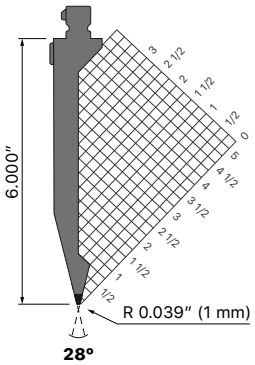
30° A 90°

GN30-1

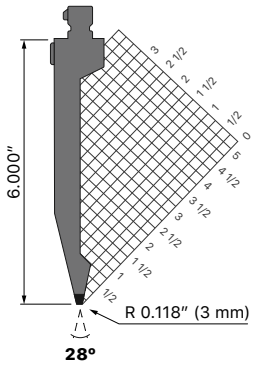
BIU-815



Carga máxima: 20 T/pie

GN30-2

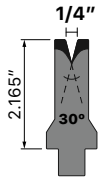
BIU-830



Carga máxima: 20 T/pie

L30-1

OZU-809

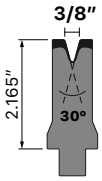


Carga máxima: 7 T/pie
Pestaña mínima (f): 0.187″
Radio interno (ri): 0.031″

Cal. 26	0.6 T/pie
Cal. 20	3.1 T/pie
Cal. 18	5.4 T/pie

L30-2

OZU-810

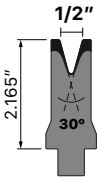


Carga máxima: 10 T/pie
Pestaña mínima (f): 0.281″
Radio interno (ri): 0.062″

Cal. 20	1.7 T/pie
Cal. 18	3.1 T/pie
Cal. 16	5.5 T/pie

L30-3

OZU-811

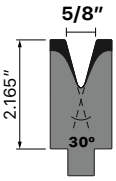


Carga máxima: 10 T/pie
Pestaña mínima (f): 0.343″
Radio interno (ri): 0.078″

Cal. 18	2.1 T/pie
Cal. 16	3.8 T/pie
Cal. 14	6.4 T/pie

L30-4

OZU-812

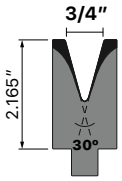


Carga máxima: 10 T/pie
Pestaña mínima (f): 0.437″
Radio interno (ri): 0.109″

Cal. 16	2.8 T/pie
Cal. 14	4.7 T/pie
Cal. 12	10.4 T/pie

L30-5

OZU-813

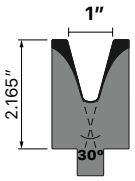


Carga máxima: 10 T/pie
Pestaña mínima (f): 0.562″
Radio interno (ri): 0.140″

Cal. 14	3.8 T/pie
Cal. 12	8.1 T/pie
Cal. 11	10.9 T/pie

L30-6

OZU-814



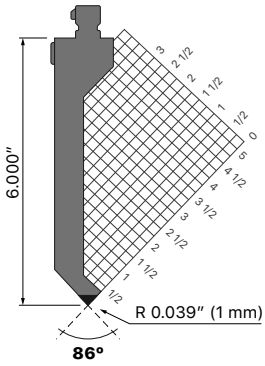
Carga máxima: 10 T/pie
Pestaña mínima (f): 0.687″
Radio interno (ri): 0.156″

