

# Cartridges and Customised Products





# Cartridges

## Polymer Cartridges

### Compressed Air

**3100**  
Carstick®  
Page 2-8



**3086**  
Quick Fitting  
Page 2-8



**3089**  
Quick Fitting  
Page 2-8



**3082**  
Quick Fitting  
Page 2-8



**3081**  
Quick Fitting  
Page 2-9



**3088**  
Quick Fitting  
Page 2-9



**3100 - Inch**  
Carstick®  
Page 2-8



### Fluids and Gases

**6300**  
Carstick® LIQUIfit®  
Page 2-10



**6300 - Inch**  
Carstick® LIQUIfit®  
Page 2-10



## Metal Cartridges

### Fluids and Gases

**3600**  
Page 2-13



**3800**  
**3900**  
Page 2-13



**TL**  
Page 2-13



**TLT**  
Disconnection  
Tool  
Page 2-13



# Polymer Cartridges: LF 3000® and LIQUIfit® Carstick®, Quick Fitting

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

## Product Advantages

- Time-Saving**
  - No thread to be machined for inserting the fitting into its cavity
  - Seal pre-assembled, greased and protected
  - Self-centring of the cartridge in the cavity
  - Product protected against contamination, from manufacture to installation
  - Possible to have several diameters of tube in the same cavity (Quick Fitting)
- Proven Technology**
  - Technical performances of the LF 3000®
  - Push-in connection
  - Full flow
  - Optimum flow at pressure and vacuum
  - LIQUIfit® Carstick® compatible with drinking water and food fluids
- Automated Installation**
  - Ensures that the product will be correctly assembled
  - Connection fully integrated in the cavity
  - Carstick® packaging designed for an automatic assembly process



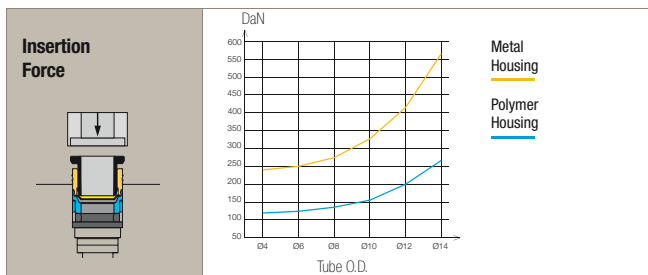
**Applications**

- Robotics
- Automotive Process
- Pneumatics
- Semi-Conductors
- Water & Beverage
- Packaging
- Vacuum

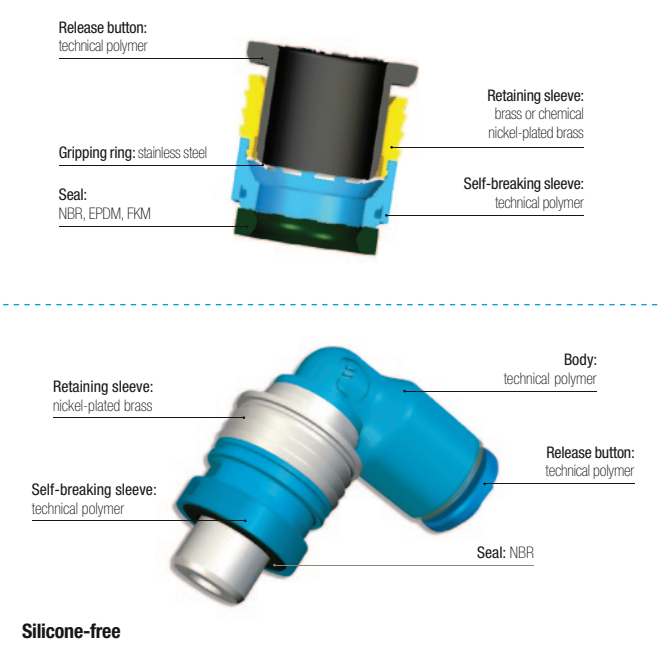
## Technical Characteristics

	LF 3000® Carstick® and Quick Fitting	LIQUIfit® Carstick®
<b>Compatible Fluids</b>	Compressed air	Food fluids, inert gases
<b>Working Pressure</b>	Vacuum to 20 bar	Vacuum to 16 bar*
<b>Working Temperature</b>	-20°C to +80°C	-10°C to +95°C*

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used. Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum). \*The pressure / temperature information is shown in Chapter 1, in the "LIQUIfit®" section.



