

CDM

CDM-ISO-MACHINE-CONTACT

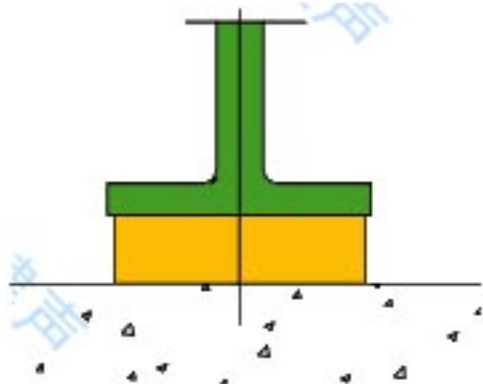
CDM-ISO-MACHINE-CONTACT offers a simple and cost effective means of providing vibration and impact isolation to machines such as compressors, pumps, ventilation units, refrigeration units etc....

The system consists either of pads, strips, mats (CDM-SOLIDS), steel spring isolators (CDM-SPRINGS) or air cushions (CDM-AIR CUSHIONS) that sit directly beneath the supports of the machine.

The system can be tuned to any frequency of 1Hz or more

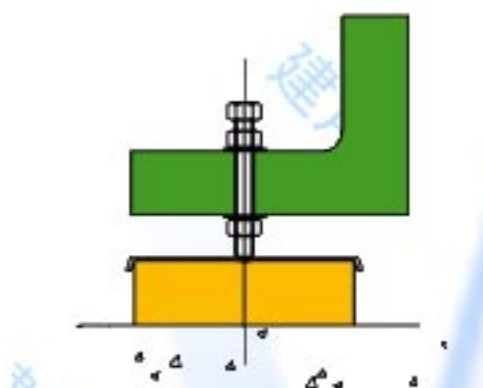
Required data for design:

- 1 Load distribution
- 2 Speed of machine
- 3 Dimensional limits
- 4 Vibration isolation performance
- 5 Special requirements (temperature, oil, etc...)



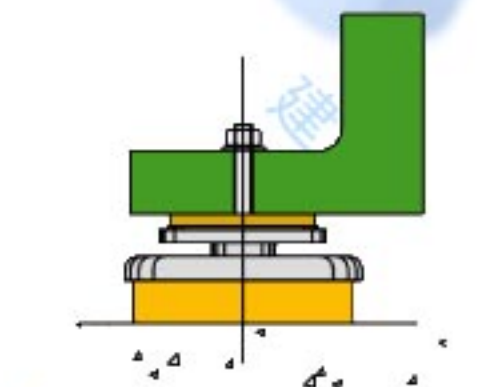
TYPE A

No horizontal forces



TYPE B

Very low horizontal forces
Tunable in height



TYPE C

Low horizontal forces
Tunable in height



Setup with springs



Setup with pads



Setup with air cushions

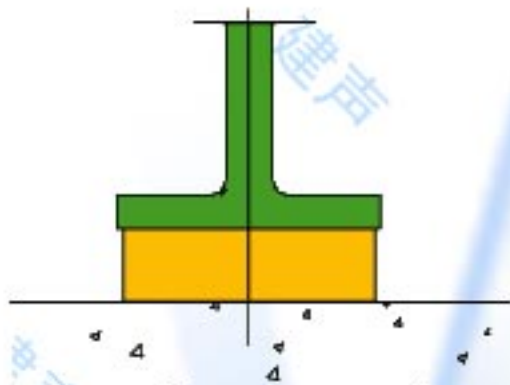
THE SYSTEM IS A CUSTOMIZED DESIGN TO SUIT PROJECT SPECIFIC REQUIREMENTS AND CRITERIA

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CDM-ISO-LOOM-CONTACT



CDM damping pad



Principle drawing

Weaving looms and tufting machines generate a large amount of vibration and structure-borne noise which is transmitted to the environment via the floor; CDM damping pads considerably reduce the structure-borne component and can therefore be used as 'soundstop'.

The advantages of using CDM-ISO-LOOM-CONTACT are:

- 1 easy to install: locate directly under the machine support
- 2 improves working environment
- 3 extends lifetime of the support structure

4 good ageing resistance

Required data for design:

- 1 Pipe contact temperature
- 2 Pipe diameter and thickness
- 3 Number of pipes to be isolated
- 4 Nature and orientation of supporting surface
- 5 Excitation frequency spectrum (if available)



