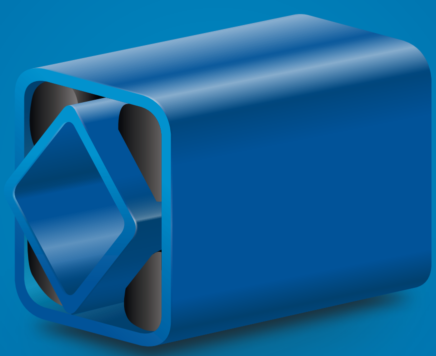
THE BLUE ONES FROM ROSTA

Components for increased output

ROSTA



Simple and clever

DEAR READER

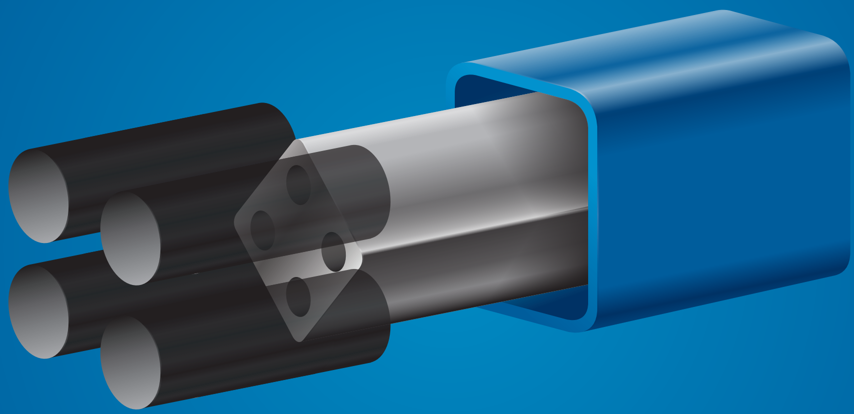
A unique success story for 75 years

Thanks to an innovative product idea, ROSTA is the world's leading manufacturer of rubber spring and damping systems. Since 1944, our consistent customer-centric approach has had top priority and contributes significantly to the sustained success of the company – enabling us to celebrate the 75th anniversary of our success story in 2019.

In addition to our headquarters and production site in Switzerland, ROSTA has 6 subsidiaries in Germany, Italy, Canada, the USA, China and Australia with over 120 employees. Our global network with over 30 partners in more than 40 countries positioning us to serve our customers far beyond our borders swiftly and promptly.

Many customers from all industries already benefit from our comprehensive know-how, becoming more profitable and competitive thanks to ROSTA products.

Our components are maintenance-free, noiseless, have a long service life and are used for a wide range of applications. Many years of experience in research and development in our own laboratory and the collaborative work with our partners and customers form an important knowledge base from which we can continue to offer innovative solutions.



Perfect combination

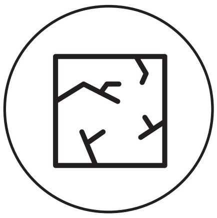
OSCILLATING MOUNTINGS

Elastic suspensions for all types of screening machines, shaker conveyors and gyratory sifters

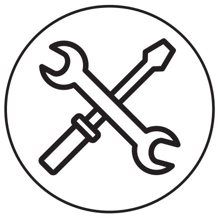
- Components for all types of vibrating machines and conveyors
- Vibration-damping mountings for circular and linear vibrating screens
- Double rocker arms for high-speed vibrating conveyor troughs
- Spring accumulators for machines in near-resonant operation
- Rocker arms and push rod heads for sliding-crank gutters
- Universal joint bearings for gyratory sifter screening machines
- Spring accumulator for resonance-based operation

Product advantages:

long service life

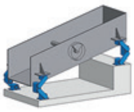
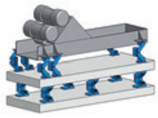
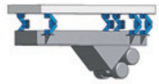


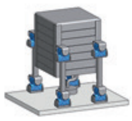
shatterproof



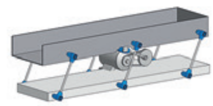
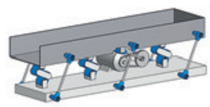
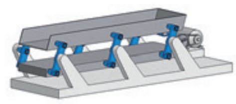
maintenance-free

Selection tables Oscillating Mountings

							
			One mass system circular motion screen	**One mass system** linear motion screen	**Two mass system** with counterframe	**One mass system** linear motion screen hanging	
	Illustration	**Type**	Description				Page
Elements for free oscillating systems (with unbalanced excitation)		**AB** **ABI**	Oscillating Mounting – universal mounting. High vibration isolation and low residual force transmission. Natural frequencies approx. 2 – 3 Hz. 9 element sizes from 50 N to 20 000 N.				3.4 – 3.5
		**AB-HD** **ABI-HD**	Oscillating Mounting for impact loading and high production peaks. (Heavy Duty). Natural frequencies approx. 2 – 4 Hz. 11 element sizes from 150 N to 60 000 N.				3.6 – 3.7
		**HS** **HSI**				Oscillating Mounting for hanging systems. Natural frequencies approx. 3 – 5 Hz. 7 element sizes from 150 N to 14 000 N.	3.8
		**AB-D**		Oscillating Mounting in compact design. Optimal in two mass systems as counterframe mounting. Natural frequencies approx. 3 – 4.5 Hz. 7 element sizes from 500 N to 16 000 N.			3.9

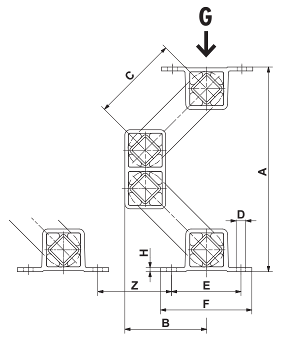
					
			Gyratory sifter upright staying	**Gyratory sifter hanging**	
	Illustration	**Type**	Description		Page
Elements for gyratory sifters		**AK**	Universal joint for the support or suspension of positive drive or freely oscillating gyratory sifting machines. 10 element sizes up to 40 000 N per AK.		3.19
		**AV**	Single joint specially designed with a large rubber volume for the suspended gyratory sifters. Models with right-hand and left-hand threads. 5 element sizes up to 16 000 N per AV.		3.20

Elements for guided systems (crank driven)

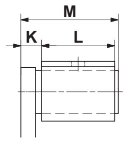
Illustration	Type	 **One mass system** «brute-force» system	 **One mass system** «natural frequency» system	 **Two mass system** «fast-runner» system with reaction force compensation	Page
		Description			
	**AU** **AUI**	Single Rocker for a variable arm length. Models with right-hand and left-hand threads. 7 element sizes up to 5 000 N.			3.10
	**AS-P** **AS-C**	Single rocker with standardized center distance. 6 sizes up to 2 500 N for flange fixation. 6 element sizes up to 2 500 N for central fixation.			3.11 – 3.12
	**AD-P** **AD-C**			Double rocker with standard-ized center distance. 5 element sizes up to 2 500 N for flange fixation. 4 element sizes up to 1 600 N for central fixation.	3.13 – 3.14
	**AR**	Single rocker and double rocker with adjustable length, connection of the AR elements using round pipe. Two mass shakers with bi-direction flow are simply to realize. 3 element sizes up to 1 600 N.			3.15
	**ST** **STI**	Drive Head for crank drive transmission. Models with right-hand and left-hand threads. 9 element sizes up to 27 000 N.			3.16 – 3.17
	**DO-A**		Spring accumulator with high dynamic spring value for feeder systems running close to resonance frequency. A spring accumulator consists of 2 DO-A elements. 5 element sizes up to dynamic spring value of 320 N/mm.		3.18

Oscillating Mountings

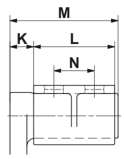
AB / ABI



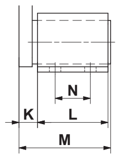
sizes 15 to 27



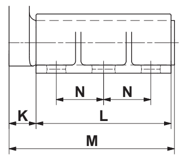
sizes 45 to 50



size 38



size 50-2



Part no.	Type	Load $G_{min.} – G_{max.}$ [N]	A un-loaded	A* max. load	B un-loaded	B* max. load	C	D	E	F	H	K	L	M	N	Weight [kg]
07 051 056	**AB 15**	50 – 160	168	114	70	88	80	ø7	50	65	3	10	40	52	–	0.5
07 171 107	**ABI 15**	70 – 180	168	114	70	88	80	7 × 10	50	65	3	10	40	52	–	0.8
07 051 057	**AB 18**	120 – 350	208	146	88	109	100	ø9	60	80	3.5	14	50	67	–	1.2
07 171 114	**ABI 18**	120 – 350	208	146	88	109	100	9 × 15	60	80	3.5	14	50	67	–	1.6
07 051 058	**AB 27**	250 – 800	235	170	94	116	100	ø11	80	105	4.5	17	60	80	–	2.3
07 171 109	**ABI 27**	250 – 800	235	170	94	116	100	11 × 20	80	105	4.5	17	60	80	–	3.4
07 051 059	**AB 38**	600 – 1 600	305	225	120	147	125	ø13	100	125	6	21	80	104	40	5.1
07 171 110	**ABI 38**	600 – 1 600	305	225	120	147	125	13 × 20	100	125	6	21	80	104	40	7.6
07 051 054	**AB 45**	1 200 – 3 000	353	257	141	172	140	13 × 26	115	145	8	28	100	132	58	11.5
07 171 111	**ABI 45**	1 200 – 3 000	353	257	137	168	140	13 × 26	115	145	8	28	100	132	58	13.6
07 051 061	**AB 50**	2 500 – 6 000	380	277	150	184	150	17 × 27	130	170	12	35	120	160	60	20.0
07 171 112	**ABI 50**	2 500 – 6 000	380	277	150	184	150	17 × 27	130	170	12	35	120	160	60	22.2
07 051 055	**AB 50-2**	4 200 – 10 000	380	277	150	184	150	17 × 27	130	170	12	40	200	245	70	31.8
07 171 113	**ABI 50-2**	4 200 – 10 000	380	277	150	184	150	17 × 27	130	170	12	40	200	245	70	35.2

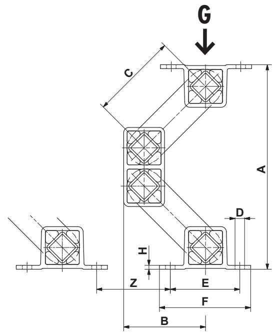
				Dynamic spring value		Operating parameters by rpm						Material structure				
						720 min^{-1}		960 min^{-1}		1 440 min^{-1}						
Part no.	Type	Natural frequency $G_{min.} – G_{max.}$ [Hz]	Z	cd vertical [N/mm]	cd horizontal [N/mm]	sw max. [mm]	K max. [–]	sw max. [mm]	K max. [–]	sw max. [mm]	K max. [–]	Aluminium profile	steel welded construction	Nodular cast iron	painted blue	stainless steel casting
07 051 056	**AB 15**	4.0 – 2.8	65	10	6	14	4.1	12	6.2	8	9.3	×	×		×	
07 171 107	**ABI 15**	4.0 – 2.8	65	10	6	14	4.1	12	6.2	8	9.3					×
07 051 057	**AB 18**	3.7 – 2.6	80	20	14	17	4.9	15	7.7	8	9.3	×	×		×	
07 171 114	**ABI 18**	3.7 – 2.6	80	20	14	17	4.9	15	7.7	8	9.3					×
07 051 058	**AB 27**	3.7 – 2.7	80	40	25	17	4.9	14	7.2	8	9.3	×	×		×	
07 171 109	**ABI 27**	3.7 – 2.7	80	40	25	17	4.9	14	7.2	8	9.3					×
07 051 059	**AB 38**	3.0 – 2.4	100	60	30	20	5.8	17	8.8	8	9.3	×	×		×	
07 171 110	**ABI 38**	3.0 – 2.4	100	60	30	20	5.8	17	8.8	8	9.3					×
07 051 054	**AB 45**	2.8 – 2.3	115	100	50	21	6.1	18	9.3	8	9.3	×	×	×	×	
07 171 111	**ABI 45**	2.8 – 2.3	115	100	50	21	6.1	18	9.3	8	9.3					×
07 051 061	**AB 50**	2.4 – 2.1	140	190	85	22	6.4	18	9.3	8	9.3			×	×	
07 171 112	**ABI 50**	2.4 – 2.1	140	190	85	22	6.4	18	9.3	8	9.3					×
07 051 055	**AB 50-2**	2.4 – 2.1	140	320	140	22	6.4	18	9.3	8	9.3			×	×	
07 171 113	**ABI 50-2**	2.4 – 2.1	140	320	140	22	6.4	18	9.3	8	9.3					×

* compression load $G_{max.}$ and cold flow compensation (after approx. 1 year).

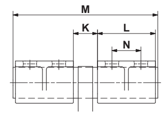
If no other units are specified, the numbers given are in mm.
Dynamic spring value: Values in nominal load range at 960 min^{-1} and 8 mm of oscillating stroke sw
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

Oscillating Mountings

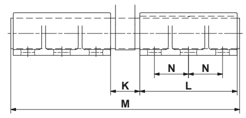
AB TWIN



size 50 TWIN



size 50-2 TWIN



Part no.	**Type**	Load $G_{min.} – G_{max.}$ [N]	A un-loaded	A* max. load	B un-loaded	B* max. load	C	D	E	F	H	K	L	M	N	Weight [kg]
07 051 008	**AB 50 TWIN**	5 000 – 12 000	380	277	150	184	150	17 × 27	130	170	12	50	120	300	60	38.2
07 051 009	**AB 50-2 TWIN**	8 400 – 20 000	380	277	150	184	150	17 × 27	130	170	12	60	200	470	70	60.2

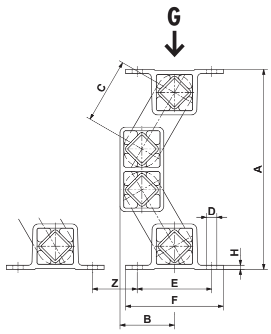
						Operating parameters by rpm						
				Dynamic spring value		$720 \, min^{-1}$		$960 \, min^{-1}$		$1\,440 \, min^{-1}$		
				cd	cd	sw	K	sw	K	sw	K	
Part no.	**Type**	Natural frequency $G_{min.} – G_{max.}$ [Hz]	Z	vertical [N / mm]	horizontal [N / mm]	max. [mm]	max. [–]	max. [mm]	max. [–]	max. [mm]	max. [–]	Material structure
07 051 008	**AB 50 TWIN**	2.4 – 2.1	140	380	170	22	6.4	18	9.3	8	9.3	steel welded construction, Nodular cast iron, painted blue
07 051 009	**AB 50-2 TWIN**	2.4 – 2.1	140	640	280	22	6.4	18	9.3	8	9.3	

* compression load $G_{max.}$ and cold flow compensation (after approx. 1 year).

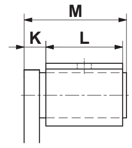
If no other units are specified, the numbers given are in mm.
Dynamic spring value: Values in nominal load range at $960 \, min^{-1}$ and 8 mm of oscillating stroke sw
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

Oscillating Mountings

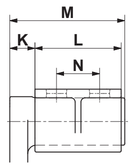
AB-HD / ABI-HD sizes 15 to 50-2



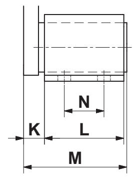
sizes 15 to 27



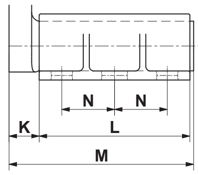
sizes 45 to 50-1.6



size 38



size 50-2



Part no.	Type	Load $G_{min.}$ – $G_{max.}$ [N]	A un-loaded	A* max. load	B un-loaded	B* max. load	C	D	E	F	H	K	L	M	N	Weight [kg]
07 171 121	**ABI-HD 15**	150 – 400	132	107	36	50	45	7 × 10	50	65	3	10	40	52	–	0.8
07 171 128	**ABI-HD 18**	300 – 700	171	141	47	64	60	9 × 15	60	80	3.5	14	50	67	–	1.5
07 051 070	**AB-HD 27**	500 – 1 250	215	182	59	78	70	ø11	80	105	4.5	17	60	80	–	2.0
07 171 123	**ABI-HD 27**	500 – 1 250	215	182	59	78	70	11 × 20	80	105	4.5	17	60	80	–	3.4
07 051 071	**AB-HD 38**	1 200 – 2 500	293	246	79	106	95	ø13	100	125	6	21	80	104	40	4.9
07 171 124	**ABI-HD 38**	1 200 – 2 500	293	246	79	106	95	13 × 20	100	125	6	21	80	104	40	7.6
07 051 072	**AB-HD 45**	2 000 – 4 200	346	290	98	130	110	13 × 26	115	145	8	28	100	132	58	11.0
07 171 125	**ABI-HD 45**	2 000 – 4 200	346	290	94	126	110	13 × 26	115	145	8	28	100	132	58	13.8
07 051 062	**AB-HD 50**	3 500 – 8 400	376	313	105	141	120	17 × 27	130	170	12	40	120	165	60	20.6
07 171 126	**ABI-HD 50**	3 500 – 8 400	376	313	105	141	120	17 × 27	130	170	12	40	120	165	60	21.7
07 051 063	**AB-HD 50-1.6**	4 800 – 11 300	376	313	105	141	120	17 × 27	130	170	12	45	160	210	70	29.1
07 051 060	**AB-HD 50-2**	6 000 – 14 000	376	313	105	141	120	17 × 27	130	170	12	45	200	250	70	32.0
07 171 127	**ABI-HD 50-2**	6 000 – 14 000	376	313	105	141	120	17 × 27	130	170	12	45	200	250	70	35.8

