



# Cartridges



Parker has developed a range of cartridges guaranteeing the integrity of the sealing system before and after assembly in non-threaded cavities. The compact design of the one-piece cartridges enables automation of your manufacturing process and improves the reliability of your system.

## Product Features:

- Self-centering of the cartridge in the cavity
- Push-in connection
- Designed for automation assembly process
- SAE & NSF cartridges available

## Markets:


- Industrial
- Pneumatic
- Filtration
- Semi-Conductor
- Life Science
- Automation
- Heavy Duty Truck

## Applications:

- Air
- Water
- Beverage Dispensing
- Cab Controls
- Packaging
- Labeling

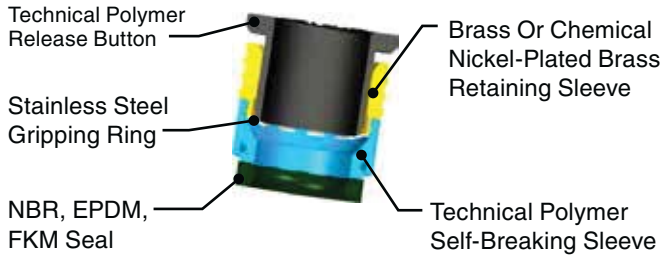
## Specifications:

	Pressure	Temperature
<b>Carstick</b>	Up to 290 PSI (20 bar)	-4° to +175° F (-20° to +79.4° C)
<b>PLM/PLS</b>	Up to 435 PSI (30 bar)	-4° to +302° F (-20° to +150° C)
<b>LIQUIfit</b>	Up to 230 PSI (15.9 bar)	35° to +200° F (+1.7° to +93.3° C)
<b>TrueSeal</b>	Up to 150 PSI (10.3 bar)	-20° to +180° F (-28.9° to +82.2° C)
<b>SAE Encapsulated</b>	Up to 250 PSI (17.2 bar)	-40° to +200° F (-40° to +93.3° C)

<b>Cartridge</b>	<b>3100</b> Carstick® Cartridge Brass  p. D6	<b>3100</b> Carstick® Cartridge Nickel-Plated Brass  p. D6	<b>6300</b> LIQUIfit Cartridge Brass  p. D8	<b>6300</b> LIQUIfit Cartridge Nickel-Plated Brass  p. D8	<b>TSC</b> Cartridge Insert  p. D10	<b>PLMC</b> Cartridge  p. D11
	<b>PLSC</b> Cartridge  p. D11	<b>PMTCE</b> Encapsulated  p. D12				

# Carstick® Cartridges

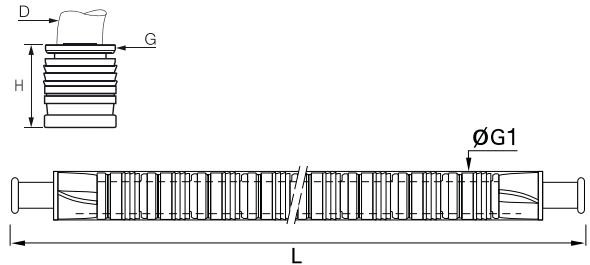
## Component Materials



### 3100 Carstick® Cartridge Brass

PART NO.	OD	G	G1	H	L	KG
3100 04 00	4	8	11	10	554	.001
3100 06 00	6	10	14.5	11.5	629	.002
3100 08 00	8	13	15	15	794	.002
3100 10 00	10	15.5	19.5	17	930	.005
3100 12 00	12	19.5	21	19.5	1038	.010

