

TUBE FITTING

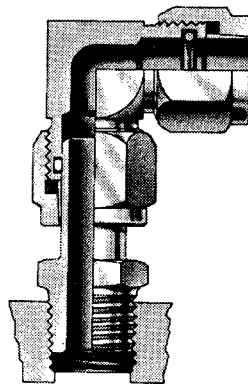
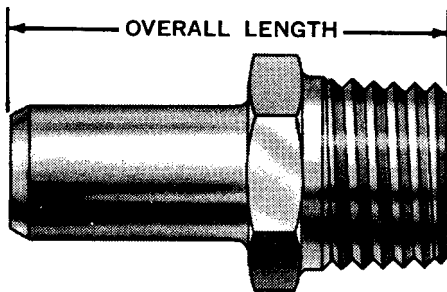
NIPPLES AND ADAPTERS

TPN • Standard Sizes

Part No.	Tube O.D.	Male Pipe Thread	Overall Length
4TPN	1/4"	1/8"	15/8"
5TPN	5/16"	1/8"	15/8"
6TPN	3/8"	1/4"	129/32"
8TPN	1/2"	3/8"	25/32"
10TPN	5/8"	1/2"	27/16"
12TPN	3/4"	3/4"	29/16"
14TPN	7/8"	3/4"	29/16"
16TPN	1"	1"	215/16"
20TPN	1 1/4"	1 1/4"	39/32"
24TPN	1 1/2"	1 1/2"	35/8"
32TPN	2"	2"	47/32"

Other size combinations available.

TPN STD Length
 TPN-L Long Length
 TPN-LL X-Long
 TPN-LLL X-L-Long



Lenz TPN's, TAN's and TFN's Permit Easy Positioning In Any Direction

TPN TUBE-PIPE NIPPLES

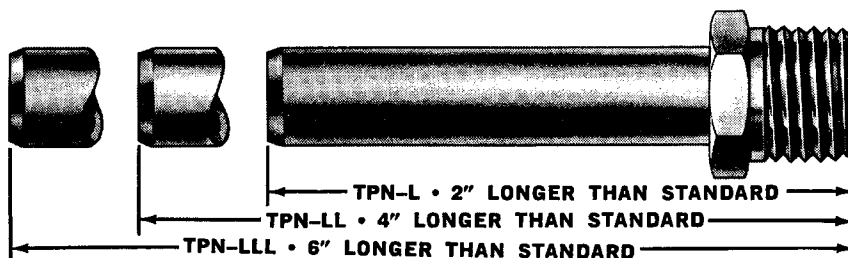


TPN's, TAN's and TFN's are used with elbows or tees for easy positioning in any desired direction including up and down. Shown to the left is a TPN with a 500 series elbow. For other practical uses of these fittings see page 35.

*TAN and TFN Nipples are also available in Long, Extra Long and Extra Long-Long lengths on special order.

LONG, EXTRA LONG & EXTRA LONG-LONG TPN

When ordering be certain to specify L, LL or LLL by adding to standard part numbers in table above. Refer to drawing shown below to determine your length requirements.



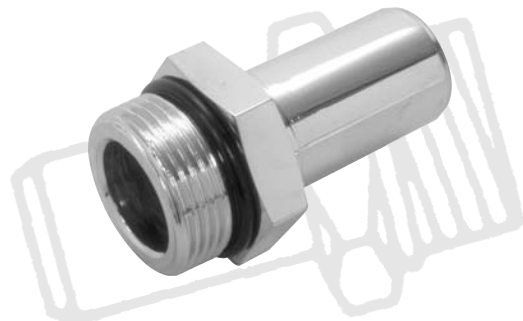
Example of L, LL, and LLL Part Numbers- Where a 12TPN with an overall length of 69/16" is desired, request 12TPN-LL (4" longer than standard 29/16")

TAN* • Standard Sizes

Part No.	Tube O.D.	Straight Thread	Overall Length
4TAN	1/4"	7/16"-20	15/8"
5TAN	5/16"	1/2"-20	15/8"
6TAN	3/8"	9/16"-18	13/4"
8TAN	1/2"	3/4"-16	21/32"
10TAN	5/8"	7/8"-14	23/16"
12TAN	3/4"	1 1/16"-12	215/32"
14TAN	7/8"	1 3/16"-12	21/2"
16TAN	1"	1 5/16"-12	221/32"
20TAN	1 1/4"	1 5/8"-12	229/32"
24TAN	1 1/2"	1 7/8"-12	33/16"
32TAN	2"	2 1/2"-12	323/32"

TAN* TUBE- "A" NIPPLES

For Use With SAE Straight Thread Fittings



Stainless Steel Tubing

Lenz O-ring Seal tube fitting performs equally well on stainless steel tubing as with carbon steel tubing, but requires the use of stainless steel sleeves (#165-xxSS) and stainless steel buffer washers (#195-xx-SS), even when used with steel fittings. Example, when ordering: 100-12-12 with ss sleeves. When Ordering Lenz Fittings in all Stainless Steel Add SS To The Part Number. Example: 100-12-12-SS

TUBING

(SPECIFICATIONS & IDENTIFICATION)

LENZ HYDRAULIC STEEL TUBING Dead Soft • Fully Annealed • Bright Finish

Superior grade tubing selected for excellence of bending and flaring. The formula given below is determined with the flow calculated to give nominal pressure drop through tubing having the diameter and wall thickness as indicated in the table to left. This flow is based on a velocity of 15 feet per second and fluids having a maximum viscosity of 315 S.S.U.

