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Anti vibration
mounts

# HYDRAULIC CONE MOUNTS

MECANOCAUCHO
NOISE AND VIBRATION SOLUTIONS



The AMC-MECANOCAUCHO HYDRAULIC CONE MOUNT is a combination of a spring component and a hydraulic shock absorber in the shape of a cone. With this both components can be tuned to each other. For good vibration insulation you need a low dampening coefficient but for movement control you need a high dampening coefficient. The AMC MECANOCAUCHO HYDRAULIC CONE MOUNTS combine these two completely different requirements in one single bearing.

This gives you the opportunity to adapt the dynamic properties of the insulator to the individual requirements of the application.

Our vibration dampeners do this by the hydraulic fluid flowing from one chamber to the next as a result of the movement of the rubber component. An energetic dissipation results from this process.

## TECHNICAL CHARACTERISTICS

AMC MECANOCAUCHO® hydraulic shock absorbers have an advanced breakaway device inside the bearing that prevents tensile forces on the elastomer by limiting its upward vibration stoke. The newly-developed internal structure of the vibration dampener consists of a metal part system. The elastomer is vulcanised to the whole of this. This prevents a loss of hydraulic fluid should the vibration dampener be subject to great dynamic overloads.

The thickness of the metal parts ensures that the dampener is strong enough for mobile applications. The metal parts are treated with a resistant corrosion protection for outdoor use.

TECHNICAL ADVICE FOR FOPS ROPS APPROVAL

AMC-MECANOCAUCHO's technical department will be pleased to offer you advice on correct installation procedures to achieve FOPS/ROPS tests approvals.

These pictures show a typical traction test on rectangular hydraulic medium mount subjected to loads up to 4 Tons without destruction of the

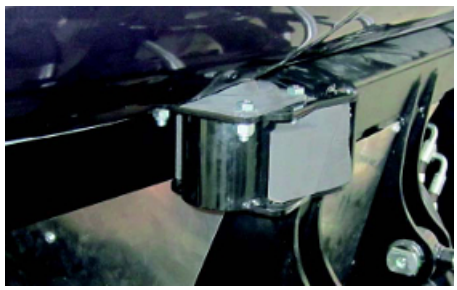
## APPLICATIONS

The AMC-MECANOCAUCHO HYDRAULIC CONE MOUNT is predominantly designed to insulate the vibration in engines and cabs in off-road vehicles (construction, agricultural and local authority vehicles). The HYDRAULIC CONE MOUNT has the necessary resilience to achieve a high level of decoupling. However, it also has the necessary stability for these applications in the event of impacts which thus prevents the vehicles from rocking. This ensures a high level of comfort as well as an immediate working and driving experience.

Another advantage becomes apparent with variable speed applications which are within the resonance frequency range in normal operation. This resonance is significantly reduced with the HYDRAULIC CONE MOUNT.







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Spain

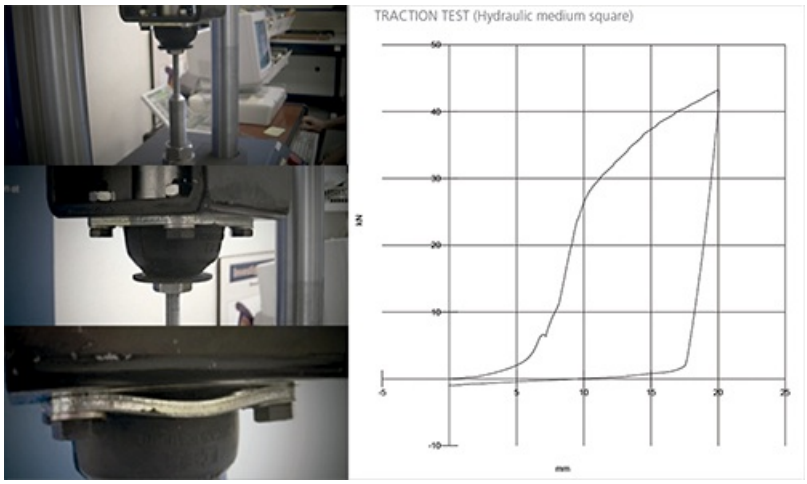
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*In order to adapt its products to the state of the art, AMC S.A. reserves the right to modify the conception and manufacture of the materials presented in this catalogue without prior notice.*

part. For more information on this topic, please contact our technical department.