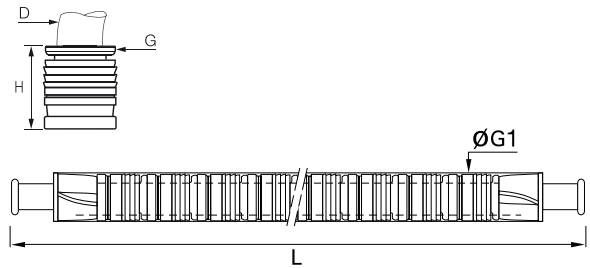
50 cartridges per Carstick®



### 3100 Carstick® Cartridge Nickel-Plated Brass Inch

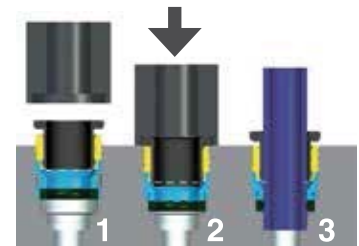
PART NO.	OD	G	G1	H	L	KG
3100 53 00 99	1/8	7	10	9	508	.002
3100 56 00 99	1/4	10.5	14.5	12	600	.003
3100 60 00 99	3/8	15.5	19	16.5	930	.006

50 cartridges per Carstick®  
5/32" (4mm) and 5/16" (8mm) also available

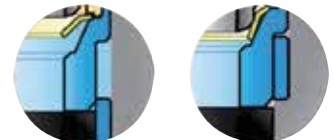


## Installation

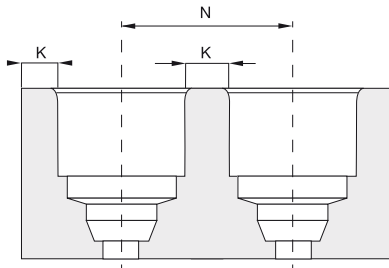
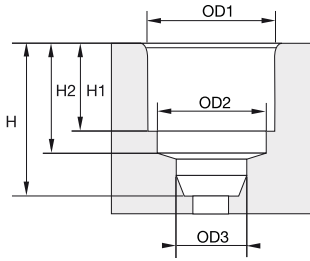
1. Self-centering of the cartridge in the cavity.
2. The seal protection is broken. The seal slides into the cavity. The cartridge is in place.
3. Tube connection.



Assembly Tool: For details on the assembly tool, please contact us.



# Carstick® Cavity Dimensions



Please consult us for detailed drawings of cavity dimensions and tolerances. All our dimensions are in millimeters.

## Carstick® & Quick Fitting Metric

CAVITY	OD3	H	H1	H2
4	4.1	10	6	8.15
6	6.1	12	7.5	9.65
8	8.15	15.5	9.9	12.45
10	10.25	19	11.7	14.35
12	12.17	22	13.9	16.75

## Carstick® Inch

CAVITY	OD3	H	H1	H2
1/8	3.25	9.5	5.3	7.45
5/32 *	4.1	10	6	8.15
1/4	6.45	12.5	8	10.15
5/16 *	8.15	15.5	9.9	12.45
3/8	9.65	19	11.7	14.35

## Polyamide Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.05	9.8	1.5
6	10.2	9.15	12.2	2
8	12.15	10.85	14.2	2
10	14.8	13.2	16.8	2
12	17.5	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.05	6.02	8.6	1.5
5/32*	8.25	7.05	9.75	1.5
1/4	10.55	9.35	12.6	2
5/16*	12.15	10.85	14.2	2
3/8	14.8	13.1	16.8	2

## Aluminum Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.5	11.5	3
6	10.3	9.15	13.5	3
8	12.2	10.85	15.2	3
10	15.05	13.2	17.1	2
12	17.5	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.1	6.2	8.6	1.5
5/32*	8.25	7.05	11.25	3
1/4	10.6	9.35	12.65	2
5/16*	12.2	10.85	15.2	3
3/8	15.05	13.1	17.1	2

## Brass Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.05	10.25	2
6	10.25	9.1	12.25	2
8	12.2	10.85	14.25	2
10	15.05	13.2	17.1	2
12	17.65	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.1	6.2	8.6	1.5
5/32*	8.25	7.05	10.25	2
1/4	10.6	9.35	12.65	2
5/16*	12/2	10.85	14.25	2
3/8	10.05	13.1	17.1	2