Cal. 12	5.6 T/pie
Cal. 11	7.4 T/pie
Cal. 10	9.9 T/pie

80° A 90°

GN90-1

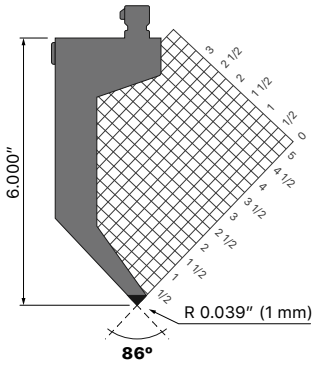
BIU-816



Carga máxima: 25 T/pie

GN90-2

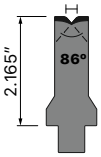
BIU-817



Carga máxima: 20 T/pie

L90-1

OZU-829

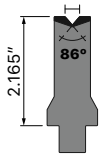


Carga máxima: 24 T/pie
Pestaña mínima (f): 0.187″
Radio interno (ri): 0.031″

Cal. 26	0.6 T/pie
Cal. 20	3.1 T/pie
Cal. 18	5.4 T/pie

L90-2

OZU-804

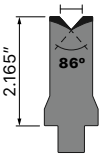


Carga máxima: 34 T/pie
Pestaña mínima (f): 0.281″
Radio interno (ri): 0.062″

Cal. 20	1.7 T/pie
Cal. 18	3.1 T/pie
Cal. 16	5.5 T/pie

L90-3

OZU-805

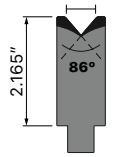


Carga máxima: 34 T/pie
Pestaña mínima (f): 0.343″
Radio interno (ri): 0.078″

Cal. 18	2.1 T/pie
Cal. 16	3.8 T/pie
Cal. 14	6.4 T/pie

L90-4

OZU-806

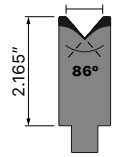


Carga máxima: 34 T/pie
Pestaña mínima (f): 0.437″
Radio interno (ri): 0.109″

Cal. 16	2.8 T/pie
Cal. 14	4.7 T/pie
Cal. 12	10.4 T/pie

L90-5

OZU-807

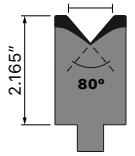


Carga máxima: 34 T/pie
Pestaña mínima (f): 0.562″
Radio interno (ri): 0.140″

Cal. 14	3.8 T/pie
Cal. 12	8.1 T/pie
Cal. 11	10.9 T/pie

L90-6

OZU-808



Carga máxima: 34 T/pie
Pestaña mínima (f): 0.687″
Radio interno (ri): 0.156″

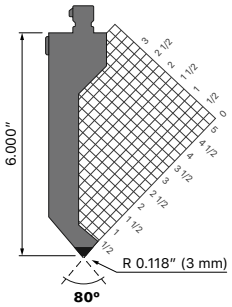
Cal. 12	5.6 T/pie
Cal. 11	7.4 T/pie
Cal. 10	9.9 T/pie

Nota: El tonelaje indicado es el que se requiere para doblez al aire (tres puntos de contacto) en acero suave de 60,000 psi de resitencia a la tensión. Para diferentes materiales, ver tabla "Cálculo de Tonelaje" en al contraportada de este catálogo.