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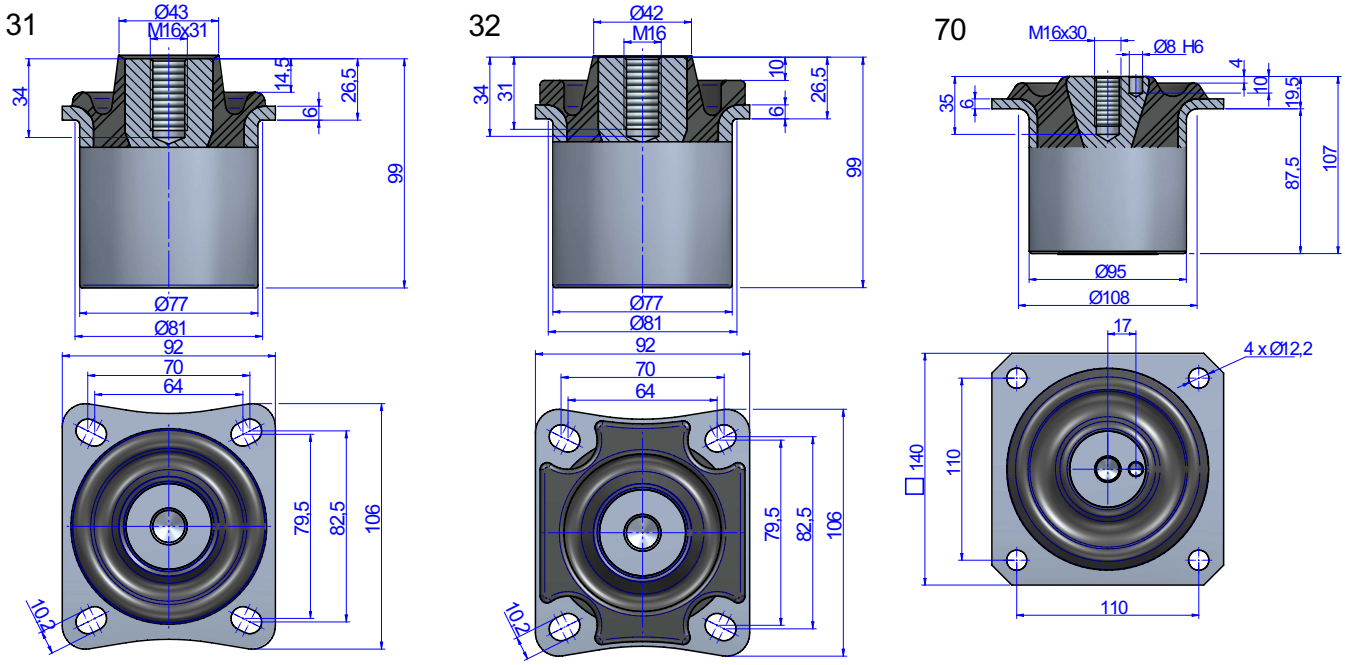
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# HYDRAULIC CONE MOUNTS

## DRAWINGS




## DIMENSIONS

| Type | Tightening torque MAX (Nm) | Weight (gr) | Shore | Load (kg) | Code |
|---|---|---|---|---|---|
| HYDRAULIC CONE MOUNTS 31 | 170 | 1845 | 40 Sh | 250 | 177081 |
| | | | 45 Sh | 310 | 177085 |
| | | | 50 Sh | 370 | 177082 |
| | | | 60 Sh | 500 | 177083 |
| | | | 70 Sh | 650 | 177084 |
| HYDRAULIC CONE MOUNTS 32 | 170 | 1914 | 40 Sh | 250 | 177104 |
| | | | 50 Sh | 370 | 177105 |
| | | | 60 Sh | 500 | 177106 |
| | | | 70 Sh | 550 | 177107 |
| HYDRAULIC CONE MOUNTS 70 | 170 | 2862 | 40 Sh | 300 | 177051 |
| | | | 50 Sh | 500 | 177052 |
| | | | 60 Sh | 700 | 177053 |
| | | | 70 Sh | 900 | 177054 |

