

NEW!

ROSTA Tensioning Devices Type KSE with V-belt pulleys in bearings



A component manufacturer must have an open ear for customer needs!

Our experience over the last few years shows that the after market (endusers) finds it hard to procure complete V-belt tensioning devices incl. belt pulleys in bearings. The ROSTA tensioning devices Type SE were hence very often retrofitted by the endusers and also by machine manufacturers with V-belt pulleys, which had to be sought with much effort on the component market. Furthermore, matching bearings and shaft stubs had to be bought in for proper assembly.

Ideally, V-belt drives should be tensioned from the inside of the drive by means of appropriately contoured pulleys. Because of a continually rising demand, ROSTA AG is immediately complementing its tensioning device sales programme with the ready-

to-install V-belt tensioning devices **Type KSE**.

The following sizes are kept in stock: **KSE-18 SPZ** for belt profile „Z“, 1–3-groove, **KSE-27 SPA** for belt profile „A“, 1–3-groove, as well as **KSE-27 SPB** and **KSE-38 SPB** for belt profile „B“, 1–3-groove (the tensioning device SE 38 is intended for the 3-groove „B“ belt pulley).

The standardized belt pulleys are made of grey cast iron and run in one or two bearings (2- and 3-groove versions). The bearings turn on a shaft stub welded to the lever arm of the tensioning device. The position of the V-belt pulley on the stub shaft is secured with a Seeger circlip ring and hence for technical reasons cannot be freely adjusted to the existing belt track (track adjustment should be done with spacer washers or shims under the tensioner housing). The pertinent dimensional drawings of the various KSE's are to be found on the rear side of the information sheet.

With this important supplement, ROSTA AG closes a further demand gap in the technology of rational chain and belt tightening in the power transmission sector. ROSTA tensioning devices are available in seven sizes in standard, oil-resistant, heat-resistant, foodstuff-compatible and galvanized versions with a wide variety of built-in and built-on variants. Ask for our detailed catalog!

Customer benefits

The ready-to-install V-belt tensioner Type KSE from a single source:

- very simple mounting with only one screw
- automatic length compensation
- prevents belt flutter
- guaranteed slip-free running
- increased belt service life
- increased service intervals
- maintains ideal tension
- standardized version
- available ex stock
- ideal cost-benefit ratio

Application presentation

Radiator suspension



Rupture-proof suspension for cooling equipment in mining loading shovels with ROSTA connecting mounts type ST (application at Ohrenstein & Koppel Mining GmbH, D-Düsseldorf).



Problem:

The elastic suspension of cooling water radiators in heavy-duty earth moving equipment and loading shovels merely with vulcanized rubber buffers led to many failures and shut-downs of expensive loaders owing to rupture. The tractor loaders in the pits and quarries are subjected to heavy shocks and vibration during mining and loading of ore trucks.

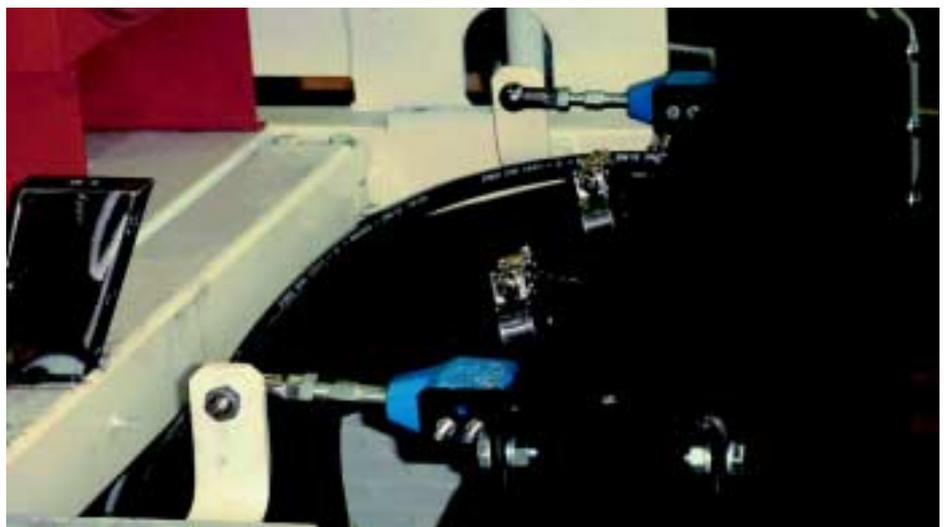
Solution:

Ohrenstein & Koppel Mining GmbH began in 2001 with the installation of ROSTA connecting mounts type ST 38/45 instead of rubber buffers. The rupture-proof connection to the ROSTA element is resistant to very heavy shocks and vibration loading.

Customer benefits:

- 100 % rupture-proof, oscillation-damping suspension for heavy radiators.
- No down times for expensive loading equipment; no shock absorber exchange after only a few months of service.
- Today's swivelling suspension of the radiator also simplifies engine maintenance.

Editor:
Michael Backhaus, ROSTA GmbH



NEW!

Rocker arm and spring accumulator in one component

ROSTA oscillating mountings Type AU-DO: the most cost-efficient alternative to steel and fibre blades.

Standardized sprung swing arms with very high dynamic stiffness for the support of freely oscillating and crank-driven conveyor troughs and screening machines.

However, the AU-DO rocker arms were mainly developed for trough suspension in **excited-chassis two-mass oscillating systems** (energetic amplification). These systems are characterized by extremely low, hardly measurable residual force transmission to the oscillating machine foundations (see following illustration) and are hence ideally suited for installation on steel scaffolding and false floors in processing buildings. The chassis is excited by unbalanced motors near to resonance frequency and the spring accumulator units of the AU-DO mountings amplify the small oscillation amplitudes to significant throw amplitudes onto the screen or the conveyor trough.



