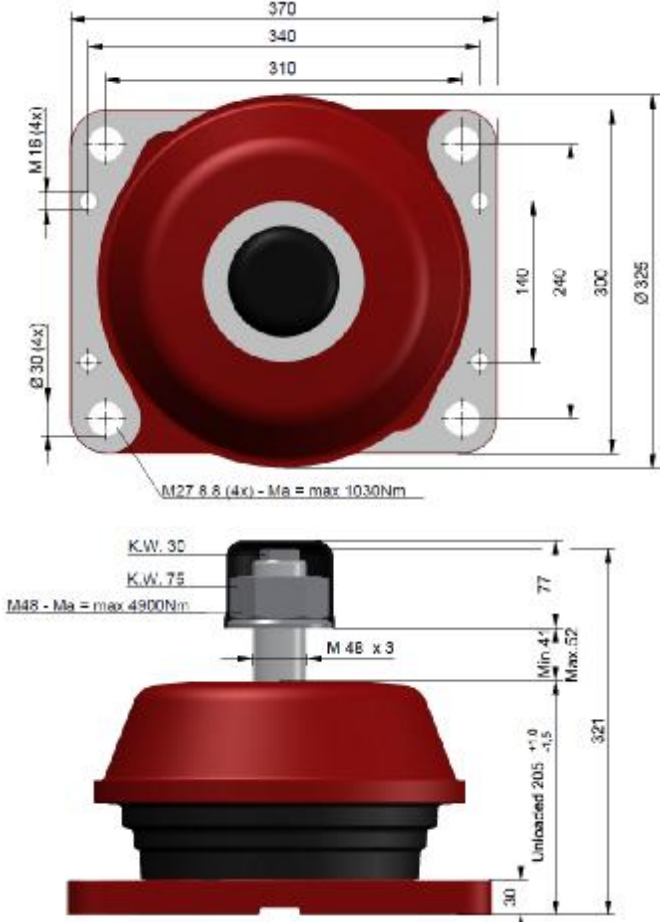








TYPE APPROVALS



Top View Dimensions:
 Overall width: 370 mm
 Inner width: 340 mm
 Mounting hole offset: 310 mm
 Mounting hole diameter: M18 (4x)
 Mounting hole diameter: Ø 30 (4x)
 Mounting hole pitch: M27 8.8 (4x) - Ma = max 1030Nm
 Mounting hole diameter: Ø 325
 Mounting hole offset: 140 mm
 Mounting hole offset: 240 mm
 Mounting hole offset: 300 mm

Side View Dimensions:
 K.W. 30
 K.W. 75
 M48 - Ma = max 4900Nm
 M 48 x 3
 77 mm
 Min 4 mm
 Max 52 mm
 321 mm
 Unloaded 205 +1.0 -1.5 mm
 30 mm

DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 113

RD 113

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [°Sh. A]	55	60	65
Max Marine load [kN]	120	152	175
Max Static load [kN]	142	185	215
Max Static vert. defl. [mm]	15	14	13

CHARACTERISTICS

Shockload	360 kN (all directions)
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SHOCKLOAD

TYPE APPROVALS

DIMENSIONS

The technical drawing shows the following dimensions:

- Top view dimensions: 370 (outer width), 340 (inner width), 310 (width to center), 140 (radius to hole center), 240 (radius to corner center), 300 (total height), and $\varnothing 325$ (outer diameter).
- Side view dimensions: 11 (top flange thickness), 423 (total height), 30 (bottom flange thickness), and Unloaded $205^{+1.0}_{-1.5}$ (height to top of bottom flange).
- Fasteners: M16 (4x) on top flange, M30 B.8 (4x) - $M_a = \max 1425Nm$ on bottom flange, and M56 x 4 on the central shaft.
- Other labels: K.W.14 (top flange material), $\varnothing 33$ (4x) (hole diameter).





DOCUMENTATION SHEET

Conical Mountings
Type RD 114

RD 114

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	83	93	106	117	135
Max Static load [kN]	97	112	126	140	163
Max Static vert. defl. [mm]	14	13	12,5	11,5	10

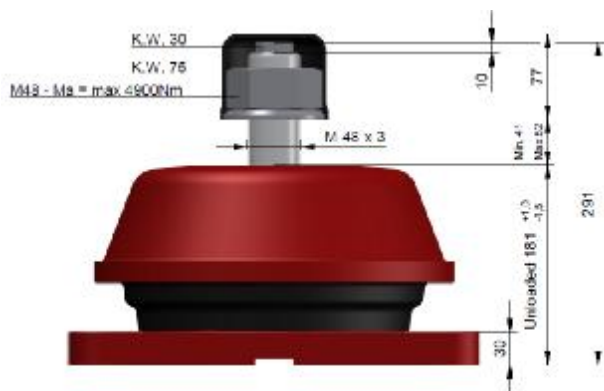
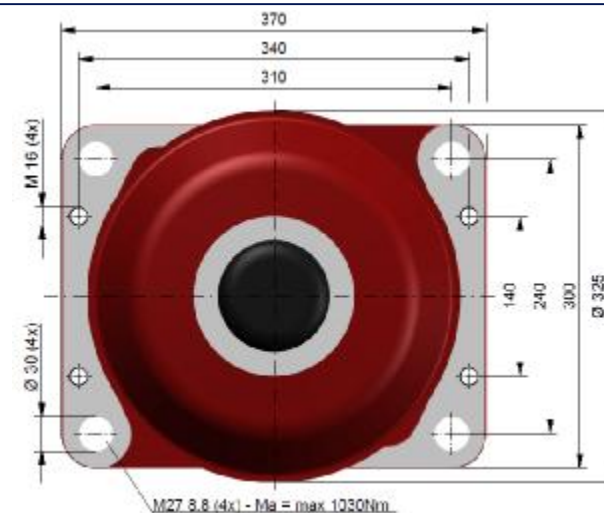
CHARACTERISTICS

Shockload 300 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 114 height re-adjustable

RD 114
Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

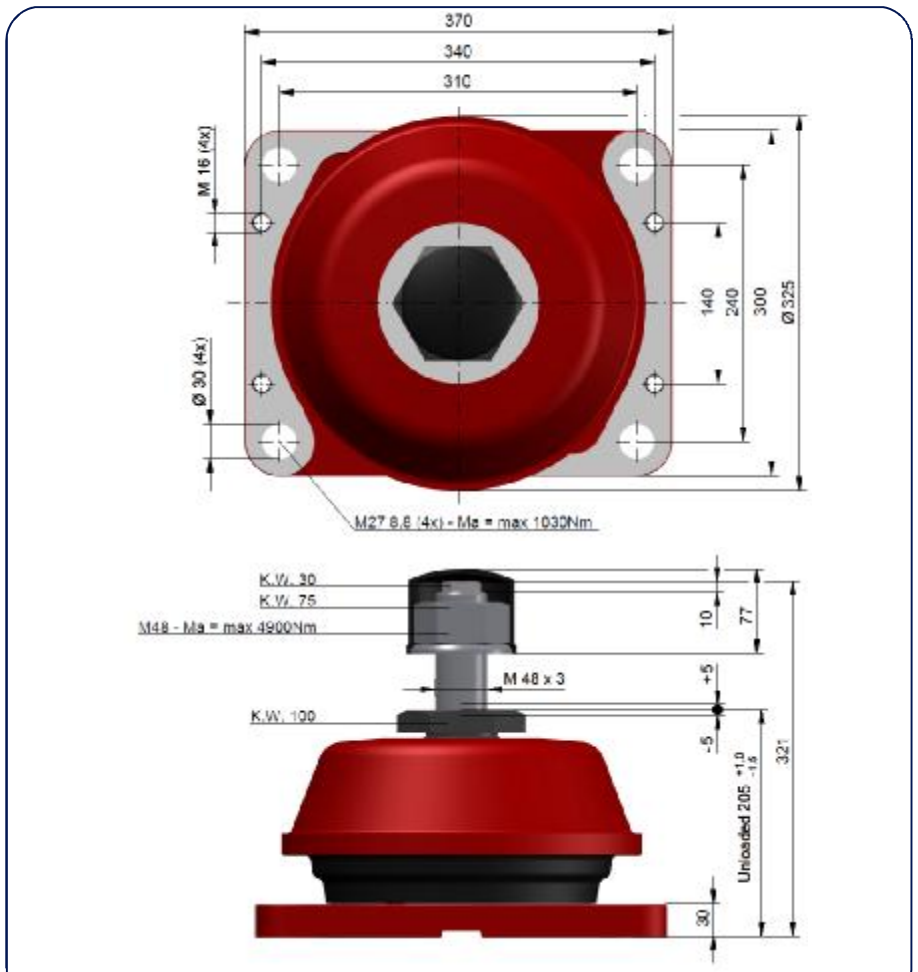
Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	83	93	106	117	135
Max Static load [kN]	97	112	126	140	163
Max Static vert. defl. [mm]	14	13	12,5	11,5	10

CHARACTERISTICS

Shockload	Contact Rubber Design
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SHOCKLOAD

TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 114X

RD 114X

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	186	220	254	290	322
Max Static load [kN]	218	258	310	355	410
Max Static vert. defl. [mm]	15,5	15	14	13,5	12,5

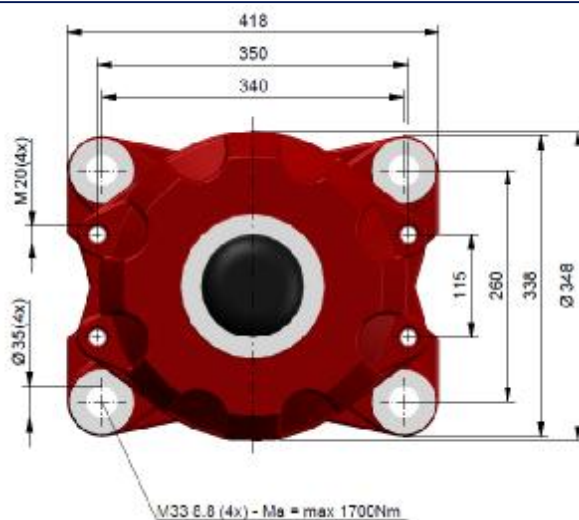
CHARACTERISTICS

Shockload 450 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 114X

RD 114X

Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	186	220	254	290	322
Max Static load [kN]	218	258	310	355	410
Max Static vert. defl. [mm]	15,5	15	14	13,5	12,5

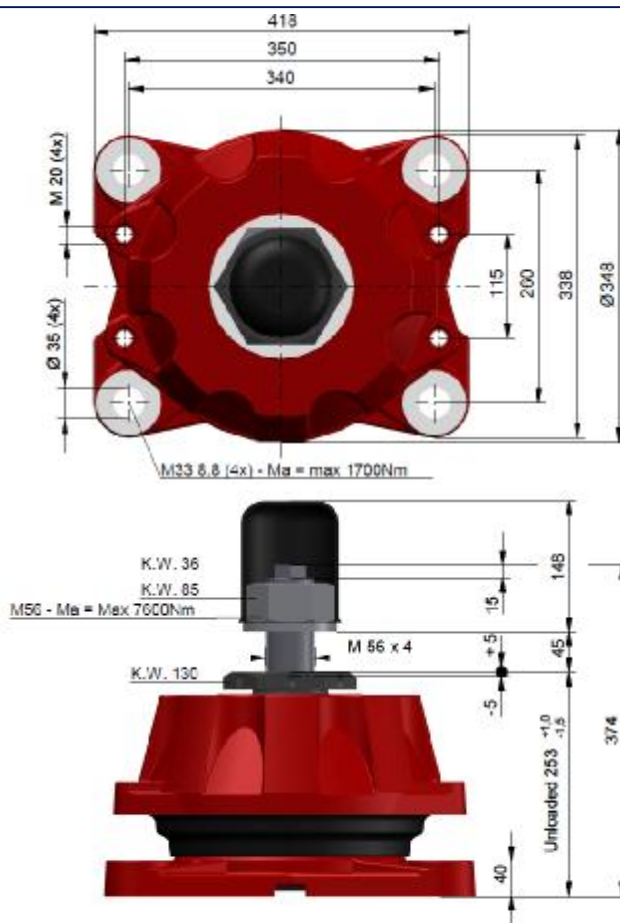
CHARACTERISTICS

Shockload Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 115

RD 115

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	46	55	67	79	92
Max Static load [kN]	55	63	76	90	102
Max Static vert. defl. [mm]	18	17,5	16,5	16	15

