

SAE and DOT push-to-connect fittings for vehicle applications



principle of SAE and DOT fittings

Legris is the leading supplier for the automotive connection and truck markets. Our ability to propose innovative and economical solutions has been proven with a long list of customers.

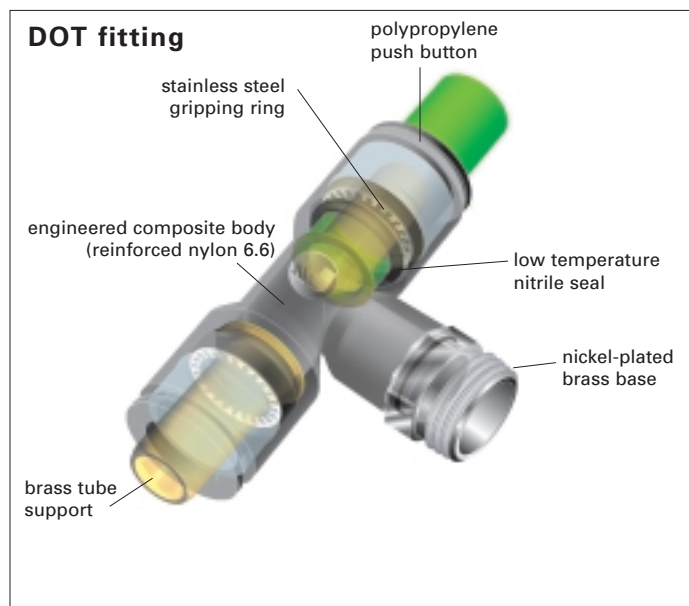
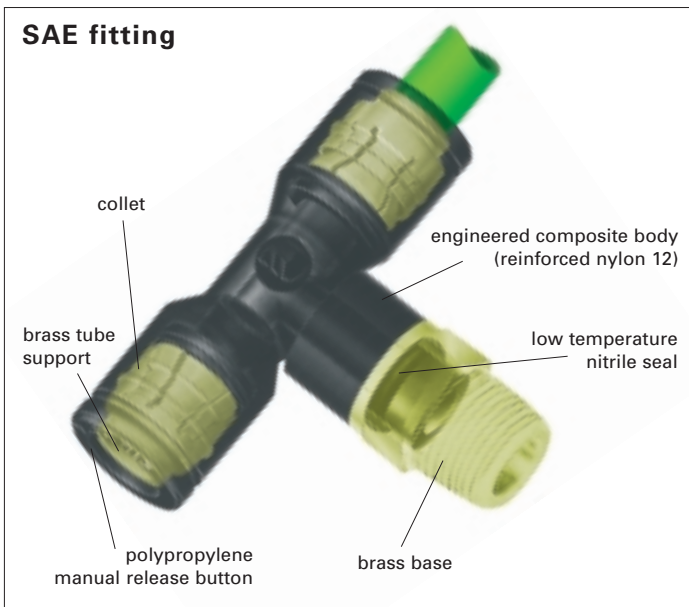
Today we have many assets:

- Legris is the world leader in the fuel line and the **on board Air Systems**.
- For the past five years Legris has been the leader in **writing and developing standards** for the Truck Industry in North America such as SAE J2494.

Concerning the Heavy Duty Truck Industry, Legris is the leader in **manifolds and Push-to-Connect fittings for air assisted systems**.

- **Legris DOT fittings** meet all applicable requirements of the D.O.T. FMVSS 106 specification.

- **Legris SAE fittings** comply with the requirements of D.O.T. FMVSS 106, SAE J1131 and SAE J2494-3.



SAE specifications

technology	collet - 1/4", 3/8", 1/2"
suitable fluids	compressed air only lubricated or non-lubricated
working pressure	maximum 275 psi
working temperature	-40°F to +225°F
tubing	Tubing used should comply with SAE standards. Legris air brake tubing on pg M18 can be used.
materials of construction	body: glass reinforced nylon 12 seals: low temperature nitrile collet: brass tube support: brass base: brass optional thread sealant for male threaded bases is available.

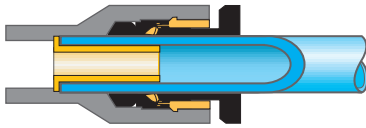
DOT specifications

technology	collet - 5/32", 3/16", 1/4" gripping ring - 3/8", 1/2"
suitable fluids	compressed air only lubricated or non-lubricated
working pressure	28Hg – 275 psi at ambient temperature
working temperature	-20° to 225°F
tubing	Tubing used should comply with SAE standards. Legris air brake tubing on pg M18 can be used.
materials of construction	body: glass reinforced nylon 6.6 seals: low temperature nitrile gripping ring: stainless steel collet: brass tube support: brass base: nickel-plated brass To order products with thread sealant, add '96' suffix to part #

All products in the SAE and DOT range are SILICONE FREE

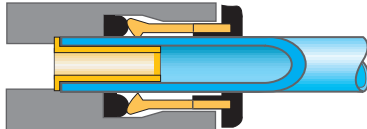
advantages of SAE and DOT fittings

gripping ring technology



DOT sizes - 3/8", 1/2"

collet technology



DOT sizes - 5/32", 3/16", 1/4"
SAE sizes - 1/4", 3/8", 1/2"

features

Time Savings:

- tube fitting assembly time is substantially reduced. With either SAE or DOT fittings, savings are on average, 80% of conventional compression fittings.
- the Legris Instant Fitting System provides a 100% tubing lock. This feature eliminates the need for tightening.
- no special tools required for assembly.

Orientable:

- elbows, "Y"s and tees can be oriented 360°. This assembly feature is a great time saver in areas of poor accessibility and allows proper positioning of the fitting.

Anti Kink Feature:

- the tubing will rotate 360° while being held in the fitting thus eliminating annoying and wasteful kinking.

Temperature:

- fittings accommodate wide range of temperature applications.

Tubing

- tubing used should be that specified in SAE J844 (Oct '80) which also meets NHTSA FMVSS 106. Legris air brake tubing on pg M18 complies with this standard.

performance and reliability

optimum flow

- **full flow:** the gripping and sealing of the fitting is achieved using the outside diameter of the tube without deformation, compact yet no restriction in flow.

immediate seal

- the fittings **seal both in static and dynamic** applications.
- **tube insert** which reinforces the grip on the tubing OD.
- **slotted collet** or **gripping ring** mechanism locks the tubing into the fitting.

options

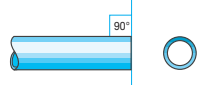
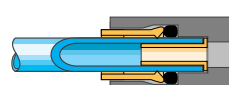
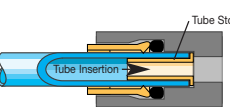
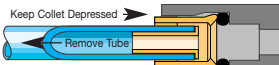
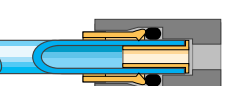
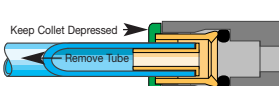
- optional colored release buttons or caps.
- optional thread sealant upon request

The Legris SAE and DOT products conform to the standards for the industry. This table compares the specifications of each range.



