



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

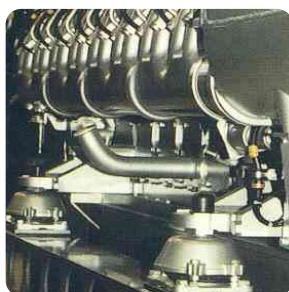
It is our intention to maintain the excellent standard of our products. Modifications and improvements may be made from time to time, therefore we advise to contact us before ordering.



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	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

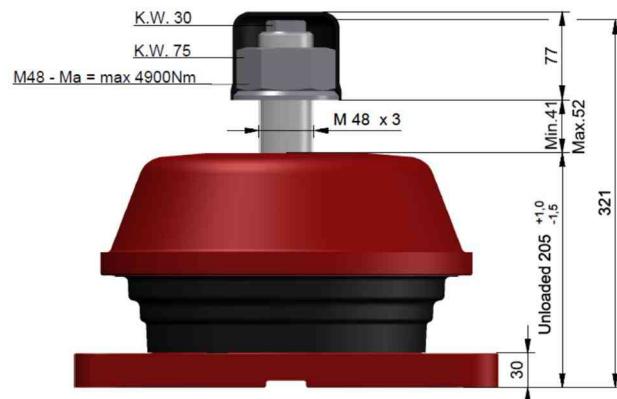
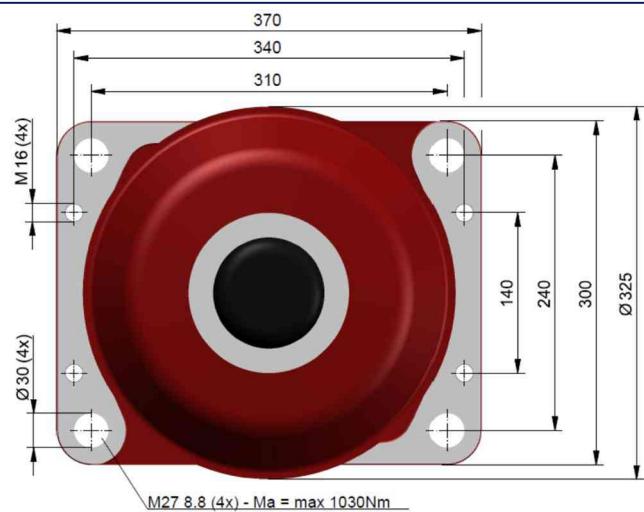
Shockload

300 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



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

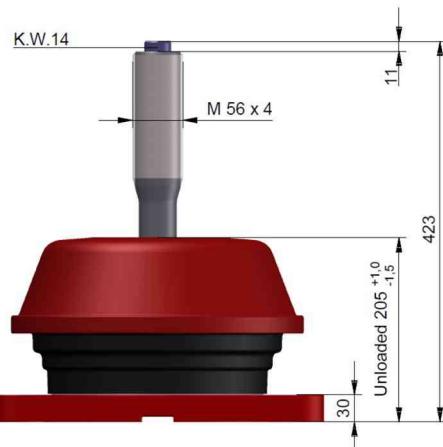
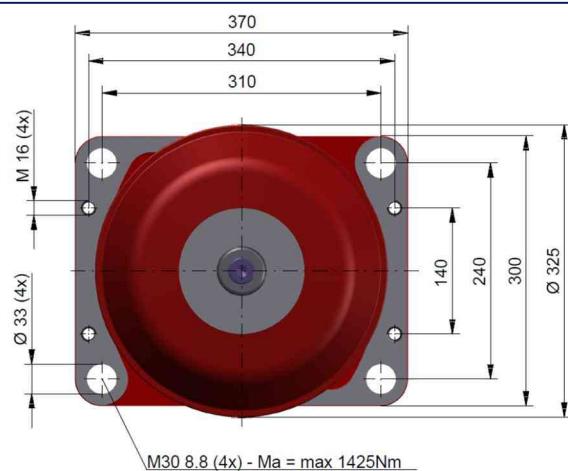
Shockload

360 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 114

RD 114

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

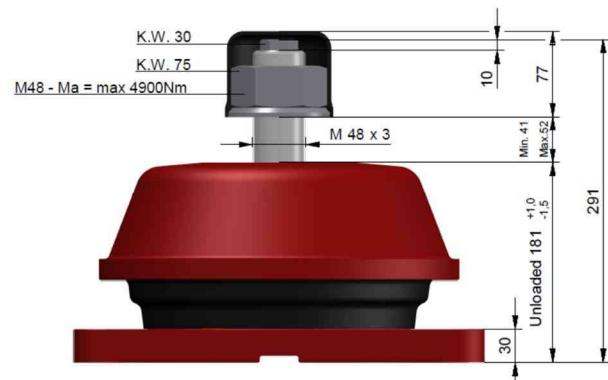
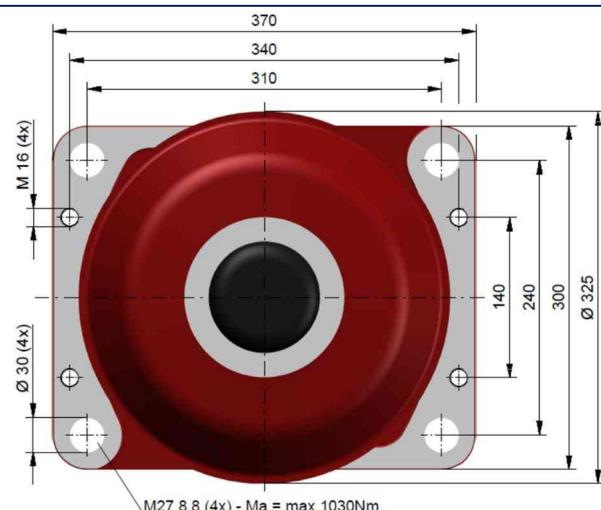
Shockload

300 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 114 height re-adjustable

RD 114

Height re-adjustable



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

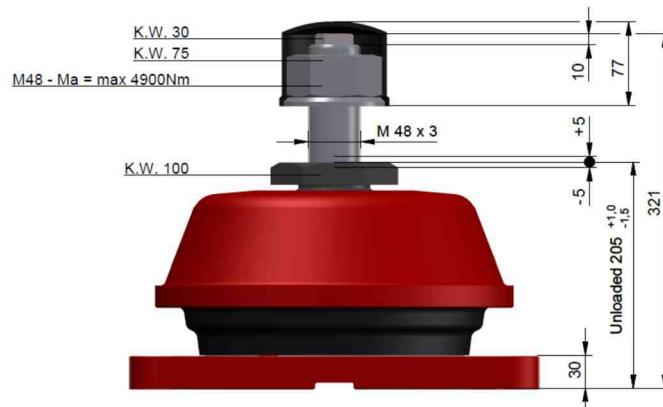
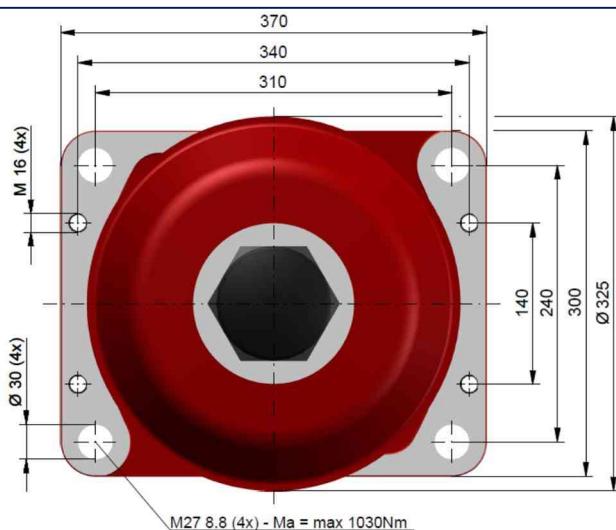
Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



