



TS series compensated spring systems are recommended for 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 cups.

#### Materials

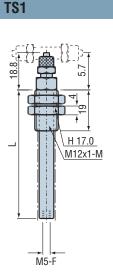
Spring	Stainless steel
Tubing	Zinc-plated steel
Slider	Brass

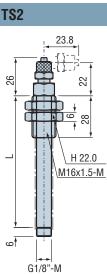
Characterist	ics													
Models	TS1				TS2				TS3				T\$1.20 LG	
Stroke	05	10	20	30	10	30	50	70	10	30	50	70	20	
L	29	39	59	79	48	88	128	168	48	88	128	168	59	
k (N/mm)	0.36	0.15	0.07	0.045	0.9	0.2	0.115	0.08	0.9	0.2	0.115	0.08	0.07	
Frep (N)	1.00	1.70	1.45	2	8.1	4.2	4.5	4.5	5.1	4.2	4.5	4.5	1.45	

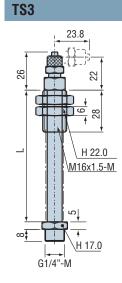
Note: All dimensions are in mm

**k** = Spring stiffness

Frep = Force at rest







M12 x 1-M

TS1.20 LG

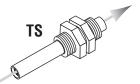
Please specify the part n° e.g.: Model + Spring stroke + Fitting e.g.: TS350C46									
1: Model	2: Spring stroke		3: Fitti	ngs (for TS series)					
TS1	05 - 10 - 20 - 30	(TS1)	D46	(Straight 4 x 6 - TS1, TS2, TS3)					
TS2	10 - 30 - 50 - 70	(TS2, TS3)	D68	(Straight 6 x 8 - TS2, TS3)					
TS3			C46 (Elbow 4 x 6 - TS1, TS2, TS						
			C68	(Elbow 6 x 8 - TS2, TS3)					
			<b>T46</b> <sup>1</sup>	(T-shape 4 x 6 - TS1)					
			N <sup>2</sup>	(Without fitting)					

Advantage of the TS120LG The adjustment height is twice that of the standard TS1 spring system and its spring is protected.

(1) versions T46 and T68 on request for TS2 and TS3.

(2) For TS1 model, vacuum connection M5-F and for models TS2 and TS3 vacuum connection G1/8"-M.





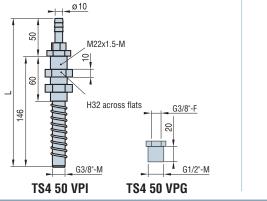


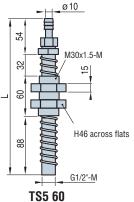


Characteristics									
Models	TS4 50	TS5 60							
Stroke	45	60							
L	196	234							
k (N/mm)	0.47	1.23							
Force at rest (N)	4	0							
$\mathbf{k} = Spring stiffness$									

# Materials

SpringStainless steelTubingZinc-plated steelSliderZinc-plated steel





Note: All dimensions are in mm



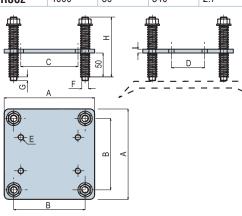
# Use

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

### Materials

SpringStainless steelDamperStainless steelStudsA 60ColourYellow RAL 1023

Characteristics																		
Models	Max. load (N)	Stroke under traction	Vertical force (N)	Maxi. weigth (kg)	Ball-joint angle	Tube mounted	A	В	C	D	E	F	G	Н	I	J	к	L
RSC1	2000	30	160	1	10 °	50	140	106	88	50	M8-F	M10-M	8	120	5	52	52	9
RSC2	4000	30	340	2.7	10 °	80	190	150	120	70	M12-F	M14-M	8	130	8	83	83	13



# **RSC** option...VAC

Square tube mounting options (Tightening by indexable lever).

RSC1 VAC on 50 mm square tube.

RSC2 VAC on 80 mm square tube.

Note: All	dimensions	are in mm

### Note:

- RSC1: for SPL 240 suction cups, 5085 steel suction cups.
- RSC2: for SPL 340 suction cups, 5150 steel suction cups.

Please specify the part: Model + Type + Tube mounting option e.g.: RSC2VAC										
1: Model 2: Type			3: Tube-mounting option							
RSC	1	max. 2000 N	VAC	with tube-mounting option						
ROU	2	max. 4000 N	VAC							