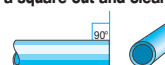





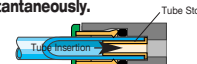
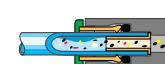
SAE Products	DOT Products
Tensile strength	Tensile strength
Water absorption	Water absorption
Hot water	Not required
Frozen water	Not required
Temperature cycling	Not required
Pull force	Pull force
1/4" = 50 lbf	1/4" = 50 lbf
3/8" = 150 lbf	3/8" = 50 lbf
1/2" = 200 lbf	1/2" = 150 lbf
Air leakage: 3ccm to 7ccm	Pressure drop: 1 psi/min
Corrosion resistance	Corrosion resistance
Burst pressure: 800 psi	Burst pressure: 800 psi
Vibration	Not required
Re-assembly	Not required
Oil compatibility	Not required
Side lead leakage	Not required
Moisture absorption	Not required
UV resistance	Not required
Zinc chloride resistance	Not required
Methyl alcohol resistance	Not required
Cold impact resistance	Not required

recommendations

Vehicle Technology Products
Push-to-Connect
Fittings
Quick Assembly

Connection	Disconnection
<p>1 Achieve a square cut edge with a tube cutter.</p> 	<p>1 Make sure there is no air flow.</p> 
<p>2 Simply push the tubing until it bottoms out. Holding and sealing is accomplished instantaneously.</p> 	<p>2 With no button, press disconnect tool (p/n 3000 70**) against collet, then pull tube out.</p> 
<p>3 Pull on the tubing to verify gripping action.</p> 	<p>With button - depress the manual release button, then pull the tube out.</p> 

Vehicle Technology Products
Push-to-Connect
Fittings
Quick List

Do's	Don'ts
<p>1 Tighten by hand. Make final adjustment with wrench at the hex.</p> 	<p>1 Avoid using wrench on push-to-connect end.</p> 
<p>2 Achieve a square cut and clean edge.</p> 	<p>2 Avoid drastic angle cutting which can lead to an improper seal.</p> 
<p>3 Use Legris tube cutter. (p/n 3000 71 00)</p> 	<p>3 Avoid using a knife, or a dull tool to cut the tubing. Avoid burrs, dirt, and anything that can hinder full flow.</p> 
<p>4 Allow adequate bend radius of tube.</p> 	<p>4 Avoid kinking the tubing and side load against the collet which can cause leaks.</p> 
<p>5 Simply push the tubing until it bottoms out. Holding and sealing is accomplished instantaneously.</p> 	<p>5 Avoid contaminating substances in fittings and cartridges.</p> 

application of SAE & DOT fittings

Auto/Truck/Bus

Cab

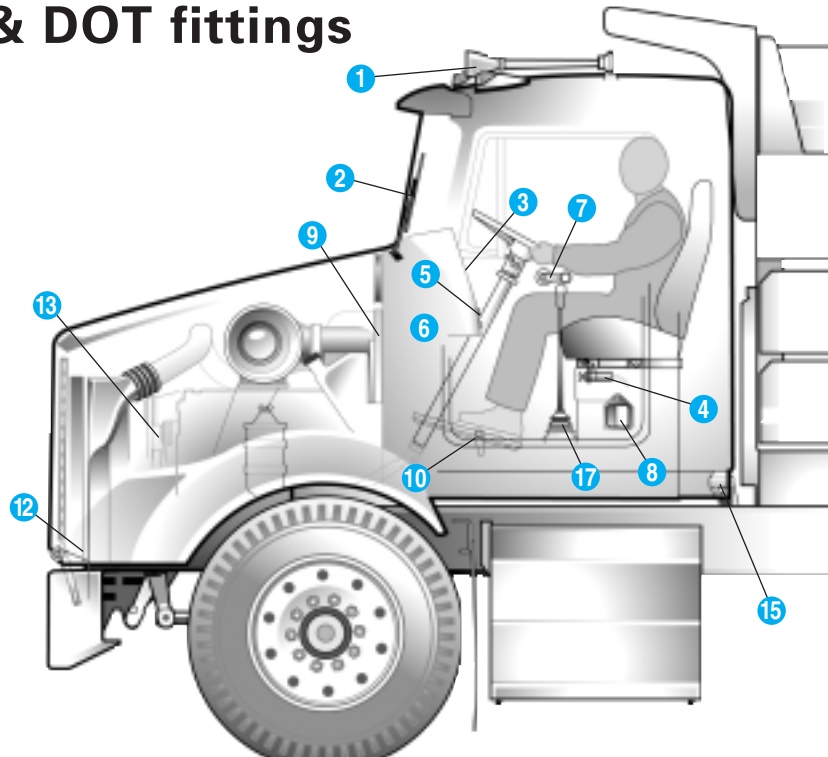
1. Air Horns/Valves
2. Wiper Motors/Controls
3. Instruments - Air Gauges
4. Air Seat Controls
5. Air Toggle Switches
6. Heaters/Air Conditioners
7. Air Window Lift/Controls
8. Air Door Locks
9. Air Manifolds
10. Air Throttle
11. Accessory Kits

Chassis

12. Shutter Stats/Cylinders
13. Fan Clutch - Air Op.
14. Air Slide 5th Wheels
15. Cab/Chassis Air Suspensions
16. Chassis Air Lines
17. Gearshift/Transmission
18. Air Manifolds - Chassis

Trailer

19. Chassis Air Lines
20. Air Operated Valves
21. Air Operated Cylinders
22. Air Suspensions
23. Air Manifolds



Excerpt from the National Highway Traffic Safety Administration Department of Transportation FMVSS 106.

FMVSS 106 Part 571: 5106-1 Paragraph 57.3.10

Legris DOT fittings meet all applicable requirements of the D.O.T. FMVSS 106 specification. Our fittings are designed for use on all pneumatic circuits other than air brake assemblies between the frame and axle. Final determination as to the use of this product in its application is the responsibility of the users design engineering.