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Conical Mountings

Type RD 114X

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

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

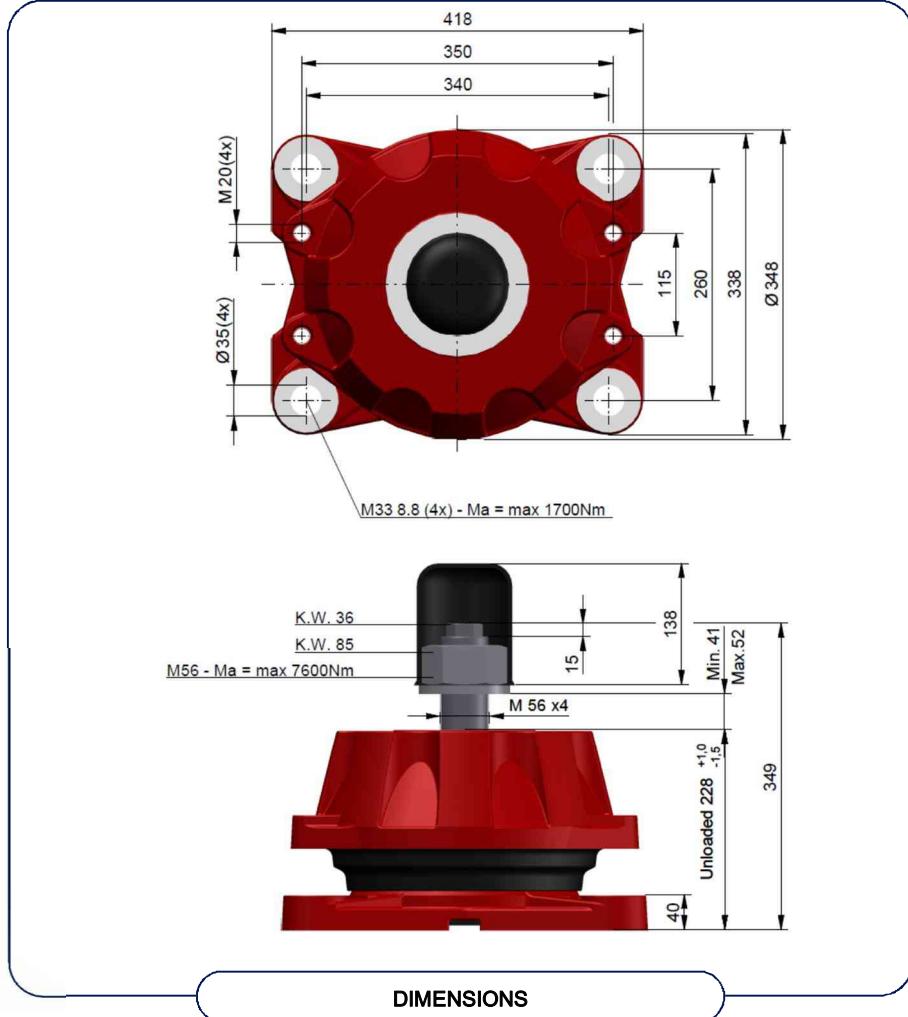
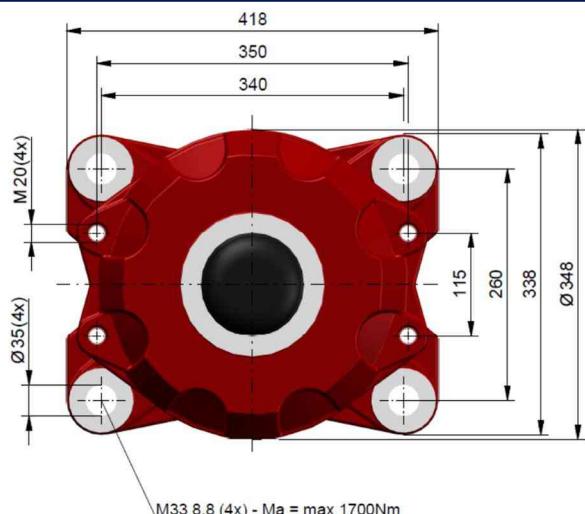
CHARACTERISTICS

Shockload 450 kN (all directions)

SHOCKLOAD



TYPE APPROVALS





DOCUMENTATION SHEET

Conical Mountings

Type RD 114X

RD 114X
Height re-adjustable



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

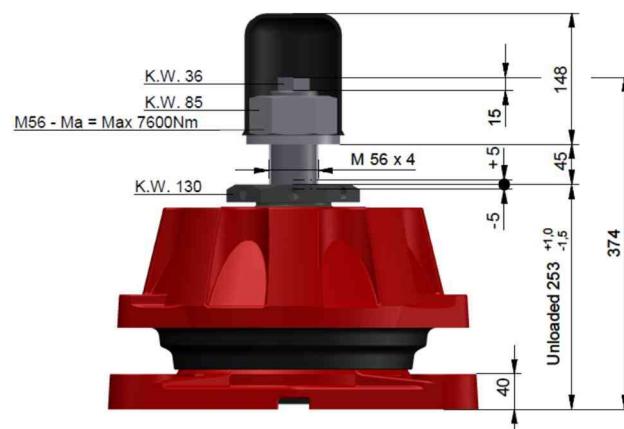
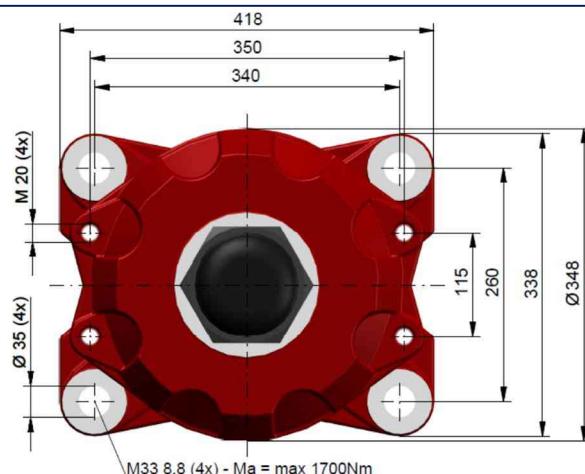
SHOCKLOAD



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TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 115

