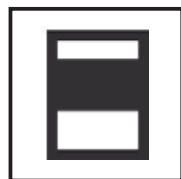




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Netter Pneumatic Linear Vibrators Series NTK

- Linear vibration
- Nominal frequency from 420 min⁻¹ to 3.600 min⁻¹
- Centrifugal force from 11 N to 7.400 N
- Variable vibration weights
- Frequency and amplitude are adjustable separately
- Stainless steel version available
- Ex II 2 GD 85°C (T6) available (ATEX)



NTK 8 AL



NTK 25



NTK 55 AL



Netter Pneumatic Linear Vibrators Series NTK

The table shows the most frequently ratings of piston vibrators series NTK.

① "Piston" means, that the piston vibrates, the housing is bolted to the mass to be operated.

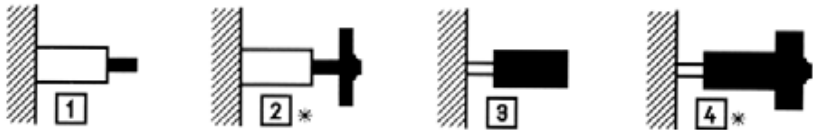
② The vibration weights SM increase the mass of the piston and in this way the amplitude. Different combinations are possible.

③ "Housing" in the table means, th housing vibrates, the piston is bolted to the mass

to be vibrated and allows additional combinations.

④ Some vibrators may be fitted with additional vibrating weights SM at the housing.

Methods of attachment:



*in case of horizontal mounting with weights, please pay particular attention to the operating manual!

