

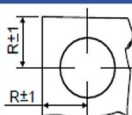
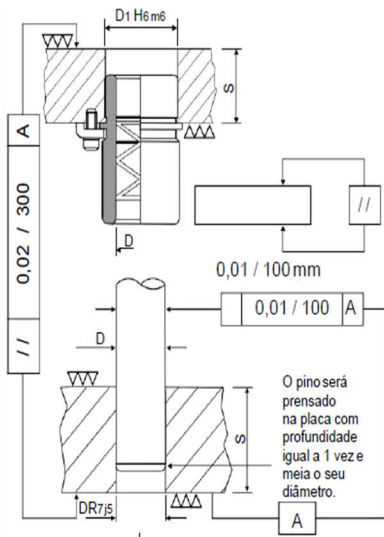
PBG

COMPONENTES BASES PARA ESTAMPO



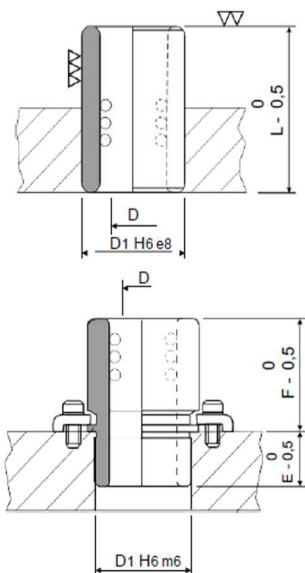
COMPONENTES DE BASES PARA ESTAMPAS

MONTAGEM DE PINOS DE GUIA LISOS, BUCHAS DESMONTÁVEIS EM GERAL



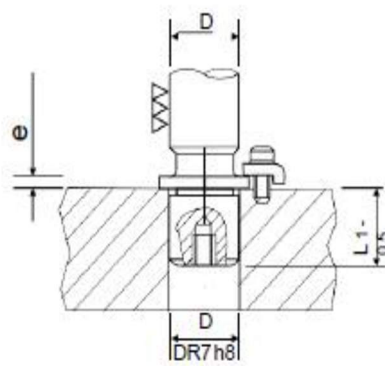
TOLERÂNCIA DO CENTRO DE LOCAÇÃO DOS PINOS GUIA

MONTAGEM DAS CAMISAS

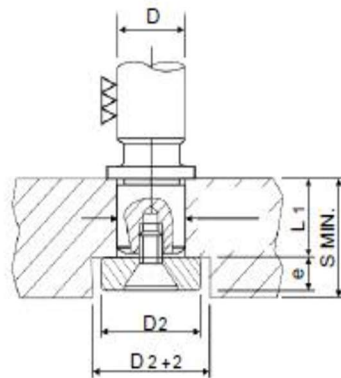


MONTAGEM DE PINOS DE GUIA

FIXAÇÃO POR GRAMPOS

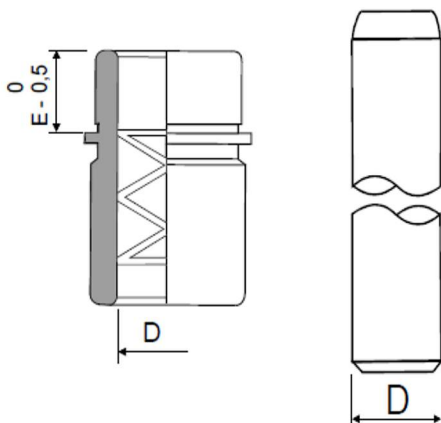


FIXAÇÃO CENTRAL



S MÍN.: espessura mínima da placa para a utilização do Pino de Guia Desmontável Fixação Central.

CLASSES DE FOLGA



Dimensões Nominais D: sua tolerância depende da Classe de Folga desejada.

- **Classe de Folga 1 - H4 h3.**

Folga entre punção e matriz max 0,02mm, em chapas até 0,4 mm.

- **Classe de Folga 2 - H6, h5.**

Folga entre punção e matriz acima de 0,02mm e máxima 0,06mm, em chapas acima de 0,4mm até 3mm.

- **Classe de Folga 3 - H7,h6.**

Folga entre punção e matriz acima de 0,06mm em chapas acima de 3mm.

D	L1	e	S Min.
19/20	18	5,5	24
24/25	22	7,5	30
30/32	28	7,5	43
38/40	35	9,5	49
48/50	45	9,5	55
63	45	9,5	55
80	60	11,5	73

D	D1	L1	M	I	L	CODIGO	
						Ø 19	Ø 20
19 20	25	20	5	16	80	14-19080-	14-20080-
					90	090-	090-
					100	100-	100-
					110	110-	110-
					125	125-	125-
					140	140-	140-
					160	160-	160-

D	D1	L1	M	I	L	CODIGO	
						Ø 24	Ø 25
24 25	32	25	6	16	80	14-24080-	14-25080-
					90	090-	090-
					100	100-	100-
					110	110-	110-
					125	125-	125-
					140	140-	140-
					160	160-	160-
					180	180-	180-
					200	200-	200-

D	D1	L1	M	I	L	CODIGO	
						Ø 30	Ø 32
30 32	40	32	8	22	100	14-30100-	14-32100-
					110	110-	110-
					125	125-	125-
					140	140-	140-
					160	160-	160-
					180	180-	180-
					200	200-	200-
					220	220-	220-
					250	250-	250-
					280	280-	280-

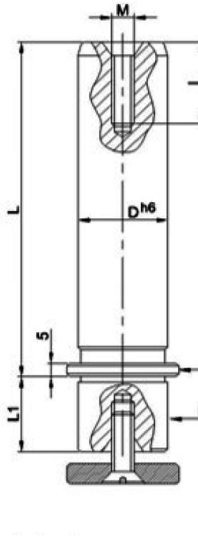
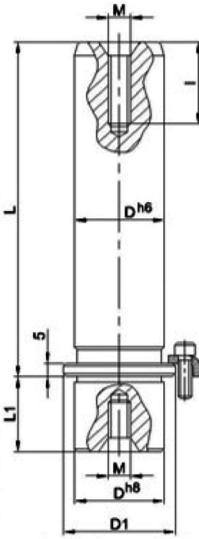
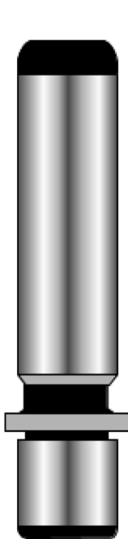
D	D1	L1	M	I	L	CODIGO	
						Ø 38	Ø 40
38 40	50	40	10	22	100	14-38100-	14-40100-
					110	110-	110-
					125	125-	125-
					140	140-	140-
					160	160-	160-
					180	180-	180-
					200	200-	200-
					220	220-	220-
					250	250-	250-
					280	280-	280-

