

PRODTY[®]

tecnologia com bom senso



Fabricado no Brasil desde 1982

CILINDROS AUTÔNOMOS



PRO-NITRO[®]



Cilindros Autônomos Consulta Rápida (Tabela comparativa entre os cilindros através da constante K)

TABELA "K"

Constante	Modelo	Força Inic. P/ Pressão Inic.		Haste	Corpo	Posição	Rosca	Interlig.	Cursos	007	Cursos dos cilindros (medida em milímetros)															
		130 bar	150 bar								010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300
30	PNRE-0,1	123,5 daN	142,5 daN	11	19	Baixo	M6x1	Sim	L = K + 2 x curso	44	50	60	70	80	94	106	130	156								
30	PNRE-0,2	229,7 daN	265,0 daN	15	25	Baixo	M6x1	Sim		44	50	60	70	80	94	106	130	156								
30	PNRE-0,3	261,3 daN	301,5 daN	16	32	Lateral	M6x1	Sim			50	60	70	80	94	106	130	156	180	190	230	280				
30	PNRE-0,5	408,4 daN	471,2 daN	20	38	Lateral	M6x1	Sim			50	60	70	80	94	106	130	156	180	190	230	280				
32	PNRE-0,8	638,1 daN	736,3 daN	25	45	Lateral	M6x1	Sim			52	62	72	82	96	108	132	158	182	192	232	282				
35	PNRE-0,1	123,5 daN	142,5 daN	11	19	Baixo	M6x1	Sim											185	195	235	285				
35	PNRE-0,2	229,7 daN	265,0 daN	15	25	Baixo	M6x1	Sim											185	195	235	285				
38	PNRE-1,0	800,4 daN	923,6 daN	28	50	Lateral	M6x1	Sim			58	68	78	88	102	114	138	164	188	198	238	288				
40	PNRG-0,3	261,3 daN	301,5 daN	16	32	Lateral	G1/8 - M6x1	Sim			60	70	80	90	104	116	140	166	190	200	240	290				
40	PNRG-0,5	408,4 daN	471,2 daN	20	38	Lateral	G1/8 - M6x1	Sim			60	70	80	90	104	116	140	166	190	200	240	290				
42	PNCQ-0,1	65,3 daN	75,3 daN	8	19	Baixo	M6x1	Sim	Altura "L" em mm	56	62	72	82	92	106	118,2	142	168								
42	PNCQ-0,2	147,0 daN	169,6 daN	12	25	Baixo	M6x1	Sim		56	62	72	82	92	106	118,2	142	168								
42	PNRR-0,2	147,0 daN	169,6 daN	12	M28x1,5	Baixo	M6x1	Sim		56	62	72	82	92	106	118	142	168	192	202	242	292				
44	PNRE-1,5	1.323 daN	1.526 daN	36	63	Lateral	M6x1	Sim			64	74	84	94	108	120	144	170	194	204	244	294				
45	PNCQ-0,1	65,3 daN	75,3 daN	8	19	Baixo	M6x1	Sim											195	205	245	295				
45	PNCQ-0,2	147,0 daN	169,6 daN	12	25	Baixo	M6x1	Sim											195	205	245	295				
45	PNRE-2,4	2.067 daN	2.385 daN	45	75	Lateral	M6x1	Sim			65	75	85	95	109	121	145	171	195	205	245	295				
47	PNRG-0,8	638,1 daN	736,3 daN	25	45	Lateral	G1/8 - M6x1	Sim			67	77	87	97	111	123	147	173	197	207	247	297				
50	PNFH-0,2	147,0 daN	169,6 daN	12	32	Baixo	M6x1	Sim		64	70	80	90	100	114	126	150	176	200	210	250	300				
50	PNFH-0,3	229,7 daN	265,0 daN	15	38	Lateral	M6x1	Sim			70	80	90	100	114	126	150	176	200	210	250	300				
50	PNRB-0,3	261,3 daN	301,5 daN	16	38	Lateral	G1/8 - M6x1	Sim		70	80	90	100	114	126	150	176	200	210	250	300					
50	PNRB-0,5	408,4 daN	471,2 daN	20	45	Lateral	G1/8 - M6x1	Sim		70	80	90	100	114	126	150	176	200	210	250	300					
50	PNRB-0,8	638,1 daN	736,3 daN	25	50	Lateral	G1/8 - M6x1	Sim		70	80	90	100	114	126	150	176	200	210	250	300					
50	PNRR-0,3	261,3 daN	301,5 daN	16	M38x1,5	Baixo	M6x1	Sim		70	80	90	100	114	126	150	176	200	210	250	300					
52	PNRG-1,0	800,4 daN	923,6 daN	28	50	Lateral	G1/8 - M6x1	Sim		72	82	92	102	116	128	152	178	202	212	252	302					
52	PNRG-1,5	1.323 daN	1.526 daN	36	63	Lateral	G1/8 - M6x1	Sim		72	82	92	102	116	128	152	178	202	212	252	302					
58	PNRE-4,2	3.675 daN	4.241 daN	60	95	Lateral	G1/8 - M6x1	Sim			88	98	108	122	134	158	184	208	218	258	308					
59	PNRG-2,4	2.067 daN	2.385 daN	45	75	Lateral	G1/8 - M6x1	Sim		79	89	99	109	123	135	159	185	209	219	259	309					
60	PNRB-1,5	1.323 daN	1.526 daN	36	75	Lateral	G1/8 - M6x1	Sim		80	90	100	110	124	136	160	186	210	220	260	310					
52	PNRG-4,2	3.675 daN	4.241 daN	60	95	Lateral	G1/8 - M6x1	Sim			92	102	112	126	138	162	188	212	222	262	312					
63	PNRR-0,5	408,4 daN	471,2 daN	20	M45x1,5	Baixo	G1/8 - M6x1	Sim		83	93	103	113	127	139	163	189	213	223	263	313					
63	PNRR-0,8	638,1 daN	736,3 daN	25	M50x1,5	Baixo	G1/8 - M6x1	Sim		83	93	103	113	127	139	163	189	213	223	263	313					
68	PNRE-6,6	5.743 daN	6.626 daN	75	120	Lateral	G1/8 - M6x1	Sim			98	108	118	132	144	168	194	218	228	268	318					
70	PNGH-0,8	638,1 daN	736,3 daN	25	50	Lateral	G1/8 - M6x1	Sim		90	100	110	120	134	146	170	196	220	230	270	320	390	470			
70	PNRB-3,0	2.552 daN	2.945 daN	50	95	Lateral	G1/8 - M6x1	Sim			100	110	120	134	146	170	196	220	230	270	320					
72	PNRG-6,6	5.743 daN	6.626 daN	75	120	Lateral	G1/8 - M6x1	Sim			102	112	122	136	148	172	198	222	232	272	322					

Constante	Modelo	Força Inic. P/ Pressão Inic.		Haste	Corpo	Posição		Rosca	Interlig.	Cursos dos cilindros (medida em milímetros)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		130 bar	150 bar			Válvula	Válvula			007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
K	Tonelagem			Ød (mm)	ØD (mm)					Altura "L" em mm														L = K + 2 x curso																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
78	PNRE-9,5	8,270 daN	9,542 daN	90	150	Lateral	G1/8 - M6x1	Sim				118	128	142	154	178	204	228	238	278	328																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</

L = K + 2 x curso

Altura "L" em mm

Notas:

- 1- Quanto maior for a dimensão “k” entre os cilindros de mesma tonelagem, melhor será a guia da haste e maior a vida útil do cilindro.
- 2- Quanto maior for a dimensão “k” entre os cilindros de mesma tonelagem, maior a altura L.
- 3- Cursos padrões dos cilindros em mm: 7, 10, 15, 20, 25, 32, 38, 50, 63, 75 ,80, 100, 125, 160, 200, 250,300.
- 4- O cilindro **PNRC** não possui uma dimensão “k” como constante.
- 5- As forças acima estão representadas em **daN**, para pressão inicial de **130 bar** e **150 bar**, (1daN = 1,0204 kgf)

A força final depende do modelo, do curso e quanto está sendo atuado.

Para cálculos precisos de força e pressões usar a planilha eletrônica *Forças dos Cilindros Pro-Nitro*, localizada em nosso site.

6- Dimensões:

Ød = diâmetro da haste;

ØD = diâmetro do corpo;

CILINDROS :

Modelo Tonelagen Curso
PNxx - **X,X** - **xxx**

Kit reparo :

Modelo Tonelagen Série
RNxx - **X,X** / **XX**

A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

Cilindros Autônomos Consulta Rápida (Tabela comparativa entre os cilindros através do modelo)

Modelo	ton	cte	Haste Ød (mm)	Corpo ØD (mm)	Cursos dos cilindros (medida em milímetros)																
					cursos	007	010	015	020	025	032	038,1	050	063	064	075	080	100	125	160	200
PNCQ-0,1	0,1	42 / 45	8	19	Altura "L" em mm	56	62	72	82	92	106	118,2	142	168	172	195	205	245	295		
PNCQ-0,2	0,2	42 / 45	12	25		56	62	72	82	92	106	118,2	142	168	172	195	205	245	295		
PNDR-24	0,1	45	10	M24			65	75	85	95	109	121	145	171	---	195	205	245	295		
PNDR-24S	0,1	45	10	M24			65	75	85	95	109	121	145	171	---	195	205	245	295		



Modelo	ton	cte	Haste	Corpo	cursos	Cursos dos cilindros (medida em milímetros)																
		k	Ød (mm)	ØD (mm)		007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300
PNRE	0,1	30 / 35	11	19	Altura "L" em mm	44	50	60	70	80	94	106	130	156	185	195	235	285				
	0,2	30 / 35	15	25		44	50	60	70	80	94	106	130	156	185	195	235	285				
	0,3	30	16	32			50	60	70	80	94	106	130	156	180	190	230	280				
	0,5	30	20	38			50	60	70	80	94	106	130	156	180	190	230	280				
	0,8	32	25	45			52	62	72	82	96	108	132	158	182	192	232	282				
	1,0	38	28	50			58	68	78	88	102	114	138	164	188	198	238	288				
	1,5	44	36	63			64	74	84	94	108	120	144	170	194	204	244	294				
	2,4	45	45	75			65	75	85	95	109	121	145	171	195	205	245	295				
	4,2	58	60	95				88	98	108	122	134	158	184	208	218	258	308				
	6,6	68	75	120				98	108	118	132	144	168	194	218	228	268	318				
	9,5	78	90	150					118	128	142	154	178	204	228	238	278	328				
	20,0	110	130	195					150	160	174	186	210	236	260	270	310	360				



Modelo	ton	k	Ød (mm)	ØD (mm)	cursos	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300		
PNRG	0,3	40	16	32	Altura "L" em mm		60	70	80	90	104	116	140	166	190	200	240	290						
	0,5	40	20	38			60	70	80	90	104	116	140	166	190	200	240	290						
	0,8	47	25	45			67	77	87	97	111	123	147	173	197	207	247	297						
	1,0	52	28	50			72	82	92	102	116	128	152	178	202	212	252	302						
	1,5	52	36	63			72	82	92	102	116	128	152	178	202	212	252	302						
	2,4	59	45	75			79	89	99	109	123	135	159	185	209	219	259	309						
PNRG	4,2	62	60	95			92	102	112	122	136	148	172	198	222	232	272	322						
	6,6	72	75	120			102	112	122	136	148	172	198	222	232	272	322							
Modelo	ton	k	Ød (mm)	ØD (mm)	cursos	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300		
PNRB	0,3	50	16	38	Altura "L" em mm		70	80	90	100	114	126	150	176	200	210	250	300						
	0,5	50	20	45			70	80	90	100	114	126	150	176	200	210	250	300						
	0,8	50	25	50			70	80	90	100	114	126	150	176	200	210	250	300						
	1,5	60	36	75			80	90	100	110	124	136	160	186	210	220	260	310						
	3,0	70	50	95				100	110	120	134	146	170	196	220	230	270	320						





Modelo	ton	cte	Haste	Corpo	Altura "L" em mm	Cursos dos cilindros (medida em milímetros)																	
			Ød (mm)			ØD (mm)	cursos	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250
PNRX	0,8	85	25	45					115	125	135	149	161	185	211	235	245	285	335	405	485		
	1,0	95	28	50				125	135	145	159	171	195	221	245	255	295	345	415	495	595	695	
	1,5	95	36	63				125	135	145	159	171	195	221	245	255	295	345	415	495	595	695	
	2,4	110	45	75						160	174	186	210	236	260	270	310	360	430	510	610	710	
	4,2	120	60	95						170	184	196	220	246	270	280	320	370	440	520	620	720	
	6,6	140	75	120						190	204	216	240	266	290	300	340	390	460	540	640	740	
	9,5	155	90	150						205	219	231	255	281	305	315	355	405	475	555	655	755	
	20,0	160	130	195						210	224	236	260	286	310	320	360	410	480	560	660	760	



Modelo	ton	cte	Haste	Corpo	Cursos dos cilindros (medida em milímetros)																			
		k	Ød (mm)	ØD (mm)	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300			
PNGH	0,8	70	25	50	Altura "L" em mm		90	100	110	120	134	146	170	196	220	230	270	320	390	470				
	1,5	102	36	75			122	132	142	152	166	178	202	228	252	262	302	352	422	502				
	3,0	102	50	95				132	142	152	166	178	202	228	252	262	302	352	422	502				
	5,0	102	65	120				132	142	152	166	178	202	228	252	262	302	352	422	502	602			
Modelo	ton	k	Ød (mm)	ØD (mm)	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300			
PNFH	0,2	50	12	32	64	70	80	90	100	114	126	150	176	200	210	250	300							
	0,3	50	15	38		70	80	90	100	114	126	150	176	200	210	250	300							
	0,5	85	20	45		105	115	125	135	149	161	185	211	235	245	285	335	405	485					
	0,8	95	25	50		115	125	135	145	159	171	195	221	245	255	295	345	415	495	595	695			
	1,5	110	36	75		130	140	150	160	174	186	210	236	260	270	310	360	430	510	610	710			
	3,0	120	50	95			150	160	170	184	196	220	246	270	280	320	370	440	520	620	720			
	5,0	140	65	120			170	180	190	204	216	240	266	290	300	340	390	460	540	640	740			
	7,5	155	80	150			185	195	205	219	231	255	281	305	315	355	405	475	555	655	755			
	10,0	160	95	195				200	210	224	236	260	286	310	320	360	410	480	560	660	760			
	Modelo	ton	k	Ød (mm)	ØD (mm)	007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300		
PNLH	0,5	85	20	50	Altura "L" em mm	105	115	125	135	149	161	185	211	235	245	285	335	405	485					
	0,8	95	25	75			115	125	135	145	159	171	195	221	245	255	295	345	415	495	595			
	1,5	110	36	95				140	150	160	174	186	210	236	260	270	310	360	430	510	610	710		
	3,0	120	50	120				150	160	170	184	196	220	246	270	280	320	370	440	520	620	720		
	5,0	140	65	150				170	180	190	204	216	240	266	290	300	340	390	460	540	640	740		

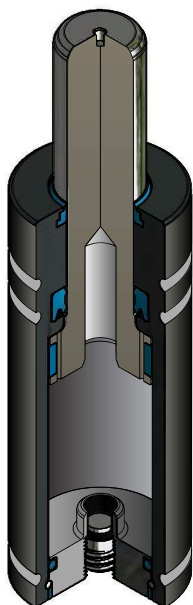
Modelo	ton	cte k	Haste Ød (mm)	Corpo ØD (mm)	cursos	Cursos dos cilindros (medida em milímetros)														
						007	010	015	020	025	032	038	050	063	075	080	100	125	160	200
PNRC	0,5	-	12	25	Altura "L" em mm	70	88	104	120	140	162	195								
	1,0	-	20	38		78	96	116	135	167	188	230								
	1,8	-	30	50		80	102	119	135	162	183	220								
	2,9	-	40	63		85	100	115	130	150	168	205								
	4,7	-	50	75		80	102	119	135	167	192	240								
	7,5	-	60	95		90	112	129	145	182	203	255								
	11,8	-	80	120		100	122	139	155	187	212	260								
	18,3	-	100	150		110	132	149	165	197	226	270								



Modelo	ton	cte	Haste Ød (mm)	Corpo ØD (mm)	cursos	Cursos dos cilindros (medida em milímetros)																	
						007	010	015	020	025	032	038	050	063	075	080	100	125	160	200	250	300	
PNRR	0,2	42	12	M28x1,5	Altura "L" em mm	56	62	72	82	92	106	118	142	168	192	202	242	292					
	0,3	50	16	M38x1,5			70	80	90	100	114	126	150	176	200	210	250	300					
	0,5	63	20	M45x1,5			83	93	103	113	127	139	163	189	213	223	263	313					
	0,8	63	25	M50x1,5			83	93	103	113	127	139	163	189	213	223	263	313					
	1,5	92	36	M75x2			112	122	132	142	156	168	192	218	242	252	292	342	412				
	3,0	92	50	M95x2				122	132	142	156	168	192	218	242	252	292	342	412				



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

**Modelo: PNCQ-0,2-025**

CILINDROS : Modelo **PNCQ** - Tonelagen **X,X** - Curso **xxx**

Kit reparo : Modelo **RNCQ** - Tonelagen **X,X** / Série **XX**

Cilindro autônomo, de acordo com a norma ISO (não descartável).

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	180 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

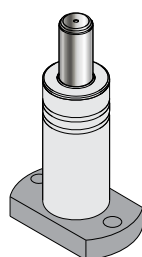
Tonelagens disponíveis:

0,1 - 0,2

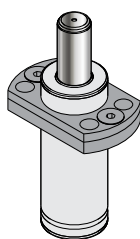
Cursos padrões dos cilindros em mm:

7 , 10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 63,5 , 75 , 80 , 100 e 125mm

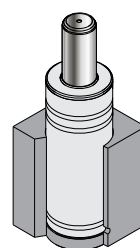
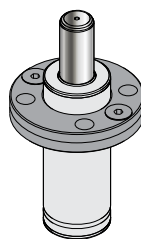
Alternativas de montagem



Fixação com flange inferior

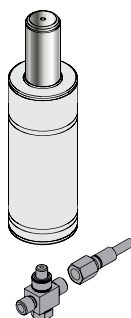


Fixação com flange superior

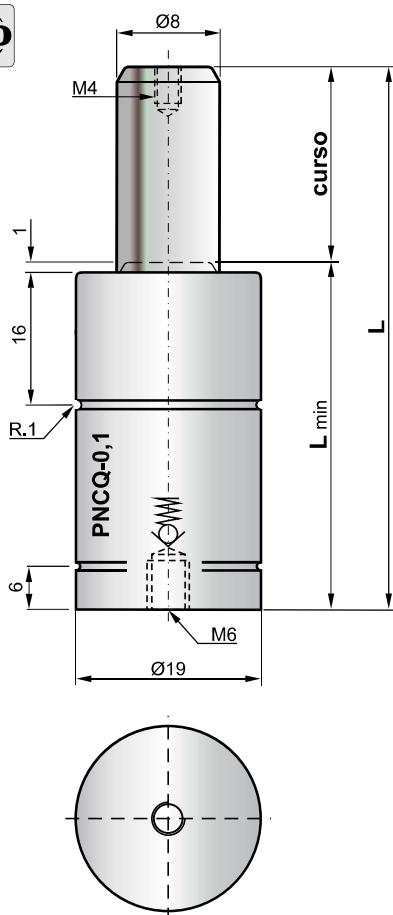


Alojado

Alternativas de interligação



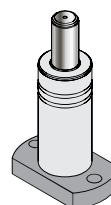
Micro conexões
M6x1 x M8x1



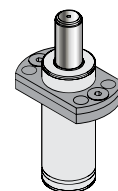
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=42 / K=45 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
		Inicial	Final*					
PNCQ-0,1-007	7	75,3	90,6	56	49	2,0	0,083	
PNCQ-0,1-010	10	75,3	93,2	62	52	2,6	0,087	
PNCQ-0,1-015	15	75,3	96,0	72	57	3,5	0,093	✓
PNCQ-0,1-020	20	75,3	97,7	82	62	4,3	0,099	
PNCQ-0,1-025	25	75,3	98,9	92	67	5,2	0,105	✓
PNCQ-0,1-032	32	75,3	100,1	106	74	6,5	0,114	
PNCQ-0,1-038	38,1	75,3	100,8	118,2	80,1	7,5	0,120	✓
PNCQ-0,1-050	50	75,3	101,7	142	92	9,6	0,136	✓
PNCQ-0,1-063	63	75,3	102,4	168	105	11,9	0,151	
PNCQ-0,1-064	63,5	75,3	102,7	172	108,5	11,9	0,159	✓
PNCQ-0,1-075	75	75,3	102,8	195	120	14,1	0,173	
PNCQ-0,1-080	80	75,3	103,0	205	125	14,9	0,178	✓
PNCQ-0,1-100	100	75,3	103,4	245	145	18,5	0,201	✓
PNCQ-0,1-125	125	75,3	103,8	295	170	22,9	0,233	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

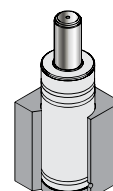
Alternativas de montagem



Fixação com flange inferior

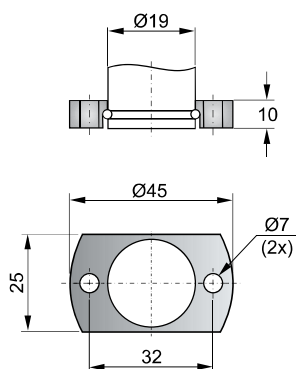


Fixação com flange superior

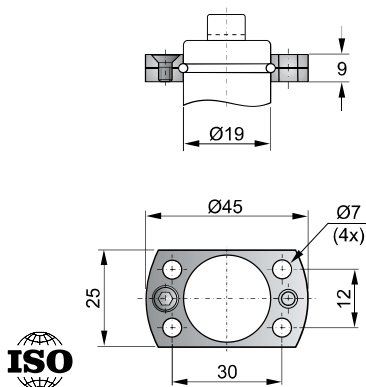


Alojado

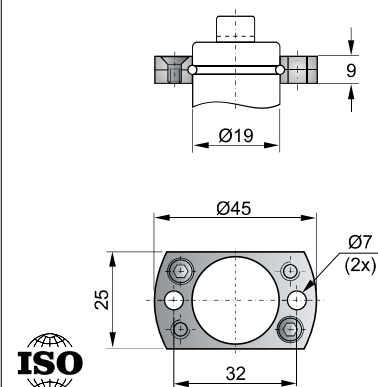
PNB-58-019

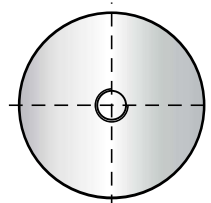
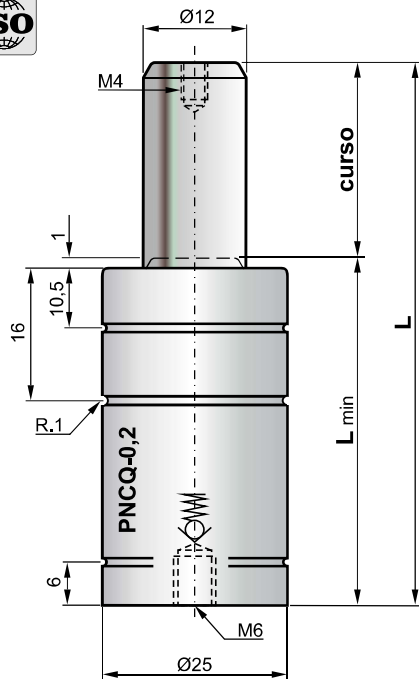


PNB-91-019



PNB-75-019-VDI

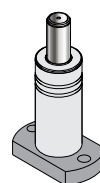




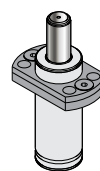
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=42 / K=45 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNCQ-0,2-007	7	169,6	218,5	56	49	3,5	0,146	
PNCQ-0,2-010	10	169,6	226,9	62	52	4,4	0,154	
PNCQ-0,2-015	15	169,6	235,7	72	57	6,0	0,165	✓
PNCQ-0,2-020	20	169,6	241,2	82	62	7,6	0,176	
PNCQ-0,2-025	25	169,6	245,0	92	67	9,1	0,188	✓
PNCQ-0,2-032	32	169,6	248,6	106	74	11,3	0,203	
PNCQ-0,2-038	38,1	169,6	250,8	118,2	80,1	13,2	0,217	✓
PNCQ-0,2-050	50	169,6	253,8	142	92	17,0	0,243	✓
PNCQ-0,2-063	63	169,6	255,9	168	105	21,1	0,273	
PNCQ-0,2-064	63,5	169,6	256,9	172	108,5	21,1	0,283	✓
PNCQ-0,2-075	75	169,6	257,2	195	120	24,9	0,311	
PNCQ-0,2-080	80	169,6	257,7	205	125	26,4	0,322	✓
PNCQ-0,2-100	100	169,6	259,1	245	145	32,7	0,367	✓
PNCQ-0,2-125	125	169,6	260,2	295	170	40,6	0,425	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

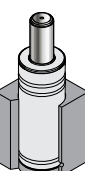
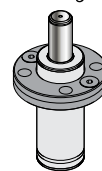
Alternativas de montagem



Fixação com flange inferior

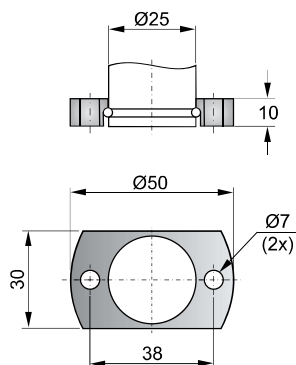


Fixação com flange superior

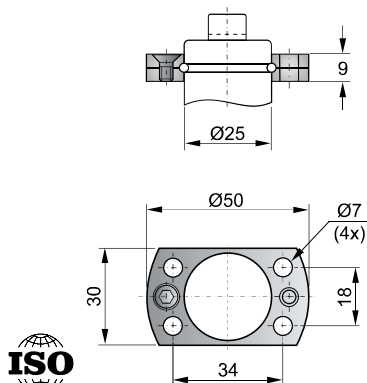


Alojado

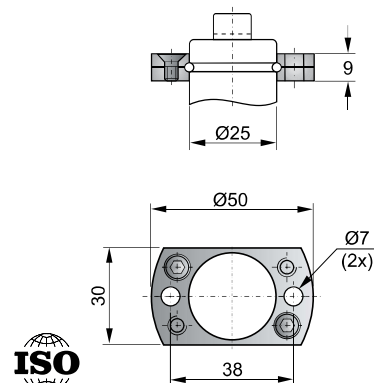
PNB-92-025



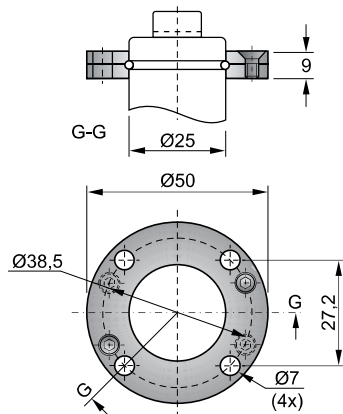
PNB-66-025



PNB-89-025-VDI



PNB-54-025



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

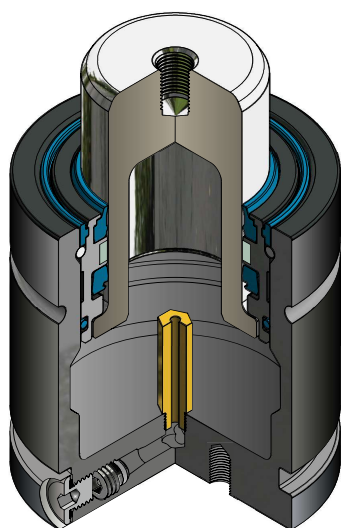
Modelo Tonelagen Curso
CILINDROS : PNRE - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNRE - X,X / XX

Cilindro autônomo, de acordo com a norma ISO, mais fortes, compactos e avançados.

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta



Modelo: PNRE-1,5-025

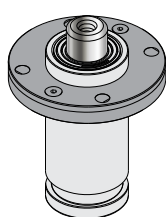
Tonelagens disponíveis:

0,1 - 0,2 - 0,3 - 0,5 - 0,8 - 1,0 - 1,5 - 2,4 - 4,2 - 6,6 - 9,5 - 20,0

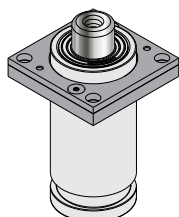
Cursos padrões dos cilindros em mm:

7, 10, 15, 20, 25, 32, 38, 50, 63, 75, 80, 100 e 125mm

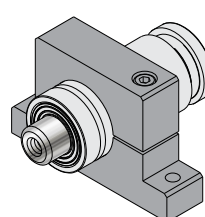
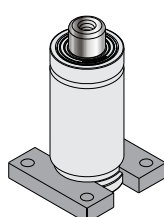
Alternativas de montagem



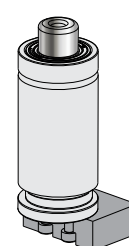
Fixação com flange superior



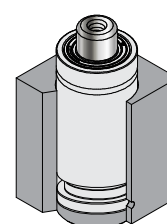
Fixação com flange inferior



Fixação com abraçadeira

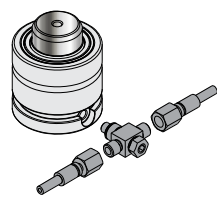
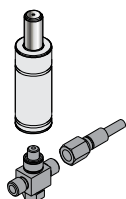


Fixação direta com rosca

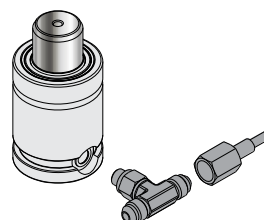
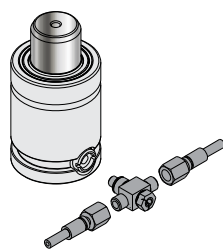


Alojado

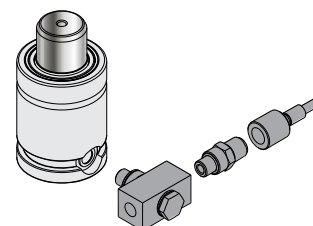
Alternativas de interligação



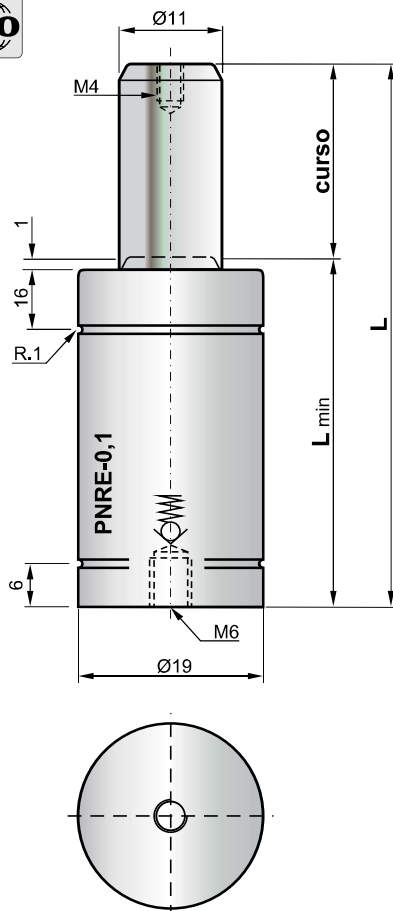
Micro conexões
M6x1 x M8x1



Conexões
G1/8 x 1/2-20F.P.P



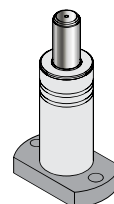
Conexões e Adaptadores
G1/8 x S12,65



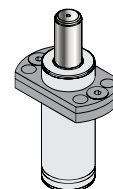
Código	Curso	Força daN		L	L	Vol.		
	Cilindro (mm)	Pressão à 150bar Inicial	Final*	K=30 / K=35 (mm)	min. (mm)	inicial (cm³)		
PNRE-0,1-007	7	142,5	224,2	44	37	1,8	0,060	
PNRE-0,1-010	10	142,5	235,0	50	40	2,4	0,064	✓
PNRE-0,1-015	15	142,5	245,6	60	45	3,3	0,072	✓
PNRE-0,1-020	20	142,5	251,8	70	50	4,3	0,079	
PNRE-0,1-025	25	142,5	256,0	80	55	5,3	0,087	✓
PNRE-0,1-032	32	142,5	259,8	94	62	6,7	0,096	
PNRE-0,1-038	38	142,5	262,2	106	68	7,9	0,105	✓
PNRE-0,1-050	50	142,5	265,3	130	80	10,2	0,123	✓
PNRE-0,1-063	63	142,5	267,4	156	93	12,8	0,140	✓
PNRE-0,1-075	75	142,5	268,7	185	110	15,1	0,169	
PNRE-0,1-080	80	142,5	269,1	195	115	16,1	0,174	✓
PNRE-0,1-100	100	142,5	270,5	235	135	20,0	0,202	✓
PNRE-0,1-125	125	142,5	271,6	285	160	24,9	0,236	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

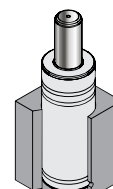
Alternativas de montagem



Fixação com
flange inferior

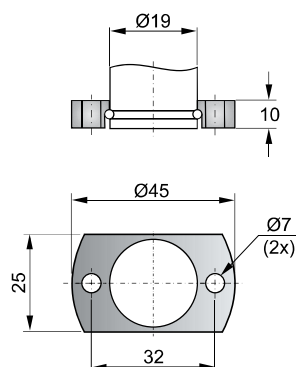


Fixação com
flange superior

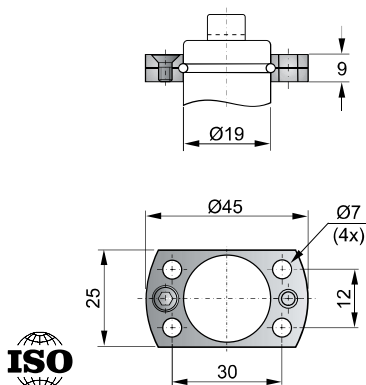


Alojado

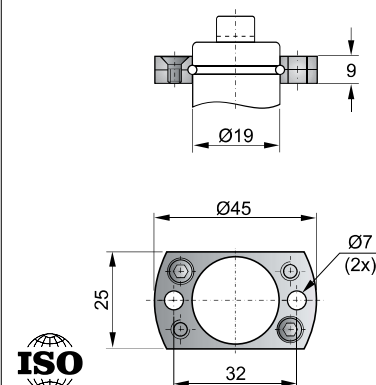
PNB-58-019

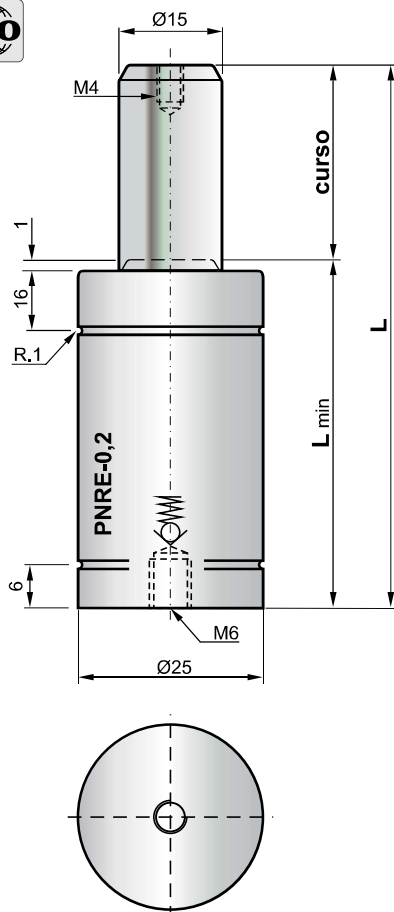


PNB-91-019



PNB-75-019-VDI

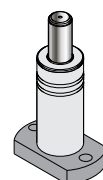




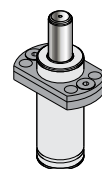
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Final*	L K=30 / K=35 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-0,2-007	7	265,0	422,1	44	37	3,3	0,108	
PNRE-0,2-010	10	265,0	439,1	50	40	4,4	0,116	✓
PNRE-0,2-015	15	265,0	455,2	60	45	6,3	0,127	✓
PNRE-0,2-020	20	265,0	464,3	70	50	8,2	0,138	
PNRE-0,2-025	25	265,0	470,2	80	55	10,1	0,150	✓
PNRE-0,2-032	32	265,0	475,7	94	62	12,7	0,165	
PNRE-0,2-038	38	265,0	479,0	106	68	15,0	0,178	✓
PNRE-0,2-050	50	265,0	483,2	130	80	19,5	0,205	✓
PNRE-0,2-063	63	265,0	486,1	156	93	24,4	0,235	✓
PNRE-0,2-075	75	265,0	487,9	185	110	29,0	0,287	
PNRE-0,2-080	80	265,0	488,6	195	115	30,9	0,307	✓
PNRE-0,2-100	100	265,0	490,4	235	135	38,4	0,357	✓
PNRE-0,2-125	125	265,0	491,9	285	160	47,9	0,426	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

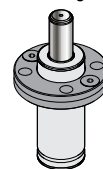
Alternativas de montagem



Fixação com
flange inferior

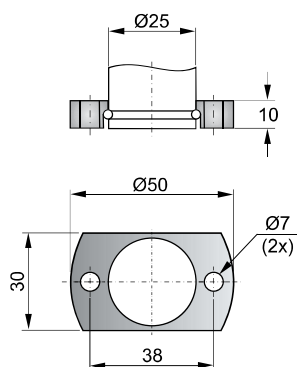


Fixação com
flange superior

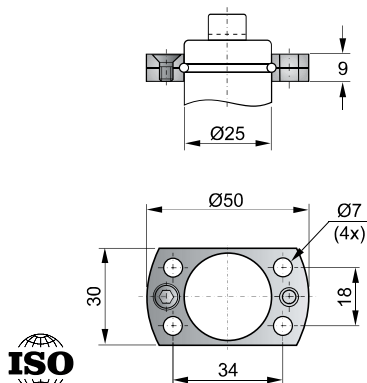


Alojado

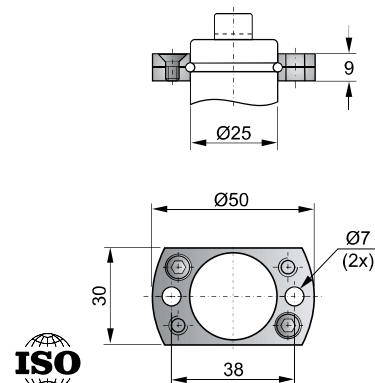
PNB-92-025



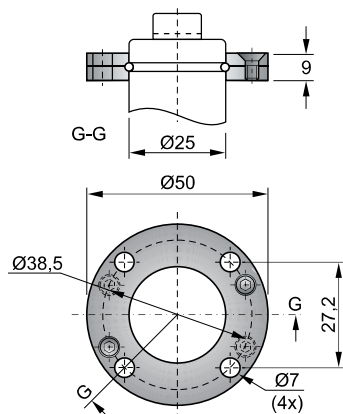
PNB-66-025



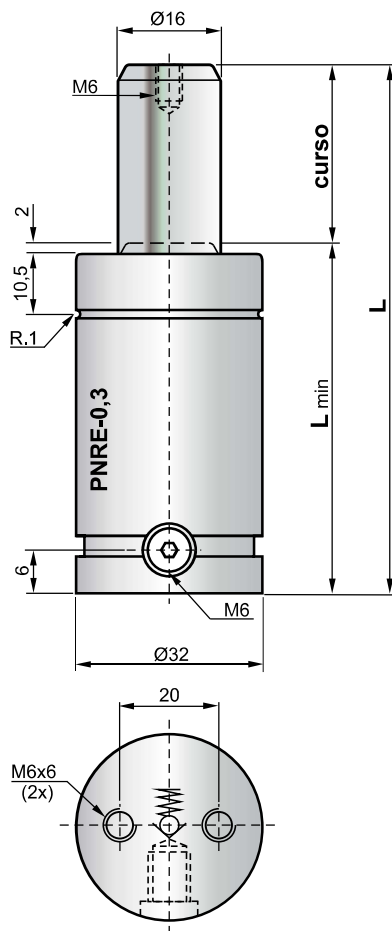
PNB-89-025-VDI



PNB-54-025



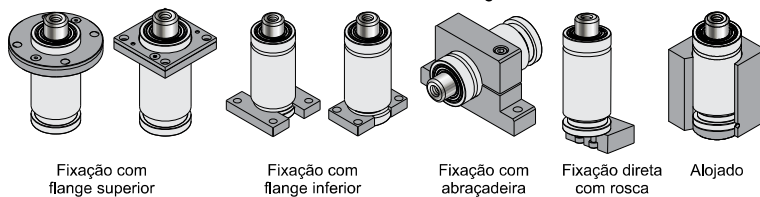
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