| Type | Oscillation mass [kg**] | Assembly | Air consumption [l/min***] | | | Frequency [min ⁻¹] | | | Centrifugal force [N] | | | Working moment [cmkg] | | |
|------------|-------------------------|--------------------------------|----------------------------|-------|-------|--------------------------------|-------|-------|-----------------------|-------|-------|-----------------------|-------|-------|
| | | | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar |
| NTK 8 AL* | 0,030 | Piston | 8 | 20 | 33 | 2.180 | 3.050 | 3.600 | 12 | 31 | 43 | 0,049 | 0,061 | 0,061 |
| | 0,046 | Piston + SM 8-1 | 7 | 17 | 29 | 1.800 | 2.400 | 2.880 | 13 | 32 | 45 | 0,074 | 0,101 | 0,100 |
| | 0,058 | Piston + 2 x SM 8-1 | 6 | 16 | 28 | 1.680 | 2.200 | 2.640 | 11 | 33 | 48 | 0,067 | 0,124 | 0,126 |
| | 0,088 | Piston + SM 8-2 | 5 | 15 | 26 | 1.320 | 1.800 | 2.160 | 12 | 34 | 49 | 0,126 | 0,191 | 0,192 |
| | 0,146 | Piston + 2 x SM 8-2 | 5 | 13 | 23 | 960 | 1.390 | 1.680 | 11 | 34 | 50 | 0,192 | 0,321 | 0,323 |
| NTK 15 x* | 0,130 | Piston | 18 | 40 | 85 | 1.820 | 2.380 | 2.700 | 40 | 72 | 96 | 0,22 | 0,23 | 0,24 |
| | 0,450 | Piston + SM 16-1 | 17 | 33 | 67 | 1.030 | 1.270 | 1.430 | 55 | 88 | 112 | 0,95 | 1,00 | 1,00 |
| | 0,670 | Piston + SM 16-2 | 16 | 30 | 60 | 870 | 1.075 | 1.260 | 52 | 82 | 113 | 1,26 | 1,30 | 1,30 |
| | 1,200 | Piston + 2 x SM 16-2 | 15 | 28 | 57 | 660 | 850 | 950 | 45 | 76 | 94 | 1,90 | 1,90 | 1,90 |
| NTK 16 | 0,150 | Piston | 17 | 37 | 70 | 1.900 | 2.450 | 2.700 | 43 | 76 | 96 | 0,21 | 0,23 | 0,24 |
| | 0,470 | Piston + SM 16-1 | 12 | 29 | 57 | 1.070 | 1.370 | 1.570 | 59 | 106 | 160 | 0,94 | 1,03 | 1,18 |
| | 0,690 | Piston + SM 16-2 | 11 | 27 | 50 | 900 | 1.180 | 1.350 | 63 | 127 | 163 | 1,42 | 1,66 | 1,63 |
| | 1,220 | Piston + 2 x SM 16-2 | 10 | 25 | 46 | 730 | 950 | 1.100 | 61 | 124 | 171 | 2,08 | 2,49 | 2,57 |
| | 1,340 | Housing | 9 | 23 | 43 | 670 | 850 | 990 | 49 | 109 | 178 | 2,47 | 2,74 | 3,30 |
| NTK 18 AL* | 0,021 | Piston | 21 | 43 | 63 | 1.560 | 2.160 | 2.640 | 60 | 138 | 206 | 0,45 | 0,54 | 0,54 |
| | 0,530 | Piston + SM 16-1 | 14 | 35 | 57 | 980 | 1.380 | 1.660 | 75 | 176 | 237 | 1,43 | 1,69 | 1,57 |
| | 0,750 | Piston + SM 16-2 | 13 | 32 | 55 | 820 | 1.030 | 1.420 | 79 | 130 | 257 | 2,14 | 2,23 | 2,32 |
| | 1,280 | Piston + 2 x SM 16-2 | 11 | 30 | 48 | 670 | 970 | 1.160 | 88 | 211 | 302 | 3,57 | 4,10 | 4,10 |
| | 0,530 | Housing | 14 | 35 | 57 | 1.000 | 1.290 | 1.580 | 87 | 153 | 236 | 1,58 | 1,68 | 1,73 |
| NTK 25 AL* | 0,425 | Piston | 40 | 109 | 160 | 1.390 | 2.130 | 2.750 | 121 | 342 | 522 | 1,14 | 1,37 | 1,26 |