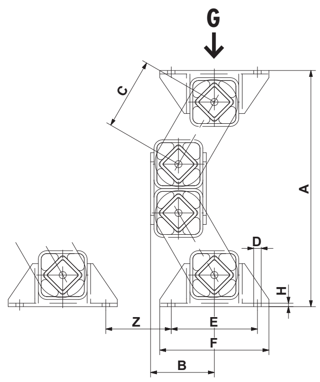
Part no.	Type	Natural frequency $G_{min.}$ – $G_{max.}$ [Hz]	Z	Dynamic spring value cd vertical [N/mm]	Dynamic spring value cd horizontal [N/mm]	Operating parameters by rpm: 720 min^{-1} sw max. [mm]	720 min^{-1} K max. [–]	960 min^{-1} sw max. [mm]	960 min^{-1} K max. [–]	1 440 min^{-1} sw max. [mm]	1 440 min^{-1} K max. [–]	Material structure: Aluminium profile	steel welded construction	Nodular cast iron	painted blue	stainless steel casting
07 171 121	**ABI-HD 15**	5.8 – 3.6	35	18	10	8	2.3	7	3.6	5	5.8					×
07 171 128	**ABI-HD 18**	4.9 – 3.2	50	32	20	10	2.9	9	4.6	7	8.1					×
07 051 070	**AB-HD 27**	4.8 – 3.1	60	70	33	12	3.5	10	5.2	8	9.3	×	×		×	
07 171 123	**ABI-HD 27**	4.8 – 3.1	60	70	33	12	3.5	10	5.2	8	9.3					×
07 051 071	**AB-HD 38**	3.6 – 2.7	90	100	48	15	4.3	13	6.7	8	9.3	×	×		×	
07 171 124	**ABI-HD 38**	3.6 – 2.7	90	100	48	15	4.3	13	6.7	8	9.3					×
07 051 072	**AB-HD 45**	3.3 – 2.5	100	150	72	17	4.9	14	7.2	8	9.3	×	×	×	×	
07 171 125	**ABI-HD 45**	3.3 – 2.5	100	150	72	17	4.9	14	7.2	8	9.3					×
07 051 062	**AB-HD 50**	3.2 – 2.4	120	270	130	18	5.2	15	7.7	8	9.3			×	×	
07 171 126	**ABI-HD 50**	3.2 – 2.4	120	270	130	18	5.2	15	7.7	8	9.3					×
07 051 063	**AB-HD 50-1.6**	3.2 – 2.4	120	360	172	18	5.2	15	7.7	8	9.3		×	×	×	
07 051 060	**AB-HD 50-2**	3.2 – 2.4	120	450	215	18	5.2	15	7.7	8	9.3			×	×	
07 171 127	**ABI-HD 50-2**	3.2 – 2.4	120	450	215	18	5.2	15	7.7	8	9.3					×

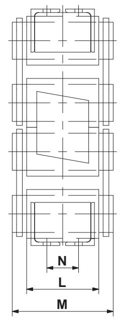
* compression load $G_{max.}$ and cold flow compensation (after approx. 1 year).

If no other units are specified, the numbers given are in mm.
Dynamic spring value: Values in nominal load range at 960 min^{-1} and 8 mm of oscillating stroke sw
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

Oscillating Mountings

AB-HD sizes 70-3 to 100-4





Part no.	Type	Load $G_{min.} – G_{max.}$ [N]	A un-loaded	A* max. load	B un-loaded	B* max. load	C	øD	E	F	H	L	M	N	Weight [kg]
07 051 076	**AB-HD 70-3**	9 000 – 20 000	592	494	160	215	180	22	200	260	9	300	380	200	82
07 051 080	**AB-HD 100-2.5**	15 000 – 37 000	823	676	222	302	250	26	300	380	12	250	350	110	170
07 051 081	**AB-HD 100-4**	25 000 – 60 000	823	676	222	302	250	26	300	380	12	400	500	260	230

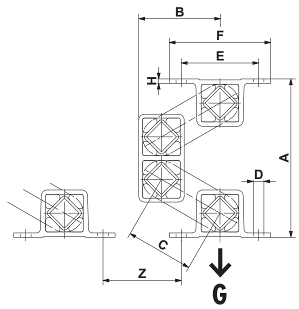
				Dynamic spring value		Operating parameters by rpm						
						720 min^{-1}		960 min^{-1}		1 440 min^{-1}		
Part no.	**Type**	Natural frequency $G_{min.} – G_{max.}$ [Hz]	Z	cd vertical [N / mm]	cd horizontal [N / mm]	sw max. [mm]	K max. [–]	sw max. [mm]	K max. [–]	sw max. [mm]	K max. [–]	Material structure
07 051 076	**AB-HD 70-3**	2.4 – 2.1	200	670	320	25	7.3	18	9.3	8	9.3	steel welded construction, painted blue
07 051 080	**AB-HD 100-2.5**	2.4 – 1.8	250	1 150	530	30	8.6	18	9.3	8	9.3	
07 051 081	**AB-HD 100-4**	2.4 – 1.8	250	1 840	850	30	8.6	18	9.3	8	9.3	

* compression load $G_{max.}$ and cold flow compensation (after approx. 1 year).

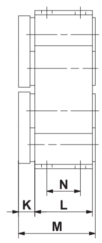
If no other units are specified, the numbers given are in mm.
Customized Oscillating Mountings Type AB-HD with low natural frequency and high load capacity.
The sizes 100-2.5 to AB-HD 100-4 can be combined with one another (identical heights and operation behaviour).
Dynamic spring value: Values in nominal load range at 960 min^{-1} and 8 mm of oscillating stroke sw
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

Oscillating Mountings

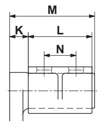
HS / HSI



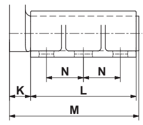
sizes 15 to 38



sizes 45 to 50



size 50-2



Part no.	Type	Load $G_{min.} - G_{max.}$ [N]	A un-loaded	A* max. load	B un-loaded	B* max. load	C	D	E	F	H	K	L	M	N	Weight [kg]
07 321 101	**HSI 15**	150 – 400	99	125	53	42	45	ø7	50	65	3	10	40	52	25	0.8
07 321 102	**HSI 18**	300 – 700	127	159	69	56	60	ø9	60	80	3.5	14	50	67	30	1.5
07 311 001	**HS 27**	500 – 1 250	164	202	84	68	70	ø11	80	105	4.5	17	60	80	35	2.0
07 321 103	**HSI 27**	500 – 1 250	164	202	84	68	70	ø11	80	105	4.5	17	60	80	35	3.4
07 311 002	**HS 38**	1 200 – 2 500	223	275	114	92	95	ø13	100	125	6	21	80	104	40	4.82
07 321 104	**HSI 38**	1 200 – 2 500	223	275	114	92	95	13 × 20	100	125	6	21	80	104	40	7.3
07 311 003	**HS 45**	2 000 – 4 200	265	325	138	113	110	13 × 26	115	145	8	28	100	132	58	10.99
07 321 105	**HSI 45**	2 000 – 4 200	265	325	134	109	110	13 × 26	115	145	8	28	100	132	58	13.6
07 311 004	**HS 50**	3 500 – 8 400	288	357	148	118	120	17 × 27	130	170	12	40	120	165	60	20.32
07 321 106	**HSI 50**	3 500 – 8 400	288	357	148	118	120	17 × 27	130	170	12	40	120	165	60	22.3
07 311 005	**HS 50-2**	6 000 – 14 000	288	357	148	118	120	17 × 27	130	170	12	45	200	250	70	31.8
07 321 107	**HSI 50-2**	6 000 – 14 000	288	357	148	118	120	17 × 27	130	170	12	45	200	250	70	35.8

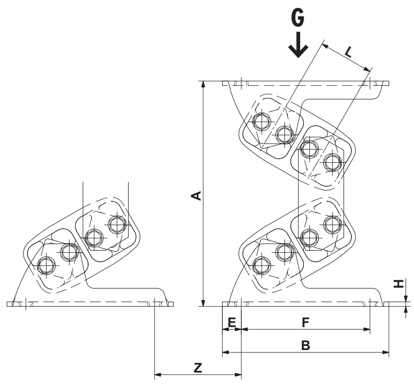
Part no.	Type	Natural frequency $G_{min.} - G_{max.}$ [Hz]	Z	Dynamic spring value cd vertical [N / mm]	Dynamic spring value cd horizontal [N / mm]	Operating parameters by rpm: 720 min⁻¹ sw max. [mm]	720 min⁻¹ K max. [–]	960 min⁻¹ sw max. [mm]	960 min⁻¹ K max. [–]	1 440 min⁻¹ sw max. [mm]	1 440 min⁻¹ K max. [–]	Material structure: Aluminium profile	steel welded construction	Nodular cast iron	painted blue	stainless steel casting
07 321 101	**HSI 15**	5.2 – 4.7	35	17	10	8	2.3	7	3.6	5	5.8					×
07 321 102	**HSI 18**	4.5 – 4.0	50	30	19	10	2.9	9	4.6	7	8.1					×
07 311 001	**HS 27**	4.2 – 3.8	60	65	32	12	3.5	10	5.2	8	9.3	×	×		×	
07 321 103	**HSI 27**	4.2 – 3.8	60	65	32	12	3.5	10	5.2	8	9.3					×
07 311 002	**HS 38**	3.6 – 3.3	90	95	46	15	4.3	13	6.7	8	9.3	×	×		×	
07 321 104	**HSI 38**	3.6 – 3.3	90	95	46	15	4.3	13	6.7	8	9.3					×
07 311 003	**HS 45**	3.3 – 3.0	100	142	70	17	4.9	14	7.2	8	9.3	×	×	×	×	
07 321 105	**HSI 45**	3.3 – 3.0	100	142	70	17	4.9	14	7.2	8	9.3					×
07 311 004	**HS 50**	3.2 – 2.9	120	245	120	18	5.2	15	7.7	8	9.3			×	×	
07 321 106	**HSI 50**	3.2 – 2.9	120	245	120	18	5.2	15	7.7	8	9.3					×
07 311 005	**HS 50-2**	3.2 – 2.9	120	410	200	18	5.2	15	7.7	8	9.3			×	×	
07 321 107	**HSI 50-2**	3.2 – 2.9	120	410	200	18	5.2	15	7.7	8	9.3					×

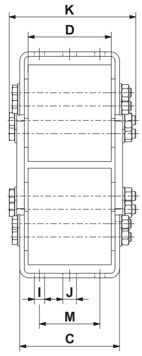
* tensile load $G_{max.}$ and cold flow compensation (after approx. 1 year).

If no other units are specified, the numbers given are in mm.
Dynamic spring value: Values in nominal load range at 960 min⁻¹ and 8 mm of oscillating stroke sw
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

Oscillating Mountings

AB-D





Part no.	Type	Load $G_{min.} – G_{max.}$ [N]	A un-loaded	A* max. load	B	C	D	E	F	H	I	J	K	L	M	Weight [kg]
07 281 000	**AB-D 18**	500 – 1 200	137	112	115	61	50	12.5	90	3	9	9	74	31	30	1.1
07 281 001	**AB-D 27**	1 000 – 2 500	184	148	150	93	80	15	120	4	9	11	116	44	50	3.1
07 281 002	**AB-D 38**	2 000 – 4 000	244	199	185	118	100	17.5	150	5	11	13.5	147	60	70	6.8
07 281 003	**AB-D 45**	3 000 – 6 000	298	240	220	132	110	25	170	6	13.5	18	168	73	80	11.2
07 281 004	**AB-D 50**	4 000 – 9 000	329	272	235	142	120	25	185	6	13.5	18	166	78	90	18.4
07 281 005	**AB-D 50-1.6**	6 000 – 12 000	329	272	235	186	160	25	185	8	13.5	18	214	78	90	24.0
07 281 006	**AB-D 50-2**	8 000 – 16 000	329	272	235	226	200	25	185	8	13.5	18	260	78	90	30.4

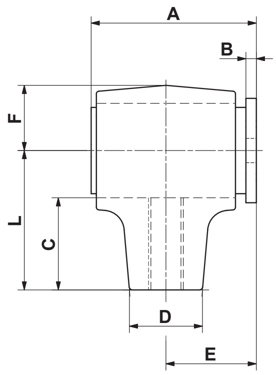
				Dynamic spring value			Operating parameters by rpm						Material structure (zinc-plated couplings)			
							$720\,min^{-1}$		$960\,min^{-1}$		$1\,440\,min^{-1}$					
				cd	cd	cd	sw	K	sw	K	sw	K				
Part no.	**Type**	Natural frequency $G_{min.} – G_{max.}$ [Hz]	Z	vertical [N/mm]	at sw [N/mm]	horizontal [N/mm]	max. [mm]	max. [–]	max. [mm]	max. [–]	max. [mm]	max. [–]	Aluminium profile	Steel plate	Nodular cast iron	painted blue
07 281 000	**AB-D 18**	6.1 – 4.4	30	100	4	20	5	1.4	5	2.6	4	4.6	×	×		×
07 281 001	**AB-D 27**	5.4 – 3.9	35	160	4	35	7	2.0	6	3.1	5	5.8	×	×		partially
07 281 002	**AB-D 38**	4.3 – 3.4	40	185	6	40	9	2.6	8	4.1	6	7.0	×	×		partially
07 281 003	**AB-D 45**	3.7 – 3.1	55	230	8	70	11	3.2	9	4.6	7	8.1	×	×		partially
07 281 004	**AB-D 50**	3.7 – 2.9	55	310	8	120	12	3.5	10	5.2	8	9.3	×	×	×	×
07 281 005	**AB-D 50-1.6**	3.6 – 2.9	55	430	8	160	12	3.5	10	5.2	8	9.3	×	×	×	×
07 281 006	**AB-D 50-2**	3.5 – 2.8	55	540	8	198	12	3.5	10	5.2	8	9.3	×	×	×	×

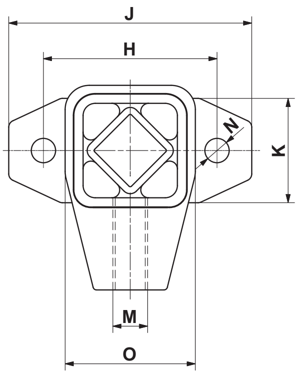
* compression load $G_{max.}$ and cold flow compensation (after approx. 1 year).

If no other units are specified, the numbers given are in mm.
Dynamic spring value: Values in nominal load range at $960\,min^{-1}$
Operating parameters by rpm: Acceleration > 9.3 g is not recommended

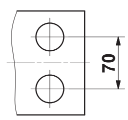
Oscillating Mountings

AU / AUI





Fixation flange AU 60

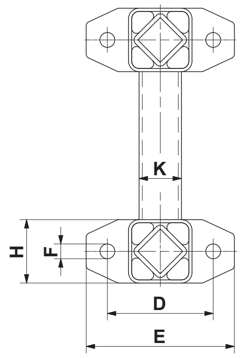


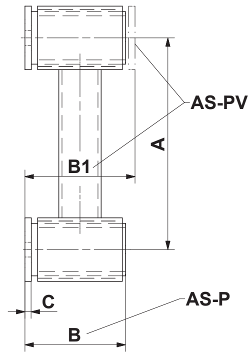
Part no.	**Type**	G [N] K<2	Mdd [Nm / °]	A	B	C	□D	E	F	H	J	K	L	M	øN	O	Weight [kg]
07 011 001	**AU 15**	100	0.44	50	4	29	20	28	17	50	70	25	40	M10	7	33	0.2
07 021 001	**AU 15L**	100	0.44	50	4	29	20	28	17	50	70	25	40	M10-LH	7	33	0.2
07 131 111	**AUI 15**	100	0.44	50	4	29	20	28	17	50	70	25	40	M10	7	33	0.4
07 141 111	**AUI 15L**	100	0.44	50	4	29	20	28	17	50	70	25	40	M10-LH	7	33	0.4
07 011 002	**AU 18**	200	1.32	62	5	31.5	22	34	20	60	85	35	45	M12	9.5	39	0.3
07 021 002	**AU 18L**	200	1.32	62	5	31.5	22	34	20	60	85	35	45	M12-LH	9.5	39	0.3
07 131 112	**AUI 18**	200	1.32	62	5	31.5	22	34	20	60	85	35	45	M12	9	39	0.5
07 141 112	**AUI 18L**	200	1.32	62	5	31.5	22	34	20	60	85	35	45	M12-LH	9	39	0.5
07 011 003	**AU 27**	400	2.6	73	5	40.5	28	40	27	80	110	45	60	M16	11.5	54	0.6
07 021 003	**AU 27L**	400	2.6	73	5	40.5	28	40	27	80	110	45	60	M16-LH	11.5	54	0.6
07 131 113	**AUI 27**	400	2.6	73	5	40.5	28	40	27	80	110	45	60	M16	11	54	1.2
07 141 113	**AUI 27L**	400	2.6	73	5	40.5	28	40	27	80	110	45	60	M16-LH	11	54	1.2
07 011 004	**AU 38**	800	6.7	95	6	53	42	52	37	100	140	60	80	M20	14	74	1.5
07 021 004	**AU 38L**	800	6.7	95	6	53	42	52	37	100	140	60	80	M20-LH	14	74	1.5
07 011 005	**AU 45**	1 600	11.6	120	8	67	48	66	44	130	180	70	100	M24	18	89	2.7
07 021 005	**AU 45L**	1 600	11.6	120	8	67	48	66	44	130	180	70	100	M24-LH	18	89	2.7
07 011 006	**AU 50**	2 500	20.4	145	10	69.5	60	80	47	140	190	80	105	M36	18	93	6.3
07 021 006	**AU 50L**	2 500	20.4	145	10	69.5	60	80	47	140	190	80	105	M36-LH	18	93	6.3
07 011 007	**AU 60**	5 000	38.2	233	15	85	80	128	59	180	230	120	130	M42	18	116	15.6
07 021 007	**AU 60L**	5 000	38.2	233	15	85	80	128	59	180	230	120	130	M42-LH	18	116	15.7

If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
Mdd = dynamic element torque in Nm/° by oscillation angles α ±5° in speed range of n_S = 300 – 600 min^{-1}.
AU: Inner square steel welded construction. Housing sizes 15 – 45 Aluminium cast, sizes 50 and 60 nodular cast iron. Painted blue.
AUI: Stainless steel casting.