\* Carstick®

\*5/32"=4mm and 5/16"=8mm

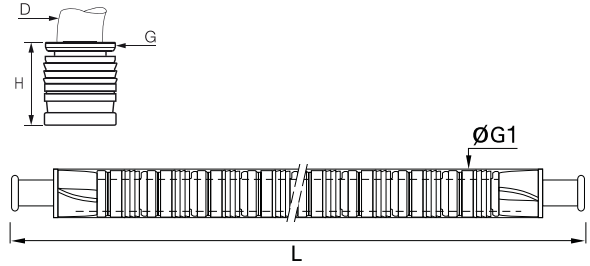
# LIQUIfit® Cartridges



## 6300 LIQUIfit Cartridge Brass

PART NO.	OD	G	G1	H	L	KG
6300 04 00	4	8	11	10	554	.002
6300 06 00	6	10	14.5	11.5	629	.002
6300 08 00	8	13	15	15	794	.003
6300 10 00	10	15.5	19.5	17	930	.005
6300 12 00	12	18.5	21	19.5	1038	.010

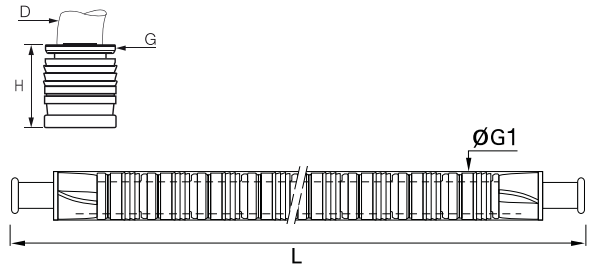
50 cartridges per Carstick®



## 6300 LIQUIfit Cartridge Nickel-Plated Brass

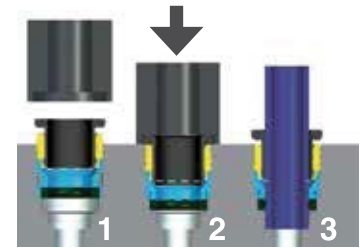
PART NO.	OD	G	G1	H	L	KG
6300 56 00	1/4	10.5	14.5	12.5	600	.002
6300 60 00	3/8	15.5	19	17	930	.005
6300 62 00	1/2	22	25	23	1038	.011

50 cartridges per Carstick®  
5/32" (4mm) and 5/16" (8mm) also available

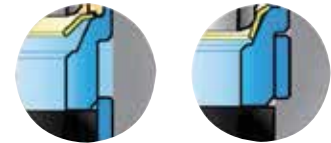


## Installation

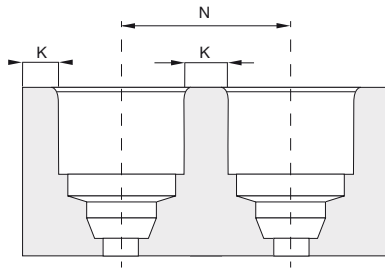
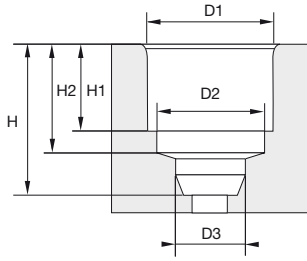
1. Self-centering of the cartridge in the cavity.
2. The seal protection is broken. The seal slides into the cavity. The cartridge is in place.
3. Tube connection.



Assembly Tool: For details on the assembly tool, please contact us.



# LIQUIfit® Carstick® Cavity Dimensions



Please consult us for detailed drawings of cavity dimensions and tolerances. All our dimensions are in millimeters.