| | 0,990 | Piston + SM 25-2 | 34 | 80 | 150 | 960 | 1.370 | 1.650 | 145 | 334 | 455 | 2,86 | 3,24 | 3,05 |
| | 1,675 | Piston + SM 25-3 | 32 | 75 | 141 | 750 | 1.080 | 1.320 | 188 | 391 | 529 | 6,11 | 6,11 | 5,54 |
| | 2,975 | Piston + 2 x SM 25-3 | 27 | 71 | 141 | 600 | 800 | 1.080 | 151 | 387 | 732 | 7,64 | 9,54 | 11,49 |
| | 0,495 | Housing | 35 | 100 | 160 | 1.200 | 1.800 | 2.640 | 151 | 285 | 598 | 1,91 | 1,60 | 1,56 |
| | 1,745 | Housing + SM 25-3 | 30 | 78 | 141 | 765 | 985 | 1.225 | 202 | 345 | 503 | 6,30 | 6,50 | 6,40 |
| NTK 25 | 0,470 | Piston | 56 | 109 | 180 | 1.585 | 1.670 | 2.200 | 82 | 214 | 398 | 0,60 | 1,40 | 1,50 |
| | 1,030 | Piston + SM 25-2 | 50 | 92 | 144 | 1.010 | 1.130 | 1.460 | 123 | 266 | 561 | 2,20 | 3,80 | 4,80 |
| | 1,740 | Piston + SM 25-3 | 48 | 87 | 132 | 900 | 980 | 1.200 | 222 | 279 | 600 | 2,50 | 5,30 | 7,60 |
| | 2,980 | Piston + 2 x SM 25-3 | 45 | 75 | 120 | 640 | 740 | 920 | 216 | 280 | 617 | 4,80 | 9,30 | 13,30 |
| | 3,900 | Housing + SM 25-3 | 42 | 68 | 104 | 615 | 640 | 795 | 301 | 326 | 596 | 14,50 | 14,50 | 17,20 |
| | 5,140 | Housing + 2 x SM 25-3 | 38 | 64 | 98 | 420 | 550 | 710 | 121 | 340 | 597 | 12,40 | 20,50 | 21,60 |
| NTK 40 AL* | 1,28 | Piston | 80 | 240 | 390 | 1.400 | 1.700 | 2.000 | 206 | 343 | 657 | 2,00 | 2,20 | 3,00 |
| | 2,55 | Piston + SM 25-3 | 70 | 180 | 360 | 980 | 1.180 | 1.480 | 255 | 520 | 785 | 4,80 | 7,50 | 9,70 |
| | 3,49 | Piston + SM 25-3 + 2 x SM 25-2 | 67 | 165 | 330 | 805 | 1.020 | 1.160 | 267 | 599 | 841 | 7,50 | 10,50 | 11,40 |
| | 4,19 | Piston + 2 x SM 25-3 + SM 25-2 | 65 | 155 | 315 | 750 | 920 | 1.050 | 334 | 647 | 893 | 10,30 | 14,00 | 14,80 |
| | 5,03 | Piston + SM 25-4 | 60 | 150 | 300 | 740 | 870 | 996 | 334 | 785 | 1.177 | 11,10 | 18,30 | 21,60 |
| NTK 40 | 1,29 | Piston | 80 | 240 | 390 | 1.400 | 1.700 | 2.000 | 206 | 343 | 657 | 2,00 | 2,20 | 3,00 |
| | 2,56 | Piston + SM 25-3 | 70 | 180 | 360 | 980 | 1.180 | 1.480 | 255 | 520 | 785 | 4,80 | 7,50 | 9,70 |
| | 4,20 | Housing | 65 | 155 | 315 | 750 | 920 | 1.050 | 334 | 647 | 893 | 10,30 | 14,00 | 14,80 |
| | 5,04 | Piston + SM 25-4 | 60 | 150 | 300 | 740 | 870 | 996 | 334 | 785 | 1.177 | 11,10 | 18,30 | 21,60 |
| | 7,95 | Housing + SM 25-4 | 52 | 142 | 290 | 600 | 730 | 880 | 363 | 824 | 1.315 | 18,40 | 28,20 | 31,00 |
| NTK 55 AL* | 2,10 | Piston | 140 | 419 | 717 | 1.600 | 1.970 | 2.500 | 451 | 961 | 1.305 | 3,20 | 4,50 | 3,80 |
| | 3,42 | Piston + SM 85-1 | 133 | 328 | 706 | 1.200 | 1.475 | 1.900 | 550 | 1.069 | 1.619 | 6,90 | 9,00 | 8,20 |
| | 14,59 | Piston + SM 85-3 | 91 | 250 | 428 | 600 | 735 | 925 | 834 | 1.638 | 2.933 | 42,40 | 55,40 | 62,60 |

