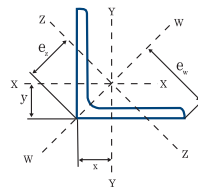
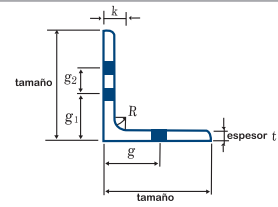


L
APS
ANGULO DE LADOS IGUALES
MILIMÉTRICO

Acero ASTM A-36	$f_y=2530 \text{ Kg/cm}^2$
Acero ASTM A-529-50	$f_y=3515 \text{ Kg/cm}^2$
Acero ASTM A-572-50	$f_y=3515 \text{ Kg/cm}^2$
Acero ASTM A-572-60	$f_y=4200 \text{ Kg/cm}^2$




PROPIEDADES



DIMENSIONES

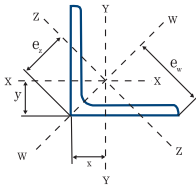
Designación tamaño x espesor t	Peso kg/m	k mm	R mm	Gramil			Sujetadores			Área cm ²	Ejes X-X y Y-Y				Eje W-W				Eje Z-Z				
				g	g1	g2	Diametro máximo		Espac. recom.		l	S	r	x=y	l	S	r	e _w	l	S	r	e _z	
				mm	mm	mm	mm	in.	mm		cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
L	25 x 3	1.12	11.1	3.2	14	-	-	9.5	3/8	30	1.41	0.82	0.46	0.76	0.74	1.30	0.74	0.96	1.77	0.34	0.32	0.49	1.04
L	25 x 4	1.44	11.1	3.2	14	-	-	9.5	3/8	30	1.84	1.04	0.60	0.75	0.77	1.63	0.92	0.94	1.77	0.44	0.40	0.49	1.09
L	25 x 5	1.77	12.7	3.2	14	-	-	9.5	3/8	30	2.25	1.23	0.72	0.74	0.81	1.92	1.09	0.92	1.77	0.53	0.47	0.49	1.14
L	25 x 6	2.07	14.3	3.2	14	-	-	9.5	3/8	30	2.64	1.40	0.84	0.73	0.84	2.17	1.23	0.91	1.77	0.63	0.53	0.49	1.19
L	30 x 3	1.36	11.1	4.7	18	-	-	12.7	1/2	40	1.71	1.46	0.68	0.92	0.86	2.32	1.09	1.17	2.12	0.59	0.49	0.59	1.22
L	30 x 4	1.76	11.1	4.7	18	-	-	12.7	1/2	40	2.24	1.86	0.88	0.91	0.90	2.94	1.39	1.15	2.12	0.77	0.61	0.59	1.27
L	30 x 5	2.16	12.7	4.7	18	-	-	12.7	1/2	40	2.75	2.22	1.07	0.90	0.93	3.49	1.65	1.13	2.12	0.94	0.71	0.58	1.32
L	30 x 6	2.54	14.3	4.7	18	-	-	12.7	1/2	40	3.24	2.55	1.25	0.89	0.97	3.99	1.88	1.11	2.12	1.11	0.81	0.58	1.37
L	35 x 3	1.60	11.1	4.7	20	-	-	12.7	1/2	40	2.01	2.36	0.94	1.08	0.99	3.77	1.52	1.37	2.47	0.96	0.69	0.69	1.39
L	35 x 4	2.07	11.1	4.7	20	-	-	12.7	1/2	40	2.64	3.03	1.22	1.07	1.02	4.81	1.94	1.35	2.47	1.24	0.86	0.69	1.45
L	35 x 5	2.55	12.7	4.7	20	-	-	12.7	1/2	40	3.25	3.64	1.49	1.06	1.06	5.76	2.33	1.33	2.47	1.51	1.01	0.68	1.50
L	35 x 6	3.01	14.3	4.7	20	-	-	12.7	1/2	40	3.84	4.20	1.74	1.05	1.09	6.61	2.67	1.31	2.47	1.78	1.15	0.68	1.55