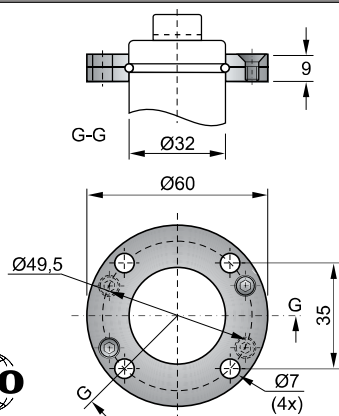
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=30 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-0,3-010	10	301,5	402,4	50	40	8,0	0,169	✓
PNRE-0,3-015	15	301,5	424,7	60	45	10,3	0,189	
PNRE-0,3-020	20	301,5	440,1	70	50	12,7	0,208	
PNRE-0,3-025	25	301,5	451,3	80	55	15,1	0,230	✓
PNRE-0,3-032	32	301,5	462,7	94	62	18,4	0,259	
PNRE-0,3-038	38	301,5	469,9	106	68	21,3	0,285	✓
PNRE-0,3-050	50	301,5	480,1	130	80	27,0	0,334	✓
PNRE-0,3-063	63	301,5	487,5	156	93	33,2	0,385	✓
PNRE-0,3-075	75	301,5	492,4	180	105	38,9	0,429	
PNRE-0,3-080	80	301,5	494,0	190	110	41,2	0,456	✓
PNRE-0,3-100	100	301,5	499,2	230	130	50,7	0,538	✓
PNRE-0,3-125	125	301,5	503,5	280	155	62,6	0,641	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

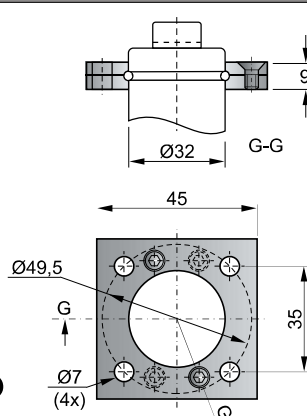
Alternativas de montagem



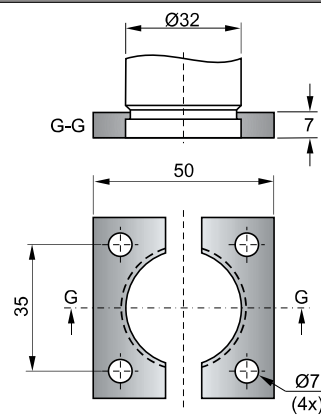
PNB-54-032



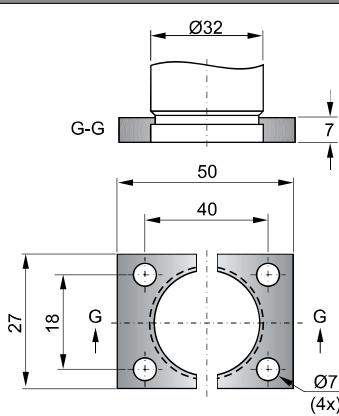
PNB-65-032



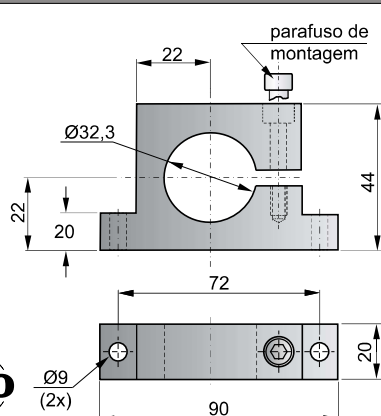
PNB-55-032



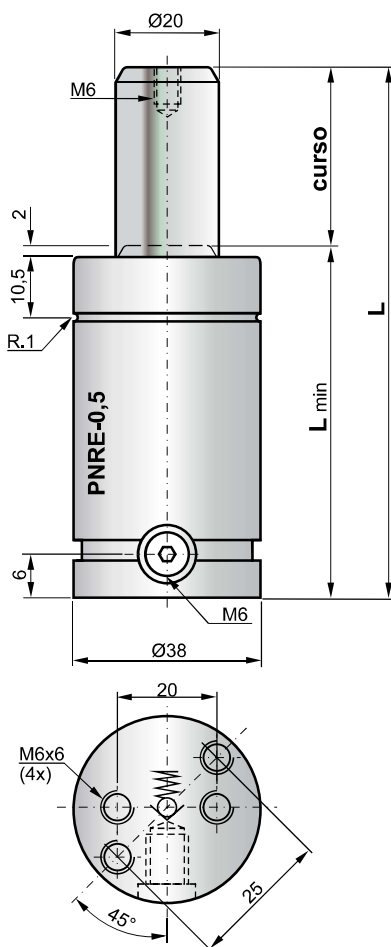
PNB-32-032



PNB-57-032



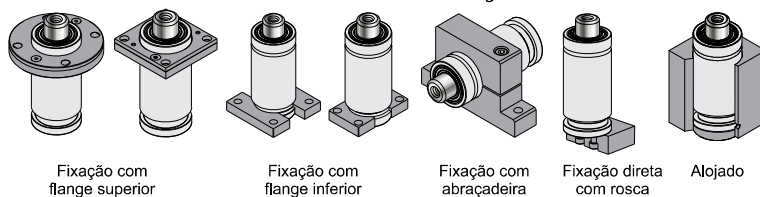
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



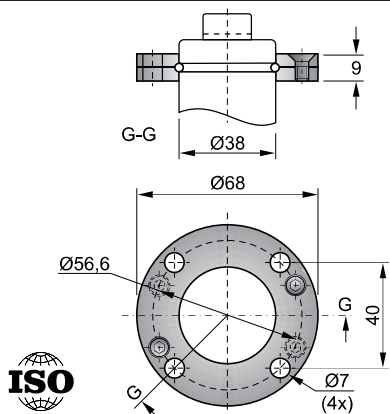
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=30 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-0,5-010	10	471,2	636,2	50	40	12,1	0,234	✓
PNRE-0,5-015	15	471,2	666,7	60	45	16,0	0,257	
PNRE-0,5-020	20	471,2	686,5	70	50	20,0	0,287	
PNRE-0,5-025	25	471,2	700,4	80	55	23,9	0,307	✓
PNRE-0,5-032	32	471,2	714,2	94	62	29,5	0,342	
PNRE-0,5-038	38	471,2	722,8	106	68	34,3	0,377	✓
PNRE-0,5-050	50	471,2	734,6	130	80	43,8	0,434	✓
PNRE-0,5-063	63	471,2	743,0	156	93	54,1	0,506	✓
PNRE-0,5-075	75	471,2	748,4	180	105	63,6	0,563	
PNRE-0,5-080	80	471,2	750,2	190	110	67,5	0,590	✓
PNRE-0,5-100	100	471,2	755,8	230	130	83,4	0,685	✓
PNRE-0,5-125	125	471,2	760,5	280	155	103,2	0,812	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

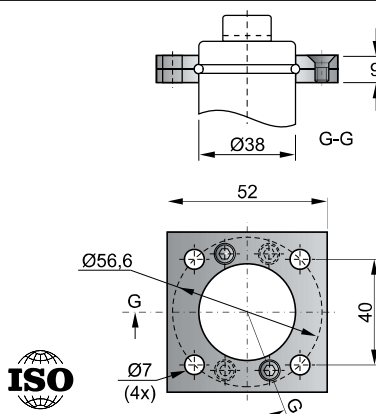
Alternativas de montagem



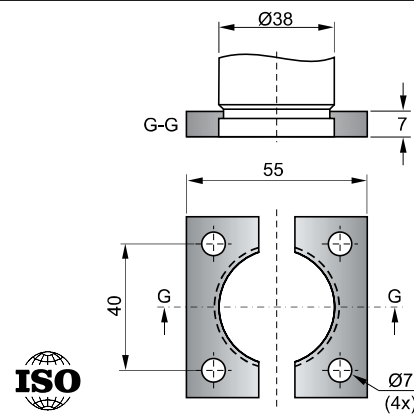
PNB-54-038



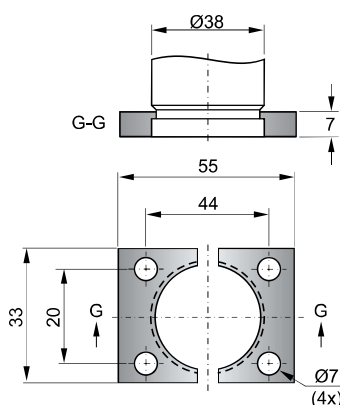
PNB-65-038



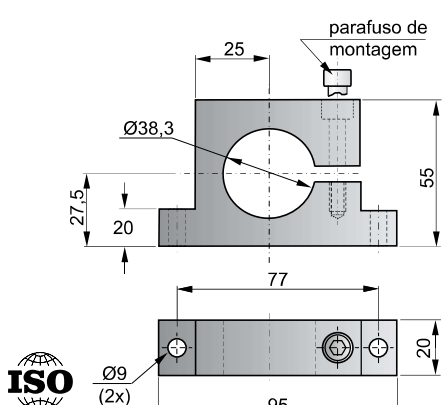
PNB-55-038



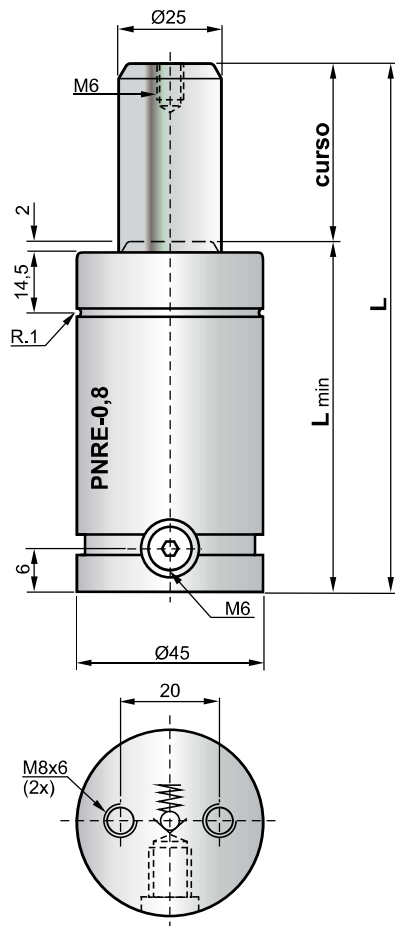
PNB-32-038



PNB-57-038



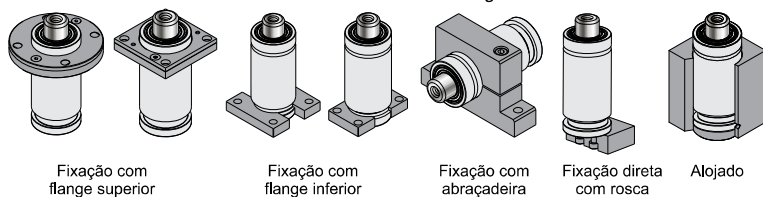
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



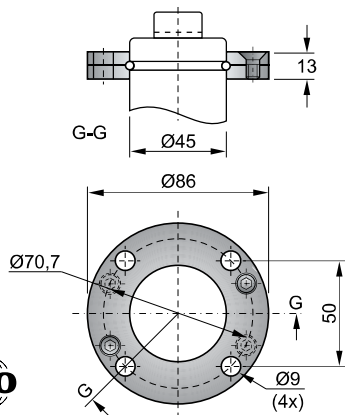
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*	L K=32 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-0,8-010	10	736,3 1.021	52	42	17,6	0,356	
PNRE-0,8-015	15	736,3 1.073	62	47	23,4	0,390	
PNRE-0,8-020	20	736,3 1.108	72	52	29,2	0,423	
PNRE-0,8-025	25	736,3 1.132	82	57	35,0	0,460	✓
PNRE-0,8-032	32	736,3 1.156	96	64	43,2	0,502	
PNRE-0,8-038	38	736,3 1.172	108	70	50,1	0,556	✓
PNRE-0,8-050	50	736,3 1.193	132	82	64,1	0,636	✓
PNRE-0,8-063	63	736,3 1.207	158	95	79,2	0,738	✓
PNRE-0,8-075	75	736,3 1.217	182	107	93,1	0,829	
PNRE-0,8-080	80	736,3 1.220	192	112	98,9	0,862	✓
PNRE-0,8-100	100	736,3 1.230	232	132	122,2	1.001	✓
PNRE-0,8-125	125	736,3 1.238	282	157	151,2	1.186	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

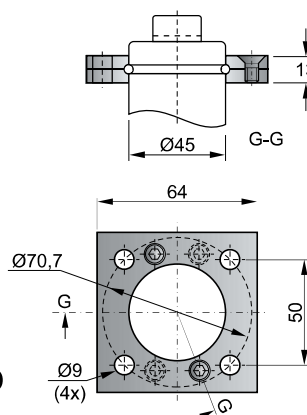
Alternativas de montagem



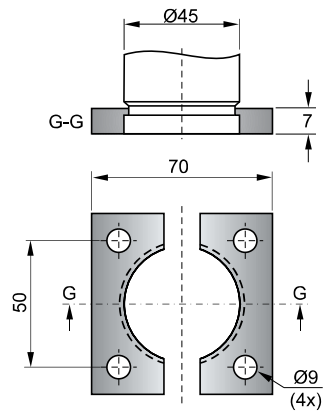
PNB-54-045



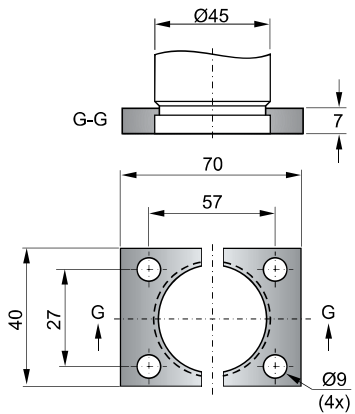
PNB-65-045



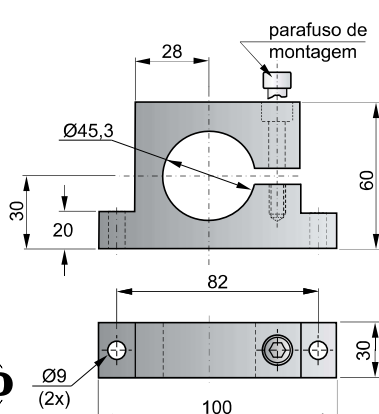
PNB-55-045



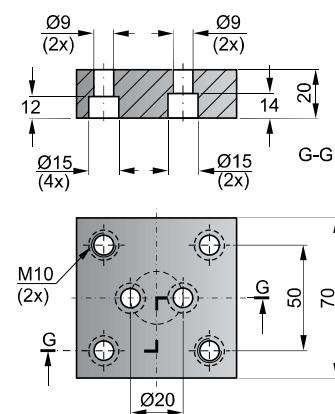
PNB-32-045



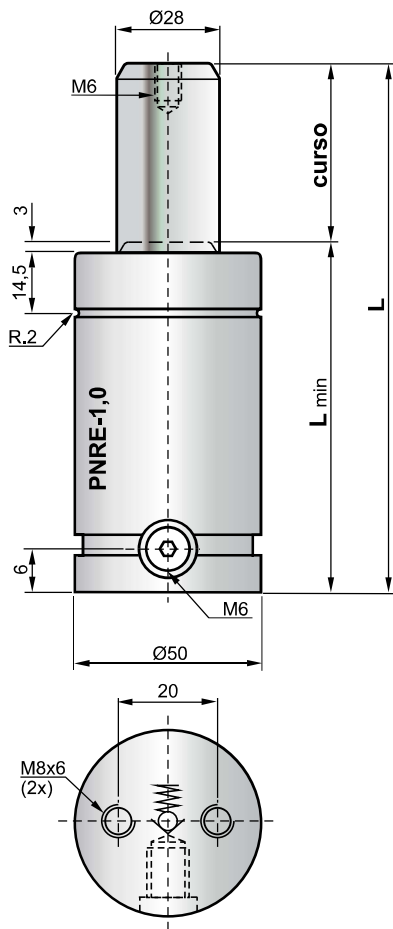
PNB-57-045



PNB-56-045



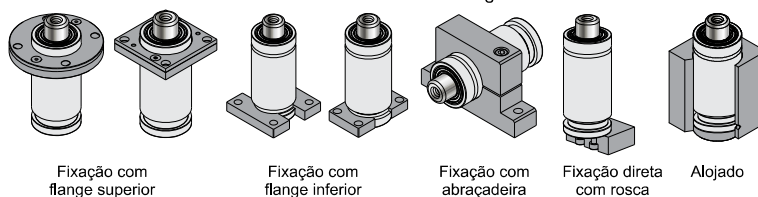
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



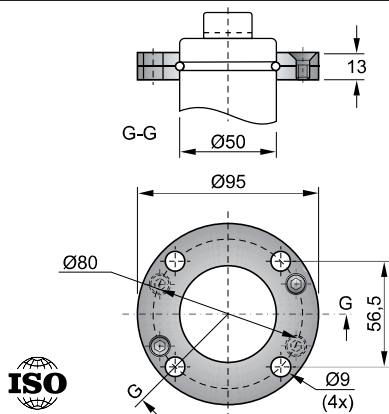
Código	Curso Cilindro (mm)	Força daN Pressão a 150bar Inicial	Final*	L K=38 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-1,0-010	10	923,6	1.266	58	48	22,7	0,500	
PNRE-1,0-015	15	923,6	1.343	68	53	29,5	0,544	
PNRE-1,0-020	20	923,6	1.396	78	58	36,3	0,591	
PNRE-1,0-025	25	923,6	1.435	88	63	43,1	0,638	✓
PNRE-1,0-032	32	923,6	1.475	102	70	52,6	0,705	
PNRE-1,0-038	38	923,6	1.500	114	76	60,8	0,760	✓
PNRE-1,0-050	50	923,6	1.536	138	88	77,1	0,874	✓
PNRE-1,0-063	63	923,6	1.562	164	101	94,8	1.002	✓
PNRE-1,0-075	75	923,6	1.579	188	113	111,1	1.119	
PNRE-1,0-080	80	923,6	1.585	198	118	118,0	1.161	✓
PNRE-1,0-100	100	923,6	1.603	238	138	145,2	1.355	✓
PNRE-1,0-125	125	923,6	1.618	288	163	179,2	1.598	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

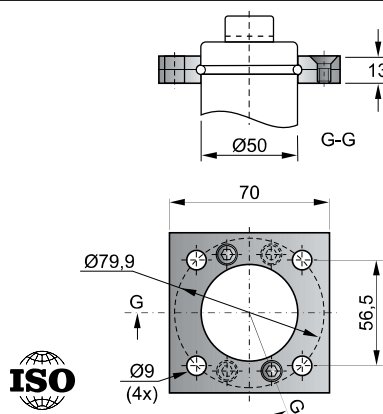
Alternativas de montagem



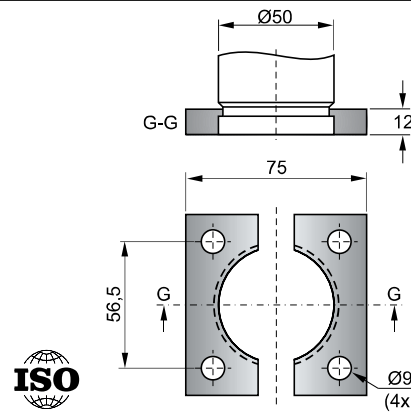
PNB-54-050



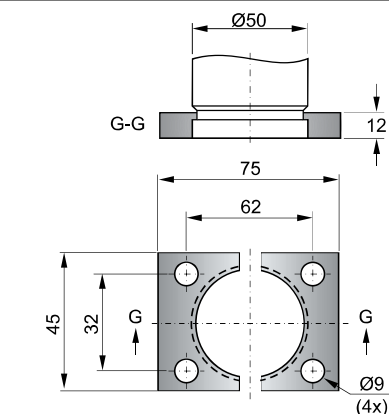
PNB-65-050



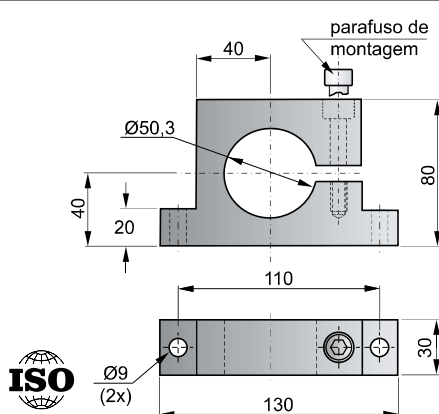
PNB-55-050



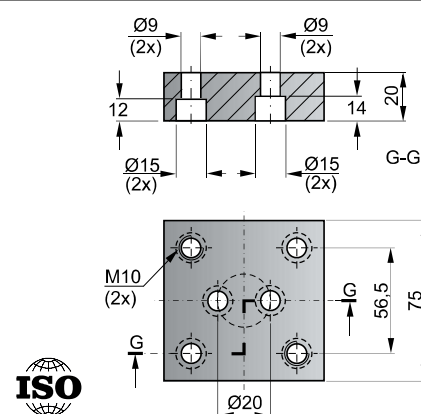
PNB-32-050



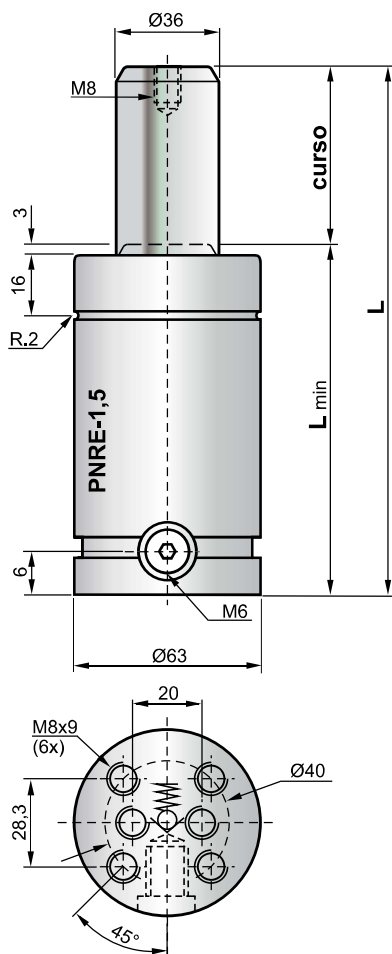
PNB-57-050



PNB-56-050

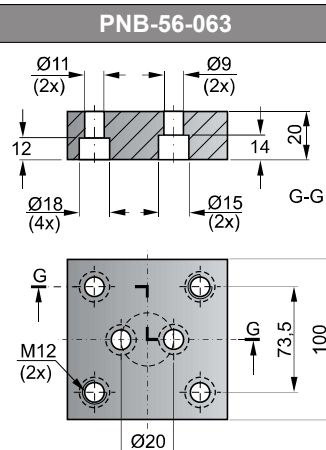
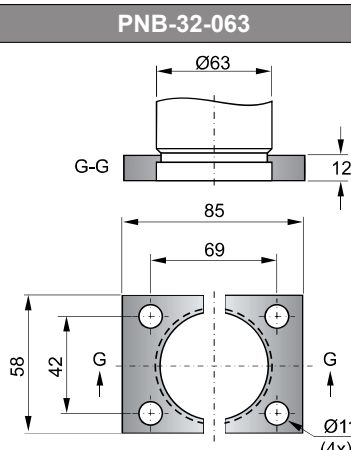
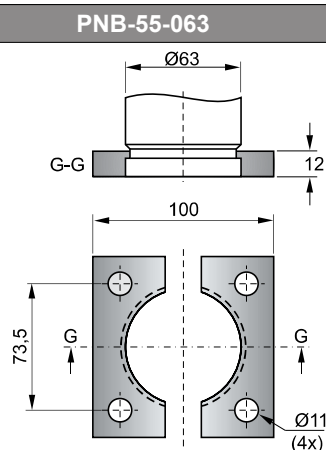
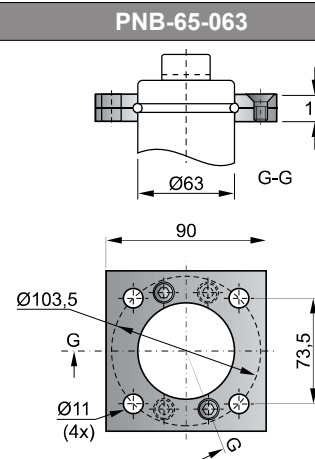
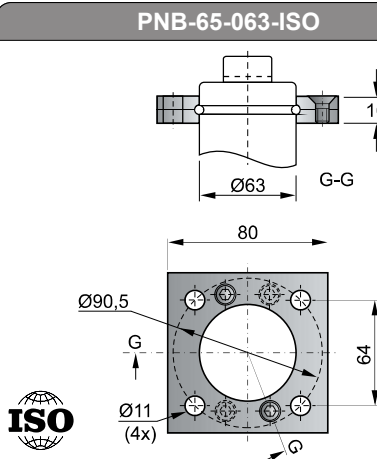
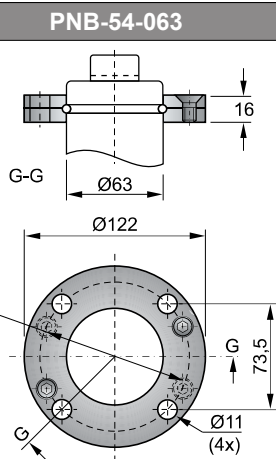
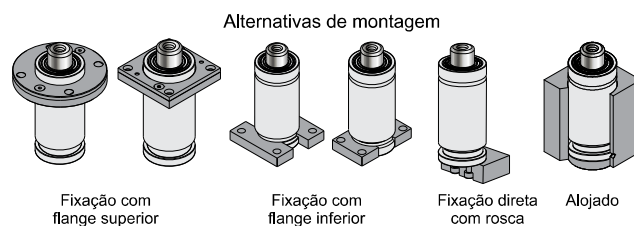


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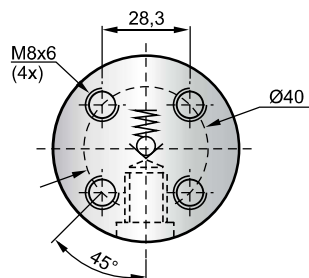
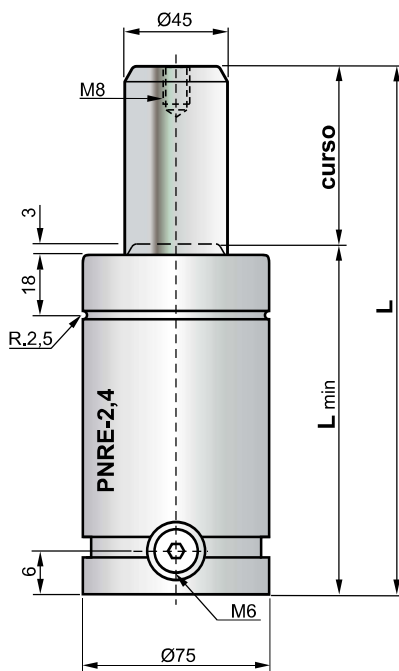


Código	Curso	Força daN		L	L	Vol.		
	Cilindro (mm)	Pressão à 150bar	Final*	K=44 (mm)	min. (mm)	inicial (cm³)		
PNRE-1,5-010	10	1.526	2.059	64	54	39,3	0,915	
PNRE-1,5-015	15	1.526	2.181	74	59	50,8	0,990	
PNRE-1,5-020	20	1.526	2.266	84	64	62,3	1.040	
PNRE-1,5-025	25	1.526	2.329	94	69	73,8	1,125	✓
PNRE-1,5-032	32	1.526	2.393	108	76	89,9	1.225	
PNRE-1,5-038	38	1.526	2.434	120	82	103,7	1.287	✓
PNRE-1,5-050	50	1.526	2.492	144	94	131,3	1.483	✓
PNRE-1,5-063	63	1.526	2.534	170	107	161,2	1.657	✓
PNRE-1,5-075	75	1.526	2.562	194	119	188,8	1.827	
PNRE-1,5-080	80	1.526	2.571	204	124	200,3	1.929	✓
PNRE-1,5-100	100	1.526	2.601	244	144	246,3	2.186	✓
PNRE-1,5-125	125	1.526	2.623	294	169	303,9	2.582	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.



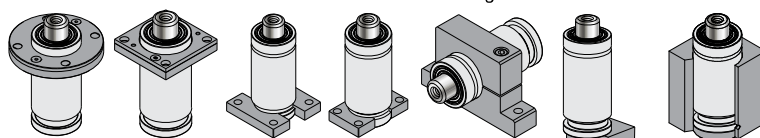
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=45 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-2,4-010	10	2.385	3.207	65	55	62,0	1.266	
PNRE-2,4-015	15	2.385	3.395	75	60	80,2	1.373	
PNRE-2,4-020	20	2.385	3.525	85	65	98,3	1.466	
PNRE-2,4-025	25	2.385	3.620	95	70	116,5	1.559	✓
PNRE-2,4-032	32	2.385	3.718	109	77	141,9	1.688	
PNRE-2,4-038	38	2.385	3.781	121	83	163,7	1.802	✓
PNRE-2,4-050	50	2.385	3.869	145	95	207,3	2.027	✓
PNRE-2,4-063	63	2.385	3.934	171	108	254,5	2.266	✓
PNRE-2,4-075	75	2.385	3.976	195	120	298,1	2.490	
PNRE-2,4-080	80	2.385	3.991	205	125	316,2	2.588	✓
PNRE-2,4-100	100	2.385	4.036	245	145	388,9	2.954	✓
PNRE-2,4-125	125	2.385	4.073	295	170	479,7	3.428	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com
flange superior

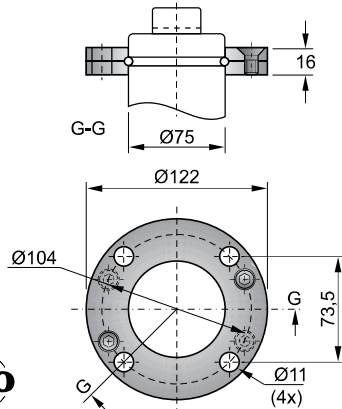
Fixação com
flange inferior

Fixação com
abraçadeira

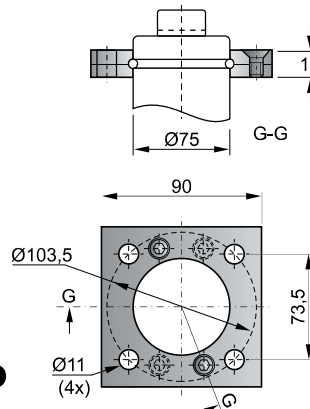
Fixação direta
com rosca

Alojado

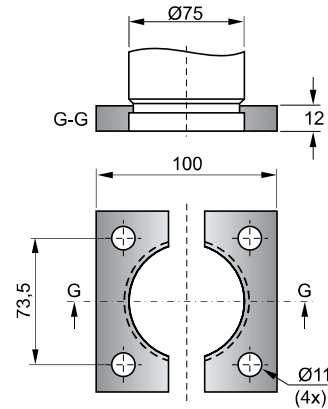
PNB-54-075



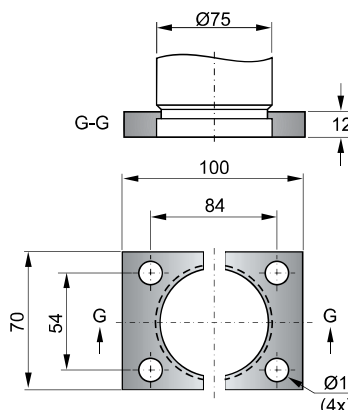
PNB-65-075



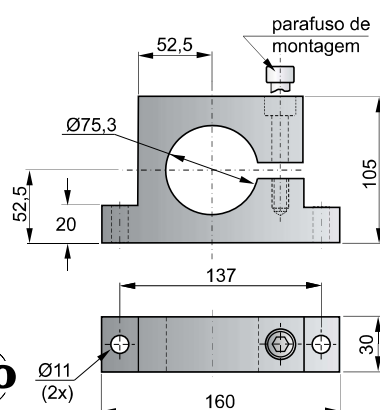
PNB-55-075



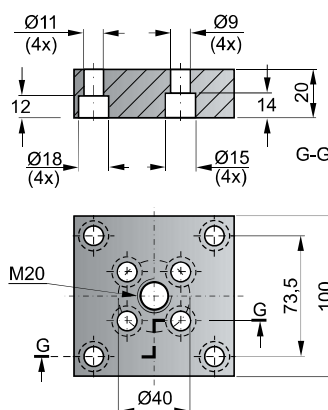
PNB-32-075



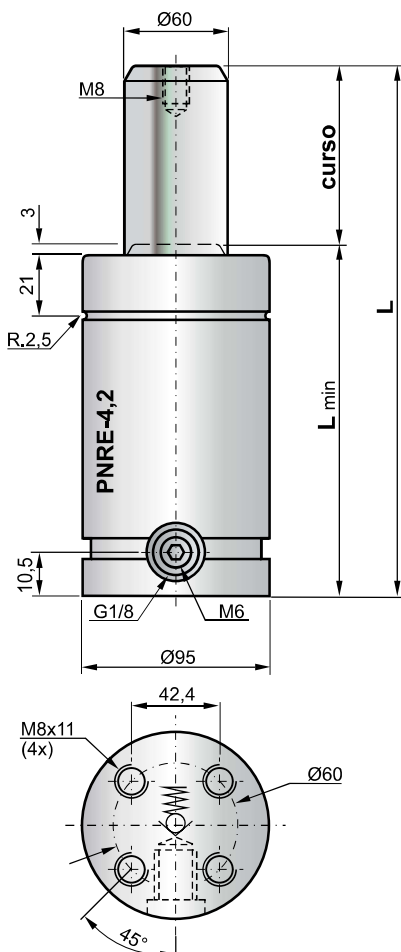
PNB-57-075



PNB-56-075

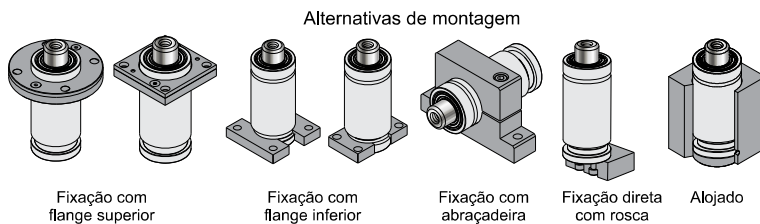


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

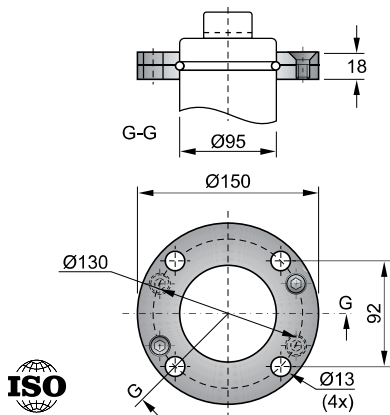


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=58 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-4,2-015	15	4.241	5.817	88	73	156,5	2.895	
PNRE-4,2-020	20	4.241	6.068	98	78	187,7	2.964	
PNRE-4,2-025	25	4.241	6.262	108	83	218,9	3.234	✓
PNRE-4,2-032	32	4.241	6.468	122	90	262,7	3.308	
PNRE-4,2-038	38	4.241	6.605	134	96	300,2	3.540	✓
PNRE-4,2-050	50	4.241	6.805	158	108	375,1	4.052	✓
PNRE-4,2-063	63	4.241	6.956	184	121	456,3	4.253	✓
PNRE-4,2-075	75	4.241	7.057	208	133	531,3	4.538	
PNRE-4,2-080	80	4.241	7.092	218	138	562,5	4.640	✓
PNRE-4,2-100	100	4.241	7.203	258	158	687,5	5.575	✓
PNRE-4,2-125	125	4.241	7.298	308	183	843,7	6.337	✓

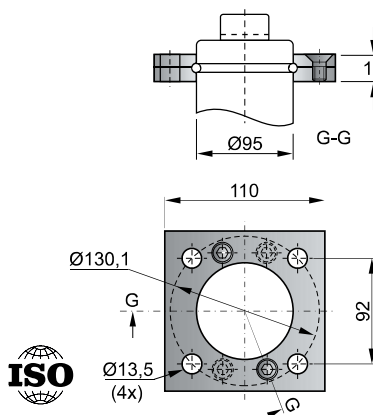
* Força Final Isotérmica a 20°C, curso totalmente atuado.