80° A 90°

GN90-3

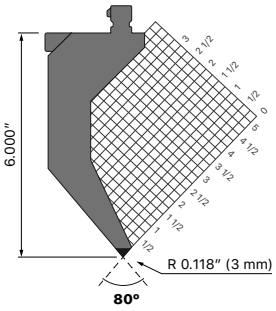
BIU-826



Carga máxima.: 34 T/pie

GN90-4

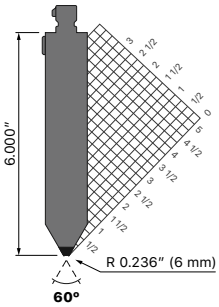
BIU-832



Carga máxima: 27 T/pie

UP90-1

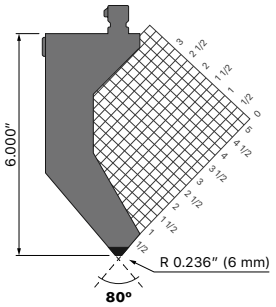
BIU-831



Carga máxima: 50 T/pie

GN90-5

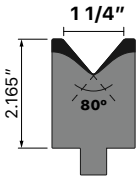
BIU-825



Carga máxima: 37 T/pie

L90-7

OZU-827

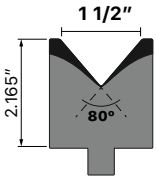


Carga máxima: 34 T/pie
Pestaña mínima (f): 0.875″
Radio interno (ri): 0.203″

Cal. 11	5.6 T/pie
Cal. 10	7.3 T/pie
3/16″	13.9 T/pie

L90-8

OZU-828

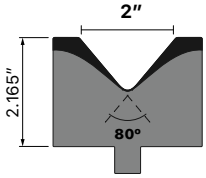


Carga máxima: 44 T/pie
Pestaña mínima (f): 1.125″
Radio interno (ri): 0.250″

Cal. 10	5.7 T/pie
3/16″	11.0 T/pie
1/4″	22.8 T/pie

L90-9

OZU-825

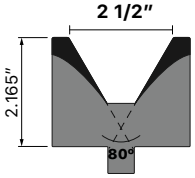


Carga máxima: 44 T/pie
Pestaña mínima (f): 1.375″
Radio interno (ri): 0.312″

3/16″	7.5 T/pie
1/4″	15.5 T/pie
5/16″	27.0 T/pie

L90-10

OZU-826

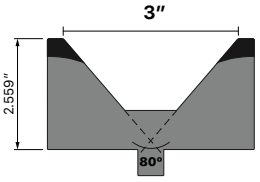


Carga máxima: 44 T/pie
Pestaña mínima (f): 1.750″
Radio interno (ri): 0.406″

1/4″	11.4 T/pie
5/6″	20.0 T/pie
3/8″	29.5 T/pie

L90-11

OZU-822

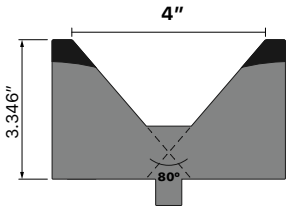


Carga máxima: 44 T/pie
Pestaña mínima (f): 2.187″
Radio interno (ri): 0.515″

5/16″	15.6 T/pie
3/8″	23.4 T/pie
7/16″	35.2 T/pie

L90-12

OZU-821



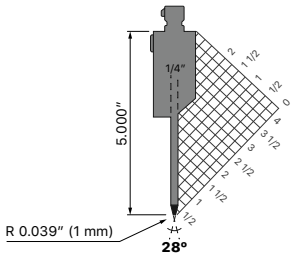
Carga máxima: 44 T/pie
Pestaña mínima (f): 2.813″
Radio interno (ri): 0.625″

3/8″	15.8 T/pie
7/16″	24.0 T/pie
1/2″	33.0 T/pie

PLANCHADO

HMU1

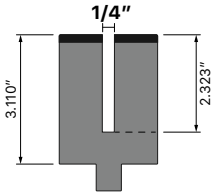
BIU-810



Carga máxima: 14 T/pie

HML1

OZU-816



Carga máxima: 7 T/pie

Pestaña mínima (f): 0.187″
Radio interno (ri): N/A

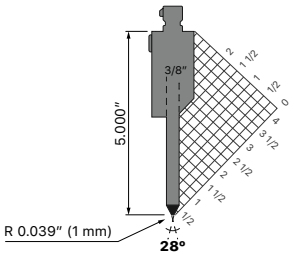
Cal. 26	0.6 T/pie
Cal. 20	3.1 T/pie
Cal. 18	5.4 T/pie

Estas herramientas pueden doblar y planchar en una sola operación (dos pasos)

Video

HMU2

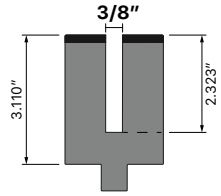
BIU-809



Carga máxima: 27 T/pie

HML2

OZU-815



Carga máxima: 10 T/pie

Pestaña mínima (f): 0.281″
Radio interno (ri): N/A

Cal. 20	1.7 T/pie
Cal. 18	3.1 T/pie
Cal. 16	5.5 T/pie

Nota: El tonelaje indicado es el que se requiere para doblez al aire (tres puntos de contacto) en acero suave de 60,000 psi de resitencia a la tensión. Para diferentes materiales, ver tabla "Cálculo de Tonelaje" en al contraportada de este catálogo.