## LIQUIfit® Carstick® Metric

CAVITY	OD3	H	H1	H2
4	4.1	10	6	8.15
6	6.1	12	7.5	9.65
8	8.15	15.5	9.9	12.45
10	10.25	19	11.7	14.35
12	12.17	22	13.9	16.75

## LIQUIfit® Carstick® Inch

CAVITY	OD3	H	H1	H2
1/8	3.25	7.45	5.3	9.5
5/32*	4.1	8.15	6	10
1/4	6.45	10.15	8	12.5
5/16*	8.15	12.45	9.9	15.5
3/8	9.65	14.35	11.7	19

## Polyamide Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.05	9.8	1.5
6	10.2	9.15	12.2	2
8	12.15	10.85	14.2	2
10	14.8	13.2	16.8	2
12	17.5	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.05	6.02	8.6	1.5
5/32*	8.25	7.05	9.75	1.5
1/4	10.55	9.35	12.6	2
5/16*	12.15	10.85	14.2	2
3/8	14.8	13.1	16.8	2

## Aluminum Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.5	11.5	3
6	10.3	9.15	13.5	3
8	12.2	10.85	15.2	3
10	15.05	13.2	17.1	2
12	17.5	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.1	6.2	8.6	1.5
5/32*	8.25	7.05	11.25	3
1/4	10.6	9.35	12.65	2
5/16*	12.2	10.85	15.2	3
3/8	15.05	13.1	17.1	2

## Brass Cavity

CAVITY	OD1	OD2	N*	K
4	8.25	7.05	10.25	2
6	10.25	9.1	12.25	2
8	12.2	10.85	14.25	2
10	15.05	13.2	17.1	2
12	17.65	15.5	20	2.5

CAVITY	OD1	OD2	N	K
1/8	7.1	6.2	8.6	1.5
5/32*	8.25	7.05	10.25	2
1/4	10.6	9.35	12.65	2
5/16*	12.2	10.85	14.25	2
3/8	10.05	13.1	17.1	2

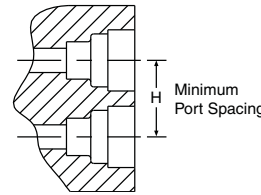
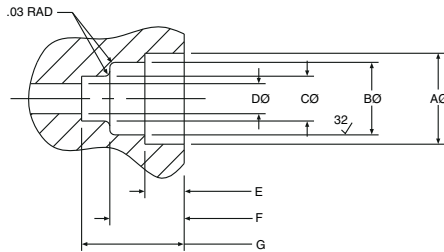
\*5/32"=4mm and 5/16"=8mm

# TrueSeal™ Cartridges



## TSC - Cartridge Insert

PART NUMBER WITH EPDM SEAL	NOM. TUBE O.D.	A* DIAMETER ±002	B DIAMETER ±003	C DIAMETER ±003	D DIAMETER MAXIMUM	E DEPTH ±002	F DEPTH ±002	G DEPTH ±002	H* CENTERLINE OF PORTS MINIMUM
ATSC4-MG	1/4	.528	.421	.260	.19	.230	.435	.600	.670
ATSC6-MG	3/8	.632	.545	.385	.31	.280	.455	.705	.790
ATSC8-MG	1/2	.774	.668	.510	.41	.315	.510	.810	1.250



### Parker TrueSeal™ Cartridge Inserts:

Allow you to machine or mold a tube connection into your equipment or components. By using cartridge inserts, you will reduce your material and assembly costs, reduce potential leak paths, and give your equipment a new, clean profile by eliminating the need for threaded connections. TSC Cartridge Inserts consist of 1 o-ring, 1 cartridge, and 1 collet.

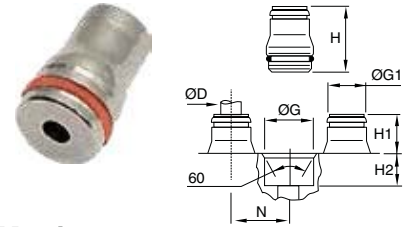
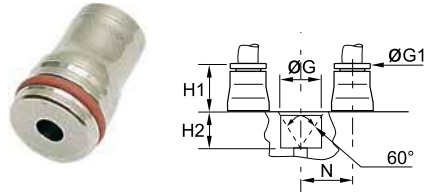
\*Cartridge inserts are rated at 150 PSI in ports dimensioned as above and having Noryl as the receiving material. Other materials may have different ratings and require different port dimensions. Consult the Fluid System Connectors Division when using polypropylene, unfilled polypropylene, ABS or Nylon.