Demonstration conveyor trough for the ROSTA oscillating system „Silent Flow“ with chassis excitation (energetic amplification). Oscillating trough suspended on 4 AU-DO 27 rocker arms, chassis suspended on 4 AB 27; driven by 2 unbalanced motors. Machine frame is installed on 4 mounts NOX 70, M16.



Rocker arm AU-DO

These high stiffness accumulator arms are also highly suitable for the suspension of **freely oscillating single-mass systems** with unbalanced motor drive. With this simple oscillating system a conveyor speed of > 30 m/min can be attained and this with low drive power from two small vibration motors. Compared with the conventionally used fibre leaf springs, the installation of the ROSTA AU-DO is extremely simple and does not require exact load tuning of the rocker arms.

Finally, the universal rocker arms from ROSTA are applicable in **crank-driven oscillating conveyor systems**. Here they have the function of a trough guide and spring accumulator unit at the same time. For the above mentioned type of oscillating

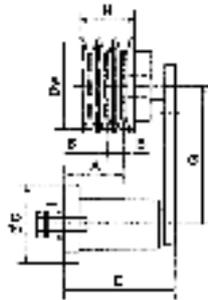
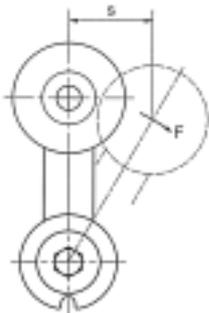
machines, low-cost resonance conveyor systems may thus be built with only one component; additional spring accumulator assemblies are dispensed with entirely! The dynamically highly stiff rocker arm simultaneously transmits very high spring force to the trough or screen and holds the machine near resonance in low-stress natural frequency motion.

Exhibition participation of ROSTA in fall 2002

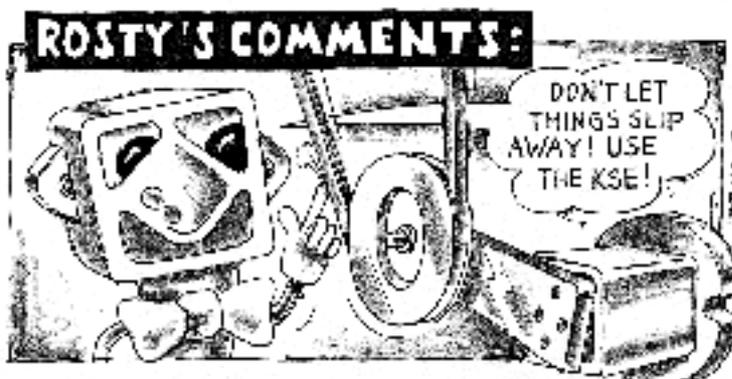
THAILAND ELECTRONICS AND INDUSTRIAL TECHNOLOGY	Thailand Electronics & Industrial Technology, TH-Bangkok as from 4th until 7th July 2002 Booth: Virtus Company Ltd.	STI 2002	STI 2002, B-Heyzel-Bruxelles as from 17th until 20th September 2002 Booth: ATB n.v. B-1600 Sint-Pieters-Leeuw
STEINEXPO	STEINEXPO, D-Homburg as from 4th until 7th September 2002 Booth: ROSTA GmbH D-58332 Schwelm	TECNOARGILLA	Tecnoargilla, I-Rimini as from 1st until 5th October 2002 Booth: ROSTA S.r.l. c/o GMM, Spa I-20156 Milano
TECHNISCHE MESSE	Technische Messe, CZ-Brno as from 16th until 20th September 2002 Booth: RUPET Int. s.r.o. CZ-253 01 Hostivice	SWISS tech	SWISSTECH, CH-Basel as from 19th until 22nd November 2002 ROSTA AG exhibits: Hall 2, 1st floor, Booth C22

Tensioning Device Type KSE (dimensions)

Typ	grooves (X)	RPM max/min ⁻¹	F max. in N	s max. in mm	A	B	ØC	Dw	E	G	H	I	weight in kg
KSE 18-SPZ	1-groove	10 000	350	50	42	12	58	63	79	100	28	M10	0.9
KSE 18-SPZ	2-grooves	10 000	350	50	48	12	58	63	79	100	35	M10	1.2
KSE 18-SPZ	3-grooves	10 000	350	50	42	12	58	63	79	100	40	M10	1.3
KSE 27-SPA	1-groove	7 400	800	65	64	15	78	90	108	130	36	M12	2.6
KSE 27-SPA	2-grooves	7 400	800	65	71	15	78	90	108	130	45	M12	3.2
KSE 27-SPA	3-grooves	7 400	800	65	67.5	15	78	90	108	130	60	M12	3.5
KSE 27-SPB	1-groove	5 300	800	65	66.5	19	78	125	108	130	36	M12	4.2
KSE 27-SPB	2-grooves	5 300	800	65	68	19	78	125	108	130	55	M12	5.7
KSE 38-SPB	3-grooves	4 000	1500	87.5	94	19	95	125	140	175	63	M16	8.1



Represented by:



Publisher:
ROSTA AG, Hauptstrasse 58
CH-5502 Hunzenschwil
Phone: +41 062 897 24 21
Telefax: +41 062 897 15 10
E-Mail: info@rosta.ch
Internet: <http://www.rosta.ch>

Copyright by ROSTA AG
Edition: d/f/e 10 000 Ex.
No 2/2002