Oscillating Mountings

AS-P / AS-PV



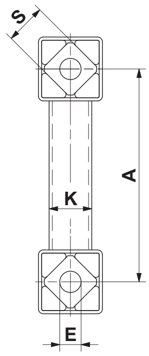


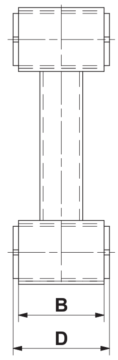
Part no.	**Type**	G [N] K<2	cd [N/mm]	A	B	B1	C	D	E	øF	H	øK	Weight [kg]	Material structure
07 081 001	**AS-P 15**	100	5	100	50	–	4	50	70	7	25	18	0.5	Steel welded constructions, painted blue. Inner square analogous to type AU.
07 091 001	**AS-PV 15**	100	5	100	–	56	4	50	70	7	25	18	0.4	
07 081 002	**AS-P 18**	200	11	120	62	–	5	60	85	9.5	35	24	0.7	
07 091 002	**AS-PV 18**	200	11	120	–	68	5	60	85	9.5	35	24	0.7	
07 081 003	**AS-P 27**	400	12	160	73	–	5	80	110	11.5	45	34	1.5	
07 091 003	**AS-PV 27**	400	12	160	–	80	5	80	110	11.5	45	34	1.5	
07 081 004	**AS-P 38**	800	19	200	95	–	6	100	140	14	60	40	2.8	
07 091 004	**AS-PV 38**	800	19	200	–	104	6	100	140	14	60	40	3.6	
07 081 005	**AS-P 45**	1 600	33	200	120	–	8	130	180	18	70	45	4.7	
07 091 005	**AS-PV 45**	1 600	33	200	–	132	8	130	180	18	70	45	4.7	
07 081 006	**AS-P 50**	2 500	37	250	145	–	10	140	190	18	80	60	8.3	
07 091 006	**AS-PV 50**	2 500	37	250	–	160	10	140	190	18	80	60	8.3	

If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
cd = dynamic spring value by oscillation angles α ±5° in speed range of $n_S = 300 - 600\ min^{-1}$
AS-P for flange fixation.
AS-PV for flange fixation with inverted flange.

Oscillating Mountings

AS-C



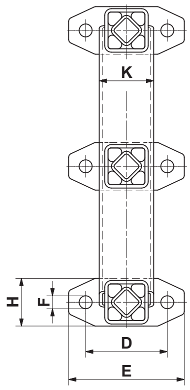


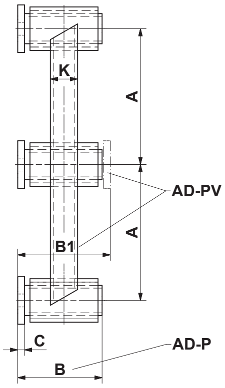
Part no.	Type	G [N] K<2	cd [N/mm]	A	B	D	øE	øK	□S	Weight [kg]	Material structure
07 071 001	**AS-C 15**	100	5	100	40	$45^{0}_{-0.3}$	$10^{+0.4}_{-0.2}$	18	15	0.3	Steel welded construction, aluminium profile, painted blue.
07 071 002	**AS-C 18**	200	11	120	50	$55^{0}_{-0.3}$	$13^{0}_{-0.2}$	24	18	0.5	
07 071 003	**AS-C 27**	400	12	160	60	$65^{0}_{-0.3}$	$16^{+0.5}_{-0.3}$	34	27	1.0	
07 071 004	**AS-C 38**	800	19	200	80	$90^{0}_{-0.3}$	$20^{+0.5}_{-0.2}$	40	38	1.9	
07 071 005	**AS-C 45**	1600	33	200	100	$110^{0}_{-0.3}$	$24^{+0.5}_{-0.2}$	45	45	2.9	
07 071 006	**AS-C 50**	2500	37	250	120	$130^{0}_{-0.3}$	$30^{+0.5}_{-0.2}$	60	50	6.1	

If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
cd = dynamic spring value by oscillation angles α ±5° in speed range of $n_S = 300 - 600\,min^{-1}$
AS-C for center connection.

Oscillating Mountings

AD-P / AD-PV



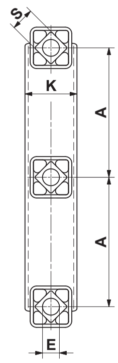


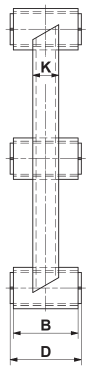
Part no.	Type	G [N] K=2	G [N] K=3	cd [N/mm]	A	B	B1	C	D	E	øF	H	K	Weight [kg]	Material structure
07 111 001	**AD-P 18**	150	120	23	100	62	–	5	60	85	9.5	35	40 × 20	1.2	Steel welded constructions, painted blue. Inner square analogous to type AU.
07 121 001	**AD-PV 18**	150	120	23	100	–	68	5	60	85	9.5	35	40 × 20	1.2	
07 111 002	**AD-P 27**	300	240	31	120	73	–	5	80	110	11.5	45	55 × 34	2.3	
07 121 002	**AD-PV 27**	300	240	31	120	–	80	5	80	110	11.5	45	55 × 34	2.3	
07 111 003	**AD-P 38**	600	500	45	160	95	–	6	100	140	14	60	70 × 50	5.0	
07 121 003	**AD-PV 38**	600	500	45	160	–	104	6	100	140	14	60	70 × 50	5.0	
07 111 004	**AD-P 45**	1 200	1 000	50	200	120	–	8	130	180	18	70	80 × 40	8.5	
07 121 004	**AD-PV 45**	1 200	1 000	50	200	–	132	8	130	180	18	70	80 × 40	8.2	
07 111 005	**AD-P 50**	1 800	1 500	56	250	145	–	10	140	190	18	80	90 × 50	12.7	
07 121 005	**AD-PV 50**	1 800	1 500	56	250	–	160	10	140	190	18	80	90 × 50	12.6	

If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
cd = dynamic spring value by oscillation angles α ±5° in speed range of $n_S = 300 – 600\ min^{-1}$
AD-P for flange fixation.
AD-PV for flange fixation with inverted flange.

Oscillating Mountings

AD-C





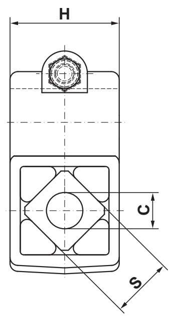
Part no.	Type	G [N] K=2	G [N] K=3	cd [N/mm]	A	B	D	øE	K	□S	Weight [kg]	Material structure
07 101 001	**AD-C 18**	150	120	23	100	50	$55^{0}_{-0.3}$	$13^{0}_{-0.2}$	40 × 20	18	0.8	Steel welded construction, aluminium profile, painted blue.
07 101 002	**AD-C 27**	300	240	31	120	60	$65^{0}_{-0.3}$	$16^{+0.5}_{-0.3}$	55 × 34	27	1.6	
07 101 003	**AD-C 38**	600	500	45	160	80	$90^{0}_{-0.3}$	$20^{+0.5}_{-0.2}$	70 × 50	38	3.7	
07 101 004	**AD-C 45**	1 200	1 000	50	200	100	$110^{0}_{-0.3}$	$24^{+0.5}_{-0.2}$	80 × 40	45	6.1	

If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
cd = dynamic spring value by oscillation angles α ±5° in speed range of $n_S = 300 - 600\ min^{-1}$
AD-C for center connection.

Oscillating Mountings

AR

sizes 27 and 38



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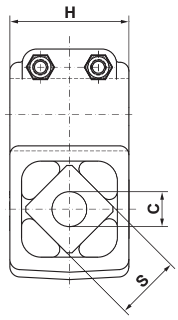
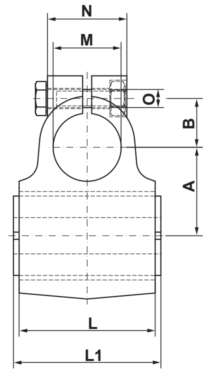


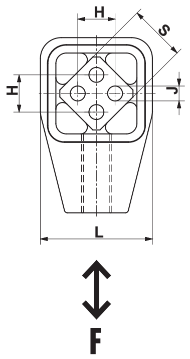


Part no.	Type	G [N] K<2	Mdd [Nm/°]	A	B	øC	H	L	L1	øM	N	O	□S	Weight [kg]	Material structure
07 291 003	**AR 27**	400	2.6	39 ±0.2	21.5	$16^{+0.5}_{-0.3}$	48	60	$65^{0}_{-0.3}$	30	35	M8	27	0.4	Aluminium profile, Aluminium cast, painted blue
07 291 004	**AR 38**	800	6.7	52 ±0.2	26.5	$20^{+0.5}_{-0.2}$	64	80	$90^{0}_{-0.3}$	40	50	M8	38	0.9	
07 291 005	**AR 45**	1 600	11.6	65 ±0.2	32.5	$24^{+0.5}_{-0.2}$	82	100	$110^{0}_{-0.3}$	50	60	M10	45	2.0	

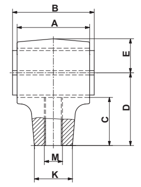
If no other units are specified, the numbers given are in mm.
G = max. load in N per element or rocker, by higher accelerations K, consult page 7.26.
Mdd = dynamic element torque in Nm/° by oscillation angles α ±5° in speed range of $n_S = 300 - 600\ min^{-1}$.
For further information see chapter 7 Technology.

Oscillating Mountings

ST



sizes 18 to 50



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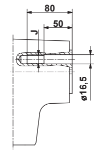
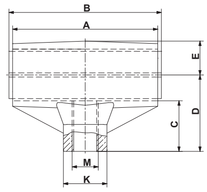
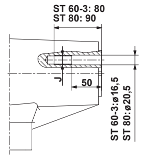


size 50-2



sizes 60-3 and 80

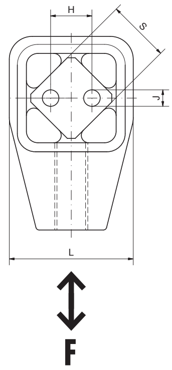


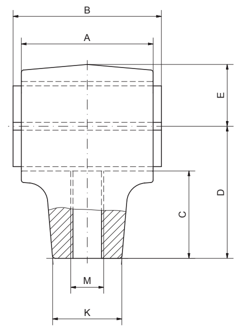
Part no.	Type	F max. [N]	n_s [min^{-1}] max. $\alpha_{ST} \pm 5°$	A	B	C	D	E	H	J	□K	L	M	□S	Weight [kg]
07 031 001	**ST 18**	400	600	50	$55^{0}_{-0.3}$	31.5	45	20	12 ±0.3	$6^{+0.5}_{-0}$	22	39	M12	18	0.2
07 041 001	**ST 18L**	400	600	50	$55^{0}_{-0.3}$	31.5	45	20	12 ±0.3	$6^{+0.5}_{-0}$	22	39	M12-LH	18	0.2
07 031 002	**ST 27**	1 000	560	60	$65^{0}_{-0.3}$	40.5	60	27	20 ±0.4	$8^{+0.5}_{-0}$	28	54	M16	27	0.4
07 041 002	**ST 27L**	1 000	560	60	$65^{0}_{-0.3}$	40.5	60	27	20 ±0.4	$8^{+0.5}_{-0}$	28	54	M16-LH	27	0.4
07 031 003	**ST 38**	2 000	530	80	$90^{0}_{-0.3}$	53	80	37	25 ±0.4	$10^{+0.5}_{-0}$	42	74	M20	38	1.1
07 041 003	**ST 38L**	2 000	530	80	$90^{0}_{-0.3}$	53	80	37	25 ±0.4	$10^{+0.5}_{-0}$	42	74	M20-LH	38	1.1
07 031 004	**ST 45**	3 500	500	100	$110^{0}_{-0.3}$	67	100	44	35 ±0.5	$12^{+0.5}_{-0}$	48	89	M24	45	1.8
07 041 004	**ST 45L**	3 500	500	100	$110^{0}_{-0.3}$	67	100	44	35 ±0.5	$12^{+0.5}_{-0}$	48	89	M24-LH	45	1.8
07 031 005	**ST 50**	6 000	470	120	$130^{0}_{-0.3}$	69.5	105	47	40 ±0.5	M12 × 40	60	93	M36	50	5.0
07 041 005	**ST 50L**	6 000	470	120	$130^{0}_{-0.3}$	69.5	105	47	40 ±0.5	M12 × 40	60	93	M36-LH	50	5.0
07 031 015	**ST 50-2**	10 000	470	200	$210^{0}_{-0.3}$	69.5	105	47	40 ±0.5	M12 × 40	60	93	M36	50	7.0
07 041 015	**ST 50-2L**	10 000	470	200	$210^{0}_{-0.3}$	69.5	105	47	40 ±0.5	M12 × 40	60	93	M36-LH	50	7.1
07 031 026	**ST 60**	13 000	440	200	$210^{+0.2}_{-0.2}$	85	130	59	45	M16	80	117	M42	60	15.6
07 041 026	**ST 60L**	13 000	440	200	$210^{+0.2}_{-0.2}$	85	130	59	45	M16	80	117	M42-LH	60	14.9
07 031 016	**ST 60-3**	20 000	440	300	$310^{+0.2}_{-0.2}$	85	130	59	45	M16	75	117	M42	60	20.0
07 041 016	**ST 60-3L**	20 000	440	300	$310^{+0.2}_{-0.2}$	85	130	59	45	M16	75	117	M42-LH	60	20.0
07 031 027	**ST 80**	27 000	380	300	$310^{+0.2}_{-0.2}$	100	160	77	60	M20	90	150	M52	80	34.0
07 041 027	**ST 80L**	27 000	380	300	$310^{+0.2}_{-0.2}$	100	160	77	60	M20	90	150	M52-LH	80	34.0

If no other units are specified, the numbers given are in mm.
$F_{max.}$: Calculation of the acceleration force page 7.22.
n_s = max. revolutions by oscillation angle + 5°; if osc. angle is below, higher rpm's are applicable, see «permissible frequencies» in chapter 7 Technology.
Sizes 18 to 45: Inner square Aluminium profile. Housing Aluminium cast. Housing painted blue.
Sizes 50 to 50-2: Inner square Aluminium profile. Housing nodular cast iron. Housing painted blue.
Sizes 60 to 80: Inner square steel. Housing nodular cast iron. Painted blue.

Oscillating Mountings

STI





Part no.	Type	F max. [N]	n_s [min^{-1}] max. $\alpha_{ST} \pm 5°$	A	B	C	D	E	H	J	□K	L	M	□S	Weight [kg]	Material structure
07 151 111	**STI 18**	400	600	50	55 $^{0}_{-0.3}$	31.5	45	20	12 ±0.3	6	22	39	M12	18	0.5	Stainless steel casting and inner square solid material stainless
07 161 111	**STI 18L**	400	600	50	55 $^{0}_{-0.3}$	31.5	45	20	12 ±0.3	6	22	39	M12-L	18	0.5	
07 151 112	**STI 27**	1 000	560	60	65 $^{0}_{-0.3}$	40.5	60	27	20 ±0.4	8	28	54	M16	27	1.1	
07 161 112	**STI 27L**	1 000	560	60	65 $^{0}_{-0.3}$	40.5	60	27	20 ±0.4	8	28	54	M16-L	27	1.1	

If no other units are specified, the numbers given are in mm.

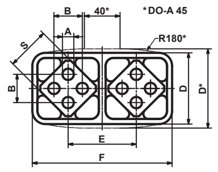
$F_{max.}$: Calculation of the acceleration force page 7.22.

n_s = max. revolutions by oscillation angle + 5°; if osc. angle is below, higher rpm's are applicable, see «permissible frequencies» in chapter 7 Technology.

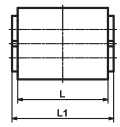
Oscillating Mountings

DO-A as a spring accumulator

sizes 15 to 45



sizes 15 to 45



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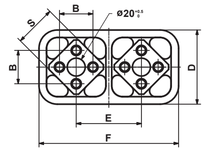

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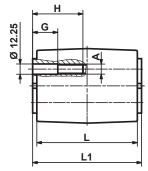
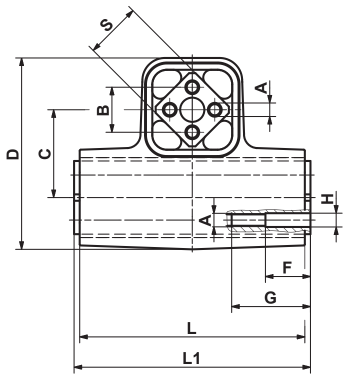


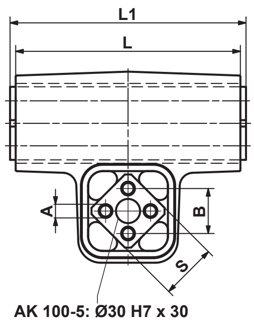
Part no.	Type	c_s [N/mm]	A	B	D	E	F	øI	□S	G	H	L	L1	Weight [kg]	Material structure: Aluminium profile	Material structure: Nodular cast	Material structure: painted blue
01 041 013	**DO-A 45 x 80**	100	12 $^{+0.5}_{-0}$	35 ±0.5	85	73	150	–	45	–	–	80	90 $^{0}_{-0.3}$	1.9	×		×
01 041 014	**DO-A 45 x 100**	125	12 $^{+0.5}_{-0}$	35 ±0.5	85	73	150	–	45	–	–	100	110 $^{0}_{-0.3}$	2.3	×		×
01 041 016	**DO-A 50 x 120**	190	M12	40 ±0.5	89	78	168	12.25	50	30	60	120	130 $^{0}_{-0.3}$	5.5	×	×	×
01 041 019	**DO-A 50 x 160**	255	M12	40 ±0.5	89	78	168	12.25	50	30	60	160	170 $^{0}_{-0.3}$	7.4	×	×	×
01 041 017	**DO-A 50 x 200**	320	M12	40 ±0.5	89	78	168	12.25	50	40	70	200	210 $^{0}_{-0.3}$	8.5	×	×	×

If no other units are specified, the numbers given are in mm.
c_s = dynamic spring value of the complete accumulator by oscillating angle of ±5° and revolutions n_s between 300 – 600 min^{-1}.
1 spring accumulator is always consisting of 2 pcs. DO-A elements, for further information see chapter 7 Technology.

