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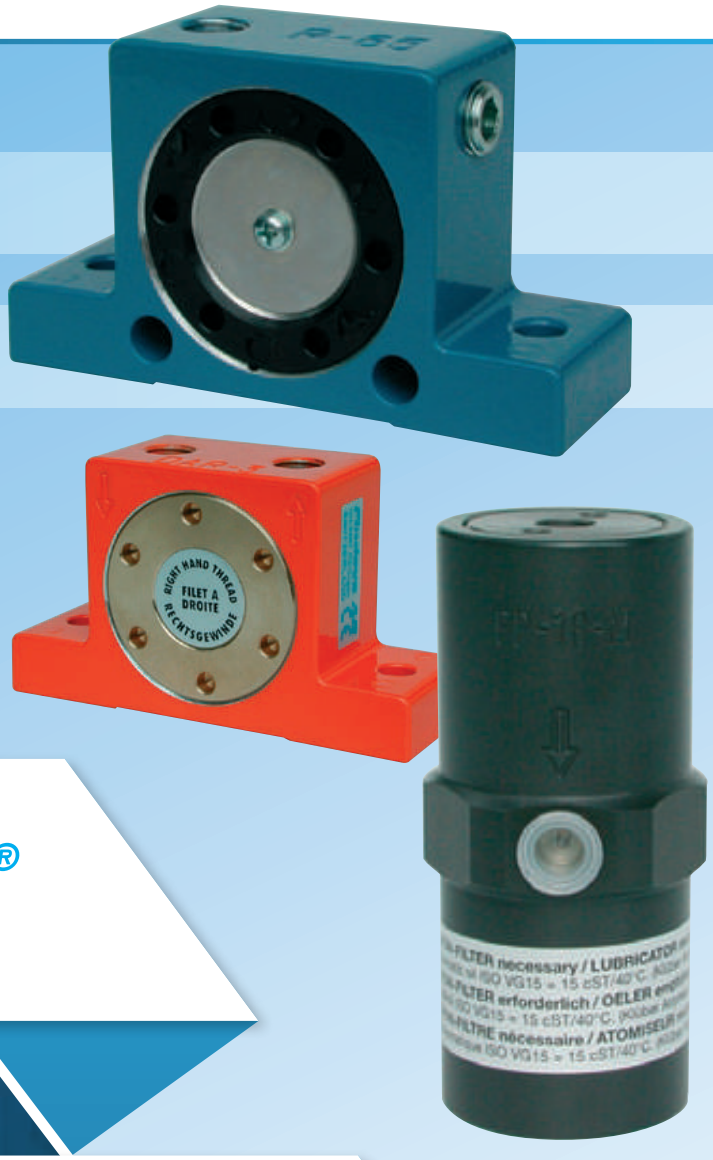
WE'LL HANDLE IT.



Findeva®

PNEUMATIC VIBRATORS

Rotary & Linear f/ Bins Chutes & Hoppers

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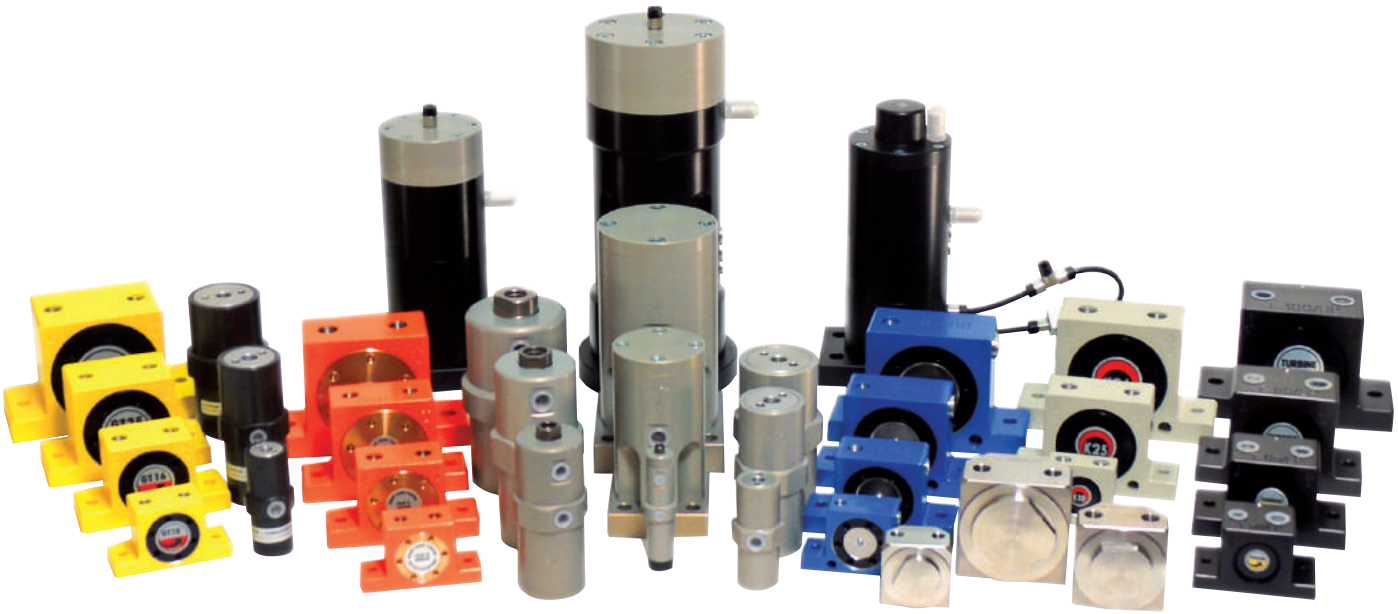
Quality and innovation

With more than 40 years of experience, Findeva provides her clients with the very best vibrators in over 60 countries worldwide. A range of more than 70 models allows to find the best solution in every case.



Advantages of Findeva vibrators and knockers:

- Excellent power to weight ratio
- High-quality aluminium housings, intricate surface tooling: corrosion-resistant and easy to clean
- Low air consumption, frequency/pulse controllable by air pressure
- Sturdy and simple construction for long life and low maintenance costs
- Wide range covering over 70 models
- High availability of stock and fast delivery
- No risk of explosion
- All models available with ATEX certification

Technical data:

Technical data were measured unless otherwise stated, using a Kistler 3-axis dynamometer. Trials were carried out on a massive laboratory test block and displayed by means of a Kistler Control Monitor (COMO). Frequency and power decrease when less rigid bases are used. We reserve the right to improve, modify or withdraw specifications or products without prior notice or obligation.

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Ball Vibrators K

Ball vibrators, simple and good. Wide range for many applications.

Properties

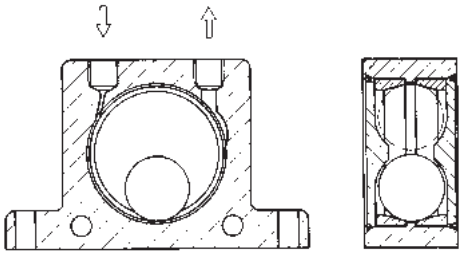
- Powerful
- Rated frequency 7'300 – 35'000 rpm
- Centrifugal force 29 – 911 lbf
- Continuously variable
- Can be used up to 212 °F
- HT version up to 302 °F on request
- Also available with ATEX certification

Field of application

- Emptying of bunkers
- Screen filters
- Vibrating tables
- Preventing adhesions in pipelines and silos
- Moving of goods

Construction

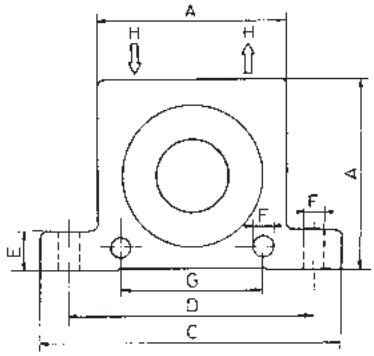
- Vibration by means of a ball that is guided by hardened steel guides.
- Nylon plates on both sides to support the ball and as protection from dust and water.
- Housing with 4 mounting bores, depending on the application.



