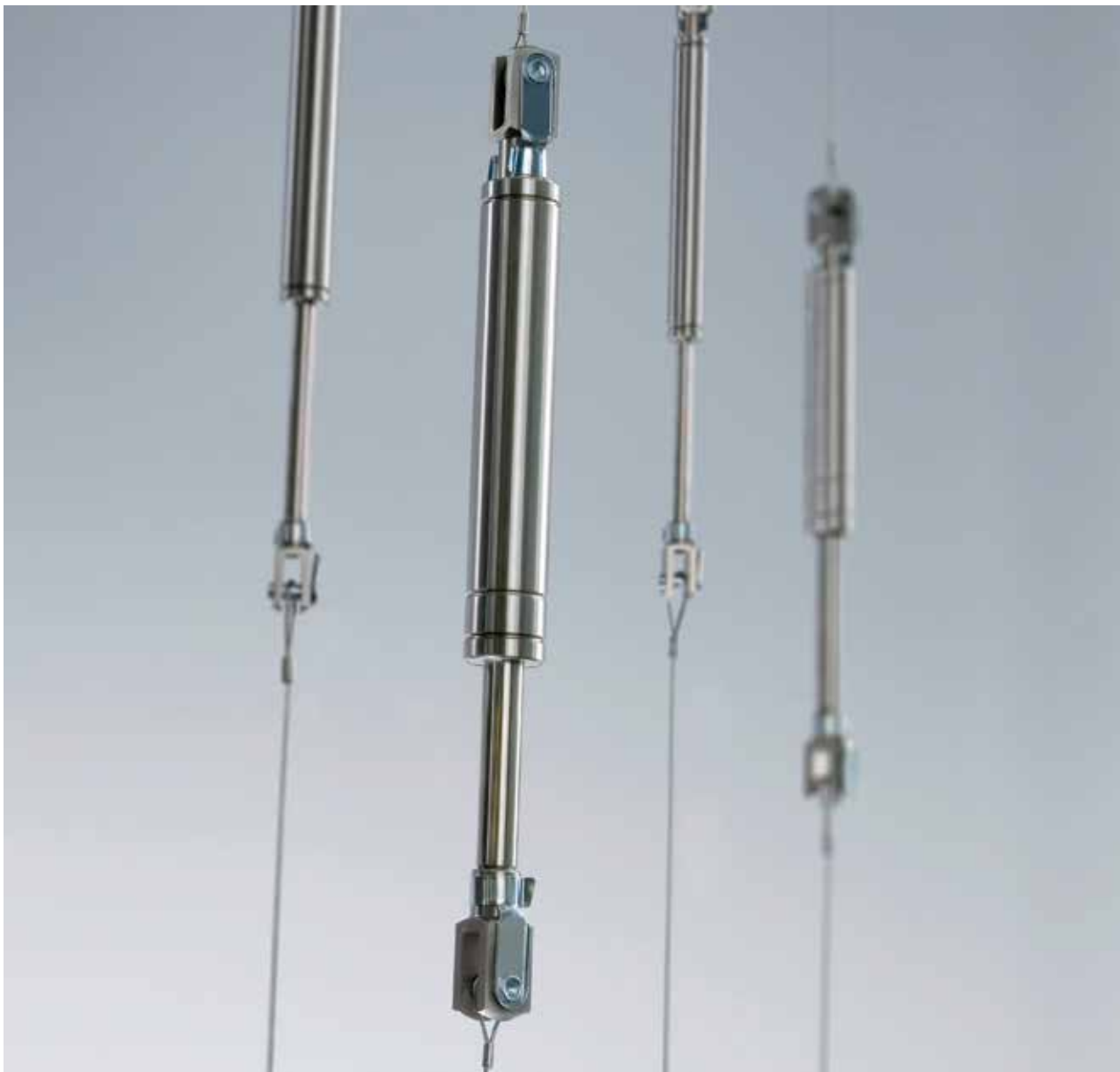


The right offer  
for every requirement:  
**the new IndustryLine.**





**Stabilus IndustryLine tension springs are used for all applications where normal gas springs cannot be used for lack of space.**

Tension springs work in the opposite way to gas springs. The gas pressure in the cylinder pulls the piston rod towards the inside. The spring force  $F_1$  results from the internal pressure in the cylinder, which is generated by the filling medium nitrogen. In the tension spring, the piston ring area between the piston rod and the inside cylinder diameter is decisive. When no load is applied, the piston rod is always compressed. The tension springs of series 'Z' have no damping. Series ZD is available with damping.