CÁLCULO DE TONELAJE

Tonelaje por pie lineal para doblar al aire (3 puntos de contacto) en acero suave (60,000 psi)

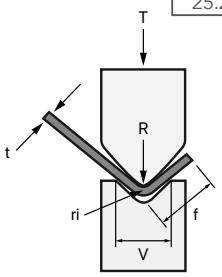
Espesor (t)	
Calibres	Pulgadas
20	0.036
18	0.048
16	0.060
14	0.075
12	0.105
11	0.120
10	0.135
3/16	0.188
1/4	0.250
5/16	0.313
3/8	0.375
7/16	0.438
1/2	0.500
5/8	0.625
3/4	0.750
7/8	0.875
1	1.000

v	1/4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	v
f	0.187	0.281	0.343	0.437	0.562	0.687	0.875	1.125	1.375	1.750	2.187	2.813	3.500	4.500	5.500	6.875	f
ri	0.031	0.062	0.078	0.109	0.140	0.156	0.203	0.250	0.312	0.406	0.515	0.625	0.750	1.031	1.312	1.625	ga.
	3.1	1.7	1.2														20
	5.4	3.1	2.1	1.5	1.3												18
	9.6	5.5	3.8	2.8	2.2	1.4											16
		9.3	6.4	4.7	3.8	2.5	1.8										14
		20.5	14.0	10.4	8.1	5.6	4.1	3.2	2.2								12
			18.5	13.9	10.9	7.4	5.6	4.3	2.9	2.1							11
			25.2	17.2	14.5	9.9	7.3	5.7	3.8	2.85	2.2						10
				34.8	27.6	19.1	13.9	11.0	7.5	5.6	4.3						3/16
					58.0	39.5	29.0	22.8	15.5	11.4	8.9	6.1	4.5				1/4
						69.5	51.0	40.0	27.0	20.0	15.6	10.5	7.8	6.1			5/16
							75.0	59.0	40.0	29.5	23.4	15.8	11.7	9.2	6.2	4.6	3/8
							115.0	90.0	61.0	45.5	35.2	24.0	17.8	13.9	9.4	6.9	7/16
									85.0	62.0	44.3	33.0	24.5	19.1	13.0	9.8	1/2
											86.0	58.0	43.0	34.0	23.2	17.5	5/8
												91.0	67.0	53.0	36.4	26.7	3/4
												136.0	101.0	79.0	54.0	40.0	7/8
													146.0	115.0	68.0	58.0	1

T = Tonelaje por pie lineal

Acero suave: T x 1.2 Factor de protección para acero suave
Inoxidable: T x 1.5
Aluminio (Tratado): T x 1.0
Aluminio suave y latón: T x 0.5

Ejemplo:
Para doblar 10´ en acero suave de 1/4" de espesor:
15.5 ton x 10´ de largo x 20% de protección = 186 ton.



T Toneladas por pie de la pieza a doblar
t Espesor del material
ri Radio interno de la pieza doblada
V Apertura V del dado
f Pestaña mínima
R Radio de la punta del punzón

Valores en pulgadas

LARGOS DISPONIBLES

/U (una pieza)

20"

/S (segmentado)

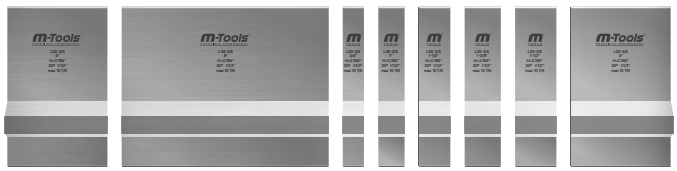
4" 8" 3/4" 1" 1 1/4" 1 3/8" 1 1/2" 4"

21.875"

/U (una pieza)

20"

/S (segmentado)



4" 8" 3/4" 1" 1 1/4" 1 3/8" 1 1/2" 4"

21.875"

EJEMPLO DE COMBINACIONES PARA LOGRAR DIFERENTES LONGITUDES

/U 20"	/S 21.875"	Longitud Total
3	1	81.875"
4	1	101.875"
5	1	121.875"
6	1	141.875
7	1	161.875"