Housing made from extruded aluminium alloy
Hardened guides made of steel
Nylon end plates
Hardened ball

Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm			Centrifugal force lbf			Air consumption CF min^{-1}		
	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI
K-8	25.5	31.8	35	29	58	81	2.9	5.1	6.9
K-10	22.5	28	34	56	106	160	3.2	5.3	7.1
K-13	15	18.5	22.5	72	124	196	3.3	5.6	7.9
K-16	13	17	19.5	101	180	248	4.3	7.1	9.9
K-20	10.5	14.5	16.5	162	275	387	4.6	8.1	12.0
K-25	9.2	12.2	14	209	353	461	5.6	10.2	15.0
K-30	7.8	9.7	12.5	340	556	722	7.6	13.2	20.0
K-36	7.3	9	10	464	709	911	9.2	16.8	24.0



Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F inches	G inches	H Thread BSP	Weight lb
K-8	1.97	0.79	3.38	2.68	0.47	0.27	1.57	1/4"	0.29
K-10	1.97	0.79	3.38	2.68	0.47	0.27	1.57	1/4"	0.29
K-13	2.56	0.94	4.45	3.54	0.63	0.35	1.97	1/4"	0.57
K-16	2.56	1.06	4.45	3.54	0.63	0.35	1.97	1/4"	0.66
K-20	3.15	1.30	5.04	4.09	0.63	0.35	2.36	1/4"	1.17
K-25	3.15	1.50	5.04	4.09	0.63	0.35	2.36	1/4"	1.39
K-30	3.94	1.73	6.30	5.12	0.70	0.43	3.15	3/8"	2.49
K-36	3.94	1.97	6.30	5.12	0.79	0.43	3.15	3/8"	2.95

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Roller Vibrators R

Simply constructed high-frequency roller vibrators, wide range for many applications.

Properties

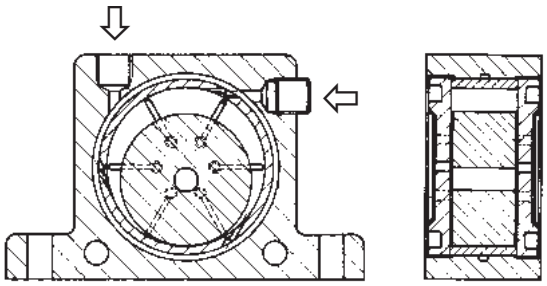
- High torque
- Rated frequency 10’000 – 36'000 rpm
- Centrifugal force 240 – 2’812 lbf
- Continuously variable
- Can be used up to 302 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- Emptying of hoppers and chutes
- Screen filters
- Conveying of particulates
- Preventing adhesions in pipelines and silos
- Transporting of fine powders
- Compacting of plastic and concrete in troughs

Construction

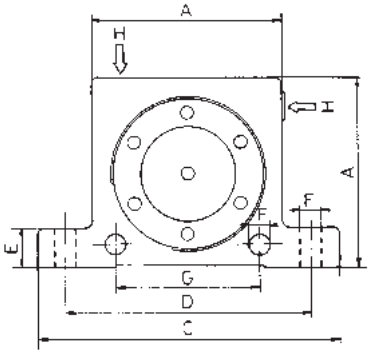
- Vibration created by a rotating precision-steel roller
- Shockproof plastic end plates
- Housing with 4 mounting bores, depending on the application



Housing made from extruded aluminium alloy
Cast iron strip
Steel roller
Plastic end plates

Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm			Centrifugal force lbf			Air consumption CF min^{-1}		
	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI
R-50	25.0	35.0	36.0	240	657	950	3.5	5.1	6.9
R-65	19.0	21.0	26.0	614	1089	1377	7.0	10.6	14.1
R-80	15.5	18.5	19.0	675	1370	1676	10.2	15.2	20.1
R-100	11.0	14.0	16.0	844	1519	2003	13.0	19.4	25.8
R-120	10.0	11.5	12.5	1800	2250	2812	17.6	25.8	34.2



Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F inches	G inches	H Thread BSP	Weight lb
R-50	1.97	1.14	3.38	2.68	0.47	0.27	1.57	1/8”	0.53
R-65	2.56	1.46	4.45	3.54	0.63	0.35	1.97	1/4”	1.20
R-80	3.15	1.69	5.04	4.09	0.63	0.35	2.36	1/4”	2.10
R-100	3.94	2.05	6.3	5.12	0.79	0.43	3.15	3/8”	4.00
R-120	4.72	3.03	7.64	5.99	0.94	0.67	-	3/8”	9.40

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Roller Vibrators DAR

Roller vibrators, especially for concrete and other heavy-duty applications. Wide range.

Properties

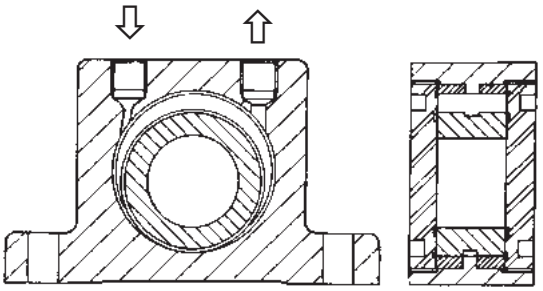
- High torque
- Rated frequency 7'800 – 38'000 rpm
- Centrifugal force 500 – 2'700 lbf
- Continuously variable
- Can be used up to 302 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- Compacting of plastic and concrete
- Assisting the flow of material in silos and hoppers
- Separating of different sized products on sieves

Construction

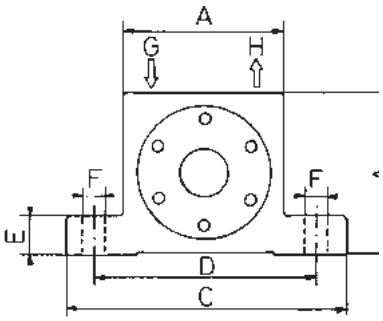
- Vibration through rotating precision rollers in highly flexible steel guides
- Reinforced by two extra-shockproof bronze end plates



Housing made from extruded aluminium alloy
Highly flexible steel guides
Cast precision steel roller
Special bronze end plates

Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm			Centrifugal force lbf			Air consumption CF min^{-1}		
	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI
DAR-2	36.0	38.0	38.0	500	760	920	2.5	4.9	7.0
DAR-3	27.0	32.0	32.0	612	1026	1361	3.5	7.0	10.6
DAR-4	18.0	22.5	25.0	531	1037	1505	4.2	8.8	12.7
DAR-5	9.5	15.0	16.5	378	1044	1620	4.6	9.5	13.8
DAR-6	7.8	10.0	12.0	983	1502	2317	6.0	11.3	16.6
DAR-7	8.0	9.8	11.5	1320	2137	2700	6.4	12.4	17.7



Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F inches	G/H Thread BSP	Weight lb
DAR-2	1.97	1.18	3.38	2.68	0.47	0.27	1/8"	0.82
DAR-3	2.56	1.42	4.45	3.54	0.63	0.35	1/4"	1.68
DAR-4	3.15	1.57	5.04	4.00	0.63	0.43	1/4"	2.80
DAR-5	3.94	2.05	6.30	5.12	0.79	0.51	3/8"	5.40
DAR-6	4.72	2.44	7.64	6.00	0.94	0.67	3/8"	10.35
DAR-7	4.72	3.03	7.64	6.00	0.94	0.67	3/8"	12.55

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Turbine Vibrators T

High speed and high working torque for strong vibration at large amplitude. Wide range.