Legris SAE fittings comply with the requirements of D.O.T. FMVSS 106, SAE J1131 and SAE J2494-3.

the complete range of SAE fittings

threaded fittings

3175
NPTF
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3109
NPTF
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3108
NPTF
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NPTF
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3103
NPTF
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3014
NPTF
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3092
NPTF
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3113
NPTF
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tube to tube fittings

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3140
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tubing & accessories

1487P
NPTF
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clip
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3000
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3126
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tube support
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3330/3110
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the complete range of DOT fittings

threaded fittings

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NPT
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NPT
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NPT
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NPT
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NPT
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3148
NPT
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tube to tube fittings

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bulkheads

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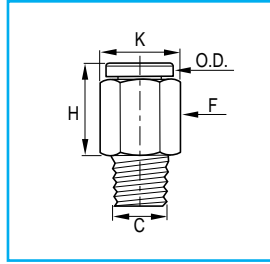


Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

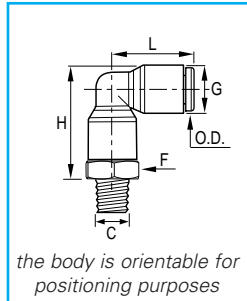
SAE products – threaded fittings

3175 straight male connector — fractional inch tube to NPTF



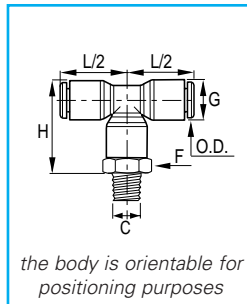
O.D. TUBE	C NPTF		F in	H in	K in	
1/4	1/8	3175 56 11AE	1/2	.669	.579	.54
1/4	1/4	3175 56 14AE	9/16	.630	.650	.94
1/4	3/8	3175 56 18AE	11/16	.630	.795	1.59
3/8	1/4	3175 60 14AE	3/4	.941	.866	1.40
3/8	3/8	3175 60 18AE	3/4	.941	.866	1.84
3/8	1/2	3175 60 22AE	7/8	.862	1.01	3.14
1/2	3/8	3175 62 18AE	7/8	1.02	1.01	2.16
1/2	1/2	3175 62 22AE	7/8	1.02	1.01	2.94

3109 male elbow — fractional inch tube to NPTF



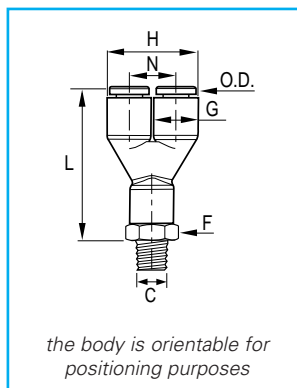
O.D. TUBE	C NPTF		F in	G in	H in	L in	
1/4	1/8	3109 56 11AE	9/16	.531	1.26	.902	.90
1/4	1/4	3109 56 14AE	9/16	.531	1.26	.902	1.02
1/4	3/8	3109 56 18AE	11/16	.531	1.26	.902	1.30
3/8	1/4	3109 60 14AE	3/4	.748	1.68	1.23	2.10
3/8	3/8	3109 60 18AE	3/4	.748	1.70	1.23	2.29
3/8	1/2	3109 60 22AE	7/8	.748	1.70	1.23	2.86
1/2	3/8	3109 62 18AE	7/8	.870	1.96	1.41	3.00
1/2	1/2	3109 62 22AE	7/8	.870	1.96	1.41	3.91

3108 male branch tee — fractional inch tube to NPTF



O.D. TUBE	C NPTF		F in	G in	H in	L/2 in	
1/4	1/8	3108 56 11AE	9/16	.531	1.26	.902	.90
1/4	1/4	3108 56 14AE	9/16	.531	1.26	.902	1.02
1/4	3/8	3108 56 18AE	11/16	.531	1.26	.902	1.30
3/8	1/4	3108 60 14AE	3/4	.748	1.68	1.23	2.62
3/8	3/8	3108 60 18AE	3/4	.748	1.70	1.23	2.80
3/8	1/2	3108 60 22AE	7/8	.748	1.70	1.23	3.37
1/2	3/8	3108 62 18AE	7/8	.870	1.96	1.41	3.15
1/2	1/2	3108 62 22AE	7/8	.870	1.96	1.41	4.05

3148 Y connector — fractional inch tube to NPTF



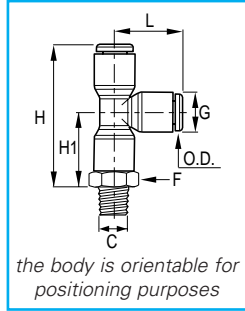
O.D. TUBE	C NPTF		F in	G in	H in	L in	N in	
1/4	1/8	3148 56 11AE	9/16	.531	1.09	1.87	.562	.93
1/4	1/4	3148 56 14AE	9/16	.531	1.09	1.87	.562	1.04

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

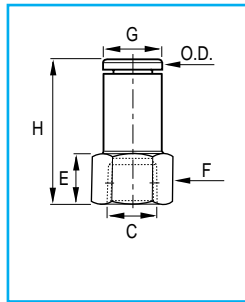
SAE products – threaded fittings

3103 male run tee — fractional inch tube to NPTF



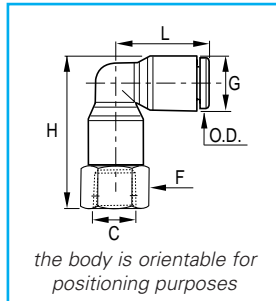
O.D. TUBE	C NPTF		F in	G in	H in	H1 in	L in	
1/4	1/8	3103 56 11AE	9/16	.531	1.90	1.00	.902	1.01
1/4	1/4	3103 56 14AE	9/16	.531	1.90	1.00	.902	1.23
3/8	1/4	3103 60 14AE	3/4	.748	2.53	1.30	1.23	2.62
3/8	3/8	3103 60 18AE	3/4	.748	2.55	1.32	1.23	2.80

3014 straight female connector — fractional inch tube to NPTF



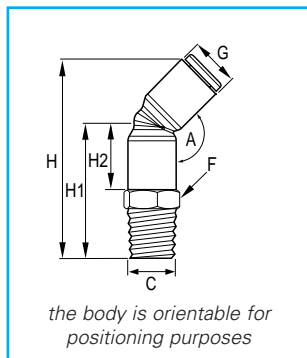
O.D. TUBE	C NPTF		E in	F in	G in	H in	
1/4	1/8	3014 56 11AE	.413	9/16	.472	1.19	.71

3092 female elbow — fractional inch tube to NPTF



O.D. TUBE	C NPTF		F in	G in	H in	L in	
1/4	1/8	3092 56 11AE	9/16	.531	1.47	.902	.85
1/4	1/4	3092 56 14AE	9/16	.531	1.67	.902	1.22