D	D1	L1	M	I	L	CODIGO	
						Ø 48	Ø 50
48 50	63	45	12	30	110	14-48110-	14-50110-
					125	125-	125-
					140	140-	140-
					160	160-	160-
					180	180-	180-
					200	200-	200-
					220	220-	220-
					250	250-	250-
					280	280-	280-
					315	315-	315-
					355	355-	355-
					400	400-	400-

D	D1	L1	M	I	L	CODIGO	
						Ø 63	
63	76	50	16	35	125	14-63125-	
					140	140-	
					160	160-	
					180	180-	
					200	200-	
					220	220-	
					250	250-	
					280	280-	
					315	315-	
					355	355-	
					400	400-	

D	D1	L1	M	I	L	CODIGO	
						Ø 80	
80	93	60	20	40	125	14-80125-	
					140	125-	
					160	160-	
					180	180-	
					200	200-	
					220	220-	
					250	250-	
					280	280-	
					315	315-	
					355	355-	
					400	400-	
					500	500-	

Aço Ligado Cementado / Temperado
60 - 64 HRC



Ø48 - Ø50 -
Ø63 - Ø80mm

14-.....-06

14-.....-07

COMO SOLICITAR 14-DDLLL-06 ou 07

UTILIZAÇÃO



BUCHA
DESMONTÁVEL



CAMISA
DESMONTÁVEL



CAMISA
COLADA



GPM1



GPM2

GRAMPOS

D	RAIO		Q	QT	A	B	C	D	T	CÓDIGO
	O	P								
19/20	16,0	22,8	17,0	3	13,5	13,0	3,5	6,7	13	18-10-01
24/25	20,0	29,0	21,3	3	17,0	16,0	4,9	10,0	16	18-12-01
30/32	23,5	32,3	23,1	3	17,0	16,0	4,9	10,0	16	18-12-01
38/40	28,5	38,3	26,1	3	19,0	16,0	5,9	11,0	19	18-16-01
48/40	36,0	45,8	29,8	4	19,0	16,0	5,9	11,0	19	18-16-01
63	42,5	52,3	33,1	4	19,0	16,0	5,9	11,0	19	18-16-01
80	51,0	61,8	38,1	4	19,0	16,0	5,9	11,0	19	18-16-01

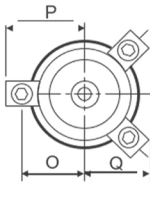
PARAFUSOS

D	R	L	CODIGO	M	La
19/20	6	16	73-06016-02	5	20
24/25	6	16	73-06016-02	6	20
30/32	6	20	73-06020-20	8	30
38/40	8	20	73-08020-02	10	30
48/50	8	20	73-08020-02	12	30
63	8	20	73-08020-02	16	35
80	8	20	73-08020-02	20	35

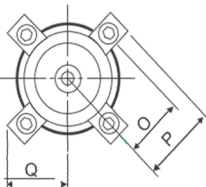
ARRUELAS

D2	e	CODIGO
25	5,5	19-25-00
32	7,5	19-32-00
40	7,5	19-40-00
50	9,5	19-50-00
63	9,5	19-63-00
76	9,5	19-76-00
93	11,5	19-93-00