### Component Materials



**Silicone-free**

### Regulations

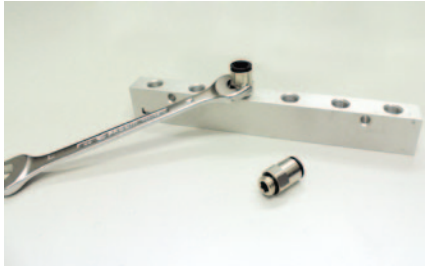
- |  |   |  |
|--|---|--|
| <p><b>LF 3000® Carstick® and Quick Fitting</b><br/> <b>ISO 14743:</b> Pneumatic fluid power, push-in fittings for thermoplastic tubes<br/> <b>DI:</b> 2002/95/CE (RoHS), 2011/65/CE<br/> <b>DI:</b> 97/23/CE (PED)</p> | <p><b>LIQUIfit® Carstick®</b><br/> <b>RG:</b> 1935/2004/CE<br/> <b>FDA:</b> 21 CFR 177.1550<br/> <b>NSF</b> 51 to 95°C<br/> <b>ACS</b><br/> <b>DM</b> 174 (Italy)</p> | <p><b>DI:</b> 2002/95/CE (RoHS), 2011/65/CE<br/> <b>DI:</b> 97/23/CE (PED)<br/> <b>WRAS</b><br/> <b>NSF/ANSI 61 - C HOT</b><br/> <b>KTW:</b> cartridges on request</p> |
|--|---|--|

# Assembly Options

Cartridge solutions quickly pay for themselves when they enable production to be rationalised:

## Threaded Fittings

**For small quantities or non-standard assembly operations:**  
The threaded solution remains the most advantageous.



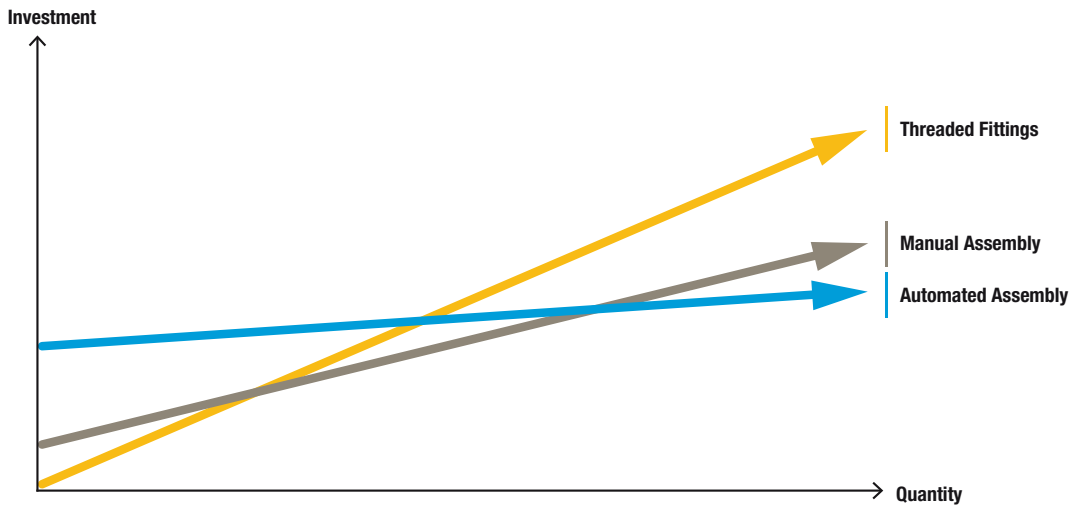
## Carstick®: Manual Assembly

**For medium quantities:**  
Assembly by manually-operated press offers the most economic solution.



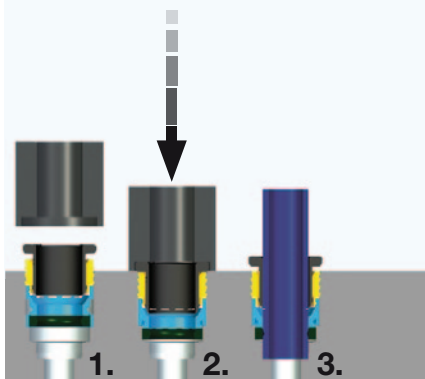
## Carstick®: Automated Assembly

**For repetitive operations and large quantities:**  
Investment in an automated manufacturing solution is quickly recovered, providing significant long-term savings.

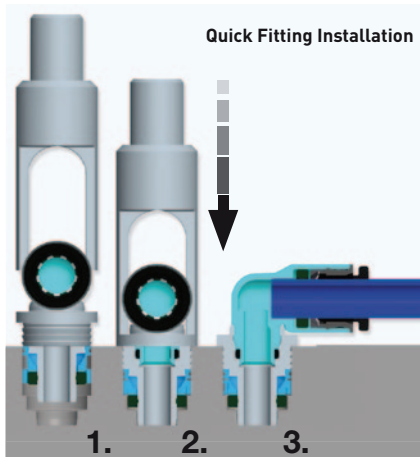


## Installation

### Carstick® Installation



### Quick Fitting 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.


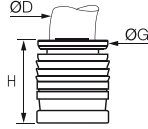

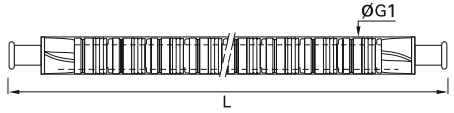


**Assembly tool:**  
For details on the assembly tool, please contact us.




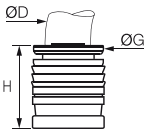

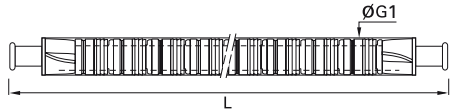
# Polymer Cartridges for Compressed Air

## 3100 Carstick® Cartridge


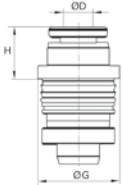

	Brass, NBR 	$\varnothing D$ 	<b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>
		4 <a href="#">3100 04 00</a>	8 11 10 554 0.001
		6 <a href="#">3100 06 00</a>	10 14.5 11.5 629 0.002
		8 <a href="#">3100 08 00</a>	13 15 15 794 0.002
		10 <a href="#">3100 10 00</a>	15.5 19.5 17 930 0.005
		12 <a href="#">3100 12 00</a>	19.5 21 19.5 1038 0.010
50 cartridges per Carstick®			

## 3100 Carstick® Cartridge


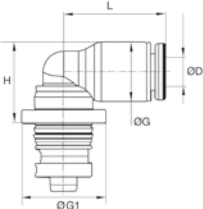

Inch

	Nickel-plated brass, NBR 	$\varnothing D$ 	<b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>
		1/8 <a href="#">3100 53 00 99</a>	7 10 9 508 0.002
		1/4 <a href="#">3100 56 00 99</a>	10.5 14.5 12 600 0.003
		3/8 <a href="#">3100 60 00 99</a>	15.5 19 16.5 930 0.006
50 cartridges per Carstick® 5/32" (4 mm) and 5/16" (8 mm) also available			


