

Use


The TS 11 series compensated spring systems are recommended for the horizontal handling of objects at different levels. The spring function also ensures that the gripping points are applied on the same plane when gripping with multiple suction pads.

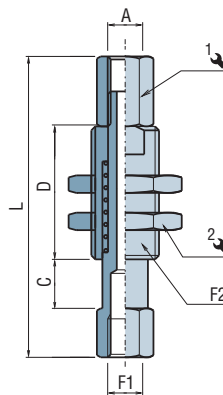
- Internal spring.

Materials

Spring	Stainless steel
Tubing	Zinc-plated steel
Slider	Brass

Characteristics

References	A (mm)	F1 (mm)	F2	C (stroke) (mm)	D (mm)	L (mm)	1 (mm)	2 (mm)	Spring force (N/mm)	Force at rest (N)	 (g)
TS11 7	M5	M5	1/8G	7	19	43	7	14	0.68	1.3	20
TS11 10	M5	M5	1/8G	10	22	49	7	14	0.45	1.8	22
TS11 20	M5	M5	1/8G	20	39	76	7	14	0.24	1.7	33
TS11 40	M5	M5	1/8G	40	64	121	7	14	0.13	1.6	50



TS 11

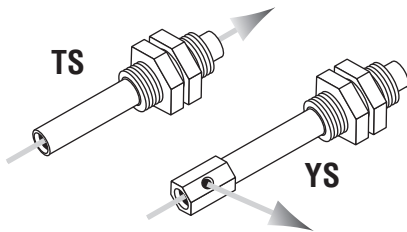
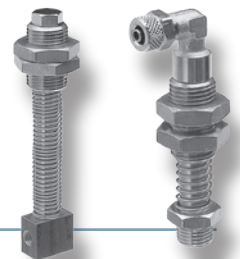
Suction pad mounting

To choose the spring system corresponding to the reference of the suction pad, see the assembly diagrams on pages 2/15 to 2/21.

The TS 11 series spring system can be fitted on all suction pads in group 1 (VP, VSA, VS Ø5 to 25mm) for IM21 and on suction pads in series VPG 5 to 20.

For all orders, please specify:

The reference in the characteristics table



Use

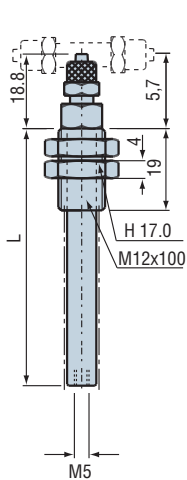
TS and YS series compensated spring systems are recommended for the horizontal handling of parts at different levels. The spring function also ensures that the gripping points are applied on the same plane when gripping with multiple suction pads.

Materials

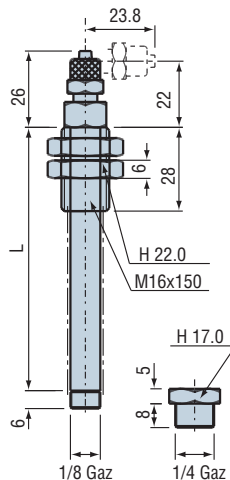
Spring	Stainless steel
Tubing	Zinc-plated steel
Slider	Brass

Characteristics

Models	TS1				TS2				TS3				TS1.20 LG		YS1			
Stroke (mm)	05	10	20	30	10	30	50	70	10	30	50	70	20	5	10	20	30	
L (mm)	29	39	59	79	48	88	128	168	48	88	128	168	59	29	39	59	79	
Spring force (N/mm)	0.36	0.15	0.07	0.045	0.9	0.2	0.115	0.08	0.9	0.2	0.115	0.08	0.07	0.36	0.15	0.07	0.045	
Force at rest (FR)	1.00	1.70	1.45	2	8.1	4.2	4.5	4.5	5.1	4.2	4.5	4.5	1.45	1.00	1.70	1.45	2	

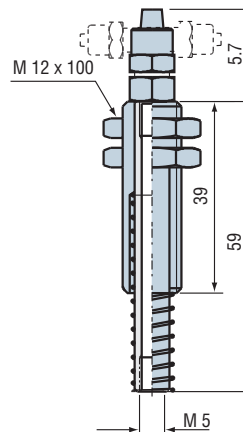


TS1

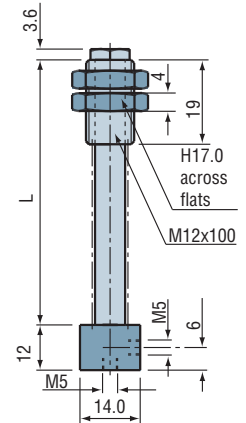


TS2

TS3



TS1.20LG



YS1

Advantage of the TS 120 LG

The adjustment height is twice that of the standard TS1 spring system and its spring is protected.

Suction pad mounting

To choose the spring system corresponding to the reference of the suction pad, see the assembly diagrams on pages 2/15 to 2/21.