Properties

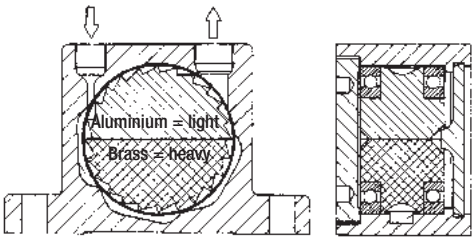
- Rated frequency 6'500 – 23'000 rpm
- Centrifugal force 135 – 1'364 lbf
- Continuously variable
- Can be used up to 212 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- Emptying of bunkers
- Screen filters
- Vibrating tables
- Preventing adhesions in pipelines and silos
- Transporting of fine powders
- Moving of bulk materials

Construction

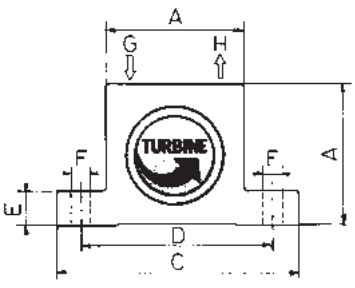
- Vibration with a high eccentric torque, caused by the rotor's imbalance
- Low noise level



Housing made from extruded aluminium alloy with hard anodization
Ball bearing
Plastic end cap with screw thread
Nylon end cap

Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm 29 PSI	58 PSI	87 PSI	Centrifugal force lbf 29 PSI	58 PSI	87 PSI	Air consumption CF min^{-1} 29 PSI	58 PSI	87 PSI
T-50/LP	17.0	21.5	23.0	157	279	385	2.4	4.0	5.8
T-50-HP	11.0	14.5	16.5	135	230	304	2.8	4.9	7.0
T-65-LP	9.5	13.0	15.0	173	310	405	3.1	5.5	8.3
T-65/HP	8.5	10.5	12.0	293	461	585	3.8	6.8	10.2
T-80/LP	9.0	11.5	13.0	414	666	853	5.3	9.2	13.6
T-80/HP	6.8	9.0	10.5	450	780	1066	-	9.2	13.6
T-100/HP	6.5	9.0	10.0	558	1080	1364	-	10.6	15.2



Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F inches	G* Thread BSP	H Thread BSP	Weight lb
T-50 / LP	1.97	1.81	3.38	2.68	0.47	0.27	1/8"	1/4"	0.86
T-50 / HP	1.97	2.36	3.38	2.68	0.47	0.27	1/8"	1/4"	1.15
T-65 / LP	2.56	1.97	4.45	3.54	0.63	0.35	1/4"	1/4"	1.60
T-65 / HP	2.56	2.52	4.45	3.54	0.63	0.35	1/4"	1/4"	2.15
T-80 / LP	3.15	2.20	5.04	4.09	0.63	0.43	1/4"	3/8"	2.70
T-80 / HP	3.15	2.75	5.04	4.09	0.63	0.43	1/4"	3/8"	3.45
T-100 / HP	3.94	2.64	6.30	5.12	0.79	0.51	3/8"	3/8"	5.00

AIRMATIC® WE'LL HANDLE IT.

Findeva®

Golden Turbine® GT

High speed and eccentric working torques for strong vibration. Wide range.

Properties

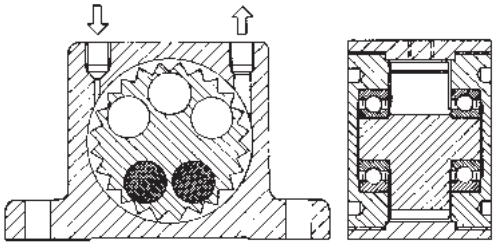
- Lubrication-free
- Low noise level
- Strong vibration by means of high speed and eccentric working torques
- Rated frequency 6'000 – 46'000 rpm
- Centrifugal force 29 – 2'700 lbf
- Continuously variable
- Can be used up to 302 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- Emptying of bunkers
- Screen filters
- Vibrating tables
- Preventing adhesions in pipelines and silos
- Transporting of fine powders
- Moving of bulk materials

Construction

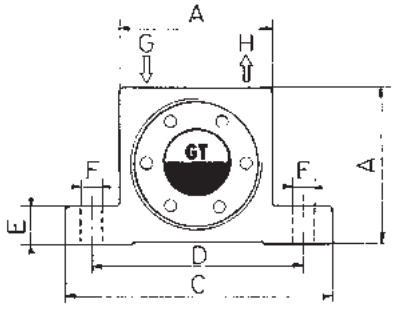
- Vibration from the centrifugal force of positive and negative imbalanced torques in the rotor.
- Rotor on two pre-lubricated and enclosed ball bearings arranged in pairs. Lubricated with special grease for long life.



Housing made from extruded aluminium alloy
Turbine wheel made from surface-hardened aluminium
Surface-hardened aluminium end plates

Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm			Centrifugal force lbf			Air consumption CF min^{-1}		
	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI
GT-4	14.0	15.0	15.0	30	40	45	1.2	2.0	2.9
GT-6	11.5	12.0	12.5	29	39	47	1.2	2.0	2.9
GT-8	36.0	42.0	46.0	223	464	655	1.6	2.8	3.9
GT-10	27.5	35.0	37.5	189	313	540	1.6	2.8	3.9
GT-10-S	17.0	23.0	25.0	146	304	439	1.6	2.8	3.9
GT-13	26.0	30.0	33.0	315	549	839	4.2	7.0	10.2
GT-16	17.0	21.5	24.0	275	470	711	4.2	7.0	10.2
GT16-S	11.5	15.5	17.0	248	428	608	4.2	7.0	10.2
GT-20	17.0	20.0	23.0	488	909	1242	6.5	11.4	16.0
GT-25	12.0	15.5	17	477	790	1140	6.5	11.4	16.0
GT-25-S	8.5	11.0	13.0	506	810	1102	6.5	11.4	16.0
GT-30	13.0	14.0	16.0	760	1222	1696	11.6	18.7	26.3
GT-36	8.0	10.0	13.0	740	1206	1618	11.6	18.7	26.3
GT-36-S	6.1	7.2	8.3	922	1395	1688	11.6	18.7	26.3
GT-40	7.7	8.8	9.5	968	1642	2205	15.0	24.7	34.2
GT-48	6.0	7.5	9.7	1102	1732	2363	15.0	24.7	34.2
GT-48-S	-	5.6	6.3	-	1688	2700	-	24.7	34.2



Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F inches	G/H	Weight lb
GT-4 / 6	1.58	1.10	2.76	2.21	0.41	0.24	1/8"	0.37
GT-8 / 10	1.97	1.30	3.38	2.68	0.47	0.27	1/8"	0.56
GT-13 / 16	2.56	1.65	4.45	3.54	0.63	0.35	1/4"	1.28
GT-20 / 25	3.15	2.20	5.04	4.09	0.63	0.35	1/4"	2.46
GT-30 / 36	3.94	2.87	6.30	5.12	0.79	0.43	3/8"	5.10
GT-40 / 48	4.72	3.26	7.64	5.99	0.94	0.67	3/8"	8.57

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Stainless Turbines GTRF

Pneumatic turbine vibrators made of stainless-steel.

Properties

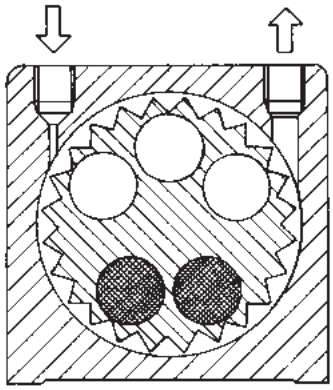
- Lubrication-free
- Low noise level
- Strong vibration by means of high speed and eccentric working torques
- Rated frequency 14'000 – 37'000 rpm
- Centrifugal force 169 – 1'284 lbf
- Continuously variable
- Can be used up to 302 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

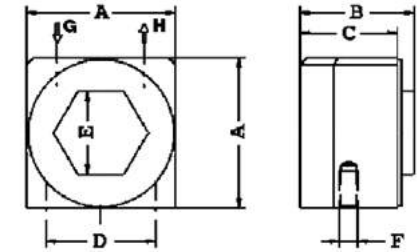
- For foodstuffs and pharmaceuticals, complies with FDA specifications
- Emptying of bunkers
- Screen filter
- Vibrating tables
- Preventing adhesions in pipelines and silos
- Transporting of fine powders
- Moving of bulk materials

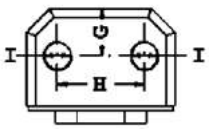
Construction

- Vibration from the centrifugal force of positive and negative imbalanced torques in the rotor.
- Rotor on two pre-lubricated and enclosed ball bearings arranged in pairs.
- Made from stainless-steel 316 and lubricated with special grease for long life.