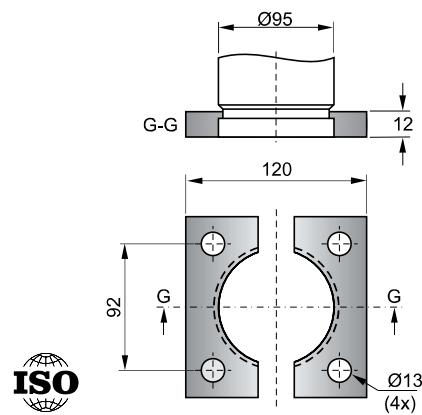
PNB-54-095



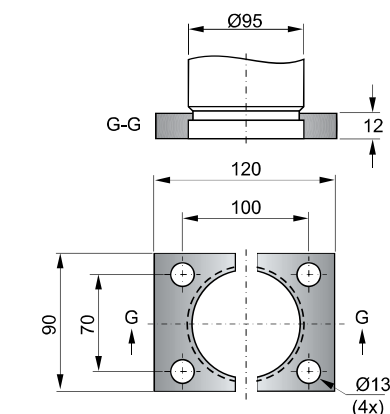
PNB-65-095



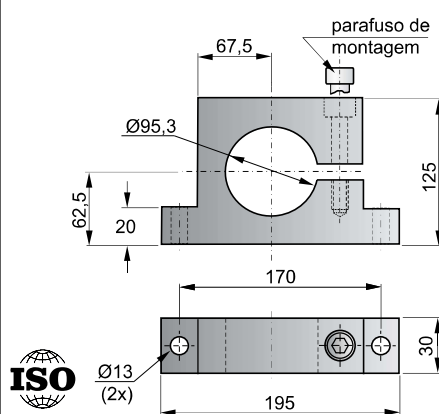
PNB-55-095



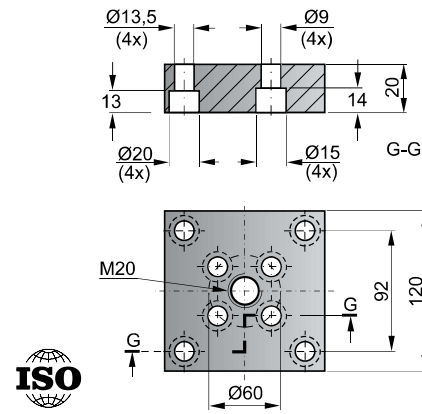
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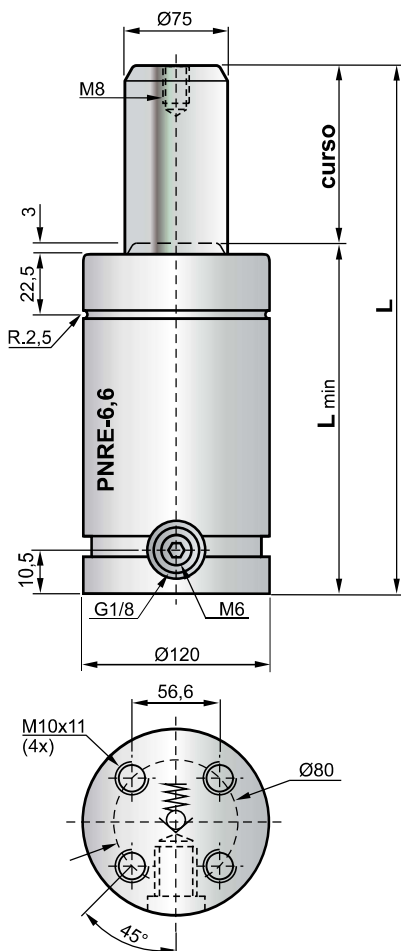
PNB-57-095



PNB-56-095



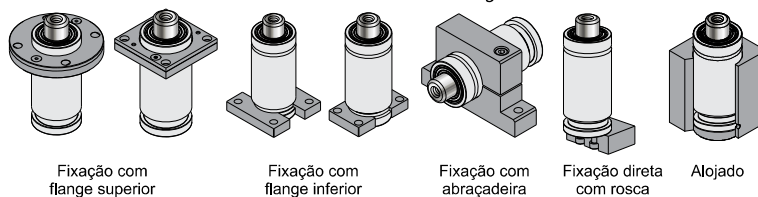
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



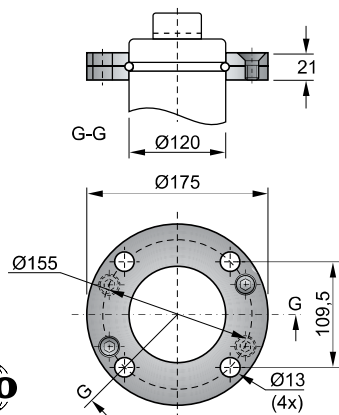
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Final*	L K=68 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-6,6-015	15	6.626	9.043	98	83	247,9	5.286	
PNRE-6,6-020	20	6.626	9.404	108	88	299,1	5.477	
PNRE-6,6-025	25	6.626	9.678	118	93	350,2	5.668	✓
PNRE-6,6-032	32	6.626	9.966	132	100	421,8	6.009	
PNRE-6,6-038	38	6.626	10.154	144	106	483,2	6.258	✓
PNRE-6,6-050	50	6.626	10.427	168	118	606,0	6.760	✓
PNRE-6,6-063	63	6.626	10.635	194	131	738,4	7.301	✓
PNRE-6,6-075	75	6.626	10.766	218	143	861,7	7.851	
PNRE-6,6-080	80	6.626	10.812	228	148	912,9	8.055	✓
PNRE-6,6-100	100	6.626	10.959	268	168	1.117	8.927	✓
PNRE-6,6-125	125	6.626	11.084	318	193	1.373	9.998	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

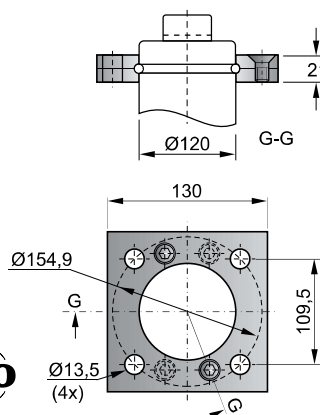
Alternativas de montagem



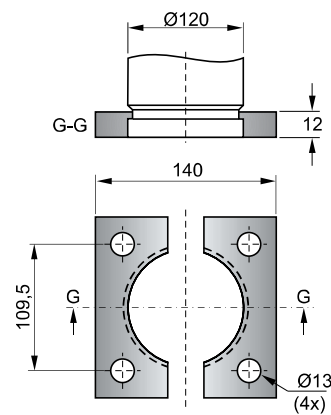
PNB-54-120



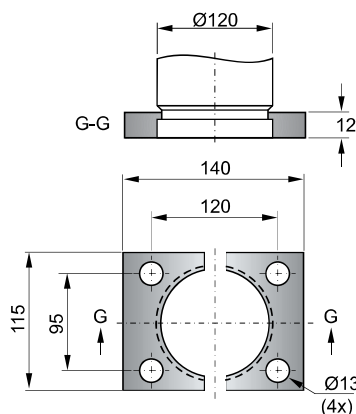
PNB-65-120



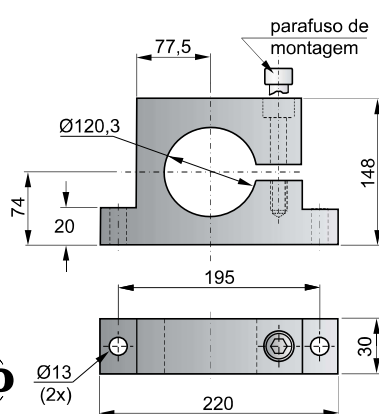
PNB-55-120



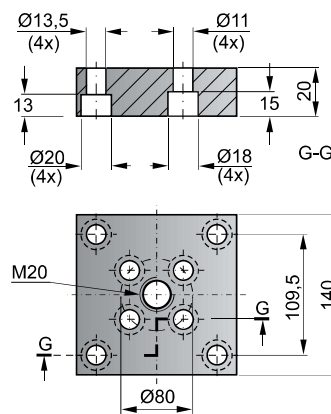
PNB-32-120



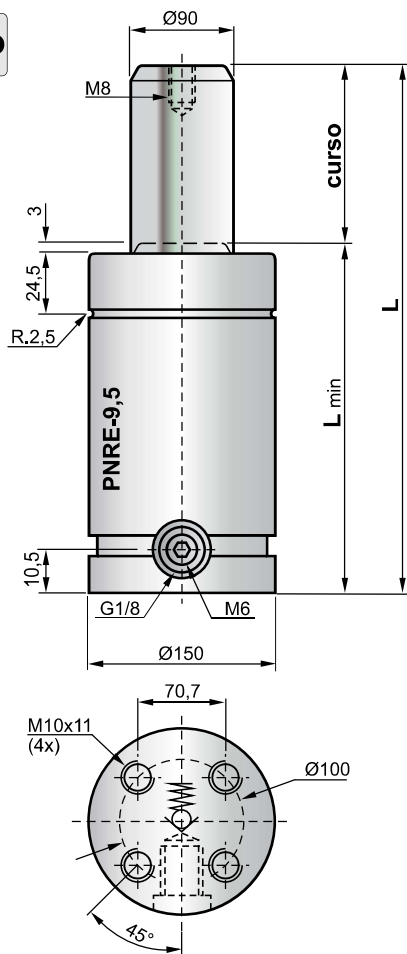
PNB-57-120



PNB-56-120



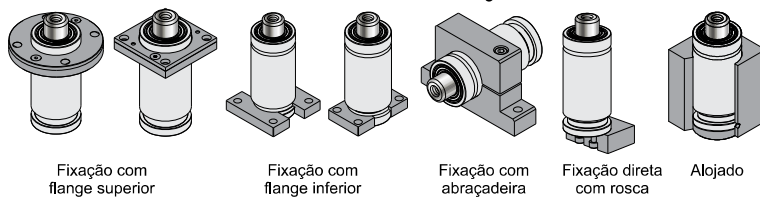
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



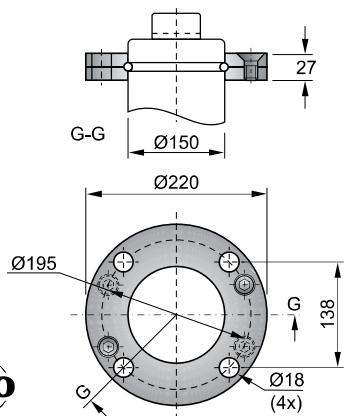
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=78 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRE-9,5-020	20	9.542	12.750	118	98	505,6	9.650	
PNRE-9,5-025	25	9.542	13.094	128	103	586,2	9.953	✓
PNRE-9,5-032	32	9.542	13.462	142	110	699,1	10.420	
PNRE-9,5-038	38	9.542	13.705	154	116	795,8	10.784	✓
PNRE-9,5-050	50	9.542	14.064	178	128	989,2	11.545	✓
PNRE-9,5-063	63	9.542	14.334	204	141	1.198	12.335	✓
PNRE-9,5-075	75	9.542	14.517	228	153	1.392	13.083	
PNRE-9,5-080	80	9.542	14.580	238	158	1.472	13.386	✓
PNRE-9,5-100	100	9.542	14.779	278	178	1.795	14.620	✓
PNRE-9,5-125	125	9.542	14.950	328	203	2.198	16.145	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

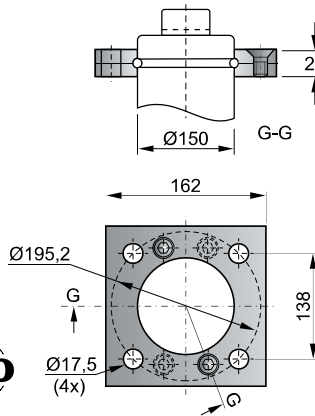
Alternativas de montagem



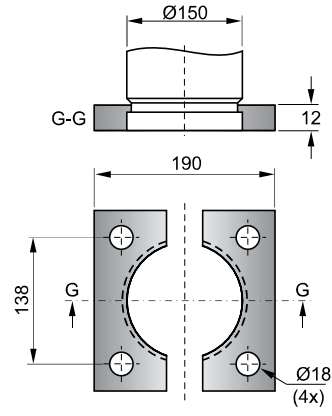
PNB-54-150



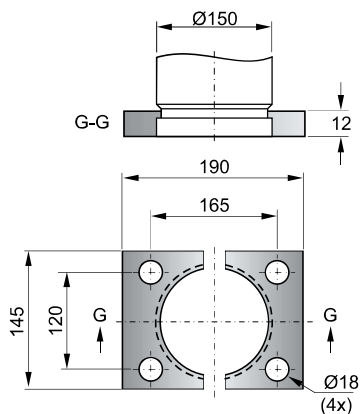
PNB-65-150



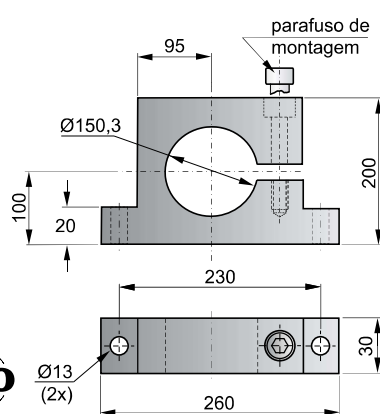
PNB-55-150



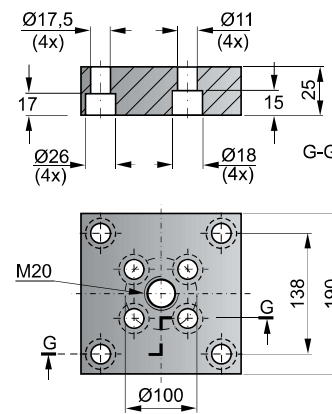
PNB-32-150



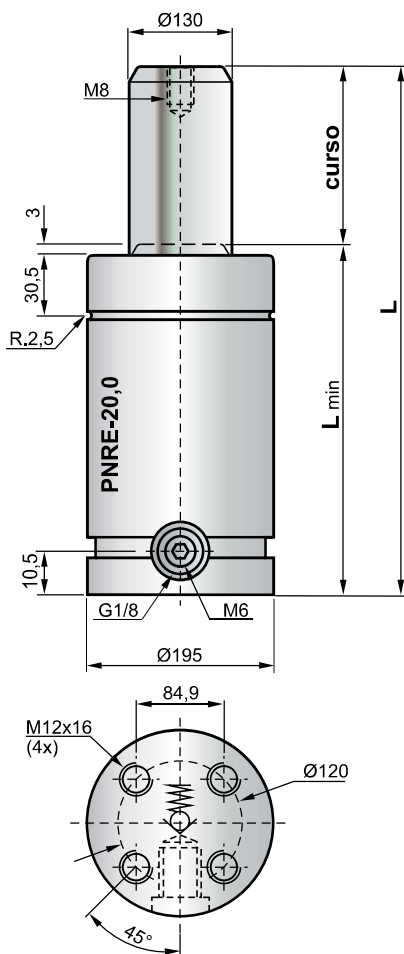
PNB-57-150



PNB-56-150

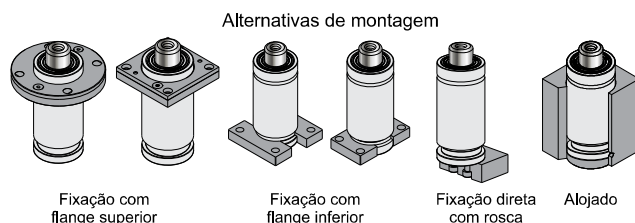


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

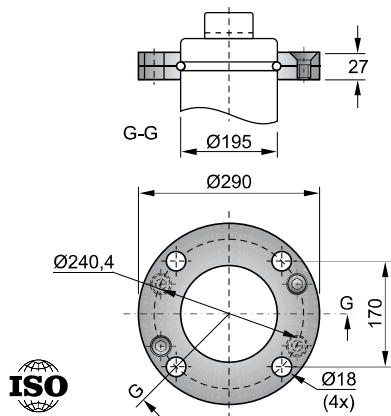


Código	Curso Cilindro (mm)	Força da N		L K=110 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
		Pressão à 150bar Inicial	Final*					
PNRE-20,0-020	20	19.909	27.079	150	130	1.002	23.146	
PNRE-20,0-025	25	19.909	28.135	160	135	1.134	23.801	✓
PNRE-20,0-032	32	19.909	29.365	174	142	1.319	24.717	
PNRE-20,0-038	38	19.909	30.225	186	148	1.477	25.502	✓
PNRE-20,0-050	50	19.909	31.571	210	160	1.796	27.073	✓
PNRE-20,0-063	63	19.909	32.672	236	173	2.140	28.773	✓
PNRE-20,0-075	75	19.909	33.458	260	185	2.458	30.344	
PNRE-20,0-080	80	19.909	33.738	270	190	2.590	30.999	✓
PNRE-20,0-100	100	19.909	34.650	310	210	3.120	33.616	✓
PNRE-20,0-125	125	19.909	35.472	360	235	3.781	36.887	✓

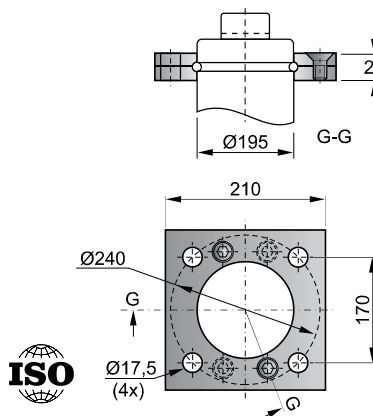
* Força Final Isotérmica a 20°C, curso totalmente atuado.



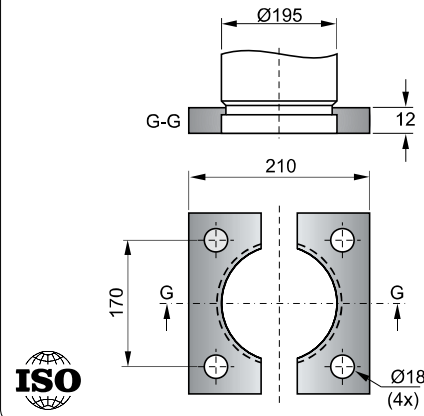
PNB-54-195



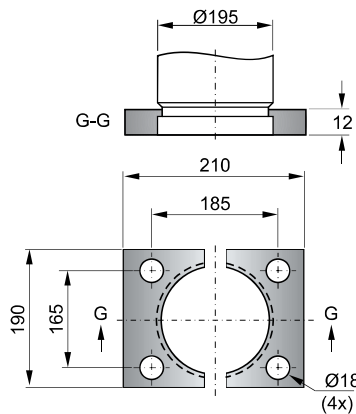
PNB-65-195



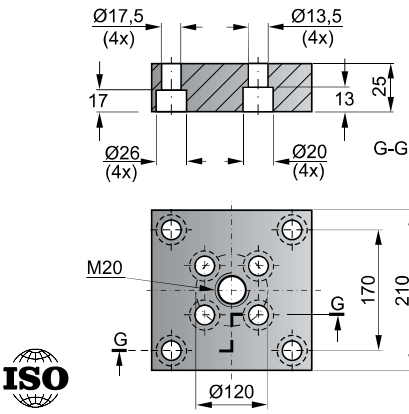
PNB-55-195



PNB-32-195



PNB-56-195



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

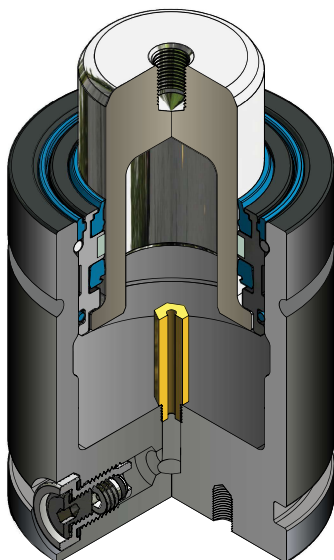
Modelo Tonelagen Curso
CILINDROS : **PNRG** - **X,X** - **xxx**

Modelo Tonelagen Série
Kit reparo : **RNRG** - **X,X** / **XX**

Cilindro autônomo, derivado da linha RE, com rosca de interligação G1/8".

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta



Modelo: PNRG-1,5-025

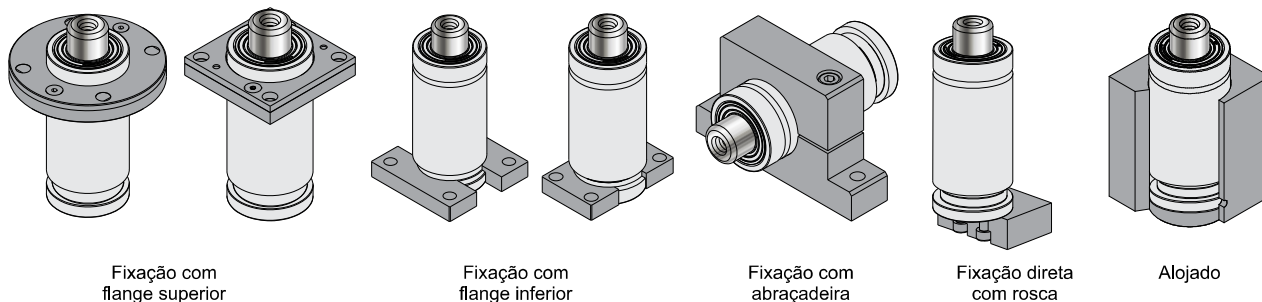
Tonelagens disponíveis:

0,3 - 0,5 - 0,8 - 1,0 - 1,5 - 2,4 - 4,2 - 6,6

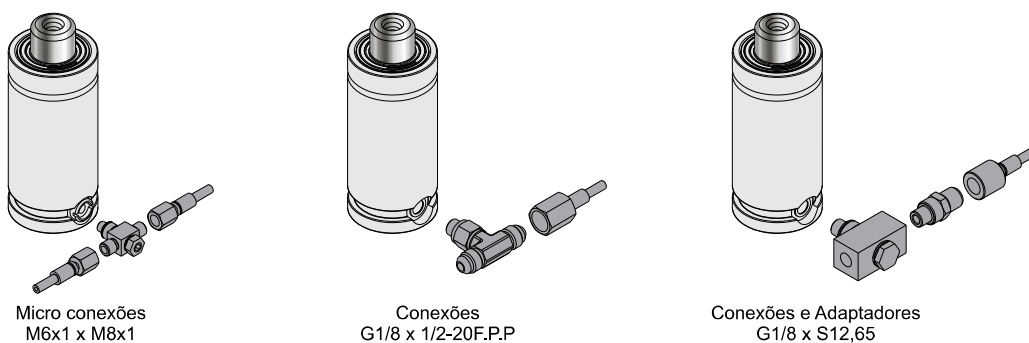
Cursos padrões dos cilindros em mm:

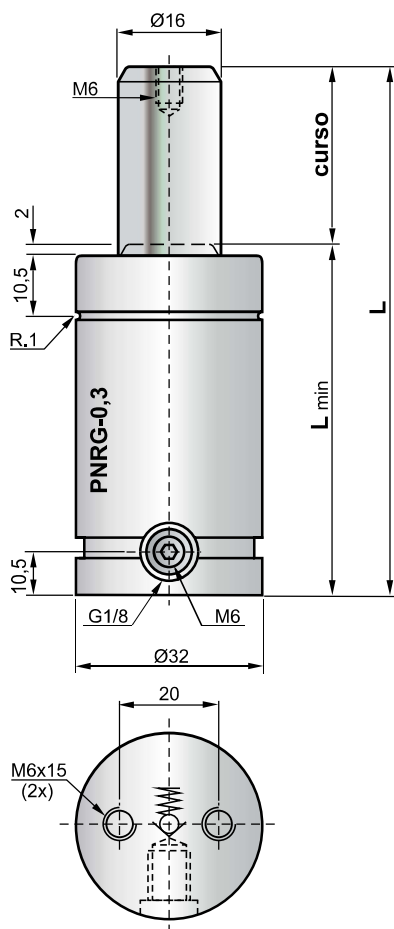
10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 e 125mm

Alternativas de montagem



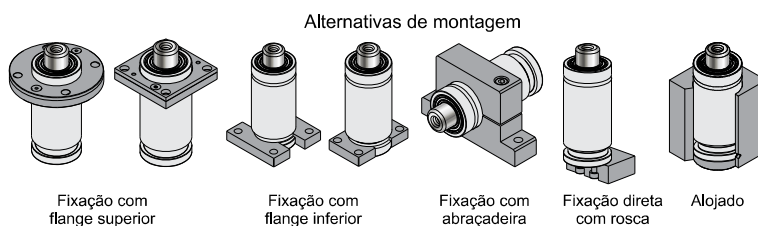
Alternativas de interligação



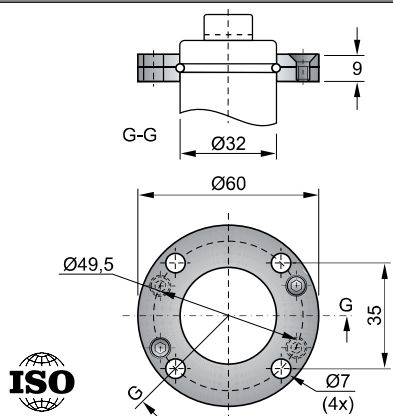


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=40 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-0,3-010	10	301,5	402,4	60	50	8,0	0,225
PNRG-0,3-015	15	301,5	424,7	70	55	10,3	0,245
PNRG-0,3-020	20	301,5	440,1	80	60	12,7	0,267
PNRG-0,3-025	25	301,5	451,3	90	65	15,1	0,287
PNRG-0,3-032	32	301,5	462,7	104	72	18,4	0,316
PNRG-0,3-038	38	301,5	469,9	116	78	21,3	0,342
PNRG-0,3-050	50	301,5	480,1	140	90	27,0	0,391
PNRG-0,3-063	63	301,5	487,5	166	103	33,2	0,444
PNRG-0,3-075	75	301,5	492,4	190	115	38,9	0,493
PNRG-0,3-080	80	301,5	494,0	200	120	41,2	0,515
PNRG-0,3-100	100	301,5	499,2	240	140	50,7	0,595
PNRG-0,3-125	125	301,5	503,5	290	165	62,6	0,700

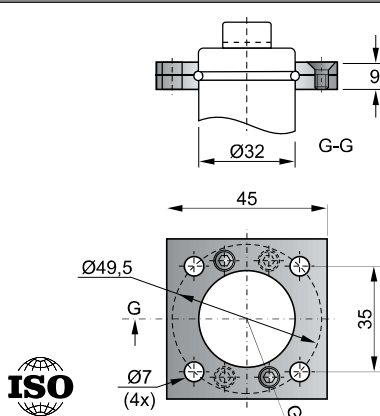
* Força Final Isotérmica a 20°C, curso totalmente atuado.



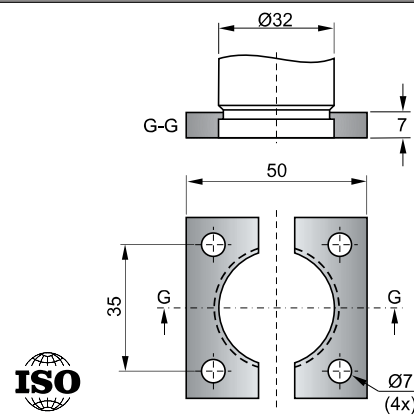
PNB-54-032



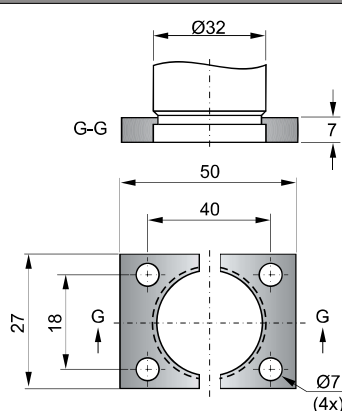
PNB-65-032



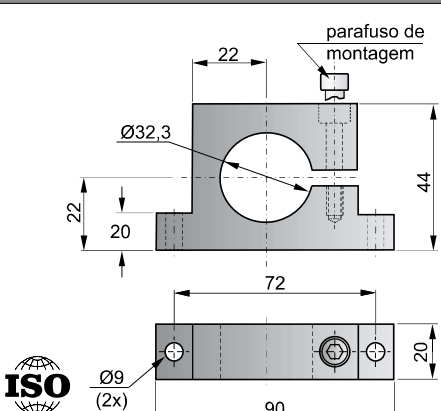
PNB-55-032



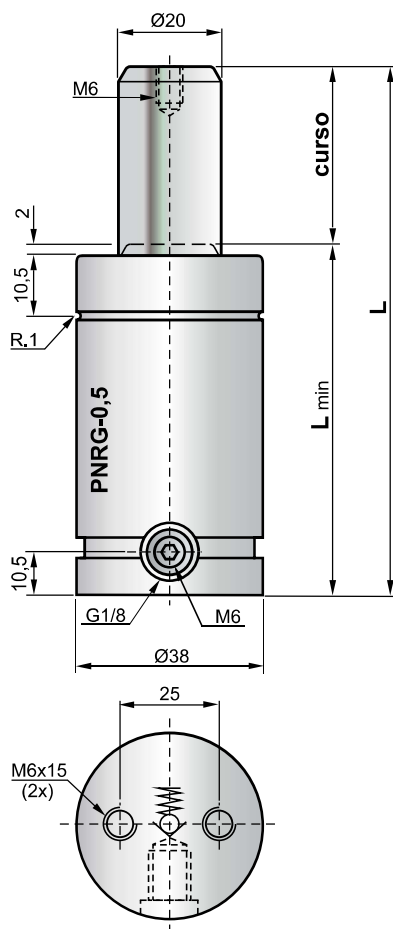
PNB-32-032



PNB-57-032

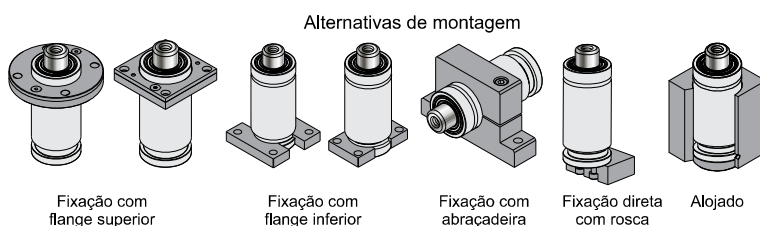


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

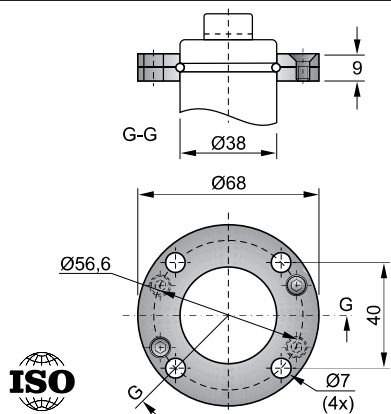


Código	Curso Cilindro (mm)	Força daN		L K=40 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
		Pressão à 150bar Inicial	Final*				
PNRG-0,5-010	10	471,2	636,2	60	50	12,1	0,317
PNRG-0,5-015	15	471,2	666,7	70	55	16,0	0,344
PNRG-0,5-020	20	471,2	686,5	80	60	20,0	0,373
PNRG-0,5-025	25	471,2	700,4	90	65	23,9	0,395
PNRG-0,5-032	32	471,2	714,2	104	72	29,5	0,432
PNRG-0,5-038	38	471,2	722,8	116	78	34,3	0,463
PNRG-0,5-050	50	471,2	734,6	140	90	43,8	0,527
PNRG-0,5-063	63	471,2	743,0	166	103	54,1	0,590
PNRG-0,5-075	75	471,2	748,4	190	115	63,6	0,650
PNRG-0,5-080	80	471,2	750,2	200	120	67,5	0,677
PNRG-0,5-100	100	471,2	755,8	240	140	83,4	0,780
PNRG-0,5-125	125	471,2	760,5	290	165	103,2	0,908

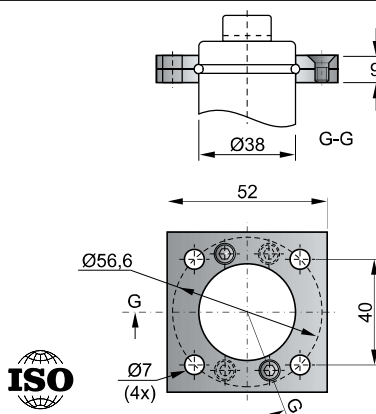
* Força Final Isotérmica a 20°C, curso totalmente atuado.



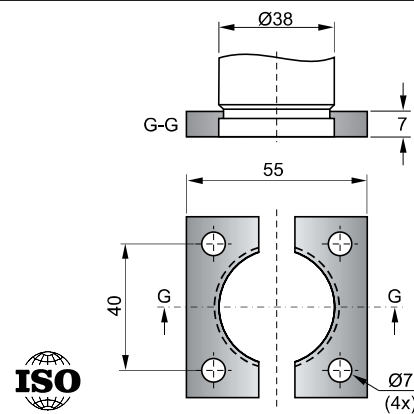
PNB-54-038



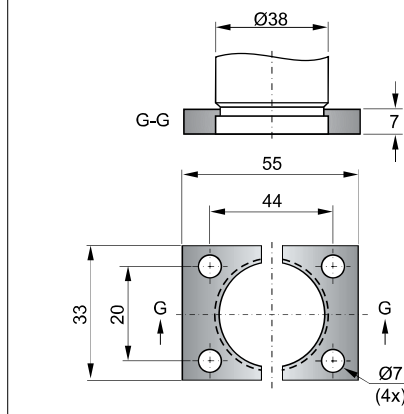
PNB-65-038



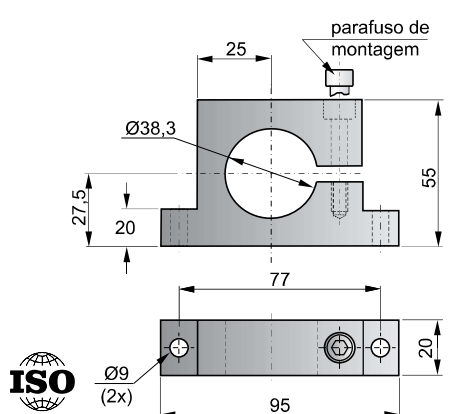
PNB-55-038



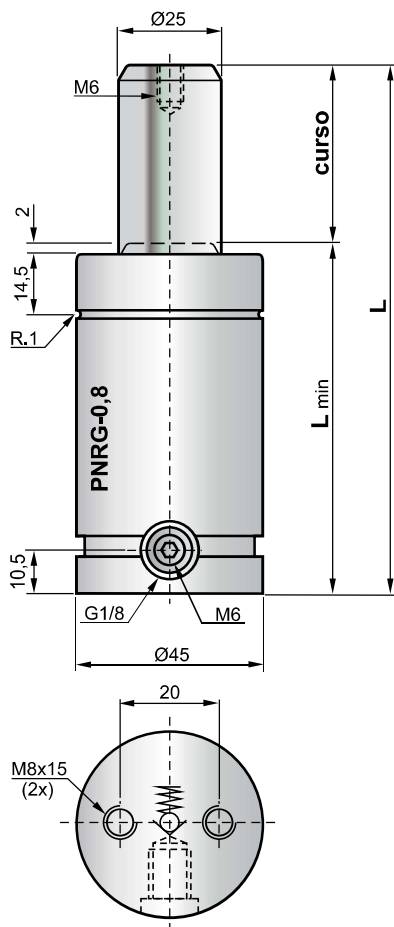
PNB-32-038



PNB-57-038



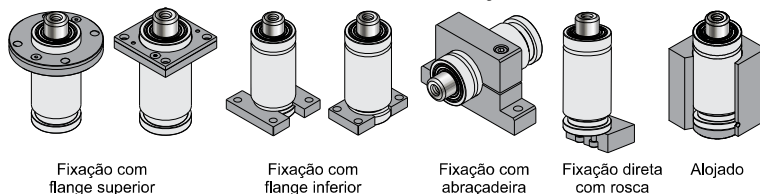
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



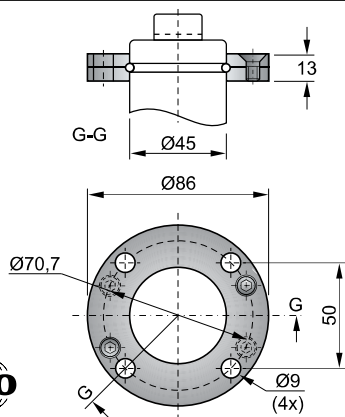
Código	Curso Cilindro (mm)	Força daN Pressão a 150bar Inicial Final*	L K=47 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-0,8-010	10	736,3 1.020	67	57	17,6	0,536
PNRG-0,8-015	15	736,3 1.073	77	62	23,4	0,571
PNRG-0,8-020	20	736,3 1.108	87	67	29,2	0,604
PNRG-0,8-025	25	736,3 1.132	97	72	35,0	0,640
PNRG-0,8-032	32	736,3 1.156	111	79	43,2	0,694
PNRG-0,8-038	38	736,3 1.172	123	85	50,1	0,731
PNRG-0,8-050	50	736,3 1.193	147	97	64,1	0,819
PNRG-0,8-063	63	736,3 1.207	173	110	79,2	0,916
PNRG-0,8-075	75	736,3 1.217	197	122	93,1	0,997
PNRG-0,8-080	80	736,3 1.220	207	127	98,9	1,039
PNRG-0,8-100	100	736,3 1.230	247	147	122,2	1,182
PNRG-0,8-125	125	736,3 1.238	297	172	151,2	1,361

* Força Final Isotérmica a 20°C, curso totalmente atuado.

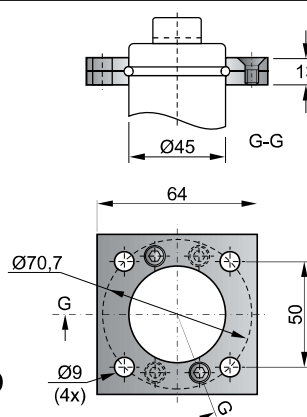
Alternativas de montagem



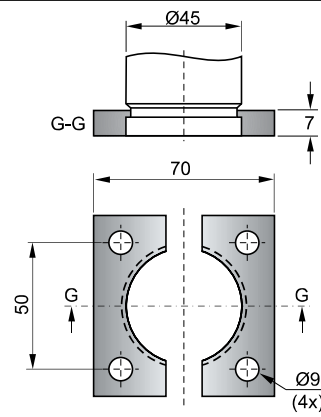
PNB-54-045



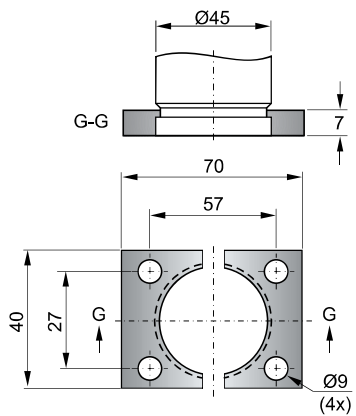
PNB-65-045



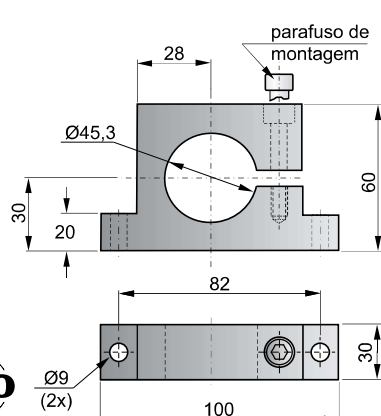
PNB-55-045



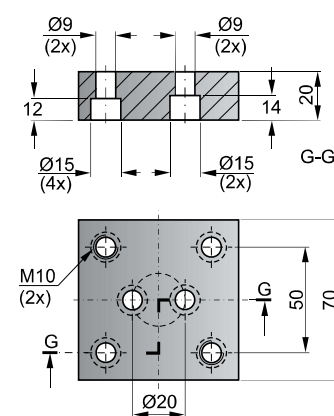
PNB-32-045



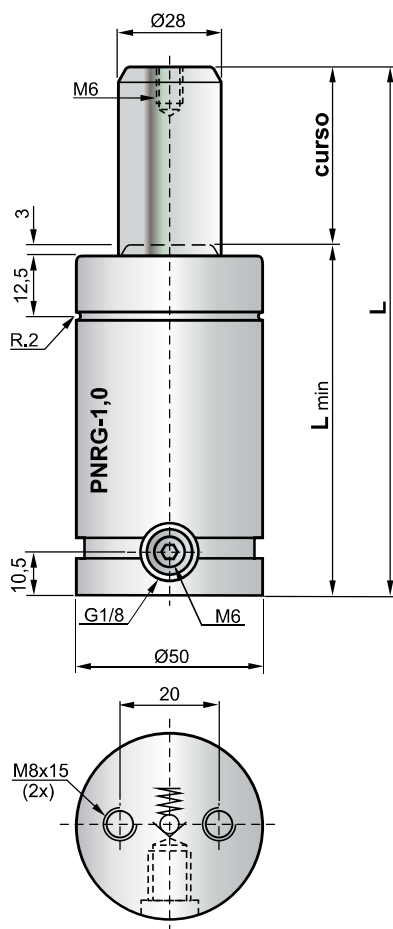
PNB-57-045



PNB-56-045



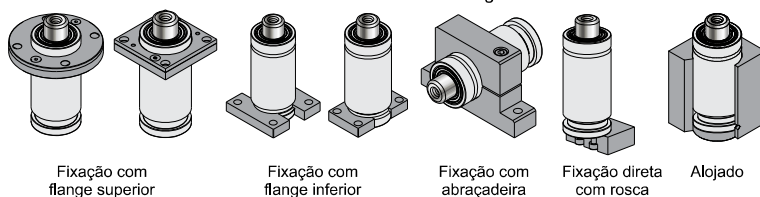
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



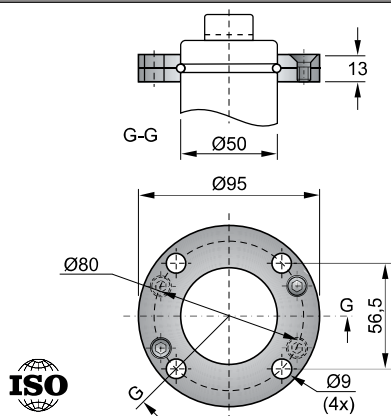
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=52 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-1,0-010	10	923,6	1.266	72	62	22,7	0,711
PNRG-1,0-015	15	923,6	1.343	82	67	29,5	0,755
PNRG-1,0-020	20	923,6	1.396	92	72	36,3	0,803
PNRG-1,0-025	25	923,6	1.435	102	77	43,1	0,851
PNRG-1,0-032	32	923,6	1.475	116	84	52,6	0,918
PNRG-1,0-038	38	923,6	1.500	128	90	60,8	0,971
PNRG-1,0-050	50	923,6	1.536	152	102	77,1	1.090
PNRG-1,0-063	63	923,6	1.562	178	115	94,8	1.213
PNRG-1,0-075	75	923,6	1.579	202	120	111,1	1.287
PNRG-1,0-080	80	923,6	1.585	212	125	118,0	1.330
PNRG-1,0-100	100	923,6	1.603	252	145	145,2	1.524
PNRG-1,0-125	125	923,6	1.618	302	170	179,2	1.764

* Força Final Isotérmica a 20°C, curso totalmente atuado.