RD 115

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

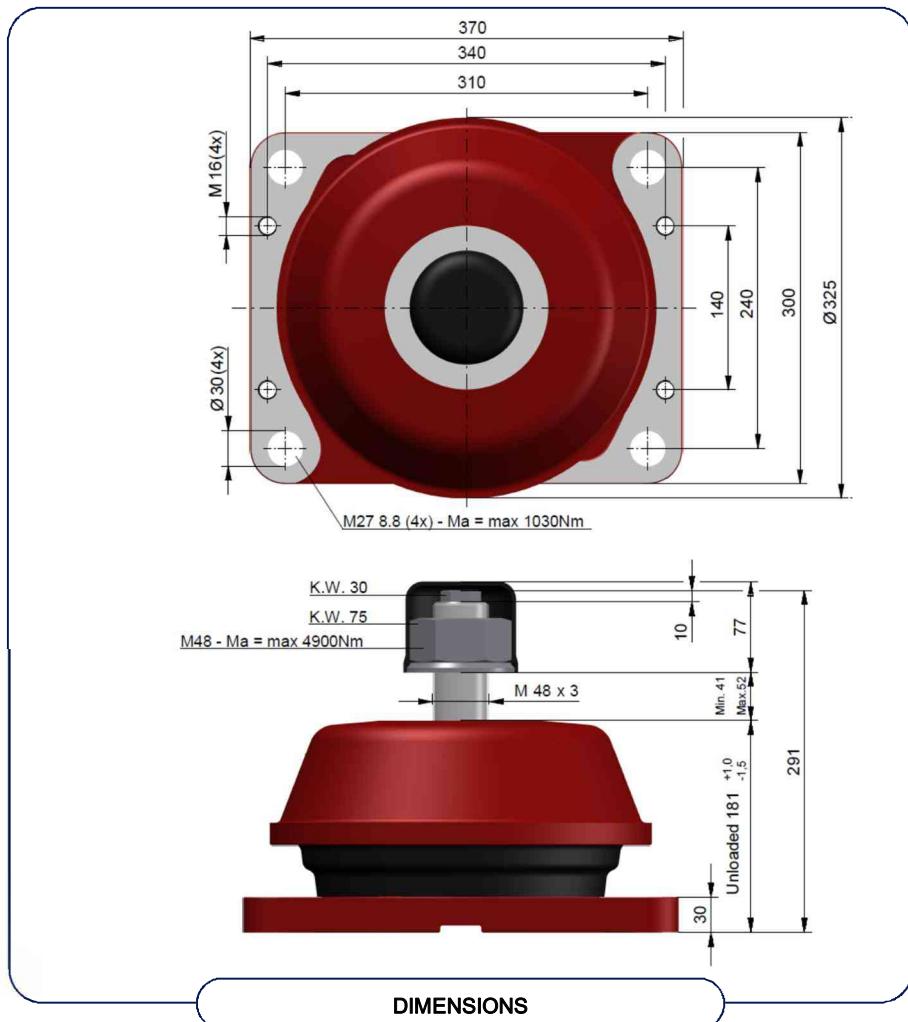
Shockload

300 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 115

RD 115

Height re-adjustable



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

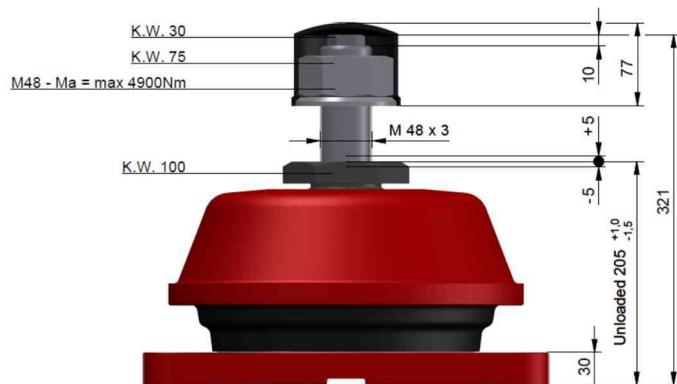
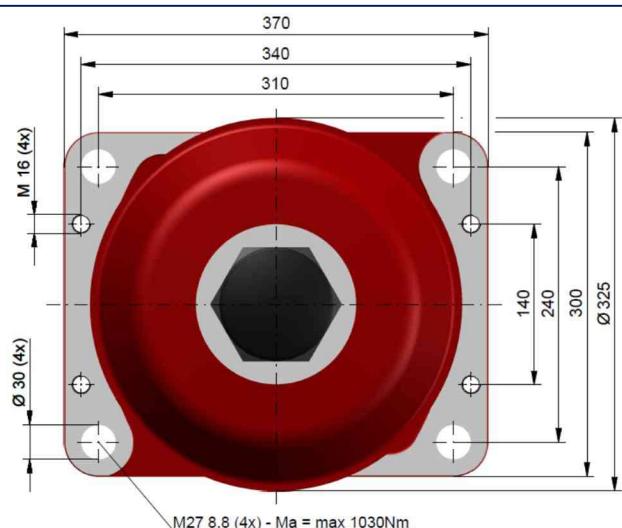
Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 214

RD 214

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

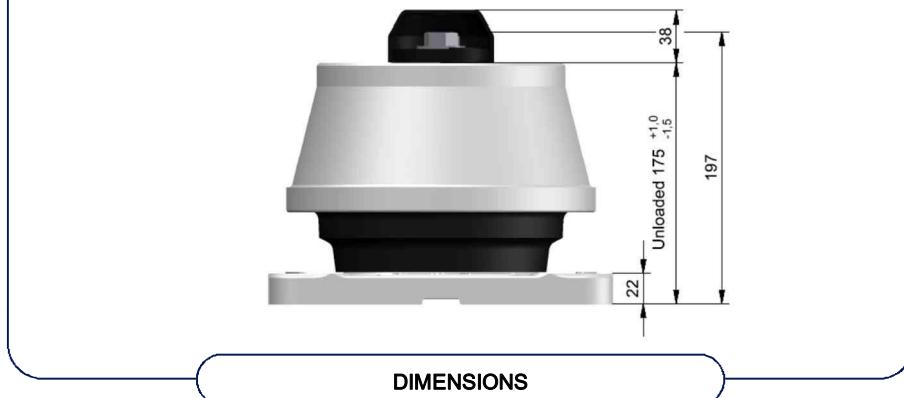
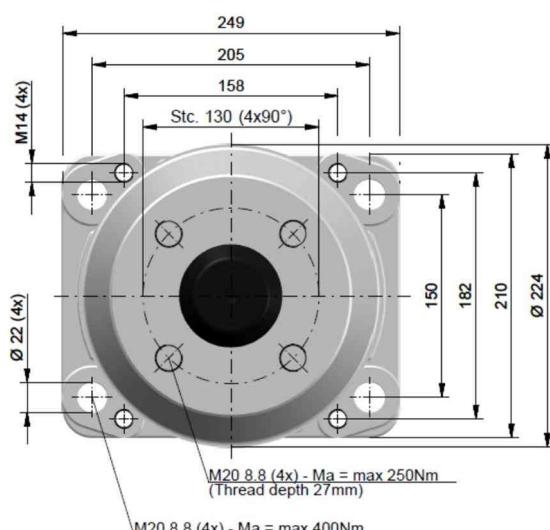
Max Shockload

150 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings
Type RD 214 height re-adjustable

RD 214

Height re-adjustable



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

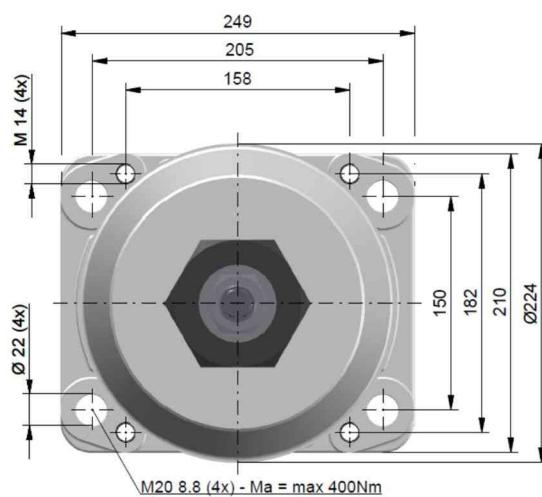
Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 214

RD 214

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

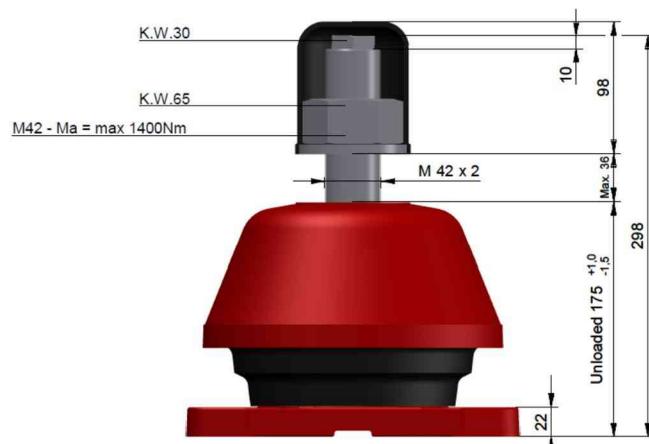
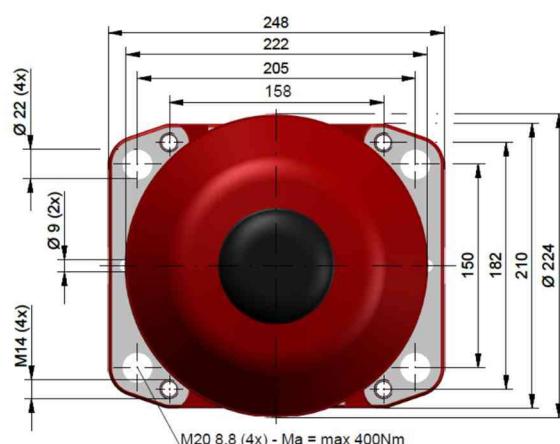
Max Shockload

230 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 214 height re-adjustable

RD 214

Height re-adjustable



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

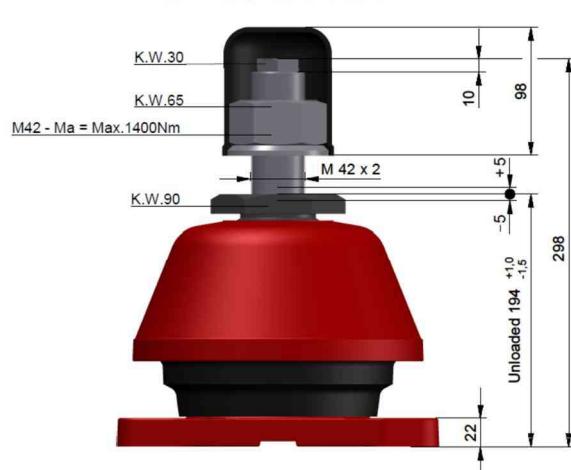
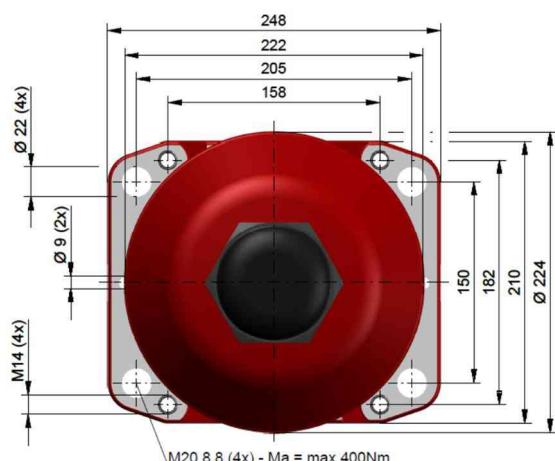
SHOCKLOAD