POSIÇÃO DOS GRAMPOS

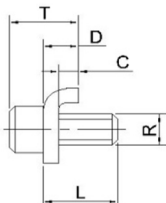


Ø19 - Ø40

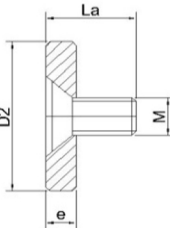


Ø48 - Ø80

GRAMPO

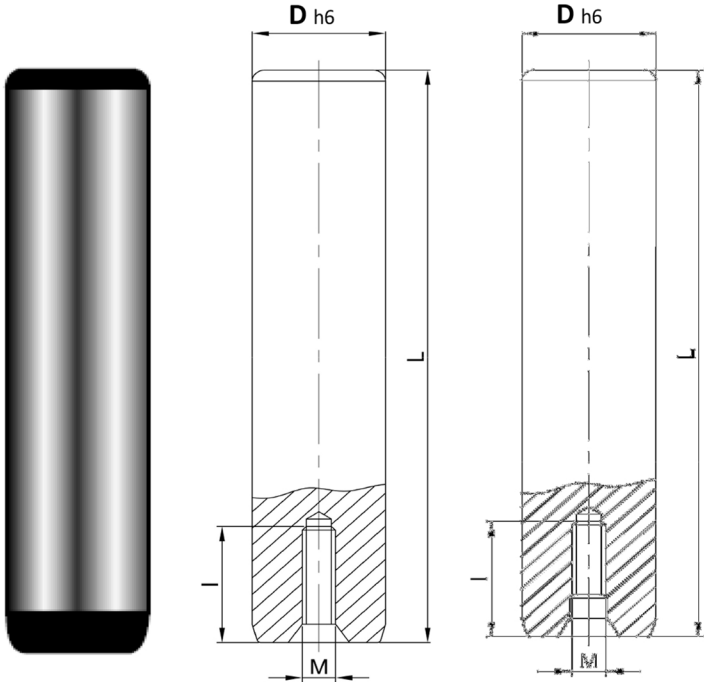


ARRUELA



D	M	L	I	CODIGO	
				Ø19	Ø 20
19 20	5	100	10	13-19100-02	13-20100-02
		110		110-02	110-02
		125		125-02	125-02
		140		140-02	140-02
		160		160-02	160-02
		180		180-02	180-02
		200		200-02	200-02
D	M	L	I	CODIGO	
				Ø24	Ø 25
24 25	6	100	10	13-24100-02	13-25100-02
		110		110-02	110-02
		125		125-02	125-02
		140		140-02	140-02
		160		160-02	160-02
		180		180-02	180-02
		200		200-02	200-02
		220		220-02	220-02
		250		250-02	250-02
		280		280-02	280-02
D	M	L	I	CODIGO	
				Ø30	Ø32
30 32	8	110	15	13-30110-02	13-32110-02
		125		125-02	125-02
		140		140-02	140 -02
		160		160-02	160-02
		180		180-02	180-02
		200		200-02	200-02
		220		220-02	220-02
		250		250-02	250-02
		280		280-02	280-02
		315		315-02	315-02
D	M	L	I	CODIGO	
				Ø38	Ø40
38 40	10	125	20	13-38125-02	13-40125-02
		140		140-02	140-02
		160		160-02	160-02
		180		180-02	180-02
		200		200-02	200-02
		220		220-02	220-02
		250		250-02	250-02
		280		280-02	280-02
		315		315-02	315-02
		355		355-02	355-02
D	M	L	I	CODIGO	
				Ø48	Ø50
48 50	12	160	25	13-48160-02	13-50160-02
		180		180-02	180-02
		200		200-02	200-02
		220		220-02	220-02
		250		250-02	250-02
		280		280-02	280-02
		315		315-02	315-02
		355		355-02	355-02
		400		400-02	400-02
		450		450-02	450-02
D	M	L	I	CODIGO	
					Ø63
63	16	200	30		13-63200-02
		220			220-02
		250			250-02
		280			280-02
		315			315-02
		355			355-02
		400			400-02
		450			450-02
D	M	L	I	CODIGO	
					Ø80
80	20	200	35		13-80200-02
		220			220-02
		250			250-02
		280			280-02
		315			315-02
		355			355-02
		400			400-02
		450			450-02
		500			500-02

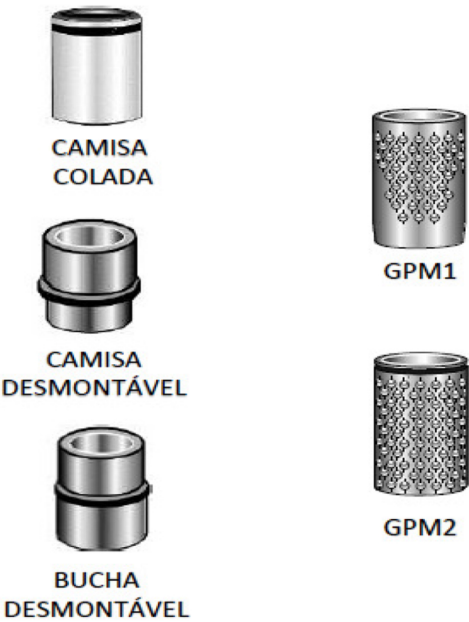
Aço Ligado Cementado / Temperado
60 - 64 HRc



Ø48 - Ø50 -
Ø63 - Ø80mm

COMO SOLICITAR
13-DDLLL-02

UTILIZAÇÃO





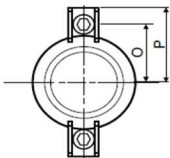
PINO DE GUIA DESMONTÁVEL
REF.: 06 - 07



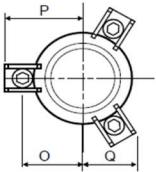
PINO DE GUIA LISO
REF.: 02

UTILIZAÇÃO COM TODAS
AS FLANGES

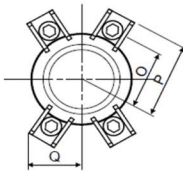
POSIÇÃO DOS GRAMPOS PARA BUCHAS DE FLANGE EXTRA CURTA



P/ Ø 19 a 20



P/ Ø 24 a 40



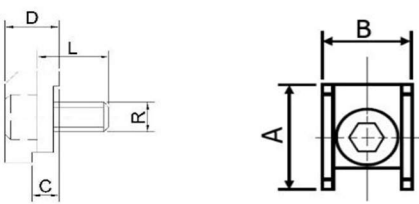
P/ Ø 48 a 80

D	RAIOS		Q	QT PINO	A	B	C	D	CÓDIGO
	O	P							
19/20	22	28,0		2	14,0	14,5	3,5	9,0	18-20-01
24/25	28	35,8	24,40	3	17,0	14,5	4,5	10,0	18-22-01
30/32	33	40,8	26,90	3	17,0	14,5	4,5	10,0	18-22-01
38/40	39	48,8	32,00	3	21,0	17,0	5,5	11,0	18-24-01
48/50	46	55,3	35,00	4	21,0	17,0	5,5	11,0	18-24-01
63	55	64,8	39,80	4	21,0	17,0	5,5	11,0	18-24-01
80	66	77,7	46,7	4	21,0	17,0	5,5	11,0	18-24-01

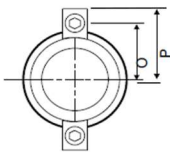
PARAFUSOS

D	R	L	CÓDIGO
19/20	6	16	73-06016-02
24/25	6	16	73-06016-02
30/32	6	20	73-06020-02
38/40	8	20	73-08020-02
48/50	8	20	73-08020-02
63	8	20	73-08020-02
80	8	20	73-08020-02

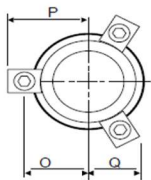
GRAMPO



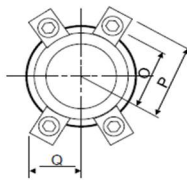
POSIÇÃO DOS GRAMPOS PARA BUCHAS DE FLANGE CURTA, LONGA,
EXTRA LONGA E SUPER LONGA.



P/ Ø 19 a 20



P/ Ø 24 a 40



P/ Ø 48 a 80

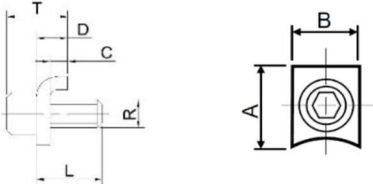
GRAMPOS

D	RAIOS		Q	QT PINO	A	B	C	D	T	CÓDIGO
	O	P								
19/20	20,0	26,7		2	13,5	13,0	3,5	6,7	13	18-10-01
24/25	26,5	35,3	24,6	3	17,0	16,0	4,9	10,0	16	18-12-01
30/32	31,0	39,8	26,8	3	17,0	16,0	4,9	10,0	16	18-12-01
38/40	36,0	45,8	29,8	3	19,0	16,0	5,9	11,0	19	18-16-01
48/50	42,0	51,8	32,8	4	19,0	16,0	5,9	11,0	19	18-16-01
63	51,0	60,8	37,3	4	19,0	16,0	5,9	11,0	19	18-16-01
80	63,0	73,7	43,5	4	19,0	16,0	5,9	11,0	19	18-16-01

PARAFUSOS

D	R	L	CÓDIGO
19/20	6	16	73-06016-02
24/25	6	16	73-06016-02
30/32	6	20	73-06020-02
38/40	8	20	73-08020-02
48/50	8	20	73-08020-02
63	8	20	73-08020-02
80	8	20	73-08020-02

