



DOCUMENTATION SHEET

Conical Mountings Type RD 214X

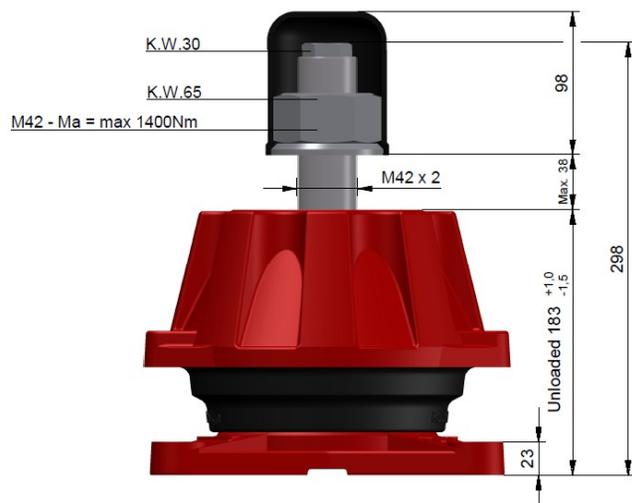
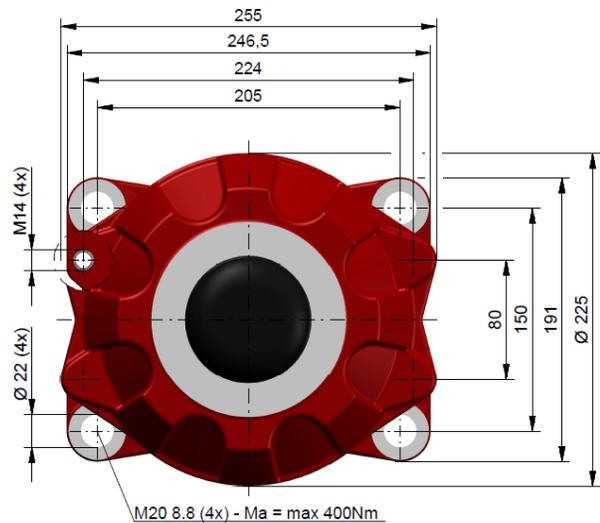
RD 214X

General

With this new mounting series nodular cast iron RD 214X, Rubber Design broadens the bandwidth of load-capacity and sets a new standard for the resilient suspensions of large bore medium speed diesel engines. Based on the vast experience with the Rubber Design original conical mountings, this type in the X-series range provides the ideal solution for increased demands from customers. With a load capacity higher than any most other mountings in the market, combined with the compact and proven design, this mounting enables simpler and more cost effective resilient mounting solutions. Additionally, this mounting is equipped with new, patented technologies, to even further increase it's performance and reliability. Built from the highest quality of materials, the choice for the RD 214X means opting for a fail-safe solution, which will perform satisfactory in the field for many years. This is backed by the approval of our design, engineering and calculation methods by many renown engine manufacturers and classification societies.

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.



DIMENSIONS



Rubber Design

vibration and noise control

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 are manufactured in five 'standard' rubber mixes: 45NR, 50NR, 55NR, 60NR, 65NR 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.

The mounting castings are manufactured in nodular cast iron. They are designed to protect the rubber element against oil and physical damage. An adjustable central buffer (spindle), manufactured in high tensile steel, controls the mounted equipment displacements due to e.g. ship movements, both vertically and horizontally within defined limits and so eliminates the need for separate buffers. The cut out in the bottom casting allows the buffer adjustment to be checked. All mounting inserts are both individual tested and selected on stiffness by Rubber Design.

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]	79	87	95	104	111
Max Static load [kN]	87	98	107	119	128
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

Mounting selection

The characteristics table is ideal for initial selection; however, it is advisable to seek expert advice before finalizing 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.

						
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TYPE APPROVALS