3113 45° male elbow — fractional inch tube to NPTF



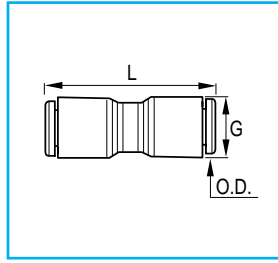
O.D. TUBE	C NPTF		A	F in	G in	H in	H1 in	H2 in	
1/4	1/8	3113 56 11AE	135°	9/16	.531	2.02	1.31	.730	.90
1/4	1/4	3113 56 14AE	135°	9/16	.531	2.02	1.49	.730	1.02
3/8	1/4	3113 60 14AE	135°	3/4	.747	2.71	1.75	.977	2.10
3/8	3/8	3113 60 18AE	135°	3/4	.747	2.73	1.77	.977	2.29

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

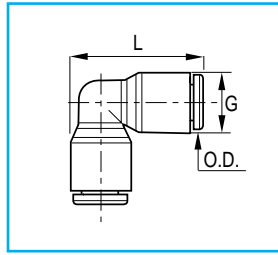
SAE products – tube to tube fittings

3106 union — fractional inch tube to tube



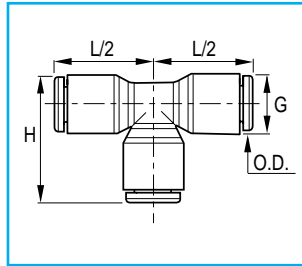
O.D. TUBE		G in	L in	oz
1/4	3106 56 00AE	.531	1.50	.41
3/8	3106 60 00AE	.748	2.03	1.05
1/2	3106 62 00AE	.870	2.24	1.93

3102 union elbow — fractional inch tube to tube



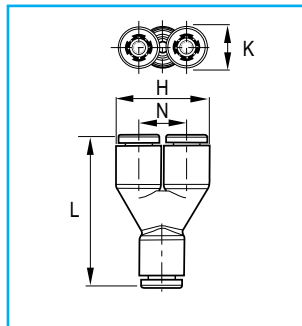
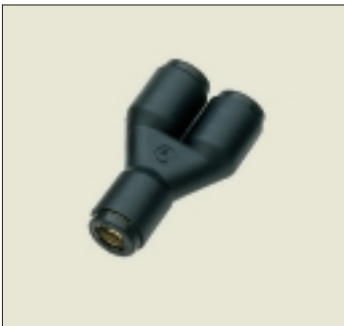
O.D. TUBE		G in	L in	oz
1/4	3102 56 00AE	.531	1.07	.42
3/8	3102 60 00AE	.747	1.60	1.10
1/2	3102 62 00AE	.870	1.84	2.01

3104 union tee — fractional inch tube to tube



O.D. TUBE		G in	H in	L/2 in	oz
1/4	3104 56 00AE	.531	1.17	.900	.62
3/8	3104 60 00AE	.747	1.60	1.23	1.60
1/2	3104 62 00AE	.870	1.84	1.41	2.53

3140 "Y" union — fractional inch tube to tube



O.D. TUBE		H in	K in	L in	N in	oz
1/4	3140 56 00AE	1.09	.531	1.78	.563	.64

1487P recoil assembly for fifth wheel



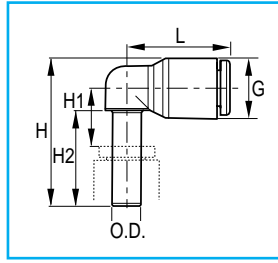
ØD tube	NPTF		
1/4	1/4	1487P00 21SP	(without thread sealant)
1/4	1/4	1487P00 22SP	(with thread sealant)

Each standard assembly consists of: 1 recoil tube; 2 1/4" x 1/4" male connectors with or without sealant; 2 spring guards; J844 type A fifth wheel assembly.

O.D.	Contracted Length	Working Length	Linear Feet Per	Pigtail Length	Coil Length	Temp	Max Working Pressure
1/4"	6"	5'	8'	3 1/2"	1 3/4"	-15°F to +160°F	200 PSI

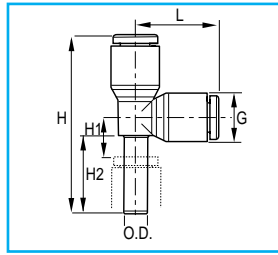
SAE products – tube to tube fittings

3182 plug-in elbow — fractional inch



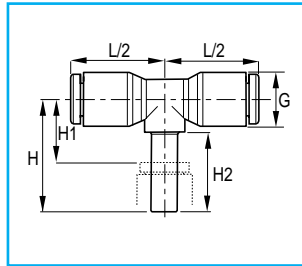
O.D. TUBE		G in	H in	H1 in	H2 in	L in	
1/4	3182 56 00AE	.531	1.31	.512	.843	.902	.31

3183 plug-in run tee — fractional inch



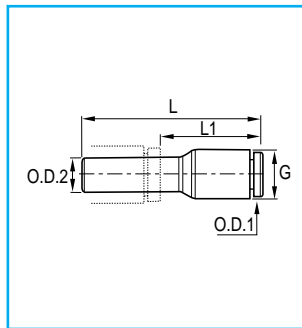
O.D. TUBE		G in	H in	H1 in	H2 in	L in	
1/4	3183 56 00AE	.531	1.94	.433	.843	.902	.43

3188 plug-in union tee — fractional inch



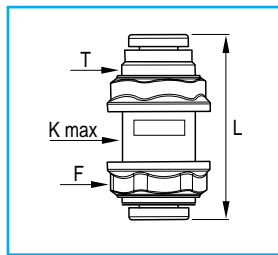
O.D. TUBE		G in	H in	H1 in	H2 in	L in	
1/4	3188 56 00AE	.531	1.09	.610	.772	.902	.43

3166 reducer — fractional inch



O.D. TUBE	O.D. TUBE2		G in	L in	L1 in	
1/4	3/8	3166 56 60AE	.531	1.93	1.08	.25

3116 bulkhead union — fractional inch



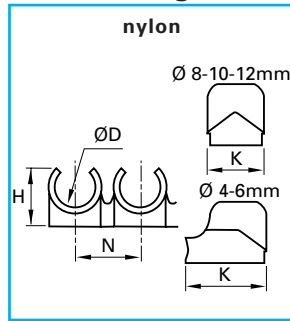
O.D. TUBE		F mm	K max in	L in	T min in	
1/4	3116 56 00AE	18	.35	1.50	.590	.50
3/8	3116 60 00AE	26	.57	2.01	.866	1.15

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

accessories for SAE and DOT products

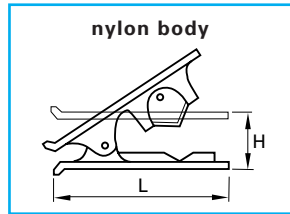
Clip clip strips for tubing and fittings



ØD	ØLF3000 body size		H mm	K mm	N mm	Number of clips per strip	kg
5/32, 4mm		Clip 04 00	9	13.5	10.5	8	.008
1/4, 3/16, 6mm		Clip 06 00	10.5	13	10.5	8	.009
5/16, 8mm	5/32, 4mm	Clip 08 00	12.5	10.5	12	7	.009
3/8, 10mm	1/4, 6mm	Clip 10 00	14	12	15	6	.010
1/2, 12mm		Clip 12 00	16.5	14	16.5	5	.011

Legris clips can be used to mount both tubing and fittings. To order clips for tubing use the column "O.D. tube". To order clips for mounting a fitting order by the "O.D. body size". Clip strips are packaged in quantities of 5, but ordered by individual strip. They come complete with screws of 9.5mm length.