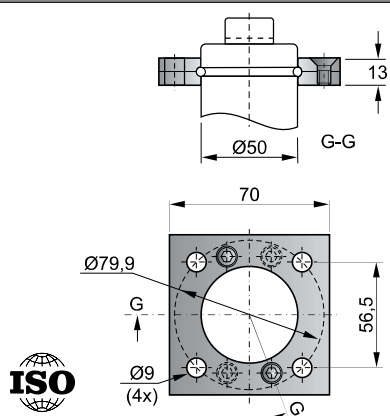
Alternativas de montagem



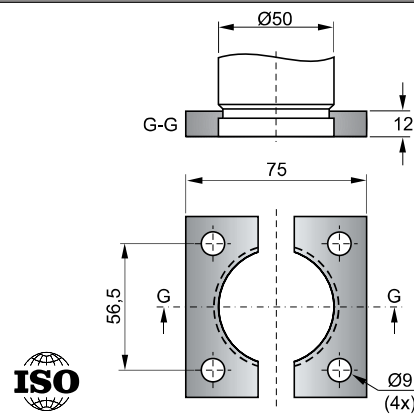
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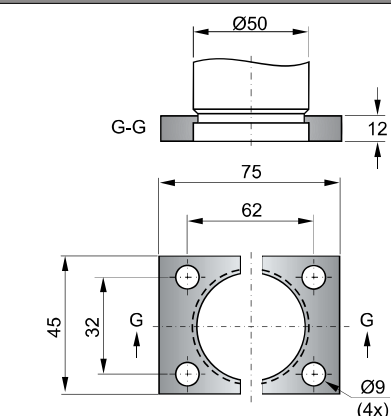
PNB-65-050



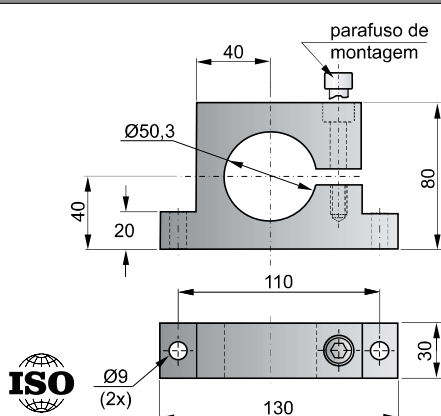
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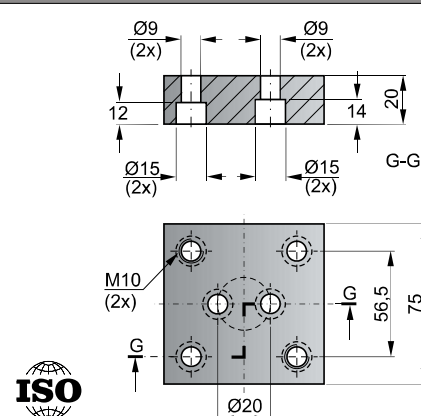
PNB-32-050



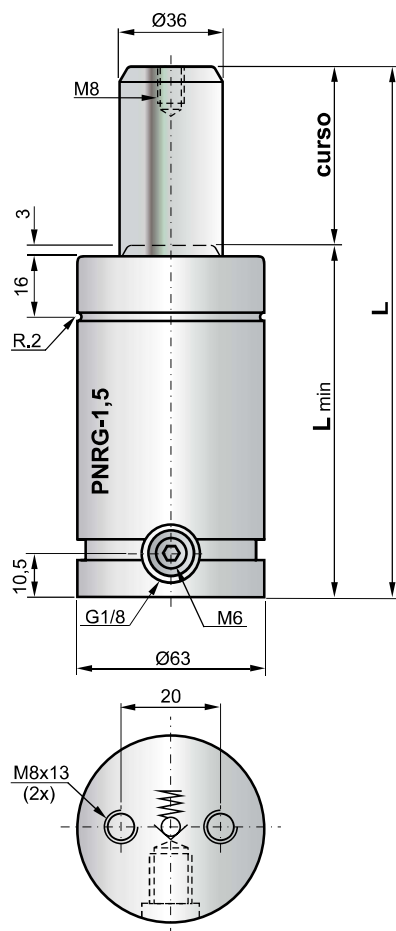
PNB-57-050



PNB-56-050

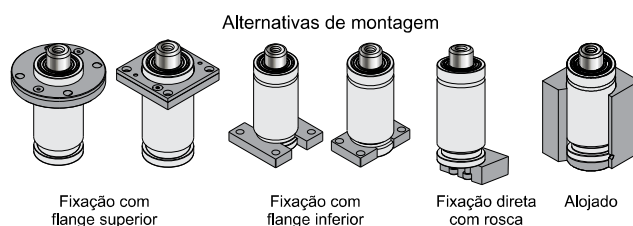


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

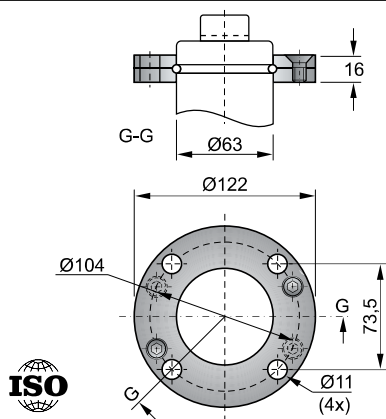


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=52 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-1,5-010	10	1.526	2.059	72	62	39,3	1.232
PNRG-1,5-015	15	1.526	2.181	82	67	50,8	1.301
PNRG-1,5-020	20	1.526	2.266	92	72	62,3	1.363
PNRG-1,5-025	25	1.526	2.329	102	77	73,8	1.448
PNRG-1,5-032	32	1.526	2.393	116	84	89,9	1.550
PNRG-1,5-038	38	1.526	2.434	128	90	103,7	1.621
PNRG-1,5-050	50	1.526	2.492	152	102	131,3	1.808
PNRG-1,5-063	63	1.526	2.534	178	115	161,2	1.970
PNRG-1,5-075	75	1.526	2.562	202	120	188,8	2.083
PNRG-1,5-080	80	1.526	2.571	212	125	200,3	2.166
PNRG-1,5-100	100	1.526	2.601	252	145	246,3	2.442
PNRG-1,5-125	125	1.526	2.626	302	170	303,9	2.814

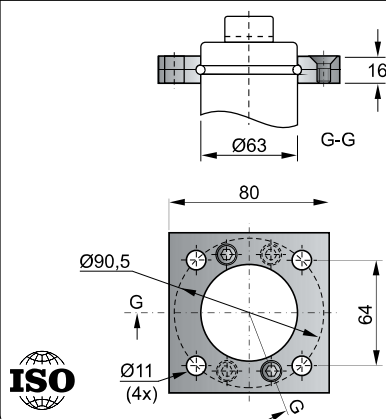
* Força Final Isotérmica a 20°C, curso totalmente atuado.



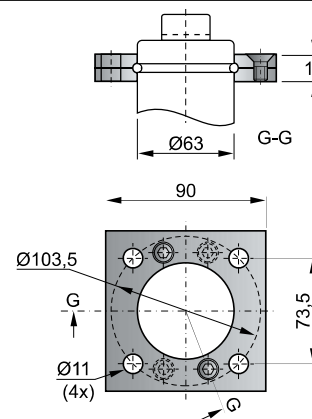
PNB-54-063



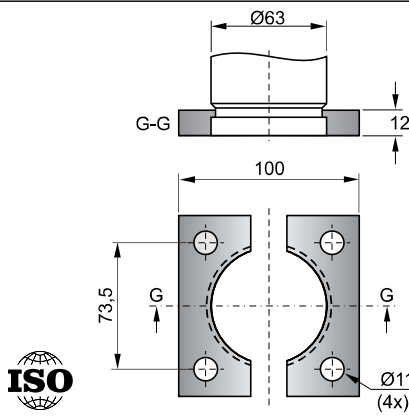
PNB-65-063-ISO



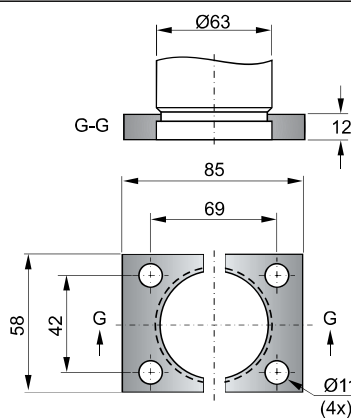
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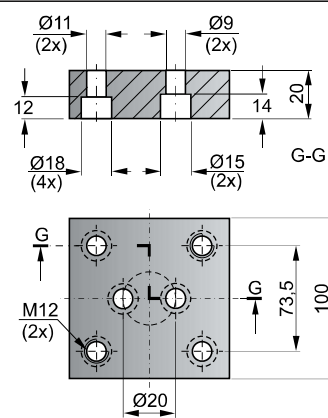
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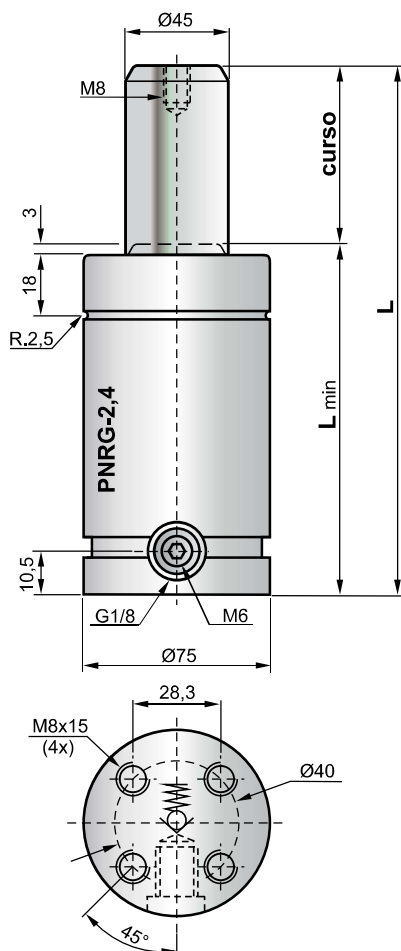
PNB-32-063



PNB-56-063

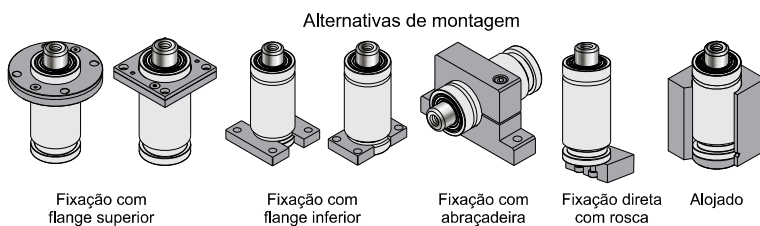


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

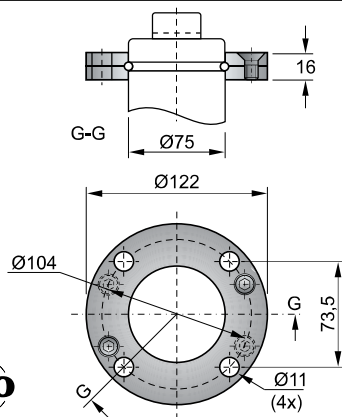


Código	Curso Cilindro (mm)	Força daN Pressão a 150bar Inicial	Força daN Pressão a 150bar Final*	L K=59 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-2,4-010	10	2.385	3.207	79	69	62,0	1.814
PNRG-2,4-015	15	2.385	3.395	89	74	80,2	1.924
PNRG-2,4-020	20	2.385	3.525	99	79	98,3	2.018
PNRG-2,4-025	25	2.385	3.620	109	84	116,5	2.107
PNRG-2,4-032	32	2.385	3.718	123	91	141,9	2.241
PNRG-2,4-038	38	2.385	3.781	135	97	163,7	2.348
PNRG-2,4-050	50	2.385	3.869	159	109	207,3	2.570
PNRG-2,4-063	63	2.385	3.934	185	122	254,5	2.821
PNRG-2,4-075	75	2.385	3.976	209	134	298,1	3.031
PNRG-2,4-080	80	2.385	3.991	219	139	316,2	3.131
PNRG-2,4-100	100	2.385	4.036	259	159	388,9	3.502
PNRG-2,4-125	125	2.385	4.073	309	184	479,7	3.974

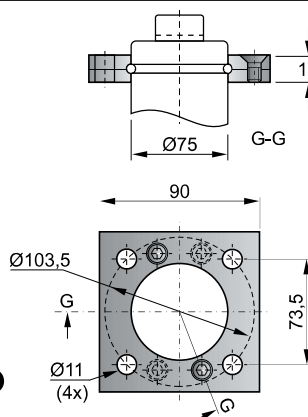
* Força Final Isotérmica a 20°C, curso totalmente atuado.



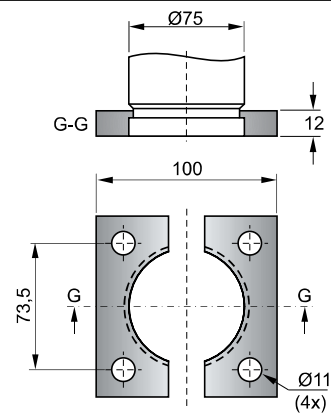
PNB-54-075



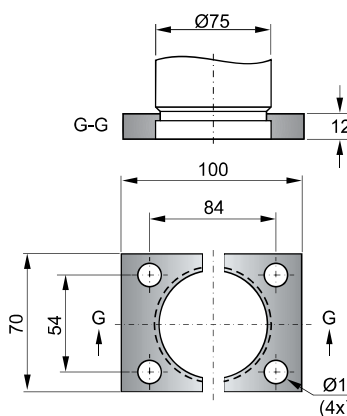
PNB-65-075



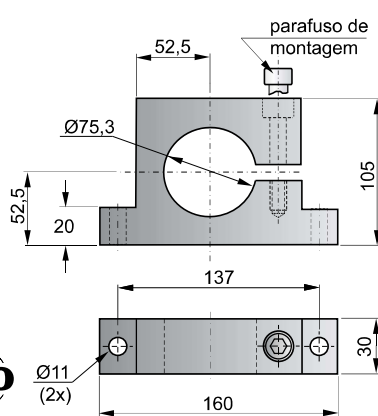
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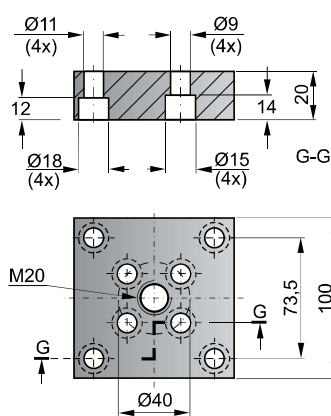
PNB-32-075



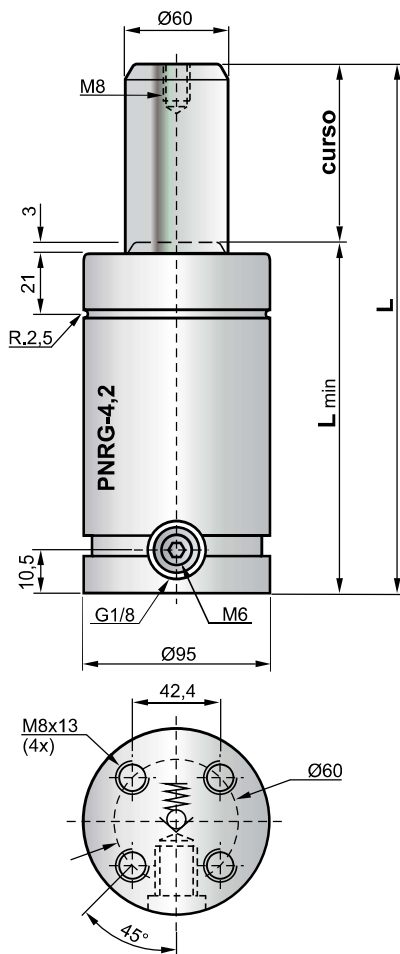
PNB-57-075



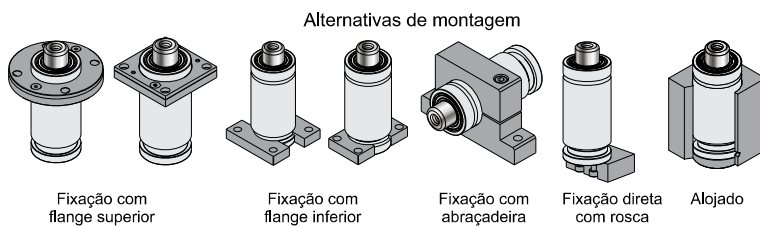
PNB-56-075



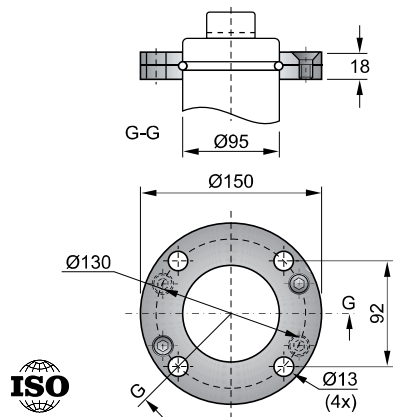
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



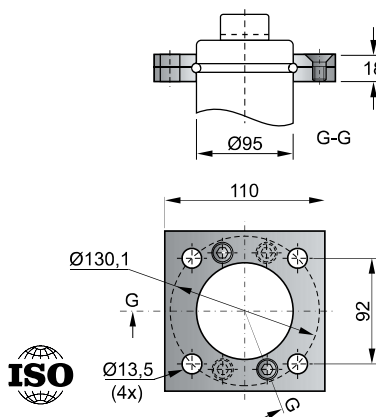
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=62 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
		Inicial	Final*				
PNRG-4,2-015	15	4.241	5.817	92	77	159,1	3.049
PNRG-4,2-020	20	4.241	6.068	102	82	190,3	3.191
PNRG-4,2-025	25	4.241	6.262	112	87	221,5	3.377
PNRG-4,2-032	32	4.241	6.468	126	94	265,3	3.537
PNRG-4,2-038	38	4.241	6.605	138	100	302,8	3.763
PNRG-4,2-050	50	4.241	6.805	162	112	377,7	4.133
PNRG-4,2-063	63	4.241	6.956	188	125	458,9	4.481
PNRG-4,2-075	75	4.241	7.057	212	137	533,9	4.769
PNRG-4,2-080	80	4.241	7.092	222	142	565,1	4.903
PNRG-4,2-100	100	4.241	7.203	262	162	690,1	5.579
PNRG-4,2-125	125	4.241	7.298	312	187	846,2	6.289



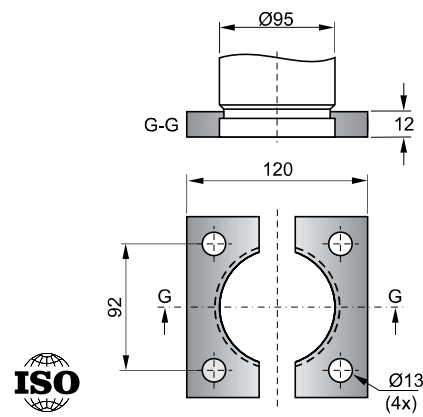
PNB-54-095



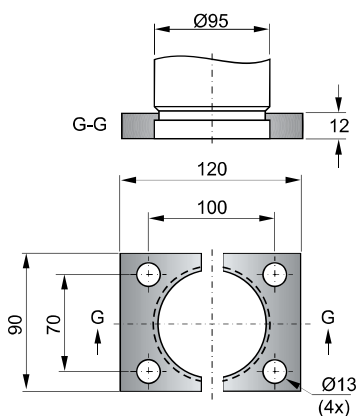
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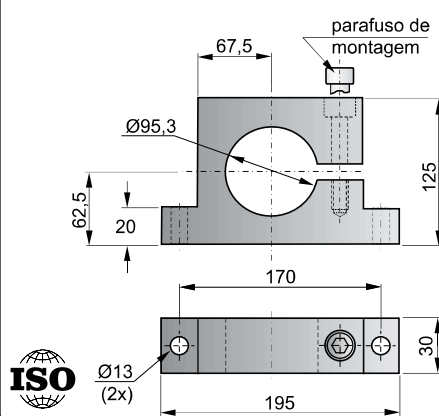
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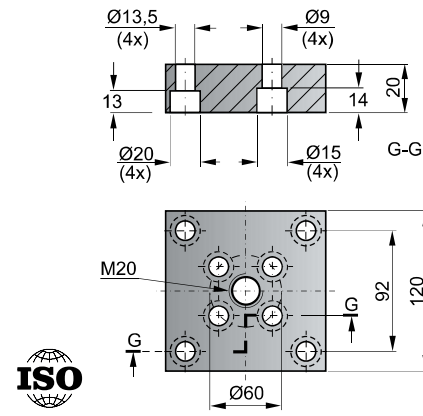
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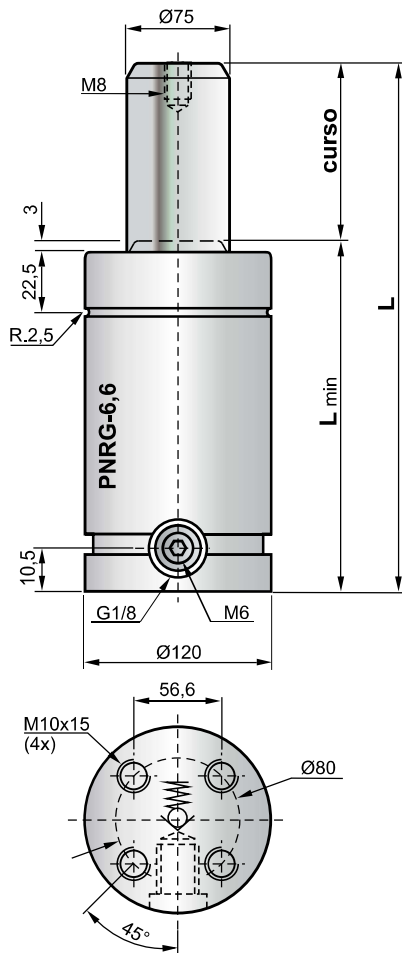
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PNB-56-095

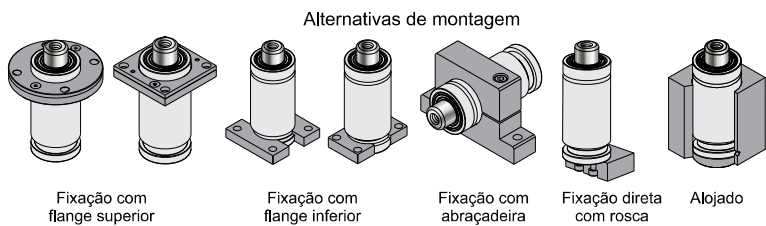


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

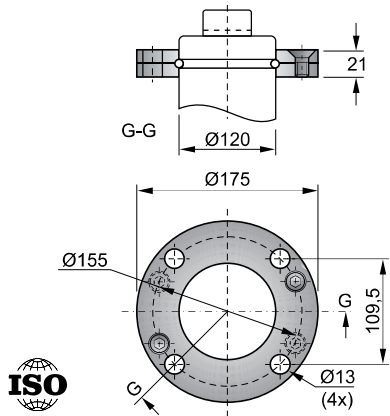


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=72 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRG-6,6-015	15	6.626	9.043	102	87	247,9	5.618
PNRG-6,6-020	20	6.626	9.404	112	92	299,1	5.821
PNRG-6,6-025	25	6.626	9.678	122	97	350,2	6.024
PNRG-6,6-032	32	6.626	9.966	136	104	421,8	6.347
PNRG-6,6-038	38	6.626	10.154	148	110	483,2	6.605
PNRG-6,6-050	50	6.626	10.427	172	122	606,0	7.125
PNRG-6,6-063	63	6.626	10.635	198	135	738,4	7.661
PNRG-6,6-075	75	6.626	10.766	222	147	861,7	8.201
PNRG-6,6-080	80	6.626	10.812	232	152	912,9	8.404
PNRG-6,6-100	100	6.626	10.959	272	172	1.117	9.297
PNRG-6,6-125	125	6.626	10.084	322	197	1.373	10.341

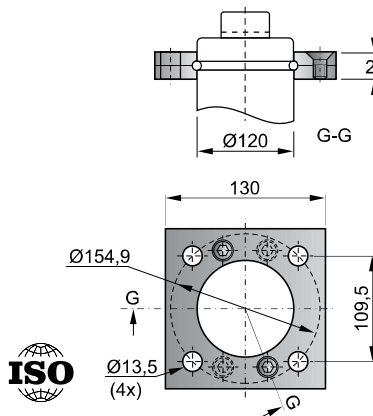
* Força Final Isotérmica a 20°C, curso totalmente atuado.



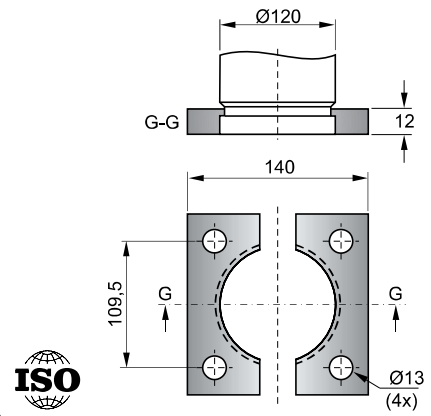
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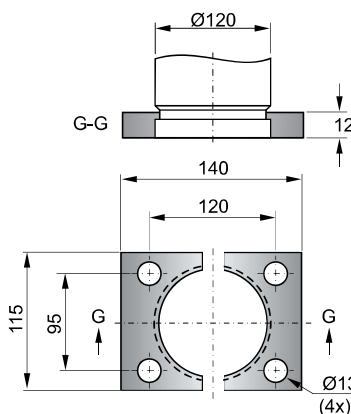
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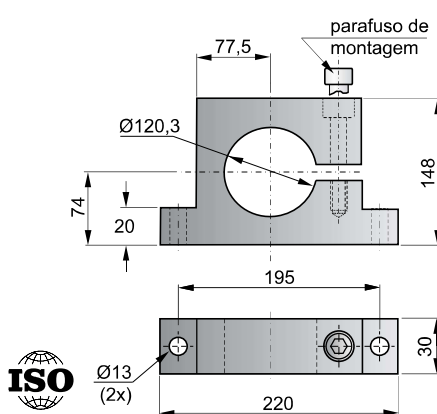
PNB-55-120



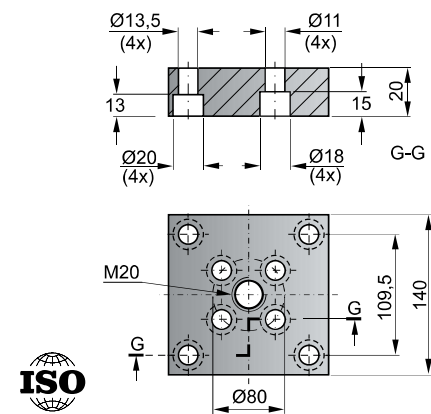
PNB-32-120



PNB-57-120



PNB-56-120

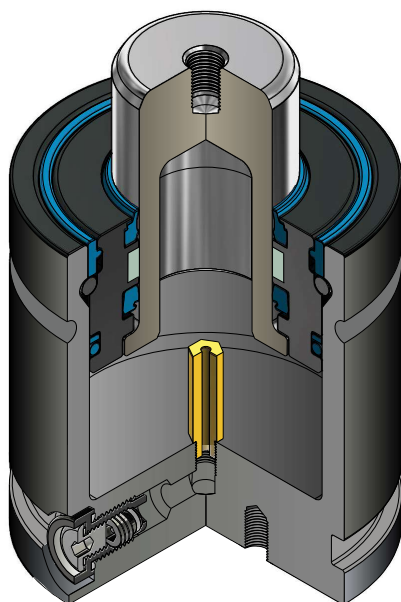


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

CILINDROS : Modelo Tonelagen Curso
PNRB - **X,X** - **xxx**

Kit reparo : Modelo Tonelagen Série
RNRB - **X,X** / **XX**

Cilindro autônomo, compacto.



Modelo: PNRB-1,5-025

Tonelagens disponíveis:

0,3 - 0,5 - 0,8 - 1,5 - 3,0

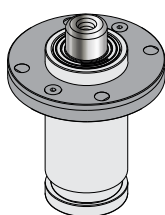
Cursos padrões dos cilindros em mm:

10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 e 125mm

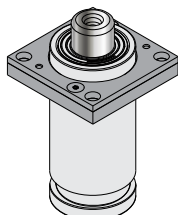
Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

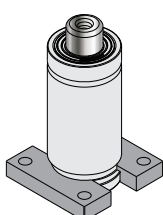
Alternativas de montagem



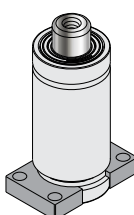
Fixação com
flange superior



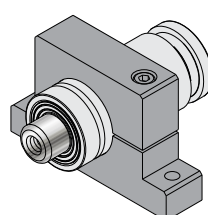
Fixação com
flange inferior



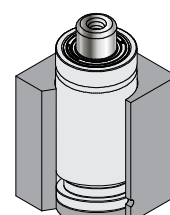
Fixação com
abraçadeira



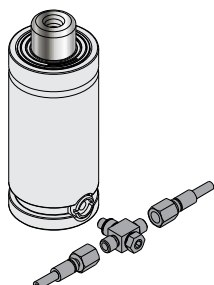
Fixação direta
com rosca



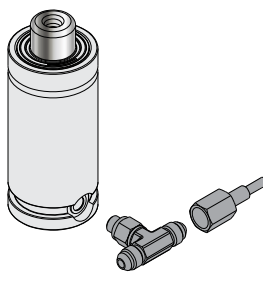
Alojado



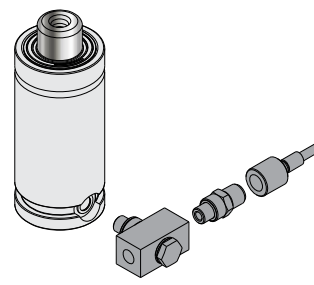
Alternativas de interligação



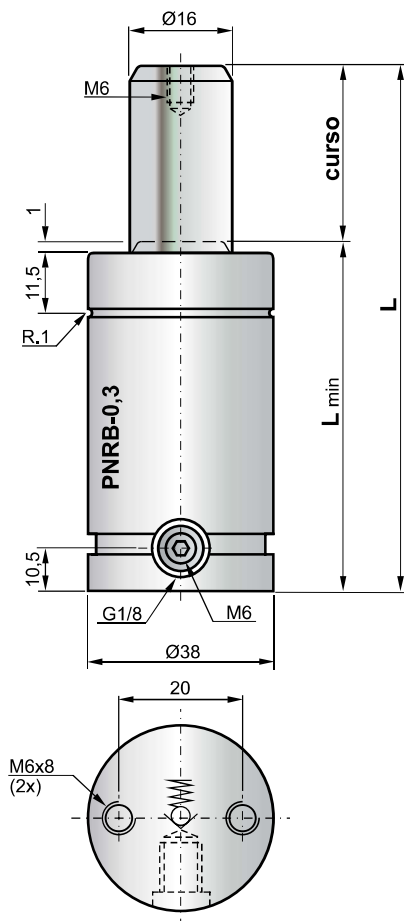
Micro conexões
M6x1 x M8x1



Conexões
G1/8 x 1/2-20F.P.P

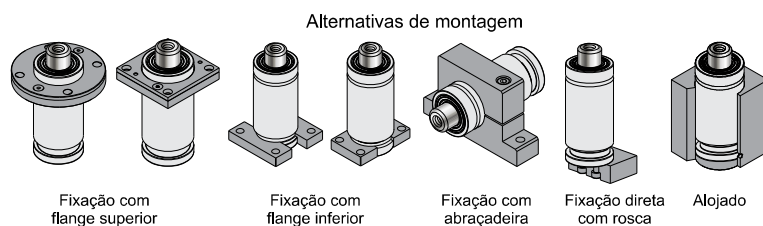


Conexões e Adaptadores
G1/8 x S12,65

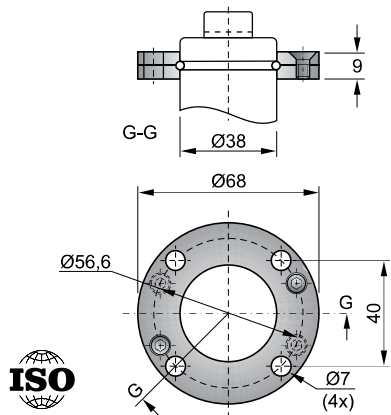


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=50 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRB-0,3-010	10	301,5	371,9	70	60	10,6	0,412
PNRB-0,3-015	15	301,5	379,8	80	65	14,6	0,434
PNRB-0,3-020	20	301,5	384,5	90	70	18,6	0,455
PNRB-0,3-025	25	301,5	387,5	100	75	22,6	0,476
PNRB-0,3-032	32	301,5	390,4	114	82	28,2	0,508
PNRB-0,3-038	38	301,5	392,1	126	88	33,0	0,529
PNRB-0,3-050	50	301,5	394,4	150	100	42,7	0,578
PNRB-0,3-063	63	301,5	396,0	176	113	53,1	0,629
PNRB-0,3-075	75	301,5	396,9	200	125	62,7	0,681
PNRB-0,3-080	80	301,5	397,3	210	130	66,7	0,703
PNRB-0,3-100	100	301,5	398,3	250	150	82,8	0,801
PNRB-0,3-125	125	301,5	399,1	300	175	102,8	0,890

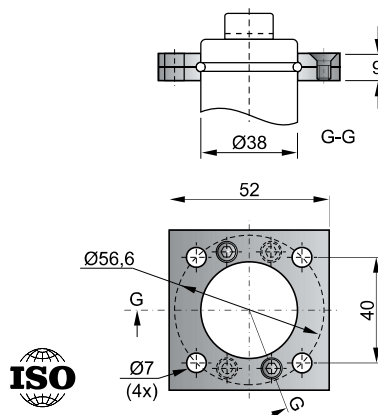
* Força Final Isotérmica a 20°C, curso totalmente atuado.