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TYPE APPROVALS



DIMENSIONS



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Conical Mountings

Type RD 214X

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

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

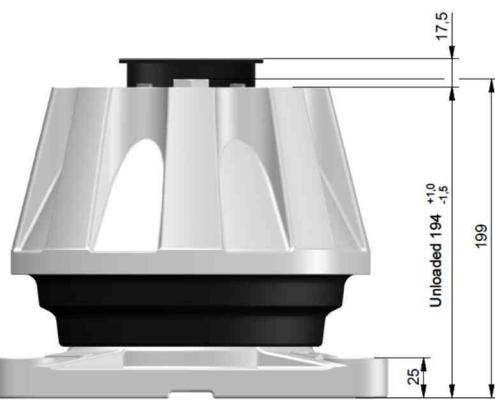
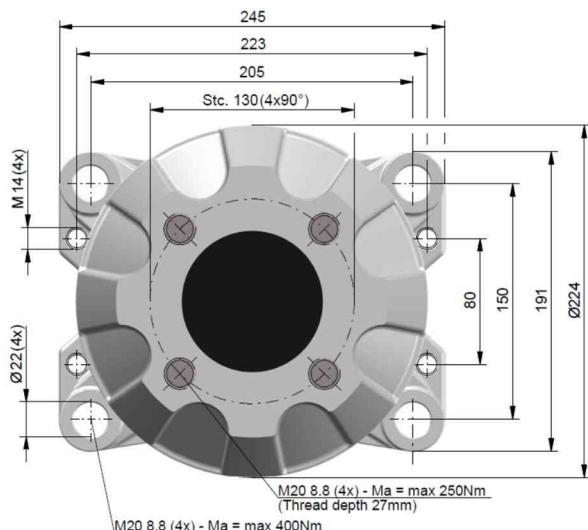
CHARACTERISTICS

Max Shockload 150 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 214X

RD 214X

1

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

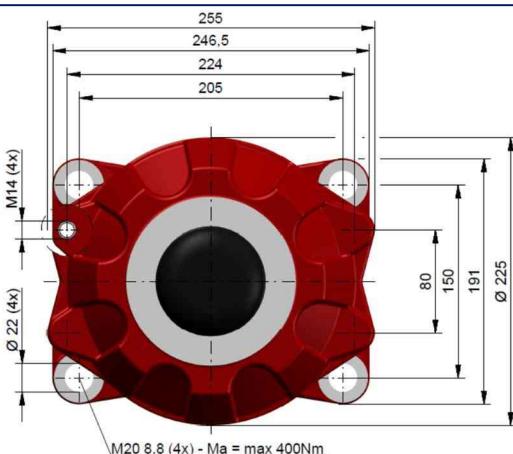
Max Shockload

230 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 214X

RD 214X
Height re-adjustable



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

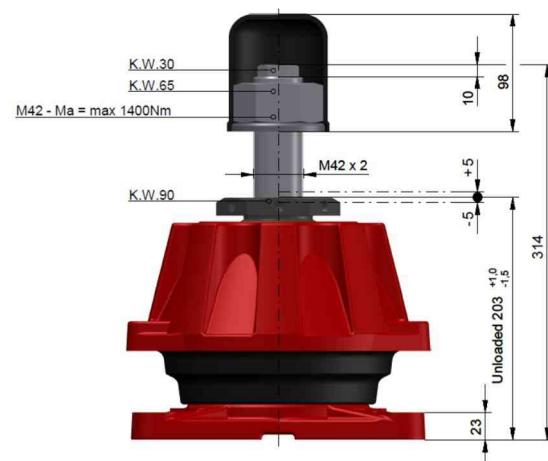
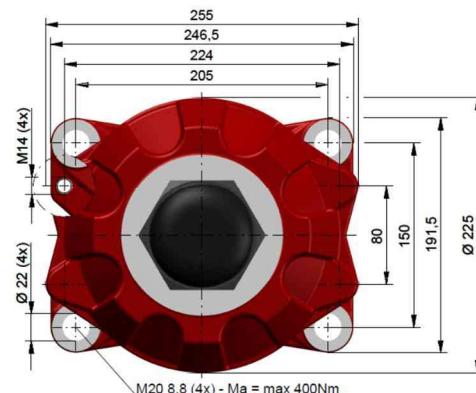
Max Shockload

230 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 215

RD 215

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

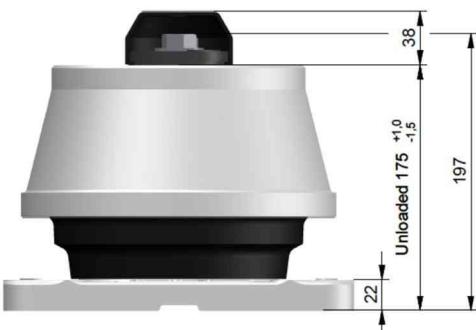
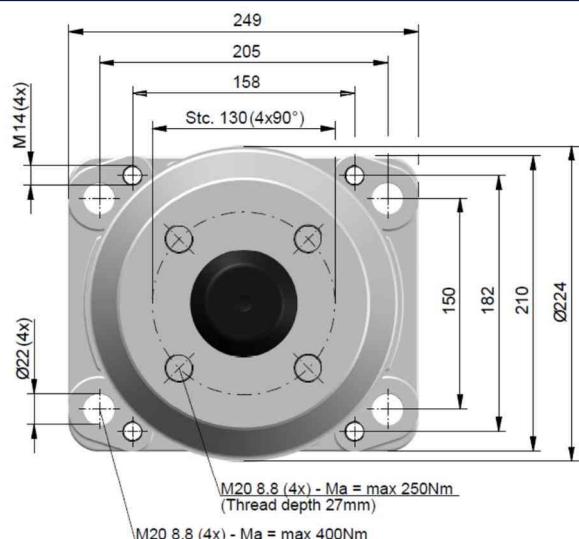
Max Shockload

150 kN (all directions)

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

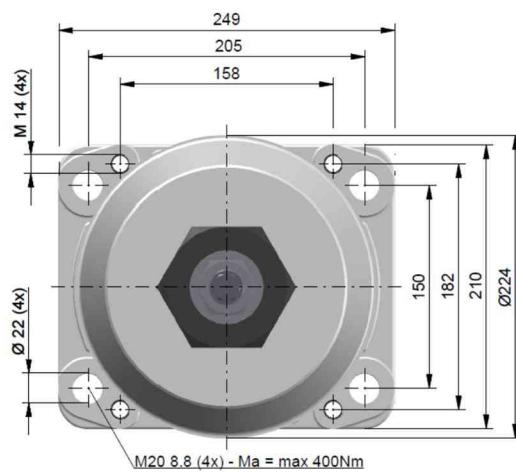
Max Shockload

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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)

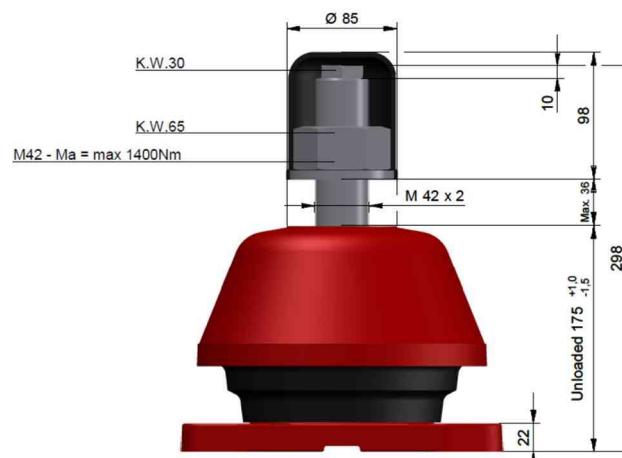
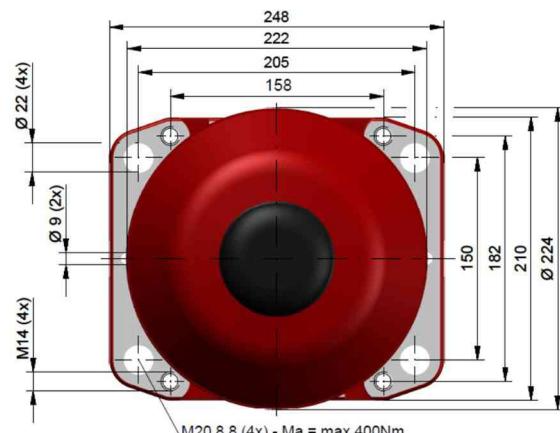
SHOCKLOAD