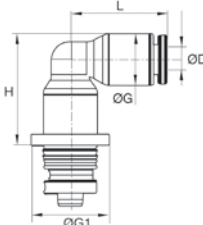

## 3086 Quick Fitting Reducer

	Nickel-plated brass, NBR 	$\varnothing D$ 	<b>Cavity</b> <b>G</b> <b>H</b> <b>kg</b>
		4 <a href="#">3086 04 06</a>	6 12.5 7 0.005
		6 <a href="#">3086 06 08</a>	8 14 7.5 0.008
Available on request			

## 3089 Quick Fitting Elbow

	Technical polymer, nickel-plated brass, NBR 	$\varnothing D$ 	<b>Cavity</b> <b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>
		4 <a href="#">3089 04 04</a>	4 9 12.5 11.5 15 0.004
		<a href="#">3089 04 06</a>	6 9 12.5 11.5 15 0.005
		6 <a href="#">3089 06 04</a>	4 11 12.5 14 17 0.004
		<a href="#">3089 06 06</a>	6 11 12.5 12.5 17 0.006
		<a href="#">3089 06 08</a>	8 11 14.5 13 17 0.010
		8 <a href="#">3089 08 08</a>	8 13.5 14.5 16 23 0.011
		<a href="#">3089 08 10</a>	10 13.5 19 16 23 0.021
		10 <a href="#">3089 10 10</a>	10 16 19 19 26.5 0.017
		<a href="#">3089 10 12</a>	12 16 20 19 26.5 0.028
		12 <a href="#">3089 12 12</a>	12 19 20 22 31 0.030

## 3082 Quick Fitting Extended Elbow

	Technical polymer, nickel-plated brass, NBR 	$\varnothing D$ 	<b>Cavity</b> <b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>		
		4 <a href="#">3082 04 04</a>	4 9 12.5 16 15 0.006		
		<a href="#">3082 04 06</a>	6 9 12.5 15 15 0.009		
		6 <a href="#">3082 06 06</a>	6 9 12.5 23 19 0.010		
		<a href="#">3082 06 08</a>	8 10.5 14 29 18.5 0.014		
		8 <a href="#">3082 08 08</a>	8 13.5 17 29.5 22.5 0.021		
		<a href="#">3082 08 10</a>	10 13.5 19 29 23 0.025		
		10 <a href="#">3082 10 10</a>	10 16 20 33 26 0.029		
		<a href="#">3082 10 12</a>	12 16 20 33 26 0.040		
		12 <a href="#">3082 12 12</a>	12 19 23 39 31 0.056		
		Available on request			

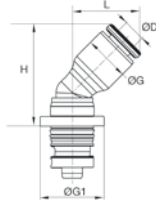
# Polymer Cartridges for Compressed Air

**3081**

Quick Fitting 45° Elbow



Technical polymer, nickel-plated brass, NBR



ØD		Cavity	G	G1	H	L	kg
4	<a href="#">3081 04 04</a>	4	9	12.5	19	13	0.004
6	<a href="#">3081 06 06</a>	6	11	12.5	22	14.5	0.006
8	<a href="#">3081 08 08</a>	8	13.5	14.5	26	19	0.011
10	<a href="#">3081 10 10</a>	10	16	19	30	22	0.017
12	<a href="#">3081 12 12</a>	12	19	20	35.5	26	0.031

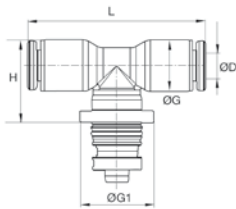
Available on request

**3088**

Quick Fitting Tee

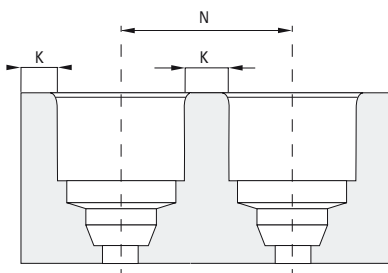
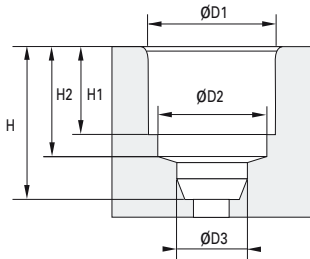