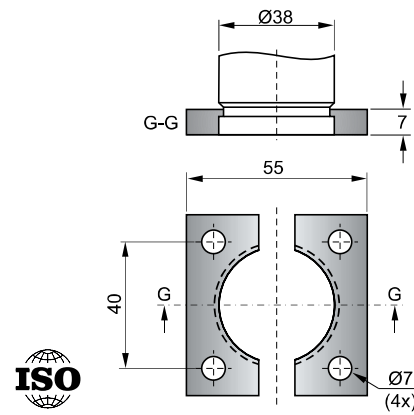
PNB-54-038



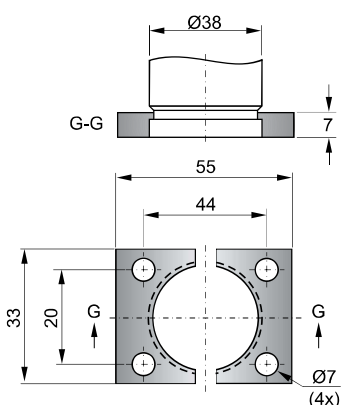
PNB-65-038



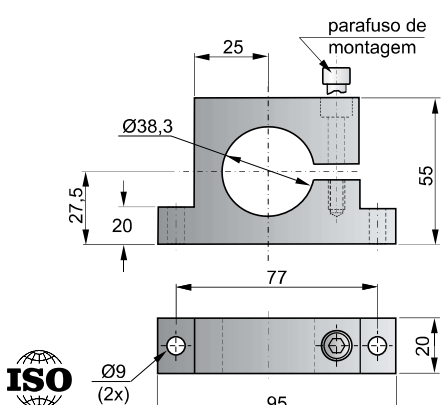
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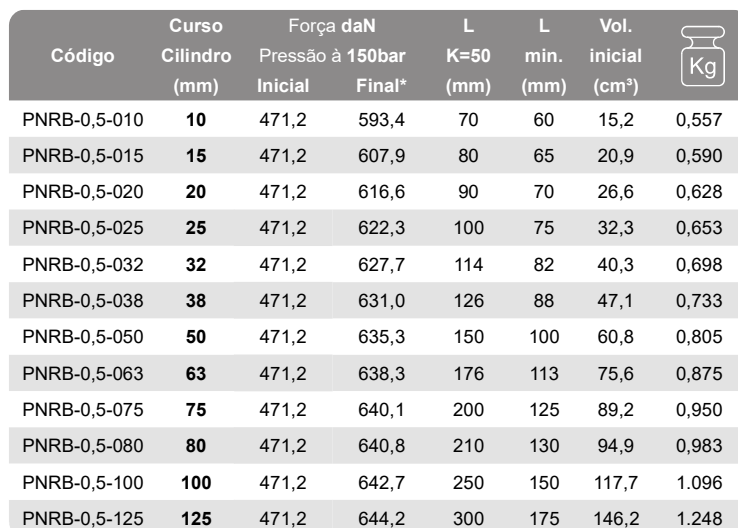
PNB-32-038



PNB-57-038



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Alternativas de montagem

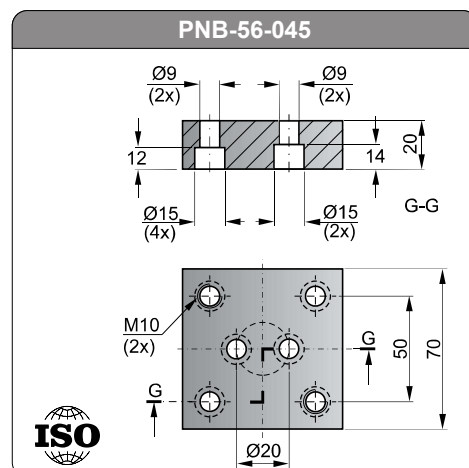
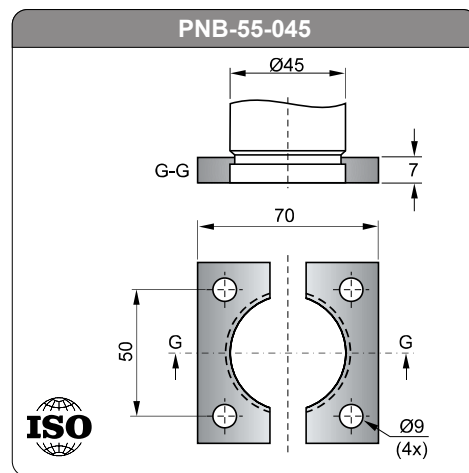
Fixação com flange superior

Fixação com flange inferior

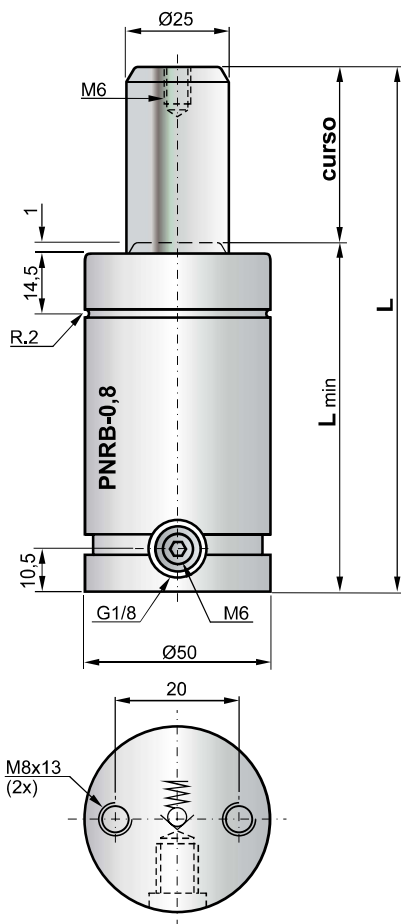
Fixação com abraçadeira

Fixação direta com rosca

Alojado

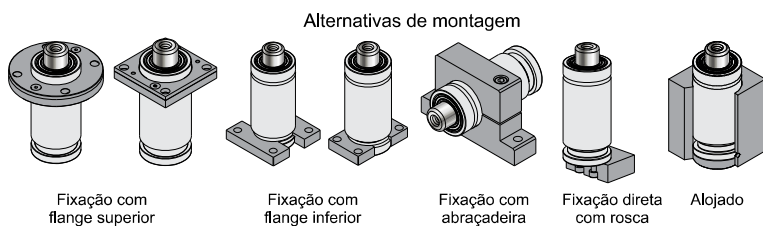


33

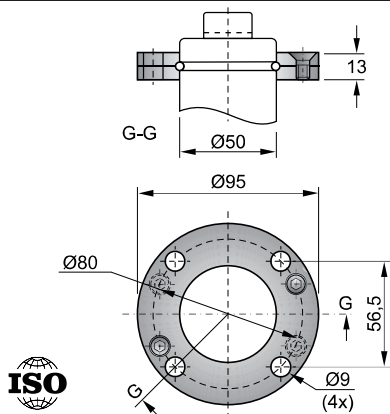


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=50 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRB-0,8-010	10	736,3	969,9	70	60	20,3	0,689
PNRB-0,8-015	15	736,3	1.001	80	65	27,7	0,717
PNRB-0,8-020	20	736,3	1.020	90	70	35,2	0,760
PNRB-0,8-025	25	736,3	1.033	100	75	42,6	0,797
PNRB-0,8-032	32	736,3	1.046	114	82	53,0	0,858
PNRB-0,8-038	38	736,3	1.053	126	88	61,9	0,898
PNRB-0,8-050	50	736,3	1.063	150	100	79,7	0,979
PNRB-0,8-063	63	736,3	1.070	176	113	99,0	1.081
PNRB-0,8-075	75	736,3	1.075	200	125	116,8	1.192
PNRB-0,8-080	80	736,3	1.076	210	130	124,2	1.220
PNRB-0,8-100	100	736,3	1.081	250	150	153,9	1.368
PNRB-0,8-125	125	736,3	1.084	300	175	190,9	1.544

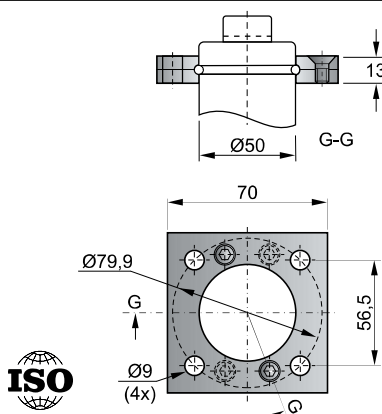
* Força Final Isotérmica a 20°C, curso totalmente atuado.



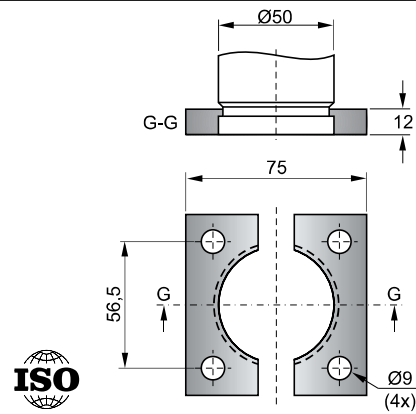
PNB-54-050



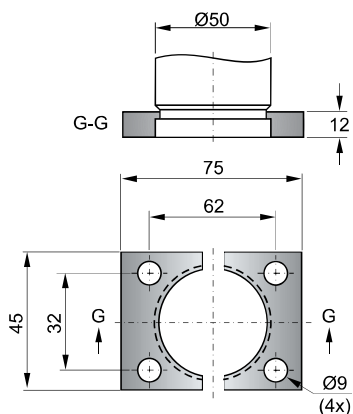
PNB-65-050



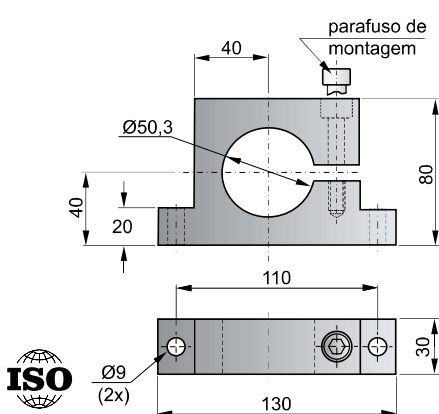
PNB-55-050



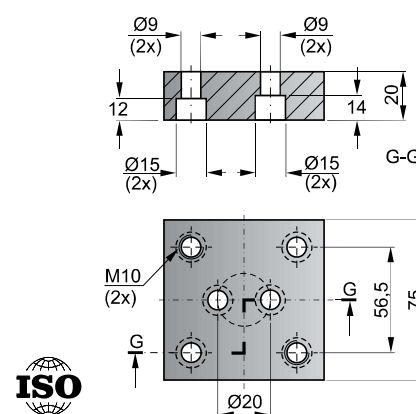
PNB-32-050



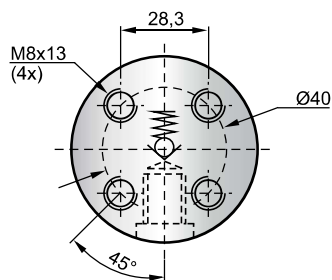
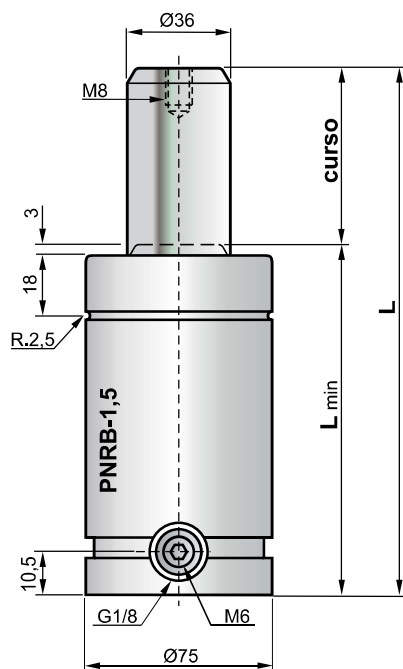
PNB-57-050



PNB-56-050

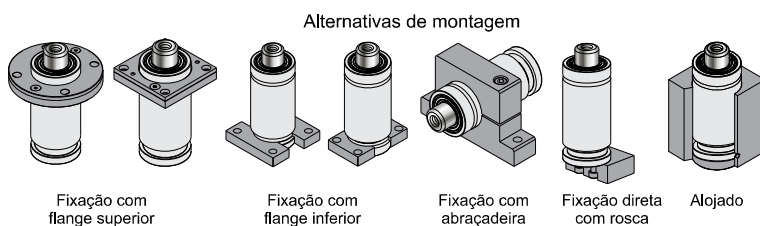


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

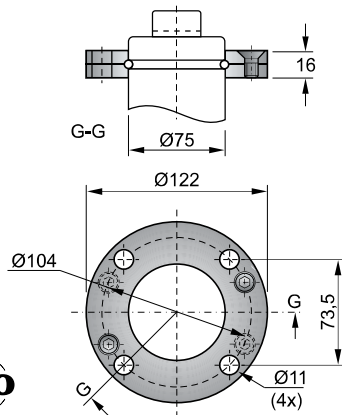


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=60 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRB-1,5-010	10	1.526	1.873	80	70	55,0	1.733
PNRB-1,5-015	15	1.526	1.920	90	75	74,5	1.831
PNRB-1,5-020	20	1.526	1.957	100	80	95,2	1.903
PNRB-1,5-025	25	1.526	1.983	110	85	110,6	1.984
PNRB-1,5-032	32	1.526	2.008	124	92	135,8	2.081
PNRB-1,5-038	38	1.526	2.023	136	98	157,5	2.165
PNRB-1,5-050	50	1.526	2.045	160	110	200,8	2.334
PNRB-1,5-063	63	1.526	2.060	186	123	247,7	2.535
PNRB-1,5-075	75	1.526	2.069	210	135	291,0	2.684
PNRB-1,5-080	80	1.526	2.073	220	140	309,0	2.766
PNRB-1,5-100	100	1.526	2.082	260	160	381,2	3.059
PNRB-1,5-125	125	1.526	2.091	310	185	471,4	3.408

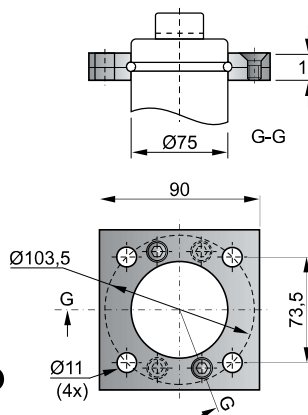
* Força Final Isotérmica a 20°C, curso totalmente atuado.



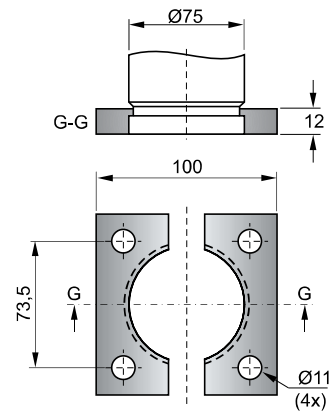
PNB-54-075



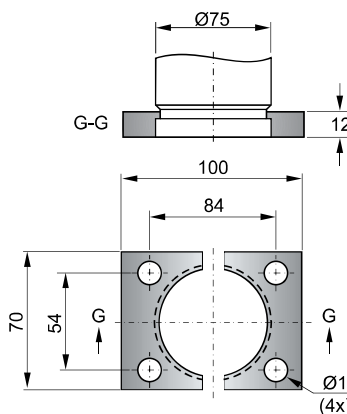
PNB-65-075



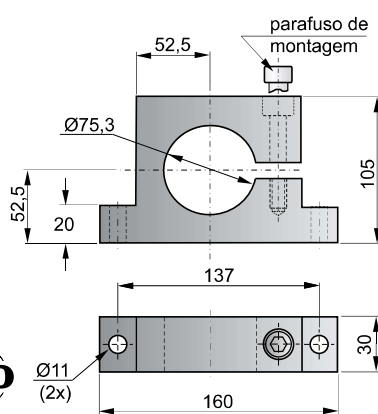
PNB-55-075



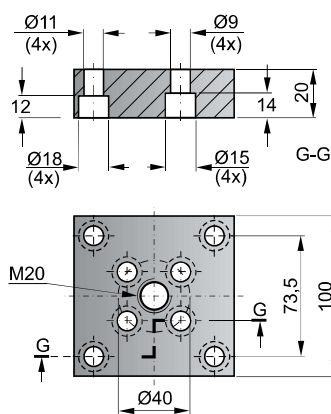
PNB-32-075



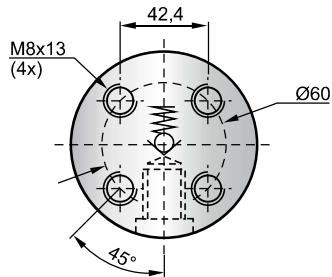
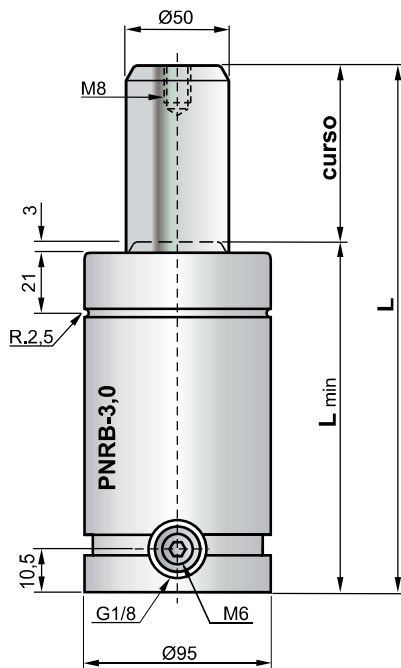
PNB-57-075



PNB-56-075

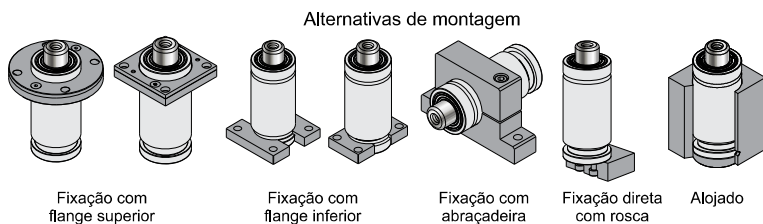


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

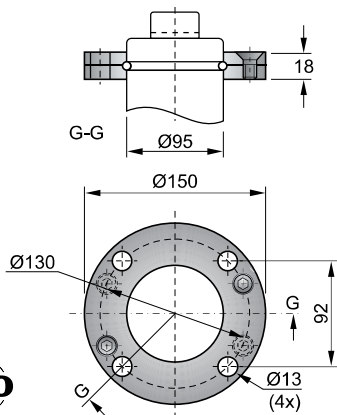


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=70 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRB-3,0-015	15	2.945	3.913	100	85	119,0	3.519
PNRB-3,0-020	20	2.945	4.006	110	90	148,2	3.654
PNRB-3,0-025	25	2.945	4.072	120	95	177,3	3.799
PNRB-3,0-032	32	2.945	4.136	134	102	218,1	3.975
PNRB-3,0-038	38	2.945	4.176	146	108	253,1	4.103
PNRB-3,0-050	50	2.945	4.230	170	120	323,1	4.408
PNRB-3,0-063	63	2.945	4.268	196	133	398,9	4.759
PNRB-3,0-075	75	2.945	4.293	220	145	468,8	5.047
PNRB-3,0-080	80	2.945	4.302	230	150	498,0	5.182
PNRB-3,0-100	100	2.945	4.327	270	170	614,6	5.655
PNRB-3,0-125	125	2.945	4.348	320	195	760,4	6.309

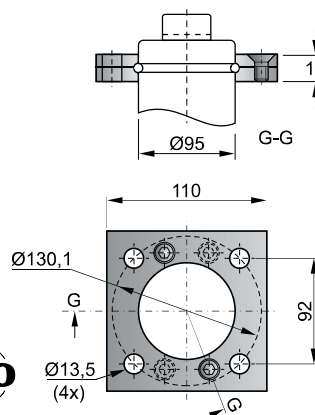
* Força Final Isotérmica a 20°C, curso totalmente atuado.



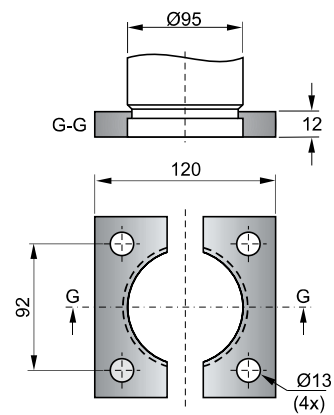
PNB-54-095



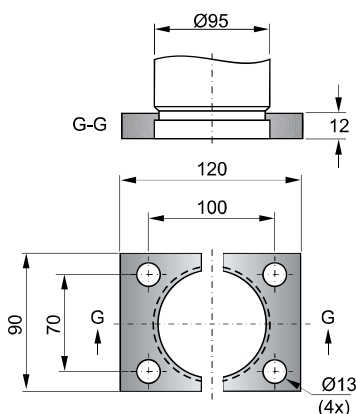
PNB-65-095



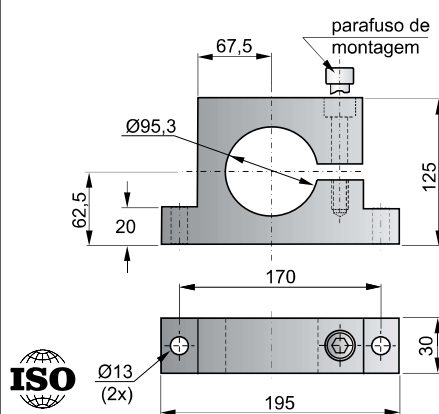
PNB-55-095



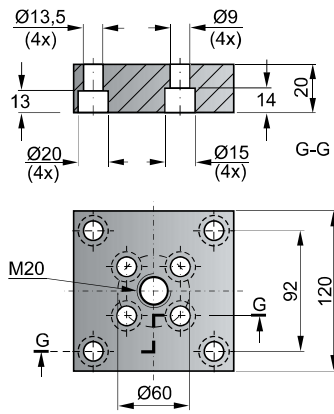
PNB-32-095



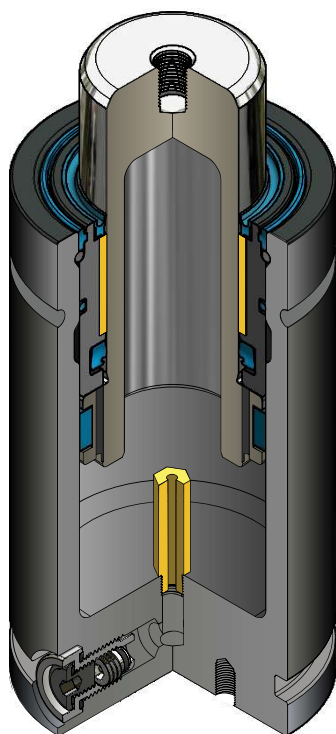
PNB-57-095



PNB-56-095



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Modelo Tonelagen Curso
CILINDROS : PNRX - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNRX - X,X / XX

Cilindro autônomo, uma união das linhas FH e RE.
 Comprimento da linha FH e a força da linha RE.

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

Modelo: PNRX-1,5-025

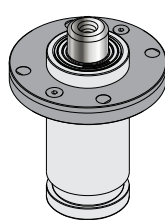
Tonelagens disponíveis:

0,8 - 1,0 - 1,5 - 2,4 - 4,2 - 6,6 - 9,5 - 20,0

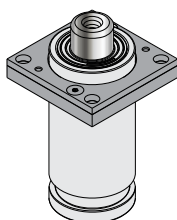
Cursos padrões dos cilindros em mm:

15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 , 125 , 160 , 200 , 250 e 300 mm

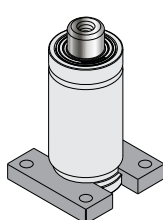
Alternativas de montagem



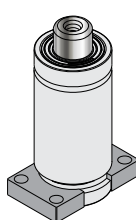
Fixação com
flange superior



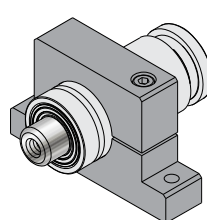
Fixação com
flange inferior



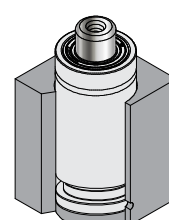
Fixação com
abraçadeira



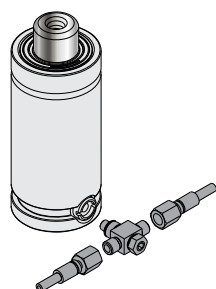
Fixação direta
com rosca



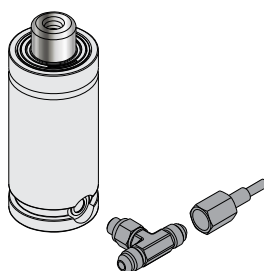
Alojado



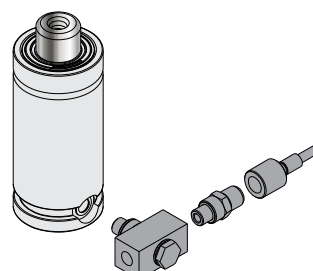
Alternativas de interligação



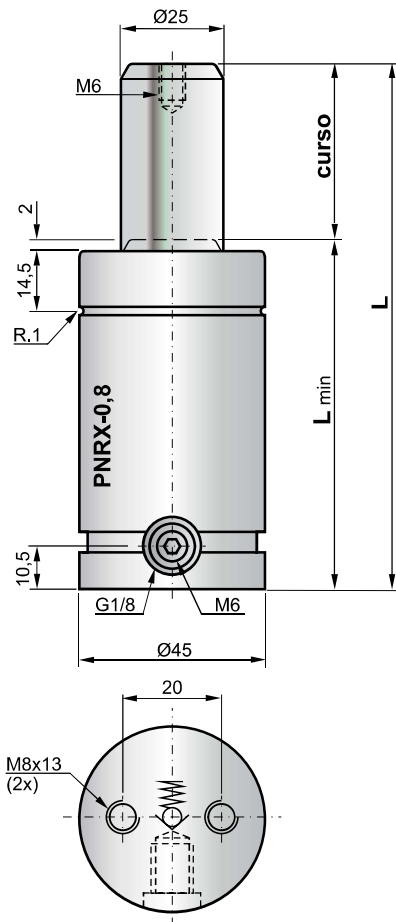
Micro conexões
M6x1 x M8x1



Conexões
G1/8 x 1/2-20F.P.P



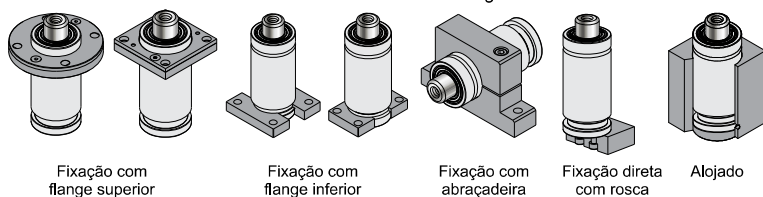
Conexões e Adaptadores
G1/8 x S12,65



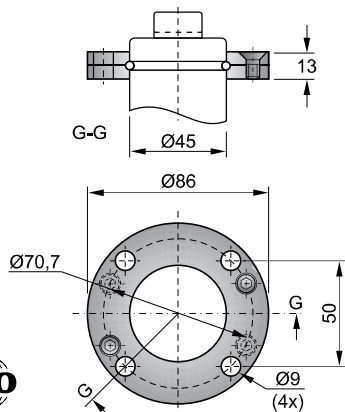
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=85 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-0,8-015	15	736,3	916,5	115	100	37,4	0,951	
PNRX-0,8-020	20	736,3	953,2	125	105	43,1	0,993	
PNRX-0,8-025	25	736,3	983,3	135	110	48,8	1.036	✓
PNRX-0,8-032	32	736,3	1.017	149	117	56,8	1.084	
PNRX-0,8-038	38	736,3	1.041	161	123	63,6	1.151	
PNRX-0,8-050	50	736,3	1.078	185	135	77,3	1.243	✓
PNRX-0,8-063	63	736,3	1.107	211	148	92,2	1.339	
PNRX-0,8-075	75	736,3	1.128	235	160	105,9	1.436	
PNRX-0,8-080	80	736,3	1.135	245	165	111,6	1.483	✓
PNRX-0,8-100	100	736,3	1.159	285	185	134,4	1.669	✓
PNRX-0,8-125	125	736,3	1.180	335	210	163,0	1.842	✓
PNRX-0,8-160	160	736,3	1.201	405	245	202,9	2.105	✓
PNRX-0,8-200	200	736,3	1.216	485	285	248,6	2.441	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

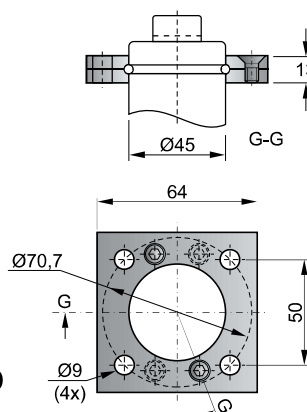
Alternativas de montagem



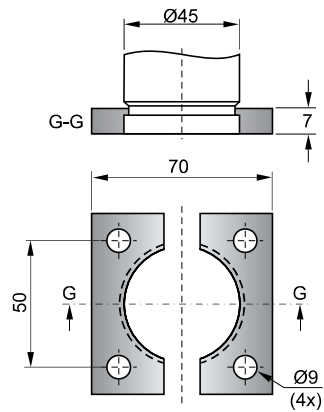
PNB-54-045



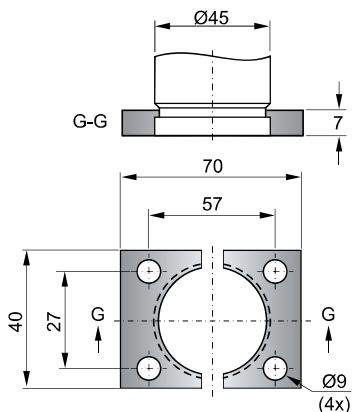
PNB-65-045



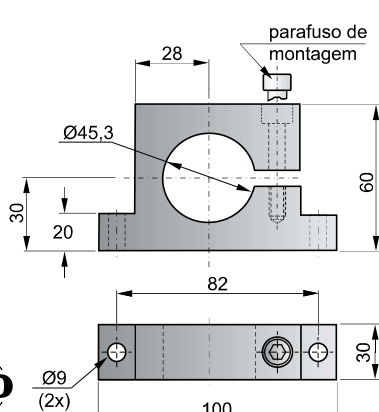
PNB-55-045



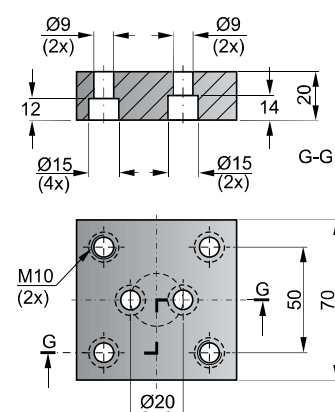
PNB-32-045



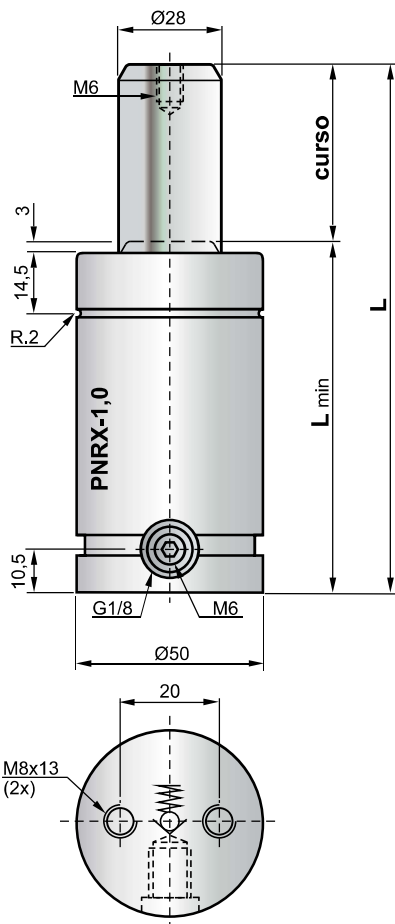
PNB-57-045



PNB-56-045



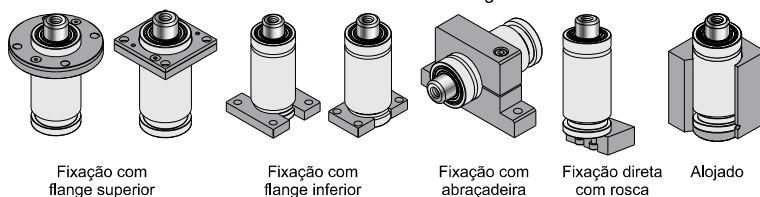
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



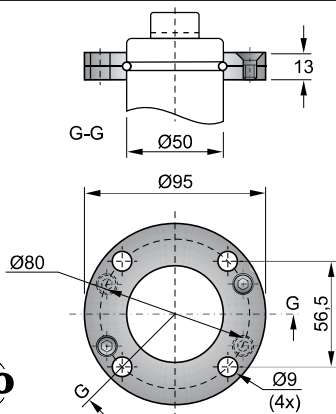
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=95 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-1,0-015	15	923,6	1.150	125	110	46,7	1.246	
PNRX-1,0-020	20	923,6	1.196	135	115	53,9	1.289	
PNRX-1,0-025	25	923,6	1.234	145	120	61,1	1.338	✓
PNRX-1,0-032	32	923,6	1.277	159	127	71,1	1.395	
PNRX-1,0-038	38	923,6	1.307	171	133	79,7	1.450	
PNRX-1,0-050	50	923,6	1.353	195	145	96,9	1.561	✓
PNRX-1,0-063	63	923,6	1.390	221	158	115,5	1.675	
PNRX-1,0-075	75	923,6	1.416	245	170	132,7	1.783	
PNRX-1,0-080	80	923,6	1.425	255	175	139,9	1.825	✓
PNRX-1,0-100	100	923,6	1.454	295	195	168,6	2.005	✓
PNRX-1,0-125	125	923,6	1.481	345	220	204,4	2.226	✓
PNRX-1,0-160	160	923,6	1.506	415	255	254,6	2.555	✓
PNRX-1,0-200	200	923,6	1.526	495	295	311,9	2.905	✓
PNRX-1,0-250	250	923,6	1.542	595	345	383,6	3.368	✓
PNRX-1,0-300	300	923,6	1.554	695	395	455,2	3.811	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

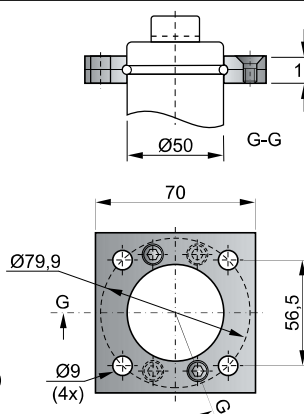
Alternativas de montagem



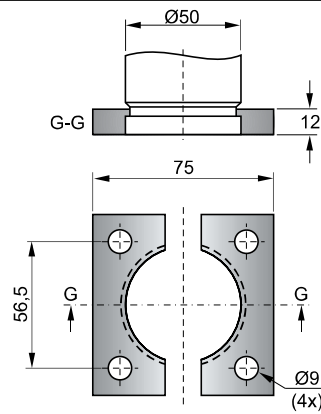
PNB-54-050



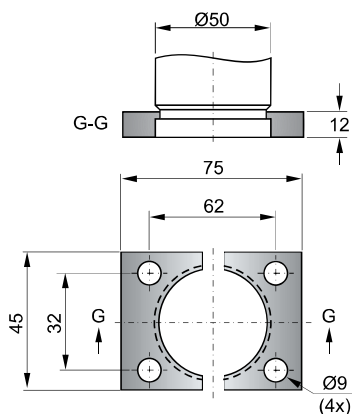
PNB-65-050



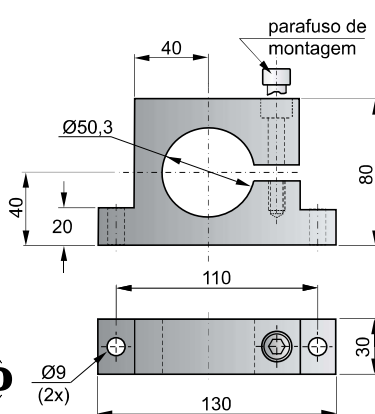
PNB-55-050



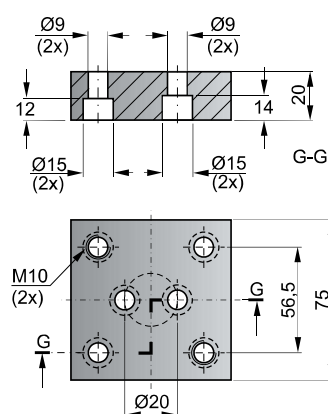
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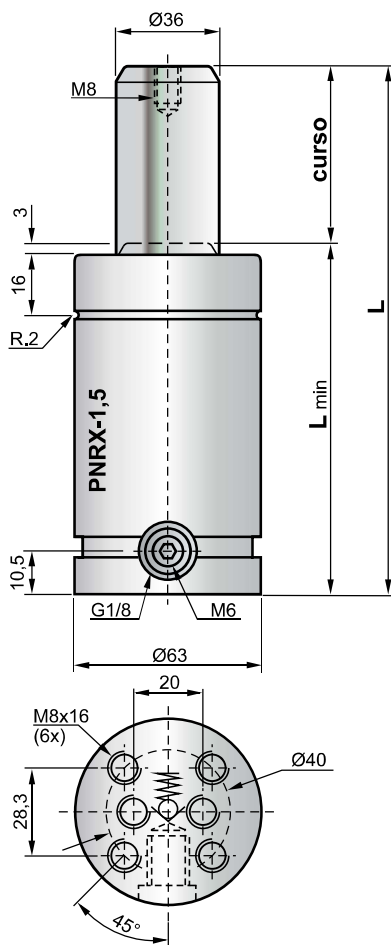
PNB-57-050



PNB-56-050



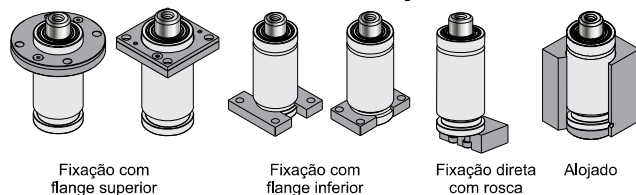
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



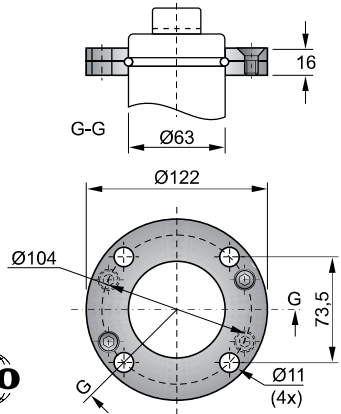
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=95 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
		Inicial	Final*					
PNRX-1,5-015	15	1.526	1.874	125	110	82,2	1.951	
PNRX-1,5-020	20	1.526	1.943	135	115	94,9	2.013	
PNRX-1,5-025	25	1.526	1.999	145	120	107,6	2.076	✓
PNRX-1,5-032	32	1.526	2.062	159	127	125,3	2.164	
PNRX-1,5-038	38	1.526	2.106	171	133	140,5	2.235	
PNRX-1,5-050	50	1.526	2.173	195	145	171,0	2.389	✓
PNRX-1,5-063	63	1.526	2.227	221	158	203,9	2.552	
PNRX-1,5-075	75	1.526	2.264	245	170	234,3	2.703	
PNRX-1,5-080	80	1.526	2.277	255	175	247,0	2.766	✓
PNRX-1,5-100	100	1.526	2.319	295	195	297,7	3.016	✓
PNRX-1,5-125	125	1.526	2.357	345	220	361,1	3.330	✓
PNRX-1,5-160	160	1.526	2.393	415	255	449,8	3.769	✓
PNRX-1,5-200	200	1.526	2.420	495	295	551,1	4.269	✓
PNRX-1,5-250	250	1.526	2.444	595	345	677,9	4.896	✓
PNRX-1,5-300	300	1.526	2.460	695	395	804,6	5.523	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

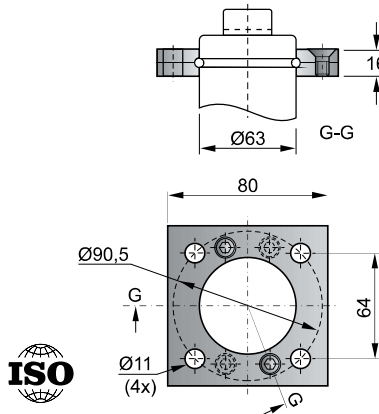
Alternativas de montagem



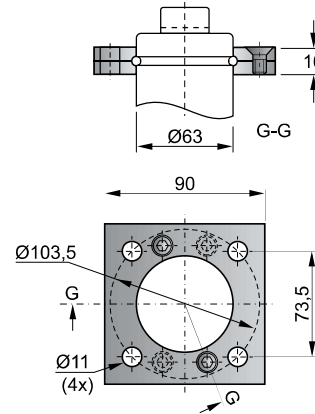
PNB-54-063



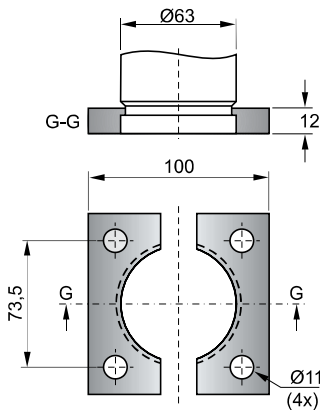
PNB-65-063-ISO



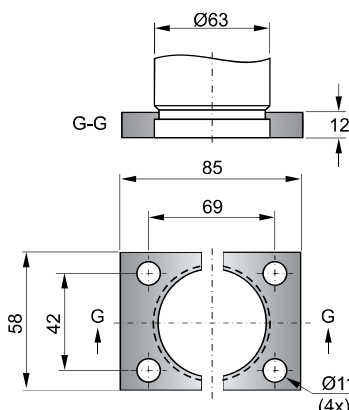
PNB-65-063



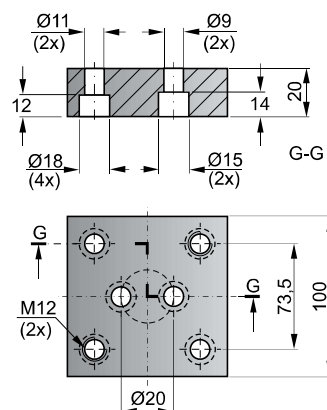
PNB-55-063



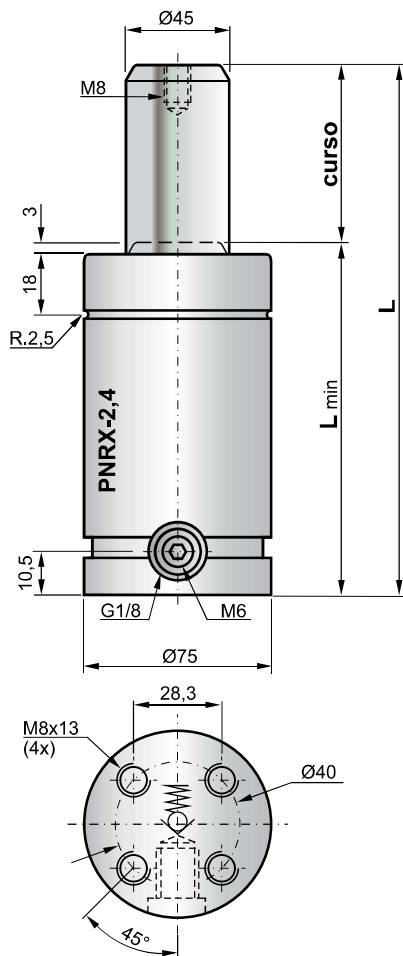
PNB-32-063



PNB-56-063



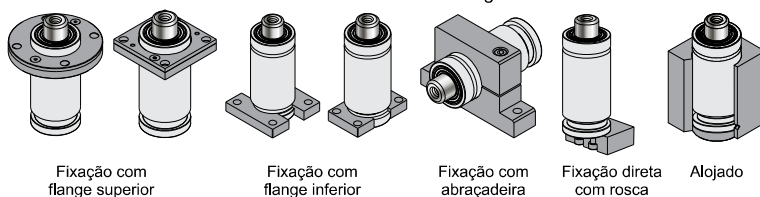
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



