

# Series VTCL bellows suction pads (round) - 1,5 folds

Series VTCL bellows suction pads available in NBR or Silicone which allow an optimal damping when placed on the workpiece. Diameters from 11 to 53 mm with thread size M5, G1/8, G1/4, both male and female.



Series VTCL bellows suction pads (1,5 folds) have a rugged design and consist of a nipple and rubber part.

The nipples are inserted directly into the rubber part.

The rubber parts can also be ordered separately without nipples as spare parts.

Materials: NBR or Silicone

Applications:

- Handling of even or uneven workpieces such as panels for car bodies, tubes, cardboard boxes
- Handling of fragile workpieces such as electronics components, injection moulded pieces, etc
- Handling of welded pieces
- Silicone version for handling high temperatures pieces

- » Wide range of diameters, available in NBR or Silicone.
- » Soft, tapered sealing lip for very good adaption to curved or uneven workpiece surfaces in general.
- » High suction force and optimal damping when placed on the workpiece.
- » Support on the bottom to avoid permanent deformation of the workpiece.
- » Very stiff top fold for good stability and good resistance towards transversal forces at high accelerations.
- » Good compensation of possible height differences on the workpiece.
- » Optimised shape with 1,5 folds.

## GENERAL DATA

<b>Description</b>	wear resistant suction pad consisting of rubber part VTCL with 1,5 folds and connection nipple
<b>Construction</b>	nipples and suction pads are supplied not pre-assembled
<b>Maintenance</b>	it is possible to replace the rubber part
<b>Working temperature</b>	NBR version: -30°C + +120°C (for short time <30 sec.); -10°C + +70°C (long-term) SILICONE version: -50°C + +220°C (for short time <30 sec.); -30°C + +180°C (long-term)

**TECHNICAL DATA**

Mod./Diameter	Suction force (N)*	Pull-off force (N)* (convex)	Volume (cm <sup>3</sup> )	Min. curve radius (mm)	Recommended internal tube diam. (mm)
VTCL-110	0,95	3,8	0,225	5	4
VTCL-140	1,2	5	0,42	6	4
VTCL-160	2,3	6,7	0,75	7	4
VTCL-200	4,7	10,7	1,15	9	4
VTCL-250	7,3	17,3	3,15	11	4
VTCL-330	13,6	39,6	4,75	15	6
VTCL-430	22,8	64,5	9,25	30	6
VTCL-530	51,3	95	26,25	40	6

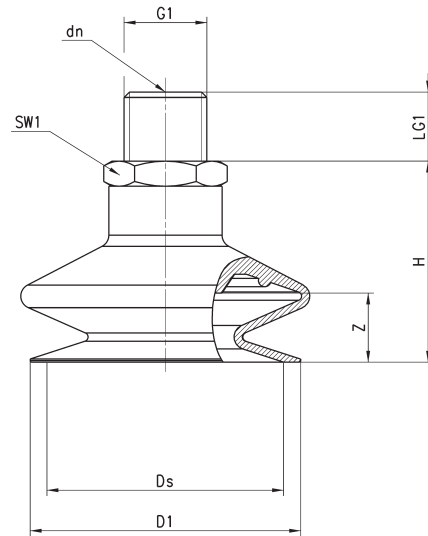
**CODING EXAMPLE**

<b>VT</b>	<b>C</b>	<b>L</b>	<b>-</b>	<b>110</b>	<b>N</b>	<b>-</b>	<b>M5</b>	<b>M</b>
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<b>VT</b>	SERIES VT = Suction pad
<b>C</b>	SHAPE C = round
<b>L</b>	VERSION L = bellows 1,5 folds
<b>110</b>	DIAMETERS 110 = 11,0 mm 140 = 14,0 mm 160 = 16,0 mm 200 = 20,0 mm 250 = 25,0 mm 330 = 33,0 mm 430 = 43,0 mm 530 = 53,0 mm
<b>N</b>	MATERIALS N = NBR S = Silicone
<b>M5</b>	THREAD SIZE M5 = M5 1/8 = G1/8 1/4 = G1/4
<b>M</b>	THREAD M = male F = female

Series VTCL suction pad - male thread

\* = N for suction pad in NBR  
 S for suction pad in Silicone  
 (add the required letter when placing an order)



