

# PRO-LITE 350™ HOSE

USE WITH SWIVEL-SEAL™, AUTO-FIT™ OR AUTO-CRIMP™ HOSE ENDS

## HOSE & HOSE ENDS



EARL'S PRO LITE 350™ HOSE IS ONE OF THE LIGHTEST AND MOST DURABLE HOSES AVAILABLE ON THE MARKET TODAY!



### SIZE TYPICAL APPLICATION

SIZE	TYPICAL APPLICATION
4	Small Oil & Fuel Lines, Pressure Gauges, Vacuum Lines
6	Carburetor, Fuel & Oil Lines
8	Water, Fuel & Oil Lines
10	Oil & Fuel Lines, Heater Hoses
12	Water, Fuel & Oil Lines, Heater Hoses
16	Water, Dry Sump & Fuel Lines, Heater Hoses
20	Fuel, Water & Radiator Lines

Serious racers and street performers can benefit from the light weight, durability and temperature characteristics of our Pro Lite 350™ hose. With a maximum pressure rating of 350 psi and an operating temperature range of -40° F to +300° F, the Pro Lite 350™ hose can take the most demanding conditions and still deliver you to the winners circle. Replacing the existing steel braided oil, fuel and coolant hoses on a typical circle track car can save you as much as 30 lbs!

Constructed in the USA, the Pro Lite 350™ hose has a tough, abrasion resistant Nylon sheathing, bonded to the textile inner braid embedded in the synthetic rubber liner. This gives the hose incredible flexibility while maintaining the ability to withstand high vacuum (27 inches/hg) and hot oil temperatures.

Pro Lite 350™ hose has been specifically designed to use EARL'S Swivel Seal™, Auto-Fit™ and Auto Crimp™ Hose ends exclusively. The use of other manufacturers hose ends is not recommended and may compromise the pressure capabilities and durability of the hose. Insist on the brands you trust, EARL'S Pro Lite 350™ hose and Swivel Seal™, Auto-Fit and Auto Crimp™ hose ends.

Inner support spring pg.105

Hose Size AN	Hose I.D. (in)	Hose O.D. (mm)	Max. Op. Press. (PSI)	Min. Bend Radius (in)	Max Vacuum (inHg)	Bulk P/N	3ft./0.9M P/N	6ft./1.8M P/N	10ft./3.0M P/N	20ft./6.1 P/N	33ft./10.1 P/N					
-4	0.22	5.59	0.44	11.18	350	24.13	2.0	50.8	27	91.43	350004ERL	350304ERL	350604ERL	351004ERL	352004ERL	353304ERL
-6	0.35	8.89	0.55	13.97	350	24.13	2.25	57.15	27	91.43	350006ERL	350306ERL	350606ERL	351006ERL	352006ERL	353306ERL
-8	0.44	11.18	0.65	16.51	350	24.13	3.5	88.9	27	91.43	350008ERL	350308ERL	350608ERL	351008ERL	352008ERL	353308ERL
-10	0.57	14.48	0.8	20.32	350	24.13	4.0	101.6	27	91.43	350010ERL	350310ERL	350610ERL	351010ERL	352010ERL	353310ERL
-12	0.69	17.53	0.94	23.88	350	24.13	4.5	114.3	27	91.43	350012ERL	350312ERL	350612ERL	351012ERL	352012ERL	353312ERL
-16	0.88	22.35	1.16	29.46	300	20.68	5.5	139.7	22	74.50	350016ERL	350316ERL	350616ERL	351016ERL	352016ERL	353316ERL
-20	1.12	28.45	1.44	36.58	250	17.23	8.0	203.2			350020ERL	350320ERL	350620ERL	351020ERL	352020ERL	353320ERL



In recent years various fuel manufacturers may have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Pro-Lite 350 or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the below listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Pro-Lite 350™ hose is not to be used with brake fluid.

The Inner Liner constructed from synthetic rubber tube, clean and fast flowing, provides constant flow at operating temperatures from -40° to +300 F.



**EASIER TO CUT AND WORK WITH!**

Partial coverage textile inner braid is embedded outside inner liner.

Full Coverage Outer Braid of Nylon bonded to the hose liner provides 350 PSI maximum pressure capabilities, while maintaining the durability and flexibility that is responsible for the Pro-Lite 350™ hose.

# AUTO-FLEX™ HOSE

USE WITH SWIVEL-SEAL™ AUTO-FIT™ OR AUTO-CRIMP™ HOSE ENDS

## HOSE & HOSE ENDS



A stainless braided hose at a price competitive with the imports. Earl's AUTO-FLEX™ HTE stainless braid- protected synthetic rubber hose is manufactured to our specifications in the U.S.A.