Formula

$$GPM = \frac{\pi D^2 \times 15}{1.283} = 36.69 \times D^2$$

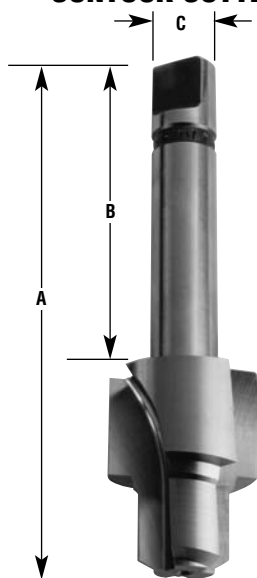
*D = Inside Diameter of Tubing

Furnished in 12 Ft. Lengths-Longer Lengths On Request.
**Safety Factor of 5 means that the tubing will burst at 5 times the working pressure indicated.

Lenz Hydraulic Steel Tubing

Size No.	O.D.	I.D.	Wall Thickness	G.P.M. Flow	Working Pressure
4.035	1/4"	.180	.035	1.2	2800
4.049	1/4"	.152	.049	.85	3920
5.035	5/16"	.242	.035	2.15	2240
5.049	5/16"	.214	.049	1.68	3136
6.035	3/8"	.305	.035	3.45	1867
6.049	3/8"	.277	.049	2.82	2613
6.065	3/8"	.245	.065	2.2	3467
8.035	1/2"	.430	.035	6.79	1400
8.049	1/2"	.402	.049	5.92	1960
8.065	1/2"	.370	.065	5.03	2600
10.049	5/8"	.527	.049	10.2	1568
10.065	5/8"	.495	.065	9.0	2080
10.095	5/8"	.435	.095	6.94	3040
12.049	3/4"	.652	.049	15.6	1307
12.065	3/4"	.620	.065	14.1	1733
12.095	3/4"	.560	.095	11.5	2533
12.109	3/4"	.532	.109	10.4	2907
14.049	7/8"	.777	.049	22.1	1120
14.065	7/8"	.745	.065	20.4	1486
14.095	7/8"	.685	.095	17.2	2171
16.065	1"	.870	.065	27.8	1300
16.095	1"	.810	.095	24.1	1900
16.120	1"	.760	.120	21.2	2400
20.065	1 1/4"	1.120	.065	46.0	1040
20.095	1 1/4"	1.060	.095	41.2	1520
20.120	1 1/4"	1.010	.120	37.4	1920
24.095	1 1/2"	1.310	.095	63.0	1267
24.120	1 1/2"	1.260	.120	58.1	1600

PCC LENZ S.A.E. PORT CONTOUR CUTTERS



PCT LENZ PRECISION S.A.E. PORT THREAD TAPS



These tools have three flutes which form the standard internal O-Ring Boss for straight thread tube fittings. Standard in high-speed steel. Carbide tipped available on special order. Four flute cutters available on special order.

PCC-LENZ S.A.E. Port Contour Cutter

Part No.	Tube O.D.	Thread Size	"A" Overall Length	"B" Shank Length	"C" Shank Dia.
PCC-2	1/8"	5/16"-24	3 ²³ / ₃₂ "	2 ¹¹ / ₆₄ "	.500
PCC-4	1/4"	7/16"-20	3 ²⁵ / ₃₂ "	2 ⁵ / ₃₂ "	.500
PCC-5	5/16"	1/2"-20	3 ²⁷ / ₃₂ "	2 ⁷ / ₃₂ "	.500
PCC-6	3/8"	9/16"-18	3 ²⁹ / ₃₂ "	2 ⁵ / ₆₄ "	.500
PCC-8	1/2"	3/4"-16	3 ³¹ / ₃₂ "	2 ¹ / ₁₆ "	.500
PCC-10	5/8"	7/8"-14	3 ³¹ / ₃₂ "	1 ⁵³ / ₆₄ "	.750
PCC-12	3/4"	1 1/16"-12	4 1/8"	1 ⁵⁵ / ₆₄ "	.750
PCC-14	7/8"	1 3/16"-12	4 1/8"	1 ²⁷ / ₃₂ "	.750
PCC-16	1"	1 5/16"-12	4 1/8"	1 ²⁷ / ₃₂ "	.750
PCC-20	1 1/4"	1 5/8"-12	4 1/8"	1 ⁵³ / ₆₄ "	1.000
PCC-24	1 1/2"	1 7/8"-12	4 1/8"	1 ¹³ / ₁₆ "	1.000
PCC-32	2"	2 1/2"-12	4 1/4"	1 ²⁹ / ₃₂ "	1.000

PCT • LENZ Precision S.A.E. Port Thread Taps

Part Number	Tube O.D.	Thread Size
PCT-2	1/8"	5/16"-24
PCT-4	1/4"	7/16"-20
PCT-5	5/16"	1/2"-20
PCT-6	3/8"	9/16"-18
PCT-8	1/2"	3/4"-16
PCT-10	5/8"	7/8"-14
PCT-12	3/4"	1 1/16"-12
PCT-14	7/8"	1 3/16"-12
PCT-16	1"	1 5/16"-12
PCT-20	1 1/4"	1 5/8"-12
PCT-24	1 1/2"	1 7/8"-12
PCT-32	2"	2 1/2"-12