CHARACTERISTICS

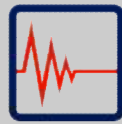
Shockload	300 kN (all directions)
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SHOCKLOAD

TYPE APPROVALS

DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 115

RD 115
Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	6	6	4

CLEARANCE

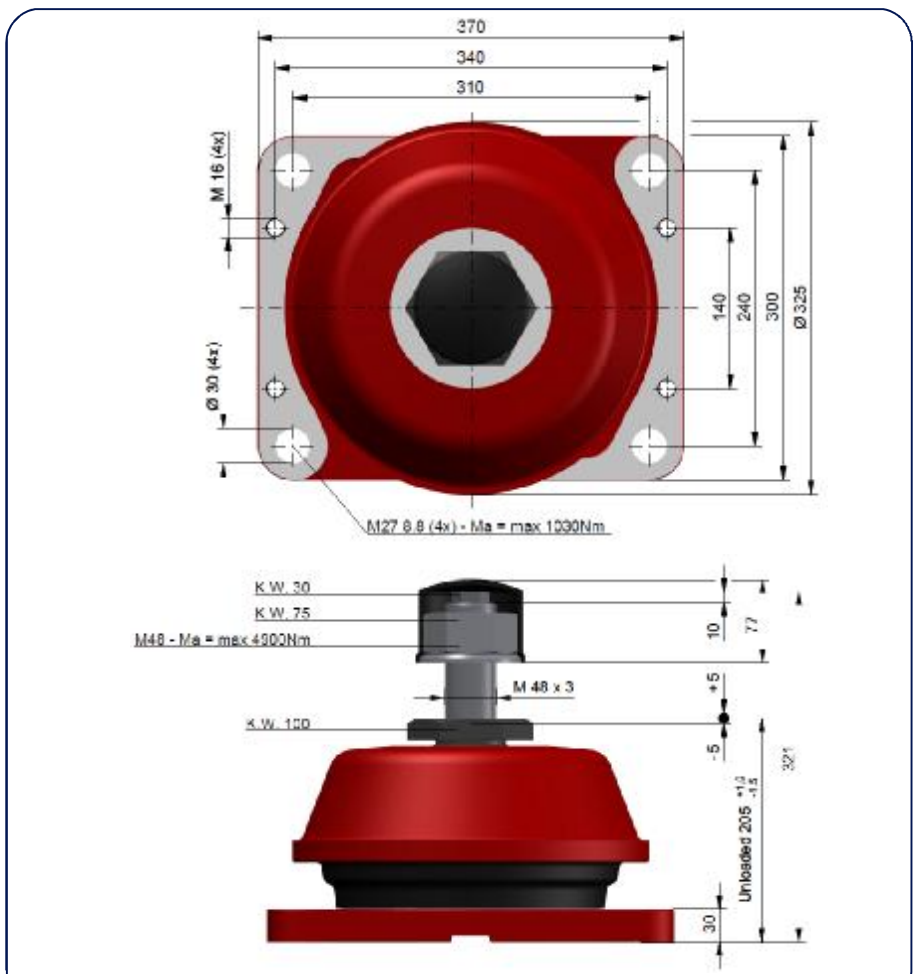
Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	46	55	67	79	92
Max Static load [kN]	55	63	76	90	102
Max Static vert. defl. [mm]	18	17,5	16,5	16	15

CHARACTERISTICS

Shockload	Contact Rubber Design
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SHOCKLOAD

TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 214

RD 214

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65	70
Max Marine load [kN]	52	57	65	71	81	97
Max Static load [kN]	62	67	77	84	97	115
Max Static vert. defl. [mm]	15	14,5	14	13,5	12,5	11,5

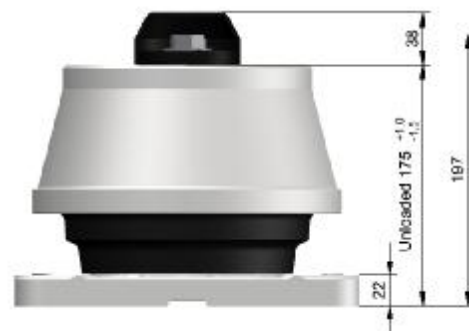
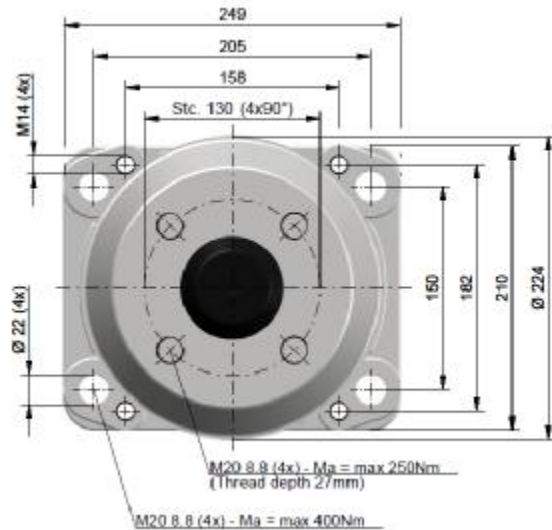
CHARACTERISTICS

Max Shockload 150 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 214 height re-adjustable

RD 214

Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65	70
Max Marine load [kN]	52	57	65	71	81	97
Max Static load [kN]	62	67	77	84	97	115
Max Static vert. defl. [mm]	15	14,5	14	13,5	12,5	11,5

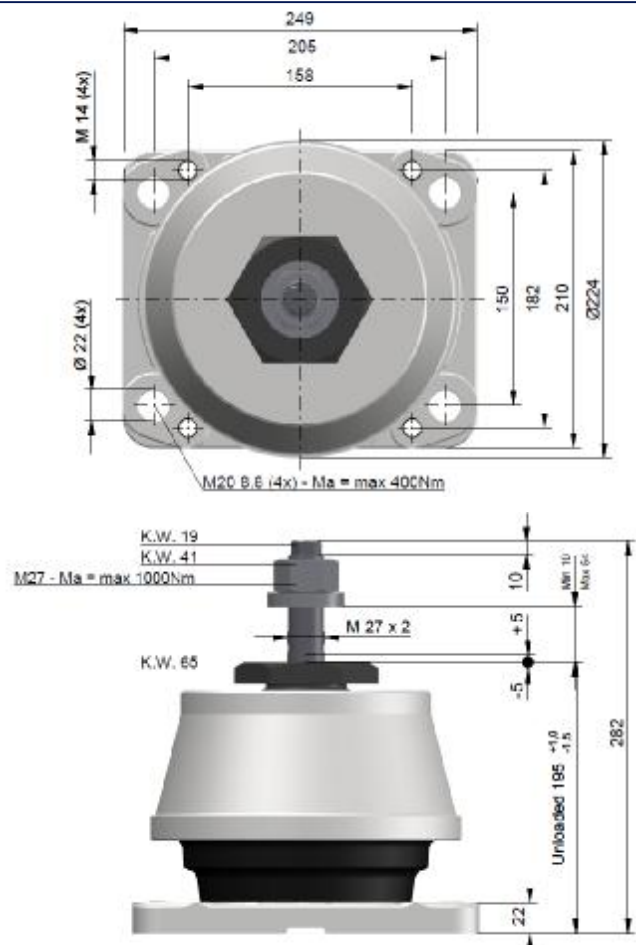
CHARACTERISTICS

Shockload	Contact Rubber Design
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 214

RD 214

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

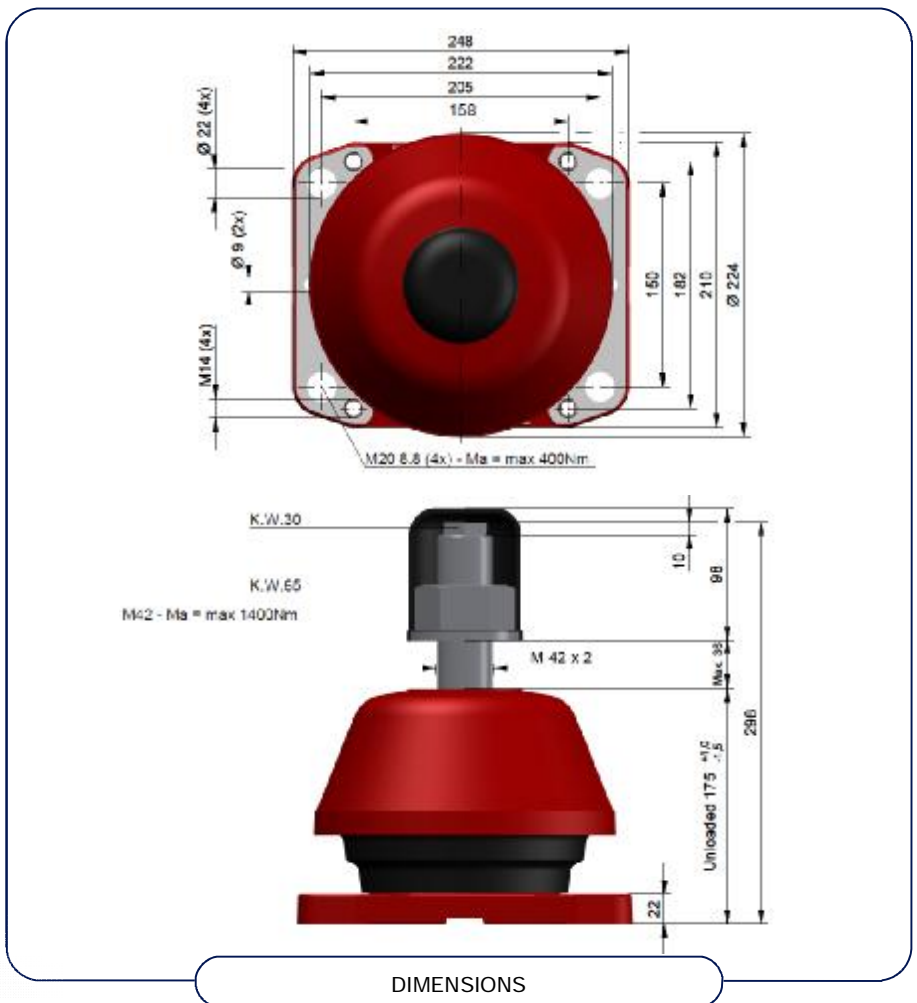
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65	70
Max Marine load [kN]	52	57	65	71	81	97
Max Static load [kN]	62	67	77	84	97	115
Max Static vert. defl. [mm]	15	14,5	14	13,5	12,5	11,5

CHARACTERISTICS

Max Shockload	230 kN (all directions)
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 214 height re-adjustable

RD 214
Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65	70
Max Marine load [kN]	52	57	65	71	81	97
Max Static load [kN]	62	67	77	84	97	115
Max Static vert. defl. [mm]	15	14,5	14	13,5	12,5	11,5