Technical polymer, nickel-plated brass, NBR



ØD		Cavity	G	G1	H	L	kg
4	<a href="#">3088 04 04</a>	4	9	12.5	14	30	0.005
	<a href="#">3088 04 06</a>	6	8.6	12.5	12.5	29.5	0.006
6	<a href="#">3088 06 06</a>	6	11	12.5	14.5	34	0.007
	<a href="#">3088 06 08</a>	8	10.6	14.5	15	33.5	0.011
8	<a href="#">3088 08 08</a>	8	14	14.5	19	46	0.013
	<a href="#">3088 08 10</a>	10	14	19	19	46	0.023
10	<a href="#">3088 10 10</a>	10	16	19	21	53	0.020
	<a href="#">3088 10 12</a>	12	16	20	21	53	0.031
12	<a href="#">3088 12 12</a>	12	19	20	24	61	0.035

## Cavity Dimensions



Carstick® et Quick Fitting

Metric

Cavity	ØD3	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	ØD3	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	ØD1	ØD2	N*	N**	K
4	8.25	7.05	9.8	12.3	1.5
6	10.2	9.15	12.2	12.3	2
8	12.15	10.85	14.2	14.3	2
10	14.8	13.2	16.8	19	2
12	17.5	15.5	20	20.2	2.5

Cavity	ØD1	ØD2	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

Aluminium Cavity

Cavity	ØD1	ØD2	N*	N**	K*	K**
4	8.25	7.5	11.5	12.3	3	1.5
6	10.3	9.15	13.5	12.3	3	2
8	12.2	10.85	15.2	15.2	3	2
10	15.05	13.2	17.1	19	2	2
12	17.5	15.5	20	20.2	2.5	2.5

Cavity	ØD1	ØD2	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	ØD1	ØD2	N*	N**	K*	K**
4	8.25	7.05	10.25	12.3	2	1.5
6	10.25	9.1	12.25	12.3	2	2
8	12.2	10.85	14.25	14.3	2	2
10	15.05	13.2	17.1	19	2	2
12	17.65	15.5	20	20.2	2.5	2.5

Cavity	ØD1	ØD2	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

Please consult us for detailed drawings of cavity dimensions and tolerances.

All our dimensions are in millimeters.


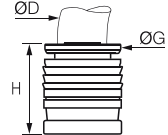


\*Carstick® / \*\*Quick Fitting

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


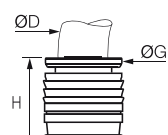




# Polymer Cartridges for Fluids and Gases

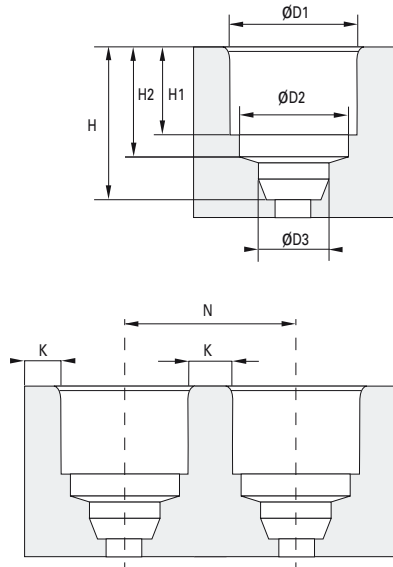
## 6300 LIQUIfit® Cartridge

	Laiton, EPDM 	<b>ØD</b> 	<b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>
		4 <b>6300 04 00</b>	8 11 10 554 0.002
		6 <b>6300 06 00</b>	10 14.5 11.5 629 0.002
		8 <b>6300 08 00</b>	13 15 15 794 0.003
		10 <b>6300 10 00</b>	15.5 19.5 17 930 0.005
		12 <b>6300 12 00</b>	18.5 21 19.5 1038 0.010
50 cartridges per Carstick®			