Housing made of stainless-steel
Turbine wheel made of surface-hardened aluminium





Technical Data in PSI, lbf, CF

Model	Vibrations 1000 rpm			Centrifugal force lbf			Air consumption CF min^{-1}		
	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI
GT-10-RF	27.0	32.0	37.0	169	304	473	1.6	2.8	3.9
GT-16-RF	20.0	23.0	27.5	383	563	833	4.2	7.0	10.2
GT-25-RF	14.0	17.0	19.5	563	935	1284	6.5	11.4	15.9

Sizes and weights in inches and lb

Model	A inches	Width inches	C inches	D inches	E inches	F thread	G	Weight lb
GT-10-RF	1.93	1.50	1.26	1.42	1.06	0.24	1/8"	0.24
GT-16-RF	2.52	1.77	1.54	1.89	1.42	0.31	1/4"	0.45
GT-25-RF	3.07	2.16	1.93	2.36	1.97	0.39	1/4"	0.82

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Piston-Vibrators FP

Pneumatic piston vibrators for linear vibration with unlimited fine-tuning facilities for amplitude and frequency. Wide range.

Properties

- Quiet and efficient
- Rated frequency 1'800 – 9'300 vpm
- Force 7 – 962 lbf
- Continuously variable
- Can be used up to 302 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

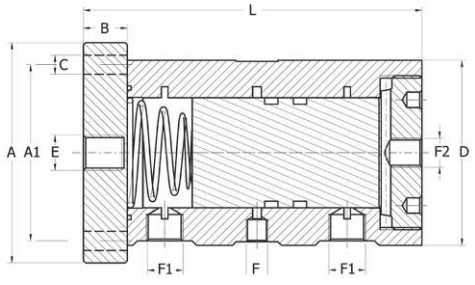
- Driving conveyor and discharge chutes
- Loosening or compacting of bulk materials
- Starting up of mechanical processes
- Filling facilities

Construction

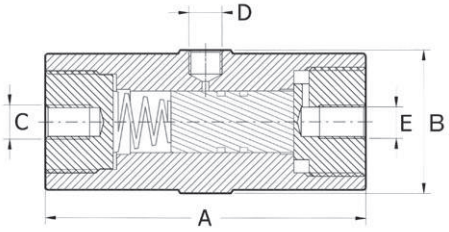
Aluminium housing surface-hardened and corrosion-resistant
Technical Data in PSI, lbf, CF, sizes in inches

Model	Vibrations 1000 vpm 29 PSI	87 PSI	Force lbf 29 PSI	87 PSI	Air consumption CF min^{-1} 29 PSI	87 PSI	A Length inches	B SW inches	C Thread mm/inches	D Inlet	E Outlet	Weight lb
FP-12-S	6.2	9.3	8	21	0.03	0.88	2.80	1.34	M8/0.31	1/8"	1/8"	0.331
FP-12-M	5.0	6.7	8	17	0.02	0.67	3.19	1.34	M8/0.31	1/8"	1/8"	0.384
FP-12-L	4.0	5.4	7	18	0.04	0.71	3.70	1.34	M8/0.31	1/8"	1/8"	0.452
FP-18-S	5.0	7.7	15	42	0.18	2.00	3.19	1.66	M10/0.39	1/8"	1/8"	0.452
FP-18-M	4.0	5.9	15	42	0.14	1.84	3.70	1.66	M10/0.39	1/8"	1/8"	0.754
FP-18-L	3.1	4.6	14	46	0.18	1.62	4.30	1.66	M10/0.39	1/8"	1/8"	0.893
FP-25-S	3.6	5.5	28	94	0.46	3.28	3.86	1.97	M12/0.47	1/8"	1/4"	1.157
FP-25-M	3.0	4.2	32	113	0.81	3.07	4.57	1.97	M12/0.47	1/8"	1/4"	1.410
FP-25-L	2.4	3.7	42	134	0.64	3.28	5.36	1.97	M12/0.47	1/8"	1/4"	1.706
FP-35-S	3.8	5.8	66	234	0.81	5.72	3.86	2.56	M12/0.47	1/4"	1/4"	1.940
FP-35-M	3.0	4.6	56	243	0.85	4.98	4.57	2.56	M12/0.47	1/4"	1/4"	2.348
FP-35-L	2.4	3.6	63	240	1.34	4.77	5.36	2.56	M12/0.47	1/4"	1/4"	2.855
FP-50-M	1.85	2.8	110	360	1.67	6.61	6.07					6.724
FP-60-M	1.95	2.7	137	489	3.13	9.39	6.07					9.039
FP-95-M	1.8	2.8	338	962	5.91	15.65	6.15					20.723

Housing made from hard-anodized aluminium alloy
Piston made from leaded-bronze
Steel spring starting device
Hard anodized aluminium end cap



FP-50 – 95



FP-12 – 35

Piston-Vibrators FPLF

Lubrication-free pneumatic vibrators for linear vibration with unlimited fine-tuning facilities for amplitude and frequency.

Properties

- Quiet and efficient
- Rated frequency 1'800 – 9'300 vpm
- Force 5 – 962 lbf
- Continuously variable
- Can be used up to 185 °F
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- For foodstuffs and pharmaceuticals, complies with FDA specifications
- Driving conveyor and discharge chutes
- Loosening or compacting of bulk materials
- Starting up of mechanical processes
- Filling facilities

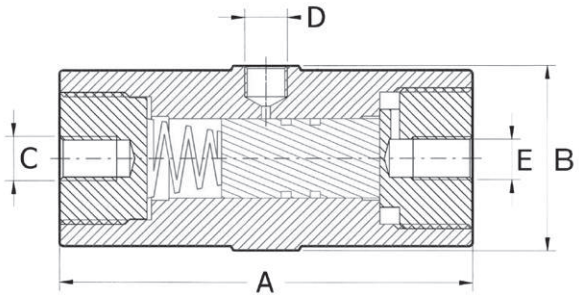
Construction

- Lubrication-free operation possible.
- Extra hard and corrosion-resistant surface through aluminium oxide-generated by titaniferous electrolyte.
- Ideally suited for foodstuffs, drinks and pharmaceuticals.