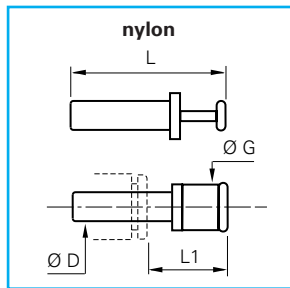
3000 71 00 tube cutter



	H in	L in	oz
3000 71 00	.98	3.11	1.09

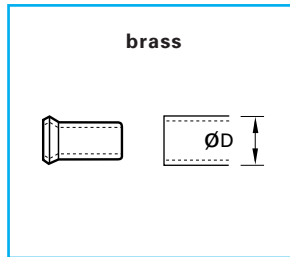
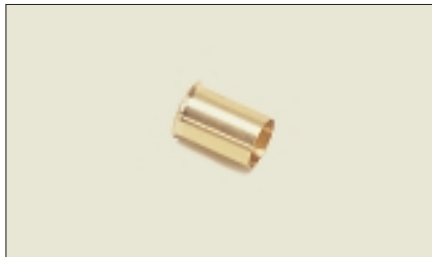
This tool will cut all resilient plastic tube (e.g. nylon, teflon, polyurethane, braided PVC, soft rubber, etc.) from 1/8" to 1/2" and 4mm to 14mm diameter inclusive. It is designed to give a clean cut at right angles to the tube axis. A spring maintains the cutter in the closed position.

3126 plug — fractional inch



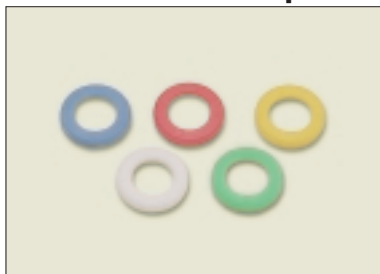
ØD in		G in	L in	L1 in	oz
5/32	3126 04 00	.16	1.18	.61	.04
3/16	3126 55 00	.27	1.36	.79	.06
1/4	3126 56 00	.32	1.44	.87	.06
3/8	3126 60 00	.46	1.67	.87	.10
1/2	3126 62 00	.58	1.91	.85	.18

tube support — fractional inch



ØD in		technology		technology
5/32	38165	collet		
3/16	38163	collet		
1/4	38164	collet	40176	collet
3/8	40240	gripping ring	40240	collet
1/2	40782A	gripping ring	40182	collet

3110/3330 caps — manual release button — fractional inch



ØD tube in							oz
5/32	3330 04 00	3330 04 01	3330 04 02	3330 04 03	3330 04 04	3330 04 05	.04
3/16	3330 55 00	3330 55 01	3330 55 02	3330 55 03	3330 55 04	3330 55 05	.04
1/4	3330 56 00	3330 56 01	3330 56 02	3330 56 03	3330 56 04	3330 56 05	.04
3/8	3110 60 00	NA	3110 60 02	3110 60 03	3110 60 04	3110 60 05	.04
1/2	3110 62 00	NA	3110 62 02	3110 62 03	3110 62 04	3110 62 05	.04
for SAE							
3/8	3330 60 00	3330 60 01	3330 60 02	3330 60 03	3330 60 04	3330 60 05	.04
1/2	3330 62 00	3330 62 01	3330 62 02	3330 62 03	3330 62 04	3330 62 05	.04

DOT fittings are supplied **standard, with manual release buttons** for easy disconnect. These buttons (p/n 3330) are removable for sizes 5/32", 3/16" and 1/4". For 3/8" and 1/2" fittings, colored caps (p/n 3110) are available to fit over the black push button.

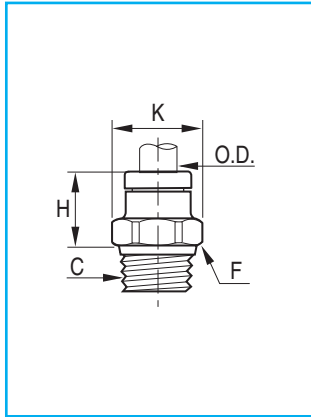
DOT release buttons are supplied in package quantities of 100. Release buttons are particularly useful when the tube needs to be disconnected frequently. The optional colors allow color coding to be used. Other colors may be available upon request.

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

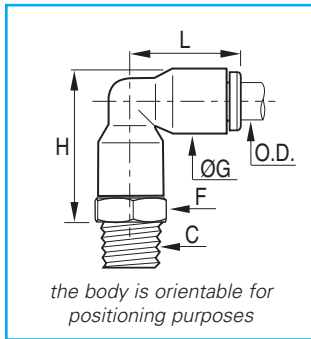
DOT products – threaded fittings

3115 male connector — fractional inch tube to male NPT



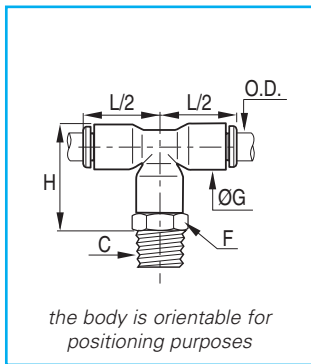
ØD in	C NPT		F mm	H in	K in	
5/32	1/8	3115 04 11DOT	11	.334	.472	.220
5/32	1/4	3115 04 14DOT	14	.275	.590	.510
3/16	1/8	3115 55 11DOT	7/16"	.610	.490	.230
3/16	1/4	3115 55 14DOT	9/16"	.590	.628	.480
1/4	1/8	3115 56 11DOT	11	.472	.472	.230
1/4	1/4	3115 56 14DOT	14	.374	.590	.480
1/4	3/8	3115 56 18DOT	18	.295	.768	.860
3/8	1/8	3115 60 11DOT	16	.914	.690	.660
3/8	1/4	3115 60 14DOT	16	.827	.690	.680
3/8	3/8	3115 60 18DOT	18	.710	.768	.930
3/8	1/2	3115 60 22DOT	22	.630	.945	1.70
1/2	1/4	3115 62 14DOT	22	1.31	.85	1.40
1/2	3/8	3115 62 18DOT	22	1.31	.85	1.40
1/2	1/2	3115 62 22DOT	22	1.31	.85	1.60