GRAMPOS



FLANGE EXTRA CURTA



FLANGE CURTA



FLANGE LONGA



FLANGE EXTRA LONGA

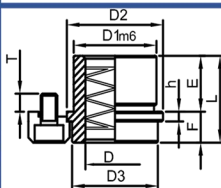


FLANGE SUPER LONGA



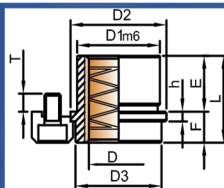
D	D1	D2	D3	E	F	L	h	T	CÓDIGO
19	28	32,5	29	18	10	28	3,2	6	15-19028-
20	28	32,5	29	18	10	28	3,2	6	15-20028-
24	38	44	36	23	10	33	5	6	15-24038-
25	38	44	36	23	10	33	5	6	15-25038-
30	45	54	43	30	10	40	5	10	15-30045-
32	45	54	43	30	10	40	5	10	15-32045-
38	54	63	50	38	14	52	5	10	15-38054-
40	54	63	50	38	14	52	5	10	15-40054-
48	65	75	64	48	14	62	5	20	15-48065-
50	65	75	64	48	14	62	5	20	15-50065-
63	81	93	79	61	14	75	5	20	15-63081-
80	100	115	99	78	14	92	5	20	15-80100-

FLANGE EXTRA CURTA



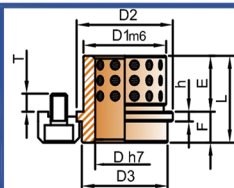
AÇO LIGADO

15-.....-20



INSERTO DE BRONZE

15-.....-23

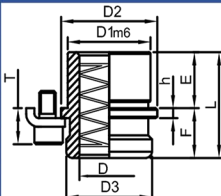


BRONZE GRAFITADA

15-.....-26

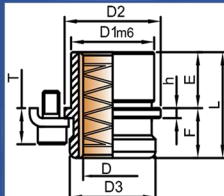
D	D1	D2	D3	E	F	L	h	T	CÓDIGO
19	28	32,5	29	18	16	34	3,2	12	15-19028-
20	28	32,5	29	18	16	34	3,2	12	15-20028-
24	38	44	40	22	20	42	5	15	15-24038-
25	38	44	40	22	20	42	5	15	15-25038-
30	45	54	49	25	20	45	5	15	15-30045-
32	45	54	49	25	20	45	5	15	15-32045-
38	54	63	58	30	20	50	5	18	15-38054-
40	54	63	58	30	20	50	5	18	15-40054-
48	65	75	70	35	20	55	5	18	15-48065-
50	65	75	70	35	20	55	5	18	15-50065-
63	81	93	88	48	20	68	5	18	15-63081-
80	100	115	110	48	20	68	5	18	15-80100-

FLANGE CURTA



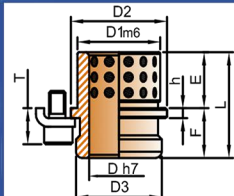
AÇO LIGADO

15-.....-25



INSERTO DE BRONZE

15-.....-28

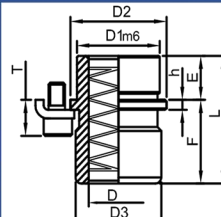


BRONZE GRAFITADA

15-.....-31

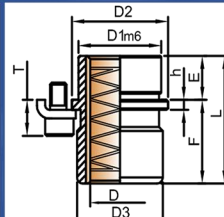
D	D1	D2	D3	E	F	L	h	T	CÓDIGO
19	28	32,5	29	18	32	50	3,2	12	15-19028-
20	28	32,5	29	18	32	50	3,2	12	15-20028-
24	38	44	40	22	50	72	5	15	15-24038-
25	38	44	40	22	50	72	5	15	15-25038-
30	45	54	49	25	50	75	5	15	15-30045-
32	45	54	49	25	50	75	5	15	15-32045-
38	54	63	58	30	50	80	5	18	15-38054-
40	54	63	58	30	50	80	5	18	15-40054-
48	65	75	70	35	50	85	5	18	15-48065-
50	65	75	70	35	50	85	5	18	15-50065-
63	81	93	88	48	50	98	5	18	15-63081-
80	100	115	110	48	50	98	5	18	15-80100-

FLANGE LONGA



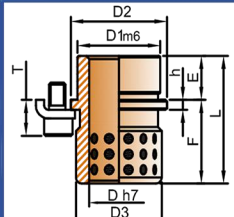
AÇO LIGADO

15-.....-30



INSERTO DE BRONZE

15-.....-33

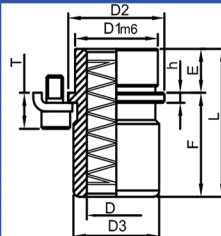


BRONZE GRAFITADA

15-.....-36

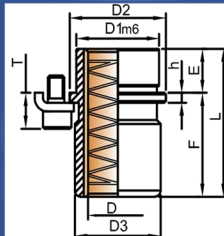
D	D1	D2	D3	E	F	L	h	T	CÓDIGO
19	28	32,5	29	18	50	68	3,2	12	15-19028-
20	28	32,5	29	18	50	68	3,2	12	15-20028-
24	38	44	40	22	75	97	5	15	15-24038-
25	38	44	40	22	75	97	5	15	15-25038-
30	45	54	49	25	75	100	5	15	15-30045-
32	45	54	49	25	75	100	5	15	15-32045-
38	54	63	58	30	75	105	5	18	15-38054-
40	54	63	58	30	75	105	5	18	15-40054-
48	65	75	70	35	75	110	5	18	15-48065-
50	65	75	70	35	75	110	5	18	15-50065-
63	81	93	88	48	75	123	5	18	15-63081-
80	100	115	110	48	75	123	5	18	15-80100-

FLANGE EXTRA LONGA



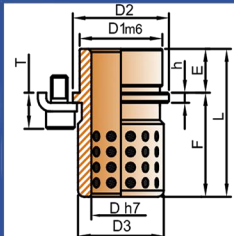
AÇO LIGADO

15-.....-35



INSERTO DE BRONZE

15-.....-38

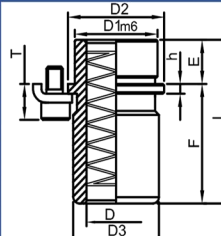


BRONZE GRAFITADA

15-.....-41

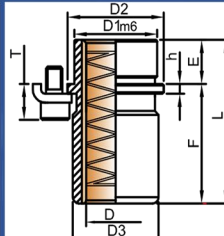
D	D1	D2	D3	E	F	L	h	T	CÓDIGO
19									
20									
24									
25									
30	45	54	49	25	100	125	5	15	15-30045-
32	45	54	49	25	100	125	5	15	15-32045-
38	54	63	58	30	100	130	5	18	15-38054-
40	54	63	58	30	100	130	5	18	15-40054-
48	65	75	70	35	100	135	5	18	15-48065-
50	65	75	70	35	100	135	5	18	15-50065-
63	81	93	88	48	100	148	5	18	15-63081-
80	100	115	110	48	100	148	5	18	15-80100-