L	40 x 3	1.84	11.1	4.7	20	-	-	12.7	1/2	40	2.31	3.58	1.24	1.25	1.11	5.72	2.02	1.57	2.83	1.45	0.92	0.79	1.57
L	40 x 4	2.39	11.1	4.7	20	-	-	12.7	1/2	40	3.04	4.61	1.62	1.23	1.15	7.34	2.59	1.55	2.83	1.88	1.16	0.79	1.62
L	40 x 5	2.94	12.7	4.7	20	-	-	12.7	1/2	40	3.75	5.56	1.97	1.22	1.18	8.83	3.12	1.53	2.83	2.29	1.37	0.78	1.67
L	40 x 6	3.48	14.3	4.7	20	-	-	12.7	1/2	40	4.44	6.45	2.32	1.21	1.22	10.20	3.61	1.52	2.83	2.70	1.57	0.78	1.72
L	40 x 7	4.01	14.3	4.7	20	-	-	12.7	1/2	40	5.11	7.27	2.65	1.19	1.25	11.45	4.05	1.50	2.83	3.10	1.75	0.78	1.77
L	40 x 8	4.52	15.9	4.7	20	-	-	12.7	1/2	40	5.76	8.04	2.97	1.18	1.29	12.60	4.45	1.48	2.83	3.49	1.92	0.78	1.82
L	45 x 3	2.08	11.1	6.3	25	-	-	15.9	5/8	50	2.61	5.16	1.58	1.41	1.24	8.24	2.59	1.78	3.18	2.08	1.19	0.89	1.75
L	45 x 4	2.70	11.1	6.3	25	-	-	15.9	5/8	50	3.44	6.67	2.07	1.39	1.27	10.62	3.34	1.76	3.18	2.71	1.50	0.89	1.80
L	45 x 5	3.34	12.7	6.3	25	-	-	15.9	5/8	50	4.25	8.07	2.53	1.38	1.31	12.84	4.03	1.74	3.18	3.31	1.79	0.88	1.85
L	45 x 6	3.96	14.3	6.3	25	-	-	15.9	5/8	50	5.04	9.39	2.98	1.37	1.34	14.89	4.68	1.72	3.18	3.89	2.05	0.88	1.90
L	45 x 7	4.56	14.3	6.3	25	-	-	15.9	5/8	50	5.81	10.63	3.41	1.35	1.38	16.80	5.28	1.70	3.18	4.47	2.29	0.88	1.95
L	45 x 8	5.15	15.9	6.3	25	-	-	15.9	5/8	50	6.56	1.79	3.82	1.34	1.42	18.55	5.83	1.68	3.18	5.03	2.51	0.88	2.00
L	50 x 3	2.32	11.1	6.3	30	-	-	15.9	5/8	50	2.91	7.15	1.96	1.57	1.36	11.42	3.23	1.98	3.54	2.88	1.50	0.99	1.93
L	50 x 4	3.01	11.1	6.3	30	-	-	15.9	5/8	50	3.84	9.26	2.57	1.55	1.40	14.77	4.18	1.96	3.54	3.75	1.90	0.99	1.98
L	50 x 5	3.73	12.7	6.3	30	-	-	15.9	5/8	50	4.75	11.25	3.16	1.54	1.43	17.91	5.07	1.94	3.54	4.59	2.26	0.98	2.03
L	50 x 6	4.43	14.3	6.3	30	-	-	15.9	5/8	50	5.64	13.13	3.72	1.53	1.47	20.85	5.90	1.92	3.54	5.40	2.60	0.98	2.08
L	50 x 7	5.11	15.9	6.3	30	-	-	15.9	5/8	50	6.51	14.90	4.26	1.51	1.51	23.59	6.67	1.90	3.54	6.20	2.91	0.98	2.13
L	50 x 8	5.78	15.9	6.3	30	-	-	15.9	5/8	50	7.36	16.57	4.79	1.50	1.54	26.15	7.40	1.89	3.54	6.98	3.20	0.97	2.18
L	50 x 9	6.43	17.5	6.3	30	-	-	15.9	5/8	50	8.19	18.14	5.30	1.49	1.58	28.54	8.07	1.87	3.54	7.75	3.48	0.97	2.23