3109 male elbow — fractional inch tube to male NPT



ØD in	C NPT		F mm	G in	H in	L in	
5/32	1/8	3109 04 11DOT	11	.334	.905	.75	.370
3/16	1/8	3109 55 11DOT	11	.427	1.09	.86	.490
1/4	1/8	3109 56 11DOT	11	.427	1.09	.93	.490
1/4	1/4	3109 56 14DOT	14	.427	1.09	.93	.690
1/4	3/8	3109 56 18DOT	18	.427	1.18	.93	1.01
3/8	1/4	3109 60 14DOT	17	.630	1.54	1.33	1.09
3/8	3/8	3109 60 18DOT	18	.630	1.54	1.33	1.60
3/8	1/2	3109 60 22DOT	22	.630	1.54	1.33	2.80
1/2	1/4	3109 62 14DOT	7/8"	.87	1.95	1.59	1.80
1/2	3/8	3109 62 18DOT	7/8"	.87	1.95	1.59	2.00
1/2	1/2	3109 62 22DOT	1"	.87	1.95	1.59	2.20

3108 male branch tee — fractional inch tube to male NPT



ØD in	C NPT		F mm	G in	H in	L/2 in	
5/32	1/8	3108 04 11DOT	11	.334	.905	.57	.420
5/32	1/4	3108 04 14DOT	14	.334	.905	.57	.720
3/16	1/8	3108 55 11DOT	11	.427	1.09	.85	.570
1/4	1/8	3108 56 11DOT	11	.427	1.09	.71	.570
1/4	1/4	3108 56 14DOT	14	.427	1.09	.71	.770
1/4	3/8	3108 56 18DOT	18	.427	1.18	.71	1.13
3/8	1/4	3108 60 14DOT	17	.630	1.54	1.04	1.21
3/8	3/8	3108 60 18DOT	18	.630	1.54	1.04	1.78
3/8	1/2	3108 60 22DOT	22	.630	1.54	1.04	2.94
1/2	1/4	3108 62 14DOT	7/8"	.87	1.52	1.41	2.20
1/2	3/8	3108 62 18DOT	7/8"	.87	1.52	1.41	2.70
1/2	1/2	3108 62 22DOT	1"	.87	1.52	1.41	2.80

Identification

Part numbers have been chosen by a method of mnemonics. Each instant fitting for DOT is identified by:

- its series
- the diameter of passage through the fitting
- the thread code or the second passage diameter
- the designation of DOT

Example

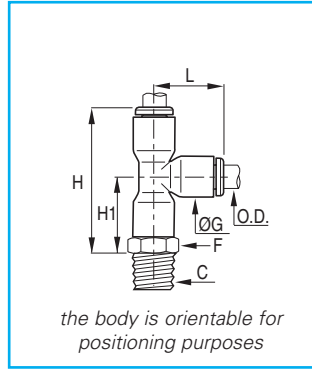
3109 56 11DOT

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

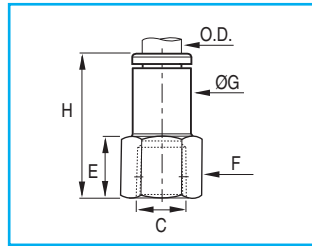
DOT products – threaded fittings

3103 male run tee — fractional inch tube to male NPT



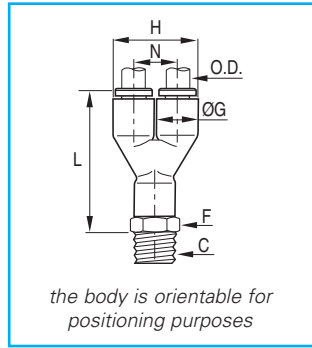
ØD tube	C NPT		F mm	G in	H in	H1 in	L in	oz
5/32	1/8	3103 04 11DOT	11	.334	1.34	.736	.57	.420
5/32	1/4	3103 04 14DOT	14	.334	1.34	.736	.57	.720
3/16	1/8	3103 55 11DOT	11	.427	1.73	.874	.85	.570
1/4	1/8	3103 56 11DOT	11	.427	1.60	.870	.71	.570
1/4	1/4	3103 56 14DOT	14	.427	1.60	.870	.71	.770
1/4	3/8	3103 56 18DOT	18	.427	1.60	.964	.71	1.13
3/8	1/4	3103 60 14DOT	17	.630	2.30	1.22	1.06	1.21
3/8	3/8	3103 60 18DOT	18	.630	2.30	1.22	1.06	1.78
3/8	1/2	3103 60 22DOT	22	.630	2.30	1.22	1.06	2.94
1/2	1/4	3103 62 14DOT	7/8"	.87	2.95	1.51	1.40	2.40
1/2	3/8	3103 62 18DOT	7/8"	.87	2.95	1.51	1.40	2.70
1/2	1/2	3103 62 22DOT	1"	.87	2.95	1.51	1.40	2.80

3114 straight female connector — fractional inch tube to NPT



ØD tube	C NPT		F mm	G in	H in	E in	oz
5/32	1/8	3114 04 11DOT	13	.326	.89	.374	.350
5/32	1/4	3114 04 14DOT	16	.326	1.06	.551	.560
3/16	1/8	3114 55 11DOT	9/16"	.45	1.01	.374	.370
1/4	1/8	3114 56 11DOT	13	.421	.98	.374	.390
1/4	1/4	3114 56 14DOT	16	.421	1.16	.551	.560
3/8	1/4	3114 60 14DOT	16	.610	1.44	.551	2.50
3/8	3/8	3114 60 18DOT	22	.610	1.56	.650	2.58

3148 "Y" male connector — fractional inch tube to NPT



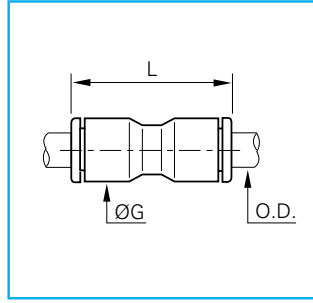
ØD tube	C NPT		F mm	H in	G in	L in	N in	oz
5/32	1/8	3148 04 11DOT	11	.689	.334	1.30	.354	.350
5/32	1/4	3148 04 14DOT	14	.689	.334	1.32	.354	.630
1/4	1/8	3148 56 11DOT	11	.866	.433	1.65	.453	.630
1/4	1/4	3148 56 14DOT	14	.866	.433	1.60	.453	.750