Technical Data in PSI, lbf, CF, sizes in inches

Model	Vibrations 1000 vpm 29 PSI	Vibrations 1000 vpm 87 PSI	Force lbf 29 PSI	Force lbf 87 PSI	Air consumption CF min-1 29 PSI	Air consumption CF min-1 87 PSI	A Length inches	B SW inches	C Thread mm/inches	D Inlet	E Outlet	Weight lb
FPLF-12-XS	6.0	11.5	5	15	0.03	0.53	1.97	1.46	M8/0.31	1/8"	1/8"	0.231
FPLF-12-S	6.2	9.3	8	21	0.03	0.88	2.80	1.34	M8/0.31	1/8"	1/8"	0.331
FPLF-12-M	5.0	6.7	8	17	0.02	0.67	3.19	1.34	M8/0.31	1/8"	1/8"	0.384
FPLF-12-L	4.0	5.4	7	18	0.04	0.71	3.70	1.34	M8/0.31	1/8"	1/8"	0.452
FPLF-18-S	5.0	7.7	15	42	0.18	2.00	3.19	1.66	M10/0.39	1/8"	1/8"	0.637
FPLF-18-M	4.0	5.9	15	42	0.14	1.84	3.70	1.66	M10/0.39	1/8"	1/8"	0.754
FPLF-18-L	3.1	4.6	14	46	0.18	1.62	4.30	1.66	M10/0.39	1/8"	1/8"	0.893
FPLF-25-S	3.6	5.5	28	94	0.46	3.28	3.86	1.97	M12/0.47	1/8"	1/4"	1.157
FPLF-25-M	3.0	4.2	32	113	0.81	3.07	4.57	1.97	M12/0.47	1/8"	1/4"	1.410
FPLF-25-L	2.4	3.7	42	134	0.64	3.28	5.36	1.97	M12/0.47	1/8"	1/4"	1.706
FPLF-35-S	3.8	5.8	66	234	0.81	5.72	3.86	2.56	M12/0.47	1/4"	1/4"	1.940
FPLF-35-M	3.0	4.6	56	243	0.85	4.98	4.57	2.56	M12/0.47	1/4"	1/4"	2.348
FPLF-35-L	2.4	3.6	63	240	1.34	4.77	5.36	2.56	M12/0.47	1/4"	1/4"	2.855
FPLF-50-M	1.85	2.8	110	360	1.67	6.61	6.07					6.724
FPLF-60-M	1.95	2.7	137	489	3.13	9.39	6.07					9.039
FPLF-95-M	1.8	2.8	338	962	5.91	15.65	6.15					20.723

FPLF-12-XS



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Piston-Vibrators FAL (lubrication-free) and VTL

Pneumatic piston vibrators for linear vibration with unlimited fine-tuning facilities for amplitude and frequency. Wide range.

Properties

- Quiet and efficient
- Rated frequency 1'130 – 3'400 vpm
- Force 2,7 – 616 lbf
- Continuously variable
- FAL can be used up to 250 °F, VTL-155 up to 212 °F, remaining VTLs up to 300 °F, FAL HT version up to 300 °F, LT version down to -40 °F on request
- Resistant to extreme environmental conditions
- Also available with ATEX certification

Field of application

- For foodstuffs and pharmaceuticals, complies with FDA specifications (FAL only)
- Driving conveyor and discharge chutes
- Loosening or compacting of bulk materials
- Starting up of mechanical processes
- Filling facilities
- Accessory for FAL: Bellows for ATEX or dusty environment

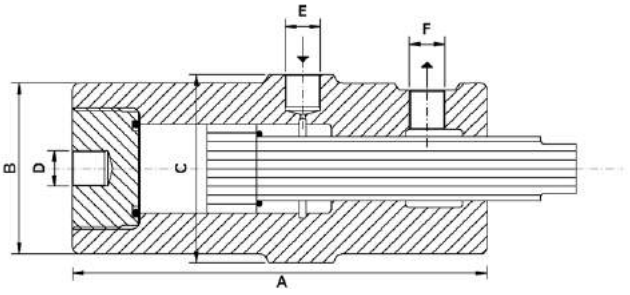
Construction

- With a freely flying piston, the tapered end of which protrudes from the vibrator's housing.
- Lubrication-free operation possible (FAL).
- Its optimum power to weight ratio makes its employment in producing conveying impulses particularly efficient.
- Extra hard and corrosion-resistant surface through aluminium oxide – generated by titaniferous electrolyte (FAL).

Steel housing: Series VTL 165, 255, 405, 555, 855. Plastic housing: VTL 155.
Technical Data in PSI, lbf, CF, sizes in inches

Model	Vibrations 1000 vpm 29 PSI	87 PSI	Force lbf 29 PSI	87 PSI	Air consumption CF min^{-1} 29 PSI	87 PSI	A Length inches	B ø	C SW inches	D Thread mm/inches	E Inlet mm/inches	F Outlet mm/inches	Weight lb	Piston-Stroke inches
FAL-8	2,05	3,4	2.7	9.5	0.28	1.05	3.59	0.79	0.91	M 6/024	M5/0.20	M5/0.20	0.198	1.06
FAL-18	1,42	2,25	13.5	46.5	0.70	2.12	4.61	1.89	1.97	M10/0.39	1/8"	1/8"	1.488	1.30
FAL-25	1,13	2,02	27.0	119.4	1.41	5.47	5.48	2.36	2.56	M16/0.63	1/4"	1/4"	2.899	1.57
FAL-35	1,24	2,01	205	147.5	2.65	12.36	5.52	3.03	-	M16/0.63	1/4"	1/4"	5.181	1.46
-														
VTL-155	1,8	2,7	9.0	21.6	0.64	3.00	4.49	1.97	-	M10/0.39	1/8"	1/8"	1.224	1.34
VTL-165	1,9	2,6	9.7	21.6	0.60	2.47	4.37	1.93	-	M10/0.39	1/8"	1/8"	3.329	1.38
VTL-255	1,6	2,2	18.0	90.0	2.00	6.36	5.52	2.52	-	M16/0.63	1/4"	1/4"	7.099	1.77
VTL-405	1,4	2,0	45.0	146.1	2.83	13.77	5.52	3.31	-	M16/0.63	1/4"	1/4"	11.971	1.77
VTL-555	1,6	2,5	101.2	293.4	4.94	25.32	4.93	4.53	-	M20/0.79	3/8"	3/8"	19.621	1.48
VTL-855	1,8	2,6	137.4	344.0	10.63	31.78	4.81	6.30	-	M20/0.79	3/8"	3/8"	37.699	1.37
VTL-1105	2,1	3,0	348.5	616.0	12.18	32.49	4.81	7.87	-	M20/0.79	1/2"	3/8"	56.945	1.29

Housing made from hard-anodized aluminium alloy, steel or plastic
Piston made from leaded-bronze or steel
Threaded insert for mounting purposes



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High-frequency Knockers FPK

Properties

- High impact frequency 1'350 – 4'600 vpm
- High power range 44 – 12'668 lbf
- Lubrication-free
- Can be used up to 248°F, HT version up to 302°F and LT version down to -40 °F on request
- Can be used in dusty environments
- Also available with ATEX certification

Field of application

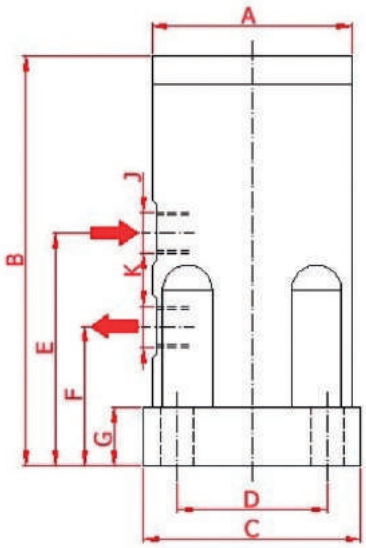
Broad field of application, for example knocking off adhering material from container walls such as silos, chutes, filter outlets, reactors and pipelines.

Construction

With the FPK-knockers compressed air pushes a piston in a linear direction (vibration).
When used as a high frequency knocker, the piston shoots against a plastic baffle plate supplied with the knocker.
Additional impact regulation is provided by baffle plates of varying hardness.

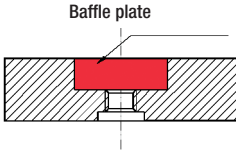
Technical Data in PSI, lbf, CF

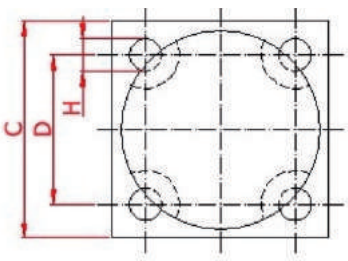
Model	Baffle plate	Frequency vpm			Force (peak) lbf			Air consumption CF min^{-1}			Weigh lb
		29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	29 PSI	58 PSI	87 PSI	
FPK-40	none	2100	2400	2800	44	102	164	3.3	5.3	7.9	
	soft	2800	3900	4600	881	2340	3379	3.5	6.9	12.7	2,64
	hard	2800	3900	4600	1628	3370	5114	3.5	6.9	12.7	
FPK-55	none	1350	1750	2050	115	262	446	5.7	12.7	16.6	
	soft	2200	3400	4300	1221	4791	8221	8.1	13.4	17.7	10,3
	hard	2200	3400	4300	3950	8309	12668	8.1	13.4	17.7	



Sizes in inches

Model	A	B	C	D	E	F	G	H	J	K
FPK-40	2.68	5.51	2.91	2.00	3.15	1.89	0.79	0.43	1/4"	1/4"
FPK-55	3.70	7.52	4.09	3.07	4.37	2.36	0.98	0.51	3/8"	3/8"





The FPK can be recycled.