CHARACTERISTICS

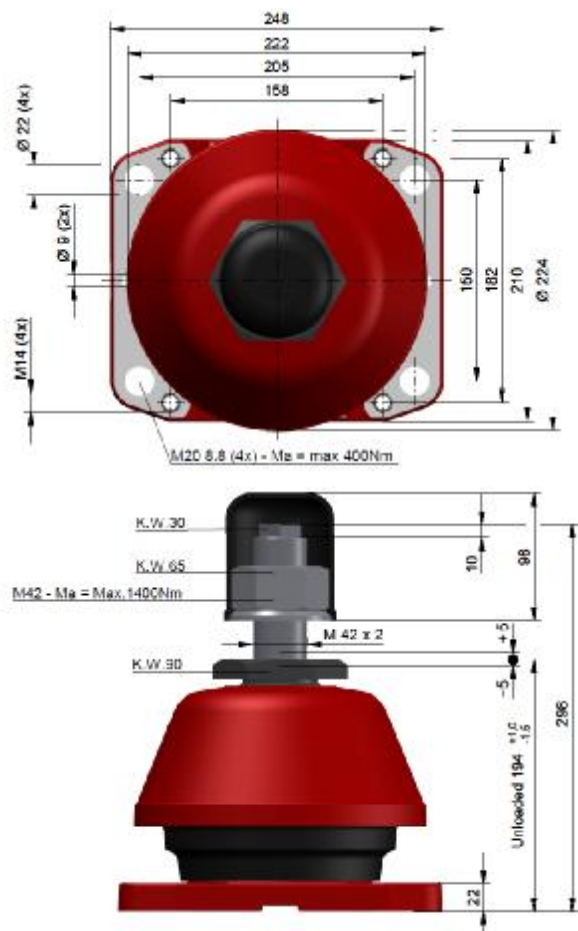
Shockload

Contact Rubber Design

SHOCKLOAD

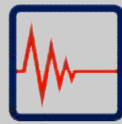


TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 214X

RD 214X

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	78	87	97	106	116
Max Static load [kN]	90	100	113	123	131
Max Static vert. defl. [mm]	14,5	14	13,5	13	12,5

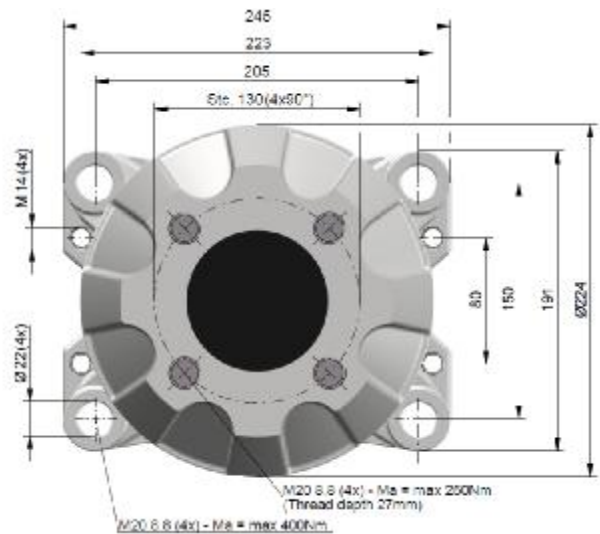
CHARACTERISTICS

Max Shockload	150 kN (all directions)
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 214X

RD 214X

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

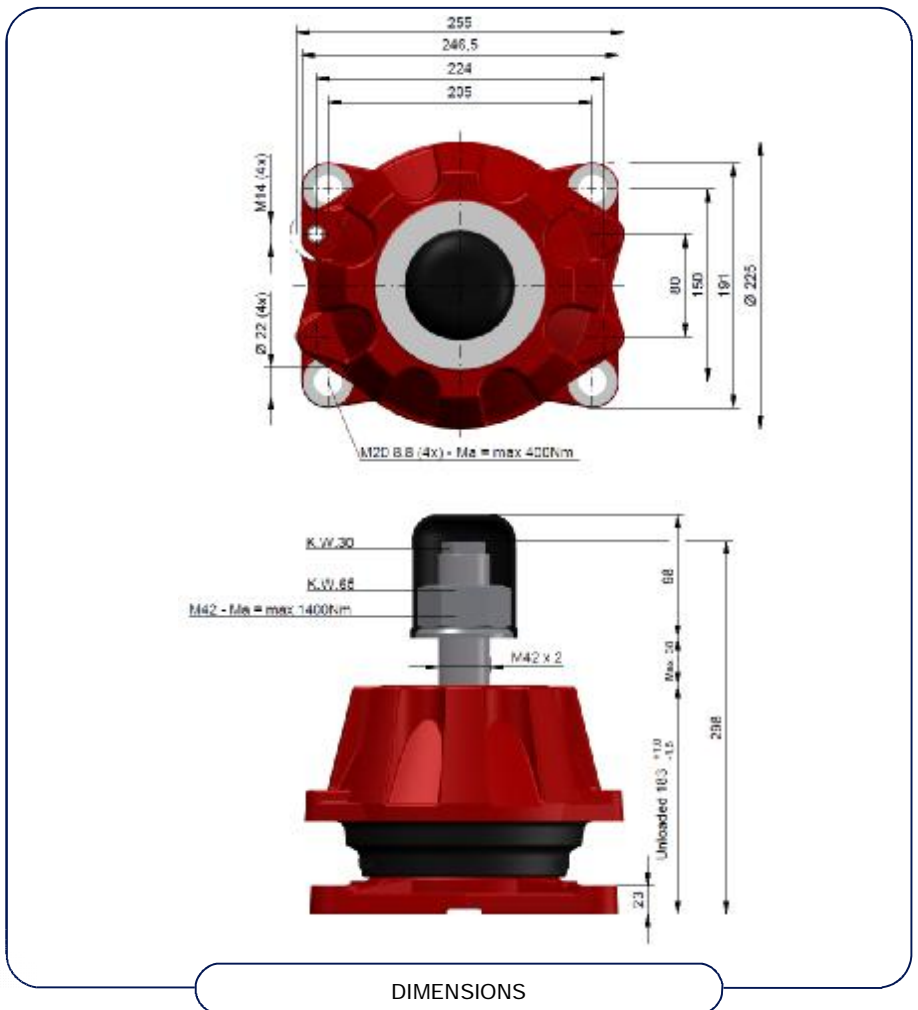
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	78	87	97	106	116
Max Static load [kN]	90	100	113	123	131
Max Static vert. defl. [mm]	14,5	14	13,5	13	12,5

CHARACTERISTICS

Max Shockload	230 kN (all directions)
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings

Type RD 214X

RD 214X

Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	78	87	97	106	116
Max Static load [kN]	90	100	113	123	131
Max Static vert. defl. [mm]	14,5	14	13,5	13	12,5

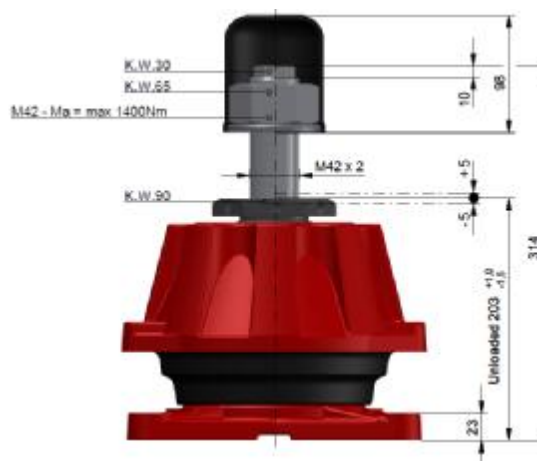
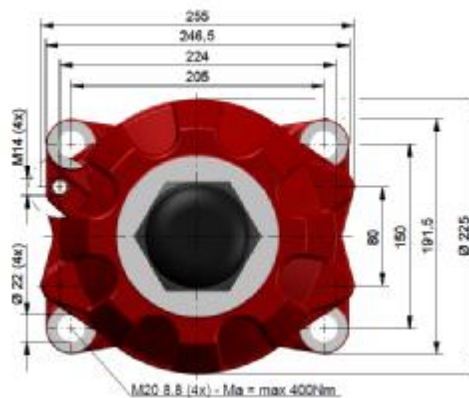
CHARACTERISTICS

Max Shockload 230 kN (all directions)

SHOCKLOAD

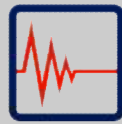


TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 215

RD 215

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

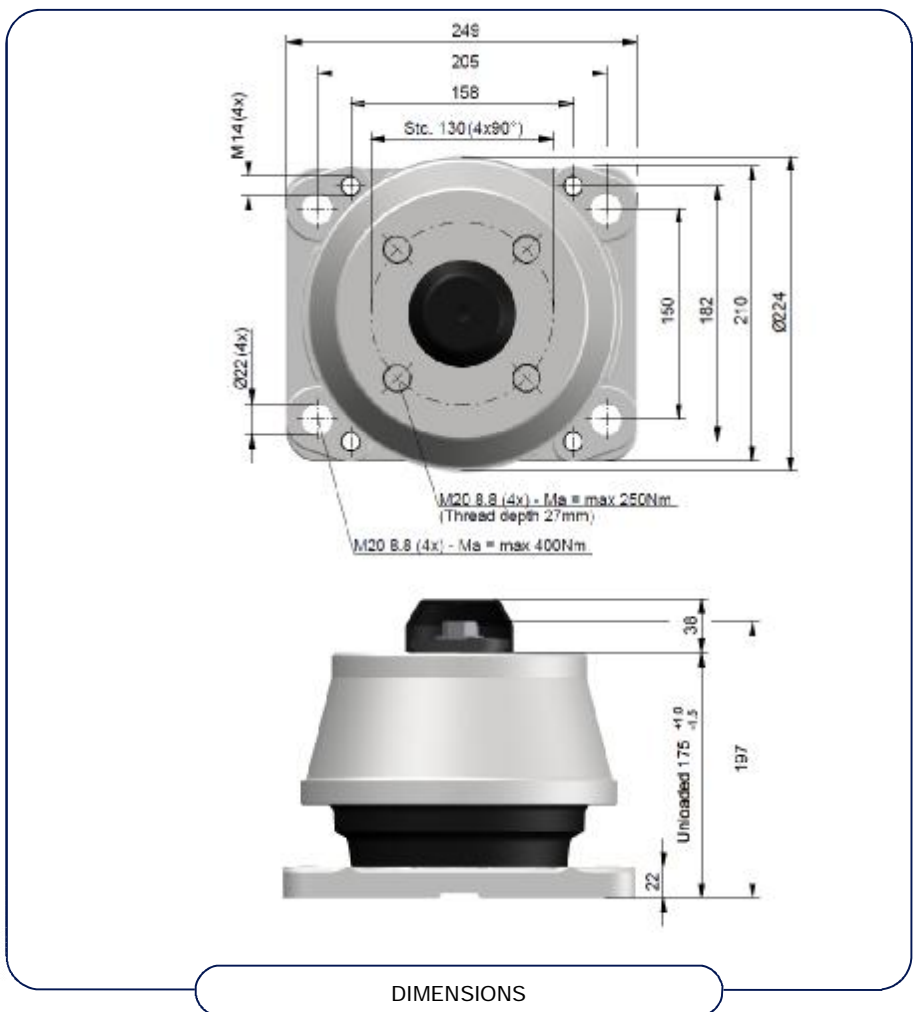
CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	37	43	51
Max Static load [kN]	28	35	43	49	58
Max Static vert. defl. [mm]	16,2	15,8	15,3	15,0	14,4

CHARACTERISTICS

Max Shockload	150 kN (all directions)
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 215

