

NEW PRODUCT!

ROSTA Rubber Suspension Elements DW-A 45/50 with cast housings



Customer benefits

- **rapid assembly (without additional clamps)**
- **impact-resistant cast construction**
- **resistance to corrosion**
- **maintenance free**
- **dirt resistant**
- **long service life**
- **multifunctional**

The DW-A 45/50 ROSTA rubber suspension elements with nodular cast housings are not only outstandingly suitable for the bedding of seesaws in children's playgrounds. Although the almost indestructible spherically moulded model is almost obligatory here due to the „rough handling“ that is, unfortunately, often the case, it was primarily designed for use in industry and mechanical engineering. The standard rubber spring elements are very suitable as robust torsion bearings for various mounted parts in mechanical engineering, such as:

- Compression and guide rollers in processing lines
- Baffle plates and impact plates in roller transport systems
- Suspension of support rollers in belt conveyor units

- The self-aligning bearings of brushes in car washing systems
- Torque converter bearings for slip-on gear mechanisms
- Pendulum joints for unbalanced mass vibration motors
- Pressure elements for agricultural machinery (e.g., compression rollers in sowing machines)



The rubber spring elements Types DW-A 45 x 100, 50 x 120 and 50 x 200 can be delivered ex stock: it goes without saying that these three spherically moulded external parts can, on request, also be combined with our square socket profile -S = steel pipe and -C = aluminium profiles with a hole drilled through the centre. The dimensional tables of these three new ROSTA standard parts are given on the back of the information sheet.



The salmon – returned to the Upper Rhine!

This headline was recently seen in the Swiss daily press – and it was certainly good news. After more than 120 years, the noble fish that is probably the most valued of all has once again become established in Southern Germany and Northern Switzerland. But what, you may ask, has this positive news to do with ROSTA? Once described as a „river of sewage“, the Rhine has now, thanks to the environmental consciousness of the people living beside it, become so clean that the fish that was once resident here can now swim from the Atlantic Ocean up to the sources of the Rhine without suffocating in sewage!

The almost 100% clarification of the industrial and domestic waste water along the Rhine has certainly been the basis for the return of the salmon, which, in the first half of the 19th century, was still regarded as an important basic food for the lower social classes along the Upper Rhine! Although the polluted waters of „Father Rhine“ certainly played their part in preventing the salmon from swimming up the river, it was, however, electrification that made the return to its spawning grounds impossible. The countless hydroelectric power stations with their metre high dams became an impassable obstacle for this noble fish. After only a few years of intensive barrage power station construction, the salmon was shut out from the Upper Rhine. The fish ladders that were carefully erected by the electrical power industry were of little help - after the third, or at the latest the fourth high jump onto the cement stages of the dam wall, the muscular body of the fish was shattered.

Several years ago, the Brun Mechanik Company, one of the leading manufacturers of lifts in Switzerland, was entrusted by animal protection organisations with the task of designing and constructing automatic fish lifts. Figure 1 shows the prototype for the lift, which has been conveying salmon over an 8 metre high dam to their spawning grounds into the higher level of the river on the Rhine tributary „Birs“ for more than 5 years.