FLANGE SUPER LONGA



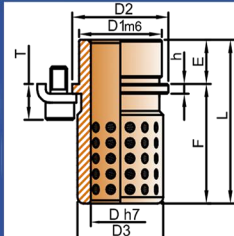
AÇO LIGADO

15-.....-40



INSERTO DE BRONZE

15-.....-43



BRONZE GRAFITADA

15-.....-46

TOLERÂNCIA PARA ØD - CLASSE DE FOLGA (aplicada em buchas de aço ligado e com inserto de bronze)

CLASSE DE FOLGA - 01 (H4)
Para estampar chapas até 0,4mmCLASSE DE FOLGA - 02 (H6)
Para estampar chapas acima de 0,4 até 3mmCLASSE DE FOLGA - 03 (H7)
Para estampar chapas acima de 3mm

Grampos e parafusos acompanham o conjunto

D	L	C	X	CODIGOS	
				Ø 24	Ø 25
24 25	36	11,5	4,2	61-24036-01	61-25036-01
	48	17,5	4,2	048-01	048-01
	55	27	4,2	055-02	055-02
	70	35	4,2	070-02	070-02
	90	42	4,2	090-02	090-02
	100	50	4,2	100-02	100-02
	110	60	4,2	110-02	110-02

D	L	C	X	CODIGO	
				Ø 30	Ø 32
30 32	36	11,5	4,2	61-30036-01	61-32036-01
	48	17,5	4,2	048-01	048-01
	70	35	4,2	070-02	070-02
	90	43	4,2	090-02	090-02
	105	50	4,2	105-02	105-02
	115	60	4,2	115-02	115-02
	125	70	4,2	125-02	125-02
	135	80	135	135-02	135-02

D	L	C	X	CODIGO	
				Ø 38	Ø 40
38 40	48	17,5	5,8	61-38048-01	61-40048-01
	60	23,5	5,8	060-01	060-01
	70	36	5,8	070-02	070-02
	85	43	5,8	085-02	085-02
	105	51	5,8	105-02	105-02
	115	61	5,8	115-02	115-02
	125	71	5,8	125-02	125-02
	135	81	5,8	135-02	135-02
	145	91	5,8	145-02	145-02
	155	103	5,8	155-02	155-02

D	L	C	X	CODIGO	
				Ø 48	Ø 50
48 50	70	28,5	7	61-48070-01	61-50070-01
	84	35,5	7	084-01	084-01
	105	51	7	105-02	105-02
	120	61	7	120-02	120-02
	140	71	7	140-02	140-02
	150	81	7	150-02	150-02
	160	91	7	160-02	160-02
	170	103	7	170-02	170-02
	185	116	7	185-02	185-02
	195	128	7	195-02	195-02

D	L	C	X	CODIGO	
				Ø 63	
63	98	42,5	7	61-63098-01	
	145	72	7	145-02	
	165	82	7	165-02	
	180	92	7	180-02	
	190	105	7	190-02	
	205	117	7	205-02	
	215	130	7	215-02	

D	L	C	X	CODIGO	
				Ø 80	
80	98	42,5	8,5	61-80098-01	
	145	72	8,5	145-02	
	165	82	8,5	165-02	
	180	92	8,5	180-02	
	190	105	8,5	190-02	
	205	117	8,5	205-02	
	215	130	8,5	215-02	

MATERIAL DA GAIOLA

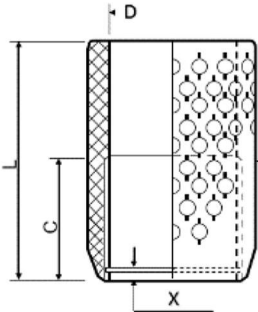
ALUMÍNIO

ESFERAS

Ø DO PINO	Ø DA ESFERA
DE 24mm ATÉ 40mm	4,0mm
DE 48mm ATÉ 80mm	6,0 mm

COMO SOLICITAR
61-DDLLL-01
61-DDLLL-02

GPM - 1



UTILIZAÇÃO



CAMISA
DESMONTÁVEL



CAMISA
COLADA



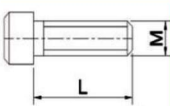
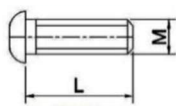
PINO DE GUIA
REF.: 02



PINODE GUIA
DESMONTÁVEL
REF.: 06 – 07

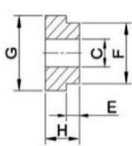
ACESSÓRIOS PARA CONJUNTOS GPM 1

Ø PINO	PARAFUSOS			BUCHAS BP						
	M	L	CÓDIGO	BP	h	E	ØF	ØC	G	CÓDIGO
24	6	20	73-06020-03	BP1	6	3	15	7	18	21-1507-00
25										
30	8		73-08020-03	BP2						
32										
38	10	25	73-10025-03	BP3	7	18	11	20	21-1811-00	
40										
48	12	30	73-12030-03	BP4						
50										
63	16	35	73-16035-03	BP5			22	17	26	21-2217-00
80	20	40	73-20040-03	BP6			26	21	30	21-2621-00

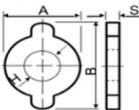


ATÉ Ø63mm

SOMENTE Ø80mm



Ø PINO	ARRUELAS					ANEIS ELASTICOS INTERNOS			
	AR	ØA	B	ØH	S	CÓDIGO	DN	D2	CÓDIGO
24	AR-2	23	28	15,5	2,3	19-2328-00	24	26,5	502-024
25							25	27,2	502-025
30	AR-3	29	34	18,5	2,3	19-2934-00	30	32,7	502-030
32							32	34,7	502-032
38	AR-5	37	42	18,5	2,3	19-3742-00	38	41	502-038
40							40	43,5	502-040
48	AR-7	47	52	18,5	2,3	19-4752-00	48	53	502-048
50							50	54	502-050
63	AR-9	62	67	23	2,3	19-6267-00	63	68	502-063
80							80	85	502-083