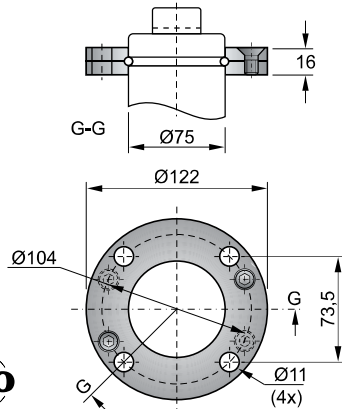
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=110 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
		Inicial	Final*					
PNRX-2,4-025	25	2.385	3.086	160	135	175,0	3.264	✓
PNRX-2,4-032	32	2.385	3.190	174	142	201,7	3.377	
PNRX-2,4-038	38	2.385	3.263	186	148	224,7	3.476	
PNRX-2,4-050	50	2.385	3.378	210	160	270,6	3.694	✓
PNRX-2,4-063	63	2.385	3.471	236	173	320,3	3.906	
PNRX-2,4-075	75	2.385	3.537	260	185	366,2	4.116	
PNRX-2,4-080	80	2.385	3.561	270	190	385,3	4.212	✓
PNRX-2,4-100	100	2.385	3.638	310	210	461,8	4.549	✓
PNRX-2,4-125	125	2.385	3.708	360	235	557,4	4.979	✓
PNRX-2,4-160	160	2.385	3.775	430	270	691,2	5.533	✓
PNRX-2,4-200	200	2.385	3.827	510	310	844,2	6.274	✓
PNRX-2,4-250	250	2.385	3.872	610	360	1.035	7.078	✓
PNRX-2,4-300	300	2.385	3.904	710	410	1.226	7.957	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

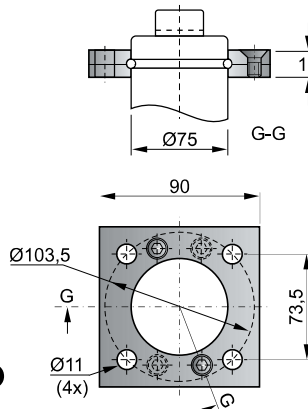
Alternativas de montagem



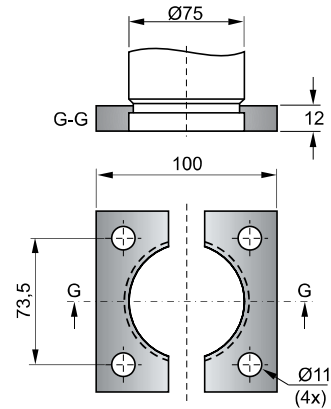
PNB-54-075



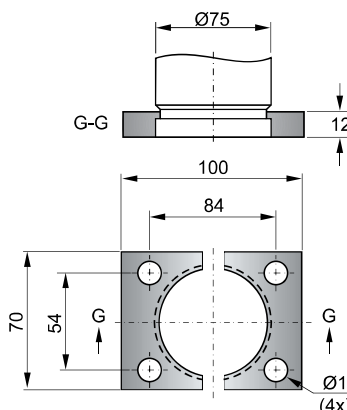
PNB-65-075



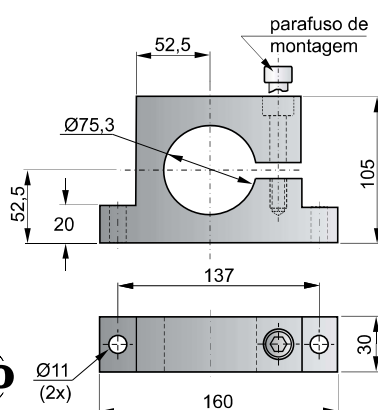
PNB-55-075



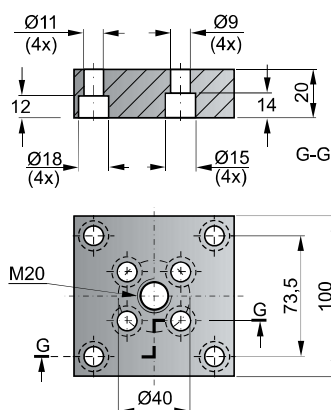
PNB-32-075



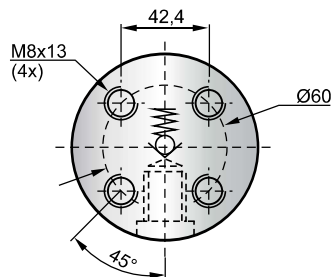
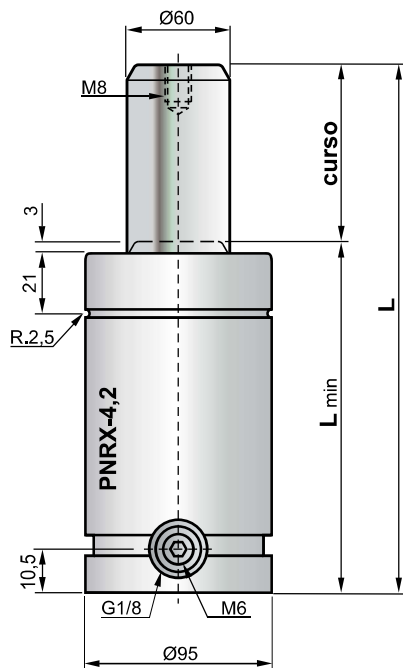
PNB-57-075



PNB-56-075



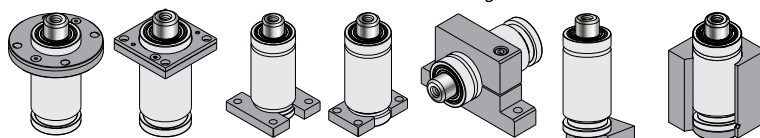
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*	L K=120 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-4,2-025	25	4.241 5.556	170	145	298,5	5.740	✓
PNRX-4,2-032	32	4.241 5.763	184	152	342,5	5.925	
PNRX-4,2-038	38	4.241 5.911	196	158	380,2	6.111	
PNRX-4,2-050	50	4.241 6.149	220	170	455,6	6.427	✓
PNRX-4,2-063	63	4.241 6.344	246	183	537,3	6.824	
PNRX-4,2-075	75	4.241 6.485	270	195	612,7	7.154	
PNRX-4,2-080	80	4.241 6.536	280	200	644,1	7.283	✓
PNRX-4,2-100	100	4.241 6.703	320	220	769,7	7.867	✓
PNRX-4,2-125	125	4.241 6.855	370	245	926,8	8.553	✓
PNRX-4,2-160	160	4.241 7.004	440	280	1.146	9.583	✓
PNRX-4,2-200	200	4.241 7.121	520	320	1.398	10.748	✓
PNRX-4,2-250	250	4.241 7.222	620	370	1.712	12.189	✓
PNRX-4,2-300	300	4.241 7.294	720	420	2.026	13.628	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com
flange superior

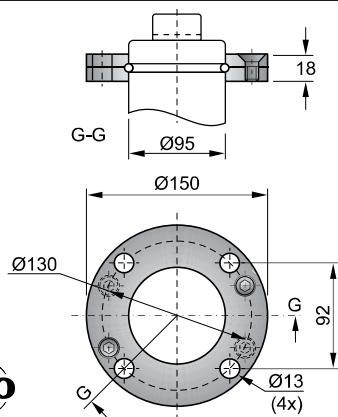
Fixação com
flange inferior

Fixação com
abraçadeira

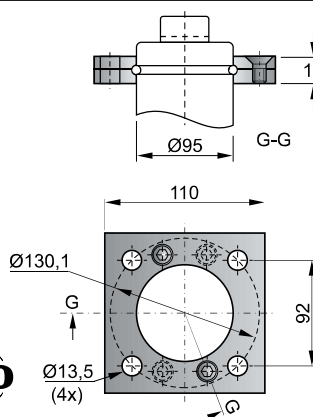
Fixação direta
com rosca

Alojado

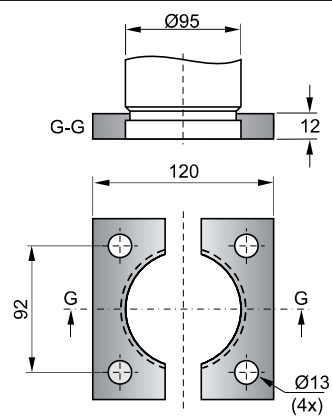
PNB-54-095



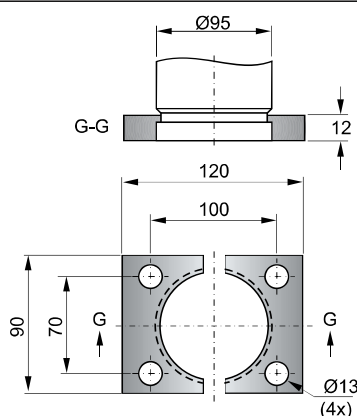
PNB-65-095



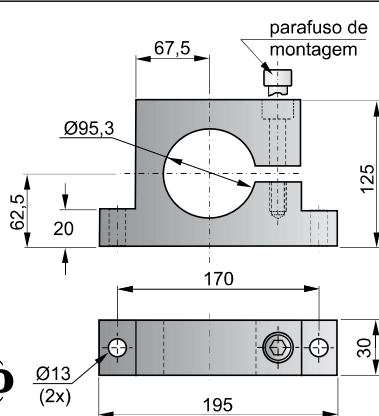
PNB-55-095



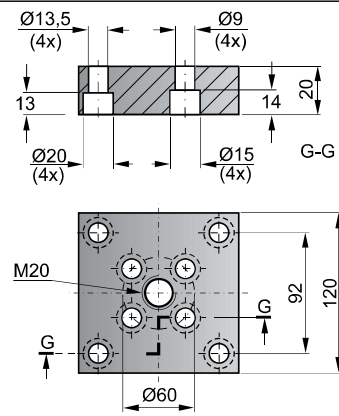
PNB-32-095



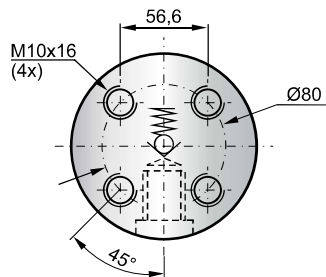
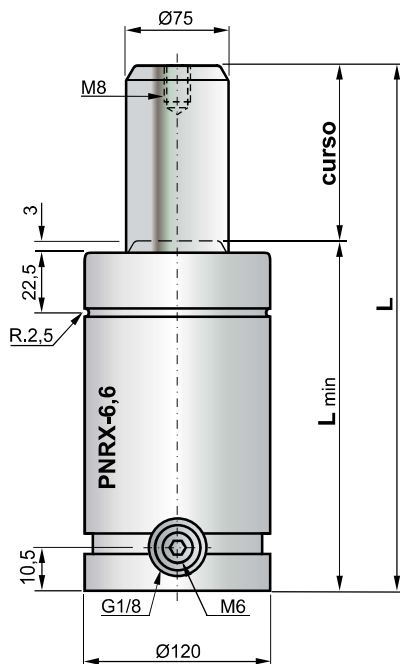
PNB-57-095



PNB-56-095



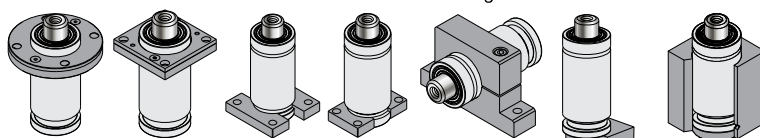
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*	L K=140 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-6,6-025	25	6.626 8.197	190	165	576,4	10.339	✓
PNRX-6,6-032	32	6.626 8.475	204	172	648,0	10.641	
PNRX-6,6-038	38	6.626 8.681	216	178	709,4	10.900	
PNRX-6,6-050	50	6.626 9.021	240	190	832,1	11.417	✓
PNRX-6,6-063	63	6.626 9.312	266	203	965,1	11.979	
PNRX-6,6-075	75	6.626 9.529	290	215	1.087	12.496	
PNRX-6,6-080	80	6.626 9.607	300	220	1.139	12.712	✓
PNRX-6,6-100	100	6.626 9.872	340	240	1.343	13.576	✓
PNRX-6,6-125	125	6.626 10.121	390	265	1.599	14.655	✓
PNRX-6,6-160	160	6.626 10.372	460	300	1.957	16.165	✓
PNRX-6,6-200	200	6.626 10.574	540	340	2.366	17.891	✓
PNRX-6,6-250	250	6.626 10.753	640	390	2.878	20.049	✓
PNRX-6,6-300	300	6.626 10.881	740	440	3.389	22.207	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com
flange superior

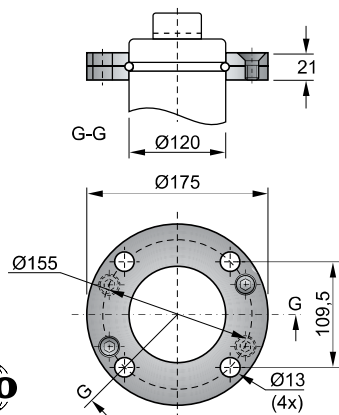
Fixação com
flange inferior

Fixação com
abraçadeira

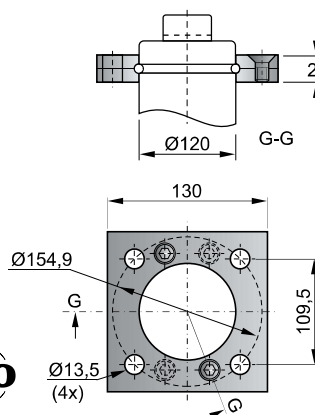
Fixação direta
com rosca

Alojado

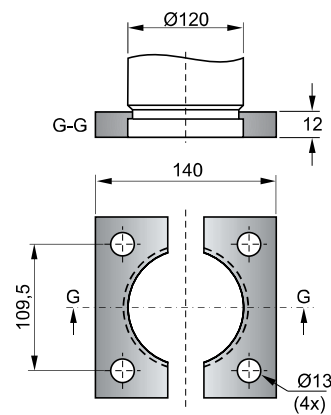
PNB-54-120



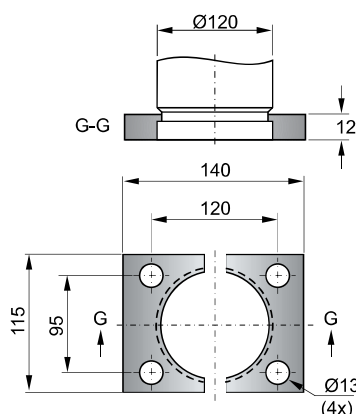
PNB-65-120



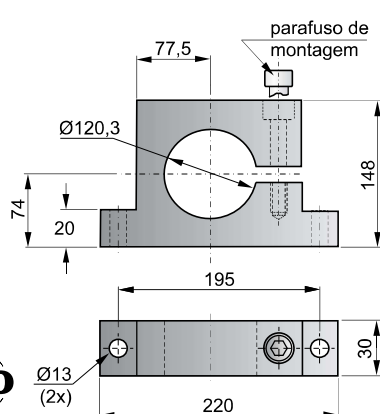
PNB-55-120



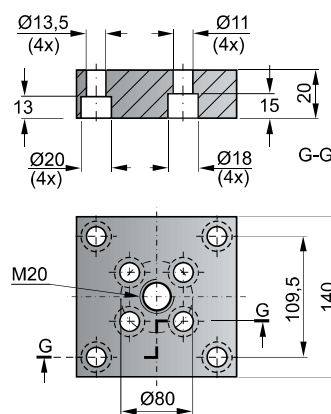
PNB-32-120



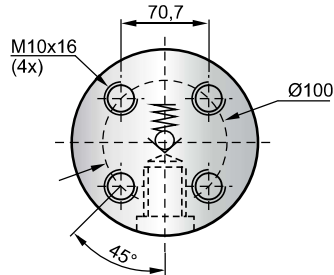
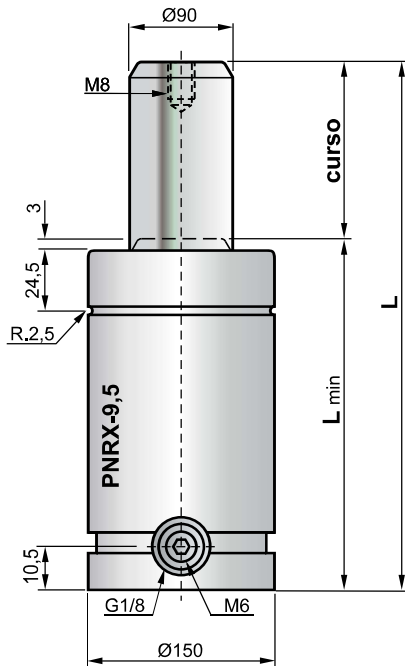
PNB-57-120



PNB-56-120



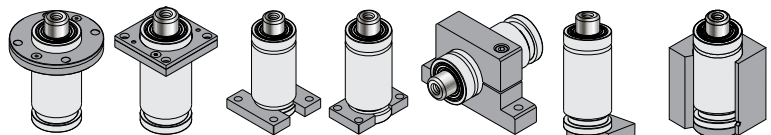
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=155 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-9,5-025	25	9.542	11.399	205	180	976,2	17.345	✓
PNRX-9,5-032	32	9.542	11.736	219	187	1.089	17.780	
PNRX-9,5-038	38	9.542	11.986	231	193	1.185	18.153	
PNRX-9,5-050	50	9.542	12.403	255	205	1.379	18.899	✓
PNRX-9,5-063	63	9.542	12.761	281	218	1.588	19.706	
PNRX-9,5-075	75	9.542	13.031	305	230	1.782	20.452	
PNRX-9,5-080	80	9.542	13.129	315	235	1.862	20.762	✓
PNRX-9,5-100	100	9.542	13.461	355	255	2.185	22.004	✓
PNRX-9,5-125	125	9.542	13.774	405	280	2.588	23.557	✓
PNRX-9,5-160	160	9.542	14.093	475	315	3.152	25.732	✓
PNRX-9,5-200	200	9.542	14.351	555	355	3.797	28.216	✓
PNRX-9,5-250	250	9.542	14.579	655	405	4.603	31.322	✓
PNRX-9,5-300	300	9.542	14.744	755	455	5.409	34.428	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com flange superior

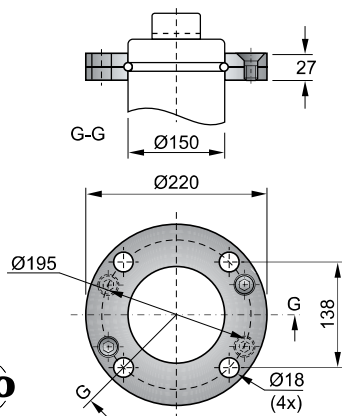
Fixação com flange inferior

Fixação com abraçadeira

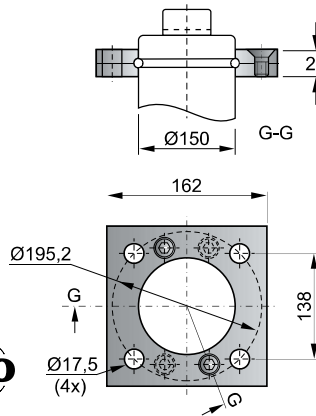
Fixação direta com rosca

Alojado

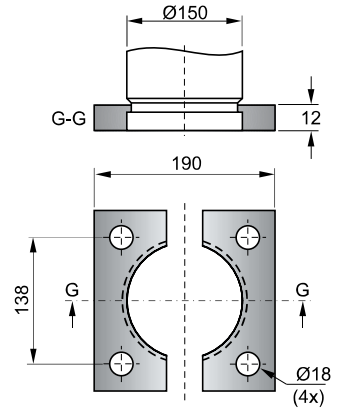
PNB-54-150



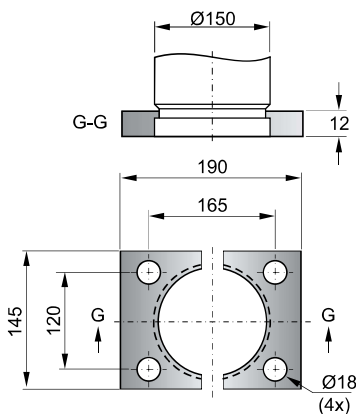
PNB-65-150



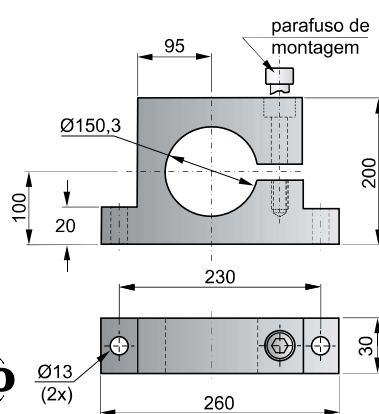
PNB-55-150



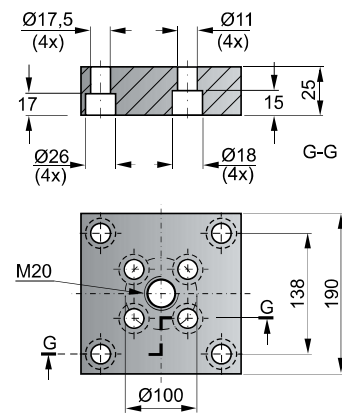
PNB-32-150



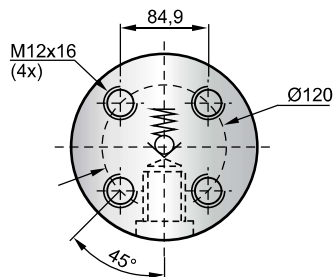
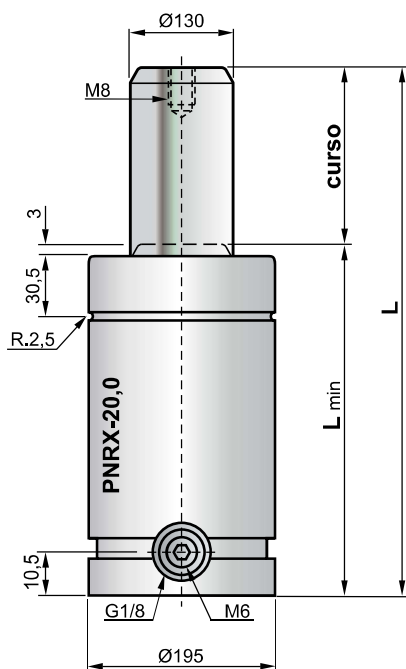
PNB-57-150



PNB-56-150



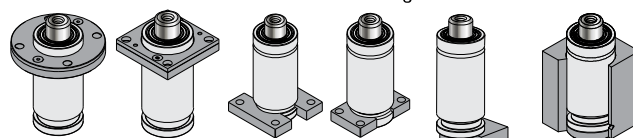
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=160 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNRX-20,0-025	25	19.909	25.800	210	185	1.453	32.267	
PNRX-20,0-032	32	19.909	26.876	224	192	1.638	33.183	
PNRX-20,0-038	38	19.909	27.676	236	198	1.797	33.969	
PNRX-20,0-050	50	19.909	29.023	260	210	2.113	35.539	✓
PNRX-20,0-063	63	19.909	30.168	286	223	2.459	37.240	
PNRX-20,0-075	75	19.909	31.037	310	235	2.776	38.810	
PNRX-20,0-080	80	19.909	31.354	320	240	2.909	39.464	✓
PNRX-20,0-100	100	19.909	32.405	360	260	3.442	42.082	✓
PNRX-20,0-125	125	19.909	33.442	410	285	4.100	45.353	✓
PNRX-20,0-160	160	19.909	34.476	480	320	5.026	49.933	
PNRX-20,0-200	200	19.909	35.316	560	360	6.085	55.168	✓
PNRX-20,0-250	250	19.909	36.061	660	410	7.408	61.711	✓
PNRX-20,0-300	300	19.909	36.600	760	460	8.732	68.254	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



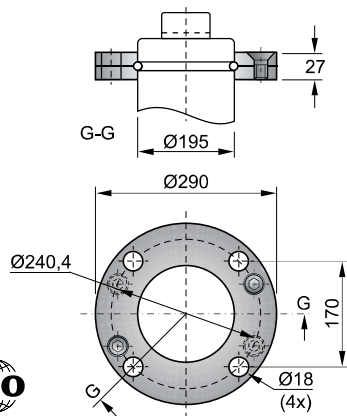
Fixação com flange superior

Fixação com flange inferior

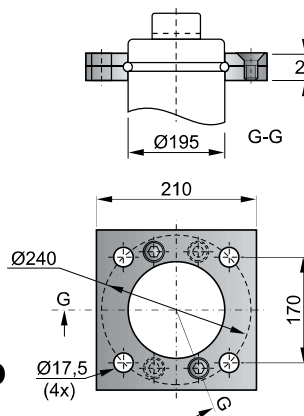
Fixação direta com rosca

Alojado

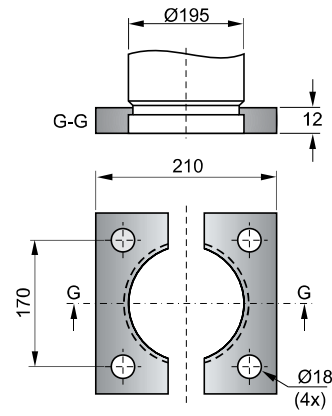
PNB-54-195



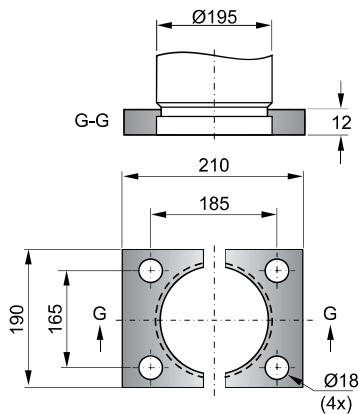
PNB-65-195



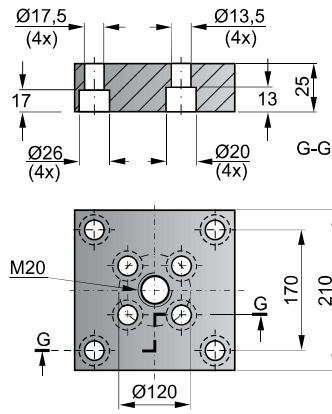
PNB-55-195



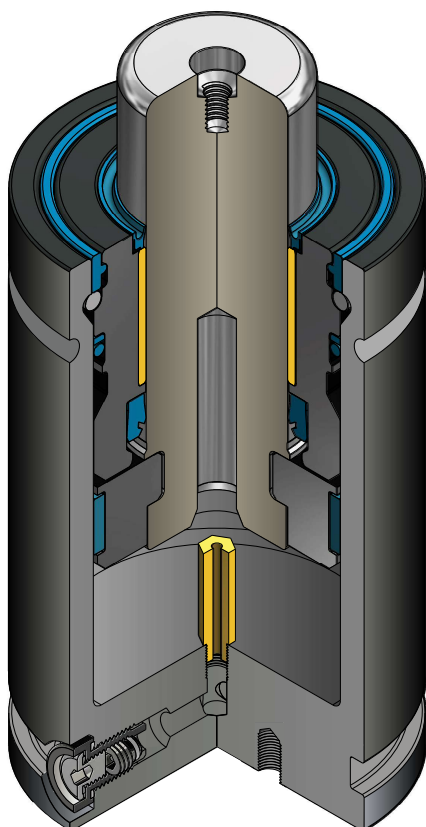
PNB-32-195



PNB-56-195



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Modelo: PNGH-1,5-025

Modelo Tonelagen Curso
CILINDROS : PNGH - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNGH - X,X / XX

Cilindro autônomo, derivado da linha FH, semi compacto.

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

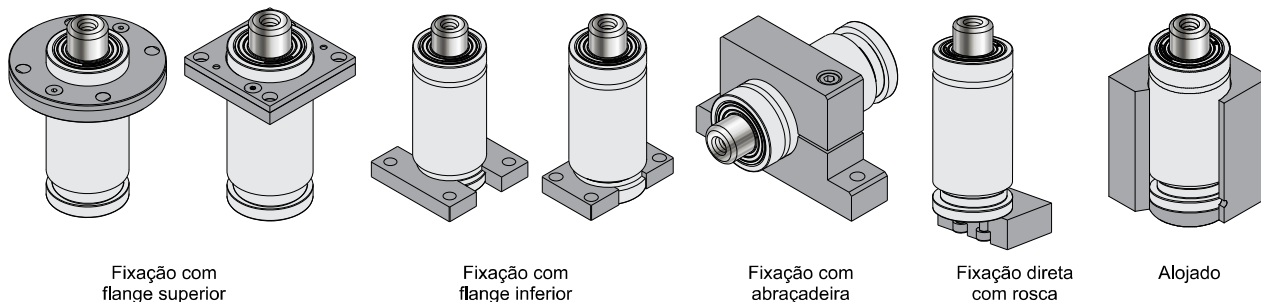
Tonelagens disponíveis:

0,8 - 1,5 - 3,0 - 5,0

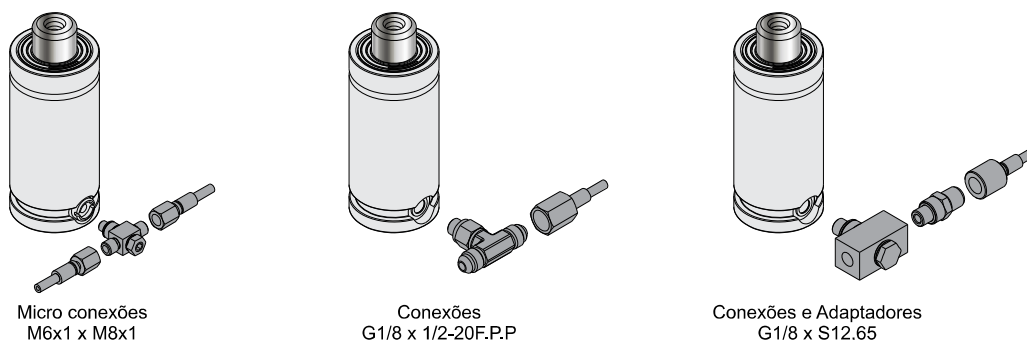
Cursos padrões dos cilindros em mm:

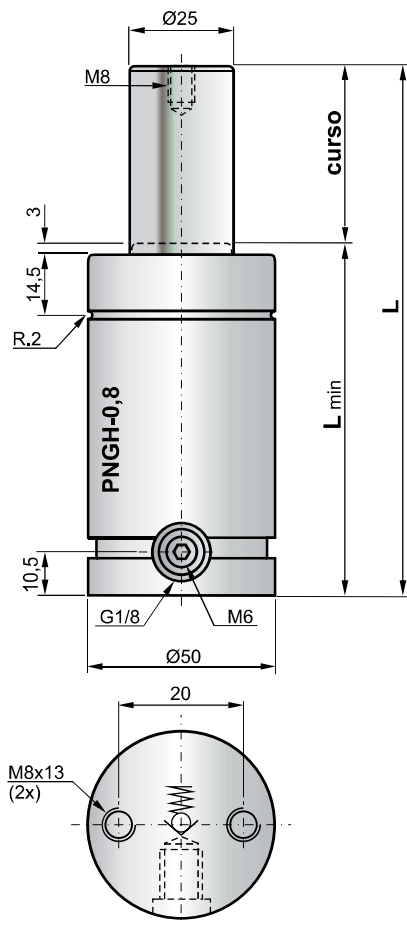
10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 , 125 , 160 , 200 e 250mm

Alternativas de montagem



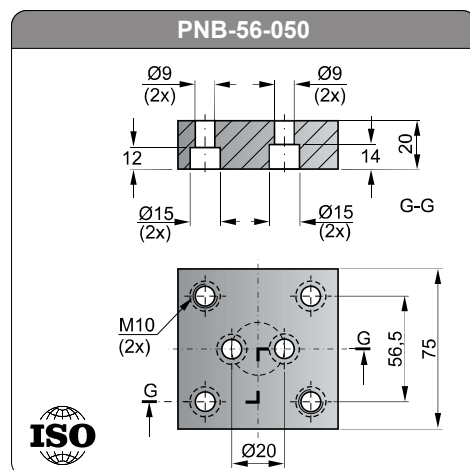
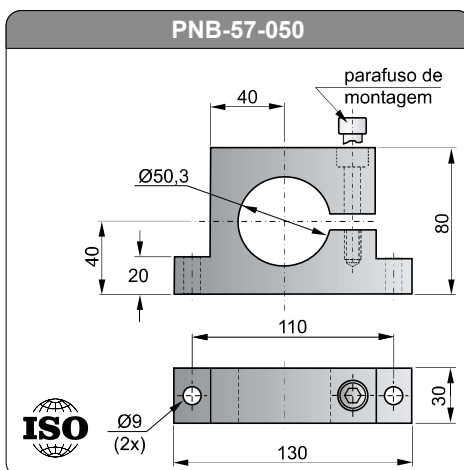
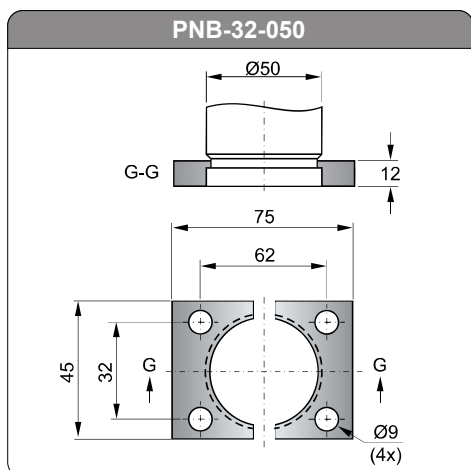
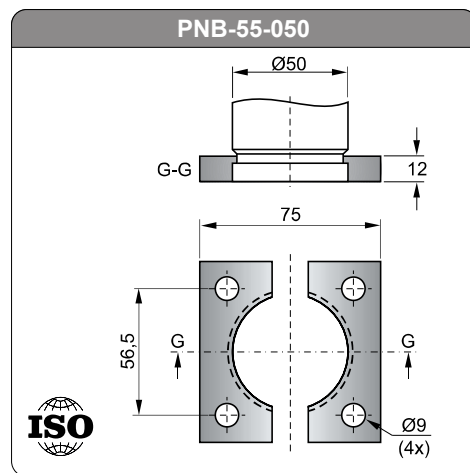
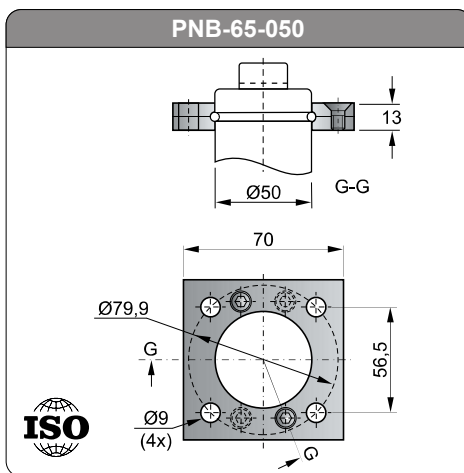
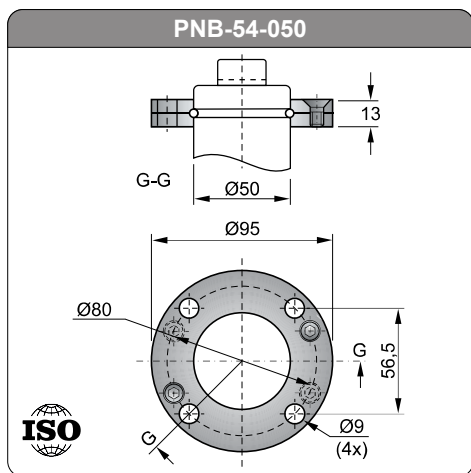
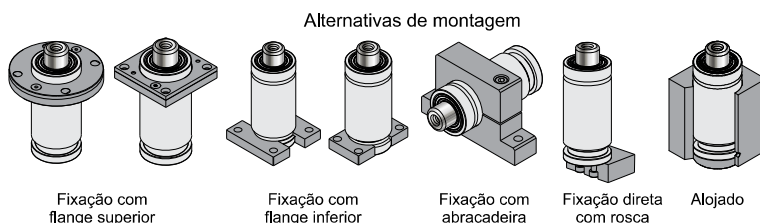
Alternativas de interligação



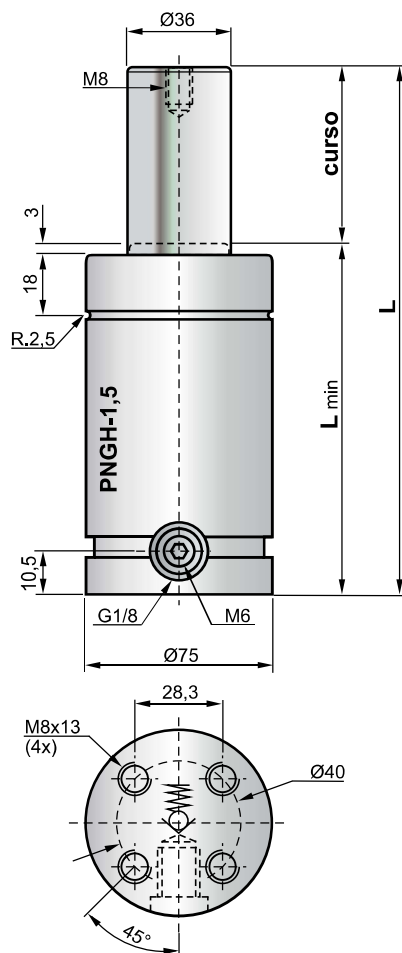


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=70 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNGH-0,8-010	10	736,3	970,6	90	80	20,3	0,933
PNGH-0,8-015	15	736,3	1.017	100	85	26,6	0,963
PNGH-0,8-020	20	736,3	1.049	110	90	32,8	1.042
PNGH-0,8-025	25	736,3	1.072	120	95	39,1	1.088
PNGH-0,8-032	32	736,3	1.094	134	102	47,9	1.138
PNGH-0,8-038	38	736,3	1.108	146	108	55,5	1.214
PNGH-0,8-050	50	736,3	1.128	170	120	70,5	1.326
PNGH-0,8-063	63	736,3	1.142	196	133	86,9	1.390
PNGH-0,8-075	75	736,3	1.152	220	145	102,0	1.462
PNGH-0,8-080	80	736,3	1.155	230	150	108,2	1.591
PNGH-0,8-100	100	736,3	1.164	270	170	133,4	1.787
PNGH-0,8-125	125	736,3	1.172	320	195	164,8	2.021
PNGH-0,8-160	160	736,3	1.180	390	230	208,8	2.341
PNGH-0,8-200	200	736,3	1.185	470	270	259,0	2.712

* Força Final Isotérmica a 20°C, curso totalmente atuado.