| Type | Oscillation mass [kg**] | Assembly | Air consumption [l/min***] | | | Frequency [min ⁻¹] | | | Centrifugal force [N] | | | Working moment [cmkg] | | |
|------------------|-------------------------|----------------------|----------------------------|-------|-------|--------------------------------|-------|-------|-----------------------|-------|-------|-----------------------|--------|--------|
| | | | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar | 2 bar | 4 bar | 6 bar |
| NTK 55 HF and NF | 2,10 | Piston HF | 105 | 273 | 449 | 2.220 | 2.760 | 3.300 | 592 | 1.219 | 1.744 | 2,19 | 2,92 | 2,92 |
| | 3,42 | Piston HF + SM 85-1 | 91 | 218 | 342 | 1.650 | 1.944 | 2.304 | 550 | 1.061 | 1.490 | 3,66 | 5,12 | 5,12 |
| | 2,10 | Piston NF | 140 | 419 | 717 | 1.600 | 1.970 | 2.500 | 451 | 961 | 1.305 | 3,20 | 4,50 | 3,80 |
| | 3,42 | Piston NF + SM 85-1 | 133 | 328 | 706 | 1.200 | 1.475 | 1.900 | 550 | 1.069 | 1.619 | 6,90 | 9,00 | 8,20 |
| | 5,60 | Housing NF | 120 | 319 | 492 | 880 | 1.150 | 1.460 | 834 | 1.324 | 2.433 | 17,20 | 18,20 | 20,80 |
| | 9,32 | Housing NF + SM 85-2 | 105 | 273 | 450 | 690 | 930 | 1.120 | 893 | 1.619 | 2.531 | 34,20 | 34,20 | 36,80 |
| | 14,59 | Piston NF + SM 85-3 | 91 | 250 | 428 | 600 | 735 | 925 | 834 | 1.638 | 2.933 | 42,40 | 55,40 | 62,60 |
| NTK 85 HF and NF | 5,20 | Piston HF | 168 | 345 | 567 | 2.640 | 3.300 | 3.600 | 1.418 | 3.160 | 2.640 | 3,71 | 5,19 | 3,71 |
| | 8,92 | Piston HF + SM 85-2 | 140 | 291 | 674 | 1.896 | 2.376 | 2.700 | 1.463 | 2.758 | 3.262 | 7,42 | 8,91 | 8,16 |
| | 5,20 | Piston NF | 301 | 635 | 900 | 1.800 | 2.280 | 2.650 | 706 | 1.137 | 1.530 | 4,00 | 4,00 | 4,00 |
| | 8,92 | Piston NF + SM 85-2 | 217 | 515 | 880 | 1.250 | 1.680 | 1.800 | 1.030 | 1.864 | 2.129 | 12,00 | 12,00 | 12,00 |
| | 11,30 | Housing NF | 210 | 500 | 865 | 985 | 1.260 | 1.560 | 1.177 | 2.256 | 3.198 | 22,00 | 26,00 | 24,00 |
| | 17,69 | Piston NF + SM 85-3 | 175 | 400 | 740 | 890 | 1.080 | 1.300 | 1.727 | 2.747 | 3.698 | 40,00 | 43,00 | 40,00 |
| | 29,19 | Piston NF + SM 85-4 | 165 | 385 | 620 | 720 | 840 | 960 | 2.845 | 4.611 | 5.258 | 70,00 | 80,00 | 79,00 |
| | 41,20 | Piston NF + SM 85-5 | 160 | 380 | 615 | 625 | 770 | 840 | 4.316 | 6.229 | 7.407 | 110,00 | 120,00 | 119,00 |
| NTK 110 | 8,00 | Piston | 345 | 740 | 920 | 2.130 | 2.625 | 3.000 | 1.550 | 2.619 | 2.737 | 6,20 | 6,90 | 5,50 |
| | 11,72 | Piston + SM 85-2 | 340 | 710 | 890 | 1.700 | 2.150 | 2.500 | 1.864 | 3.159 | 4.513 | 11,80 | 12,50 | 13,10 |
| | 16,60 | Housing | 330 | 680 | 880 | 1.330 | 1.680 | 2.050 | 1.687 | 3.551 | 4.807 | 17,40 | 23,00 | 20,90 |
| | 31,99 | Piston + SM 85-4 | 285 | 610 | 870 | 950 | 1.200 | 1.400 | 1.844 | 3.276 | 4.836 | 37,40 | 41,50 | 45,00 |
| | 40,59 | Housing + SM 85-4 | 270 | 590 | 870 | 790 | 1.050 | 1.280 | 1.991 | 4.199 | 5.631 | 58,50 | 69,60 | 62,60 |
| | 44,00 | Piston + SM 85-5 | 270 | 590 | 860 | 770 | 960 | 1.250 | 1.952 | 3.551 | 5.690 | 60,00 | 70,20 | 66,50 |
| | 52,60 | Housing + SM 85-5 | 260 | 570 | 840 | 720 | 890 | 1.000 | 1.982 | 3.924 | 4.964 | 69,60 | 90,50 | 93,30 |

