

# Isotop® MSN/Z, MSN/Z-LC and SD/Z

## Steel Spring Vibration Isolators, Tension Elements

by getzner  
**isotop**®

### Design

Isotop® tension elements consist of a spring element, connection nuts for threaded rods and either a rectangular tube housing or open steel sheet housing (LC-model). All Isotop® MSN/Z and MSN/Z-LC have connection thread M8 and Isotop® SD/Z has connection thread M10. As an option, all tension elements are also available with a damping core inside. On request, we also can deliver these elements with a pre-stressed spring.

### Field of application

Isotop® tension elements have a natural frequency, depending on the load, down to approx. 3.2 Hz and are used for:

- Suspension elements from ceilings and steel constructions.
- Source isolation of ceiling-hung ventilators, fans, extractors, air conditioners, pipe lines etc.
- Receiver isolation of sensitive electronic measuring equipment in refrigeration, air conditioning and ventilation as well as in pipe line and ceiling construction.
- Percussion isolation of all sorts of machines

### Required data for selection

- Total weight to be absorbed
- Number and location of points of support
- Centre of gravity
- Structural shape of the device (dimensions)
- Direction of load
- Lowest disturbing frequency (rotational speed or number of strokes)

### Advantages

- Element dimensions and connecting threads of the elements within the type series MSN/Z and MSN/Z-LC or SD/Z are uniform, which guarantees exchangeability.
- As a result of the open construction of the spring elements, the source is connected to the suspension point only via the spring. The spring element can oscillate in the horizontal plane without restriction.
- The spring is clearly visible, which allows checking of its condition without dismantling. The distance between spring coils is visible under load.

### Our service

Make use of our know-how on questions about vibration technology. We will gladly consult you and will calculate tailor-made solutions for vibration isolation.



Isotop® MSN/Z, powder-coated, black



Isotop® MSN/Z-LC, galvanised



Isotop® SD/Z, powdercoated, black

### Selection table

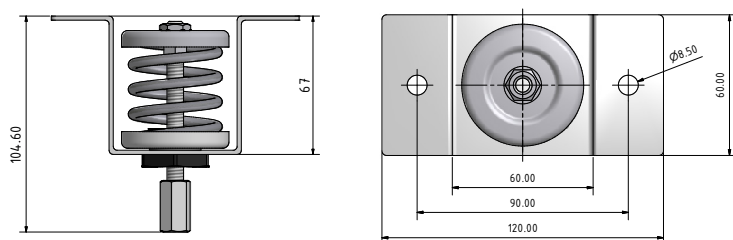
DESCRIPTION	REF. NO.	NOMINAL RANGE IN N	SPRING RATE IN N/MM
Isotop® MSN/Z 1 / Isotop® Z-1-LC	45000271 / 45000511	18 to 36	1.78
Isotop® MSN/Z 2 / Isotop® Z-2-LC	45000272 / 45000512	27 to 55	2.73
Isotop® MSN/Z 3 / Isotop® Z-3-LC	45000273 / 45000513	45 to 90	4.52
Isotop® MSN/Z 4 / Isotop® Z-4-LC	45000274 / 45000514	70 to 150	7.02
Isotop® MSN/Z 5 / Isotop® Z-5-LC	45000275 / 45000515	115 to 230	11.44
Isotop® MSN/Z 6 / Isotop® Z-6-LC	45000276 / 45000516	175 to 350	17.30
Isotop® MSN/Z 7 / Isotop® Z-7-LC	45000277 / 45000517	285 to 550	26.02
Isotop® MSN/Z 8 / Isotop® Z-8-LC	45000278 / 45000518	440 to 880	43.85

### Selection table

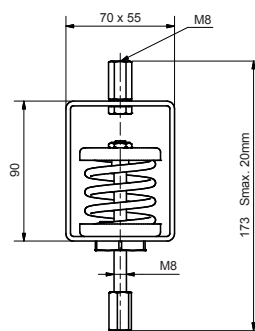
DESCRIPTION	REF. NO.	NOMINAL RANGE IN N	SPRING RATE IN N/MM
Isotop® SD/Z 1	45000211	120 to 200	7.93
Isotop® SD/Z 2	45000212	195 to 325	12.90
Isotop® SD/Z 3	45000213	300 to 510	20.16
Isotop® SD/Z 4	45000214	475 to 800	31.64
Isotop® SD/Z 5	45000215	720 to 1,250	48.07
Isotop® SD/Z 6	45000216	1,130 to 1,900	75.65
Isotop® SD/Z 7	45000217	1,815 to 3,100	121.03

For characteristics see Isotop® MSN and Isotop® SD data sheets.

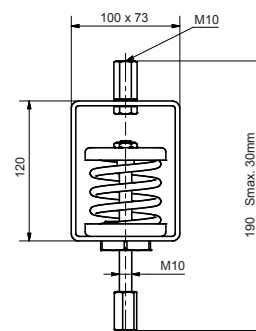
### MSN/Z-LC



### MSN/Z



### SD/Z



All data indicated are based upon our current knowledge. They may be used as calculation and standard values and are subject to the usual machining tolerances. Subject to change and correction.