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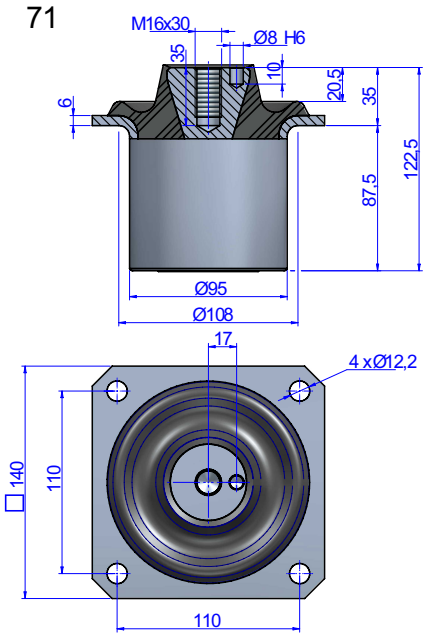
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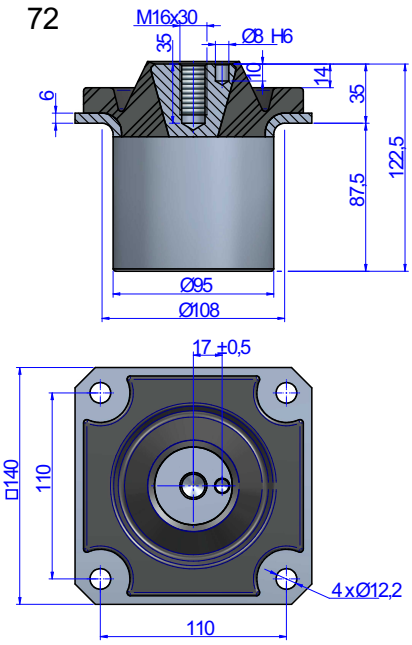
# HYDRAULIC CONE MOUNTS

## DRAWINGS

71




72




## DIMENSIONS

| Type | Tightening torque MAX (Nm) | Weight (gr) | Shore | Load (kg) | Code |
|---|---|---|---|---|---|
| HYDRAULIC CONE MOUNTS 71 | 170 | 2951 | 40 Sh | 400 | 177055 |
| | | | 50 Sh | 600 | 177056 |
| | | | 60 Sh | 900 | 177057 |
| | | | 70 Sh | 1000 | 177058 |
| HYDRAULIC CONE MOUNTS 72 | 170 | 3003 | 40Sh | 400 | 177294 |
| | | | 50Sh | 600 | 177295 |
| | | | 60Sh | 900 | 177296 |
| | | | 70Sh | 1000 | 177297 |

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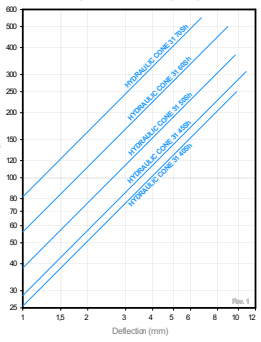
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# HYDRAULIC CONE MOUNTS