* for lubrication free operation contact our application technicians.

Subject to technical modification.

** All weights inclusive fixing bolt. ***Normal litre = uncompressed air. NTK 16, 25, 40, 55, 85 and 110 operation is possible up to 16 bar
 Technical data may vary depending on application. Please request comparative values.

Netter vibration weights Series SM

| Vibrator | Piston [kg] | Housing [kg] | Weight total [kg] | Possible combinations | Additional weights | Dimensions [Ømm x mm] | Bore [Ømm] | Weight [kg] |
|-----------|-------------|--------------|-------------------|-----------------------|--------------------|-----------------------|------------|-------------|
| NTK 8 AL | 0,03 | 0,06 | 0,09 | } | SM 8-1 | 17 x 8 | 5,0 | 0,012 |
| | | | | | SM 8-2 | 30 x 10 | 5,0 | 0,053 |
| NTK 15 x | 0,13 | 0,32 | 0,45 | } | SM 16-1 | 50 x 20 | 10,5 | 0,29 |
| NTK 16 | 0,15 | 1,34 | 1,49 | | SM 16-2 | 65 x 20 | 10,5 | 0,51 |
| NTK 18 AL | 0,21 | 0,53 | 0,74 | } | | | | |
| NTK 25 AL | 0,43 | 0,50 | 0,92 | | SM 25-1 | 50 x 20 | 16,5 | 0,27 |
| NTK 25 | 0,47 | 2,63 | 3,10 | | SM 25-2 | 65 x 20 | 16,5 | 0,47 |
| NTK 40 AL | 1,28 | 1,01 | 2,29 | | SM 25-3 | 100 x 20 | 16,5 | 1,18 |
| NTK 40 | 1,29 | 4,20 | 5,49 | | SM 25-4 | 100 x 60 | 16,5 | 3,60 |
| NTK 55 AL | 2,10 | 1,75 | 3,85 | } | SM 85-1 | 100 x 20 | 20,5 | 1,16 |
| NTK 55 HF | 2,10 | 5,90 | 8,00 | | SM 85-2 | 100 x 60 | 20,5 | 3,50 |
| NTK 55 NF | 2,10 | 5,60 | 7,70 | | SM 85-3 | 200 x 50 | 20,5 | 12,30 |
| NTK 85 HF | 5,20 | 12,10 | 17,30 | | SM 85-4 | 200 x 100 | 20,5 | 23,70 |
| NTK 85 NF | 5,20 | 11,30 | 16,50 | | SM 85-5 | 200 x 150 | 20,5 | 35,55 |
| NTK 110 | 8,00 | 16,60 | 24,60 | | | | | |

The combination of vibrators and weights in the same group is possible. See table page 2 and 3.



Vibration weights SM are used to increase the working moment.

While fixing additional weights on the moving part of the vibrator, the working moment and also the amplitude are individually adjustable.

The vibration weights are available in different sizes. All weights are made of steel nickel-plated except SM 8-1 made of brass.

Netter bellows Series NFB

| Bellow | Vibrator | Inside diameter [mm] | Outside diameter [mm] |
|---------|---------------------|----------------------|-----------------------|
| NFB 20 | NTK 15 X, 16, 18 AL | 20 | 50 |
| NFB 25 | NTK 25 AL | 30 | 65 |
| NFB 30 | NTK 25 | 30 | 65 |
| NFB 45 | NTK 40 | 45 | 85 |
| NFB 60 | NTK 55 | 60 | 110 |
| NFB 90 | NTK 85 | 90 | 140 |
| NFB 115 | NTK 110 | 115 | 165 |