RD 215
Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	37	43	51
Max Static load [kN]	28	35	43	49	58
Max Static vert. defl. [mm]	16,2	15,8	15,3	15,0	14,4

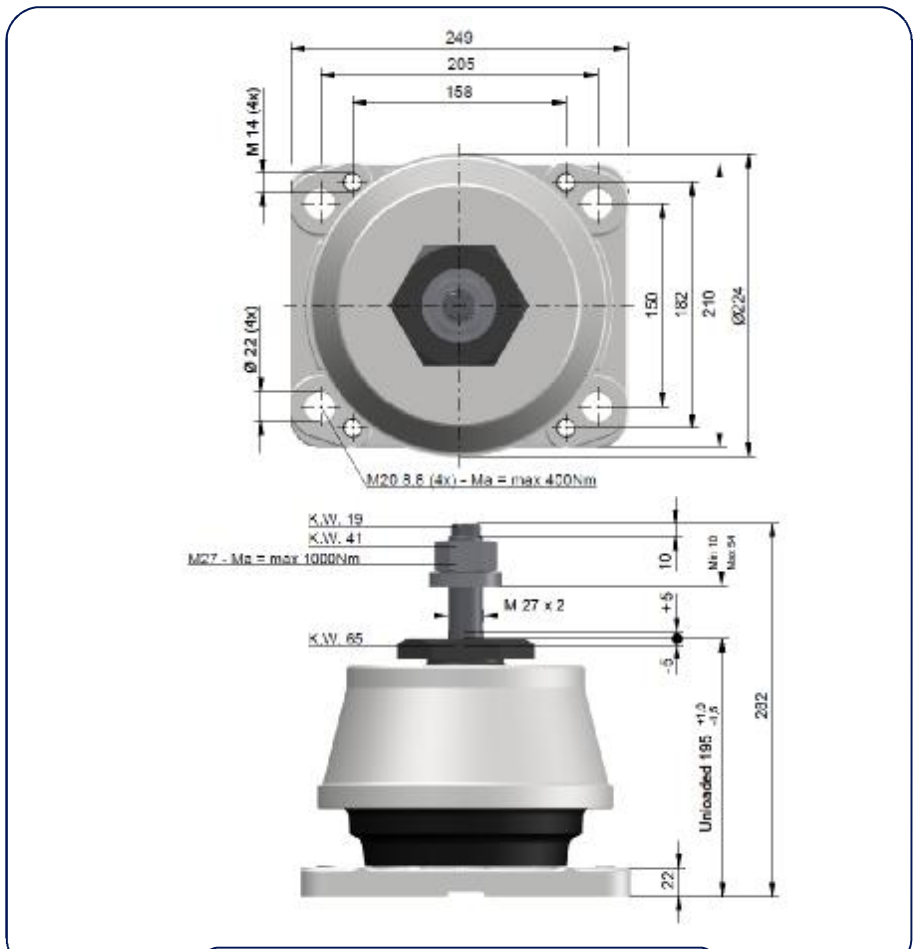
CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 215

RD 215

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	37	43	51
Max Static load [kN]	28	35	43	49	58
Max Static vert. defl. [mm]	16,2	15,8	15,3	15,0	14,4

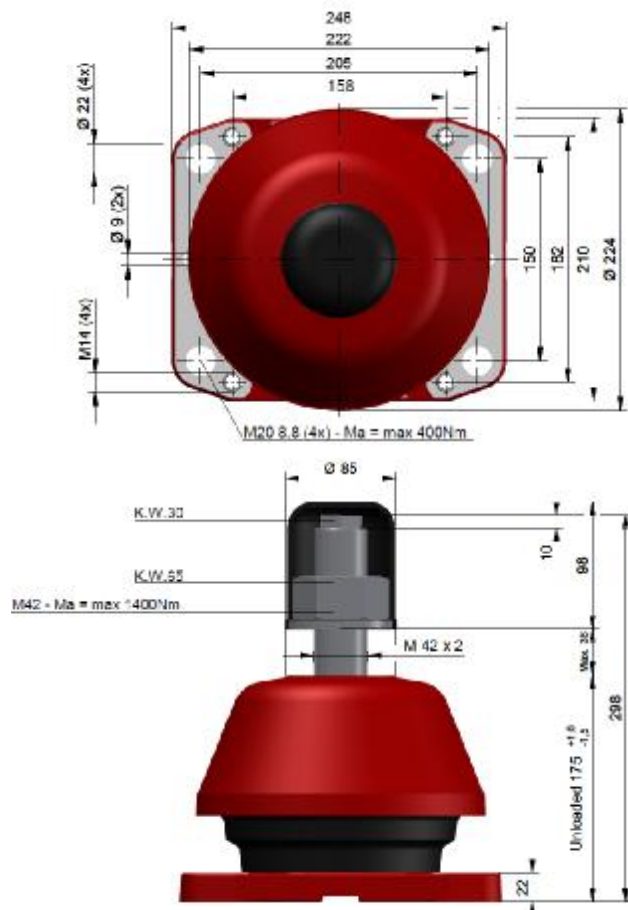
CHARACTERISTICS

Max Shockload	230 kN (all directions)
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 215

RD 215
Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

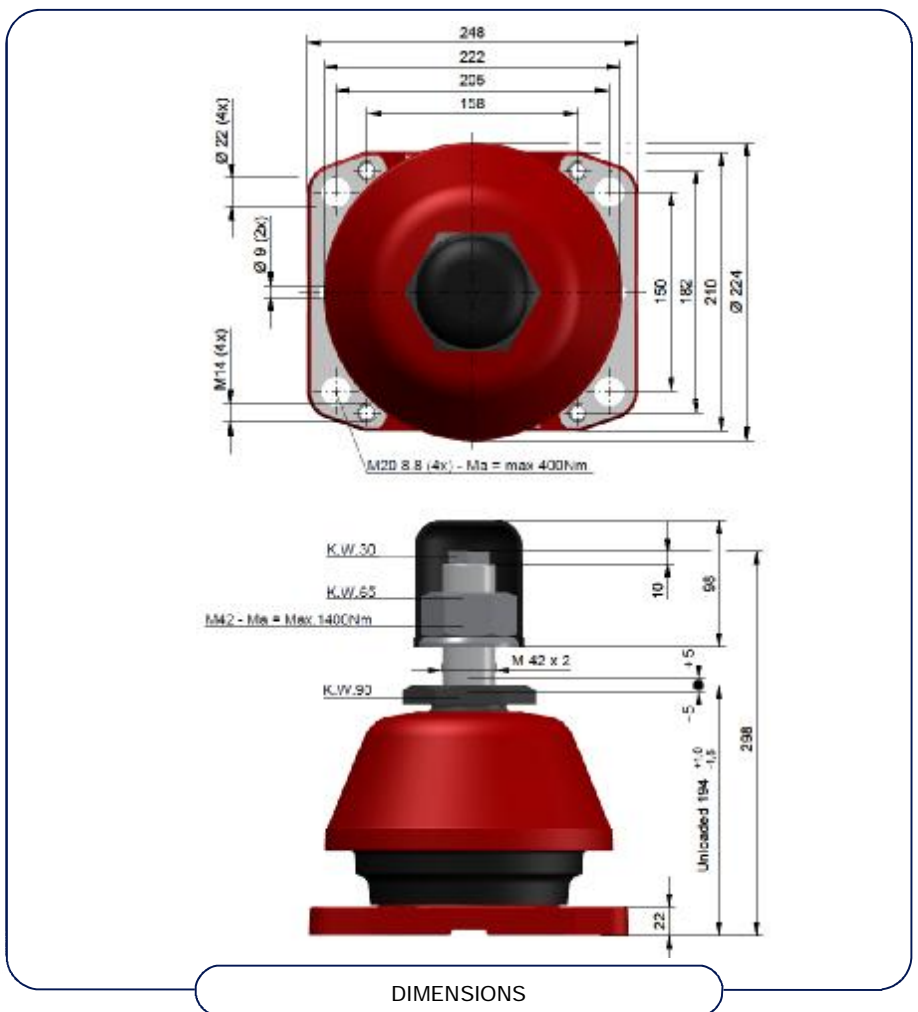
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	37	43	51
Max Static load [kN]	28	35	43	49	58
Max Static vert. defl. [mm]	16,2	15,8	15,3	15,0	14,4

CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 244

RD 244

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	36	42	48
Max Static load [kN]	29	34	42	45	53
Max Static vert. defl. [mm]	14	13,5	13	12,2	11,5

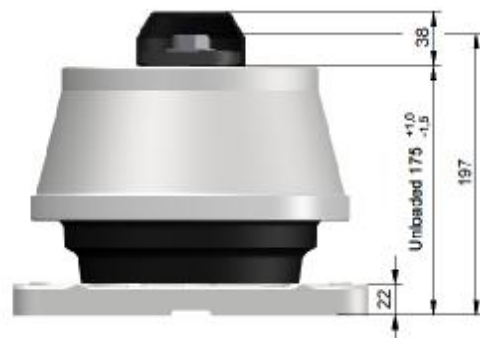
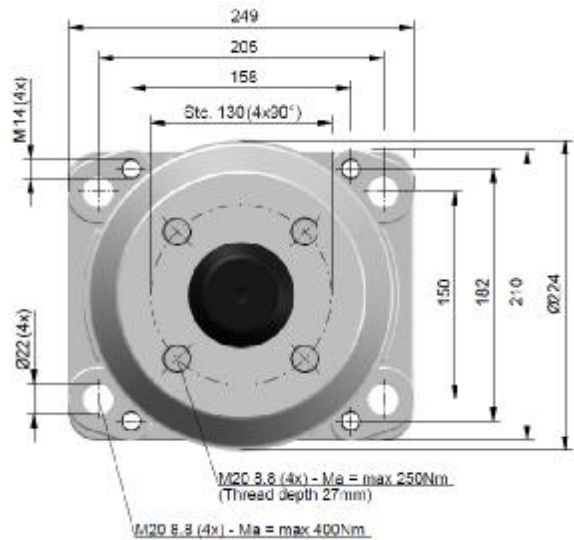
CHARACTERISTICS

Max Shockload	150 kN (all directions)
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 244