D	L	CODIGO	
		Ø 24	Ø 25
24 25	40	61-24040-03	61-25040-03
	52	052-03	052-03
	63	063-03	063-03
	80	080-03	080-03
D	L	CODIGO	
		Ø 30	Ø 32
30 32	40	61-30040-03	61-32040-03
	52	52-03	52-03
	63	63-03	63-03
	80	80-03	80-03
	100	100-03	100-03
D	L	CODIGO	
		Ø 38	Ø 40
38 40	52	61-38052-03	61-40052-03
	63	63-03	63-03
	80	80-03	80-03
	100	100-03	100-03
	125	125-03	125-03
D	L	CODIGO	
		Ø 48	Ø 50
48 50	63	61-48063-03	61-50063-03
	80	80-03	80-03
	100	100-03	100-03
	125	125-03	125-03
D	L	CODIGO	
			Ø 63
63	100		61-63100-03
	125		125-03
D	L	CODIGO	
			Ø80
80	125		61-80125-03
	140		140-03

MATERIAL DA GAIOLA

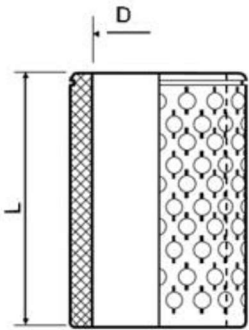
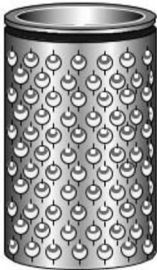
ALUMÍNIO

ESFERAS

Ø DO PINO	Ø DA ESFERA
DE 24mm ATÉ 40mm	4,0mm
DE 48mm ATÉ 80mm	6,0 mm

COMO SOLICITAR
61-DDLLL-03

GPM - 2



UTILIZAÇÃO



PINO DE GUIA
DESMONTÁVEL



PINO DE GUIA
LISO



CAMISA COLADA



CAMISA DESMONTÁVEL

ANEL ELÁSTICO
EXTERNO

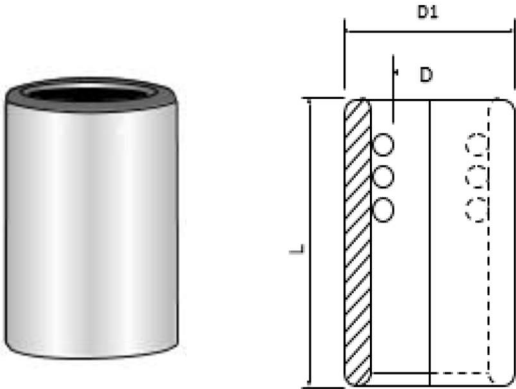


Ø PINO	DN	DZ	CÓDIGO
24	32	30,3	501 032
25			
30	38	36,0	501 038
32	40	37,5	501 040
38	45	42,5	501 045
40	48	45,5	501 048
48	60	57	501 060
50	62	59,0	501 062
63	75	72,0	501 075
80	92	89	501 092

D	D1	L	CÓDIGO	
			Ø 24	Ø 25
24 25	45	65	17-24065-45	17-25065-45
		80	080-45	080-45
		95	095-45	095-45
		110	110-45	110-45
		130	130-45	130-45
D	D1	L	CÓDIGO	
			Ø 30	Ø 32
30 32	54	80	17-30080-45	17-32080-45
		95	095-45	095-45
		110	110-45	110-45
		130	130-45	130-45
		150	150-45	150-45
		170	170-45	170-45
D	D1	L	CÓDIGO	
			Ø 38	Ø 40
38 40	65	80	17-38080-45	17-40080-45
		95	095-45	095-45
		110	110-45	110-45
		130	130-45	130-45
		150	150-45	150-45
		170	170-45	170-45
		190	190-45	190-45
		215	215-45	215-45
D	D1	L	CÓDIGO	
			Ø 48	Ø 50
48 50	81	110	17-48110-45	17-50110-45
		130	130-45	130-45
		150	150-45	150-45
		170	170-45	170-45
		190	190-45	190-45
		215	215-45	215-45
		240	240-45	240-45
		265	265-45	265-45
D	D1	L	CÓDIGO	
				Ø 63
63	95	150		17-63150-45
		170		170-45
		190		190-45
		215		215-45
		240		240-45
		265		265-45
D	D1	L	CÓDIGO	
				Ø 80
80	112	150		17-80150-45
		170		170-45
		190		190-45
		215		215-45
		240		240-45
		265		265-45

MATERIAL AÇO LIGADO
CEMENTADO / TEMPERADO 60-64 HRC
COMO SOLICITAR 17-DDLLL-45

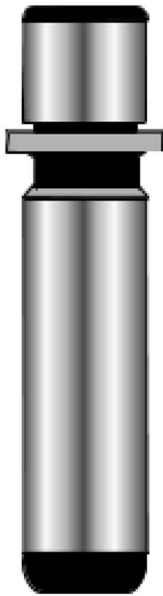
CAMISA COLADA



UTILIZAÇÃO



PINO LISO



PINO DESMONTÁVEL



GPM-1



GPM-2

D	D1	D2	D3	E	F	CÓDIGO	
						Ø 24	Ø 25
24 25	45	54	43	20	10	16-24020-52	16-25020-52
				25	10	025-52	025-52
			49	35	10	16-24035-50	16-25035-50
				50	10	050-50	050-50
				65	10	065-50	065-50
D	D1	D2	D3	E	F	CÓDIGO	
						Ø 30	Ø 32
30 32	54	63	50	20	10	16-30020-52	16-32020-52
				25	10	025-52	025-52
				29	10	029-52	029-52
				32	10	036-52	036-52
			58	50	10	16-30050-50	16-32050-50
				65	10	065-50	065-50
				80	10	080-50	080-50
D	D1	D2	D3	E	F	CÓDIGO	
						Ø 38	Ø 40
38 40	65	75	64	29	10	16-38029-52	16-40029-52
				32	10	032-52	032-52
				36	10	036-52	036-52
				44	10	044-52	044-52
			70	50	10	16-38050-50	16-40050-50
				65	10	065-50	065-50
				80	10	080-50	080-50
D	D1	D2	D3	E	F	CÓDIGO	
						Ø 48	Ø 50
48 50	81	93	79	36	10	16-48036-52	16-50036-52
				44	10	044-52	044-52
			88	65	10	16-48065-50	16-50065-50
				80	10	080-50	080-50
				100	10	100-50	100-50
				120	10	120-50	120-50
D	D1	D2	D3	E	F	CÓDIGO	
							Ø 63
63	95	106	103	50	100		16-63100-50
					120		120-50
					140		140-50
D	D1	D2	D3	E	F	CÓDIGO	
							Ø 80
80	112	125	120	50	100		16-80100-50
					120		120-50
					140		140-50