Housing:	Aluminium, hard-anodized
Base, lid:	Aluminium, hard-anodized
Piston:	Steel, PTFE-coated
Baffle plate:	Plastic

Knockers ‹FKL in›

Variable impact force and interval.

Properties

- Single or interval impact mode
- Variable impact force and interval
- Lubrication-free
- Flexible range of application
- Can be used up to 185°F, HT version up to 302°F and LT version down to -40° F on request
- Also available with ATEX certification

Field of application

Knocking off adhering material from container walls such as silos, chutes, filter outlets, reactors and pipelines.

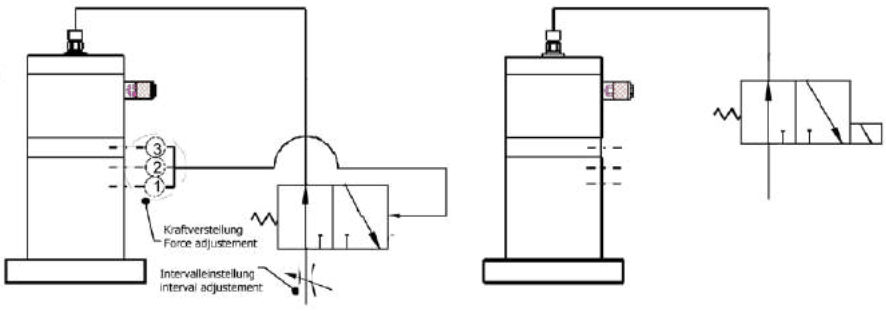
Construction

A piston is forced against a spring by compressed air. With rapid venting, the piston closes against a baffle plate. Knocker housing made of aluminium, baffle plate made of impact-resistant special plastic.

Interval impact mode

The impact depends on the interval time which is set by means of a throttle valve.

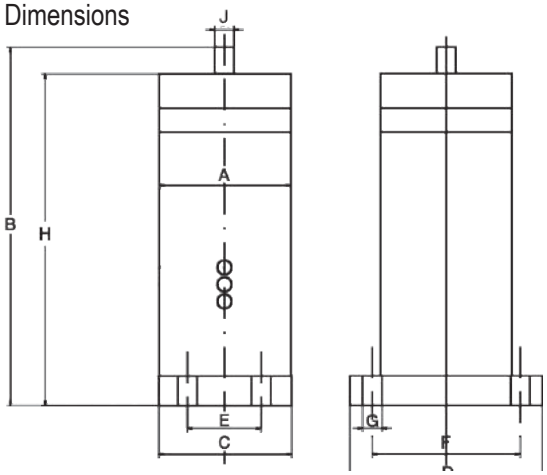
The force is adjusted by the three control bores 1 - 3.



Single impact mode

The impact is triggered immediately after the 3/2-way valve switches. Several knockers can be switched in parallel.

Dimensions

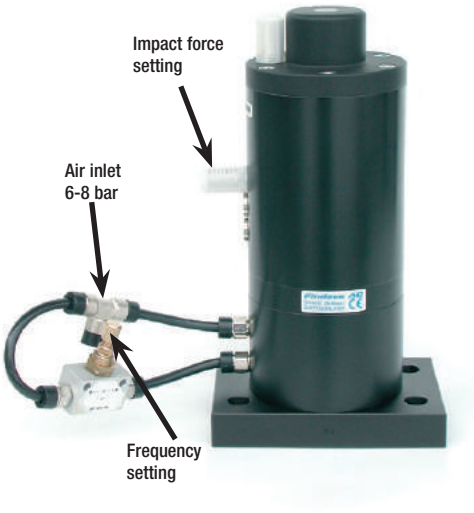


Dimensions in inches

Model	A	B	C	D	E	F	G	M	N
FKL- 25 in	ø 2.05	6.69	2.09	3.46	-	2.76	0.35	6.02	0.51
FKL- 50 in	ø 2.52	7.64	2.60	4.53	-	3.54	0.51	6.97	0.51
FKL-100 in	ø 3.50	9.53	3.54	5.12	1.97	3.94	0.51	8.82	0.51
FKL-150 in	ø 4.65	12.99	-	ø 5.51	-	ø 4.53	0.51	12.20	0.51
FKL 200 in	ø 5.80	13.3	-	ø 7.09	-	ø 5.98	0.67	12.6	0.51

Technical data

Model	Min. op. Pressure (PSI) Control bores No ①	②	③	Work/Impact Foot-Pounds	Impulse/Impact lbf s	Stroke vpm	Air consumption CF/stroke	For wall thick-nesses up to inches	Weight lb
FKL-25 in	43.5	65.3	94.3	0.7 - 5.2	0.11 - 0.23	max. 10	0.02 - 0.32	0.079	2.271
FKL-50 in	43.5	65.3	94.3	3.7 - 15.5	0.23 - 0.79	max. 10	0.28 - 1.08	0.118	4.079
FKL-100 in	58.0	72.5	94.3	7.4 - 51.6	0.23 - 2.36	max. 10	0.48 - 2.69	0.197	9.921
FKL-150 in	76.9	97.2	116.0	36.9 - 144.6	0.23 - 6.53	max. 10	2.39 - 9.34	0.315	20.944
FKL-200 in	76.9	97.2	116.0	73.8 - 206.5	0.23 - 12.94	max. 10	6.62 - 18.52	0.472	32.628



Knockers FKL mi

Automatically controlled.
Variable impact force.
(Field of application as for FKL in)

Properties

- Multiple impact mode
- Impact force and interval adjustables
- Lubrication-free
- Can be used up to 185° F
- HT version up to 302°F and LT version down to -40°F on request
- Flexible range of application
- Also available with ATEX certification

Field of application

Broad field of application, also outdoors, wet- and EX-area. Knocking off adhering material from container walls such as silos, chutes, filter outlets, reactors and pipelines.

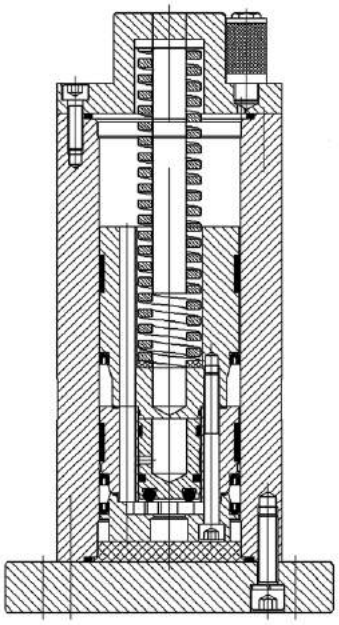
Construction

A piston is forced against a spring by compressed air. When the impact piston passes the control outlet duct, it is vented suddenly and the piston is shot against a baffle plate made of impact-resistant special plastic. The piston closes off the air duct and the procedure is repeated at the speed set by the throttle.