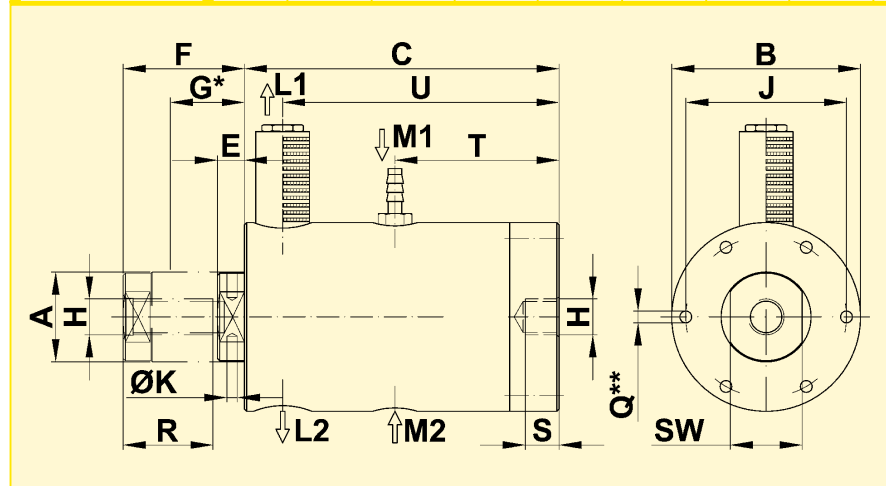


Applications

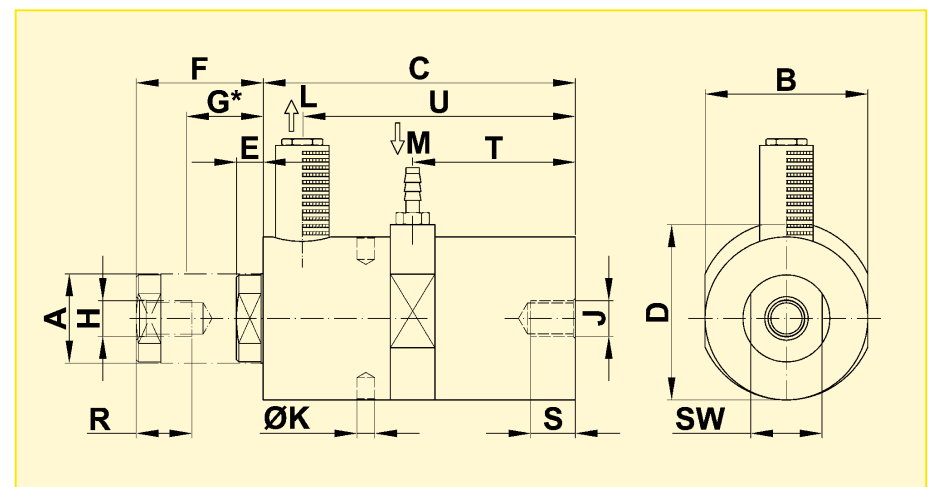
The bellows NFB for linear vibrators series NTK are designed for the protection of the piston against outside influences such as dirt and dust. NFB bellows are available for all types from NTK 15x up to NTK 110. They are easily removeable by velcros and make the flats of the piston accessible.

Dimensions

| Type | ØA [mm] | ØB [mm] | C [mm] | E [mm] | F [mm] | G* [mm] | H | ØJ [mm] | ØK [mm] | L | M | ØQ** [mm] | R [mm] | S [mm] | T [mm] | U [mm] | SW [mm] |
|------------|---------|---------|--------|--------|--------|---------|-----|---------|---------|-----------|--------------|-----------|--------|--------|--------|--------|---------|
| NTK 15 x | 15 | 50 | 114 | 9 | 32 | 23,5 | M10 | - | - | G 1/8 | G 1/8 | - | 20 | 10 | 55 | 99 | 13 |
| NTK 16 | 16 | 49 | 111 | 5 | 38 | 21,5 | M10 | - | - | G 1/8 | G 1/8 | - | 21 | 10 | 57 | 96 | 14 |
| NTK 18 AL | 18 | 49 | 116 | 8 | 42 | 25,0 | M10 | - | - | G 1/8 | G 1/8 | - | 21 | 10 | 62 | 101 | 16 |
| NTK 25 | 25 | 64 | 138 | 9 | 52 | 30,5 | M16 | - | - | G 1/4 | G 1/4 | - | 25 | 10 | 73 | 121 | 22 |
| NTK 40 | 40 | 84 | 140 | 12 | 54 | 33,0 | M16 | - | - | G 3/8 | G 1/4 | - | 40 | 15 | 73 | 123 | 32 |
| NTK 55NF | 55 | 110 | 125 | 19 | 55 | 38,0 | M20 | 96 | - | G 3/8 | G 3/8 | 4 x 8,5 | 40 | 30 | 60 | 108 | 46 |
| NTK 55HF** | 55 | 110 | 115 | 29 | 65 | 47,0 | M20 | 96 | - | G 3/8 | G 3/8 | 4 x 8,5 | 40 | 30 | 50 | 98 | 46 |
| NTK 85NF | 85 | 160 | 122 | 20 | 45 | 32,5 | M20 | 143 | 12,8 | 2 x G 3/8 | G 3/8 | 6 x 10,5 | 40 | 20 | 57 | 105 | - |
| NTK 85HF** | 85 | 160 | 112 | 30 | 55 | 42,5 | M20 | 143 | 12,8 | 2 x G 3/8 | G 3/8 | 6 x 10,5 | 40 | 20 | 47 | 95 | - |
| NTK 110HF | 110 | 200 | 122 | 22 | 55 | 38,5 | M20 | 182 | 12,8 | 2 x G 1/2 | 2 x G 3/8*** | 8 x 12,5 | 40 | 25 | 56 | 104 | - |