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Register



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 215

RD 215

Height re-adjustable



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

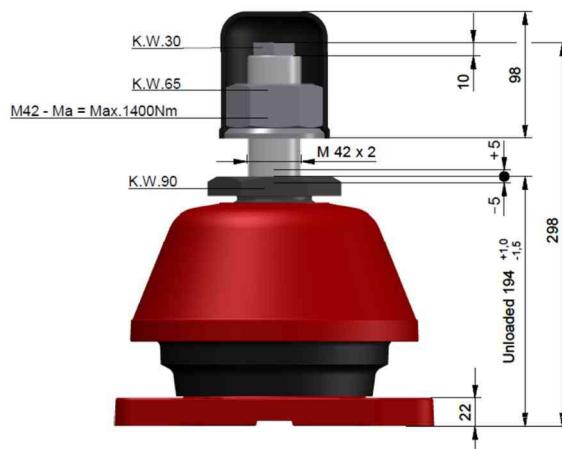
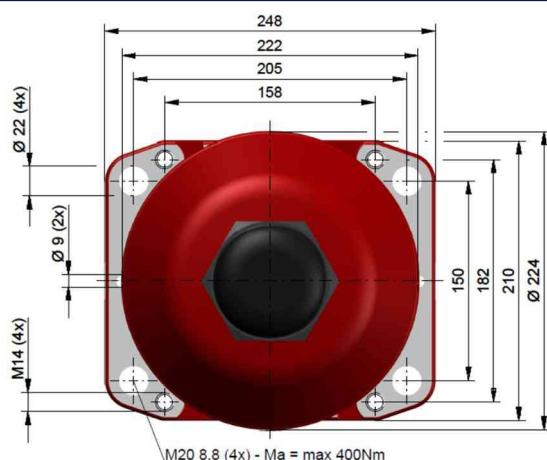
Max Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS

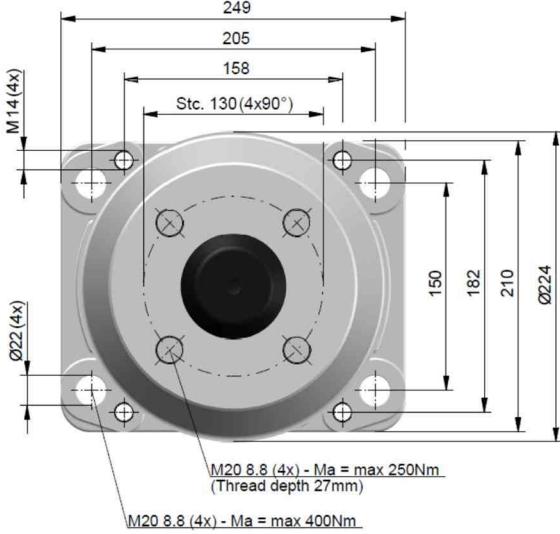


DOCUMENTATION SHEET

Conical Mountings

Type RD 244

RD 244

	Direction	Vertical up	Vertical down	Radial				
Displacement limiter clearance [mm]	4	4	4	3				
CLEARANCE								
Rubber Hardness [°Sh. A]	45	50	55	60				
Max Marine load [kN]	25	30	36	42				
Max Static load [kN]	29	34	42	45				
Max Static vert. defl. [mm]	14	13,5	13	12,2				
CHARACTERISTICS								
Max Shockload	150 kN (all directions)							
SHOCKLOAD								
      								
TYPE APPROVALS								
		DIMENSIONS						





DOCUMENTATION SHEET

Conical Mountings

Type RD 244

RD 244

Height re-adjustable



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

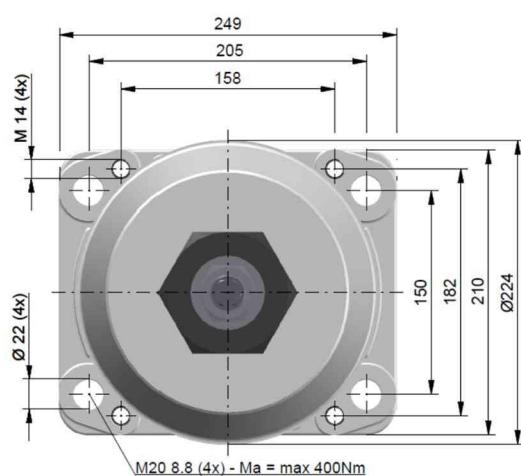
Max Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 244

RD 244

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

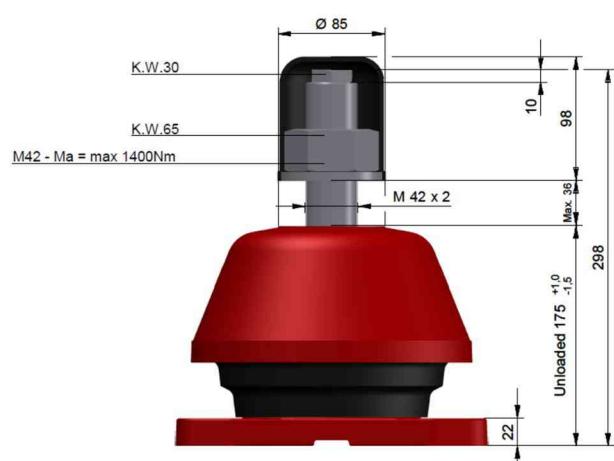
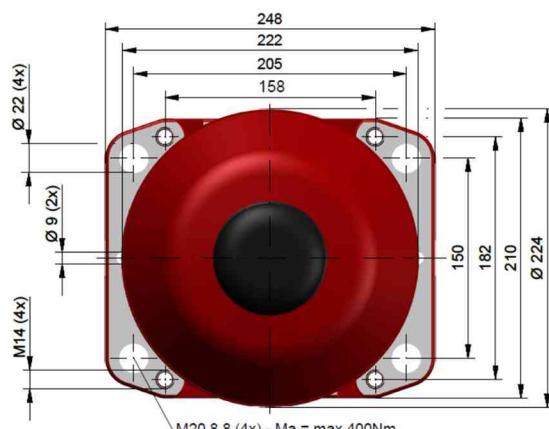
Max Shockload

230 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 244

RD 244

Height re-adjustable



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

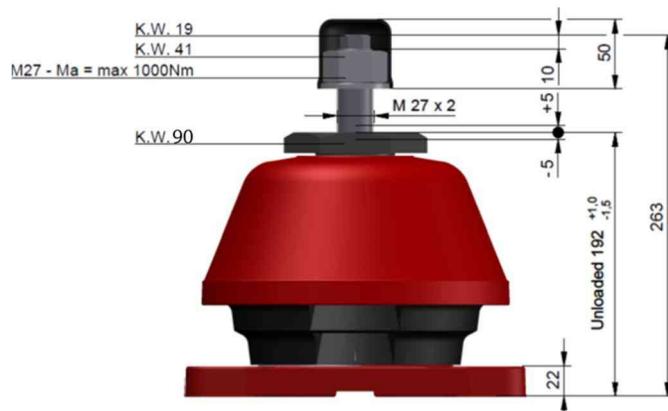
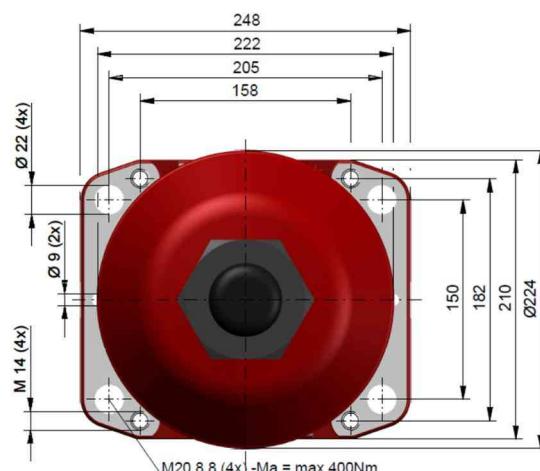
Max Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS

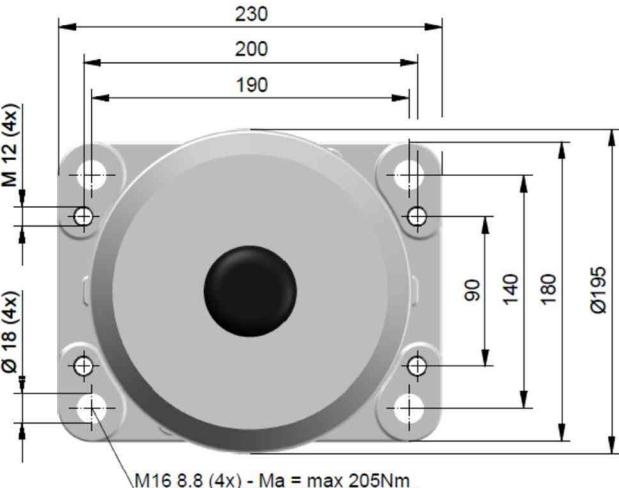
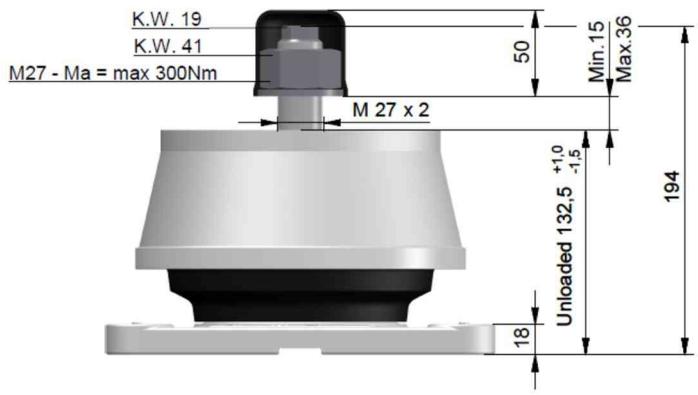


DOCUMENTATION SHEET

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				
Max Marine load [kN]	29	36	43	48				
Max Static load [kN]	33	41	50	56				
Max Static vert. defl. [mm]	12,2	11,6	11	10,5				
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



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

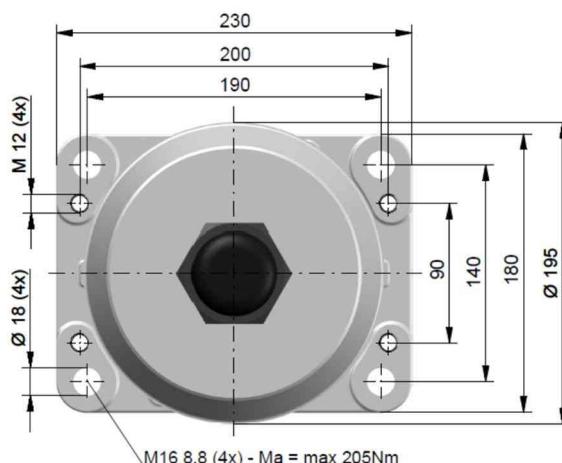
SHOCKLOAD



Lloyd's
Register



TYPE APPROVALS



DIMENSIONS

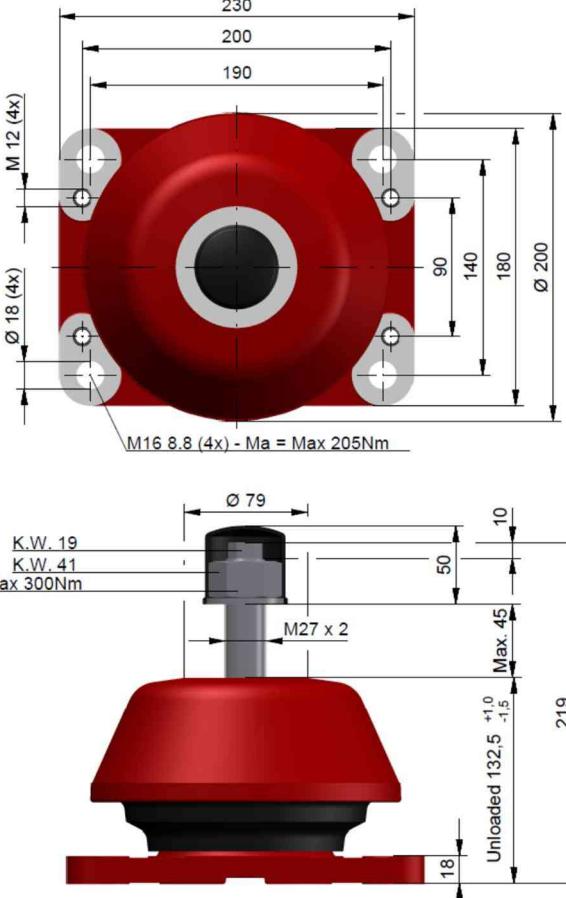


DOCUMENTATION SHEET

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				
Max Marine load [kN]	29	36	43	48				
Max Static load [kN]	33	41	50	56				
Max Static vert. defl. [mm]	12,2	11,6	11	10,5				
CHARACTERISTICS								
Max Shockload	160 kN (all directions)							
SHOCKLOAD								
TYPE APPROVALS								
        								
								
DIMENSIONS								





DOCUMENTATION SHEET

Conical Mountings

Type RD 314 height re-adjustable

RD 314

Height re-adjustable



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

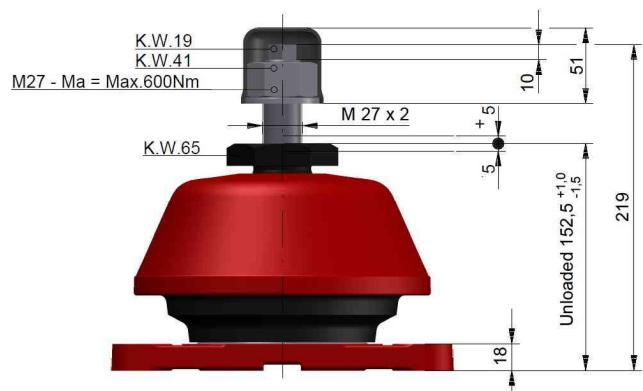
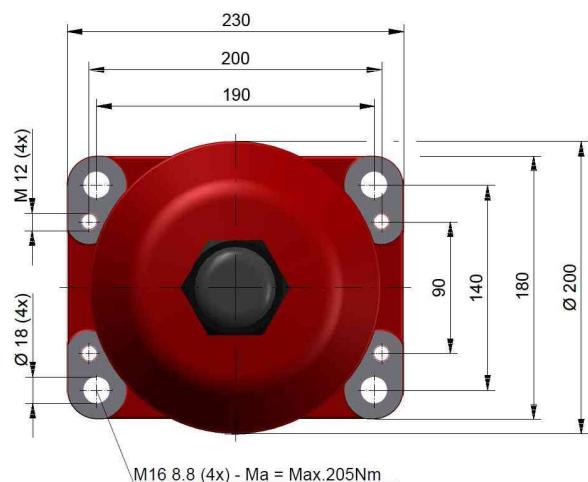
Max Shockload

Contact Rubber Design

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS

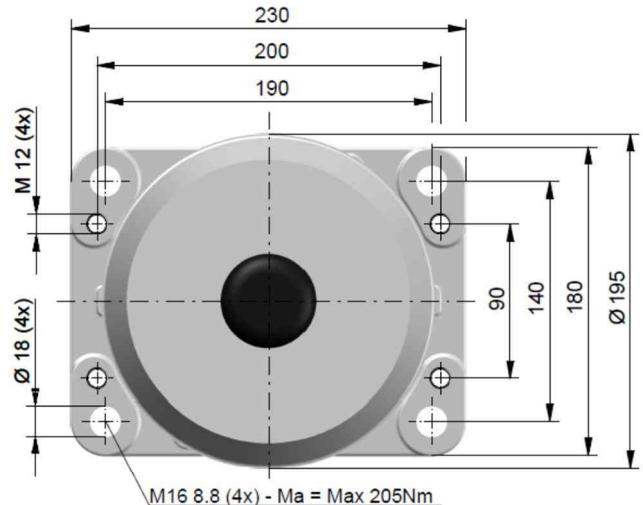
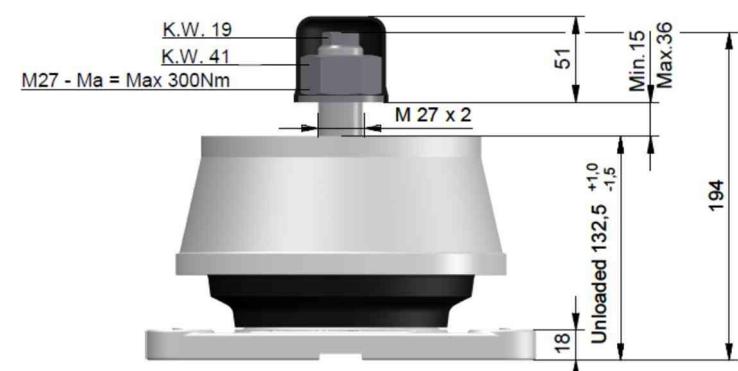