Stabilus IndustryLine tension springs are available in steel, AISI 303/304 and AISI 316L /316Ti.



Experienced engineers and technicians support you in implementing your projects, and develop optimum solutions.

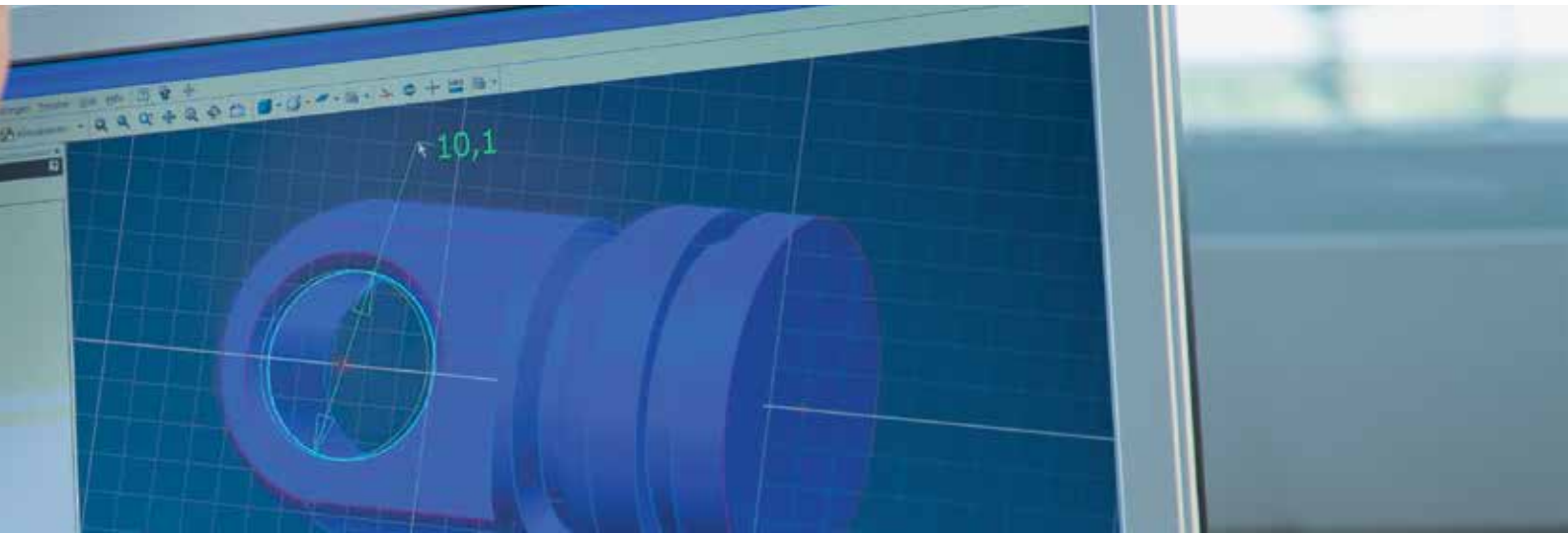


#### Product range of the STABILUS IndustryLine tension springs

Type	Ø Rod	Ø Cylinder	Stroke	Standard length	Tension force	Progression
Z 04-15	4 mm	15 mm	20–200 mm	2 x stroke + 63	50–300 N	22 %
Z 06-19	6 mm	19 mm	30–400 mm	2 x stroke + 100	30–350 N	29 %
Z 10-28	10 mm	28 mm	60–600 mm	2 x stroke + 100	150–1200 N	20 %
Z 10-40	10 mm	40 mm	10–590 mm	2 x stroke + 150	200–2000 N	78 %
Z 28-40	28 mm	40 mm	50–700 mm	2.5 x stroke + 125	500–5000 N	40 %

#### Tension spring with damping

Type	Ø Rod	Ø Cylinder	Stroke	Standard length	Tension force	Progression
ZD 10-28	10 mm	28 mm	20–600 mm	3 x stroke + 90	100–1200 N	36 %



Thread rod	Thread cylinder	Extras	Steel	AISI 303/304	AISI 316L/316 Ti
M3.5	M3.5	–	•	–	•
M5	M5	4, 6, NT	•	•	•
M8	M8	2, 4, 6, NT, HT	•	•	•
M14x1.5	M14x1.5	4, 6	•	•	•
M14x1.5	M14x1.5	2, 6	•	•	o/r

Thread rod	Thread cylinder	Extras	Steel	AISI 303/304	AISI 316L/316 Ti
M8	M8	4, 6	•	o/r	o/r