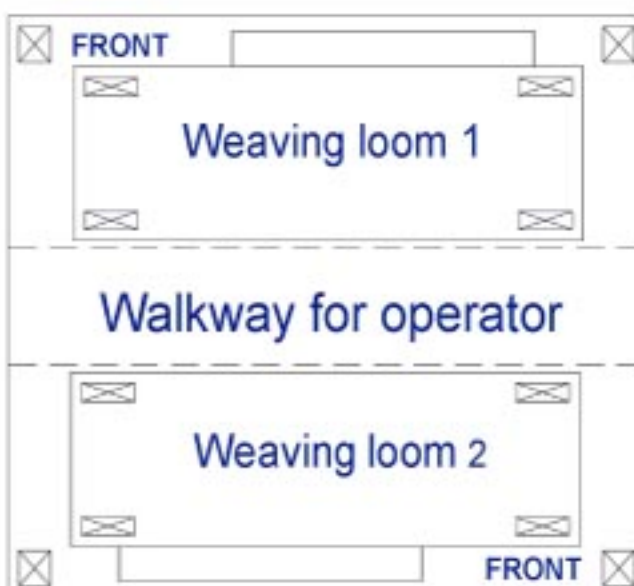
View of the whole setup



A treated jacquard column



A treated loom foot



Job Type	Isolation of a whole battery of 6 x 2 coupled loom machines with jacquards
Problem	Too high vibration levels at the soil serious neighbour complaints!
Turning speeds	Every loom (type = Picanol, ca. 3 tons, air driven) turning at a slightly different speed between 600 and 700rpm (delta = min. 5rpm), to avoid synergies
Isolator type	Combi-pad of CDM-HR & PF resonating at 5Hz
Consultants	EVA int. & AIB Vinçotte
Intervention date	Nov. - Dec. 2003

Performance: isolated setup versus non-isolated setup: reduction of the vibration levels with a factor 4 at 20Hz.

Important note: no excessive machine movements nor displacements were registered for the treated looms.

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CDM-ISO-TRANSFO



The CDM-ISO-TRANSFO system consists of vibration isolation strips which easily and efficiently minimise the vibration transmission for all types of transformers, from small distributor units to large power transformers.

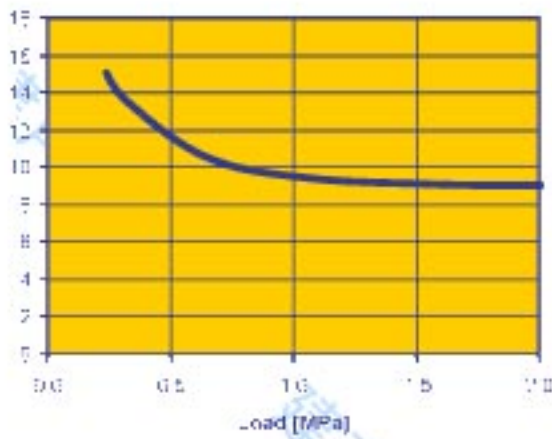
The CDM-ISO-TRANSFO strips are 38 mm thick with the length and width being project specific.

Properties of the CDM-ISO-TRANSFO material

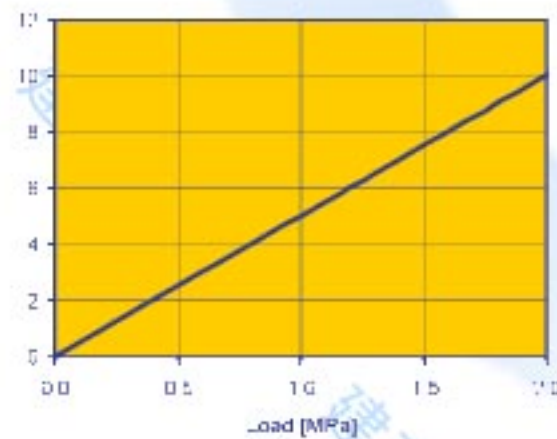
- 1 Temperature range: -20°C to +100°C
- 2 Excellent electrical resistivity
- 3 Good resistance to most oils and solvents (details available on request)



Required data for design:
 type and size of the transformer
 total weight of the transformer
 location of centre of gravity of the transformer
 support surface layout

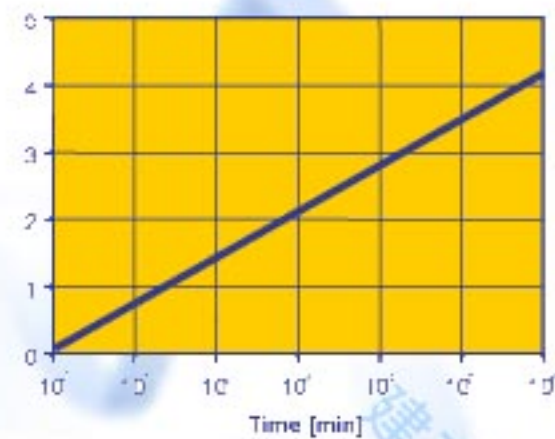


Resonance frequency [Hz]



(Mean values for a sample of 35*75 mm)

Deflection [mm]



Additional deflection by creep
@ 0.7 MPa[% free height]