L	55 x 4	3.33	11.1	6.3	30	-	-	15.9	5/8	50	4.24	12.46	3.13	1.71	1.52	19.88	5.11	2.17	3.89	5.03	2.34	1.09	2.15
L	55 x 5	4.12	12.7	6.3	30	-	-	15.9	5/8	50	5.25	15.17	3.85	1.70	1.56	24.17	6.22	2.15	3.89	6.17	2.80	1.08	2.21
L	55 x 6	4.90	14.3	6.3	30	-	-	15.9	5/8	50	6.24	17.74	4.54	1.69	1.60	28.22	7.25	2.13	3.89	7.26	3.22	1.08	2.26
L	55 x 7	5.66	15.9	6.3	30	-	-	15.9	5/8	50	7.21	20.18	5.22	1.67	1.63	32.02	8.23	2.11	3.89	8.34	3.61	1.08	2.31
L	55 x 8	6.40	15.9	6.3	30	-	-	15.9	5/8	50	8.16	22.49	5.87	1.66	1.67	35.59	9.15	2.09	3.89	9.39	3.98	1.07	2.36
L	55 x 9	7.13	17.5	6.3	30	-	-	15.9	5/8	50	9.09	24.68	6.50	1.65	1.70	38.94	10.01	2.07	3.89	10.42	4.33	1.07	2.41
L	60 x 4	3.64	11.1	6.3	35	-	-	15.9	5/8	50	4.64	16.31	3.75	1.88	1.65	26.05	6.14	2.37	4.24	6.58	2.82	1.19	2.33
L	60 x 5	4.51	12.7	6.3	35	-	-	15.9	5/8	50	5.75	19.91	4.61	1.86	1.68	31.74	7.48	2.35	4.24	8.07	3.39	1.18	2.38
L	60 x 6	5.37	14.3	6.3	35	-	-	15.9	5/8	50	6.84	23.33	5.45	1.85	1.72	37.14	8.75	2.33	4.24	9.52	3.91	1.18	2.43
L	60 x 7	6.21	15.9	6.3	35	-	-	15.9	5/8	50	7.91	26.59	6.27	1.83	1.76	42.25	9.96	2.31	4.24	10.92	4.40	1.18	2.48
L	60 x 8	7.03	15.9	6.3	35	-	-	15.9	5/8	50	8.96	29.69	7.06	1.82	1.79	47.07	11.09	2.29	4.24	12.30	4.85	1.17	2.54
L	60 x 9	7.84	17.5	6.3	35	-	-	15.9	5/8	50	9.99	32.64	7.83	1.81	1.83	51.62	12.17	2.27	4.24	13.66	5.28	1.17	2.59
L	65 x 4	3.96	11.1	6.3	35	-	-	19	3/4	60	5.04	20.90	4.42	2.04	1.77	33.37	7.26	2.57	4.60	8.42	3.36	1.29	2.51
L	65 x 5	4.91	12.7	6.3	35	-	-	19	3/4	60	6.25	25.55	5.45	2.02	1.81	40.76	8.87	2.55	4.60	10.34	4.04	1.29	2.56
L	65 x 6	5.84	14.3	6.3	35	-	-	19	3/4	60	7.44	29.99	6.44	2.01	1.85	47.78	10.39	2.53	4.60	12.20	4.67	1.28	2.61
L	65 x 7	6.76	15.9	6.3	35	-	-	19	3/4	60	8.61	34.23	7.41	1.99	1.88	54.45	11.85	2.51	4.60	14.01	5.26	1.28	2.66
L	65 x 8	7.66	15.9	6.3	35	-	-	19	3/4	60	9.76	38.29	8.36	1.98	1.92	60.79	13.23	2.50	4.60	15.78	5.82	1.27	2.71
L	65 x 9	8.55	17.5	6.3	35	-	-	19	3/4	60	10.89	42.16	9.28	1.97	1.95	66.80	14.53	2.48	4.60	17.53	6.34	1.27	2.76