Oscillating Mountings

AK





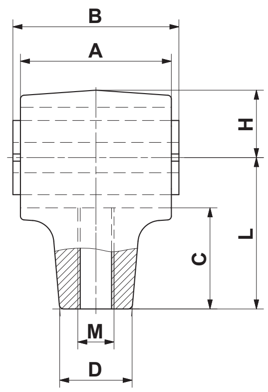
Part no.	Type	Max. load G [N] for the gyratory type: hanging	staying, crank driven	staying, free oscillating	A	B	C	D	F
07 061 001	**AK 15**	160	128	80	$5^{+0.5}_{-0}$	10 ±0.2	27	54	–
07 061 002	**AK 18**	300	240	150	$6^{+0.5}_{-0}$	12 ±0.3	32	64	–
07 061 003	**AK 27**	800	640	400	$8^{+0.5}_{-0}$	20 ±0.4	45	97	–
07 061 004	**AK 38**	1 600	1 280	800	$10^{+0.5}_{-0}$	25 ±0.4	60	130	–
07 061 005	**AK 45**	3 000	2 400	1 500	$12^{+0.5}_{-0}$	35 ±0.5	72	156	–
07 061 011	**AK 50**	5 600	4 480	2 800	M12	40 ±0.5	78	172	40
07 061 012	**AK 60**	10 000	8 000	5 000	M16	45	100	218	50
07 061 013	**AK 80**	20 000	16 000	10 000	M20	60	136	283	50
07 061 009	**AK 100-4**	30 000	24 000	15 000	M24	75	170	354	50
07 061 010	**AK 100-5**	40 000	32 000	20 000	M24	75	170	340	50

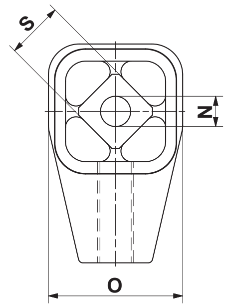
Part no.	Typee	G	øH	L	L1	□S	Weight [kg]	Material structure: Inner square	Housing	Paint	Mounting inner square
07 061 001	**AK 15**	–	–	60	65 ±0.2	15	0.3	Aluminium profile	steel welded construction	painted blue	End-to-end screw or threaded bar quality 8.8
07 061 002	**AK 18**	–	–	80	85 ±0.2	18	0.5		Nodular cast		
07 061 003	**AK 27**	–	–	100	105 ±0.2	27	1.8				
07 061 004	**AK 38**	–	–	120	130 ±0.2	38	3.8				
07 061 005	**AK 45**	–	–	150	160 ±0.2	45	6.3				
07 061 011	**AK 50**	70	12.25	200	210 ±0.2	50	10.8				Shoulder studs quality 8.8 for optimizing frictional connection
07 061 012	**AK 60**	80	16.5	300	310 ±0.2	60	37.4	Steel			
07 061 013	**AK 80**	90	20.5	400	410 ±0.2	80	85.8				
07 061 009	**AK 100-4**	100	25	400	410 ±0.2	100	121.6				
07 061 010	**AK 100-5**	100	25	500	510 ±0.2	100	136.6		steel welded construction		

If no other units are specified, the numbers given are in mm.
G = max. load in N per support column
Usual drive parameters from experience: Driving speed n_s up to approx. 380 min^{-1}, Oscillation angle α up to approx. ±3.5°.
Limitation of application parameters see «permissible frequencies» in chapter 7 Technology.
For further information see chapter 7 Technology.

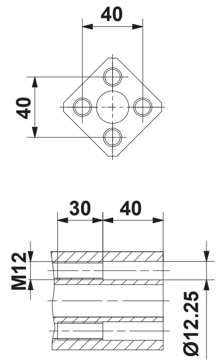
Oscillating Mountings

AV





Inner square sizes 50 and 50L



Part no.	Type	G [N] per suspension	A	B	C	□D	H	L	M
07 261 001	**AV 18**	600 – 1 600	60	65 ±0.2	40.5	28	27	60	M16
07 271 001	**AV 18L**	600 – 1 600	60	65 ±0.2	40.5	28	27	60	M16-LH
07 261 002	**AV 27**	1 300 – 3 000	80	90 ±0.2	53	42	37	80	M20
07 271 002	**AV 27L**	1 300 – 3 000	80	90 ±0.2	53	42	37	80	M20-LH
07 261 003	**AV 38**	2 600 – 5 000	100	110 ±0.2	67	48	44	100	M24
07 271 003	**AV 38L**	2 600 – 5 000	100	110 ±0.2	67	48	44	100	M24-LH
07 261 014	**AV 40**	4 500 – 7 500	120	130 ±0.2	69.5	60	47	105	M36
07 271 014	**AV 40L**	4 500 – 7 500	120	130 ±0.2	69.5	60	47	105	M36-LH
07 261 005	**AV 50**	6 000 – 16 000	200	210 ±0.2	85	80	59	130	M42
07 271 005	**AV 50L**	6 000 – 16 000	200	210 ±0.2	85	80	59	130	M42-LH

<table>
<tr><th rowspan="2">Part no.</th><th rowspan="2">Type</th><th rowspan="2">øN</th><th rowspan="2">O</th><th rowspan="2">□S</th><th rowspan="2">Weight [kg]</th><th colspan="3">Material structure</th><th rowspan="2">Mounting inner square</th></tr>
<tr><th>Inner square</th><th>Housing</th><th>Paint</th></tr>
<tr><td>07 261 001</td><td>AV 18</td><td>$13^{0}_{-0.2}$</td><td>54</td><td>18</td><td>0.4</td><td rowspan="10">Aluminium profile</td><td rowspan="6">Aluminium cast</td><td rowspan="10">painted blue</td><td rowspan="8">End-to-end screw or threaded bar quality 8.8.</td></tr>
<tr><td>07 271 001</td><td>AV 18L</td><td>$13^{0}_{-0.2}$</td><td>54</td><td>18</td><td>0.4</td></tr>
<tr><td>07 261 002</td><td>AV 27</td><td>$16^{+0.5}_{-0.3}$</td><td>74</td><td>27</td><td>1.0</td></tr>
<tr><td>07 271 002</td><td>AV 27L</td><td>$16^{+0.5}_{-0.3}$</td><td>74</td><td>27</td><td>1.0</td></tr>
<tr><td>07 261 003</td><td>AV 38</td><td>$20^{+0.5}_{-0.2}$</td><td>89</td><td>38</td><td>1.7</td></tr>
<tr><td>07 271 003</td><td>AV 38L</td><td>$20^{+0.5}_{-0.2}$</td><td>89</td><td>38</td><td>1.7</td></tr>
<tr><td>07 261 014</td><td>AV 40</td><td>$20^{+0.5}_{-0.2}$</td><td>93</td><td>40</td><td>4.8</td><td rowspan="4">Nodular cast</td></tr>
<tr><td>07 271 014</td><td>AV 40L</td><td>$20^{+0.5}_{-0.2}$</td><td>93</td><td>40</td><td>4.8</td></tr>
<tr><td>07 261 005</td><td>AV 50</td><td>–</td><td>116</td><td>50</td><td>12.3</td><td rowspan="2">M12 shoulder studs quality 8.8.</td></tr>
<tr><td>07 271 005</td><td>AV 50L</td><td>–</td><td>116</td><td>50</td><td>12.3</td></tr>
</table>

If no other units are specified, the numbers given are in mm.
G = max. load in N per suspension
Elements for higher load on request
Limitation of application parameters see «permissible frequencies» in chapter 7 Technology.
The threaded connection rod has to be provided by the customer.

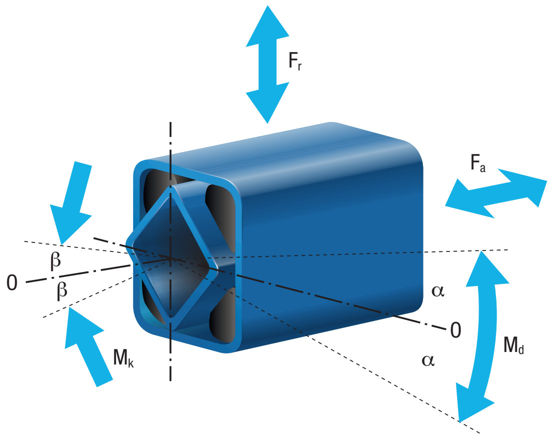
TECHNOLOGY

A unique spring system from experienced specialists

We at ROSTA have experienced the needs and solved the problems of our customers for 75 years. Together with our customers, we analyse their applications and concerns based on decades of experience. We help them to optimise their products and plants and improve their process safety. The result is higher productivity and a true competitive advantage.
Who doesn’t want that?

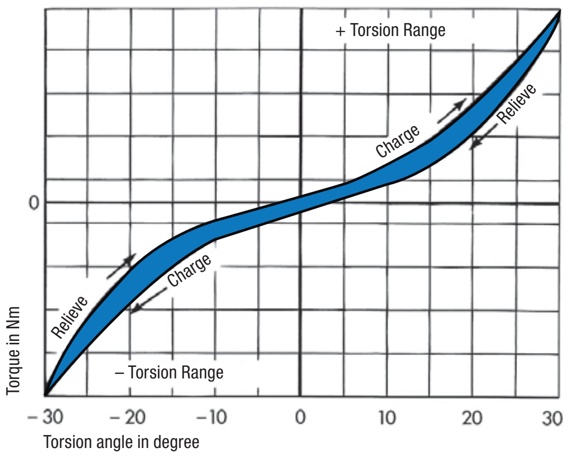
ROSTA Basics

Function



The ROSTA rubber suspension elements are mainly designed for applications as torsional spring devices offering operation angles of ± 30°. Depending on the particular function, not only torsional moments are generated by pivoting the spring device. According to the specific application additional radial F_r, axial F_a and / or cardanic M_k forces have usually to be taken in consideration. The occurring torques of the different elements and the additional load characteristics are indicated in the respective chapter.

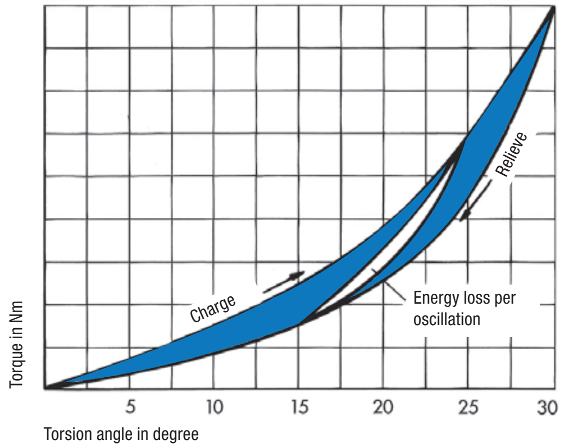
Spring characteristic

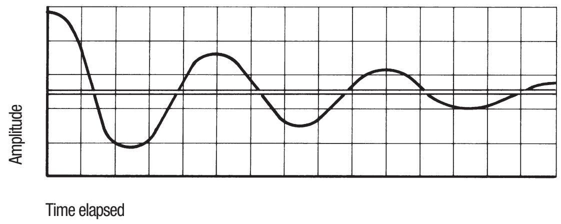


Due to the specific construction characteristics of the ROSTA rubber suspension element, pivoting the device ± results in a slightly progressive spring characteristic. The torsion angle is limited to ± 30 for most elements.

ROSTA Basics

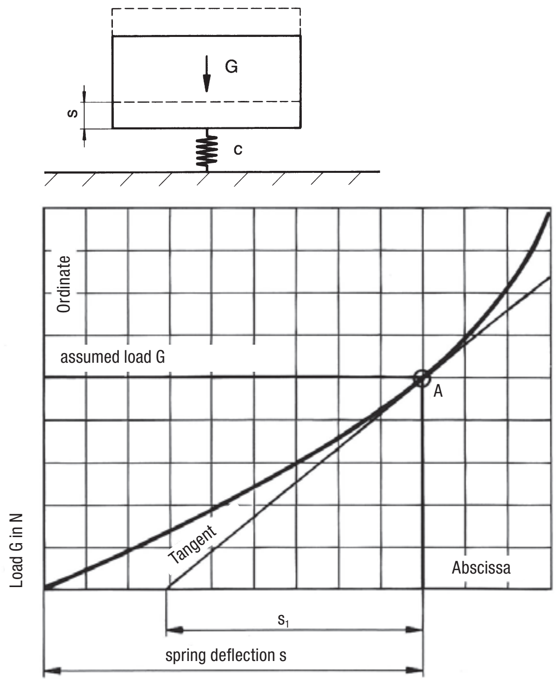
Damping





The occurring hysteresis in the ROSTA element is addicted to the resulting energy loss work in the rubber inserts during the pivoting activity of the spring device. In the process of the element actuation a part of the resulting energy is transformed into frictional work generating heat. The shaded surface between load and relieve headline indicates the effective energy loss. At element actuation out of the zero position up to 30°, the resulting average energy loss is at 15 to 20 %. At the actuation of a pre-tensioned element, the resulting ± working angle is usually only a few degrees, therefore the energy loss reduces within a limit (see graph).
Uniquely animated element oscillations fade within short term, due to the occurring energy loss at each following post-pulse oscillation. (Very important at the use of ROSTA screen mountings – during the operation procedure of the screen the resulting power loss in the ROSTA mountings is neglectable; during the running down phase, close to the resonance frequency of the suspensions, an important amplitude exaggeration occurs. The high energy loss in the ROSTA screen mountings dampens and absorbs these exaggerations within only a few post-pulse oscillations.)

Natural frequency



The determination of the natural frequency of a ROSTA suspension has to be carried out by spreading the tangent at the loading point «A» on the parabolic arc of the load deflection curve. The resulting distance s_1 on the axis of abscissa comes up to the arithmetical spring deflection in mm, required for the determination of the natural frequency.

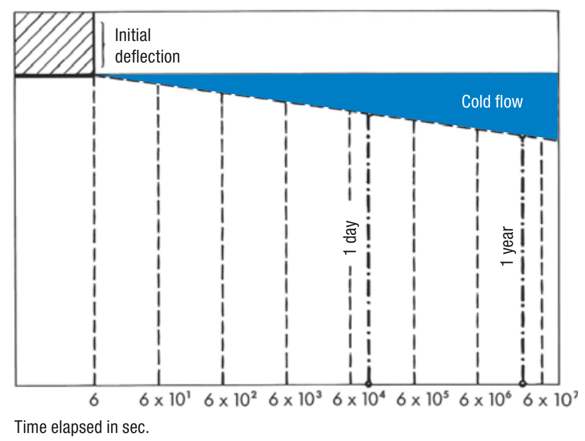
$$\text{Natural frequency } n_e = \frac{300}{\sqrt{s_1} \text{ (in cm)}} = \text{min}^{-1}$$

or

$$f_e = \frac{5}{\sqrt{s_1} \text{ (in cm)}} = \text{Hz}$$

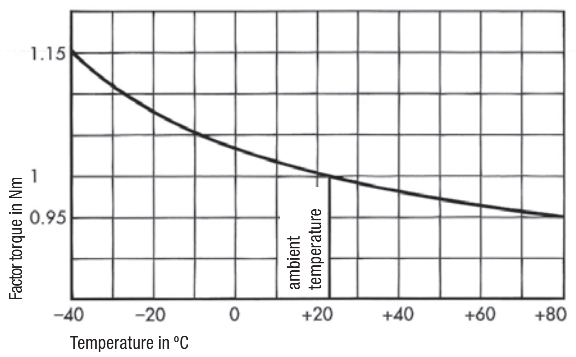
ROSTA Basics

Cold flow and settling of the rubber suspensions



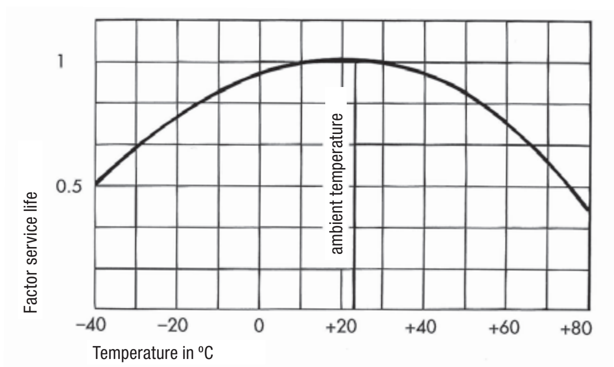
All elastic materials show more or less permanent measurable deformation over time when subjected to a load. This is noticeable in a relatively small additional deflection, the cold flow. This cold flow runs over a linear logarithmic time scale. The illustration shows that after being under a load for one day, already compensates for more than half of the flow deformation of a year; after one year of use, the overall element setting is largely compensated (depending on the temperature and frequency). Empirical findings show that the settling factor lies within a 3° to 5° loss of the element to the neutral 0° position, with combined vibrating bearings at approx. +10 % of the respective nominal deflection according to the catalogue specification.