## 6300 LIQUIfit® Cartridge

	Laiton, EPDM 	<b>ØD</b> 	<b>G</b> <b>G1</b> <b>H</b> <b>L</b> <b>kg</b>	<b>Inch</b>
		1/4 <b>6300 56 00</b>	10.5 14.5 12.5 600 0.002	
		3/8 <b>6300 60 00</b>	15.5 19 17 930 0.005	
		1/2 <b>6300 62 00</b>	22 25 23 1038 0.011	
50 cartridges per Carstick® 5/32" (4 mm) and 5/16" (8 mm) also available				

## LIQUIfit® Cavity Dimensions



### LIQUIfit® Carstick®

Metric

Cavity	ØD3	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	ØD3	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	ØD1	ØD2	K	N
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	ØD1	ØD2	K	N
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

### Aluminium Cavity

Cavity	ØD1	ØD2	K	N
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	ØD1	ØD2	K	N
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	ØD1	ØD2	K	N
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	ØD1	ØD2	K	N
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

Please consult us for detailed drawings of cavity dimensions and tolerances.

All our dimensions are in millimeters.

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



# Metal Cartridges

For full **compatibility** with **many fluids** and severe conditions (**+150°C**), Parker Legris has developed two types of patented cartridges. Using our metal cartridges allows for **optimisation of installation configurations** and for the TL, the possibility of removal.

## Product Advantages

- LF Cartridges**
  - LF 3600** All the advantages of the LF 3600, LF 3800 and LF 3900 fittings applied to cartridge technology
  - LF 3800** All-metal product to provide the greatest mechanical strength and chemical resistance
  - LF 3900** Resistant at high temperatures (+150°C)  
Can be installed in either polymer or metal housings
- TL Cartridge** Possibility to have several tubing diameters in the same cavity  
Visible retention and sealing system, can be disassembled using the dedicated tool



- Applications**
- Robotics
  - Automotive Process
  - Pneumatics
  - Semi-Conductors
  - Refrigeration
  - Packaging
  - Vacuum

## Technical Characteristics

LF Cartridges		TL Cartridge	
<b>Compatible Fluids</b>	Fluids: see corresponding chapters	<b>Compatible Fluids</b>	Compressed air
<b>Working Pressure</b>	Vacuum to 30 bar	<b>Working Pressure</b>	0.01 to 16 bar
<b>Working Temperature</b>	-20°C to +150°C	<b>Working Temperature</b>	-25°C to +80°C
<b>Component Materials</b>	See corresponding chapters	<b>Component Materials</b>	Body: brass Release button: technical polymer Gripping ring: stainless steel Seals: NBR


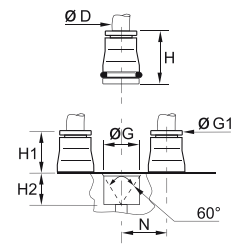

### Regulations

- LF 3600, LF 3800, LF 3900**  
**DI:** 97/23/CE (PED)  
**RG:** 21 CFR (FDA)  
**RG:** 1935/2004/CE  
 (minimum flow 0.02 l/hr)  
**DI:** 2011/65/CE (RoHS)  
**USDA NSF H1:** grease  
**ASTM B733-04:** self-catalytic nickel coating  
**DI:** 94/9/CE (ATEX)
- TL**  
**DI:** 97/23/CE (PED)  
**DI:** 2011/65/CE (RoHS)


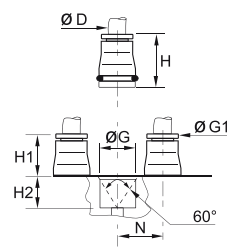


Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used. Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