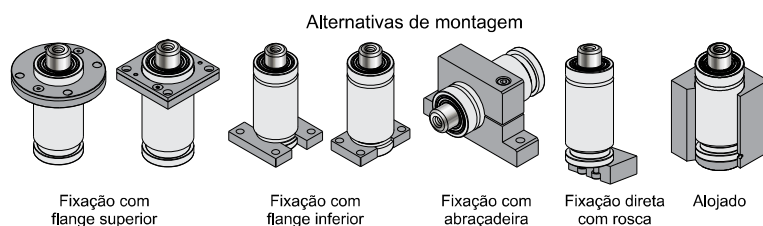


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

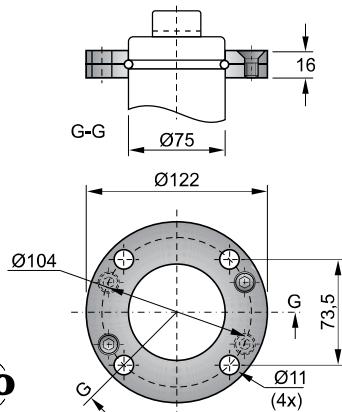


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=102 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNGH-1,5-015	15	1.526	1.913	132	117	75,5	3.140
PNGH-1,5-020	20	1.526	1.965	142	122	91,1	3.232
PNGH-1,5-025	25	1.526	2.006	152	127	106,5	3.323
PNGH-1,5-032	32	1.526	2.046	166	134	128,3	3.450
PNGH-1,5-038	38	1.526	2.071	178	140	147,0	3.559
PNGH-1,5-050	50	1.526	2.108	202	152	184,4	3.778
PNGH-1,5-063	63	1.526	2.135	228	165	224,9	4.014
PNGH-1,5-075	75	1.526	2.153	252	177	262,3	4.232
PNGH-1,5-080	80	1.526	2.159	262	182	277,9	4.323
PNGH-1,5-100	100	1.526	2.178	302	202	340,3	4.687
PNGH-1,5-125	125	1.526	2.194	352	227	418,2	5.143
PNGH-1,5-160	160	1.526	2.209	422	262	527,3	5.780
PNGH-1,5-200	200	1.526	2.219	502	302	652,0	6.507

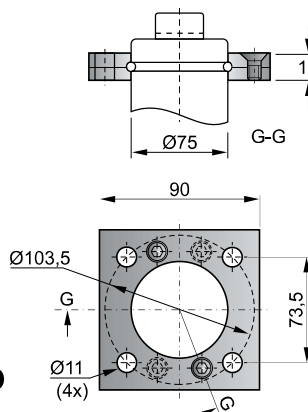
* Força Final Isotérmica a 20°C, curso totalmente atuado.



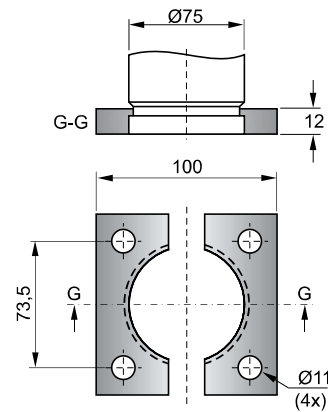
PNB-54-075



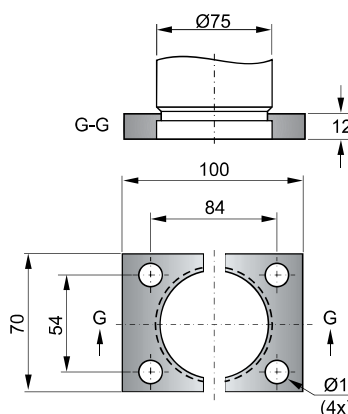
PNB-65-075



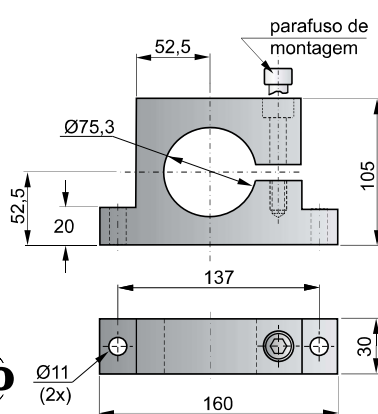
PNB-55-075



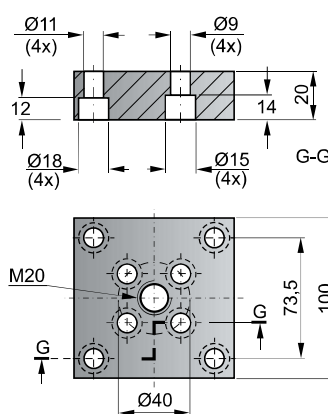
PNB-32-075



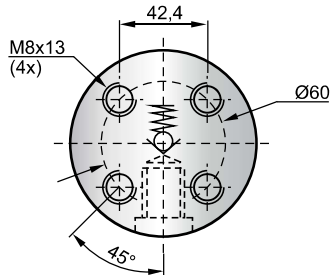
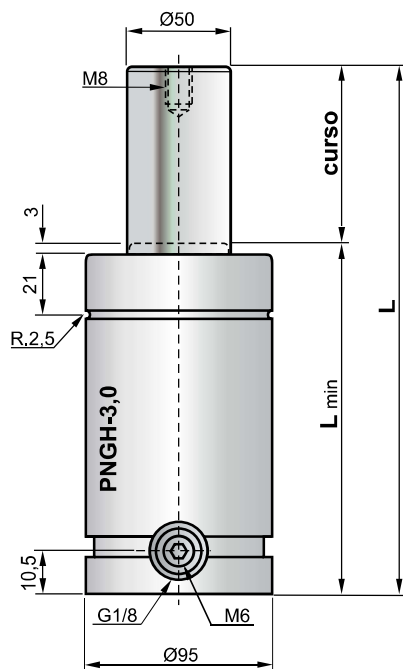
PNB-57-075



PNB-56-075

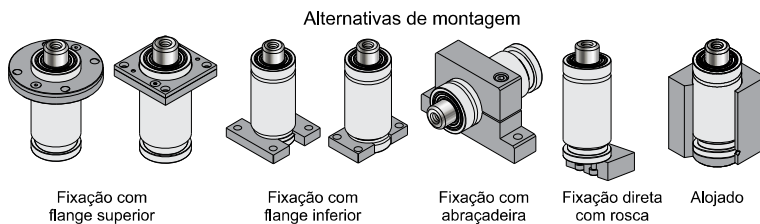


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

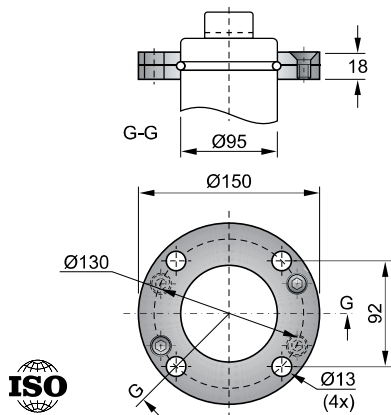


Código	Curso Cilindro (mm)	Força daN Pressão a 150bar Inicial Final*	L K=102 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNGH-3,0-015	15	2.945 4.111	132	117	103,8	5.338
PNGH-3,0-020	20	2.945 4.234	142	122	128,9	5.498
PNGH-3,0-025	25	2.945 4.321	152	127	154,1	5.657
PNGH-3,0-032	32	2.945 4.408	166	134	189,3	5.880
PNGH-3,0-038	38	2.945 4.462	178	140	219,4	6.071
PNGH-3,0-050	50	2.945 4.537	202	152	279,7	6.453
PNGH-3,0-063	63	2.945 4.590	228	165	345,1	6.866
PNGH-3,0-075	75	2.945 4.625	252	177	405,4	7.248
PNGH-3,0-080	80	2.945 4.636	262	182	430,5	7.407
PNGH-3,0-100	100	2.945 4.672	302	202	531,1	8.045
PNGH-3,0-125	125	2.945 4.702	352	227	656,7	8.840
PNGH-3,0-160	160	2.945 4.729	422	262	832,7	9.954
PNGH-3,0-200	200	2.945 4.749	502	302	1.033,7	11.227

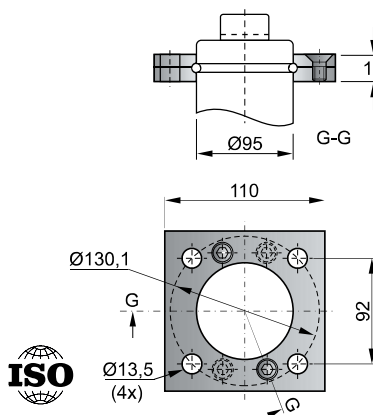
* Força Final Isotérmica a 20°C, curso totalmente atuado.



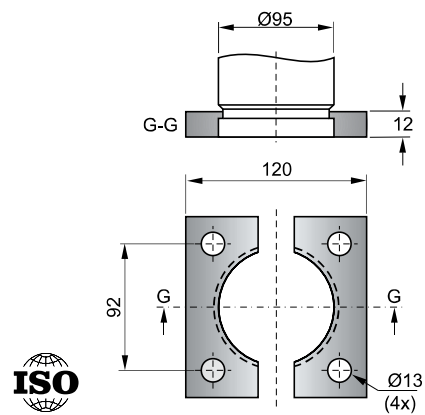
PNB-54-095



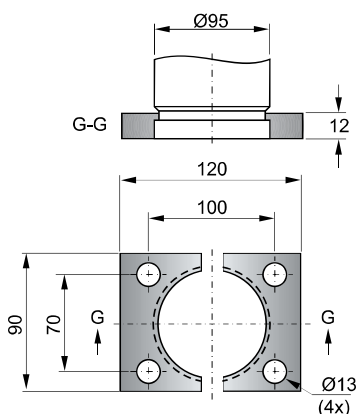
PNB-65-095



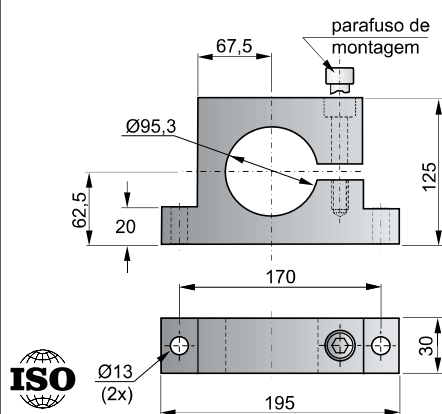
PNB-55-095



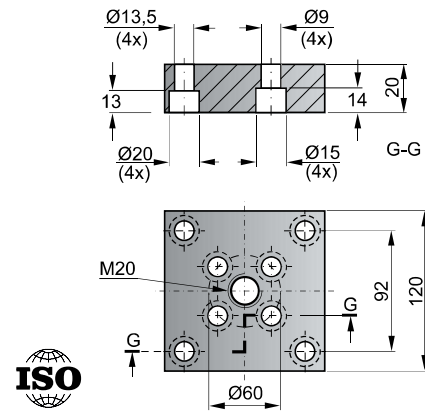
PNB-32-095



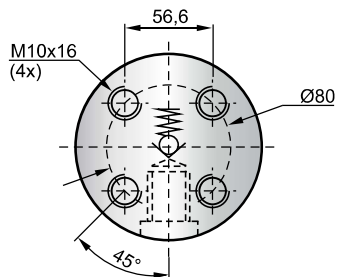
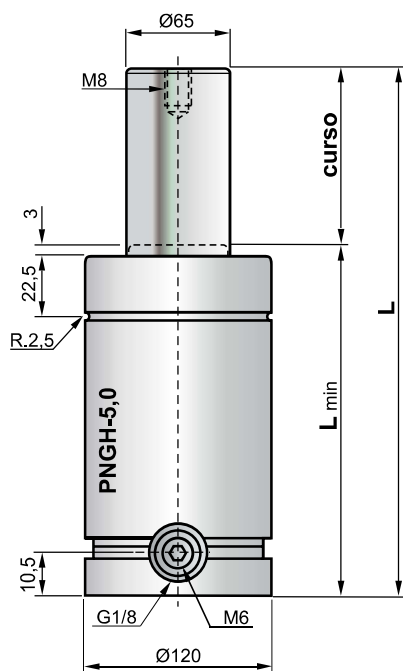
PNB-57-095



PNB-56-095

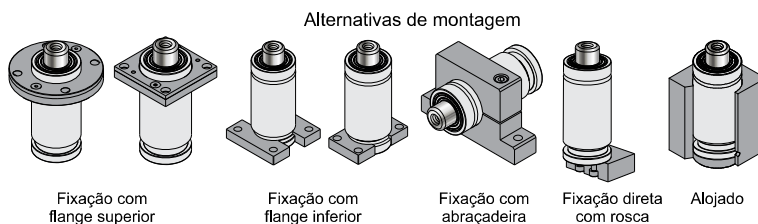


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

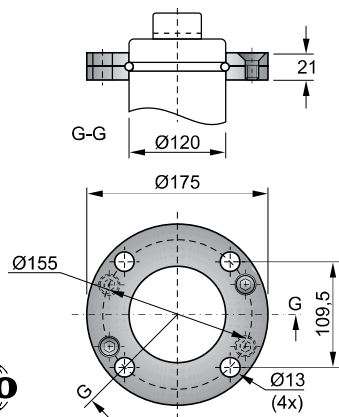


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=102 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNGH-5,0-015	15	4.912	6.831	132	117	183,3	8.549
PNGH-5,0-020	20	4.912	7.090	142	122	222,6	8.815
PNGH-5,0-025	25	4.912	7.284	152	127	261,9	9.082
PNGH-5,0-032	32	4.912	7.485	166	134	316,9	9.454
PNGH-5,0-038	38	4.912	7.615	178	140	364,0	9.772
PNGH-5,0-050	50	4.912	7.802	202	152	458,2	10.411
PNGH-5,0-063	63	4.912	7.939	228	165	560,3	11.102
PNGH-5,0-075	75	4.912	8.030	252	177	654,6	11.740
PNGH-5,0-080	80	4.912	8.061	262	182	693,9	12.006
PNGH-5,0-100	100	4.912	8.158	302	202	850,9	13.069
PNGH-5,0-125	125	4.912	8.241	352	227	1.047,3	14.398
PNGH-5,0-160	160	4.912	8.317	422	262	1.322,2	16.260
PNGH-5,0-200	200	4.912	8.373	502	302	1.636,3	18.387
PNGH-5,0-250	250	4.912	8.419	602	352	2.029,0	21.045

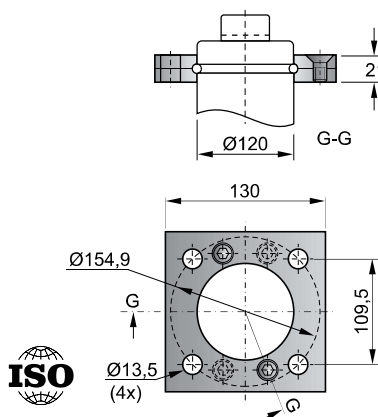
* Força Final Isotérmica a 20°C, curso totalmente atuado.



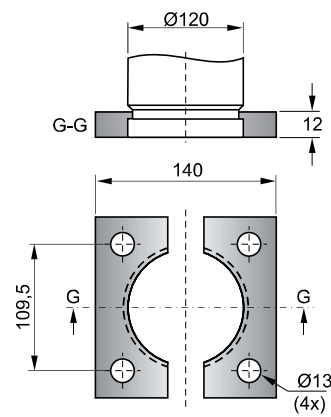
PNB-54-120



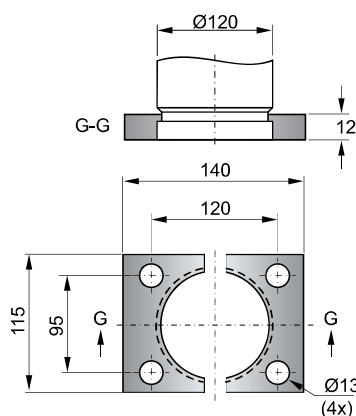
PNB-65-120



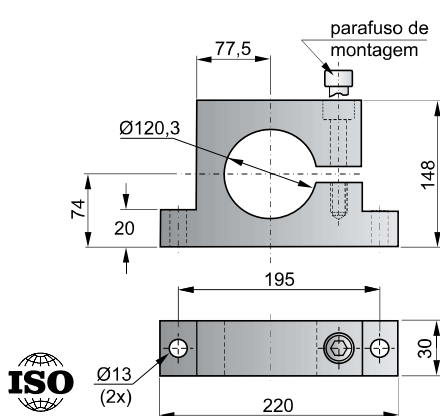
PNB-55-120



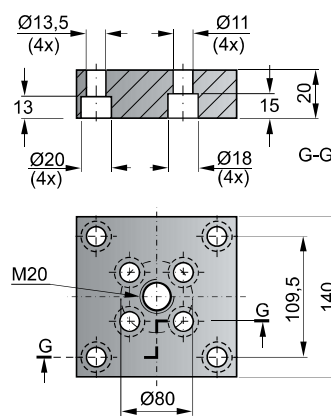
PNB-32-120



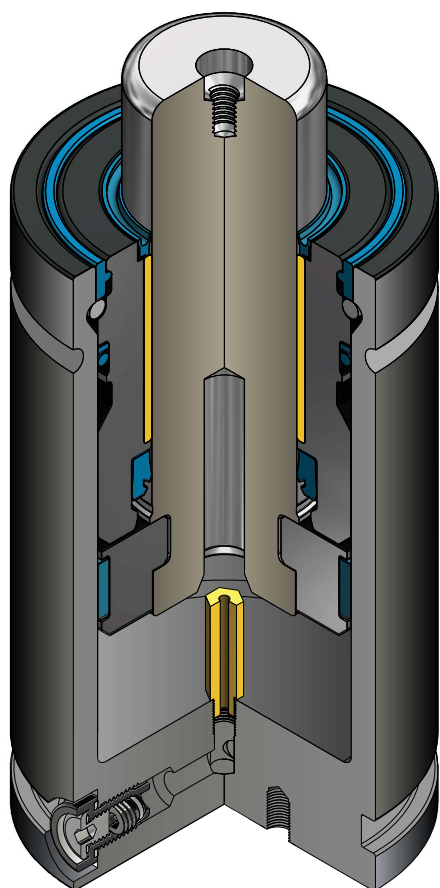
PNB-57-120



PNB-56-120



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Modelo Tonelagen Curso
CILINDROS : PNFH - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNFH - X,X / XX

Cilindro autônomo, de acordo com normas ISO, GMNAO, NAAMS (USA) .

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

Modelo: PNFH-1,5-025

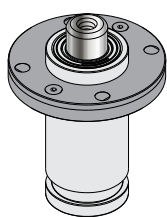
Tonelagens disponíveis:

0,2 - 0,3 - 0,5 - 0,8 - 1,5 - 3,0 - 5,0 - 7,5 - 10,0

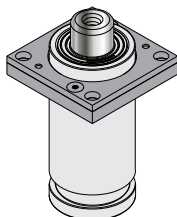
Cursos padrões dos cilindros em mm:

7 , 10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 , 125 , 160 , 200 , 250 e 300mm

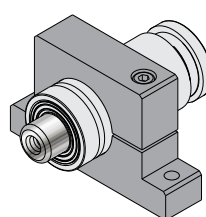
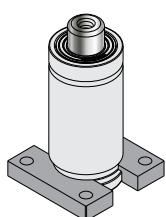
Alternativas de montagem



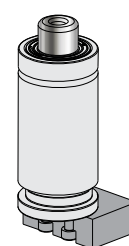
Fixação com flange superior



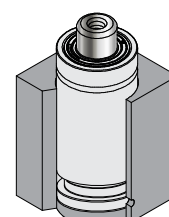
Fixação com flange inferior



Fixação com abraçadeira

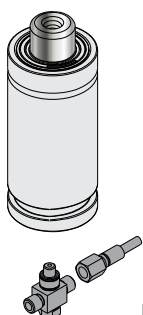


Fixação direta com rosca

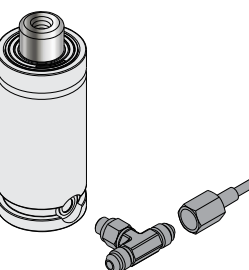
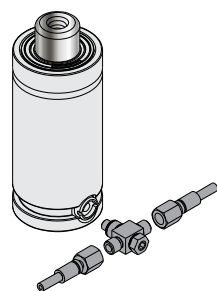


Alojado

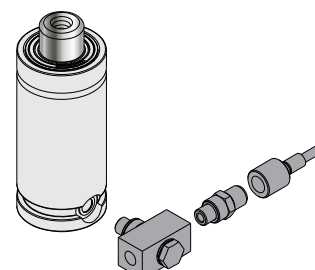
Alternativas de interligação



Micro conexões
M6x1 x M8x1

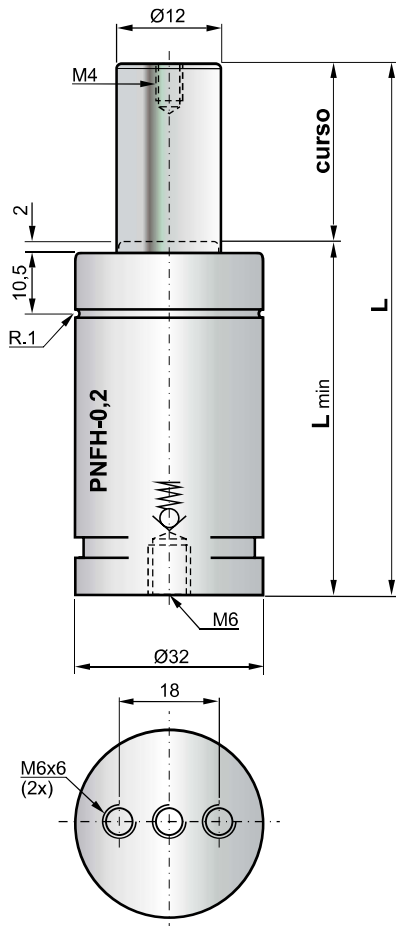


Conexões
G1/8 x 1/2-20F.P.P



Conexões e Adaptadores
G1/8 x S12,65

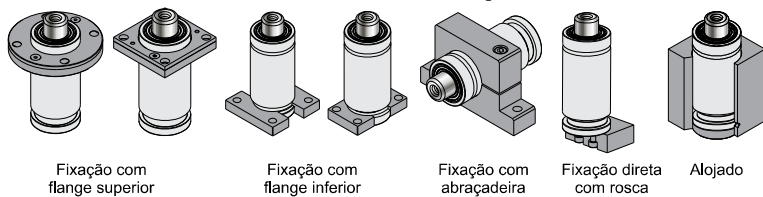
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



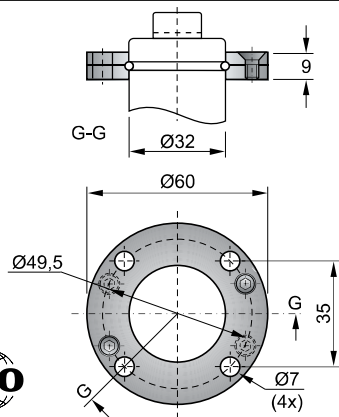
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=50 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-0,2-007	7	169,6	198,3	64	57	5,4	0,286	
PNFH-0,2-010	10	169,6	203,3	70	60	6,8	0,296	✓
PNFH-0,2-015	15	169,6	208,5	80	65	9,0	0,313	
PNFH-0,2-020	20	169,6	211,8	90	70	11,3	0,329	
PNFH-0,2-025	25	169,6	214,0	100	75	13,6	0,346	✓
PNFH-0,2-032	32	169,6	216,8	114	82	16,7	0,370	
PNFH-0,2-038	38	169,6	217,6	126	88	19,4	0,389	
PNFH-0,2-050	50	169,6	219,4	150	100	24,9	0,430	✓
PNFH-0,2-063	63	169,6	220,6	176	113	30,8	0,472	
PNFH-0,2-075	75	169,6	221,4	200	125	36,2	0,513	
PNFH-0,2-080	80	169,6	221,7	210	130	38,4	0,529	✓
PNFH-0,2-100	100	169,6	222,5	250	150	47,5	0,596	✓
PNFH-0,2-125	125	169,6	223,2	300	175	58,8	0,679	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

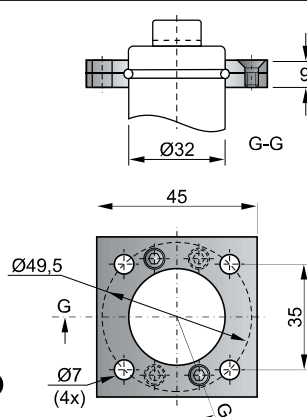
Alternativas de montagem



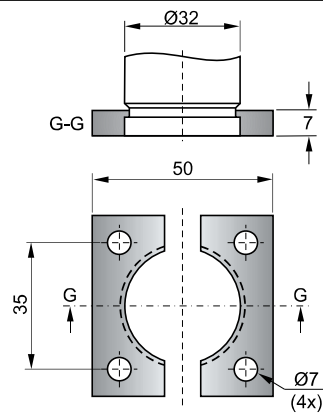
PNB-54-032



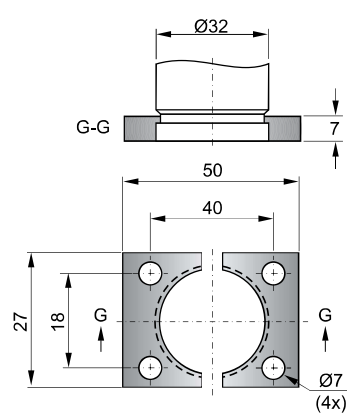
PNB-65-032



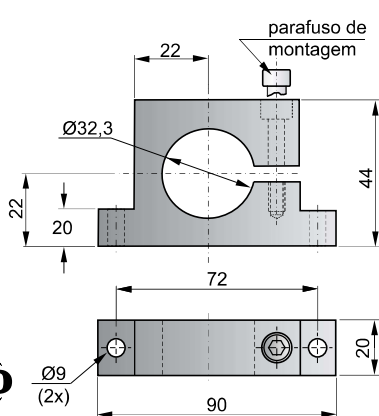
PNB-55-032



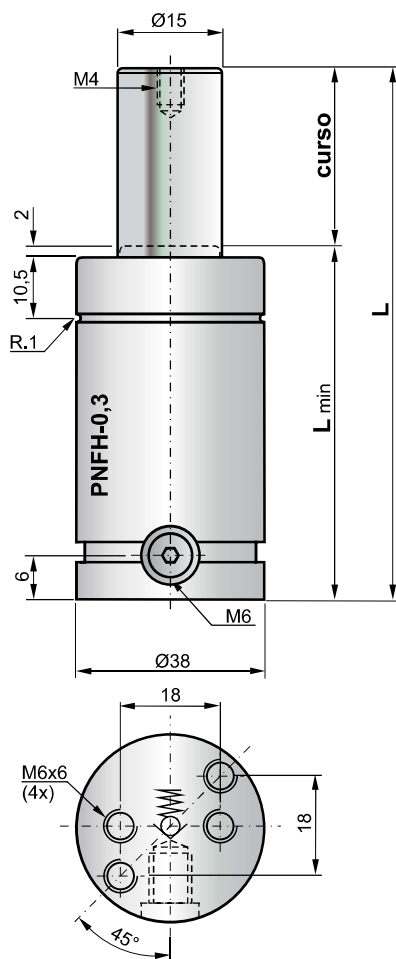
PNB-32-032



PNB-57-032



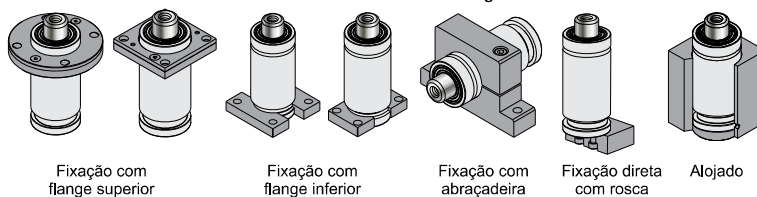
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



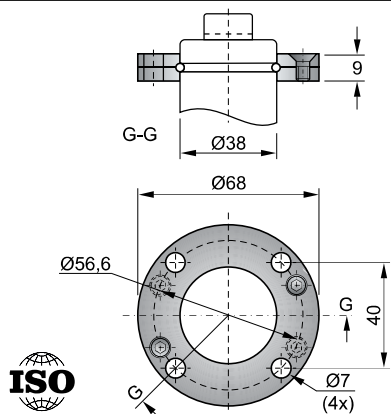
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=50 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-0,3-010	10	265,0	318,6	70	60	10,5	0,394	✓
PNFH-0,3-015	15	265,0	326,7	80	65	14,0	0,428	
PNFH-0,3-020	20	265,0	331,7	90	70	17,5	0,445	
PNFH-0,3-025	25	265,0	335,1	100	75	21,1	0,479	✓
PNFH-0,3-032	32	265,0	338,5	114	82	26,0	0,508	
PNFH-0,3-038	38	265,0	340,5	126	88	30,3	0,541	
PNFH-0,3-050	50	265,0	343,2	150	100	38,7	0,596	✓
PNFH-0,3-063	63	265,0	345,1	176	113	47,9	0,651	
PNFH-0,3-075	75	265,0	346,3	200	125	56,4	0,703	
PNFH-0,3-080	80	265,0	346,7	210	130	59,9	0,737	✓
PNFH-0,3-100	100	265,0	348,0	250	150	74,1	0,873	✓
PNFH-0,3-125	125	265,0	349,0	300	175	91,8	0,900	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

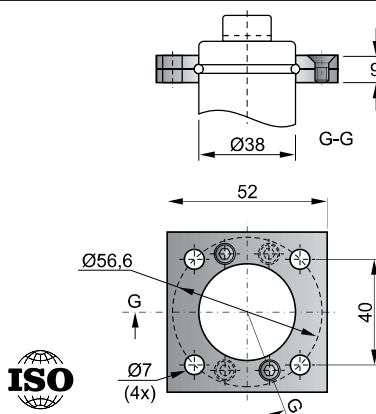
Alternativas de montagem



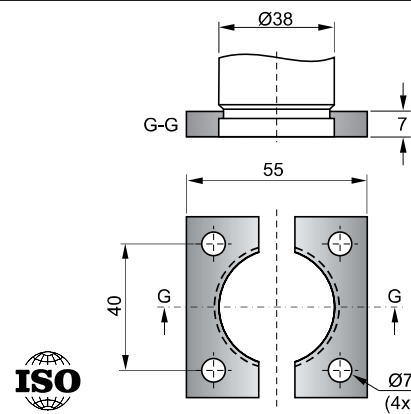
PNB-54-038



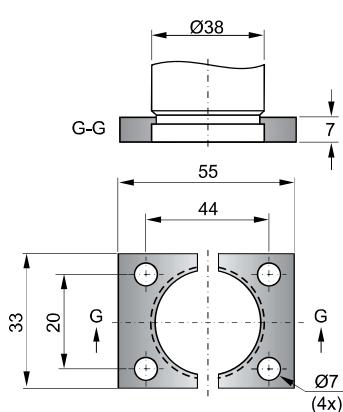
PNB-65-038



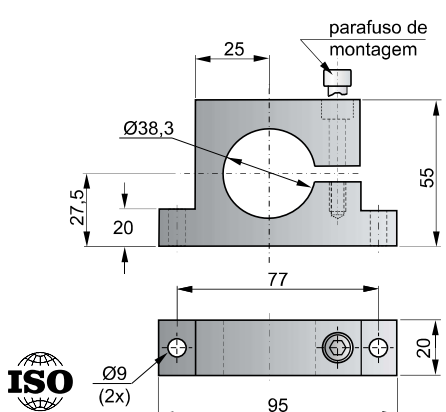
PNB-55-038



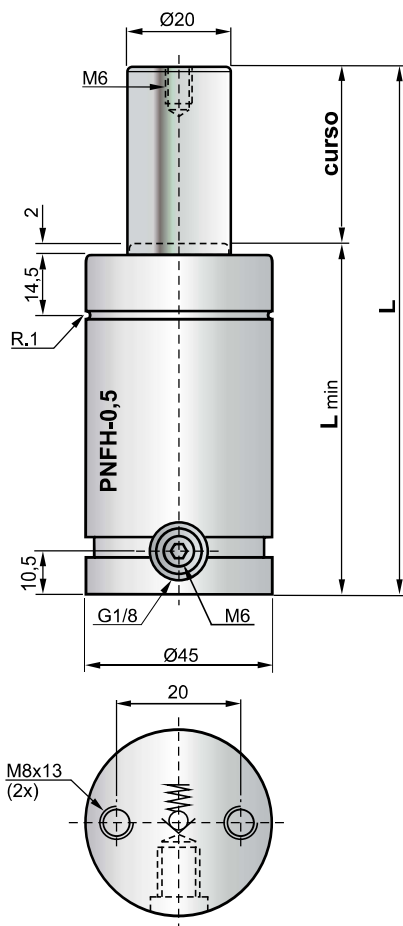
PNB-32-038



PNB-57-038



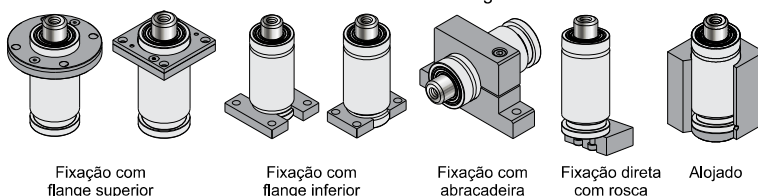
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



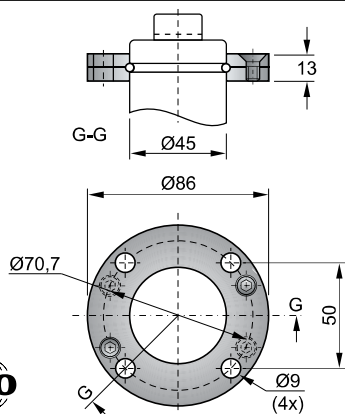
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=85 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-0,5-010	10	471,2	597,6	105	95	14,8	0,955	
PNFH-0,5-015	15	471,2	619,7	115	100	19,6	0,998	
PNFH-0,5-020	20	471,2	634,0	125	105	24,4	1.035	
PNFH-0,5-025	25	471,2	643,9	135	110	29,2	1.072	✓
PNFH-0,5-032	32	471,2	653,6	149	117	36,0	1.119	
PNFH-0,5-038	38	471,2	659,6	161	123	41,7	1.172	
PNFH-0,5-050	50	471,2	667,9	185	135	53,3	1.259	✓
PNFH-0,5-063	63	471,2	673,7	211	148	65,8	1.346	
PNFH-0,5-075	75	471,2	677,5	235	160	77,3	1.436	
PNFH-0,5-080	80	471,2	678,7	245	165	82,2	1.484	✓
PNFH-0,5-100	100	471,2	682,6	285	185	101,4	1.658	✓
PNFH-0,5-125	125	471,2	685,8	335	210	125,4	1.814	✓
PNFH-0,5-160	160	471,2	688,7	405	245	159,1	2.062	✓
PNFH-0,5-200	200	471,2	690,8	485	285	197,6	2.366	

* Força Final Isotérmica a 20°C, curso totalmente atuado.