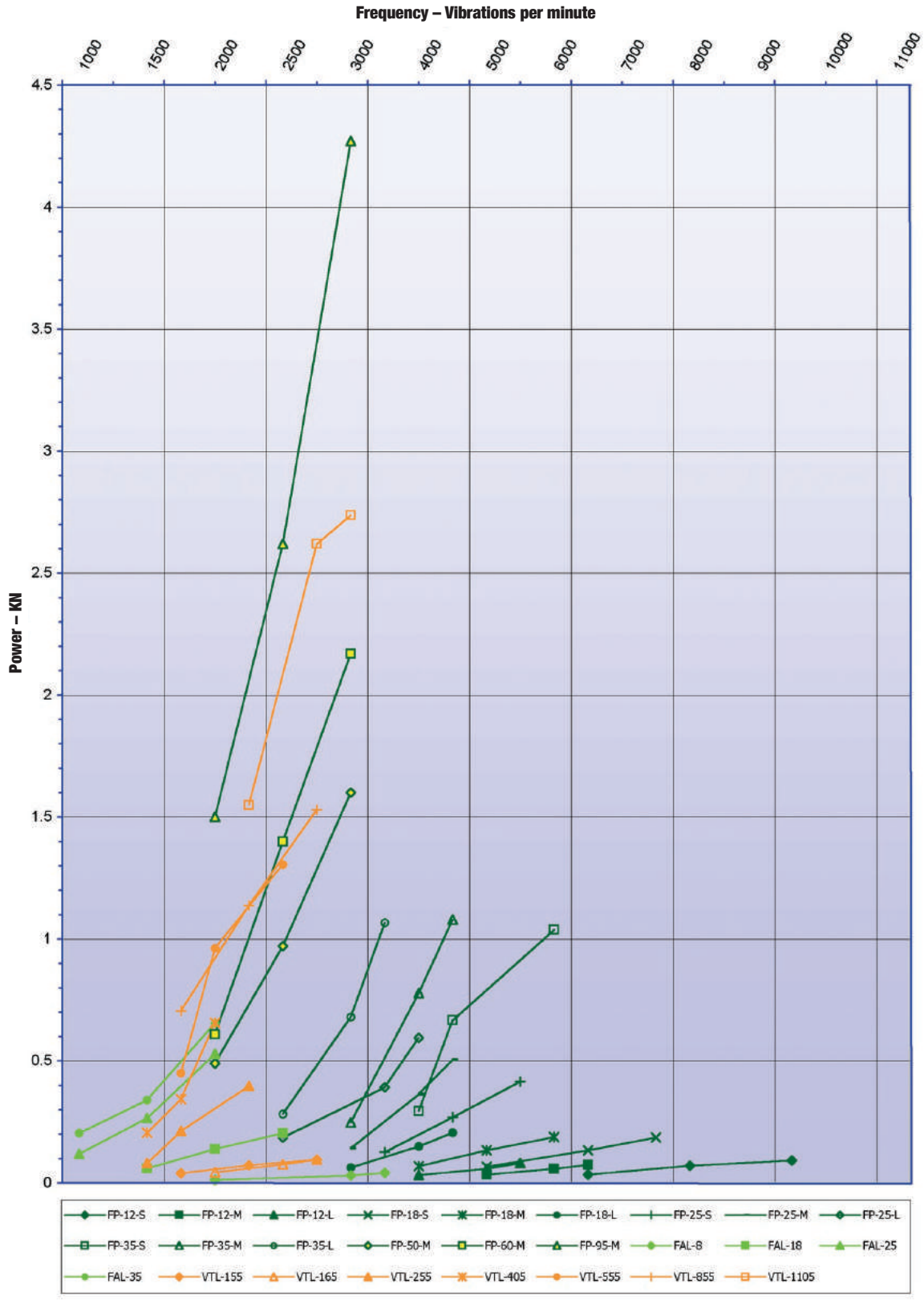
Technical data (in detail: www.findeva.com)

Model	Pressure PSI	Work/ Impact Foot-Pounds	Impulse/ Impact lbf s	Stroke Impacts pm	Air consumption CF/stroke	For wall thicknesses up to inches	Weight lb
FKL 100 mi	87-116	7.38 - 29.50	1.125-2.250	0.5-10	0.018-0.039	0.197	9.921

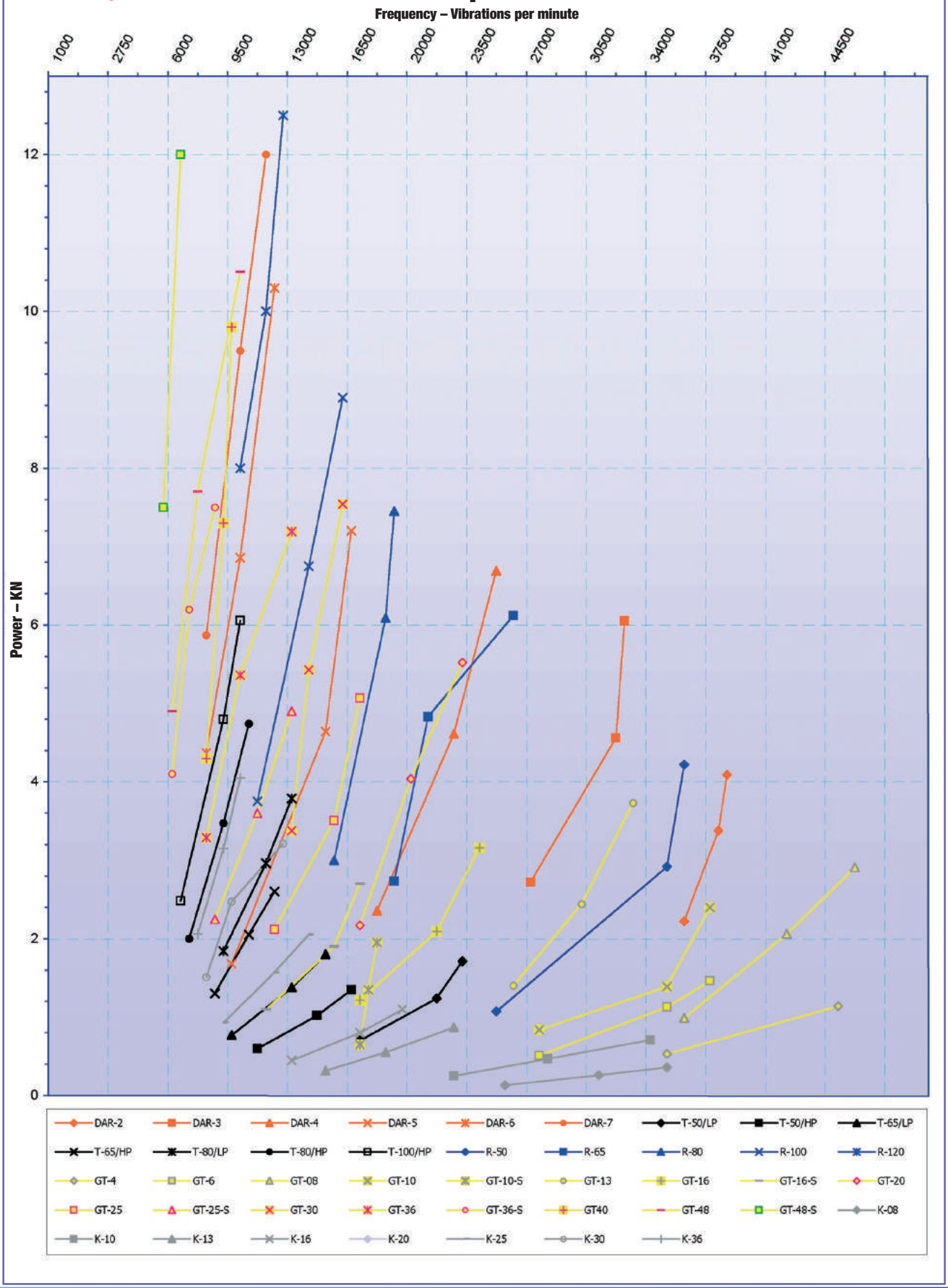
Housing made of hard-anodized aluminium alloy
Steel piston
Baffle plate made of impact-resistant plastic