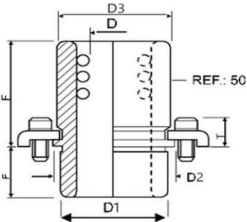
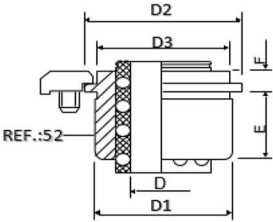
MATERIAL
AÇO LIGADO

CEMENTADO / TEMPERADO
60/64 HRC

COMO SOLICITAR
16-DDLLL-45

EXTRA CURTA

PARA UTILIZAÇÃO EM
PLACA INTERMEDIÁRIA



UTILIZAÇÃO



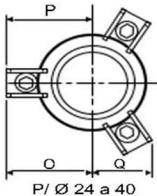
PINO LISO

PINO DESMONTÁVEL

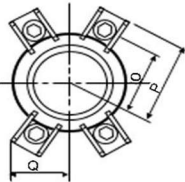
GPM1

GPM2

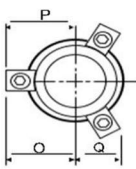
GRAMPOS										
D	RAIOS		Q	Qt	A	B	C	D	T	CÓDIGO
	O	P								
24/25	31	39	27	3	17	16	5	10	16	1812-01
30/32	36	46	30	3	19	16	6	10	19	1816-01
38/40	42	52	33	4	19	16	6	11	19	1816-01
48/50	51	61	37	4	19	16	6	11	19	1816-01
63	58	68	41	4	19	16	6	11	19	1816-01
80	68	79	46	4	19	16	6	11	19	1816-01
GRAMPOS P/ EXTRA CURTA										
D	RAIOS		Q	Qt	A	B	C	D		CÓDIGO
	O	P								
24/25	33	41	27	3	17	14,5	4,5	10		1822-01
30/32	39	49	32	3	17	14,5	4,5	10		1822-01
38/40	45	55	35	3	21	17	5,5	11		1824-01
48/50	54	64	39	4	21	17	5,5	11		1824-01



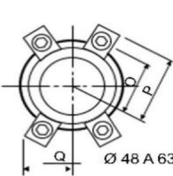
P/ Ø 24 a 40



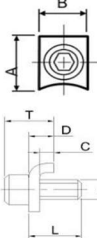
P/ Ø 48 a 50



P/ Ø 24 a 40



P/ Ø 48 a 80

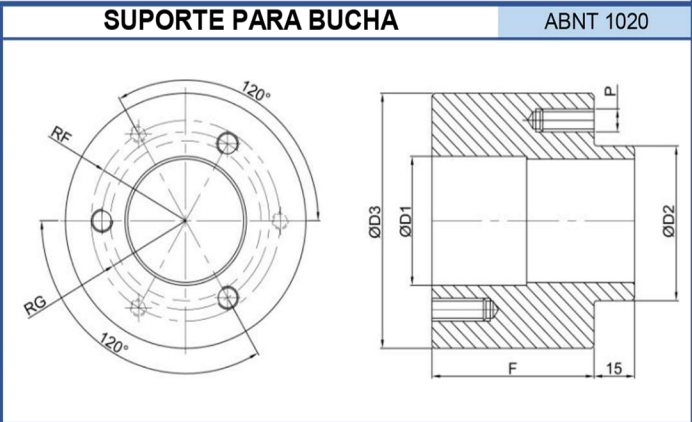


PARAFUSOS

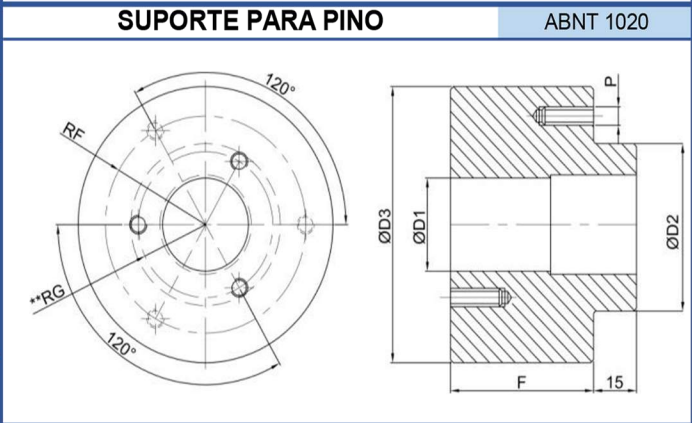
D	R	L	CÓDIGO
24/25	6	20	73-06020-02
30/32	6	20	73-06020-02
38/40	8	20	73-08020-02
48/50	8	20	73-08020-02
63	8	20	73-08020-02
80	8	20	73-08020-02

SUPORTE DESMONTÁVEL REDONDO

ESPECIFICAÇÕES							
PINO	ØD1	ØD2	ØD3	RF	RG	F	P
30/32	45	54	89	35,75	31	40 50	M6
38/40	54	65	102	41,75	36	63 80	M8
48/50	65	81	114	48,75	42	80 100	
63	81	100	140	60	51	100 125	
80	100	118	165	70,75	63	125	M10

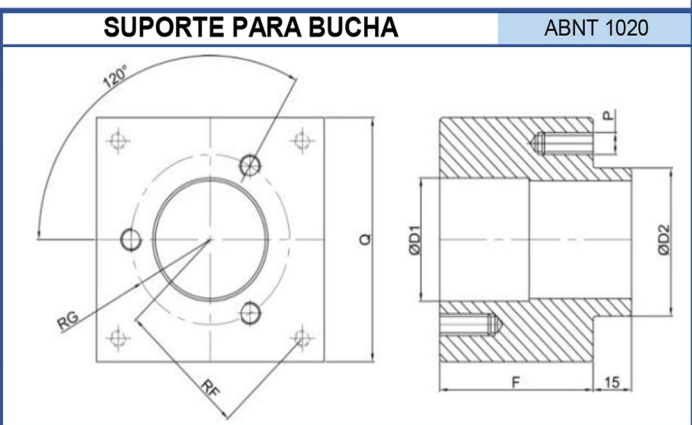


ESPECIFICAÇÕES						
ØD1	ØD2	ØD3	RF	**RG	F	P
30/32	54	89	35,75	23,5	40 50	M6
38/40	65	102	41,75	28,5	63 80	M8
48/50	81	114	48,75	36	80 100	
63	100	140	60	42,5	100 125	
80	118	165	70,75	51	125	M10