DOCUMENTATION SHEET

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				
Max Marine load [kN]	16	20	26	30				
Max Static load [kN]	18	22	30	35				
Max Static vert. defl. [mm]	14,5	14,2	14	13,6				
CHARACTERISTICS								
Max Shockload	70 kN (all directions)							
SHOCKLOAD								
TYPE APPROVALS								
        								
								
DIMENSIONS								
								





DOCUMENTATION SHEET

Conical Mountings

Type RD 315

RD 315

Height re-adjustable



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

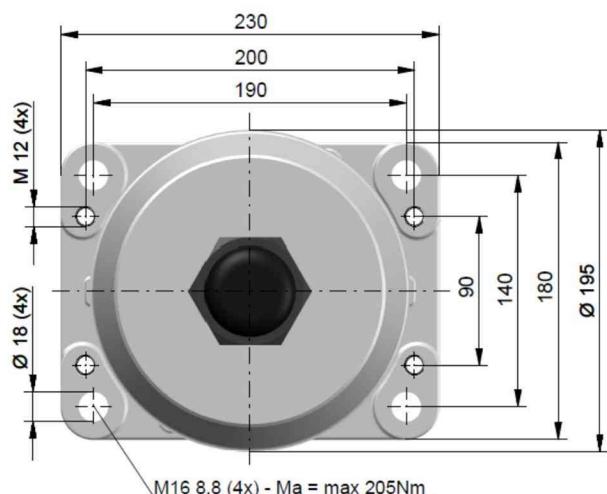
Max Shockload

70 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



M16 8.8 (4x) - Ma = max 205Nm



DIMENSIONS

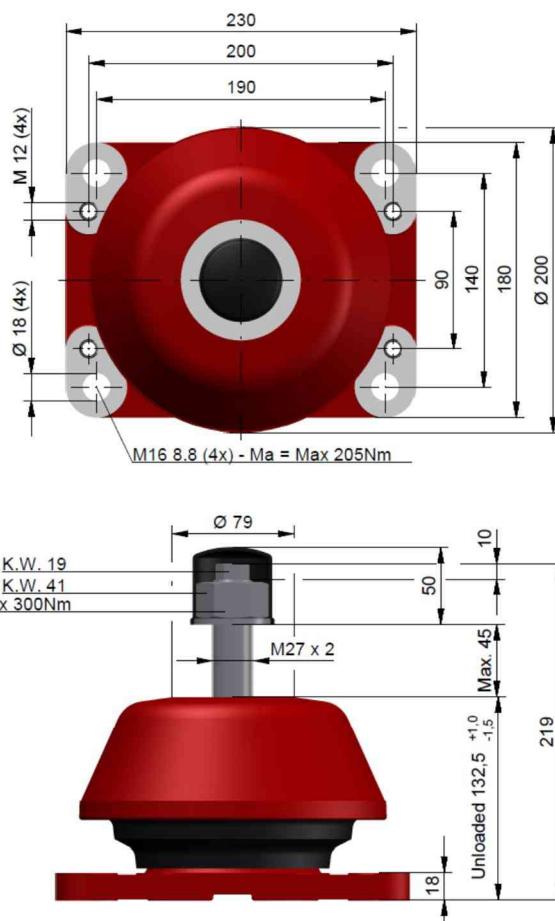


DOCUMENTATION SHEET

Conical Mountings

Type RD 315

RD 315

Displacement limiter clearance [mm]	Direction	Vertical up	Vertical down	Radial				
4		4		3				
CLEARANCE								
Rubber Hardness [[°] Sh. A]	45	50	55	60				
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								
TYPE APPROVALS								
        								
								
DIMENSIONS								
								



DOCUMENTATION SHEET

Conical Mountings

Type RD 315

RD 315

Height re-adjustable



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

SHOCKLOAD



Lloyd's
Register



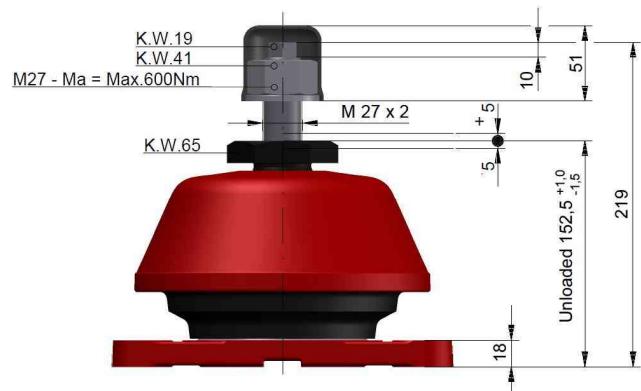
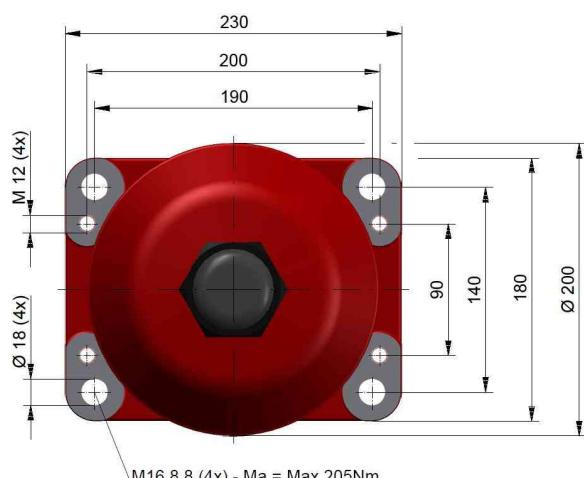
ABS



KR
Kraus Reichtenbach



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 344

RD 344

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

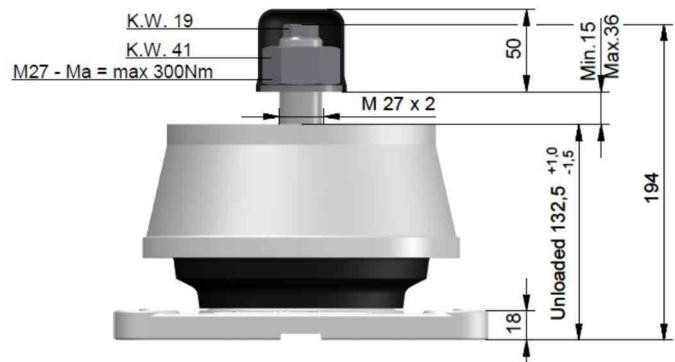
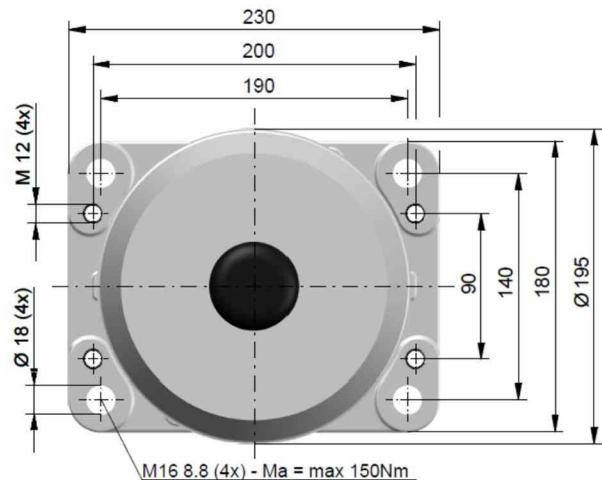
Max Shockload