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

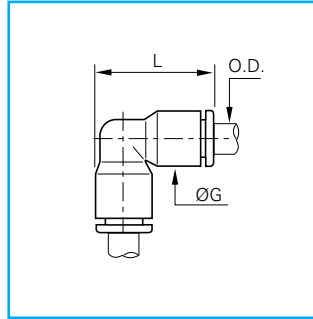
DOT products – tube to tube fittings

3106 union — fractional inch tube to tube



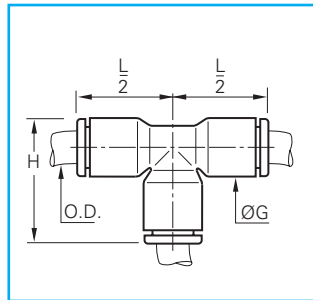
ØD tube		G in	L in	Δ oz
5/32	3106 04 00DOT	.334	.98	.070
3/16	3106 55 00DOT	.427	1.44	.280
1/4	3106 56 00DOT	.427	1.16	.140
3/8	3106 60 00DOT	.630	1.69	.950
1/2	3106 62 00DOT	.87	2.22	1.15

3102 union elbow — fractional inch tube to tube



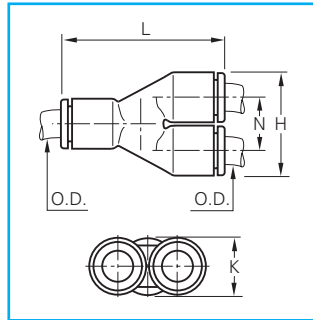
ØD tube		G in	L in	Δ oz
5/32	3102 04 00DOT	.334	.75	.070
3/16	3102 55 00DOT	.427	1.07	.280
1/4	3102 56 00DOT	.427	.93	.140
3/8	3102 60 00DOT	.630	1.36	.950
1/2	3102 62 00DOT	.87	1.84	1.45

3104 union tee — fractional inch tube to tube to tube



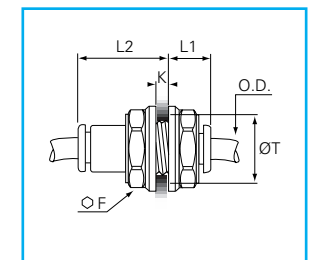
ØD tube		G in	H in	L/2 in	Δ oz
5/32	3104 04 00DOT	.334	.728	.57	.140
3/16	3104 55 00DOT	.427	1.02	.85	.420
1/4	3104 56 00DOT	.427	.905	.93	.490
3/8	3104 60 00DOT	.630	1.33	1.05	1.48
1/2	3104 62 00DOT	.87	1.81	1.41	2.00

3140 union "Y"— fractional inch tube to tube



ØD tube		H in	K in	L in	N in	Δ oz
5/32	3140 04 00DOT	.689	.334	1.12	.354	.140
1/4	3140 56 00DOT	.878	.433	1.42	.453	.350
3/8	3140 60 00DOT	1.30	.630	2.12	.669	.520

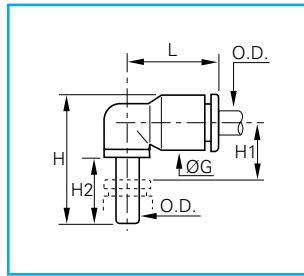
3116 bulkhead union — fractional inch



ØD tube		F mm	K MAX in	L1 in	L2 in	T min in	MAX TORQUE	Δ oz
5/32	3116 04 00DOT	13	.216	.37	.571	.413	11 lb in	.670
1/4	3116 56 00DOT	15	.334	.37	.768	.492	13 lb in	1.02
3/8	3116 60 00DOT	22	.571	.53	1.18	.728	22 lb in	2.96
1/2	3116 62 00DOT	29	.82	.69	1.64	1.02	39 lb in	3.60

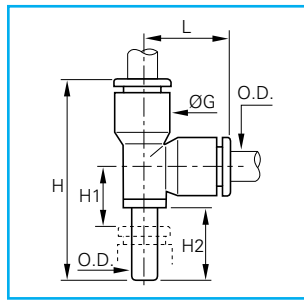
DOT products – plug-in fittings

3182 plug-in elbow — fractional inch



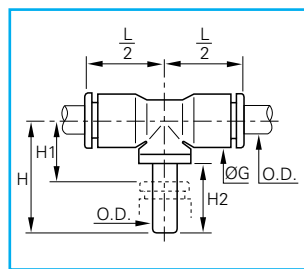
ØD tube		G in	H in	H1 in	H2 in	L in	oz
5/32	3182 04 00DOT	.334	1.02	.374	.748	.55	.110
1/4	3182 56 00DOT	.427	1.20	.433	.827	.73	.140

3183 plug-in run tee — fractional inch



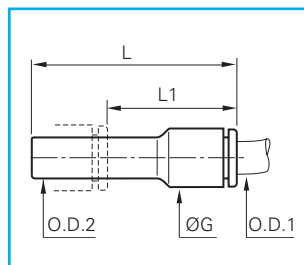
ØD tube		G in	H in	H1 in	H2 in	L in	oz
1/4	3183 56 00DOT	.427	1.71	.433	.827	.73	.210

3188 plug-in tee — fractional inch



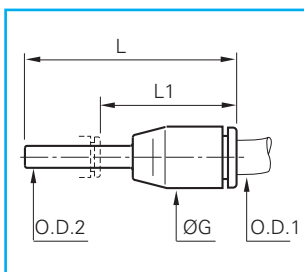
ØD tube		G in	H in	H1 in	H2 in	L/2 in	oz
1/4	3188 56 00DOT	.427	.984	.433	.768	.73	.280

3166 reducer — fractional inch



ØD tube	ØD2 tube		G in	L in	L1 in	oz
5/32	3/16	3166 04 55DOT	.334	1.48	.83	.210
5/32	1/4	3166 04 56DOT	.334	1.48	.91	.250
3/16	1/4	3166 55 56DOT	.433	1.79	1.22	.250
1/4	3/8	3166 56 60DOT	.433	1.61	.81	.350