* centre of vibration
 ** additional forms of attachment from NTK 55 upwards
 *** optional M₁ or M₂



| Type | ØA [mm] | B [mm] | C [mm] | D [mm] | E [mm] | F [mm] | G* [mm] | H | J | ØK [mm] | L | M | R [mm] | S [mm] | T [mm] | U [mm] | SW [mm] |
|-----------|---------|--------|--------|--------|--------|--------|---------|------|------|---------|-------|-------|--------|--------|--------|--------|---------|
| NTK 8 AL | 8 | 22 | 91 | 22 | 5 | 32 | 18,5 | M 5 | M 6 | - | M 5 | M 5 | 15 | 9 | 47,0 | 76,5 | 7 |
| NTK 25 AL | 25 | 50 | 138 | 54 | 7 | 52 | 29,5 | M 16 | M 16 | - | G 1/4 | G 1/4 | 25 | 18 | 72,0 | 120,5 | 22 |
| NTK 40 AL | 40 | 73 | 140 | 79 | 12 | 57 | 34,5 | M 16 | M 16 | 8 | G 3/8 | G 1/4 | 25 | 20 | 73,5 | 122,5 | 32 |
| NTK 55 AL | 55 | 98 | 133 | 109 | 20 | 57,5 | 38,5 | M 20 | M 20 | 10 | G 3/8 | G 3/8 | 40 | 35 | 66,5 | 115 | 46 |

* centre of vibration

Applications

The pneumatic linear vibrators series NTK are especially suitable for conveying, compacting and loosening bulk material, due to the completely linear vibration. Also processes may be mechanically stimulated or affected.

Special features of the NTK vibrators are the mounting options. It is possible to attach the housing or the piston with a vibrating mass. Additional vibration weights SM allow to adjust the frequency and the amplitude in many different ways.

Design and functioning principle

The vibration (linear) is produced by a freely oscillating, self reversing piston. NTK linear vibrators start and stop instantly in any installed position. The noise level is lower than 80 dB(A). The frequency can be adjusted continuously by regulating the air supply. The amplitude can be adjusted by throttling the exhaust air.

Vibrators with aluminium housing NTK AL and the NTK 15x may be operated lubrication free in compliance with instructions of **NetterVibration**. NTK vibrators with steel housing require lubricated air. For operation a control valve is required (not included in scope of delivery). ATEX compliant linear vibrators of the NTK series and units with stainless steel housing are available.

Permissible operating conditions

Drive medium:

Compressed air or nitrogen (Filter ≤ 5 µm), preferably with oil mist

Operating pressure:

2 bar to 6 bar

Ambient temperature:

NTK AL 5°C to 60°C
 NTK 15x 5°C to 100°C
 NTK with steel housing -10°C to 150°C
 HT version up to 200°C

NetterVibration offers the accessories required for mounting, installation and control of vibrators and interval impactors.

Netter provides solutions.

Consult our experienced application technicians.

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