Earl's AUTO-FLEX™ HTE hose features a recommended temperature range and maximum operating pressure equal to our premium quality Perform-O-Flex hose...at a much better price. A partial coverage textile inner braid is imbedded in the HTE liner during manufacture. The hose is finished with a full coverage stainless steel braid which is bonded to the reinforced HTE liner. Continuous use temperature rating is -40 to + 300 degrees F.

Auto-Flex™ hose is intended for use with Swivel-Seal™, Auto-Fit™ and Auto-Mate™ hose ends only. No other Earl's hose ends are intended for use with Auto-Flex™ hose. The use of other manufacturers hose ends is not recommended.

SIZE	TYPICAL APPLICATION
3/4	Small Oil & Fuel Lines, Pressure Gauges, Vacuum Lines
5	Fuel & Vacuum Lines where Hose is Clamped
6	Carburetor, Fuel & Oil Lines
7	Fuel, Vacuum & Oil Lines
8/9	Water, Fuel & Oil Lines
10/11	Oil & Fuel Lines, Heater Hoses
12	Water, Oil Lines & Heater Hoses
14	Water Lines
16	Water, Oil Lines & Heater Hoses
18	Water Lines
28	Water & Radiator Lines
32	Water & Radiator Lines

**NOTE:** Earl's reserves the right to substitute hose of comparable or improved quality.

### FOR USE WITH SWIVEL-SEAL™, AUTO-FIT™ OR AUTO-CRIMP™ HOSE ENDS

Hose Size AN	Hose I.D. (in)	Hose O.D. (mm)	Hose O.D. (in)	Max. Op. Pressure (PSI)*	Max. Op. Pressure (Bar)*	Min. Bend Radius (in)	Min. Bend Radius (mm)	Bulk P/N	3ft./0.9M P/N	6ft./1.8M P/N	10ft./3.0M P/N	20ft./6.1M P/N	33ft./10.1M P/N
-4	0.22	5.59	0.44	1500	103.40	2.0	50.8	300004ERL	303004ERL	306004ERL	310004ERL	320004ERL	333004ERL
-6	0.34	8.64	0.55	1500	103.40	2.5	63.5	300006ERL	303006ERL	306006ERL	310006ERL	320006ERL	333006ERL
-8	0.44	11.18	0.64	1500	103.40	3.5	88.9	300008ERL	303008ERL	306008ERL	310008ERL	320008ERL	333008ERL
-10	0.56	14.22	0.80	2032	1250	4.0	101.6	300010ERL	303010ERL	306010ERL	310010ERL	320010ERL	333010ERL
-12	0.69	17.53	0.94	2388	1000	4.5	114.3	300012ERL	303012ERL	306012ERL	310012ERL	320012ERL	333012ERL
-16	0.88	22.35	1.16	2946	750	5.5	139.7	300016ERL	303016ERL	306016ERL	310016ERL	320016ERL	333016ERL

### FOR USE WITH EARL'S ECON-O-FIT™ OR HOSE CLAMPS ONLY - NO HOSE ENDS AVAILABLE

Hose Size AN	Hose I.D. (in)	Hose O.D. (mm)	Hose O.D. (in)	Max. Op. Pressure (PSI)*	Max. Op. Pressure (Bar)*	Min. Bend Radius (in)	Min. Bend Radius (mm)	Bulk P/N	3ft./0.9M P/N	6ft./1.8M P/N	10ft./3.0M P/N	20ft./6.1M P/N	33ft./10.1M P/N
-3	0.16	4.06	0.38	9.65	***	2.0	50.8	300003ERL	303003ERL	306003ERL	310003ERL	320003ERL	-
-5	0.25	6.35	0.50	12.70	***	2.0	50.8	300005ERL	303005ERL	306005ERL	310005ERL	320005ERL	-
-7	0.38	9.65	0.63	16.00	***	3.0	76.2	300007ERL	303007ERL	306007ERL	310007ERL	320007ERL	-
-9	0.50	12.70	0.72	18.29	***	3.5	88.9	300009ERL	303009ERL	306009ERL	310009ERL	320009ERL	-
-11	0.63	16.00	0.88	22.35	***	4.0	101.6	300011ERL	303011ERL	306011ERL	310011ERL	320011ERL	-
-14	0.75	19.05	1.00	25.40	***	5.0	127	300014ERL	303014ERL	306014ERL	310014ERL	320014ERL	-
-18	1.00	25.40	1.31	33.27	***	7.0	177.8	300018ERL	303018ERL	306018ERL	310018ERL	320018ERL	-
-28	1.50	38.10	1.84	46.74	***	11.0	279.4	300280ERL	303028ERL	306028ERL	310028ERL	320028ERL	-
-32	1.75	44.45	2.13	54.10	***	12.5	317.5	300320ERL	303032ERL	306032ERL	310032ERL	320032ERL	-

\* When used with Swivel-Seal, Auto-Fit or Auto-Crimp hose ends.