For all orders, please specify:

Model + Spring stroke + Fitting

1: Model	2: Spring stroke
TS1	05 - 10 - 20 - 30 TS1, YS1
TS2	10 - 30 - 50 - 70 TS2, TS3
TS3	
YS1	

3: Fittings (for TS series)		
D46	Straight 4 x 6	TS1, TS2, TS3
D68	Straight 6 x 8	TS2, TS3
C46	Elbow 4 x 6	TS1, TS2, TS3
C68	Elbow 6 x 8	TS2, TS3
T46 ⁽¹⁾	T-shape 4 x 6	TS1
N ⁽²⁾	Without fitting	

(1) versions T46 and T68 on request for TS2 and TS3.
 (2) For TS1 model, vacuum connection M5F and for models TS2 and TS3 vacuum connection M 1/8G

E.g. **TS3 50 C46**

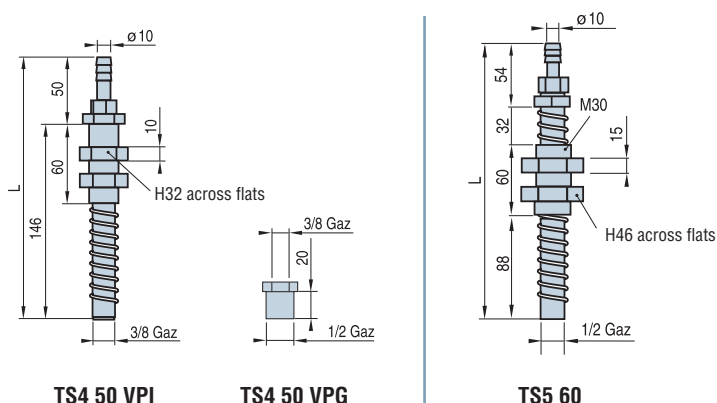
(TS3 spring system, Spring stroke 50mm, elbow fitting 4 x 6)

Characteristics

Models	TS4 50	TS5 60
Stroke (mm)	45	60
L (mm)	196	234
Spring force (N/mm)	0.47	1.23
Force at rest (FR)	4	0

Materials

Spring	Stainless steel
Tubing	Zinc-plated steel
Slider	Brass

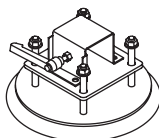


RSC series

Systems with 4 compensated springs

Materials

Spring	Stainless steel
Damper	Stainless steel
Studs	A 60
Colour	Yellow RAL 1023

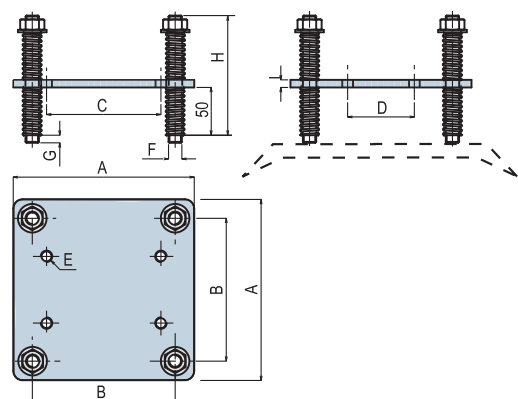


Use

The system of 4 compensated springs is particularly recommended for horizontal handling requiring large diameter suction pads. The upper stainless steel springs act as dampers for all vertical movements. They compensate for different levels between the suction pads. The system of 4 compensated springs mounted in a square gives the assembly a ball-joint effect.

Characteristics

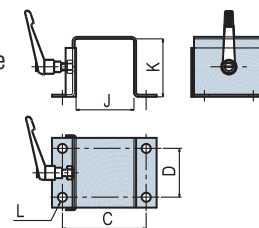
Models	Max. load (DaN)	Stroke under traction (mm)	Vertical force (DaN)	Max. weight at half-way point (kg)	Ball-joint angle	Tube mounted (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)
RSC1	200	30	16	1	10 °	50	140	106	88	50	M8	M10	8	120	5	52	52	9
RSC2	400	30	34	2.7	10 °	80	190	150	120	70	M12	M14	8	130	8	83	83	13



RSC option... VAC

Square tube mounting options (Tightening by indexable lever).

- RSC1 VAC on 50mm square tube.
- RSC2 VAC on 80mm square tube.



For all orders, please specify:

Model + Type + Tube mounting option

1: Model	2: Type	3: Tube-mounting option
RSC	1 max. 200 daN	VAC with tube-mounting option
	2 max. 400 daN	

Note:

- RSC1: for SPL 240 suction pads, 5085 steel suction pads, VA 250, VA 280 and VA 320.
- RSC2: for SPL 340 suction pads, 5150 steel suction pads, VA 350, VA 380 and VA 410.

E.g. **RSC 2 VAC**

(RSC type spring system, max. 400 daN with 80mm square tube mounting option).