LOS PRODUCTOS EN FRANJA AMARILLA SON DE EXISTENCIA FRECUENTE
 LOS PRODUCTOS SIN SOMBRER, SON DE FABRICACIÓN ESPECIAL, SOBRE PEDIDO

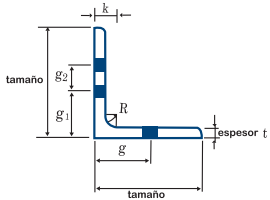


APS
ANGULO DE LADOS IGUALES
MILIMÉTRICO

Acero ASTM A-36	$f_y=2530 \text{ Kg/cm}^2$
Acero ASTM A-529-50	$f_y=3515 \text{ Kg/cm}^2$
Acero ASTM A-572-50	$f_y=3515 \text{ Kg/cm}^2$
Acero ASTM A-572-60	$f_y=4200 \text{ Kg/cm}^2$



PROPIEDADES



DIMENSIONES

Designación tamaño x espesor t	Peso	k	R	Gramil			Sujetadores		Área	Ejes X-X y Y-Y				Eje W-W				Eje Z-Z					
				g	g1	g2	Diametro máximo	Espac. recom.		l	S	r	x=y	l	S	r	e _w	l	S	r	e _z		
PERFIL	mm x mm	kg/m	mm	mm	mm	mm	mm	in.	mm	cm ²	cm ⁴	cm ³	cm	cm	cm ⁴	cm ³	cm	cm	cm ⁴	cm ³	cm	cm	
LI	70 x 5	5.30	12.7	6.3	40	-	-	19	3/4	60	6.75	32.16	6.35	2.18	1.94	51.33	10.37	2.76	4.95	12.99	4.75	1.39	2.74
LI	70 x 6	6.31	14.3	6.3	40	-	-	19	3/4	60	8.04	37.81	7.52	2.17	1.97	60.27	12.18	2.74	4.95	15.34	5.50	1.38	2.79
LI	70 x 7	7.31	14.3	6.3	40	-	-	19	3/4	60	9.31	43.22	8.66	2.15	2.01	68.81	13.90	2.72	4.95	17.63	6.21	1.38	2.84
LI	70 x 8	8.29	15.9	6.3	40	-	-	19	3/4	60	10.56	48.41	9.77	2.14	2.04	76.95	15.55	2.70	4.95	19.87	6.87	1.37	2.89
LI	70 x 9	9.25	17.5	6.3	40	-	-	19	3/4	60	11.79	53.39	10.85	2.13	2.08	84.70	17.11	2.68	4.95	22.07	7.50	1.37	2.94
LI	75 x 5	5.69	12.7	7.9	45	-	-	22	7/8	70	7.25	39.83	7.32	2.34	2.06	63.59	11.99	2.96	5.30	16.07	5.51	1.49	2.91
LI	75 x 6	6.78	14.3	7.9	45	-	-	22	7/8	70	8.64	46.88	8.68	2.33	2.10	74.78	14.10	2.94	5.30	18.99	6.40	1.48	2.97
LI	75 x 7	7.86	14.3	7.9	45	-	-	22	7/8	70	10.01	53.66	10.00	2.32	2.13	85.49	16.12	2.92	5.30	21.83	7.24	1.48	3.02
LI	75 x 8	8.92	15.9	7.9	45	-	-	22	7/8	70	11.36	60.18	11.29	2.30	2.17	95.75	18.05	2.90	5.30	24.62	8.02	1.47	3.07
LI	75 x 9	9.96	17.5	7.9	45	-	-	22	7/8	70	12.69	66.45	12.55	2.29	2.21	105.55	19.90	2.88	5.30	27.35	8.77	1.47	3.12
LI	75 x 10	11.00	17.5	7.9	45	-	-	22	7/8	70	14.00	72.48	13.78	2.28	2.24	114.92	21.67	2.87	5.30	30.04	9.48	1.46	3.17
LI	75 x 11	12.00	20.6	7.9	45	-	-	22	7/8	70	15.29	78.28	14.99	2.26	2.28	123.86	23.36	2.85	5.30	32.70	10.16	1.46	3.22
LI	75 x 12	13.00	20.6	7.9	45	-	-	22	7/8	70	16.56	83.86	16.16	2.25	2.31	132.40	24.97	2.83	5.30	35.33	10.81	1.46	3.27
LI	80 x 6	7.25	14.3	7.9	45	-	-	22	7/8	70	9.24	57.31	9.92	2.49	2.22	91.45	16.17	3.15	5.66	23.17	7.37	1.58	3.14