\*\*\* Limiting pressure will be hose clamp



In recent years various fuel manufacturers may have added any number of new unpublished additives to their blends. It is therefore very difficult to know how the tube compound used in the inner liner of our Super-stock, Auto Flex and Perform-O-Flex or any other brand of elastomeric hose will react with a specific fuel. Because of the unknowns described above, we are unable to guarantee that the below listed hoses are the best possible products to use with any specific fuel. If in doubt use teflon lined hose. Auto-Flex hose is not to be used with brake fluid.

Partial Coverage Textile Inner Braid is woven into the inner liner of Temprel high-temperature synthetic rubber. The timing of the braiding and the curing of the rubber during construction are the key to achieving the desired flexibility and mechanical bond between the braiding layers. Beware of cheaper hoses that do not have this critical mechanical bond.



The Inner Liner constructed from Temprel synthetic rubber tube, clean and fast flowing, provides constant flow at operating temperatures from -40° to +300 F.

Full Coverage Outer Braid of High Tensile Stainless Steel bonded to the hose liner provides maximum pressure capabilities, while maintaining the beauty, and flexibility that is responsible for the popularity of AUTO-FLEX™ hose.

# AUTO-FIT™ HOSE ENDS

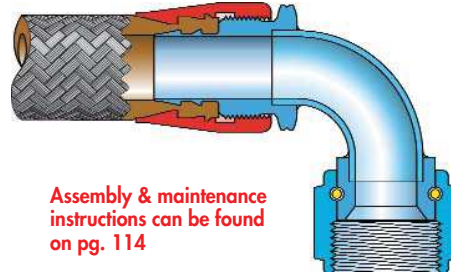
## HOSE & HOSE ENDS

Earl's Auto-Fit™ design provides the reliability and appearance of Swivel-Seal™ but are easier to assemble and less expensive.

With the conventional single nipple hose end design used by some of our competitors, the nipple actually threads into the hose and is retained by the socket. The thread forms a part of the seal—and a possible spiral leak path.

The Auto-Fit™ nipple is barbed rather than threaded. In assembly the nipple is pushed into rather than threaded into the hose. The hose is compressed between the nipple and the socket, sealing at the barbs. Hose retention is positive (the same as SWIVEL-SEAL™) and there is no spiral path for possible leaks.

Auto-Fit™ hose ends are available in aluminum, steel and stainless steel. The lightweight aluminum hose ends are suitable for most applications. Steel Auto-Fit™ hose ends should be used when increased physical strength and/or where resistance to alcohol fuels is required. The stainless units offer maximum corrosion and temperature resistance and are recommended for marine or chemical use and for exotic fuels.



Assembly & maintenance instructions can be found on pg. 114

Hose end specifications can be found on pg. 124

Replacement sockets can be found on pg. 19

Size	Typical Application
4	Fuel Lines, Fuel and Oil Pressure Gauges
6	Fuel Lines
8	Fuel, Remote Oil   Filter Lines
10	Dry Sump, Remote Oil Filter Lines
12	Dry Sump, Remote Oil Filter Lines
16	Dry Sump & Water Lines
20	Water Lines
24	Water Lines



SWIVEL-SEAL hose ends are designed to be used with Earl's PERFORM-O-FLEX™, PRO-LITE 350™ and AUTO-FLEX™ braid-protected hose. Not intended for use on any other Earl's hose. Use with other manufacturers' hose is not recommended.

### STRAIGHT FITTINGS



HOSE END SIZE	USE HOSE SIZE	ADAPTER SIZE	ALUMINUM	STEEL	STAINLESS
			PART #	PART #	PART #
4	4	4	300104ERL	400104ERL	490104ERL
6	6	6	300106ERL	400106ERL	490106ERL
8	8	8	300108ERL	400108ERL	490108ERL
10	10	10	300110ERL	-	490110ERL
12	12	12	300112ERL	-	490112ERL*
16	16	16	300116ERL	-	490116ERL*
20	20	20	300120ERL	-	490120ERL*
24	24	24	300124ERL	-	490124ERL*

