



**TÜNKERS®**  
PILE-DRIVING AND EXTRACTING TECHNOLOGY

# SHOCK ABSORBERS



**Highly effective shock absorbers for carrier units for use with vibration drivers, sensitive loads and shock-sensitive goods.**





# SHOCK ABSORBERS



Positioning of steel piles for the construction of bridges in Sao Paulo, Brasil

## CONVINCING ADVANTAGES

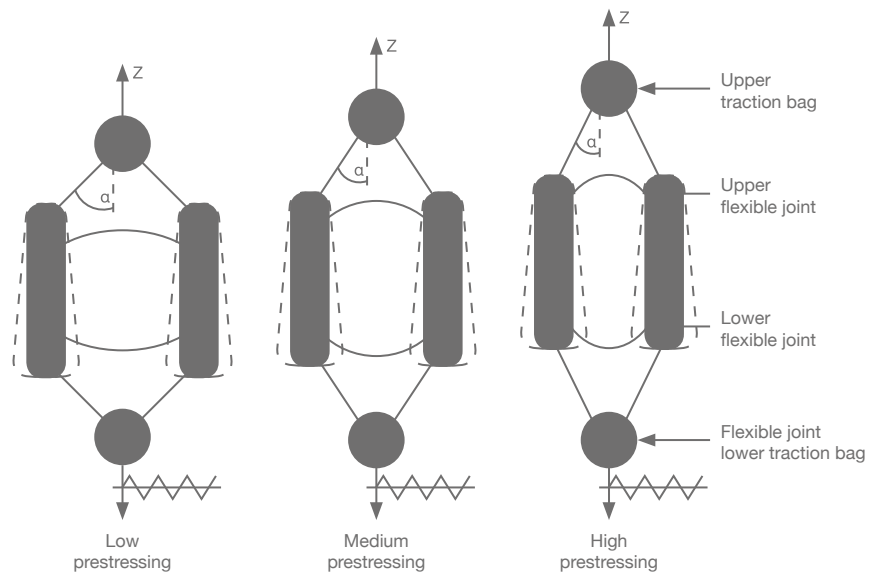
- The shock absorber reduces the highly dynamic alternating forces generated by the pile-driving and extracting equipment.
- As a result, damage to the excavator or crane used as a carrier unit is prevented.
- By combining a special heat-resistant hollow rubber spring with a simple but effective articulated construction an efficient insulation against vibrations is achieved.
- Absolute safety, even under heavy-duty conditions, is guaranteed by a double-sides suspension device, special shackles and the self-cantering, not bendable hollow rubber spring.
- Versatile usability for pile-driving and extracting purposes goes without saying.
- The shock absorber is also ideally suitable for transport shock-sensitive goods.

## EFFECTIVE MODE OF ACTION

The vibro-insulating function is taken over by the horizontally arranged and pressurized hollow rubber spring.

With growing tractive force the angles  $\alpha$  are reduced, decreasing by that way the pressure stress of the hollow rubber spring proportionally to the tractive force. From the practical perspective it is possible to introduce high tractive forces (high prestressing forces with heavy tractive work) into the pile-driving and extracting equipment without overloading the hollow rubber spring.

Simultaneously with the stretching and retracting work of the hollow rubber spring, a swinging movement of the lateral pressure plates around the upper flexible joints is ensured, due to the geometrically arranged cable lines. Even with maximal tractive stress, the vertical swinging introduced by the pile-driving and extracting equipment is absorbed and not transmitted into the tractive cable of the carrier unit.



Shock absorber	Typ	SD 20	SD 30	SD 70	SD 130	SD 180
Max. admissible prestressing	kN	120	160	250	500	800
Height	mm	1070	1090	1550	2100	2370
Width	mm	670	730	840	1060	1170
Weight approx.	kg	155	200	325	750	900