### Assembly Instructions:

1. Machine or mold the receiving orifice as per the above dimensions.
2. Place the cartridge insert squarely onto the prepared port opening making sure that the barbs of the cartridge are going into the hole and the lettering on the face of the cartridge is visible.
3. Using a rubber mallet or press, insert the cartridge into the first gland orifice until its face is flush with the top surface of the port.
4. Insert the o-ring into the cartridge and seat it evenly into the second gland orifice.
5. Insert the collet into the cartridge opening.
6. Insert tubing.



# PLM/PLS Cartridges



## PLMC Cartridge

PART NO.	TUBE SIZE MM	G + .1 - 0	H1 MM	H2 MM	N MM
PLMC-4M	4	10.00	9.00	8.50	11.00
PLMC-6M	6	12.00	11.00	8.50	13.50
PLMC-8M	8	15.00	12.50	8.50	16.00
PLMC-10M	10	17.50	14.50	10.50	20.00
PLMC-12M	12	19.50	15.00	10.50	22.50
PLMC-14M	14	21.50	16.50	12.00	25.00

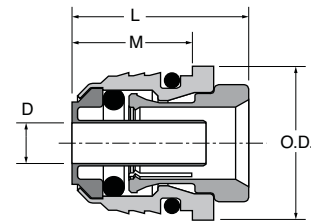
## PLSC Cartridge - Metric

PART NO.	TUBE SIZE MM	G + .1 - 0 MM	G1 MM	H MM	H1 MM	H2 MM	N MM
PLSC-4M	4	9.80	8	18.00	9.50	8.50	11.00
PLSC-6M	6	12.10	10	20.00	11.50	8.50	13.50
PLSC-8M	8	14.80	13	22.00	13.50	8.50	16.00
PLSC-10M	10	17.50	15	25.50	15.00	10.50	20.00

# PMT Cartridges

## Prestomatic SAE Encapsulated Cartridge PMCE/PMTCE

PART NO.	TUBE SIZE	CAVITY SIZE $\pm .002$	L	M	O.D.	FLOW DIA. D
PMTCE-4	1/4	.504	.64	.44	.56	.140
PMTCE-4-8	1/4	.775	.66	.42	.87	.140
PMTCE-6	3/8	.650	.84	.64	.75	.217
PMTCE-6-8	3/8	.775	.84	.64	.87	.217
PMTCE-8	1/2	.775	.98	.77	.87	.338
PMTCE-10	5/8	.925	1.07	.86	1.00	.398



NOMINAL TUBE OD (IN)	D1 (MM) $\pm .05$	D1 (IN) $\pm .002$	L1 (MM) MIN	L1 (IN) MIN	R1 (MM) $\pm .05$	R1 (IN) $\pm .002$	R2 (MM) $\pm .05$	R2 (IN) $\pm .002$	C1 (MM) $\pm .05$	C1 (IN) $\pm .002$
1/4	12.8	.504	12.7	.5	.5	.02	.5	.02	.5	.02
3/8	16.5	.65	16.5	.65	.5	.02	.5	.02	.5	.02
1/2	19.7	.775	19.8	.78	.5	.02	.5	.02	.5	.02
5/8	23.5	.925	22.4	.88	.8	.03	.5	.02	.8	.03

Cavity material is to be 6061 T6 aluminum

### Cavity Specifications

Dimensions are per the SAE Standard J2494-4. The SAE Encapsulated Cartridge is thoroughly tested to meet or exceed the performance requirements of D.O.T. FMVSS 571.106 and SAE J1131 when used in a 6061-T6 aluminum cavity per SAE J2494-4. Cavity dimensions specified by SAE J2494-4 need to be adjusted slightly for optimum performance in material other than 6061-T6.

### Installation

Apply force evenly over the top surface of the cartridge body until the cartridge shoulder bottoms out on the top of the cavity. The amount of force required will vary depending on the cartridge size and the material of the cavity.