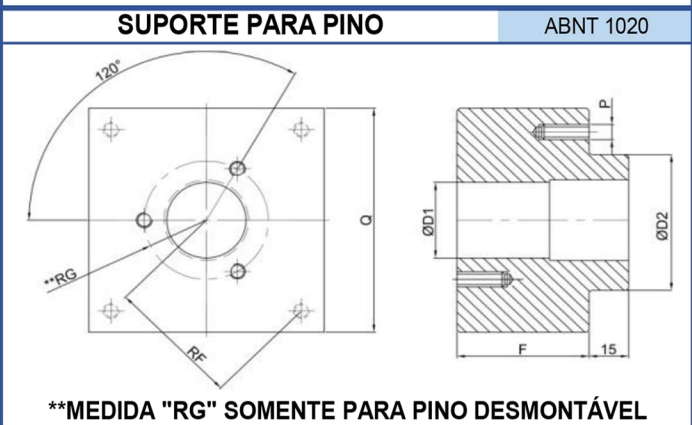


SUPORTE DESMONTÁVEL QUADRADO

ESPECIFICAÇÕES							
PINO	ØD1	ØD2	Q	RF	RG	F	P
30/32	45	54	89	48,79	31	40 50	M6
38/40	54	65	102	55,15	36	63 80	M8
48/50	65	81	114	59,40	42	80 100	
63	81	100	140	77,78	51	100 125	
80	100	118	165	88,39	63	125	M10



ESPECIFICAÇÕES						
ØD1	ØD2	Q	RF	**RG	F	P
30/32	54	89	48,79	23,5	40 50	M6
38/40	65	102	55,15	28,5	63 80	M8
48/50	81	114	59,4	36	80 100	
63	100	140	77,78	42,5	100 125	
80	118	165	88,39	51	125	M10



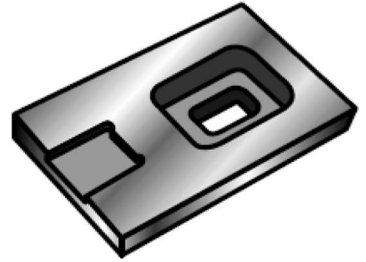
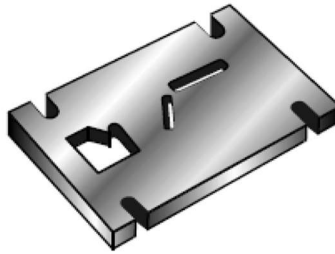
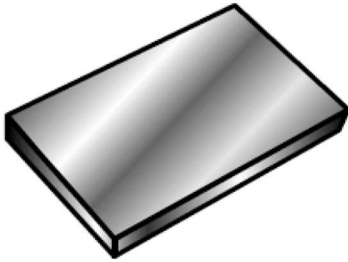
**MEDIDA "RG" SOMENTE PARA PINO DESMONTÁVEL

OBS.:

RF = RAO DE FURAÇÃO DOS PARAFUSOS

RG = RAO DE FURAÇÃO DOS GRAMPOS

COMO SOLICITAR: D3 X D1 X F



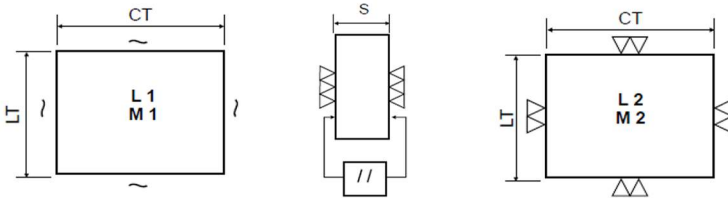
APLICAÇÕES:

Máquinas, Equipamentos, Dispositivos, Ferramentaria, Manutenção, Estampos, Moldes.

ACABAMENTO:

L1	Laterais oxicortadas. Superfícies limpas em blanchard.	M1	Laterais oxicortadas. Superfície com espessuras determinadas blanchard blanchadas
L2	Laterais Limpas em blanchard. Superfície limpas em blanchard.	M2	Laterais com dimensões determinadas frezadas. Superfícies com espessuras determinadas blanchadas.

TOLERÂNCIAS



AÇOS

ABNT 1020	02
ABNT 1045	01

L 1 / L 2	$S \pm 1$
L 1 / M1	$CT \pm 1 / 300$ $LT \pm 1 / 300$
L 1 / L 2	$// 0,010 / 100$
M1 / M2	PLANICIDADE $0,010 / 100$
M1 e M2	$S \pm 0,4 / 200$
L 2 / M2	$\alpha = 0,025 / 100$ $\beta = 0,025 / 200$

Tolerância de Superfície (mm)

Paralelismo	Empenamento	Espessuras
0,010 / 10	0,020 / 300	-0 / + 0,20

Tolerância válidas para relação:
Diagonal / Espessura < 30mm
Placas S3 espessuras -0 / +0,05

Tolerância das Laterais (mm)

CT e LT	α e β Para Placas
0,200 / 300	$0,025 / 100$

DIAGONAL SUPERIOR A 1200mm: SUPERFÍCIES FREZADAS. PODEMOS FORNECER PLACAS COM TOLERÂNCIAS DIFERENTES DAS INDICADAS.

PLACAS COM RECORTES OXICORTADOS POR FOTOCÉLULA TOLERÂNCIAS PARA RECORTES

S	Dimensões do recorte	Posição do recorte	Largura mínima
até 49	± 1	± 1	10
49 a 73	± 3	± 3	20
acima 73	± 3	± 3	20

ESPESSURAS RECOMENDADAS

PARA ABNT 1020:

10 - 14 - 17 - 20 - 24 - 30 - 36 - 43 - 49 - 55 - 61 - 73 - 87 - 98 - 110 - 124 - 148

PARA ABNT 1045:

10 - 14 - 17 - 20 - 24 - 27 - 30 - 36 - 43 - 49 - 55 - 61 - 73 - 87 - 98 - 110 - 124 - 148 - 174 - 198 - 224 - 248 - 295

COMO ENCOMENDAR:

CT - Comprimento total x LT - Largura total

ESPESSURA: Especificar

AÇO - ABNT 1020 / ABNT 1045 / ou outros

ACABAMENTO: L1 / L2 / M1 ou M2

PRESTAÇÃO DE SERVIÇOS:

Retífica Blanchard, Tangencial, Usinagem em CNC, parceria em terceirização utilizando nossas matérias primas ou matérias primas fornecidas pelo cliente.