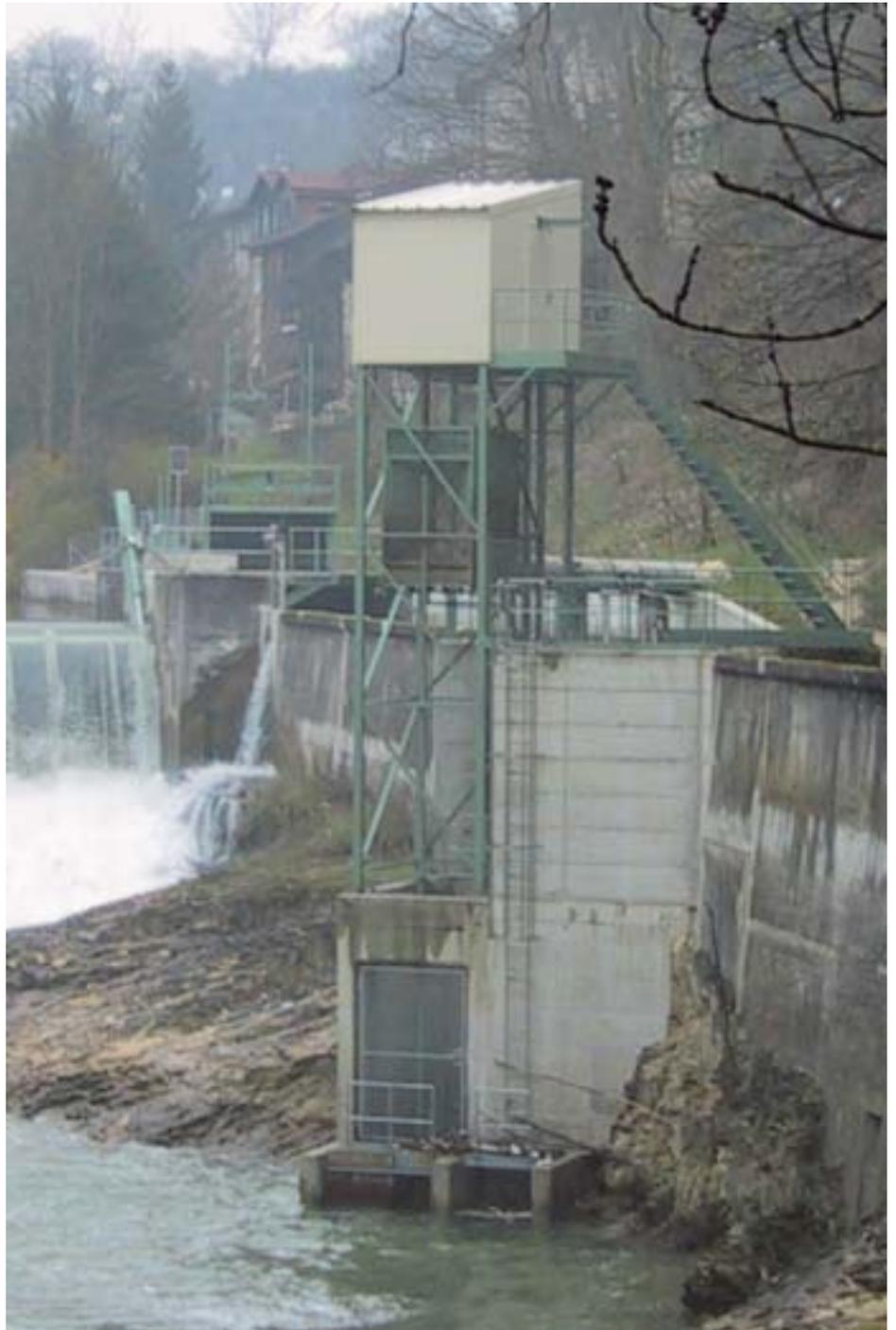


Figure 1



Figure 2

But how on earth do you persuade a fish to use the lift?

The „lift cabin“ of the fish lift is, of course, a kind of mesh fish trap that empties as it is lifted, so that tons of water do not have to be raised. Attracted by the flow of fresh water from the upper level of the river, the salmon swims into the open „mesh cage“. A movement sensor registers the fish that have swum into the cage, and causes the mesh gate to close. The cage is then lifted to the top of the dam wall by means of the usual winching concept, where the grating is opened again and the fish are transported through a thick pipe and on their way to their spawning grounds with the inflowing fresh water: see Fig. 2.

What has ROSTA contributed to this „fish repatriation“?

The precise guidance of the mesh-cage cabin, which is continually immersed in water and is exposed to all weather conditions, presented the Brun engineers with a problem. It was not possible to guide the „cage“ in this rough but cost-effective double-T shaft construction using the standard spring rollers, which could only

compensate for a few millimetres of deviation in alignment. The characteristics of the indestructible ROSTA rubber spring elements offered the ideal solution here! At each of the eight corners of the mesh cabin, three pretensioned Type DR-C 38 x 120 rubber spring elements, fitted with guide rollers, provide the necessary support pressure, on which the cage can „float“ up and down within the shaft: see Fig. 3.