70 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 344

RD 344

Height re-adjustable



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

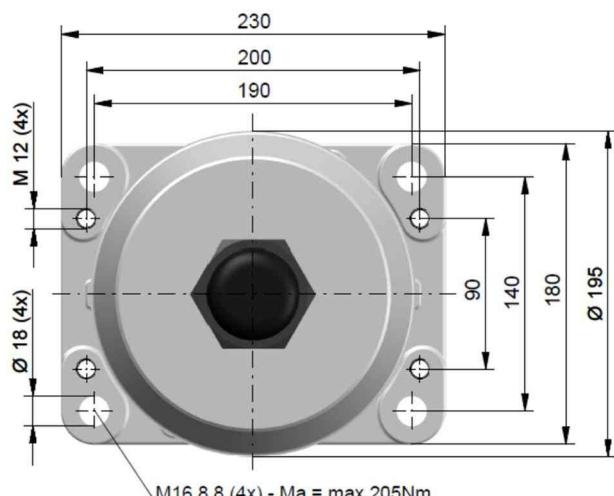
SHOCKLOAD



Lloyd's
Register



TYPE APPROVALS



DIMENSIONS



DOCUMENTATION SHEET

Conical Mountings

Type RD 344

RD 344

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

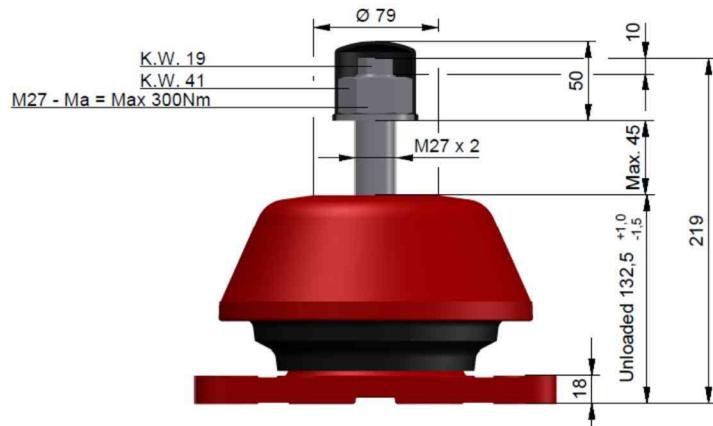
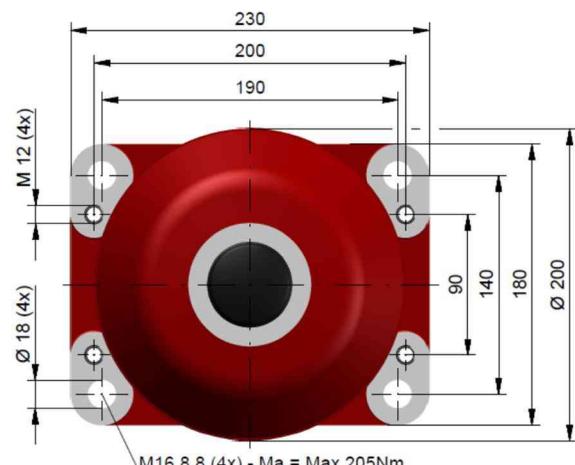
Max Shockload

160 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS





DOCUMENTATION SHEET

Conical Mountings

Type RD 344

RD 344

Height re-adjustable



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

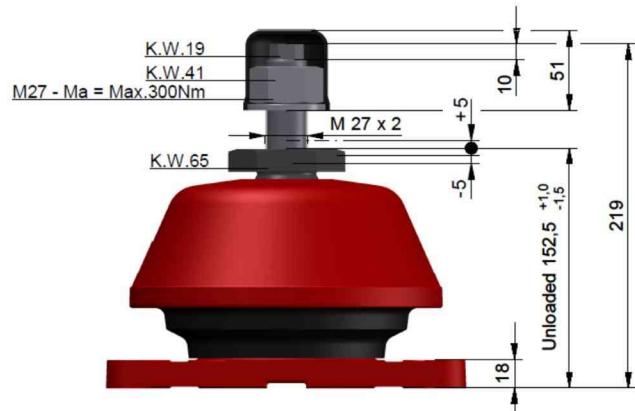
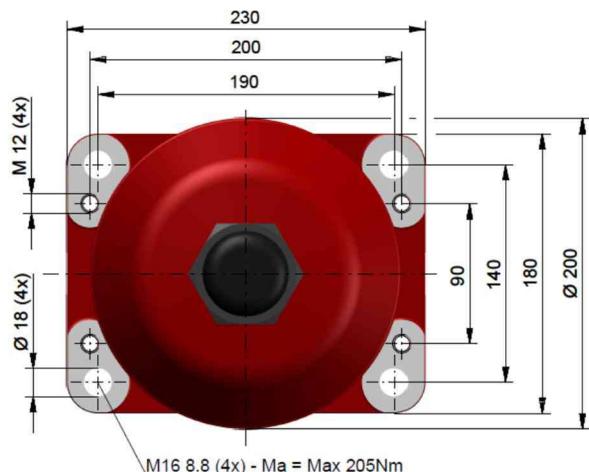
Max Shockload

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

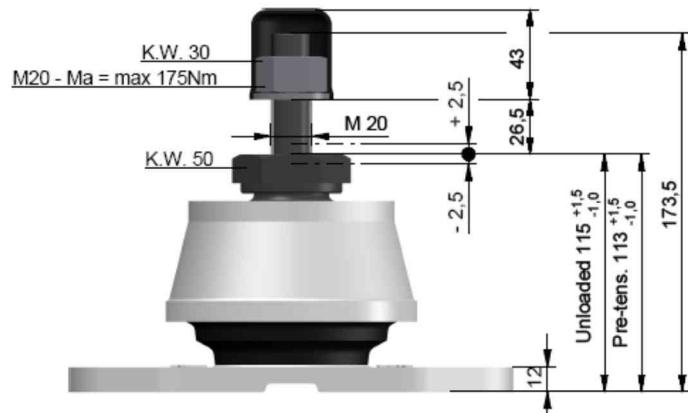
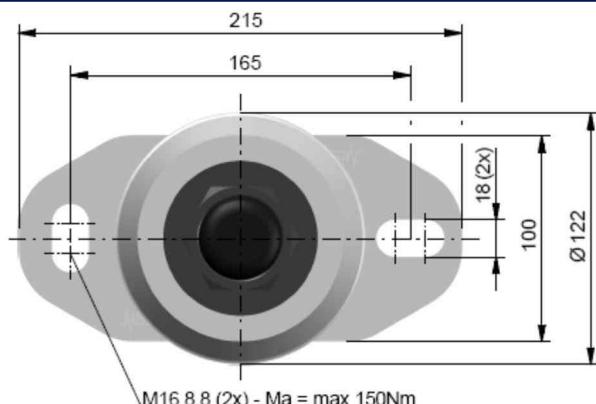
Shockload

25 kN (all directions)

SHOCKLOAD



TYPE APPROVALS



DIMENSIONS



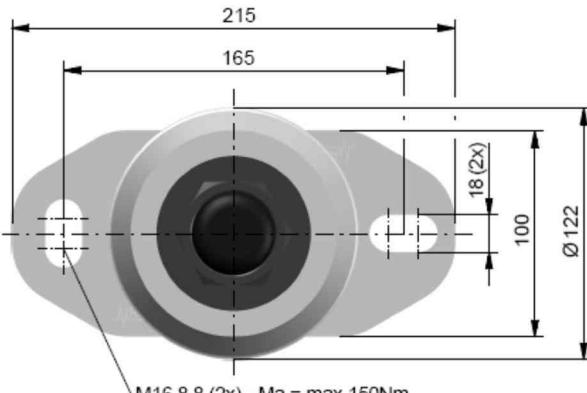
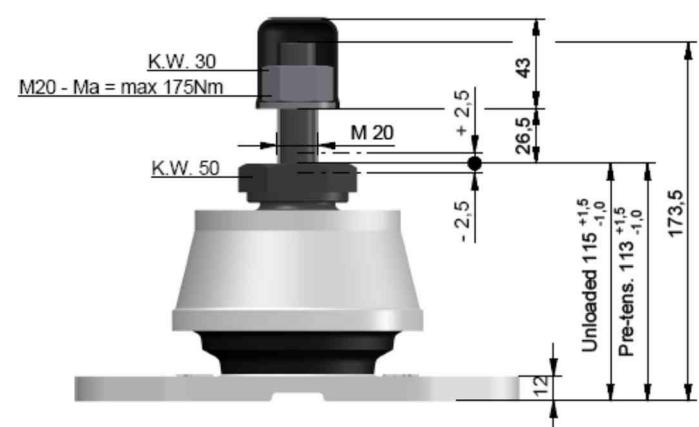


DOCUMENTATION SHEET

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)					
SHOCKLOAD						
       						
TYPE APPROVALS						
 M16 8.8 (2x) - Ma = max 150Nm						
 Unloaded 115 ^{+1,5} _{-1,0} , Pre-tens. 113 ^{+1,5} _{-1,0} , Total height 173,5						
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			STATIONARY	
	MAIN ENGINES	AUXILIARY ENGINES	EXHAUST SYSTEM	DECKHOUSE	CONTROL CABIN	COMPRESSOR UNIT	PUMP UNIT	GENERATORSET	COMPRESSOR UNIT	PUMP UNIT	MISCELLANEOUS
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 inertias - 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