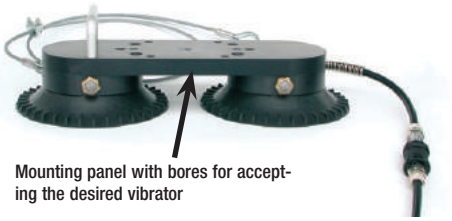


Linear vibrators Bandwidths and frequencies of the forces



Rotary vibrators **Bandwidths and frequencies of the forces**





Mounting panel with bores for accepting the desired vibrator

Vacuum Clamps

The flexible solution - attach, vibrate, remove

Properties

- Rapid and flexible solution for temporary placement of the vibrator
- Sturdy and simple construction
- Simple connection, together with a vibrator, to a compressed air supply

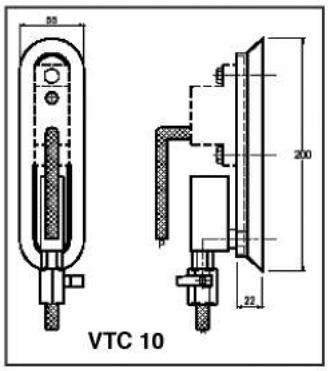
Field of application

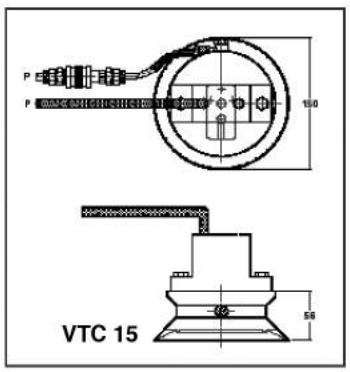
Any place where short-term vibrating needs to be carried out: on silos, transport containers or pipes. A smooth, neat and not too curved surface improves the grip of vacuum mountings.

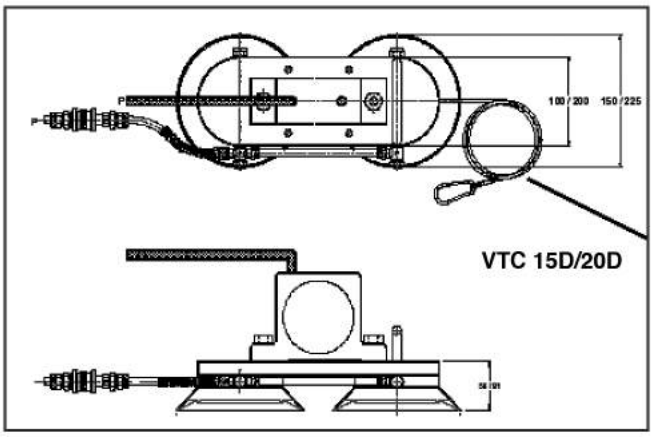
Construction

Compressed air operated suckers, single, double (Series D), or triple in a triangular arrangement (Series T) with mounting plate for accepting the vibrator and possibly the compressed-air conditioning device.

Model	Number of suckers	Suitable Vibrators	Minimum-ø round vessel Inches
VTC-10	1	DAR-2 • K-8/10 • GT-4/6/8/10 • FP(LF)-12/18 S/M/L • R-50 • T-50 LP/HP VTL-155/165 • FAL-18	4
VTC-15	1	DAR-2/3 • K-8/10/13/16 • GT-4/6/8/10/13/16 • FP(LF)-12/18 S/M/L • R-50/65 T-50/65 LP/HP • VTL-155/165/255 • FAL-18/25	20
VTC-15D	2	DAR-4 • K-20/25/30/36 • GT-20/25/30 • FP(LF)-25/35/ S/M/L • FP(LF)-50 M R-80 • T-80 LP/HP • FAL-25/35 • FKL-100 in/mi	26
VTC-20D	2	DAR-5 • GT-30/36 • FP(LF)-60/-95 M • R-100 • T-100 HP • VFP-50/04	37
VTC 20T	3	VFP 50/10	200







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Evaluation of the right Vibrator

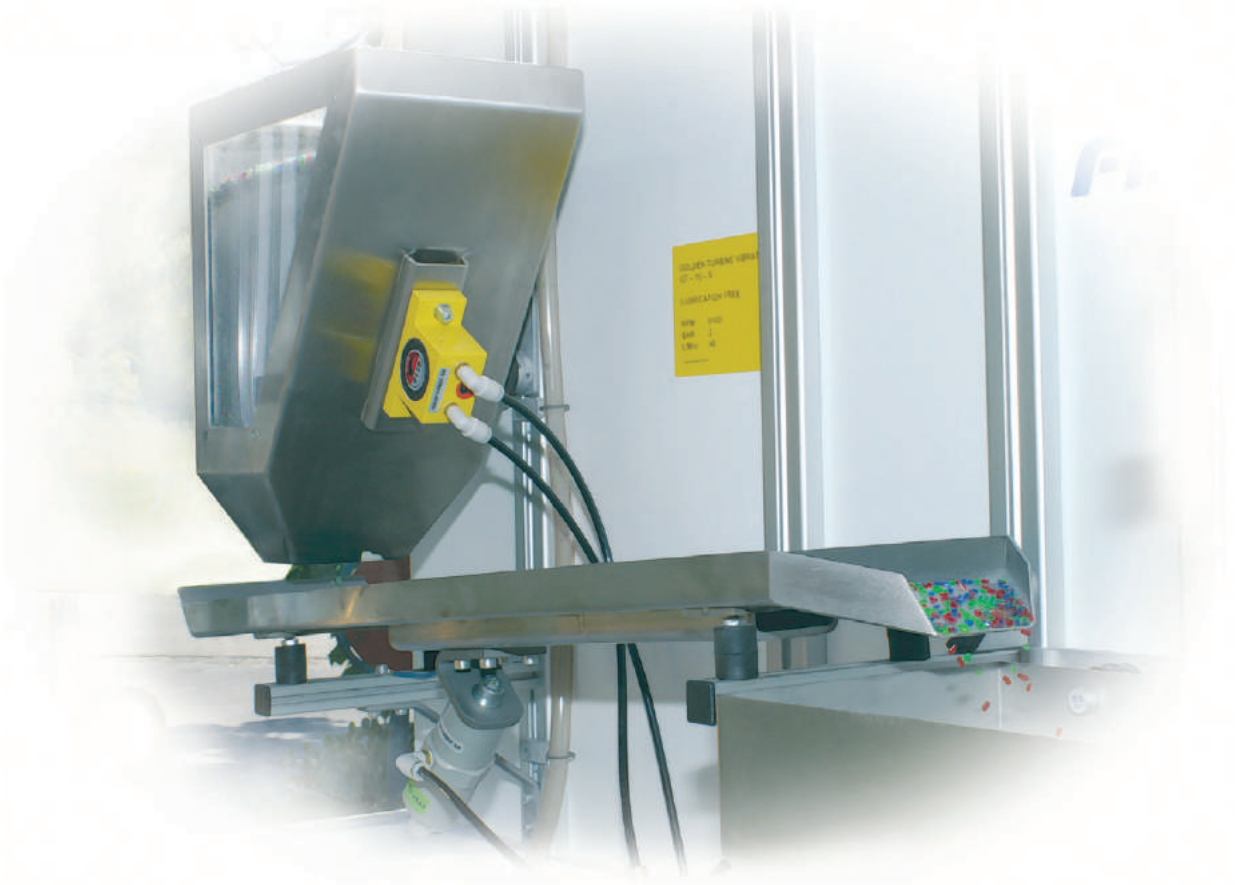
Functional principles:

- Rotating vibrators for non-directional circular oscillations: Series K, R, DAR, T, GT
- Linear vibrators for linear aligned oscillations: Series FP, FPLF, FAL, VTL
- Interval knockers: Series FKL, FPK

You choose the vibration characteristics:

- Mainly high-frequency oscillations with low amplitude: Series K, R, DAR, T, GT
- Low-frequency oscillations with high amplitude: Series FP, FPLF, FAL, VTL
- Hammer impacts: Series FKL, FPK

For bandwidths and frequencies see pages 16/17



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