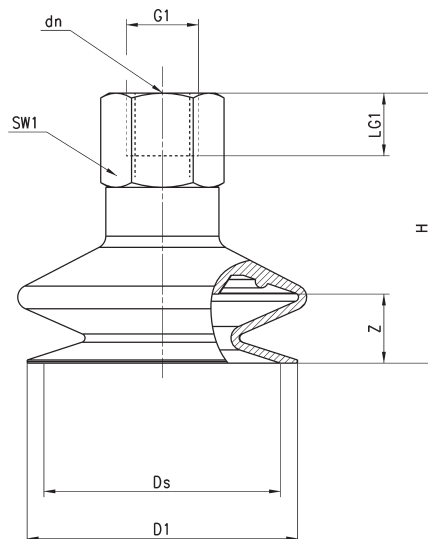
DIMENSIONS										
Suction pad with nipple	D1	dn	Ds	G1	H	LG1	SW1	Z	Suction pad	Nipple
VTCL-110*-1/8M	11	3,5	10,4	G1/8 M	22	7,5	14	4	VTCL-110*	NPV-R-1/8-M
VTCL-110*-M5M	11	2,5	10,4	M 5 M	21	5	7	4	VTCL-110*	NPV-D-M5-M
VTCL-140*-1/8M	13	3,5	12,5	G1/8 M	22	7,5	14	5	VTCL-140*	NPV-R-1/8-M
VTCL-140*-M5M	13	2,5	12,5	M 5 M	21	4,5	7	5	VTCL-140*	NPV-D-M5-M
VTCL-160*-1/8M	16,5	3,5	15,6	G1/8 M	25	7,5	14	6	VTCL-160*	NPV-R-1/8-M
VTCL-160*-M5M	16,5	2,5	15,6	M 5 M	24	5	7	6	VTCL-160*	NPV-D-M5-M
VTCL-200*-1/8M	18,3	3,5	18,1	G1/8 M	21,5	7,5	14	5	VTCL-200*	NPV-R-1/8-M
VTCL-200*-M5M	18,3	2,5	18,1	M 5 M	20,5	4,5	7	5	VTCL-200*	NPV-D-M5-M
VTCL-250*-1/8M	23,7	3,5	22,5	G1/8 M	29	7,5	14	12	VTCL-250*	NPV-R-1/8-M
VTCL-330*-1/4M	33	4,4	30	G1/4 M	31	11	17	12	VTCL-330*	NPV-S-1/4-M
VTCL-430*-1/4M	43	4,4	38	G1/4 M	32	11	17	10	VTCL-430*	NPV-S-1/4-M
VTCL-530*-1/4M	53	4,4	50	G1/4 M	38	11	17	15	VTCL-530*	NPV-S-1/4-M



Tolerances for elastomer parts according to M3 - DIN 7715

Series VTCL suction pad - female thread

\* = N for suction pad in NBR  
 S for suction pad in Silicone  
 (add the required letter when placing an order)



DIMENSIONS										
Suction pad with nipple	D1	dm	Ds	G1	H	LG1	SW1	Z	Suction pad	Nipple
VTCL-110*-1/8F	11	3,5	10,4	G1/8 F	28	8,5	14	4	VTCL-110*	NPV-R-1/8-F
VTCL-140*-1/8F	13	3,5	12,5	G1/8 F	28	8,5	14	5	VTCL-140*	NPV-R-1/8-F
VTCL-160*-1/8F	16,5	3,5	15,6	G1/8 F	31	8,5	14	6	VTCL-160*	NPV-R-1/8-F
VTCL-200*-1/8F	18,3	3,5	18,1	G1/8 F	27,5	8,5	14	5	VTCL-200*	NPV-R-1/8-F
VTCL-250*-1/8F	23,7	3,5	22,5	G1/8 F	35	8,5	14	12	VTCL-250*	NPV-R-1/8-F
VTCL-330*-1/4F	33	4,4	30	G1/4 F	42	12	17	12	VTCL-330*	NPV-S-1/4-F
VTCL-430*-1/4F	43	4,4	38	G1/4 F	43	12	17	10	VTCL-430*	NPV-S-1/4-F
VTCL-530*-1/4F	53	4,4	50	G1/4 F	49	12	17	15	VTCL-530*	NPV-S-1/4-F



Tolerances for elastomer parts according to M3 - DIN 7715)