RD 244
Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

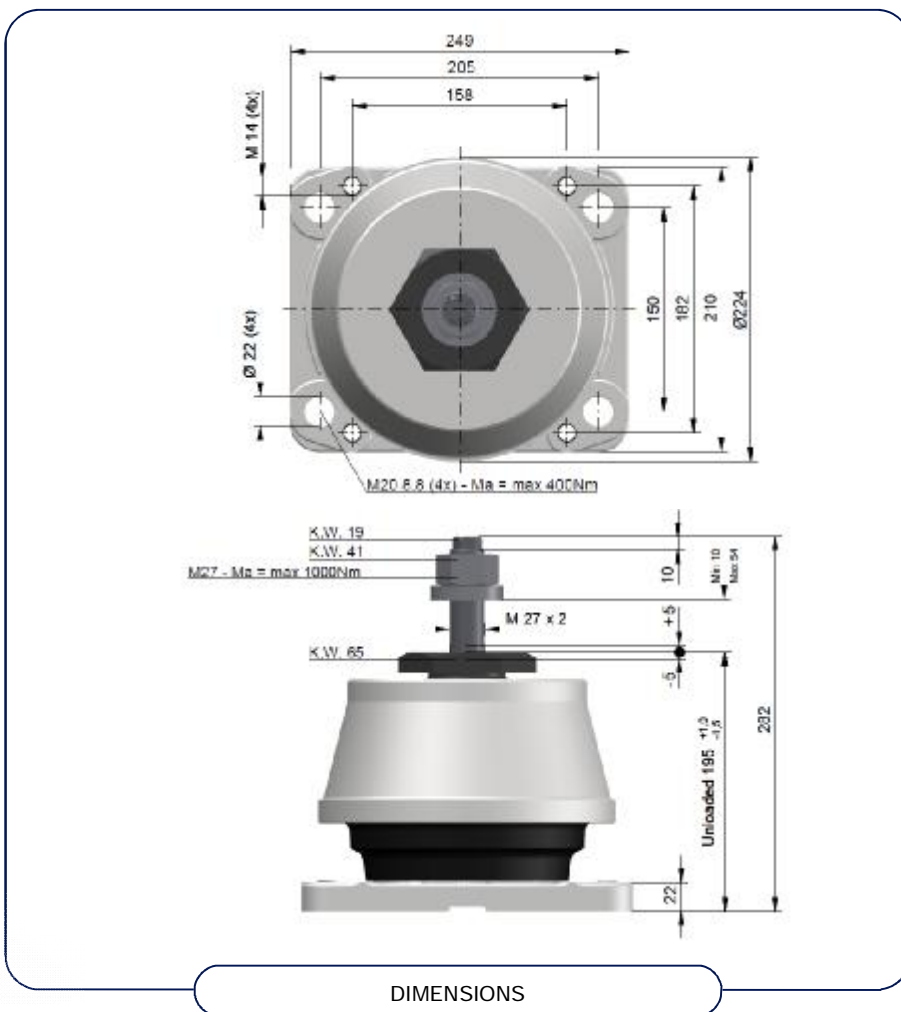
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	36	42	48
Max Static load [kN]	29	34	42	45	53
Max Static vert. defl. [mm]	14	13,5	13	12,2	11,5

CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 244

RD 244

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	36	42	48
Max Static load [kN]	29	34	42	45	53
Max Static vert. defl. [mm]	14	13,5	13	12,2	11,5

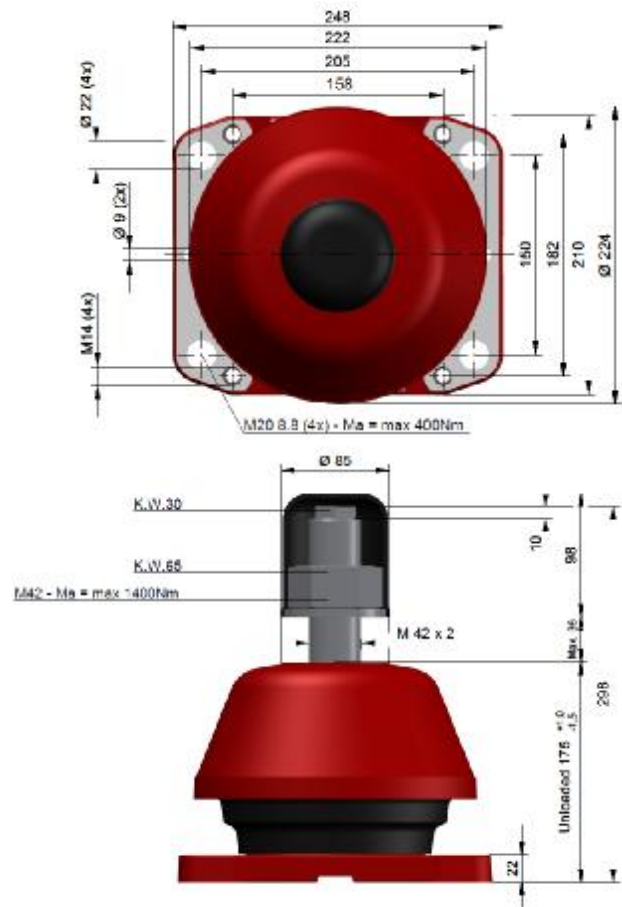
CHARACTERISTICS

Max Shockload	230 kN (all directions)
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 244

RD 244
Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

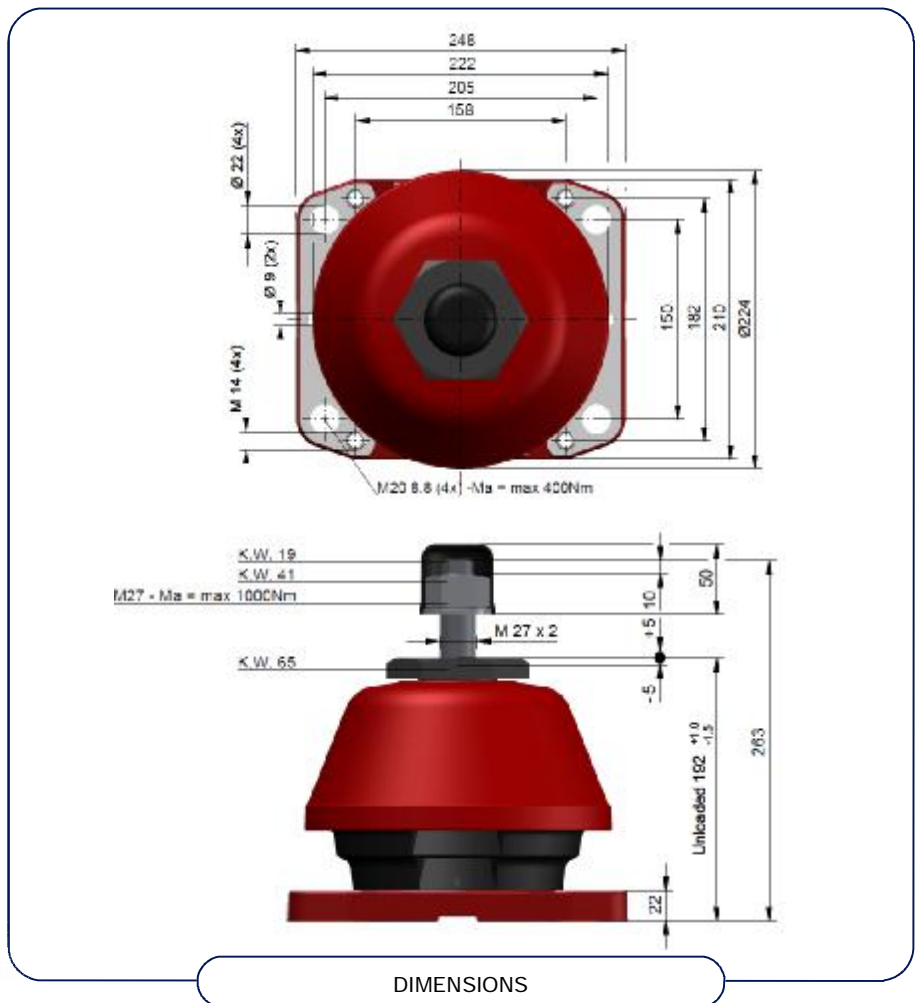
CLEARANCE

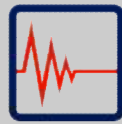
Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	25	30	36	42	48
Max Static load [kN]	29	34	42	45	53
Max Static vert. defl. [mm]	14	13,5	13	12,2	11,5

CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 314

RD 314

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	29	36	43	48	54
Max Static load [kN]	33	41	50	56	63
Max Static vert. defl. [mm]	12,2	11,6	11	10,5	9,8

CHARACTERISTICS

Max Shockload	70 kN (all directions)
---------------	------------------------

SHOCKLOAD

TYPE APPROVALS

DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 314 height re-adjustable

RD 314

Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

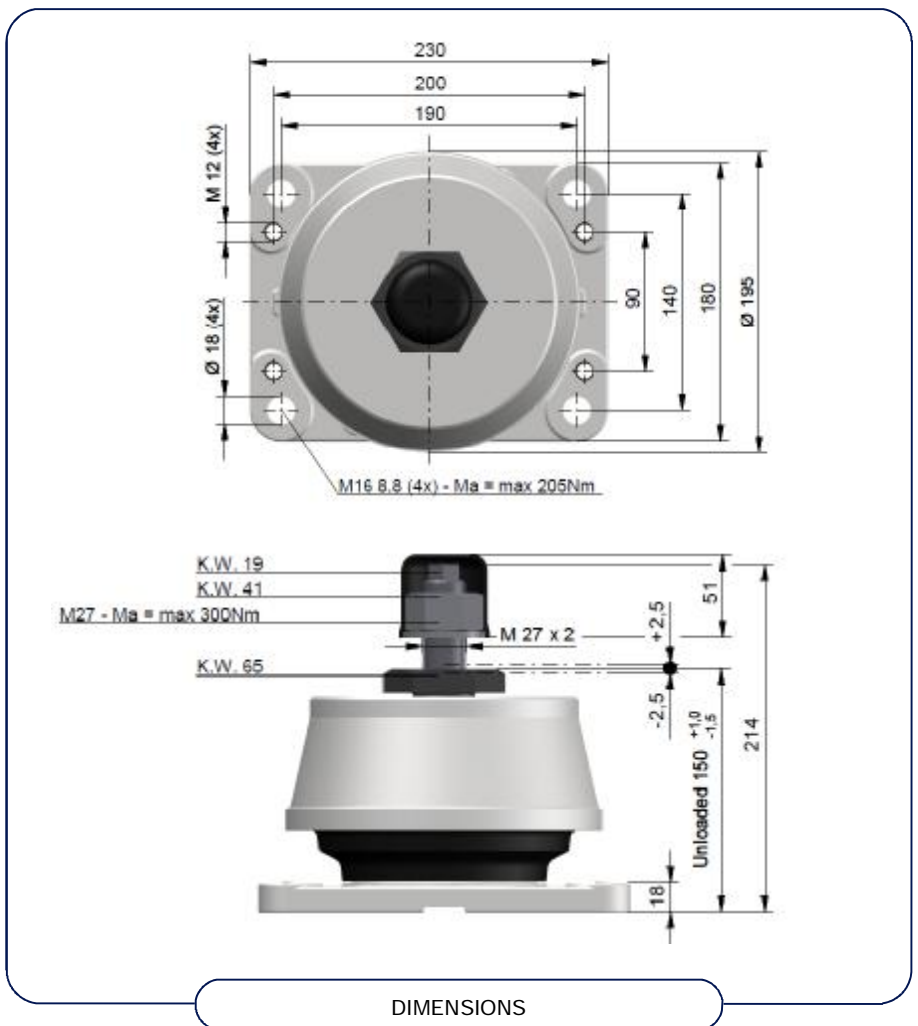
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	29	36	43	48	54
Max Static load [kN]	33	41	50	56	63
Max Static vert. defl. [mm]	14	13,5	13	12,2	11,5

CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 314

RD 314

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

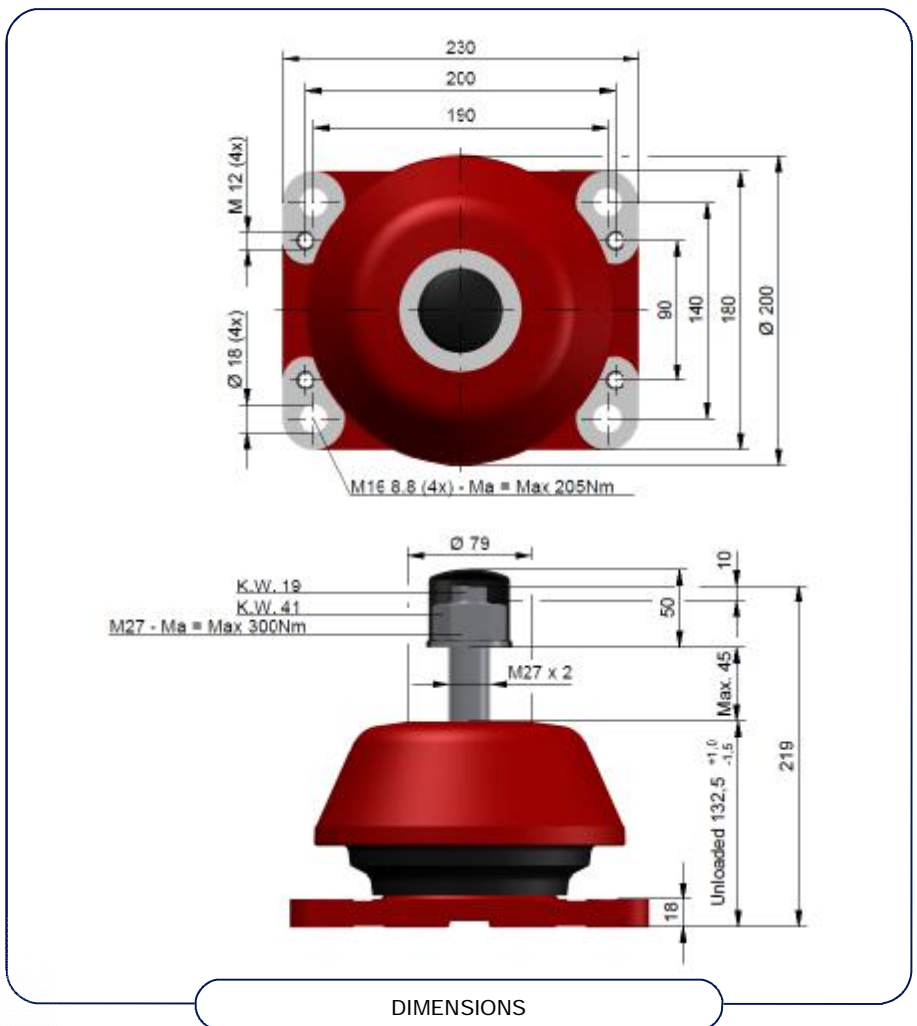
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	29	36	43	48	54
Max Static load [kN]	33	41	50	56	63
Max Static vert. defl. [mm]	12,2	11,6	11	10,5	9,8

CHARACTERISTICS

Max Shockload	160 kN (all directions)
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 314 height re-adjustable

RD 314

Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

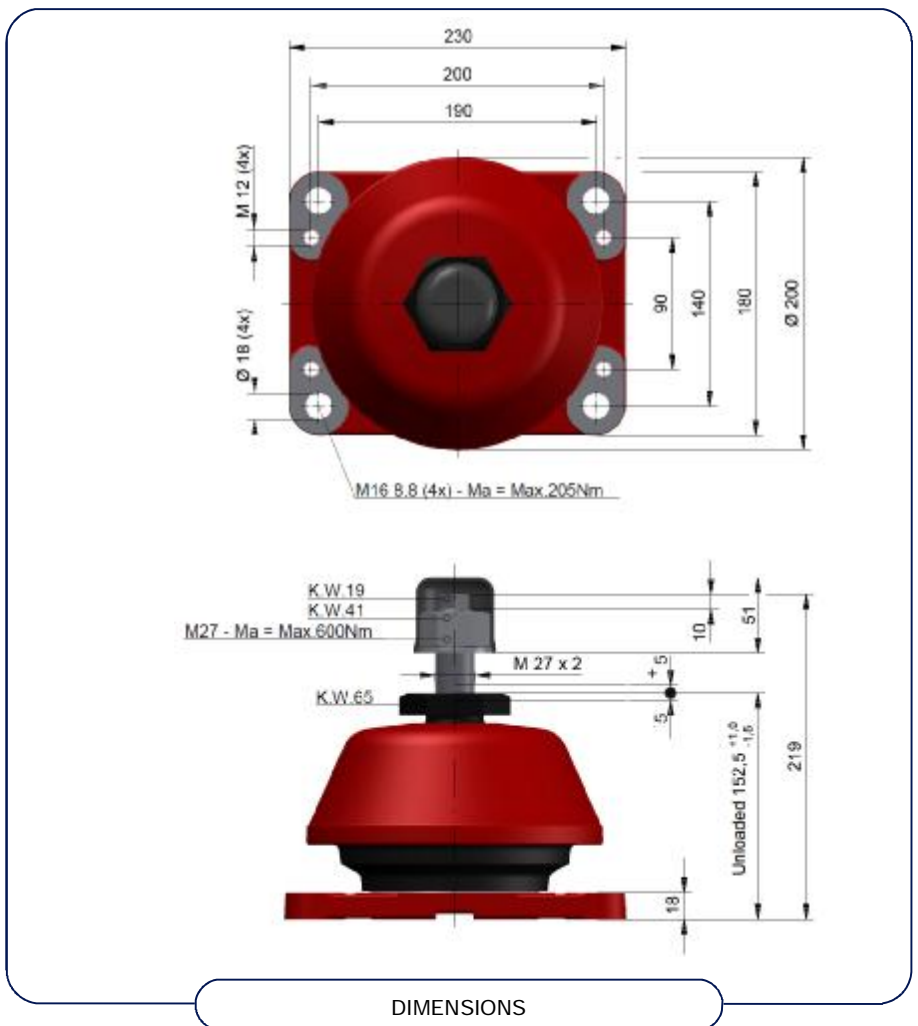
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	29	36	43	48	54
Max Static load [kN]	33	41	50	56	63
Max Static vert. defl. [mm]	12,2	11,6	11	10,5	9,8

CHARACTERISTICS

Max Shockload	Contact Rubber Design
---------------	-----------------------

SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 315

RD 315

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

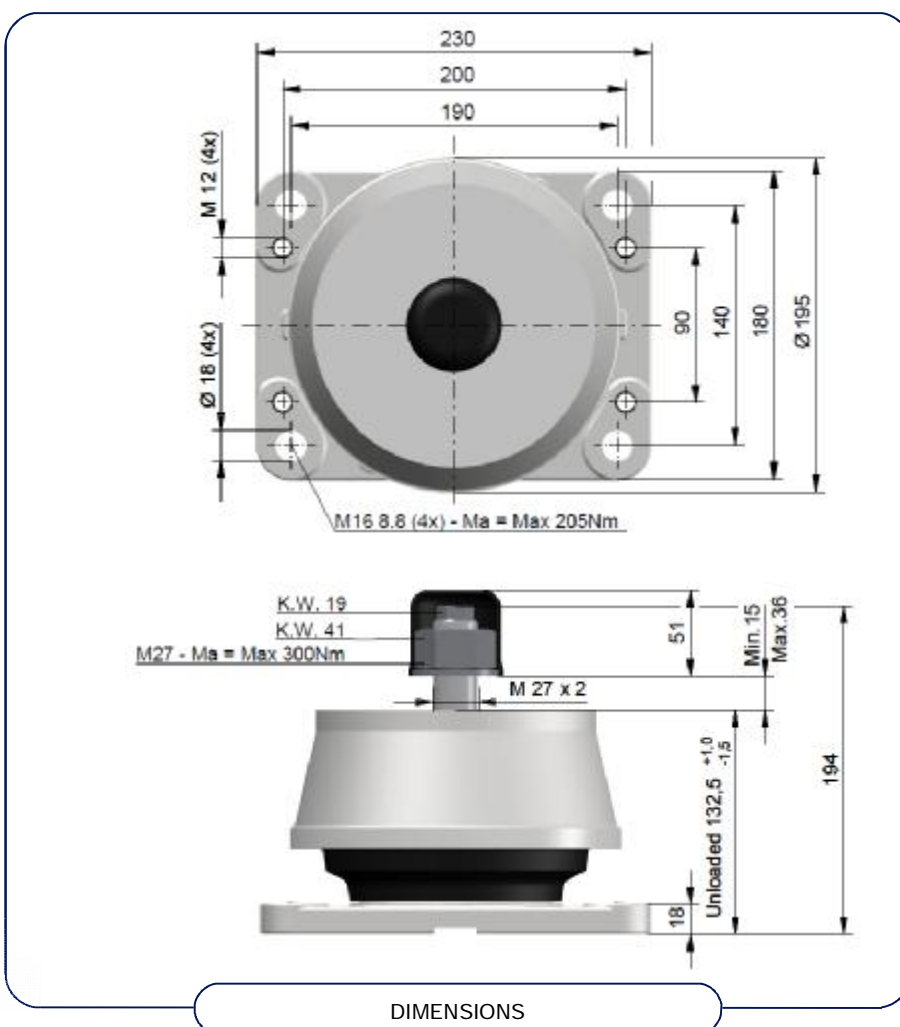
CLEARANCE

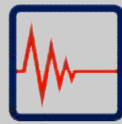
Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	16	20	26	30	33
Max Static load [kN]	18	22	30	35	39
Max Static vert. defl. [mm]	14,5	14,2	14	13,6	13

CHARACTERISTICS

Max Shockload	70 kN (all directions)
---------------	------------------------

SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 315

RD 315
Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

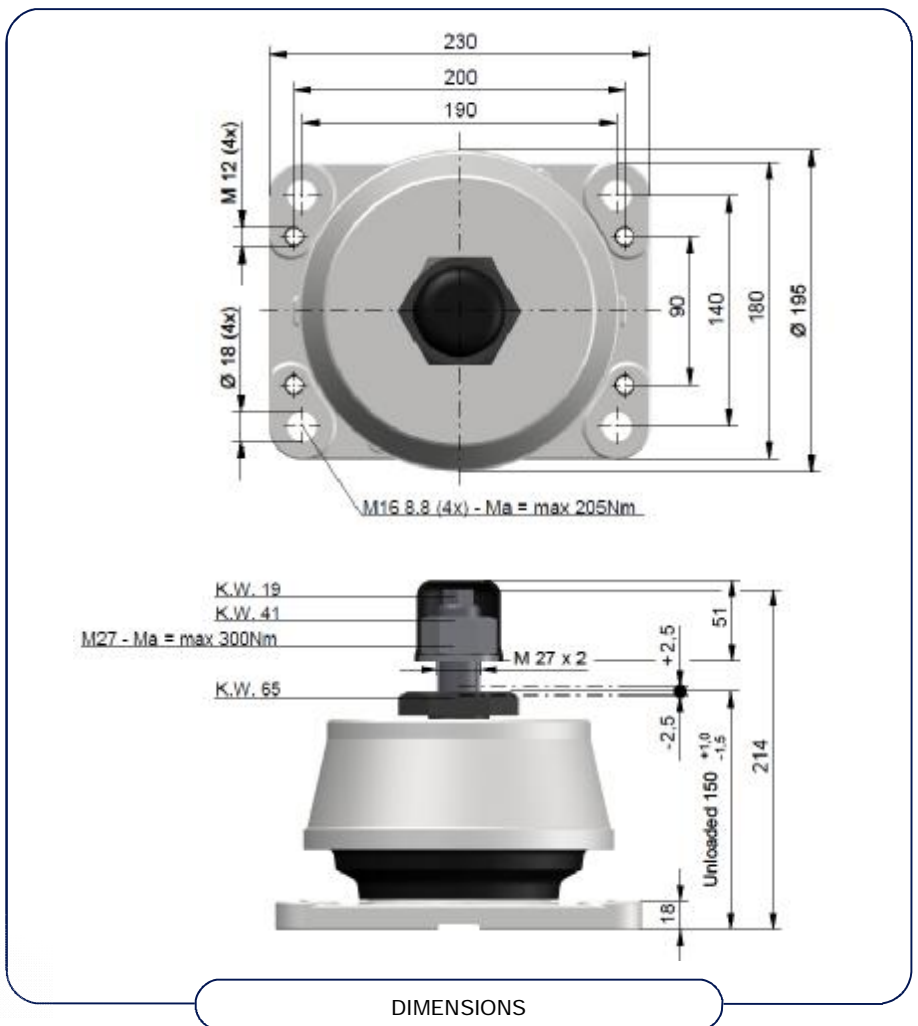
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	16	20	26	30	33
Max Static load [kN]	18	22	30	35	39
Max Static vert. defl. [mm]	14,5	14,2	14	13,6	13