Temperature influence



The ROSTA rubber suspension elements are designed in the standard rubber quality «Rubmix 10» for use in the temperature range of –40 °C to +80 °C. As the temperature rises, the mechanical torque strength decreases. This decrease is at a low approx. 5% in the upper temperature range (+80 °C). At lower ambient temperatures, i. e. in the minus range, the mechanical torsional stiffness increases (at –40 °C up to 15 %). The internal damping of the elements undergoes a similar process: when the temperature drops, the damping percentage increases and then falls again when the temperature rises. Due to the internal friction (energy loss work), the rubber inserts in the suspension elements warm up with every movement, meaning the effective element temperature may vary in relation to the ambient temperature.

Service life



Provided the rubber suspension elements are selected according to the technical specifications, i. e. are operating within the given frequencies and oscillation angles and under the mentioned surrounding conditions, no loss of performance and functionality can be expected for many years. Extremely low or high permanent surrounding temperatures considerably shorten the lifetime expectancy of the rubber suspension elements. The opposite service life curve indicates the relevant life deduction at extreme ± temperatures from factor 1 at room temperature of +22 °C.

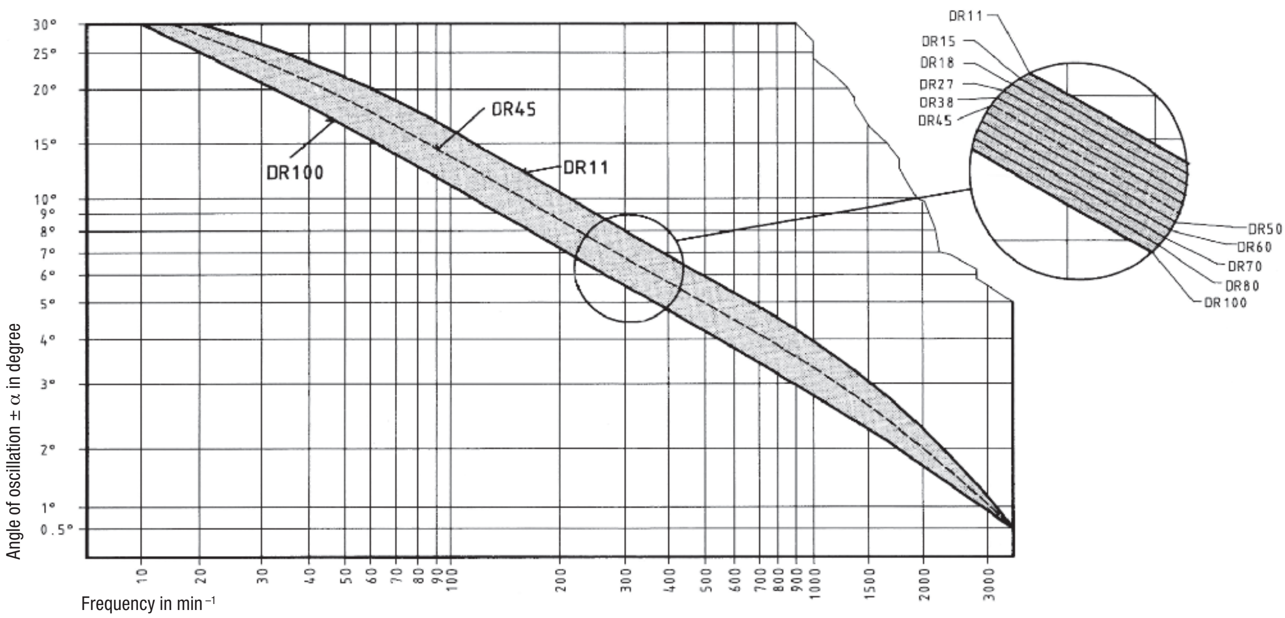
ROSTA Basics

Quality control and tolerances

Since December 1992 ROSTA AG has been an ISO 9001 standard certified development, manufacture and distribution company. All products undergo regular functional and quality testing. The rubber inserts are continuously tested and controlled on the test machines of the in-house laboratory with regard to Shore A hardness, compression set, abrasive wear, rebound resilience, tensile strength, breaking elongation and aging behaviour. The dimensional tolerance of the rubber inserts is defined according DIN 7715 standard and the Shore A hardness according to DIN 53505 standard. The inner-core profiles and housings of the rubber suspension elements are subject to the tolerance guidelines of the relevant production process and respective supplier (e.g. cast, extruded, edge rolled) and the individual material consistence (e.g. aluminium casting, steel tube, nodular cast iron part, etc.). The resulting torsional moments and spring deflections of the ROSTA rubber suspension elements are within a tolerance range of ±15% at the most, but usually lie in a much narrower range!

ISO 9001
ISO 14001
BUREAU VERITAS
Certification

Permissible frequencies



Alignment chart for determining the permissible frequencies and oscillation angles in relation to the respective rubber suspension element type (DR 11, 15, 18, etc.).
The higher the frequency in min^{-1}, the lower the oscillation angle should be and vice versa.

Example: (see blue indication on chart) A rubber suspension of type DR 50 may be rotated from the neutral position (0°) to an oscillation angle of ±6° by a max. frequency of 340 min^{-1}.
For applications of «pre-tensioned» elements working, e.g. under 15° of pre-tension and describing oscillation angles of ±5° at 250 min^{-1}, it is absolutely necessary to consult ROSTA.

ROSTA Basics

Rubber qualities

The majority of all ROSTA rubber suspension elements are equipped with the standard quality «Rubmix 10» rubber inserts. This rubber quality is based on a high content of natural rubber, offers good shape memory, low settling factors (cold flow), high mechanical strength and moderate aging behaviour (little embrittlement/hardening of the rubber inserts).

Where high oil consistency, heat resistance or even greater torques are required, other resilient inserts with the corresponding characteristics can be installed in the rubber suspension elements.

Special qualities on request.

Rubber quality	Factor in relation to the list «torque and loads» (chapter 2 rubber suspension elements)	Working temperature	Material	Comments
Rubmix 10	1.0	–40° to +80°C	NR	– Standard quality – Highest elasticity – Lowest cold flow
Rubmix 20	approx. 1.0	–30° to +90°C	CR	– Good oil-resistance – Elements marked with yellow dot
Rubmix 40	approx. 0.6	–35° to +120°C	EPDM-Silicone	– High temperature resistance – Elements marked with red dot
Rubmix 50	approx. 3.0	–35° to +90°C	PUR	– Max. oscillation angle ±20° – Limited oscillation frequencies – No permanent water contact – Elements marked with green dot

Chemical resistance

The standardised ROSTA rubber suspension elements are equipped with «Rubmix 10» elastic inserts. These have a high chemical resistance compared to many media. For specific applications, however, the elements must provided with additional protection or synthetically constructed elastomer inserts should be used («Rubmix 20», «Rubmix 40» or «Rubmix 50»), which will slightly the characteristics compared to the standard quality (see Rubber qualities).

The resistance table below is only a guideline and is incomplete. In practical use, data for the concentration of the respective medium and the operating temperature are required to determine the resistance. Please contact us in this regard.

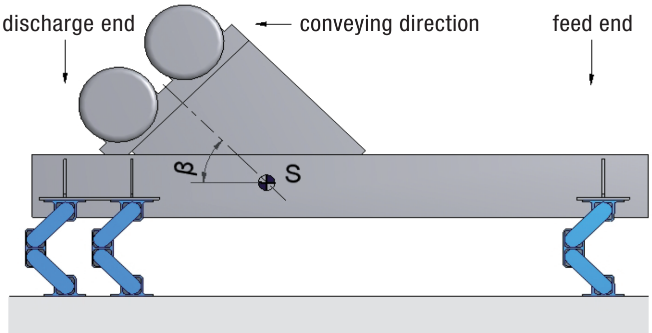
Rubmix	10	20	40	50
Acetone	+	oo	++	oo
Alcohol	++	++	++	o
Benzene	oo	oo	oo	oo
Caustic soda solution up to 25% (20°)	++	++	++	oo
Citric acid	++	+	o	oo
Diesel	oo	+	oo	+
Formic acid	+	+	o	oo
Glycerine	+	+	++	oo
Hydraulic fluid	o	+	oo	oo
Hydrochloric acid up to 15%	++	+	o	oo
Javelle water	o	+	++	oo
Lactic acid	++	++	++	+

Rubmix	10	20	40	50
Liquid ammonia	+	+	++	oo
Lubricating grease and oil	oo	+	oo	+
Nitric acid up to 10%	oo	+	+	oo
Nitro thinner	oo	oo	oo	oo
Petrol (fuel)	oo	o	oo	++
Petroleum	oo	+	oo	++
Phosphoric acid up to 85%	oo	oo	oo	oo
Seawater	++	+	++	oo
Sulphuric acid up to 10%	+	o	o	oo
Tannic acid	++	+	++	oo
Toluene	oo	oo	oo	oo
Treacle	++	++	++	o

++ excellent consistency, + good consistency, o sufficient consistency, oo insufficient consistency

Oscillating mountings – free oscillating systems

Calculation bases



Subject	Symbol	Unit
Mass of the empty channel and drive *	m_0	kg
Products on the channel *	m_m	kg
Total vibrating mass	$m = m_0 + m_m$	kg
Mass distribution: feed end	% feed end	%
discharge end	% discharge end	%
Acceleration due to gravity	g	9.81 m/s^2
Load per corner feed end	F feed end	N
Load per corner discharge end	F discharge end	N
Working torque of both drives	AM	kgcm
Oscillating stroke empty channel	sw_0	mm
Oscillating stroke in operation	sw	mm
Motor revolutions	n_s	min^{-1}
Centrifugal force of both drives	Fz	N
Oscillating machine factor	K	
Machine acceleration	$a = K \cdot g$	g

Calculation formulas

Loading per corner

$$F_{\text{feed end}} = \frac{m \cdot g \cdot \%\ \text{feed end}}{2 \cdot 100} \qquad F_{\text{discharge end}} = \frac{m \cdot g \cdot \%\ \text{discharge end}}{2 \cdot 100} \quad [\,N\,]$$

Oscillating stroke

$$sw_0 = \frac{AM}{m_0} \cdot 10 \qquad sw = \frac{AM}{m} \cdot 10 \quad [\,mm\,]$$

Centrifugal force

$$F_z = \frac{\left(\frac{2\pi}{60} \cdot n_s\right)^2 \cdot AM \cdot 10}{2 \cdot 1000} = \frac{n_s^2 \cdot AM}{18'240} \quad [\,N\,]$$

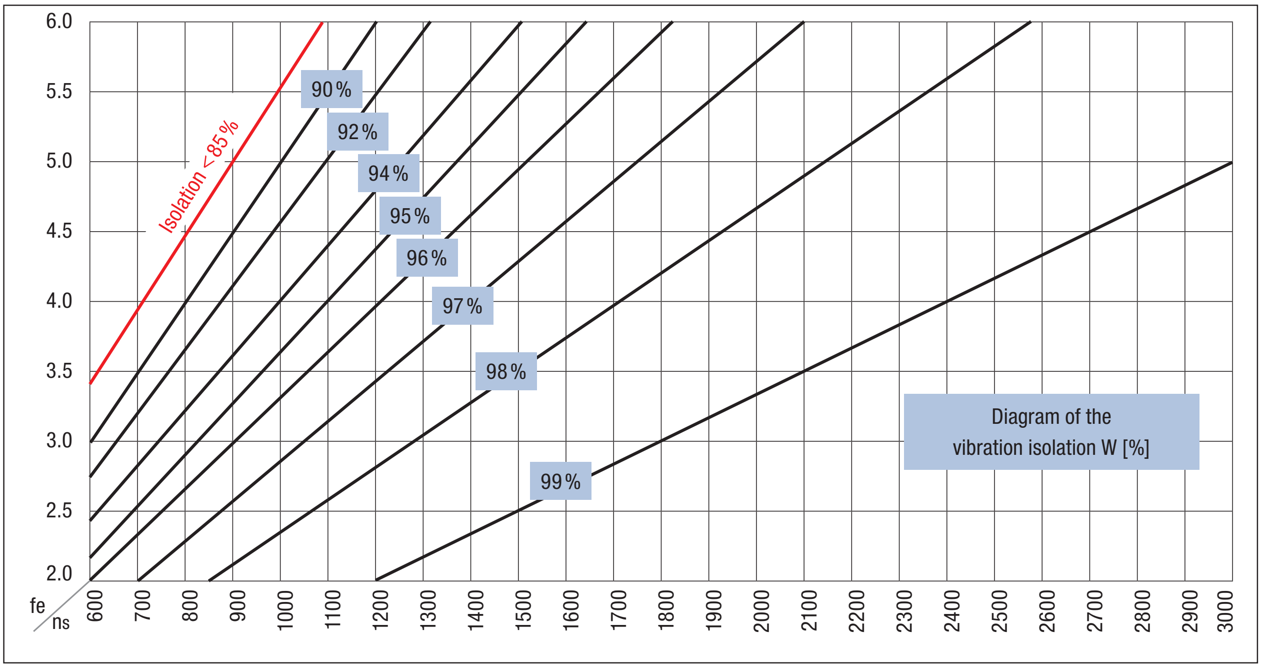
Oscillating machine factor

$$K = \frac{\left(\frac{2\pi}{60} \cdot n_s\right)^2 \cdot sw}{2 \cdot g \cdot 1000} = \frac{n_s^2 \cdot sw}{1'789'000} \quad [\,-\,]$$

* When determining the weight, take into account:
- – High coupling or sticking of humid bulk material
- – Channel running full
- – Fully stacked screen deck with humid material
- – Weight distribution with and without conveyed material
- – Centrifugal force does not run through the center of gravity (channel full or empty)
- – Sudden impact loading occurs
- – Subsequent additions to the screen structure (e. g. additional screening deck)

Oscillating mountings – free oscillating systems

Vibration isolation

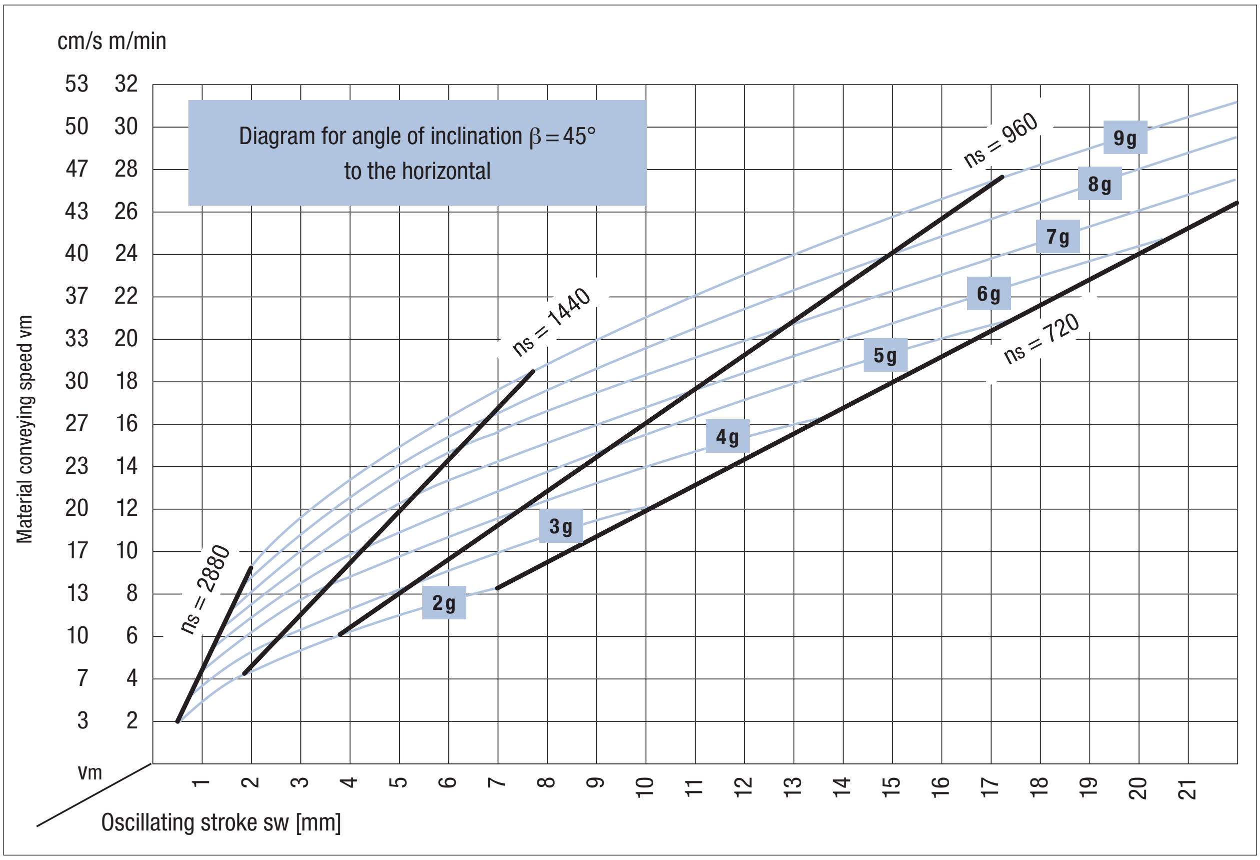


Calculation formula

$$W = 100 - \frac{100}{\left(\frac{n_s}{60 \cdot fe}\right)^2 - 1} \; [\,\%\,]$$

Oscillating mountings – free oscillating systems

Average material conveying speed v_m



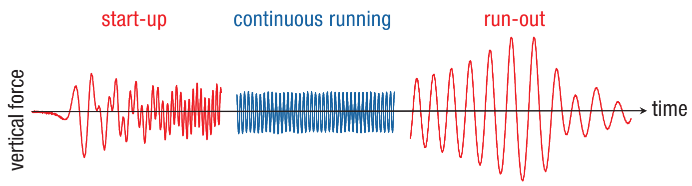
Main influencing factors

– Conveying ability of the material
– Height of the bulk goods
– Inclination of screen base
– Drive angle of the exciters in linear oscillators
– Position of the centre of gravity

The material speed on circular motion screens varies and depends largely on the tilt of the screen box.