### 45° BENT TUBE FITTINGS



HOSE END SIZE	USE HOSE SIZE	ADAPTER SIZE	ALUMINUM	STEEL	STAINLESS
			PART #	PART #	PART #
4	4	4	304604ERL	404604ERL	494604ERL
6	6	6	304606ERL	404606ERL	494606ERL
8	8	8	304608ERL	404608ERL	494608ERL
10	10	10	304610ERL	-	494610ERL
12	12	12	304612ERL	-	494612ERL*
16	16	16	304616ERL	-	494616ERL*
20	20	20	304620ERL	-	494620ERL*
24	24	24	304624ERL	-	494624ERL*

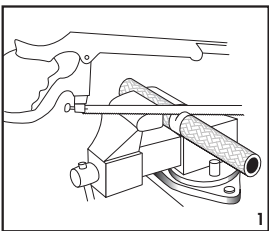
\* Available on a Special Order basis only.



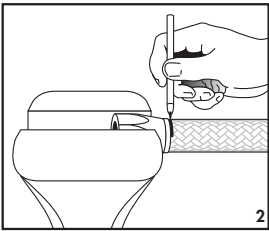


**Pressure Test All Hose Assemblies Before Installation!**

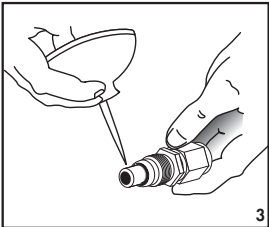
### SWIVEL-SEAL™ HOSE ENDS WITH PERFORM-O-FLEX™, PRO-LITE 350™ OR AUTO-FLEX™ HOSE



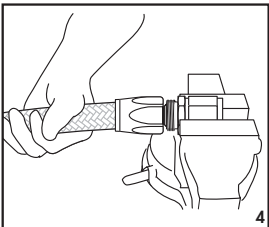
1. Cut the hose to the required length.
  - a. Measure distance between ports or adapter fittings along the path that the hose run will follow—allowing for bend radius, hose end length and offset to obtain length and hose required.
  - b. Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
  - c. Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.



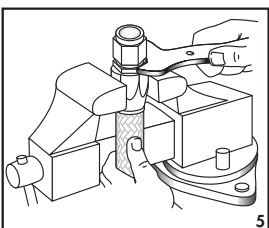
2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads provided for the cutter. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the threads—mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.



3. Lubricate the inside of the hose, the cutter threads and the socket threads with Earl's assembly lube or engine oil. Place the nipple in a vise.



4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the cutter. Holding the hose and not the socket, start the threads and go as far as you can by hand. Depending on the size of the hose, some force may be necessary in this part of the operation.



5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.



6. Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, return to Step 3.

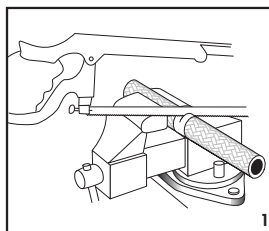


7. Clean the hose and the hose ends with CLEAN solvent.

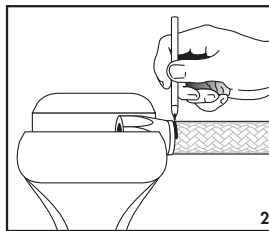


8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.

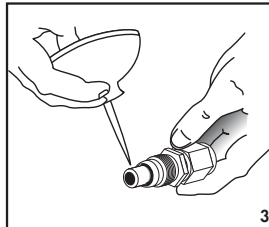
### AUTO-FIT™ HOSE ENDS WITH PERFORM-O-FLEX™, AUTO-FLEX™, OR PRO-LITE 350™ HOSE



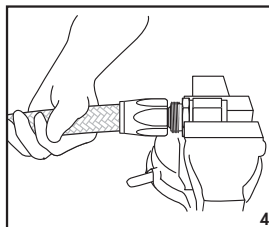
1. Cut the hose to the required length.
  - a. Measure distance between ports or adapter fittings along the path that the hose run will follow—allowing for bend radius, hose end length and offset to obtain length and hose required.
  - b. Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
  - c. Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.



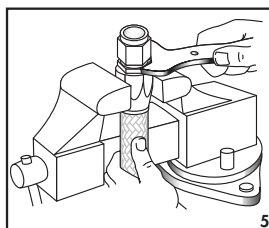
2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the socket—mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.



3. Lubricate the inside of the hose, the nipple threads and the socket threads with Earl's Assembly Lube or Engine Oil. Place the nipple in a vise.



4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the nipple. Holding the hose and not the socket, start the threads and go as far as you can by hand. Depending on the size of the hose, some force may be necessary in this part of the operation.



5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.



6. Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, return to Step 3.



7. Clean the hose and the hose ends with CLEAN solvent.



8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.