CHARACTERISTICS

Max Shockload	70 kN (all directions)
---------------	------------------------

SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 315

RD 315

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

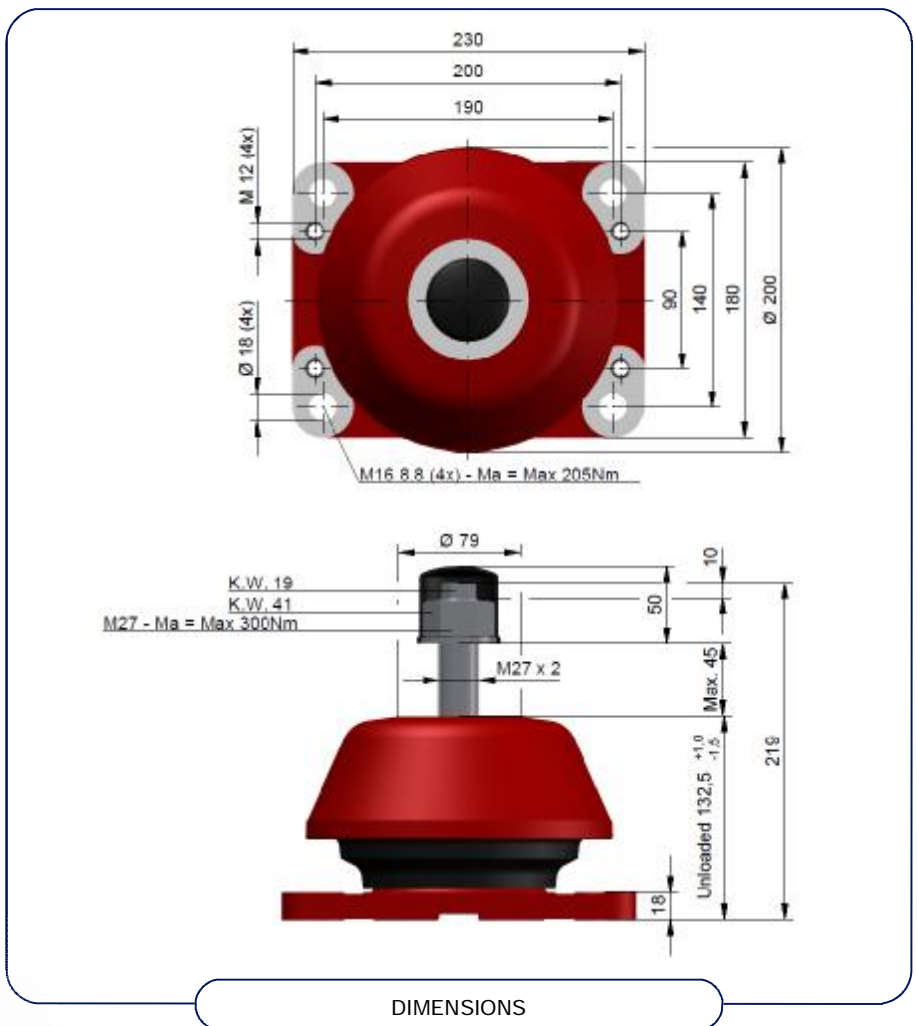
CLEARANCE

Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	16	20	26	30	33
Max Static load [kN]	18	22	30	35	39
Max Static vert. defl. [mm]	14,5	14,2	14	13,6	13

CHARACTERISTICS

Max Shockload	160 kN (all directions)
---------------	-------------------------

SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 315

RD 315
Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

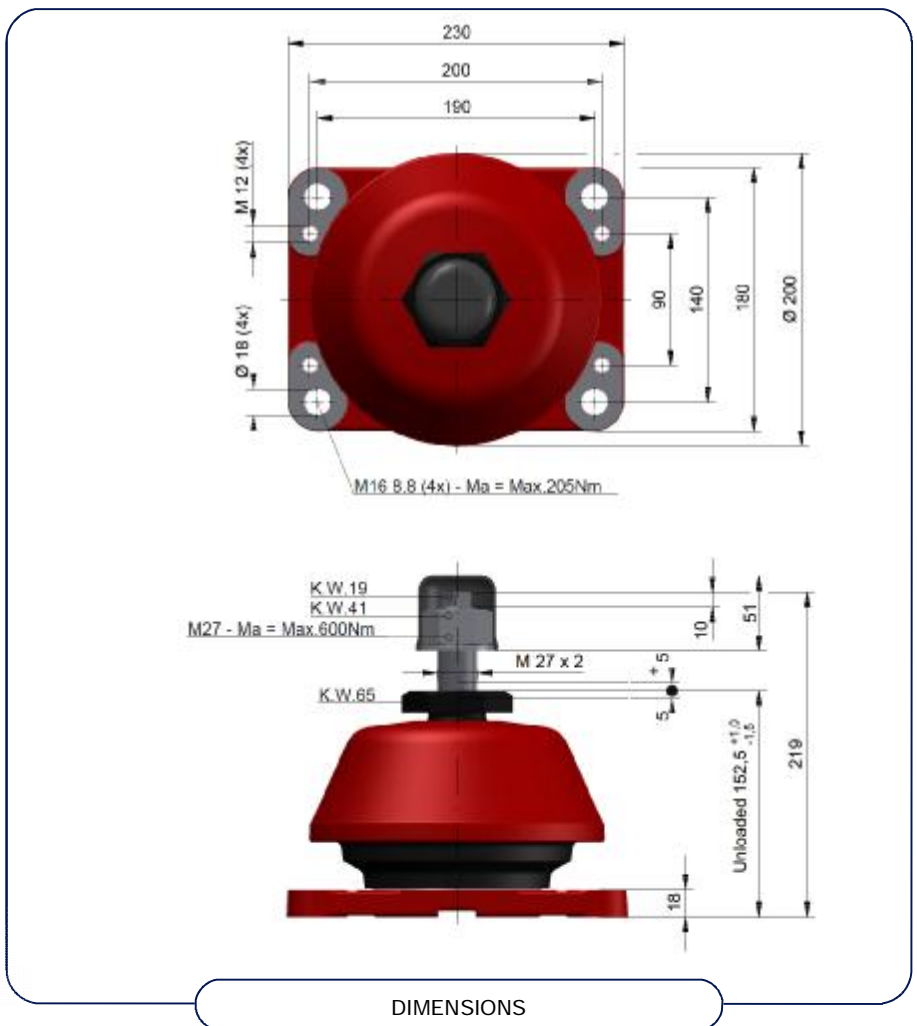
CLEARANCE

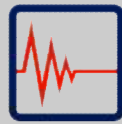
Rubber Hardness [*Sh. A]	45	50	55	60	65
Max Marine load [kN]	16	20	26	30	33
Max Static load [kN]	18	22	30	35	39
Max Static vert. defl. [mm]	14,5	14,2	14	13,6	13

CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 344

RD 344

	Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]		4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	55	60	65
Max Marine load [kN]	27,5	33	38,5
Max Static load [kN]	32	37,5	45
Max Static vert. defl. [mm]	11,5	11	10,5

CHARACTERISTICS

Max Shockload	70 kN (all directions)
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SHOCKLOAD

TYPE APPROVALS

DIMENSIONS

M16 8.8 (4x) - Ma = max 150Nm

K.W. 19
K.W. 41
M27 - Ma = max 300Nm

M 27 x 2

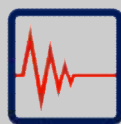
Min. 15
Max. 36

Unloaded 132,5^{+1,0}_{-1,5}

18

194





DOCUMENTATION SHEET

Conical Mountings
Type RD 344

RD 344
Height re-adjustable



Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [°Sh. A]	55	60	65
Max Marine load [kN]	27,5	38,5	44
Max Static load [kN]	32	45	52
Max Static vert. defl. [mm]	11,5	10,5	10,8

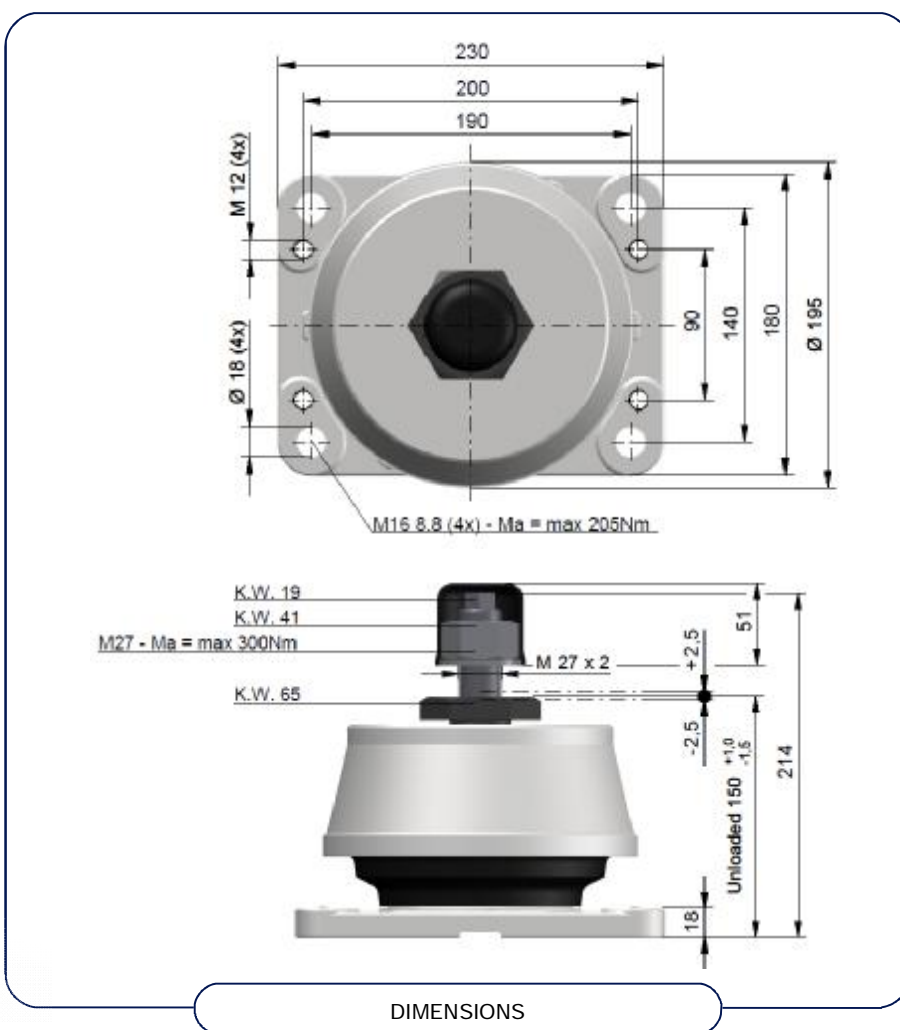
CHARACTERISTICS

Max Shockload	Contact Rubber Design
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 344