# Metal Cartridges for Fluids and Gases

## 3600 One-Piece Cartridge


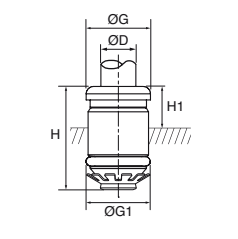

	FDA chemical nickel-plated brass, FKM		<b>ØD</b>		<b>G</b>	<b>G1</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>N</b>	<b>kg</b>
	4 <a href="#">3600 04 00</a> 6 <a href="#">3600 06 00</a> 8 <a href="#">3600 08 00</a> 10 <a href="#">3600 10 00</a> 12 <a href="#">3600 12 00</a> 14 <a href="#">3600 14 00</a>		9.8 8 17 8.5 8.5 11 0.006 12.1 10 19 10.5 8.5 13.5 0.009 14.8 13 21 12.5 8.5 16 0.012 17.5 15 24.5 14 10.5 20 0.019 20 17 25 14.5 10.5 22.5 0.023 22 20 28.5 16.5 12 25 0.031								

## 3800/3900 One-Piece Cartridge

	Stainless steel 316L, FKM		<b>ØD</b>			<b>G</b>	<b>G1</b>	<b>H</b>	<b>H1</b>	<b>H2</b>	<b>N</b>	<b>kg</b>
	4 <a href="#">3800 04 00</a> <a href="#">3900 04 00</a> 6 <a href="#">3800 06 00</a> <a href="#">3900 06 00</a> 8 <a href="#">3800 08 00</a> <a href="#">3900 08 00</a> 10 <a href="#">3800 10 00</a> <a href="#">3900 10 00</a> 12 <a href="#">3800 12 00</a> <a href="#">3900 12 00</a>		9.8 8 17 8.5 8.5 11 0.006 12.1 10 19 10.5 8.5 13.5 0.008 14.8 13 21 12.5 8.5 16 0.012 17.5 15 24.5 14 10.5 20 0.019 20 17 25 14.5 10.5 22.5 0.023									


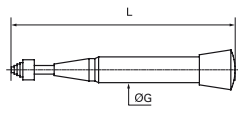

3800: collet in 303 stainless steel  
3900: collet in 316L stainless steel

## TL Cartridge

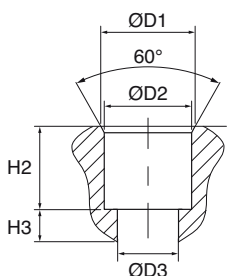
	Brass, NBR		<b>ØD</b>	<b>Cavity</b>		<b>G</b>	<b>G1</b>	<b>H</b>	<b>H1</b>	<b>H1*</b>	<b>kg</b>
	4 4 <a href="#">FTL4</a> 4 6 <a href="#">FTL4-6</a> 6 6 <a href="#">FTL6</a> 4 8 <a href="#">FTL8-4</a> 6 8 <a href="#">FTL8-6</a> 8 8 <a href="#">FTL8</a>		8 8 14.5 4.5 7.5 0.003 8 10 17 4.5 9.5 0.003 10.5 10 17 4.5 9.5 0.004 8 12 17.5 5 10.5 0.008 10.5 12 18 5.5 11 0.008 13.5 12 19 6.5 12 0.005								

\*Can be mounted in a short hole with extremely close porting

## TLT Disconnection Tool

			<b>G</b>	<b>L</b>	<b>kg</b>
		TLT Only for use with TL cartridges	28	156	0.235

## Cavity Dimensions



### TL Cartridge

Cavity	ØD1	ØD2	ØD3	H2	H3
4	9	8	5.5	9	1.5
6	11	10	8	11	1.5
8	13	12	8.5	11.5	1.5
4C*	9	8	5.5	6	1.5
6C*	11	10	8	6	1.5
8C*	13	12	8.5	6	1.5

\*Can be mounted in a short hole with extremely close porting