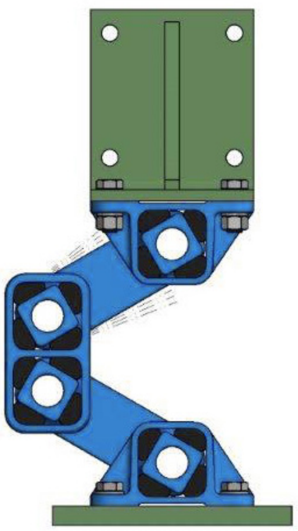
Oscillating mountings – free oscillating systems

Operating and resonance behaviour



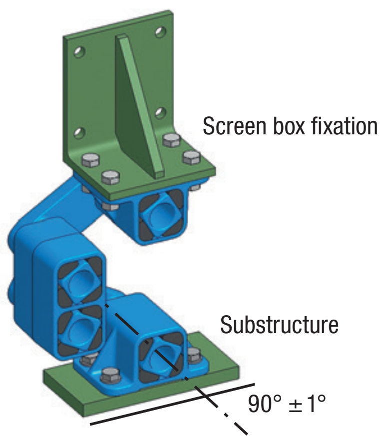
Laboratory measurements of a typical development of the residual forces on a ROSTA screen suspension:

At the screen start-up and run-out, the element's natural frequency is passed through. During the resulting amplitude superelevation, the four rubber suspension elements generate a high level of damping, which greatly reduces the vibration amplitudes. The screen box therefore stops fully after only a few strokes.



The rocker arm fixed to the screen carries out the greater part of the oscillations. The rocker arm fixed to the substructure remains virtually stationary, provides a strong cushion and ensures a low natural frequency and therefore a good insulation on the base frame.

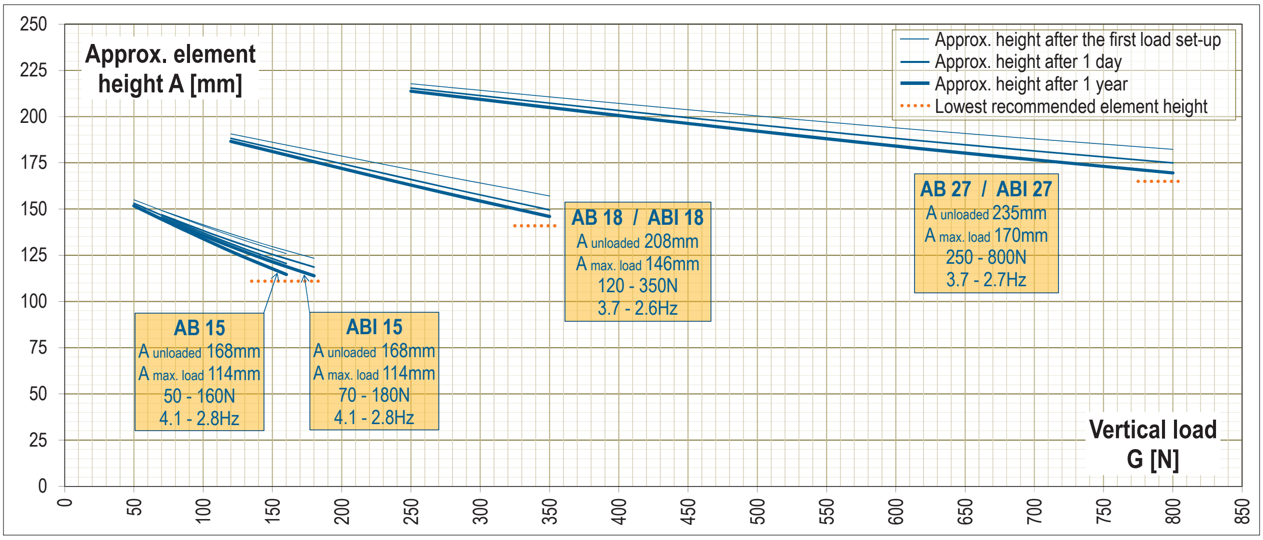
Alignment of the elements

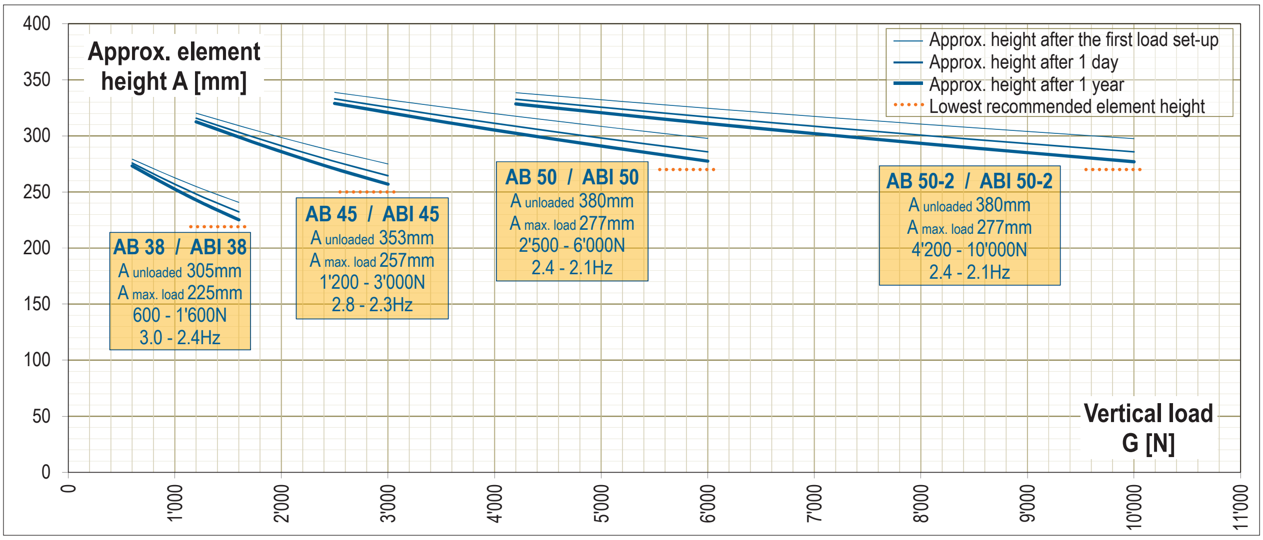


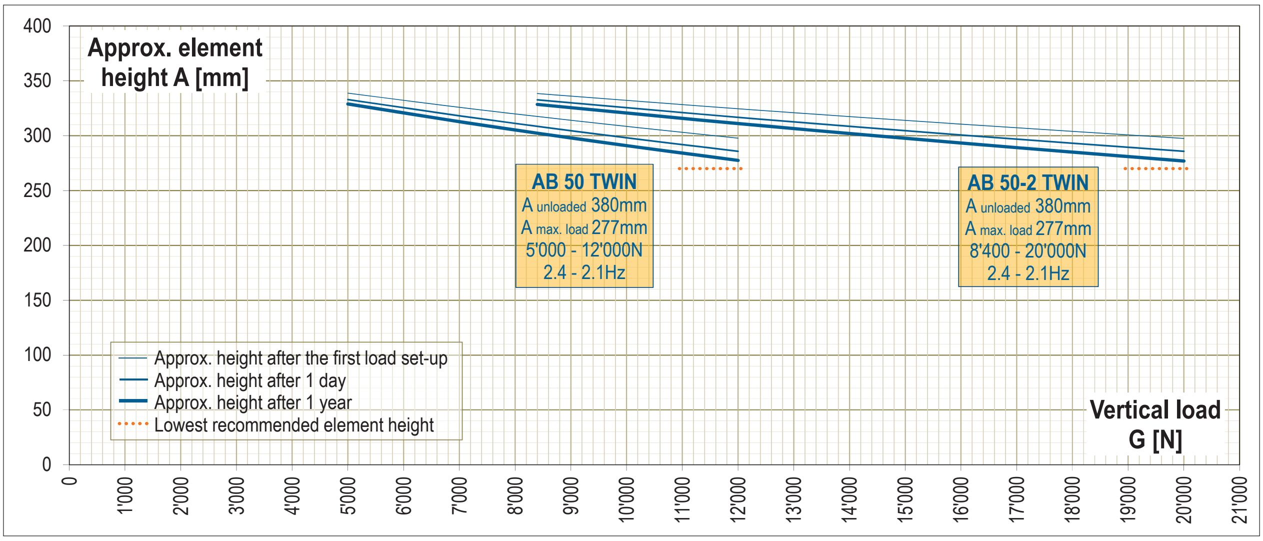
The mounting axis has to be arranged at a right angles (90°) to the conveying axis, with maximum tolerance of ±1°.