RD 344

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

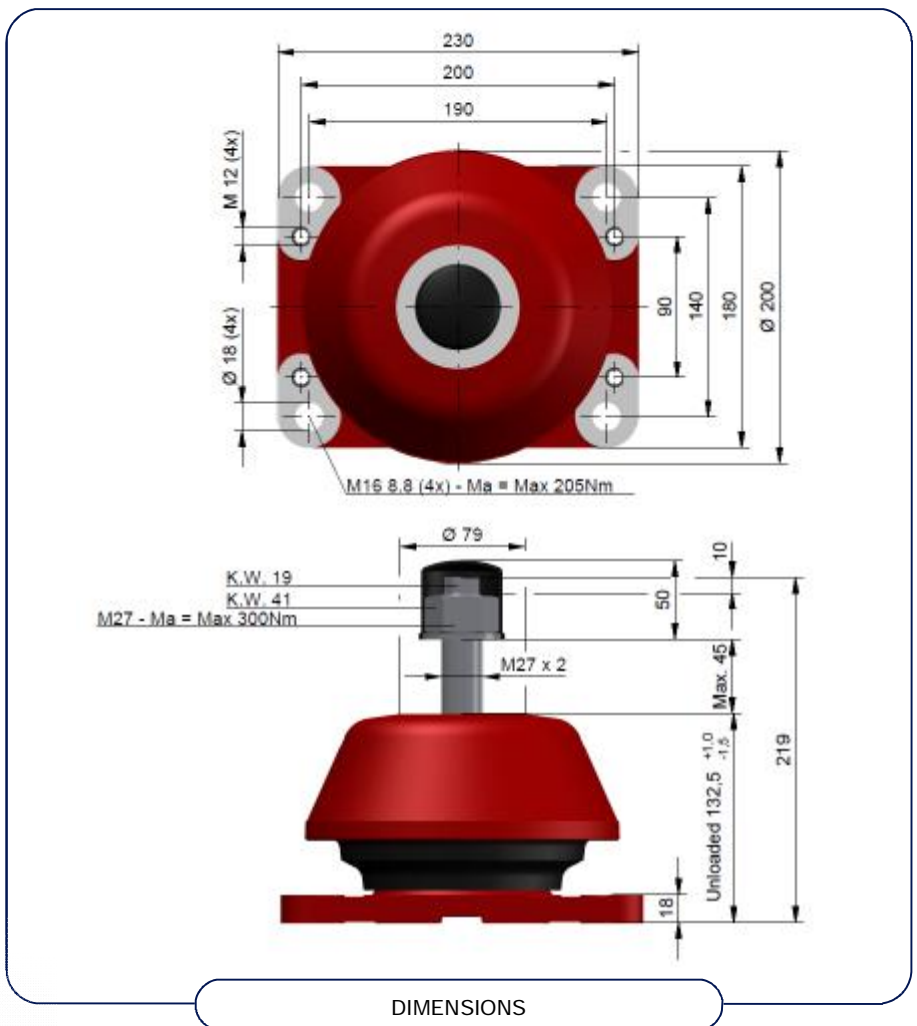
CLEARANCE

Rubber Hardness [*Sh. A]	55	60	65
Max Marine load [kN]	27,5	33	38,5
Max Static load [kN]	32	37,5	45
Max Static vert. defl. [mm]	11,5	11	10,5

CHARACTERISTICS

Max Shockload	160 kN (all directions)
---------------	-------------------------

SHOCKLOAD





DOCUMENTATION SHEET

Conical Mountings
Type RD 344

RD 344

Height re-adjustable

Direction	Vertical up	Vertical down	Radial
Displacement limiter clearance [mm]	4	4	3

CLEARANCE

Rubber Hardness [*Sh. A]	55	60	65
Max Marine load [kN]	27,5	33	38,5
Max Static load [kN]	32	37,5	45
Max Static vert. defl. [mm]	11,5	11	10,5

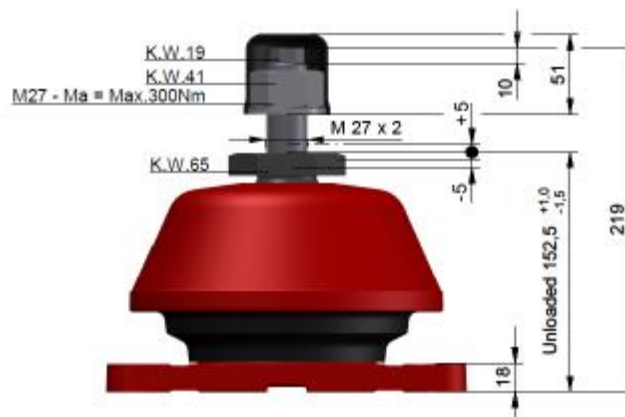
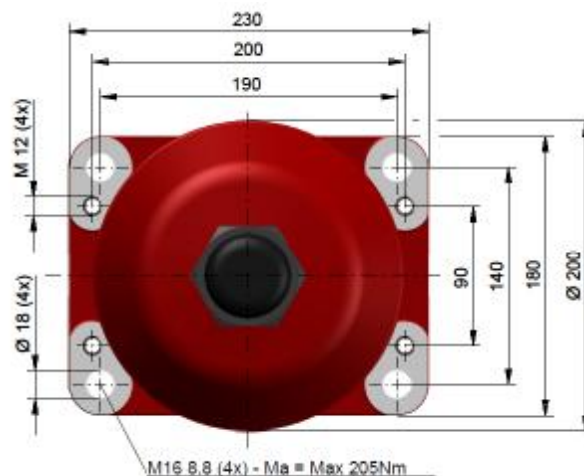
CHARACTERISTICS

Max Shockload Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 414

RD 414

Direction	Vertical up	Vertical down	Radial
Clearance [mm]	3	9	2,5

Vertical depending on deflection

CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	11,0	12,2	13,6	14,6	16,2
Max Static load [kN]	12,5	13,6	14,9	16,4	18,0
Max Static vert. defl. [mm]	7,6	7,3	6,8	6,5	6,1

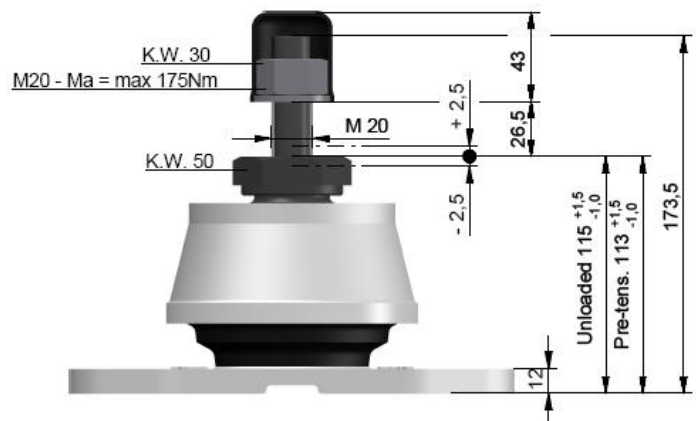
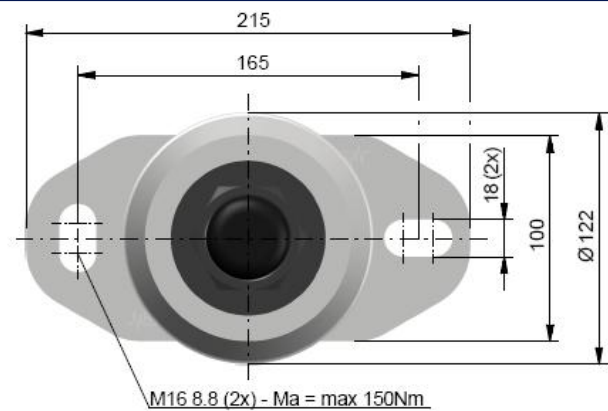
CHARACTERISTICS

Shockload	25 kN (all directions)
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SHOCKLOAD

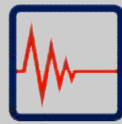


TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings
Type RD 415

RD 415

Direction	Vertical up	Vertical down	Radial
Clearance [mm]	5,4	6,2	7,1

Vertical depending on deflection

CLEARANCE

Rubber Hardness [°Sh. A]	45	50	55	60	65
Max Marine load [kN]	5,2	6,3	7,5	8,4	9,2
Max Static load [kN]	5,7	7,2	8,8	9,7	10,7
Max Static vert. defl. [mm]	9,2	9,1	8,9	8,7	8,4

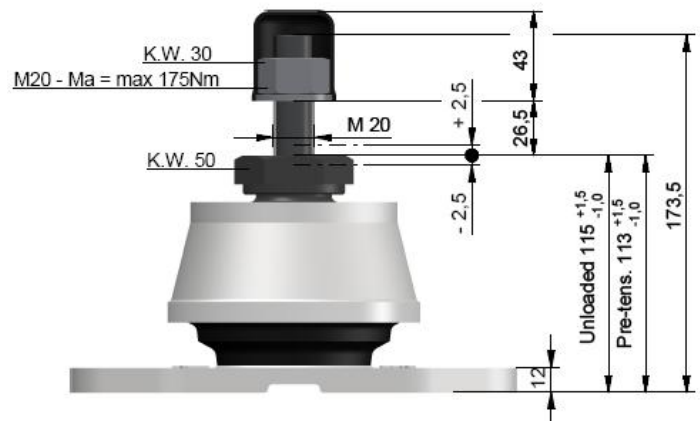
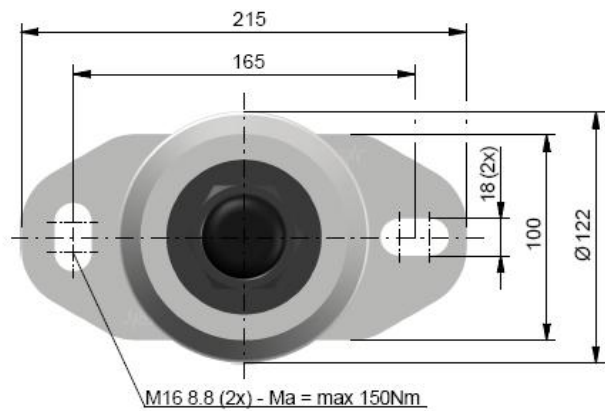
CHARACTERISTICS

Shockload	25 kN (all directions)
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SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mounting
Required information

REQUIRED INFORMATION

General

The table below contains information that is necessary to design a suitable flexible suspension

	MARINE					APPLICATION				MISCELLANEOUS	
	MAIN ENGINES	AUXILIARY ENGINES	EXHAUST SYSTEM	DECKHOUSE	CONTROL CABIN	COMPRESSOR UNIT	PUMP UNIT	GENERATORSET	COMPRESSOR UNIT		PUMP UNIT
Description of installation + drawing(s)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Manufacturer / Type	✓	✓				✓	✓	✓	✓	✓	✓
Number of cylinders / 2-4 stroke / L-V	✓	✓	✓			✓	✓	✓	✓	✓	✓
Mass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Centre of gravity in X, Y, Z direction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mass moments of inertia - 3 axes	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Number of mountings + positions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Details flexible coupling(s)	✓										✓
Details compensator(s)	✓	✓	✓			✓	✓	✓	✓	✓	✓
Reduction gearbox	✓										✓
Operating speed + output Idling	✓		✓								✓
Operating speed + output Normal	✓	✓	✓			✓	✓	✓	✓	✓	✓
Operating speed + output Maximum	✓		✓								✓
Number of revolutions of propeller shaft	✓	✓	✓	✓	✓	✓	✓				
Number of propeller blades	✓	✓	✓	✓	✓	✓	✓				
Free forces / moments	✓	✓				✓	✓	✓	✓	✓	✓
Type of vessel + classification	✓	✓	✓	✓	✓	✓	✓				
Seaway conditions	✓	✓	✓	✓	✓	✓	✓				
Shock conditions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ambient temperature	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Preserving requirements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

TABLE

