

Feeders and discharge troughs need a flexible support, for example coil springs. All springs mounted beneath a feeder tray must be loaded equally to allow constant conveying. It is absolutely necessary to take into consideration the exact position of the centre of gravity of the conveyor tray.

Resonance frequency of the system feeder - springs should be approximately 1/5 of the operating frequency of the vibrator so that the natural frequency of the springs (uncontrolled deflection) is quickly passed through. The max. load per spring can be found in the table.

The stroke of the coil spring should be 7,5 mm or more. Twin supports by several pairs of coil springs are also possible.

In the following table you will find coil springs that are suitable for the flexible support of conveyors and are always in stock.

For selection of the suitable coil spring you have to divide the weight of the moving mass by the number of springs in order to know the load per coil spring. You can then choose the corresponding coil spring in the table. The coil springs are made of stainless steel wire and the surface is specially treated so that a longer service life can be provided.

Type	Load per coil spring			Outer Ø (D <sub>e</sub> ) [mm]	Unloaded length (L <sub>0</sub> ) [mm]	Guide Ø (D <sub>d</sub> ) [mm]
	stroke 7,5 mm	[kg]	max			
NVD 2,1/3,1	2,0	up to	3,0	27	58	22,3
NVD 3,8/5	3,7	up to	5,0	33	50	26,6
NVD 5,2/7,2	3,1	up to	6,8	43,2	82	35,8
NVD 7/9,5	3,4	up to	9,4	49	103	39,8
NVD 11/16	9,5	up to	15,5	36	61	27,1
NVD 13/18	6,6	up to	16,7	50	95	38,7
NVD 16/22	14,9	up to	21,3	36	53,5	27,1
NVD 18/24	6,9	up to	23,5	60	128	47,5
NVD 23/32	11,9	up to	30,2	45	95,5	34,0
NVD 30/40	14,6	up to	49,7	75	102	59,0
NVD 38/51	24,1	up to	51,4	56,3	80	42,6
NVD 39/53	20,1	up to	52,6	81	98	63,2
NVD 53/70	12,9	up to	70,5	71	205	53,6
NVD 60/80	31,3	up to	79,3	71	95	53,6
NVD 85/115	37,3	up to	114,5	90	115	68,0
NVD 110/150	50,7	up to	150,0	63	111	43,0
NVD 130/180	48,6	up to	175,1	73	135	51,0
NVD 145/195	76,4	up to	195,7	73	96	51,0