Oscillating mountings – free oscillating systems

Element heights and setting behaviour AB and ABI

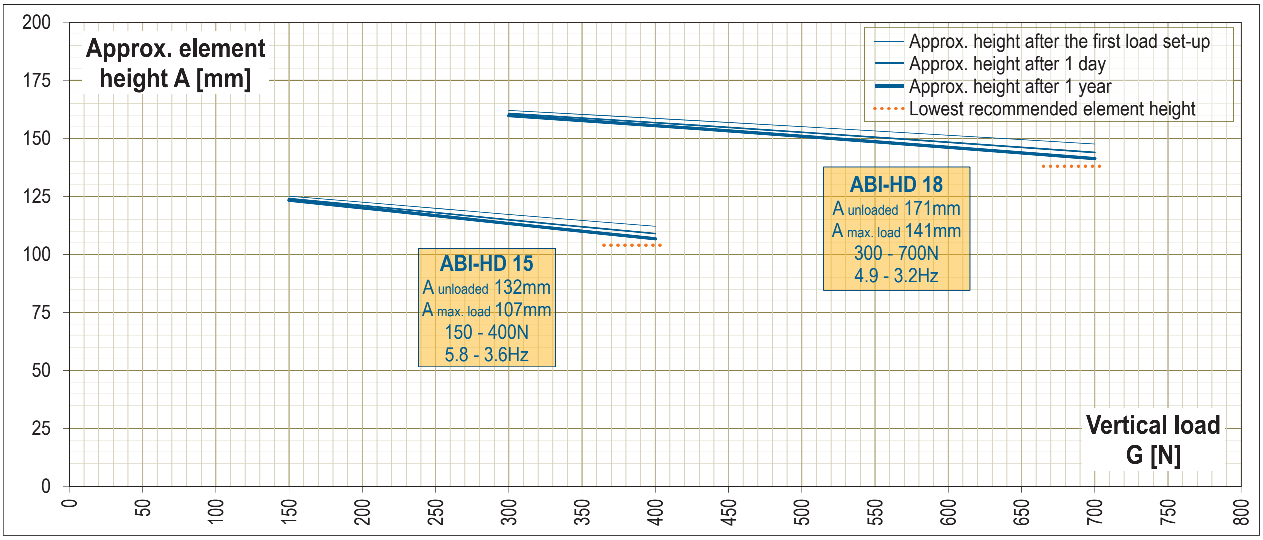


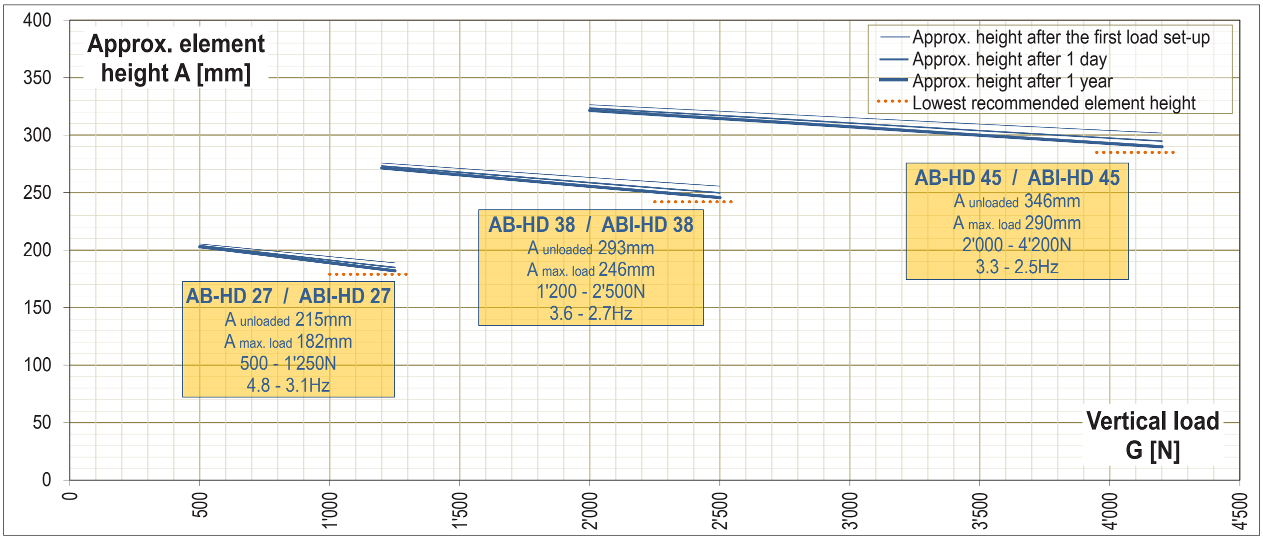


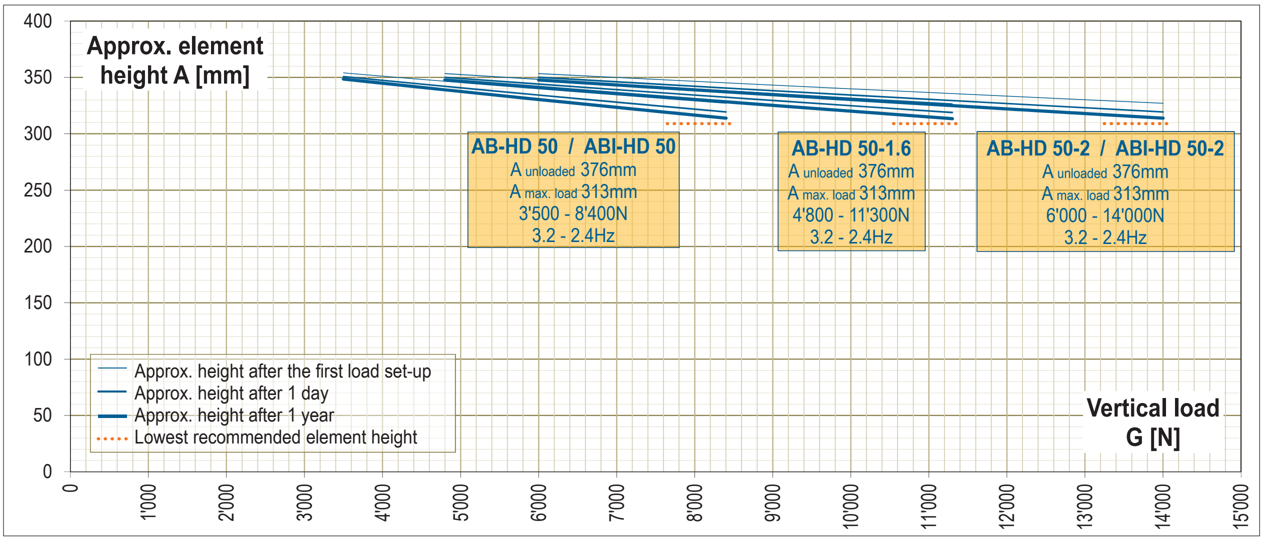


Oscillating mountings – free oscillating systems

Element heights and setting behaviour AB-HD and ABI-HD

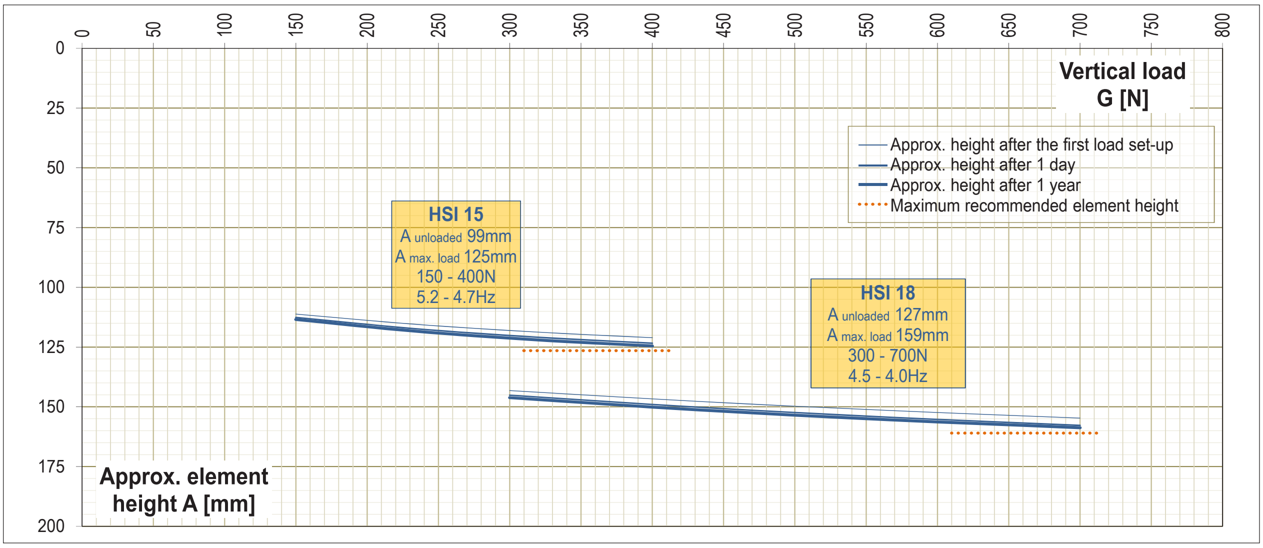


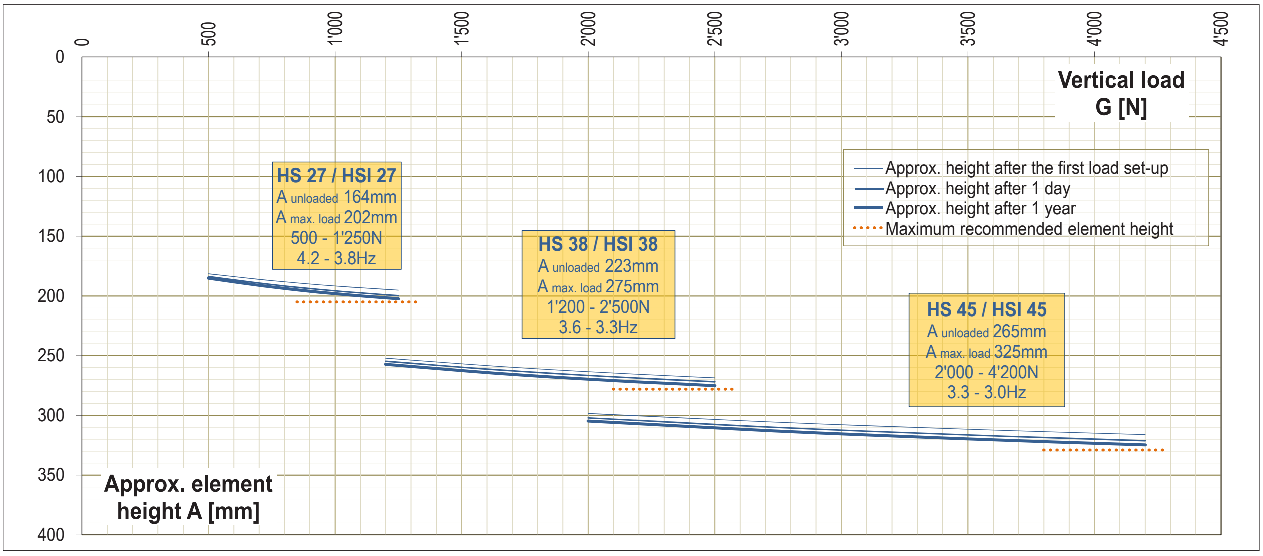


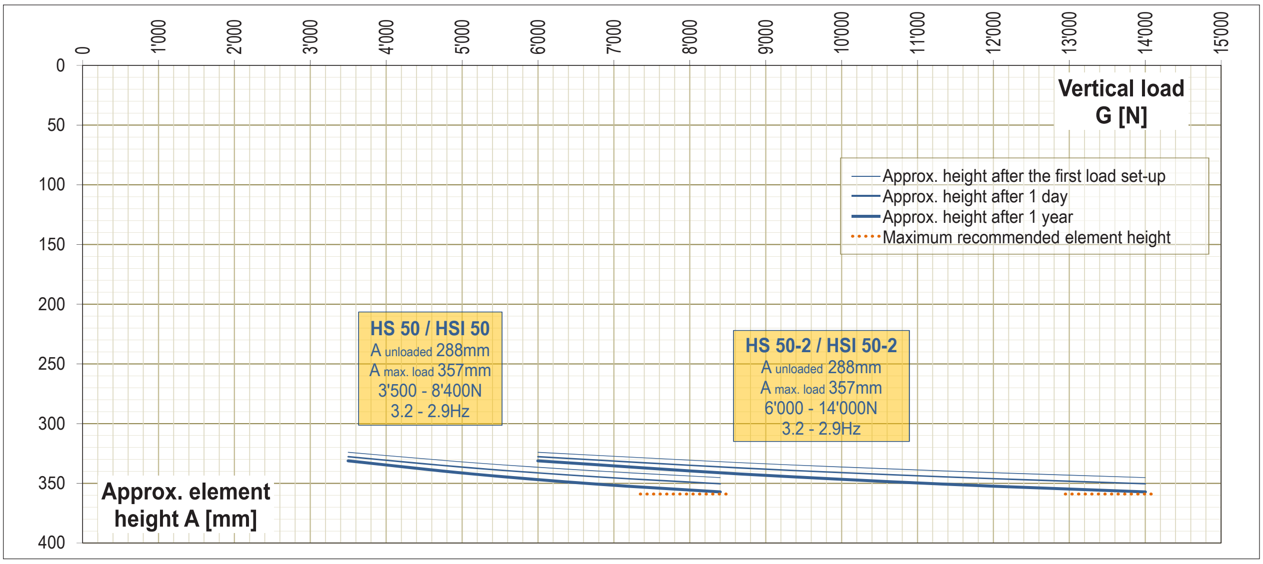


Oscillating mountings – free oscillating systems

Element heights and setting behaviour HS and HSI

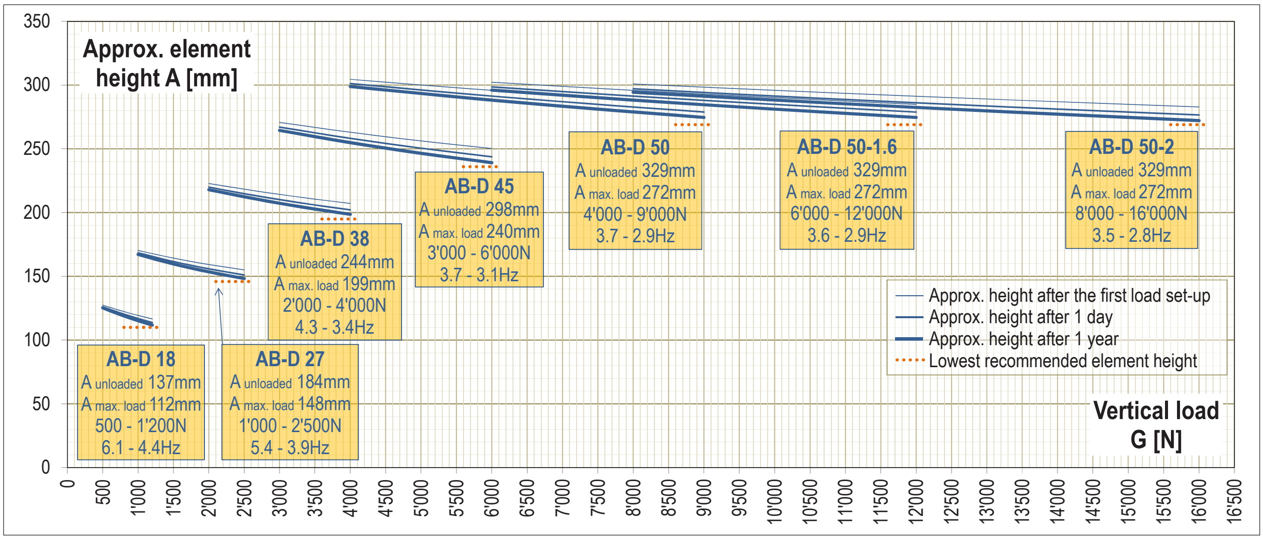






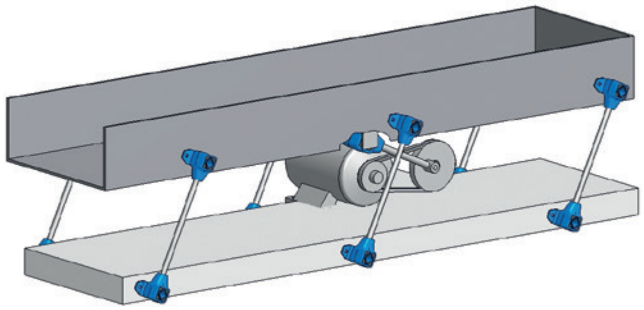
Oscillating mountings – free oscillating systems

Element heights and setting behaviour AB-D



Oscillating mountings – guided systems

One mass systems without spring accumulators: calculation



	Subject	Symbol	Unit
Length, weight	Weight empty trough *	m_0	kg
	Weight of feeding material *		kg
	Weight of oscillating mass	$m = m_0 + m_m$	kg
Drive parameter	Eccentric radius	R	mm
	Stroke	$sw = 2 \cdot R$	mm
	Rpm on trough	n_s	min^{-1}
	Gravity acceleration	g	9.81 m/s^2
	Oscillating machine factor	K	
	Acceleration	$a = K \cdot g$	m/s^2
	Total spring value of system	c_t	N/mm
Rocker arms	Quantity of rockers **	z	
	Load per rocker	G	N
	Center distance of elements	A	mm
Drive	Acceleration force	F	N
	Drive capacity approx.	P	kW
Spring value of natural frequency shaker	Dynamic torque	Md_d	Nm/°
	Dynamic spring value per rocker	c_d	N/mm
	Dynamic spring value of all rockers	$z \cdot c_d$	N/mm
	Resonant ability factor	i	

* When determining the weight, take into account:
– High coupling factor or sticking of wet and humid material
– Possible stemming of the trough

** Distance of the rocker max. 1.5 metres.

Calculation formulas

Oscillating machine factor

$$K = \frac{\left(\frac{2\pi}{60} \cdot n_s\right)^2 \cdot R}{g \cdot 1000} = \frac{n_s^2 \cdot R}{894'500} \; [-]$$

Total spring value of system

$$c_t = m \cdot \left(\frac{2\pi}{60} \cdot n_s\right)^2 \cdot 0.001 \quad [\text{N/mm}]$$

Load per rocker

$$G = \frac{m \cdot g}{z} \quad [\text{N}]$$

Acceleration force (for ST selection)

$$F = m \cdot R \cdot \left(\frac{2\pi}{60} \cdot n_s\right)^2 \cdot 0.001 = c_t \cdot R \; [\text{N}]$$

Drive capacity approx.

$$P = \frac{F \cdot R \cdot n_s}{9550 \cdot 1000 \cdot \sqrt{2}} \quad [\text{kW}]$$

Dynamic spring value per rocker

$$c_d = \frac{Md_d \cdot 360 \cdot 1000}{A^2 \cdot \pi} \quad [\text{N/mm}]$$

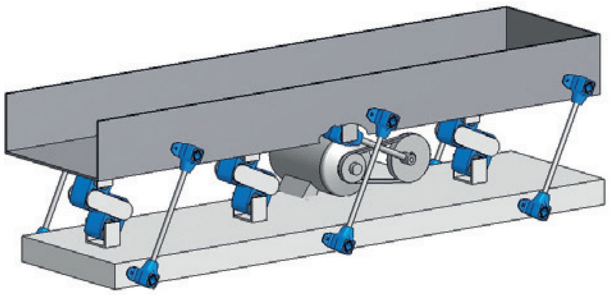
Resonant ability factor

$$i = \frac{z \cdot c_d}{c_t} \; [-]$$

By a resonant ability factor $i \geq 0{,}8$ the system is usually titled «natural frequency shaker».

Oscillating mountings – guided systems

One mass system with spring accumulators: calculation



Calculation analog one mass systems without spring accumulators with following additions:

	Subject	Symbol	Unit
Spring accumulators	Quantity	z_s	
	Dynamic spring value per item	c_s	N/mm
	Dynamic spring value of all items	$z_s \cdot c_s$	N/mm
	Resonant ability factor	i_s	

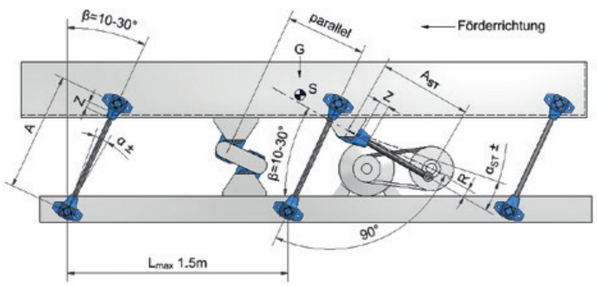
Calculation formulas

Resonant ability factor with accumulators

$$i_s = \frac{z \cdot c_d + z_s \cdot c_s}{c_t} \; [-]$$

By a resonant ability factor is ≥ 0.8 the system is usually titled «natural frequency shaker».

One mass conveyor system: installation instructions



Distance between rockers L_{max}:

– Usually, the distance between the rockers in the longitudinal direction must not exceed 1.5 metres.

– With chutes wider than 1.5 m, we recommend fitting a third row or multiple rows of rockers on the underside of the chute base or to install spring accumulators to improve the stability.

Mounting position drive head ST:

For one mass shaker systems it is recommendable to position the drive head slightly ahead of the center of gravity of the trough, towards the discharge end.

Angle of attack β:

The angle of attack β of the rocker must be between 10° and 30° to the perpendicular line, depending on the process and the conveying speed. (The optimum combination of a fast conveying speed and the high material throw is given at the angle of attack β = 30°.) The operating direction of the drive rod should be at 90°, i.e. the thrust angle of attack β is accordingly between 10° and 30° to the horizontal line.

Oscillation angle α:

The parameters for the oscillation angle and speed must be within the permissible range, see «permissible frequencies» in chapter 7 Technology.

Screw grade:

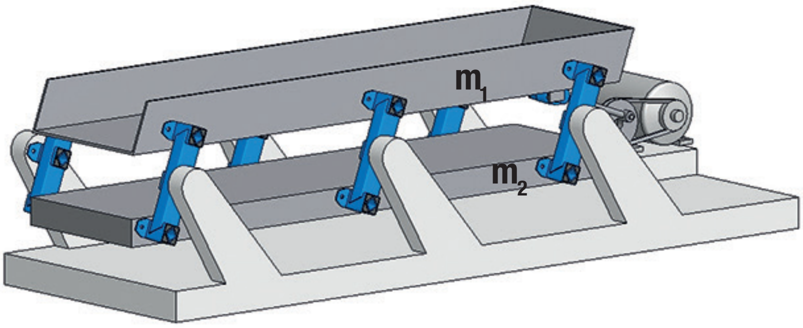
Select screw grade 8.8 and mount with correct tightening torque.

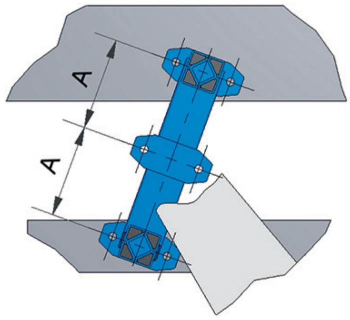
Thread length Z:

The thread length Z is at least 1.5 × the nominal thread size.

Oscillating mountings – guided systems

Two mass system with direct mass balance





– Max. acceleration of approx. 5 g and max. chute length of approx. 25 metres
– Double rockers made from ROSTA elements AR, AD-P or AD-C
– Optimal balance of forces with $m_1 = m_2$
– Calculation same as for one mass system, with the following difference:

Actuated mass incl. material coupling	m_1 [kg]
Driven mass incl. material coupling	m_2 [kg]
Total oscillating mass	$m = m_1 + m_2$ [kg]

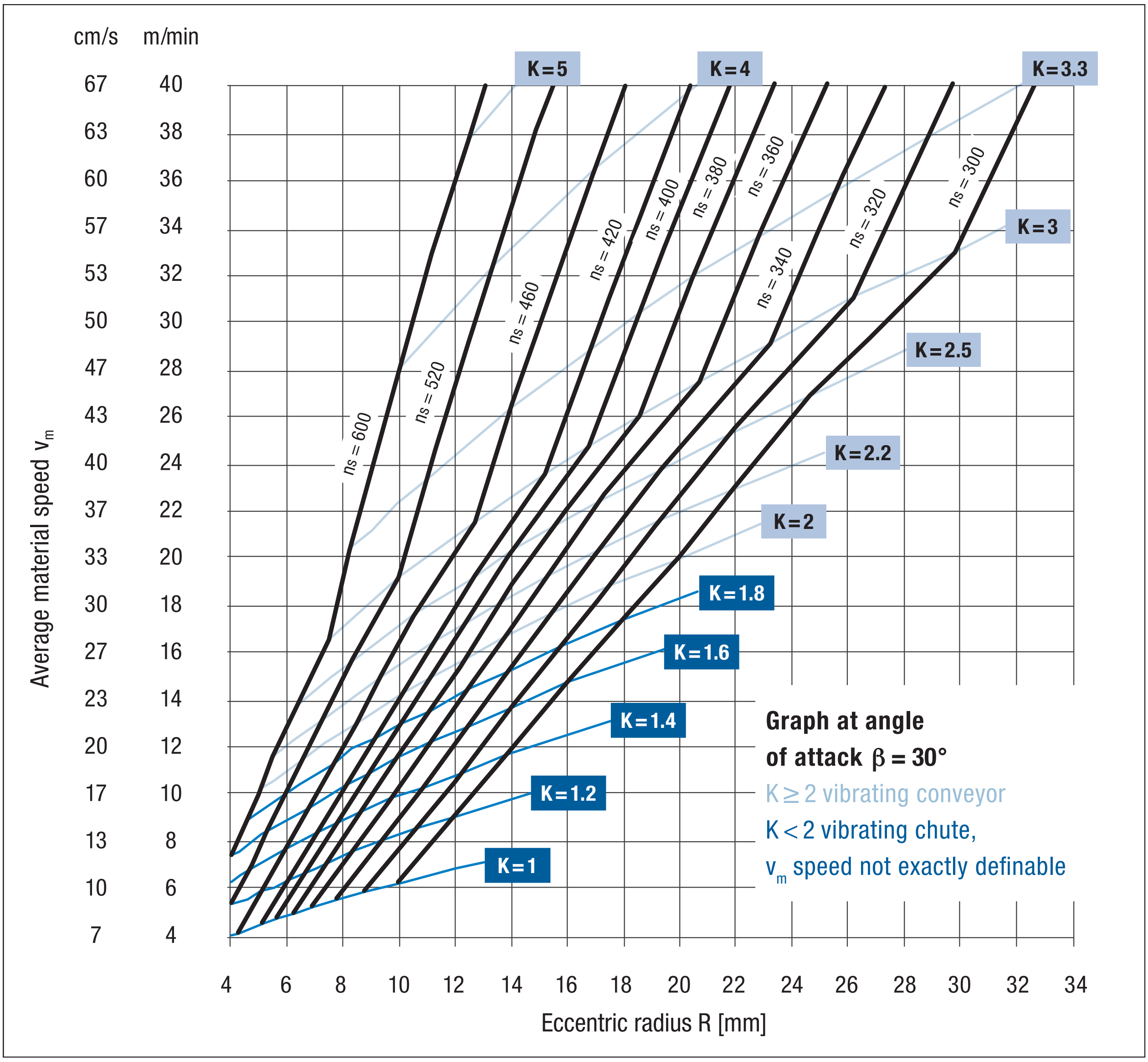
Dynamic spring value per rocker [N/mm]

$$c_d = \frac{3 \cdot Md_d \cdot 360 \cdot 1000}{2 \cdot A^2 \cdot \pi} \quad [\text{N/mm}]$$

– Calculation of c_t and F with the new total oscillating mass m
– Introduction of force with the ST at any point along the chute, 90° to the rocker axis
– For customised rockers with different centre distances A, please contact ROSTA

Oscillating mountings – guided systems

Average material conveying speed v_m



Main influence factors:
- bulk height
- sieve surface texture
- drive angle and thus rocker angle of attack
- feeding capacitiy is dependent on shape and humidity of the material, e.g. dry, fine-grained material needs correction factors up to 30 %.