In the meantime, a good dozen of these well-functioning fish lifts have been installed on the Upper Rhine. The ROSTA guides have proved themselves well in this „rough“ application. This pressure roller concept for „conveying baskets“ is nothing new for ROSTA, however: for many years now, similar concepts have existed in the mining industry, in which pre-tensioned rubber spring elements in the poorly aligned shafts are used to guide passenger lifts and conveyor baskets into the depths in a more „cultivated“ manner; see Fig. 4.



Figure 3

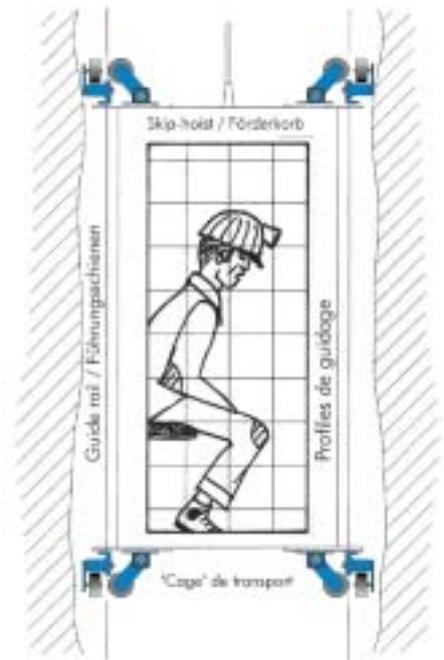


Figure 4

Editor: Peter Schmid, ROSTA AG
Photos: Bernhard Fasler, ROSTA AG

Exhibition participation of ROSTA in fall '02 / spring '03



Canadian Manufacturing Week
as from 24th until 26th Sept. 2002
Booth: ROSTA Inc.
CA-Uxbridge, Ontario L9P 1S9



PACK-IMA, IT-Milano
as from 4th until 8th March 2003
Booth: ROSTA S.r.l.
IT-20156 Milano



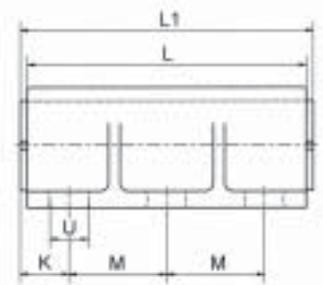
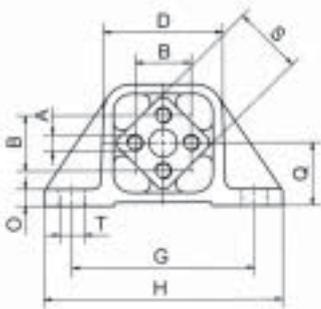
Electra Mining, SA- Johannesburg
as from 30th Sept. until 4th Oct. 2002
Booth: Bearing Man Ltd.
SA-4001 Durban



Hanover Fair, DE-Hanover
as from 7th until 12th April 2003
Booth: ROSTA AG
CH-5502 Hunzenschwil

Rubber Suspension Element Type DW-A 45/50 (dimensions)

Art-No.	Type	Torque M in Nm at 5°-30°	L	L1 ^{0,3}	A	B	D	G	H	K	M	O	Q	S	T	U	Weight in kg
01 101 015	DW-A 45 x 100	34,5 - 400	100	110	Ø12	35 ^{±0.5}	78	115	145	22.5	58	8	41	45	13	20	2.9
01 101 013	DW-A 50 x 120	50 - 750	120	130	M12x40	40 ^{±0.5}	87	130	170	35	58	12	45	50	17	27	3.7
01 101 014	DW-A 50 x 200	70 - 1350	200	210	M12x40	40 ^{±0.5}	87	130	170.5	35	58	12	45	50	17	27	6.1



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