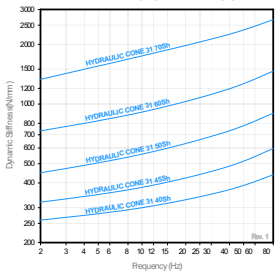
## Elastical properties

### HYDRAULIC CONE 31

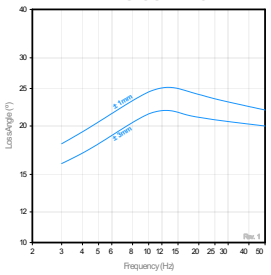
LOAD DEFLECTION



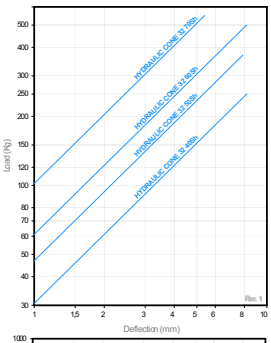

DYNAMIC STIFFNESS

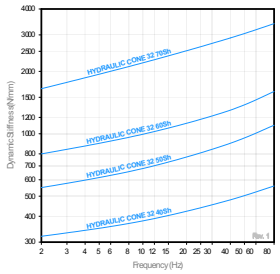


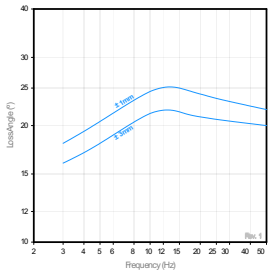

DAMPING COEFFICIENT



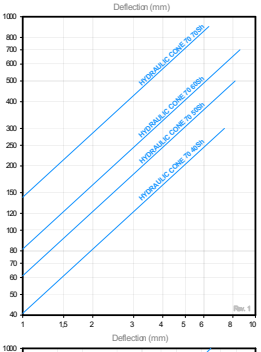

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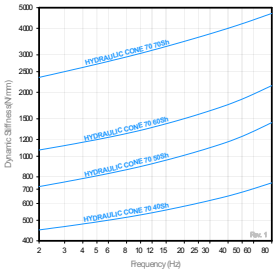


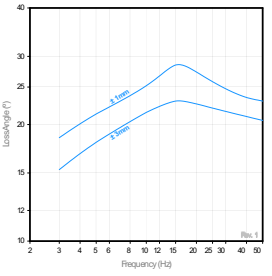



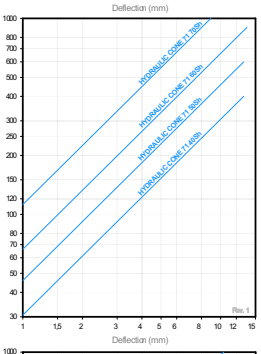

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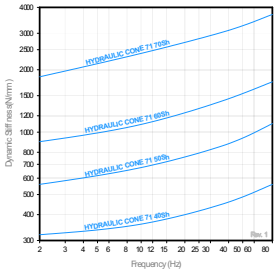


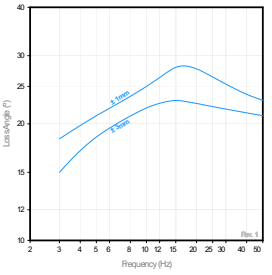



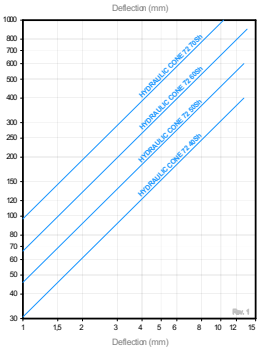

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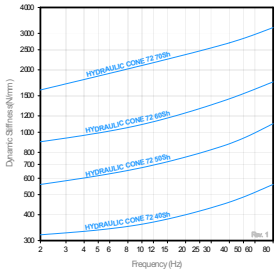


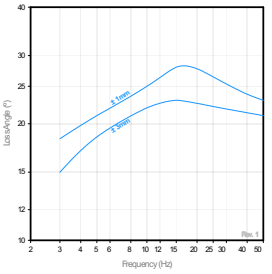




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# HYDRAULIC CONE MOUNTS

## OPERATION AND ASSEMBLY

Washers should be used, if the rubber surface is not covered with the contact surface.

## ADVANTAGES

High isolation without being affected the stability due the damping system of the hydraulic component.

Our vibration dampeners do this by the hydraulic fluid flowing from one chamber to the next as a result of the movement of the rubber component. An energy loss results from this process which tones down the behaviour of the vibration component.

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