By acceleration factors $K > 2$ and rocker mounting angles of $\beta = 30°$ (to the perpendicular line) the vertical acceleration is getting bigger than 1 g, therefore the material starts lifting from the trough bottom = material throw.

Oscillating mountings – guided systems

Maximum load G, speed n_s and oscillation angle α

Size (e.g. AU 15)	max. load capacity per rocker [N]				max. revolutions n_s [min^{-1}] *	
	K < 2	K = 2	K = 3	K = 4	$\alpha \pm 5°$	$\alpha \pm 6°$
15	100	75	60	50	640	480
18	200	150	120	100	600	450
27	400	300	240	200	560	420
38	800	600	500	400	530	390
45	1 600	1 200	1 000	800	500	360
50	2 500	1 800	1 500	1 200	470	340
60	5 000	3 600	3 000	2 400	440	320

Please contact ROSTA for higher machine parameters and elements with greater loads. The revolutions are usually ns = 300 to 600 min^{-1} and oscillation angle α to max. ±6°.
* see «permissible frequencies» in chapter 7 Technology.

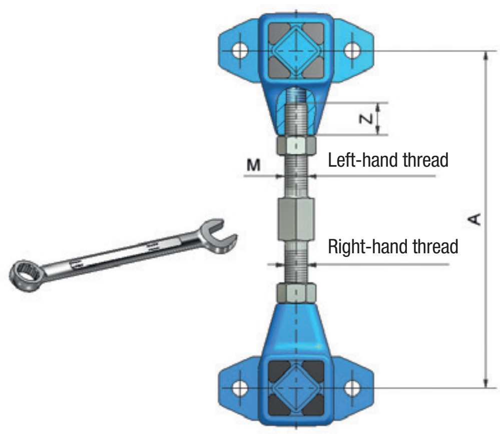
The oscillation angle α of each component must be within the permissible range of application (n_s and α), i.e. rockers, drive rods and spring accumulator.

Calculating the oscillation angle for rockers

Eccentric radius R [mm]
Center distance A [mm]
Oscillation angle α ± [°]

$$\alpha = \arctan\left(\frac{R}{A}\right) [°]$$

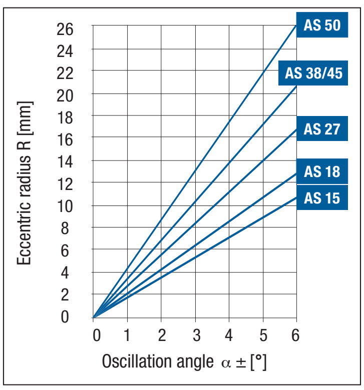
AU / AUI: Connection rod



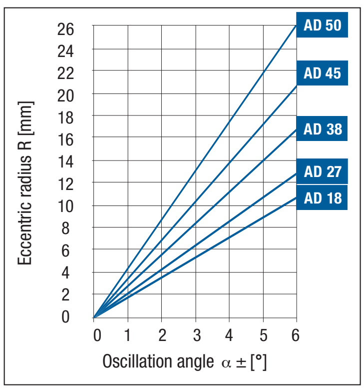
The customer manufactures the connection rod, preferably with a left and right-hand thread. Together with the corresponding oscillating mountings, the distance between the mountings (A) can be freely adjusted. Using a standard threaded rod (with «only» a right-hand thread) may be more economical, but it is less accurate.
The centre distance A must be set identically for all rockers and the thread length Z must be at least 1.5 × M.

AS / AD: Resulting oscillation angle α from eccentric radius R

Single rocker AS



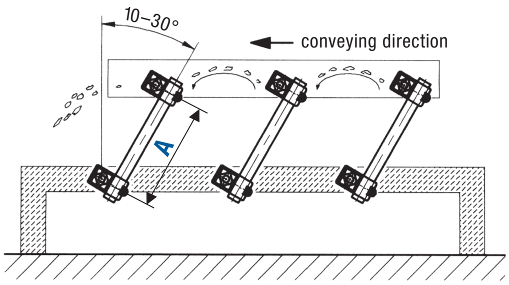
Double rocker AD



Oscillating mountings – guided systems

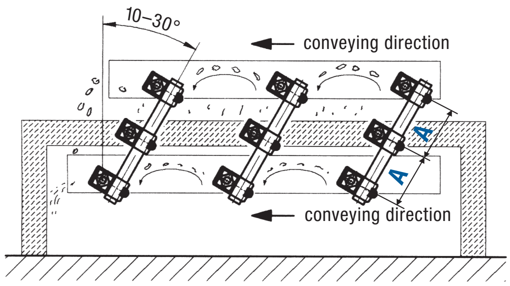
AR: Single, double and two-way Rocker

Single rocker



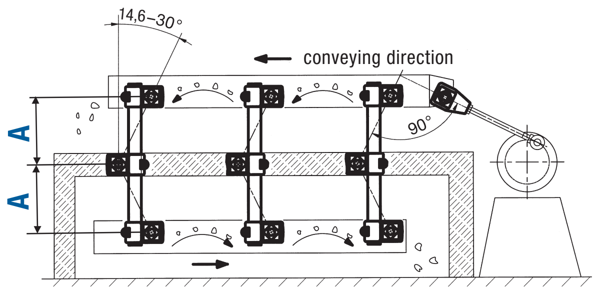
The two AR elements are pushed onto a round tube. The desired center distance is set on a straightening plate and then fixed by tightening the clamp.

Double rocker



With three AR elements, the tube wall thickness is adjusted to the centre distances A, see «dimensioning of the connecting tubes». The counterweight can be used as an additional conveyor trough with the same conveying direction.

Two-way rocker



The three AR elements mounted in the boomerang configuration create a two-way material flow. Tube wall thickness according to «dimensioning of the connecting tubes». This two-way conveying flow can simplify the conveying process and the mass balance is maintained with this arrangement.

AR: Dimensioning of the connecting tubes

For double rockers and two-way rocker

Type	Tube-ø	thickness of tube	max. centre distance A	resulting min. angle of attack β [°] with two-way rocker
AR 27	30	3	160	26.0
		4	220	19.5
		5	300	14.6
AR 38	40	3	200	27.5
		4	250	22.6
		5	300	19.1
AR 45	50	5	300	23.4
		8	400	18.0

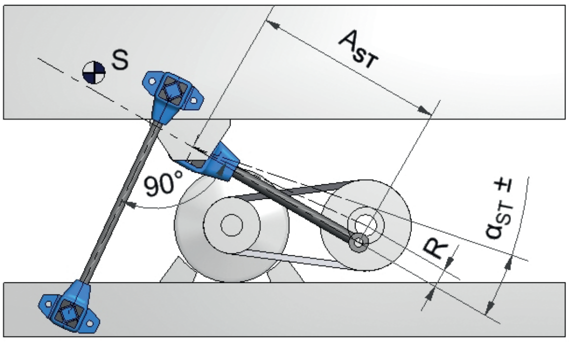
The customer provides the connecting tubes.

For single rockers with AR 27 or AR 38, it is sufficient for the tubes to have a wall thickness of 3 mm up to A = 300 mm.

For different centre distances A, please contact ROSTA.

Oscillating mountings – guided systems

ST / STI: Length of drive rod A_{ST} and eccentric radius R



To introduce the force in balance, the deflection angle α_{ST} of the drive rod must not exceed ± 5.7°. This corresponds to a ratio R : A_{ST} of 1 : 10.

Calculation deflection angle

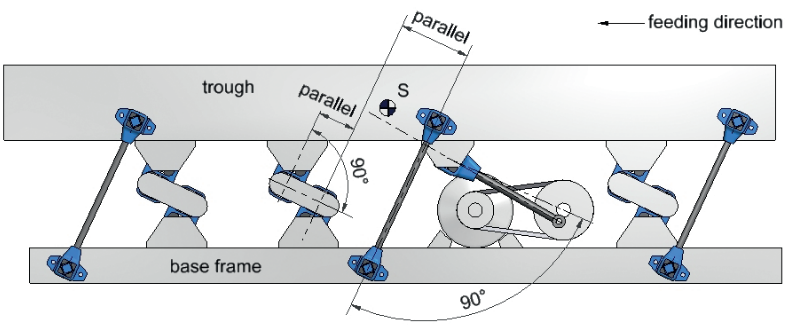
Eccentric radius	R [mm]
Center distance	A_{ST} [mm]
Deflection angle	α_{ST} ± [°]

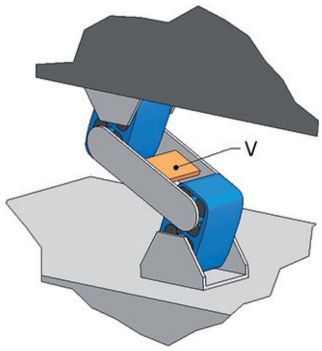
$$\alpha_{ST} = \arcsin\left(\frac{R}{A_{ST}}\right) [°]$$

DO-A: Operating parameters and installation guidelines

Example deflection angle DO-A (series connection)	Accumulator cons. of 2 × DO-A 45				Accumulator cons. of 2 × DO-A 50			
	R	sw	max. n_s	max. K	R	sw	max. n_s	max. K
± 6°	**15.3**	30.6	360	2.2	**16.4**	32.8	340	2.1
± 5°	**12.8**	25.6	500	3.6	**13.6**	27.2	470	3.4
± 4°	**10.2**	20.4	740	6.2	**10.9**	21.8	700	6

The connecting levers made by the customer, between the DO-A elements, are at 90° to the DO-A element axis. A cross bracing can be installed installed (V) if required. The DO-A elements are parallel to each other and parallel to the rockers; they are attached by means of a fork construction at a rigid point on the vibrating conveyor and base frame.

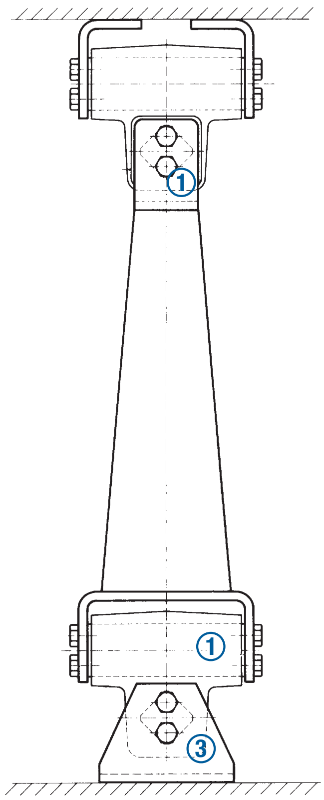


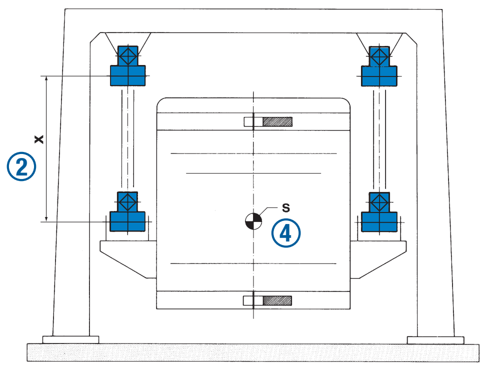


Oscillating mountings – gyratory sifters

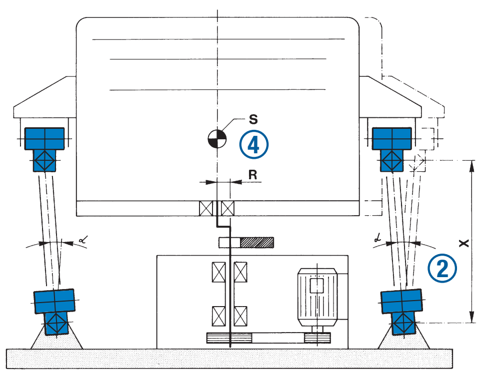
AK: Installation guidelines for gyratory sifters

1. Arrange the two inner elements offset by 90° (even torsional load).
2. Connect the AK, adjust the installation height. Even when the sifters are at an angle, the column height «X» must be identical.
3. Angle supports type WS can be used up to AK 50 (see chapter 2 rubber suspension elements).
4. To avoid unwanted tilting and turning, the screen box's centre of gravity «S» is positioned on or within the universal joint column.





Hanging and freely oscillating gyratory sifter



Standing gyratory sifter with positive crank shaft drive

AK: Calulation for gyratory sifters

Machine type: standing gyratory sifter with positive crank drive

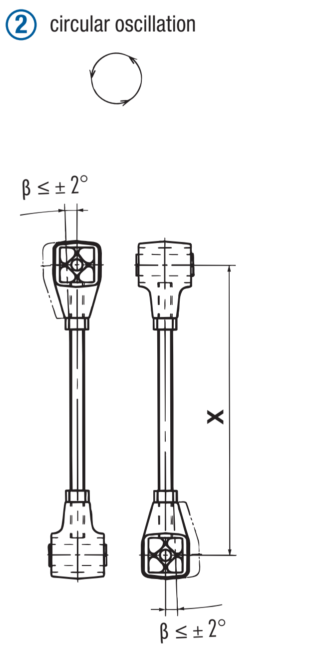
Description	Symbol	Unit	Calculation formula
Total oscillating mass (material included)	m	kg	**Oscillation angle**
Eccentric radius	R	mm	$\alpha = \arctan\left(\frac{R}{X}\right)$ [°]
Length of support column	X	mm	
Oscillation angle (out of R and X)	$\alpha \pm$	°	
Quantity of support columns	z	pcs.	**Load per column**
Load per column	G	N	$G = \frac{m \cdot g}{z}$ [N]

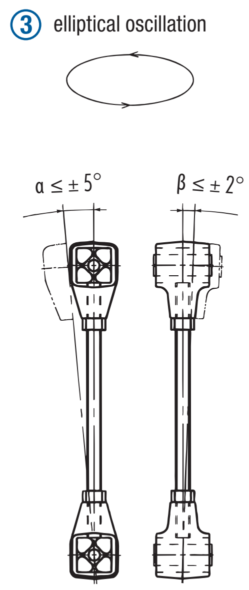
Limitation of application parameters see «permissible frequencies» in chapter 7 Technology.

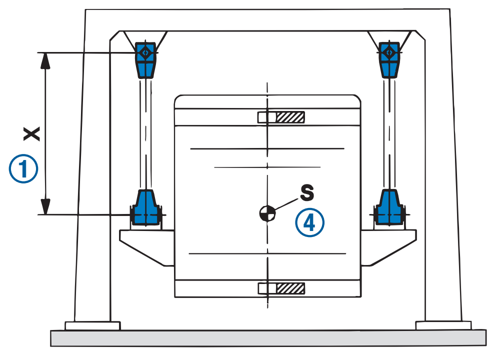
Oscillating mountings – gyratory sifters

AV: Installation guidelines for gyratory sifters

1. With the right-hand and left-hand threaded versions, the length X of the suspension rod can easily be adjusted. X has to be identical for all columns and the specified angle limitations must be respected!
2. Installing the two elements in a crosswise configuration moves the gyratory sifter in a circular motion.
3. Installing the two elements in the same configuration moves the gyratory sifter in an elliptical motion.
4. To avoid unwanted tilting or turning, the centre of gravity of the screen box «S» is positioned at the same level or slightly below the suspension rod's attachment.
5. Please consult ROSTA in the selection of AV elements for standing gyratory sifters.







AV: Calculation for gyratory sifters

Description	Symbol	Unit	Calculation formula
Total oscillating mass (material included)	m	kg	**Oscillation angle**
Eccentric radius ②	R	mm	$\beta = \arctan\left(\frac{R}{X}\right)$ [°]
Length of suspension rod	X	mm	
Oscillation angle (out of R and X), shall not exceed ±2° ②	β±	°	
Quantity of suspension rods	z	pcs.	**Load per suspension rod**
Load per suspension rod	G	N	$G = \frac{m \cdot g}{z}$ [N]

Limitation of application parameters see «permissible frequencies» in chapter 7 Technology.

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