3168 expander — fractional inch



ØD tube	ØD2 tube		G in	L in	L1 in	oz
1/4	5/32	3168 56 04DOT	.433	1.61	1.14	.320

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

DOT products and cartridges

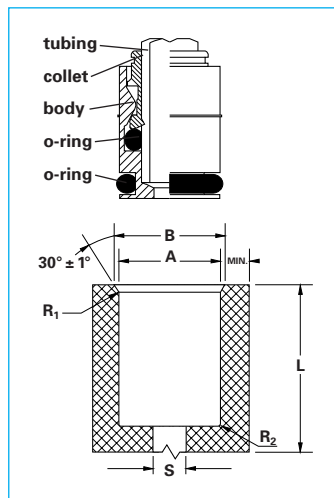
3000 single step cartridges — for the integration into components

materials of construction

body: brass
collet: brass
tube support: brass
inner o-ring: low temperature Buna N – standard
outer o-ring: Buna N (consult factory for different o-ring)

specifications

Compressed air only
 Maximum pressure 200 psi
 Temp. range: -40 to +225°F



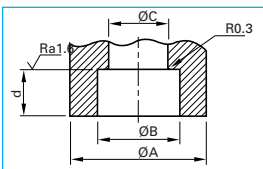
features and benefits

- Economical and compact
- Optional manual release buttons available in many colors for system identification
- Easy press-in capability into a single bore cavity
- External static o-ring to prevent leakage on outside diameter of cartridge
- Internal o-ring seals on O.D. of tubing
- Fixed groove to contain o-ring to avoid falling off during installations
- Comply with D.O.T. FMVSS 571.106 specification requirements (tube support sold separately)
- Suitable for use with metal and plastic parts

O.D. SIZE	3000 00 05 13DT	ØA 0.05 0	ØB ±0.05	L+0.15 0	S ±0.1	R1 ±0.1	R2+0 -0.2	min wall thickness	
								plastic	brass
5/32	3000 00 05 13DT	8.25	8.83	13	3.1	0.4	0.5	1.32	1.04
1/4	3000 00 05 11DT	10.94	12	16	4.5	0.4	0.5	1.45	.95
3/8	3000 00 05 12DT	16.51	17.65	21.4	7.5	0.4	0.5	2.2	1.45

All dimensions and tolerances are in millimeters.

single step cartridge press-in tool dimensions



O.D. SIZE	ØA +0.1 -0	ØB +0.1 -0	ØC +0.1 -0	d ±0.1
5/32	10.7	6.5	4.3	6
1/4	14	8.5	6.2	4.76
3/8	20.5	12.2	10.9	6.35

All dimensions and tolerances are in millimeters.

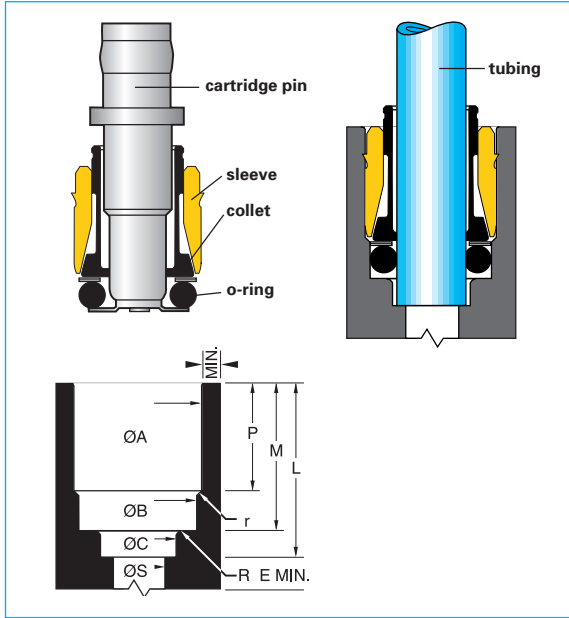
Using cartridges offers application advantages not available with most threaded connectors. Please consult Legris for specific information about these products and assembly data. We work closely with customers on cartridge applications as well as the manufacture of molded components with preassembled cartridges.

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

DOT products – cartridges

3000 3 step cartridge — for the integration into components



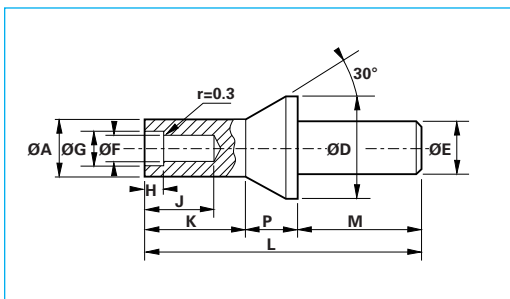
feature and benefits

- Economical and compact
- Outer sleeve, slotted collet, and o-ring assembled to a cartridge pin
- Cartridge pin maintains the component assembly and acts as an insertion guide
- Complete assembly is press fit into a cavity using a form tool
- Once assembled, cartridge pin is discarded and tubing is inserted
- Comply with D.O.T. FMVSS 571.106 specification requirements (tube support sold separately)
- Suitable for use with metal and plastic parts
- Optional manual release buttons available in many colors for system identification

DIMENSIONS

O.D.		ØA +0.05 -0 mm	ØB +0.05 -0 mm	ØC +0.05 -0 mm	ØS	L +0.3 -0 mm	M +0.25 -0 mm	P +0.15 -0 mm	R	r	E MIN	min wall thickness plastic brass
1/8	3000 53 00	7.8	6.2	3.35	2	12	9.6	7.5	0.4	0.2	1	1.3 1.3
5/32	3000 54 00	8.3	7.2	4.2	3.3	12	9.8	7.5	0.4	0.2	1	1.32 1.04
3/16	3000 55 00	8.5	7.8	5	3.5	12	9.8	7.5	0.4	0.2	1	1.22 .94
1/4	3000 56 00	10.5	9.7	6.55	4.5	14	11	8.5	0.5	0.3	1.5	1.45 .95
3/8	3000 60 00	16.5	14.8	9.7	7.5	19	16	11.5	0.7	0.3	1.5	2.2 1.45
1/2	3000 62 00	19	18	12.9	10	20	17	12.5	0.8	0.4	2	2.5 1.50

3 step cartridge press-in tool dimensions



O.D. SIZE	ØA +0.1 -0	ØG +0.1 -0	ØF +0.1 -0	ØD	ØE	H	J	K	P	M	L
1/8	10.2	5.3	3.2	19.05	12.7	6.35	15.87	19.05	12.7	31.75	63.5
5/32	10.7	6.7	4.3	19.05	12.7	6	14	19.05	12.7	31.75	63.5
3/16	11	6.9	4.7	19.05	12.7	6.35	15.87	19.05	12.7	31.75	63.5
1/4	14	8.6	6.2	25.4	12.7	4.76	17.5	25.4	12.7	31.75	69.85
5/16	16	10.1	8.6	25.4	12.7	6	16.5	25.4	12.7	31.75	69.85
3/8	20.5	13.1	10.9	31.75	12.7	6.35	19.5	25.4	12.7	31.75	69.85

All dimensions and tolerances are in millimeters.

Legris DOT and SAE fittings

For all AIR ASSISTED applications except those designed for use between frame and axle or between towed and towing vehicle.