LI	80 x 7	8.41	14.3	7.9	45	-	-	22	7/8	70	10.71	65.67	11.44	2.48	2.26	104.68	18.51	3.13	5.66	26.66	8.35	1.58	3.19
LI	80 x 8	9.54	15.9	7.9	45	-	-	22	7/8	70	12.16	73.73	12.92	2.46	2.29	117.38	20.75	3.11	5.66	30.08	9.27	1.57	3.25
LI	80 x 9	10.67	17.5	7.9	45	-	-	22	7/8	70	13.59	81.50	14.38	2.45	2.33	129.57	22.90	3.09	5.66	33.42	10.14	1.57	3.30
LI	80 x 10	11.77	17.5	7.9	45	-	-	22	7/8	70	15.00	88.98	15.80	2.44	2.37	141.25	24.97	3.07	5.66	36.72	10.97	1.56	3.35
LI	80 x 11	12.87	20.6	7.9	45	-	-	22	7/8	70	16.39	96.20	17.19	2.42	2.40	152.44	26.95	3.05	5.66	39.97	11.76	1.56	3.40
LI	80 x 12	13.94	20.6	7.9	45	-	-	22	7/8	70	17.76	103.17	18.55	2.41	2.44	163.16	28.84	3.03	5.66	43.18	12.52	1.56	3.45
LI	90 x 6	8.19	14.3	7.9	45	-	-	22	7/8	70	10.44	82.59	12.65	2.81	2.47	131.86	20.72	3.55	6.36	33.32	9.53	1.79	3.50
LI	90 x 7	9.51	14.3	7.9	45	-	-	22	7/8	70	12.11	94.82	14.61	2.80	2.51	151.26	23.77	3.53	6.36	38.37	10.81	1.78	3.55
LI	90 x 8	10.80	15.9	7.9	45	-	-	22	7/8	70	13.76	106.65	16.52	2.78	2.55	169.98	26.71	3.51	6.36	43.32	12.03	1.77	3.60
LI	90 x 9	12.08	17.5	7.9	45	-	-	22	7/8	70	15.39	118.10	18.40	2.77	2.58	188.03	29.55	3.50	6.36	48.17	13.20	1.77	3.65
LI	90 x 10	13.34	17.5	7.9	45	-	-	22	7/8	70	17.00	129.18	20.24	2.76	2.62	205.42	32.28	3.48	6.36	52.95	14.30	1.76	3.70
LI	90 x 11	14.59	20.6	7.9	45	-	-	22	7/8	70	18.59	139.91	22.04	2.74	2.65	222.17	34.91	3.46	6.36	57.65	15.36	1.76	3.75
LI	90 x 12	15.82	20.6	7.9	45	-	-	22	7/8	70	20.16	150.29	23.82	2.73	2.69	238.29	37.44	3.44	6.36	62.29	16.38	1.76	3.80
LI	100 x 6	9.14	15.9	9.5	60	-	-	22.2	7/8	70	11.64	114.39	15.72	3.13	2.72	182.71	25.84	3.96	7.07	46.07	11.96	1.99	3.85
LI	100 x 7	10.60	17.5	9.5	60	-	-	22.2	7/8	70	13.51	131.53	18.17	3.12	2.76	209.96	29.69	3.94	7.07	53.11	13.61	1.98	3.90
LI	100 x 8	12.06	19.1	9.5	60	-	-	22.2	7/8	70	15.36	148.17	20.57	3.11	2.80	236.34	33.42	3.92	7.07	60.01	15.18	1.98	3.95
LI	100 x 9	13.49	20.6	9.5	60	-	-	22.2	7/8	70	17.19	164.32	22.93	3.09	2.83	261.88	37.03	3.90	7.07	66.77	16.67	1.97	4.01
LI	100 x 10	14.91	22.2	9.5	60	-	-	22.2	7/8	70	19.00	180.00	25.24	3.08	2.87	286.58	40.53	3.88	7.07	73.43	18.10	1.97	4.06
LI	100 x 11	16.32	25.4	9.5	60	-	-	22.2	7/8	70	20.79	195.23	27.51	3.06	2.90	310.48	43.91	3.86	7.07	79.98	19.47	1.96	4.11
LI	100 x 12	17.71	28.6	9.5	60	-	-	22.2	7/8	70	22.56	210.01	29.75	3.05	2.94	333.59	47.18	3.85	7.07	86.44	20.79	1.96	4.16