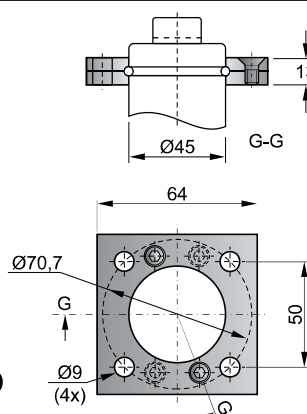
Alternativas de montagem



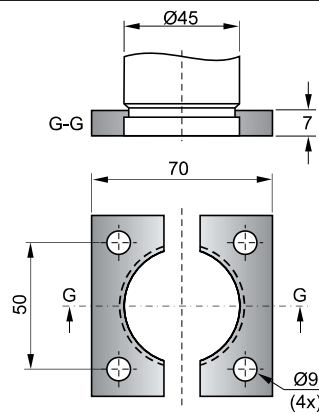
PNB-54-045



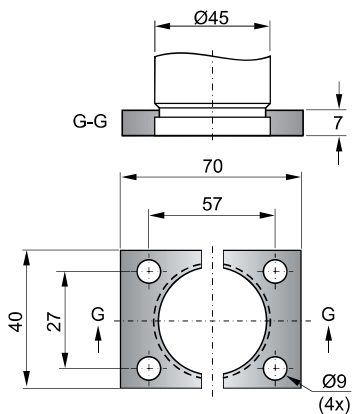
PNB-65-045



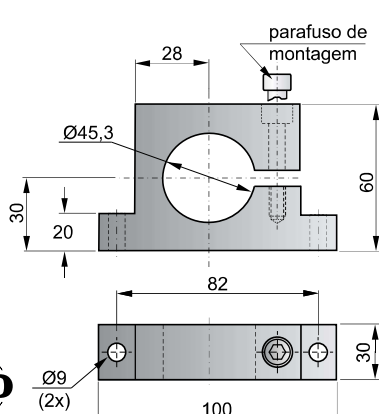
PNB-55-045



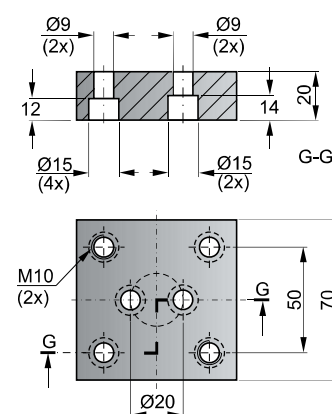
PNB-32-045



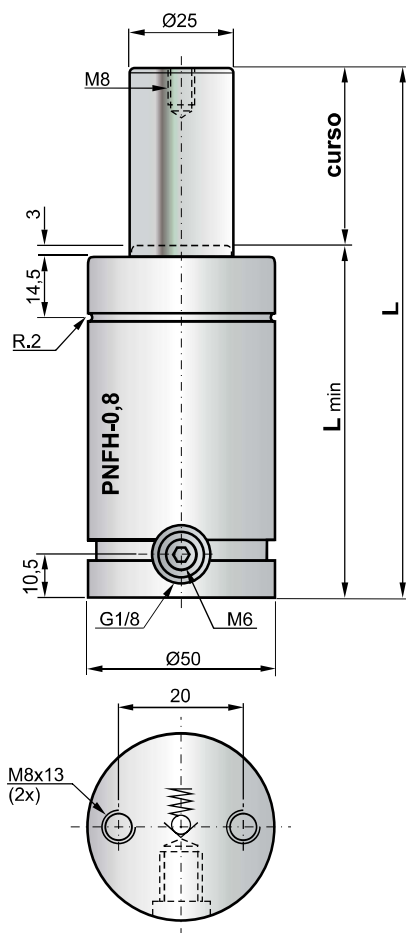
PNB-57-045



PNB-56-045



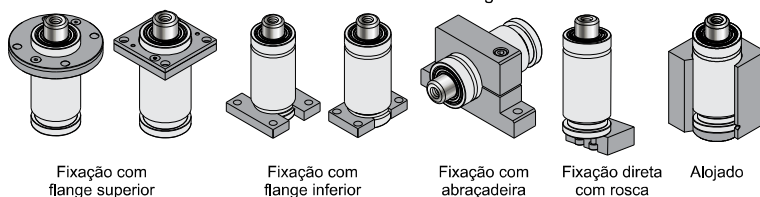
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



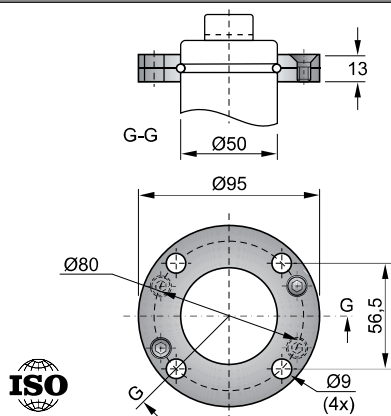
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=95 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-0,8-010	10	736,3	949,1	115	105	21,8	1.276	
PNFH-0,8-015	15	736,3	996,8	125	110	28,1	1.331	
PNFH-0,8-020	20	736,3	1.029	135	115	34,4	1.376	
PNFH-0,8-025	25	736,3	1.053	145	120	40,7	1.427	✓
PNFH-0,8-032	32	736,3	1.078	159	127	49,5	1.487	
PNFH-0,8-038	38	736,3	1.093	171	133	57,0	1.545	
PNFH-0,8-050	50	736,3	1.115	195	145	72,1	1.661	✓
PNFH-0,8-063	63	736,3	1.131	221	158	88,4	1.777	
PNFH-0,8-075	75	736,3	1.142	245	170	103,5	1.893	
PNFH-0,8-080	80	736,3	1.145	255	175	109,8	1.935	✓
PNFH-0,8-100	100	736,3	1.157	295	195	134,9	2.123	✓
PNFH-0,8-125	125	736,3	1.166	345	220	166,4	2.353	✓
PNFH-0,8-160	160	736,3	1.174	415	255	210,3	2.696	✓
PNFH-0,8-200	200	736,3	1.181	495	295	260,6	3.061	✓
PNFH-0,8-250	250	736,3	1.186	595	345	323,4	3.544	✓
PNFH-0,8-300	300	736,3	1.189	695	395	386,3	4.008	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

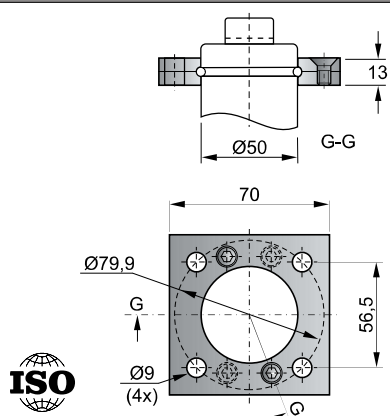
Alternativas de montagem



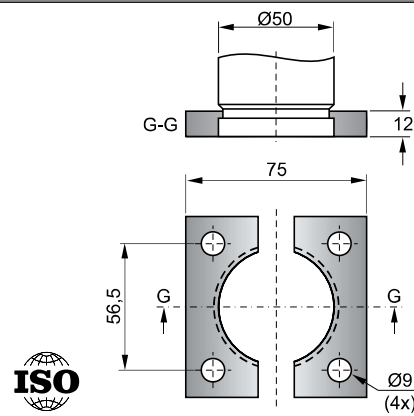
PNB-54-050



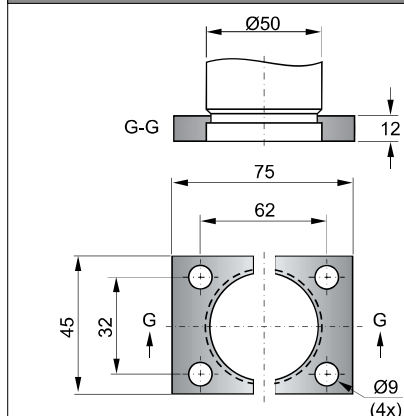
PNB-65-050



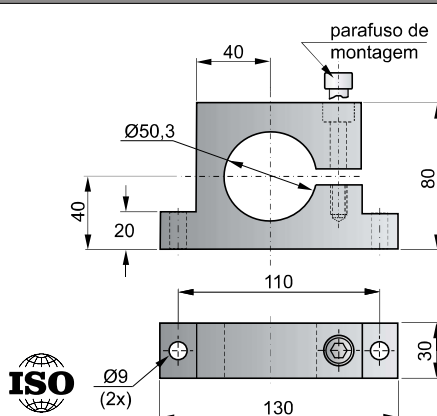
PNB-55-050



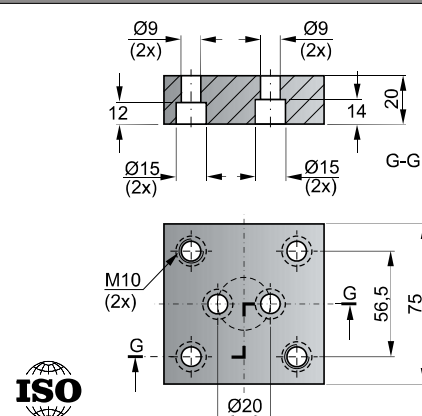
PNB-32-050



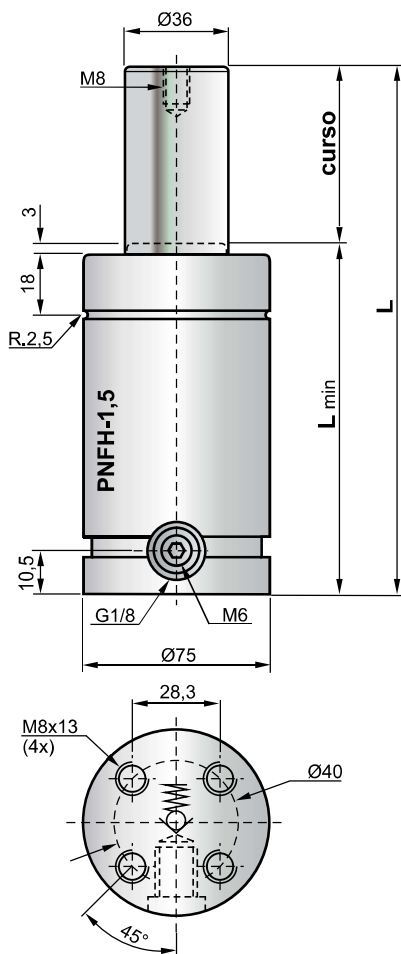
PNB-57-050



PNB-56-050



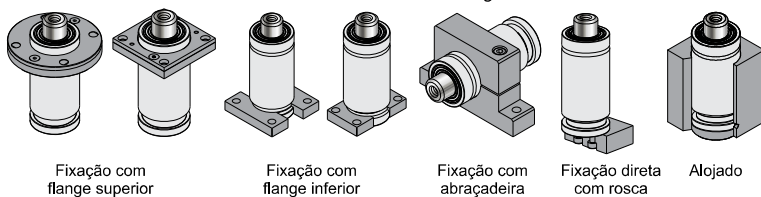
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



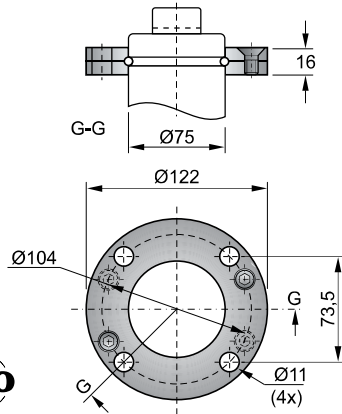
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=110 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-1,5-015	15	1.526	1.984	140	125	66,2	3.474	
PNFH-1,5-020	20	1.526	2.032	150	130	81,7	3.561	
PNFH-1,5-025	25	1.526	2.066	160	135	97,3	3.655	✓
PNFH-1,5-032	32	1.526	2.100	174	142	119,2	3.772	
PNFH-1,5-038	38	1.526	2.121	186	148	137,9	3.880	
PNFH-1,5-050	50	1.526	2.151	210	160	175,3	4.110	✓
PNFH-1,5-063	63	1.526	2.172	236	173	215,8	4.328	
PNFH-1,5-075	75	1.526	2.185	260	185	253,2	4.556	
PNFH-1,5-080	80	1.526	2.190	270	190	268,8	4.658	✓
PNFH-1,5-100	100	1.526	2.204	310	210	331,1	5.016	✓
PNFH-1,5-125	125	1.526	2.216	360	235	409,1	5.472	✓
PNFH-1,5-160	160	1.526	2.265	430	270	518,2	6.078	✓
PNFH-1,5-200	200	1.526	2.234	510	310	642,8	6.841	✓
PNFH-1,5-250	250	1.526	2.204	610	360	798,7	7.696	✓
PNFH-1,5-300	300	1.526	2.244	710	410	954,6	8.625	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

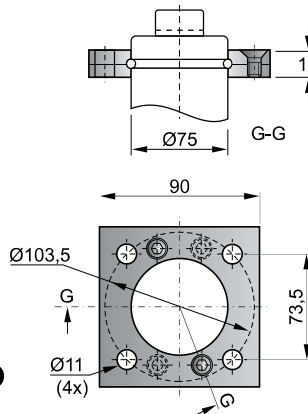
Alternativas de montagem



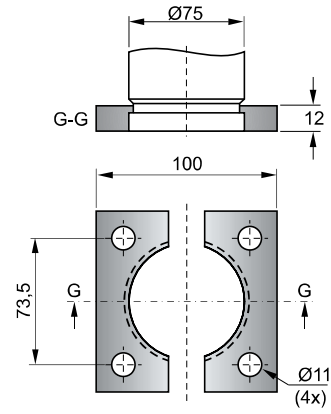
PNB-54-075



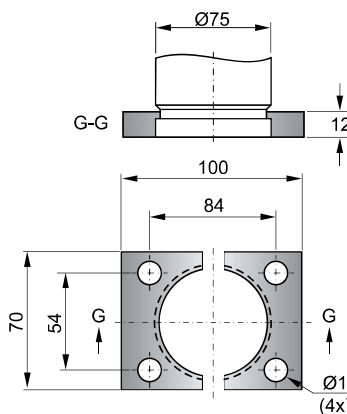
PNB-65-075



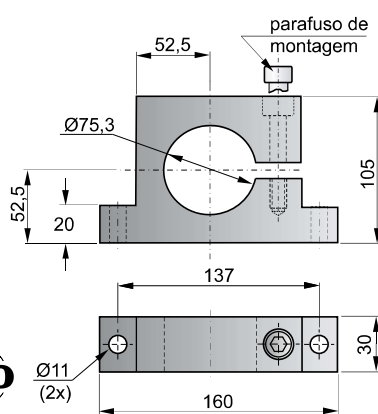
PNB-55-075



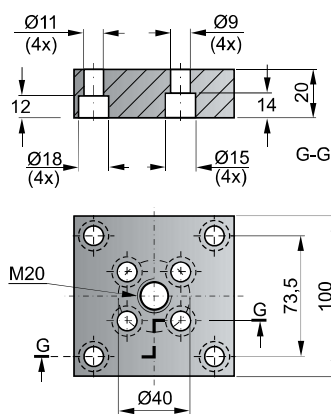
PNB-32-075



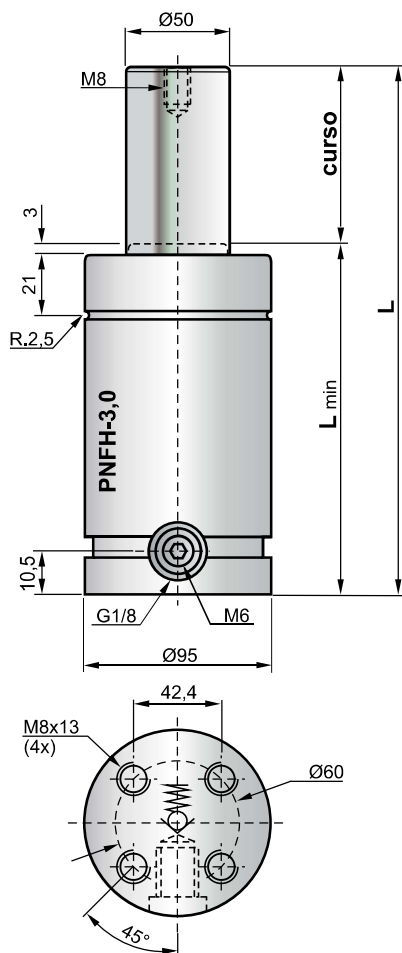
PNB-57-075



PNB-56-075



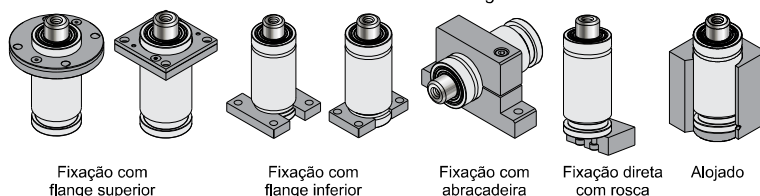
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



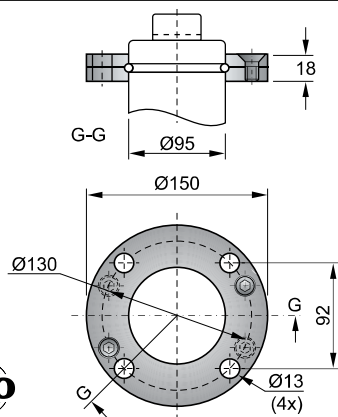
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=120 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-3,0-015	15	2.945	4.105	150	135	104,2	6.197	
PNFH-3,0-020	20	2.945	4.229	160	140	129,3	6.340	
PNFH-3,0-025	25	2.945	4.317	170	145	154,4	6.504	✓
PNFH-3,0-032	32	2.945	4.404	184	152	189,6	6.712	
PNFH-3,0-038	38	2.945	4.458	196	158	219,8	6.913	
PNFH-3,0-050	50	2.945	4.534	220	170	280,1	7.265	✓
PNFH-3,0-063	63	2.945	4.587	246	183	345,4	7.702	
PNFH-3,0-075	75	2.945	4.622	270	195	405,8	8.070	
PNFH-3,0-080	80	2.945	4.634	280	200	430,9	8.213	✓
PNFH-3,0-100	100	2.945	4.670	320	220	531,4	8.857	✓
PNFH-3,0-125	125	2.945	4.701	370	245	657,1	9.619	✓
PNFH-3,0-160	160	2.945	4.728	440	280	833,0	10.754	✓
PNFH-3,0-200	200	2.945	4.748	520	320	1.034,1	12.041	✓
PNFH-3,0-250	250	2.945	4.764	620	370	1.285,4	13.633	✓
PNFH-3,0-300	300	2.945	4.775	720	420	1.536,7	15.225	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

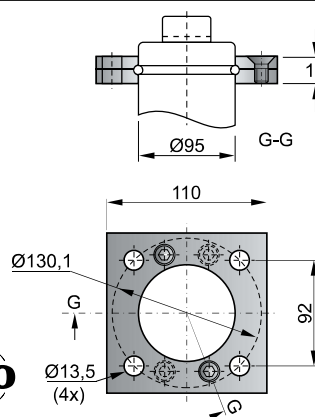
Alternativas de montagem



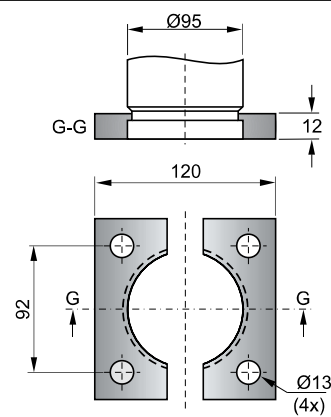
PNB-54-095



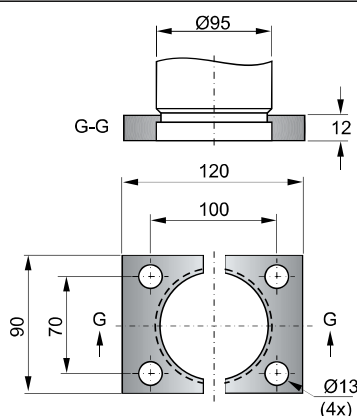
PNB-65-095



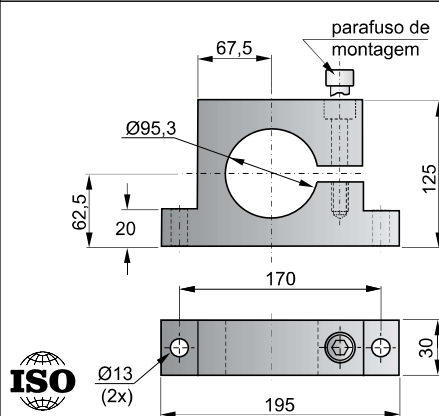
PNB-55-095



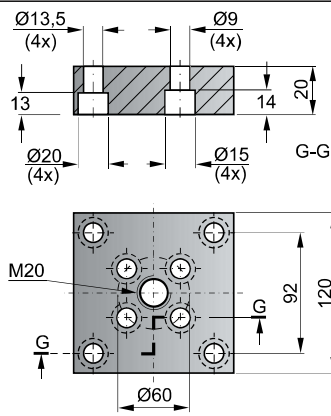
PNB-32-095



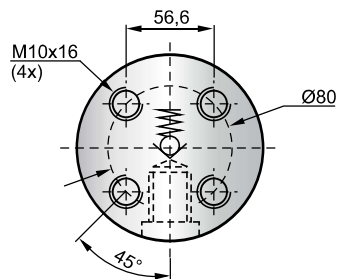
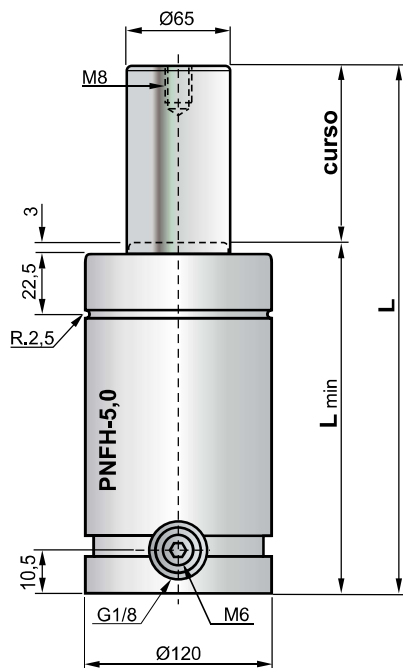
PNB-57-095



PNB-56-095



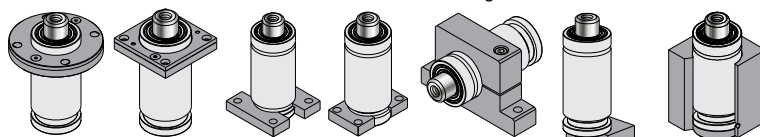
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=140 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-5,0-015	15	4.977	6.845	170	155	182,3	11.858	
PNFH-5,0-020	20	4.977	7.104	180	160	221,6	12.124	
PNFH-5,0-025	25	4.977	7.297	190	165	260,9	12.390	✓
PNFH-5,0-032	32	4.977	7.497	204	172	315,9	12.762	
PNFH-5,0-038	38	4.977	7.624	216	178	363,0	13.081	
PNFH-5,0-050	50	4.977	7.811	240	190	457,2	13.720	✓
PNFH-5,0-063	63	4.977	7.947	266	203	559,3	14.410	
PNFH-5,0-075	75	4.977	8.037	290	215	653,6	15.049	
PNFH-5,0-080	80	4.977	8.068	300	220	692,8	15.315	✓
PNFH-5,0-100	100	4.977	8.165	340	240	849,9	16.378	✓
PNFH-5,0-125	125	4.977	8.246	390	265	1.046,3	17.707	✓
PNFH-5,0-160	160	4.977	8.321	460	300	1.321,2	19.569	✓
PNFH-5,0-200	200	4.977	8.376	540	340	1.635,3	21.696	✓
PNFH-5,0-250	250	4.977	8.422	640	390	2.028,0	24.354	✓
PNFH-5,0-300	300	4.977	8.453	740	440	2.420,7	27.014	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com flange superior

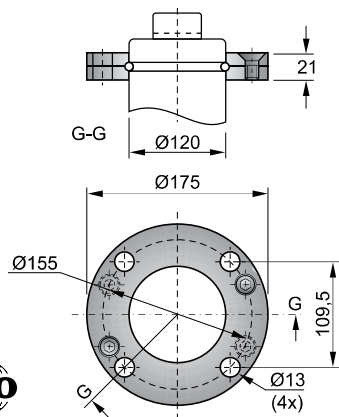
Fixação com flange inferior

Fixação com abraçadeira

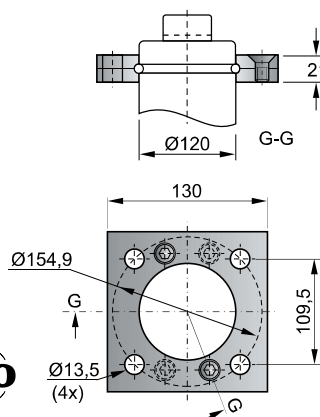
Fixação direta com rosca

Alojado

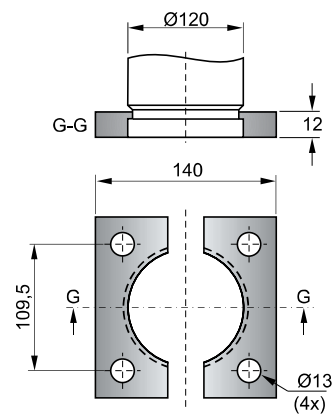
PNB-54-120



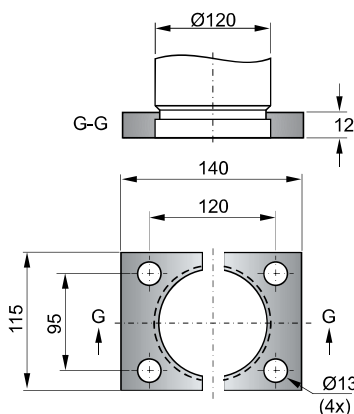
PNB-65-120



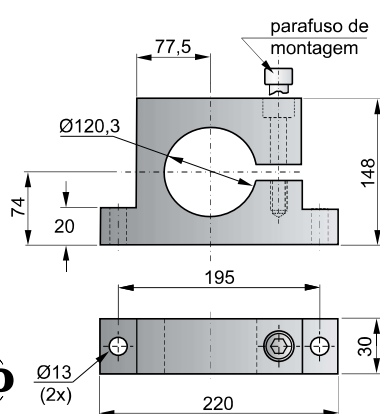
PNB-55-120



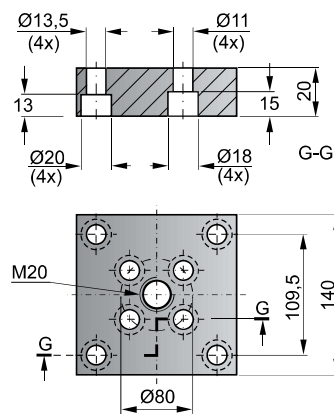
PNB-32-120



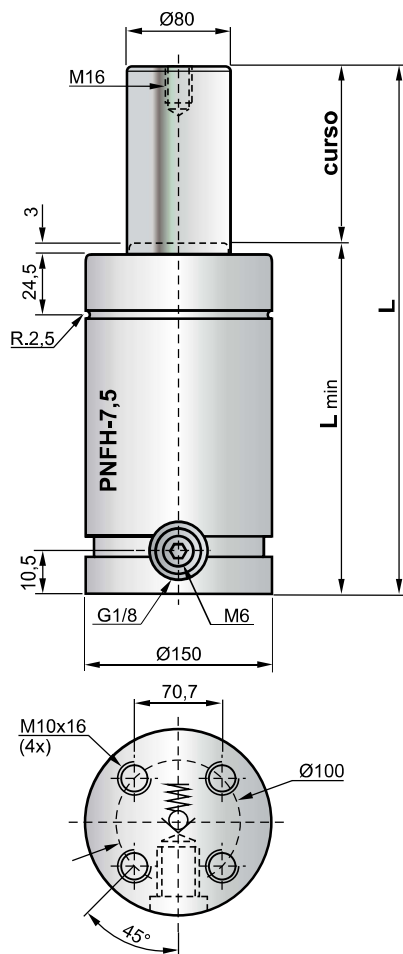
PNB-57-120



PNB-56-120

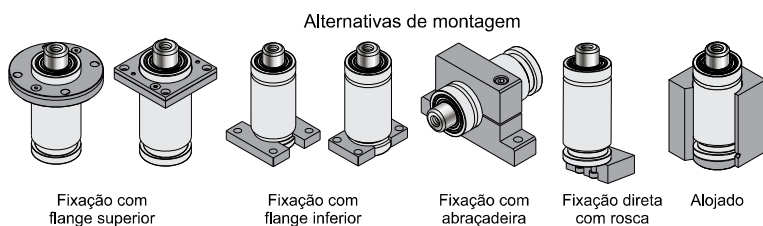


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

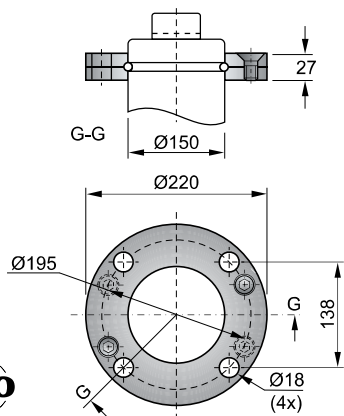


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=155 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
PNFH-7,5-015	15	7.539	10.799	185	170	249,7	20.897	
PNFH-7,5-020	20	7.539	11.138	195	175	311,1	21.305	
PNFH-7,5-025	25	7.539	11.378	205	180	372,5	21.714	✓
PNFH-7,5-032	32	7.539	11.615	219	187	458,4	22.288	
PNFH-7,5-038	38	7.539	11.762	231	193	532,0	22.778	
PNFH-7,5-050	50	7.539	11.967	255	205	679,3	23.761	✓
PNFH-7,5-063	63	7.539	12.112	281	218	838,8	24.825	
PNFH-7,5-075	75	7.539	12.206	305	230	986,1	25.807	
PNFH-7,5-080	80	7.539	12.238	315	235	1.047,4	26.217	✓
PNFH-7,5-100	100	7.539	12.335	355	255	1.292,9	27.853	✓
PNFH-7,5-125	125	7.539	12.416	405	280	1.599,6	29.899	✓
PNFH-7,5-160	160	7.539	12.490	475	315	2.029,2	32.764	✓
PNFH-7,5-200	200	7.539	12.543	555	355	2.520,0	36.038	✓
PNFH-7,5-250	250	7.539	12.587	655	405	3.133,6	41.130	✓
PNFH-7,5-300	300	7.539	12.617	755	455	3.747,2	44.222	✓

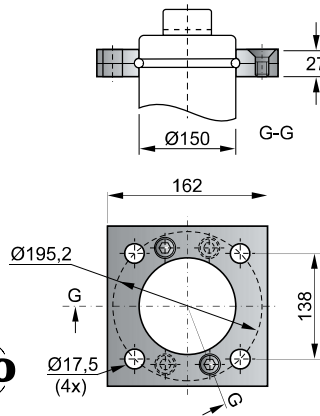
* Força Final Isotérmica a 20°C, curso totalmente atuado.



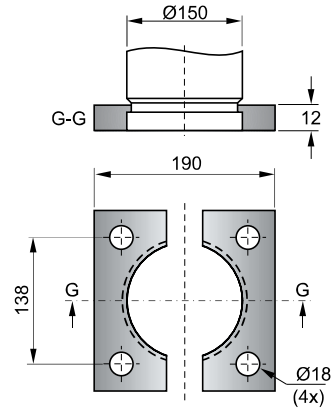
PNB-54-150



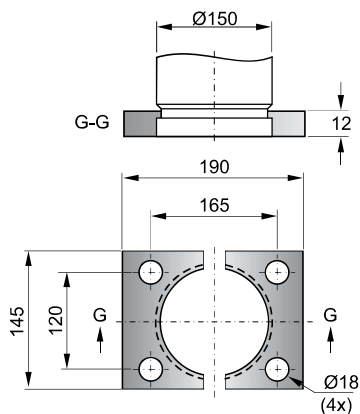
PNB-65-150



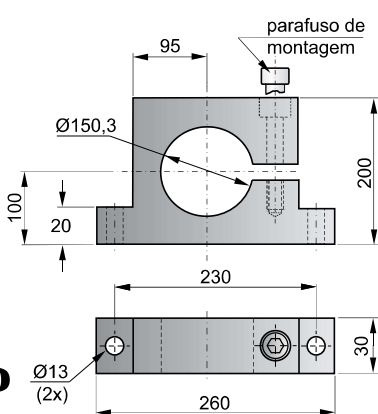
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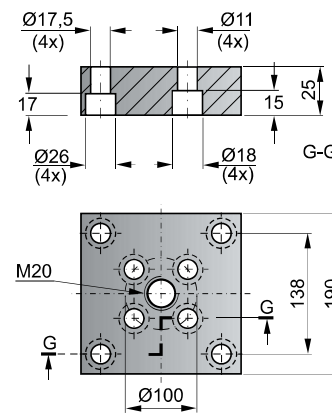
PNB-32-150



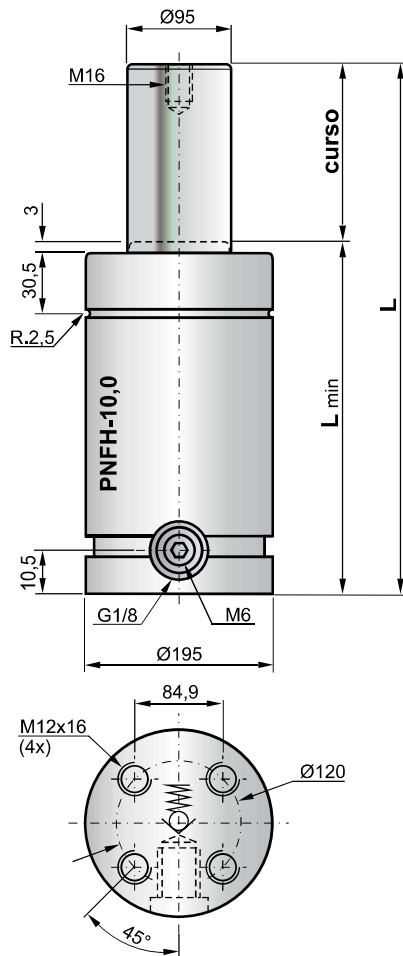
PNB-57-150



PNB-56-150



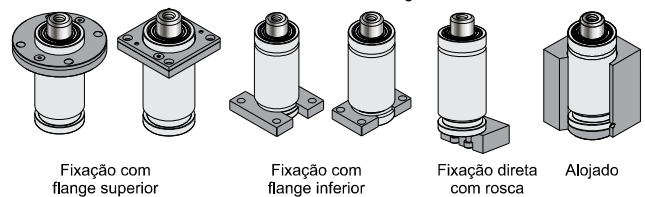
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



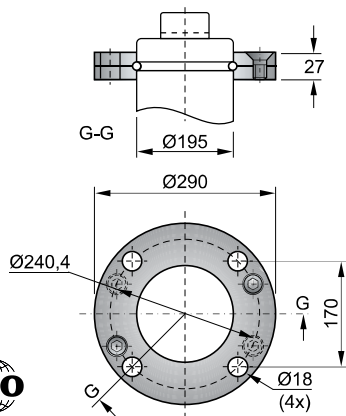
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=160 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg	ISO
		Inicial	Final*					
PNFH-10,0-020	20	10.632	14.445	200	180	537,0	31.267	
PNFH-10,0-025	25	10.632	14.724	210	185	637,5	31.928	✓
PNFH-10,0-032	32	10.632	15.005	224	192	778,3	32.853	
PNFH-10,0-038	38	10.632	15.181	236	198	898,9	33.647	
PNFH-10,0-050	50	10.632	15.427	260	210	1.140,2	35.234	✓
PNFH-10,0-063	63	10.632	15.603	286	223	1.401,6	36.953	
PNFH-10,0-075	75	10.632	15.718	310	235	1.642,8	38.540	
PNFH-10,0-080	80	10.632	15.757	320	240	1.743,4	39.201	✓
PNFH-10,0-100	100	10.632	15.877	360	260	2.145,5	41.846	✓
PNFH-10,0-125	125	10.632	15.978	410	285	2.648,1	45.152	✓
PNFH-10,0-160	160	10.632	16.069	480	320	3.351,9	49.781	✓
PNFH-10,0-200	200	10.632	16.136	560	360	4.156,1	55.071	✓
PNFH-10,0-250	250	10.632	16.191	660	410	5.161,4	61.683	✓
PNFH-10,0-300	300	10.632	16.228	760	460	6.166,7	68.296	✓

* Força Final Isotérmica a 20°C, curso totalmente atuado.

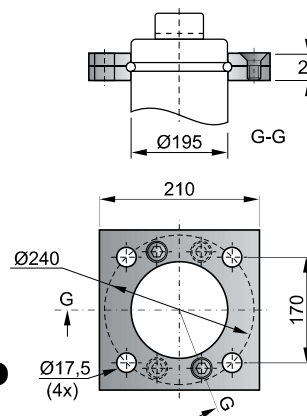
Alternativas de montagem



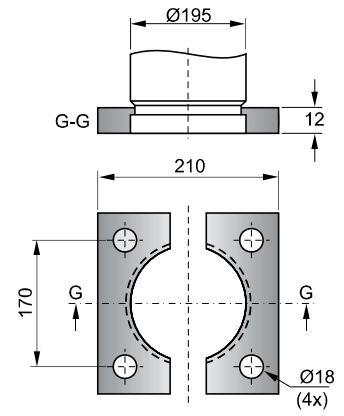
PNB-54-195



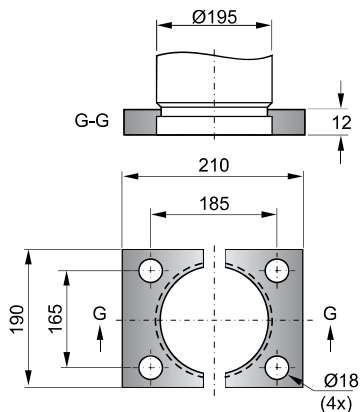
PNB-65-195



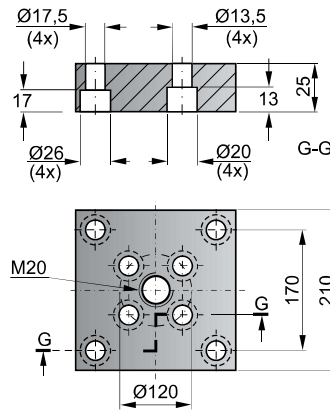
PNB-55-195



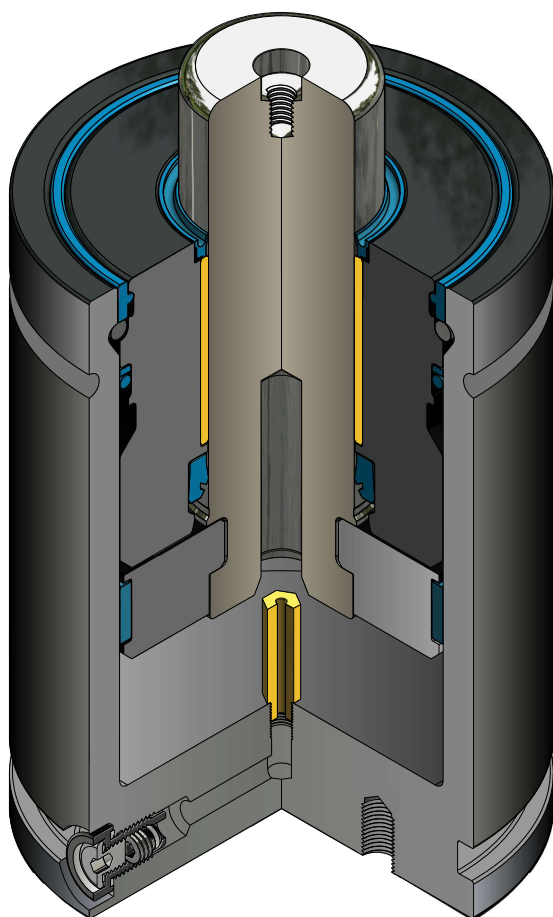
PNB-32-195



PNB-56-195



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

**Modelo: PNLH-1,5-025****Tonelagens disponíveis:**

0,5 - 0,8 - 1,5 - 3,0 - 5,0

Cursos padrões dos cilindros em mm:

10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 , 125 , 160 , 200 , 250 e 300mm

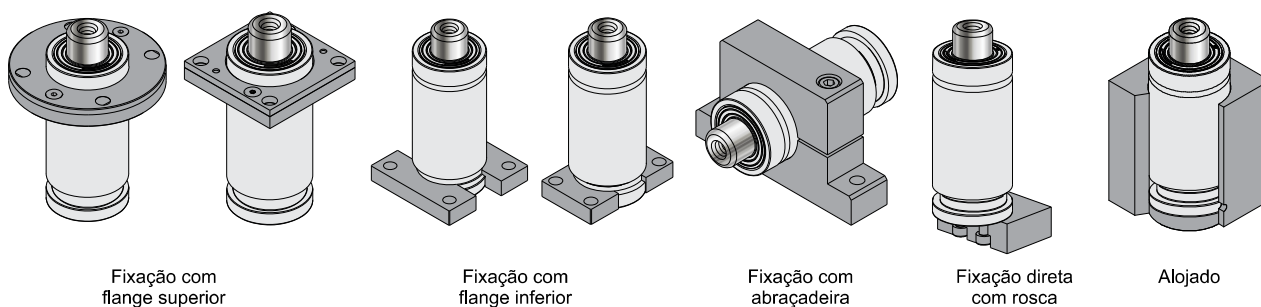
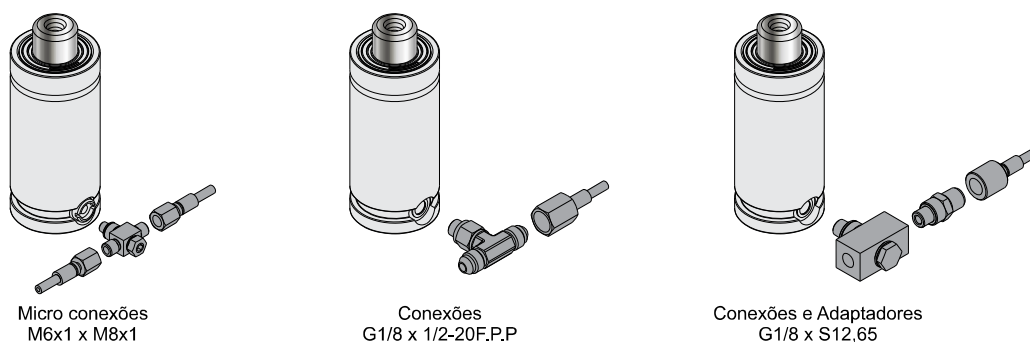
Modelo Tonelagen Curso
CILINDROS : PNLH - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNLH - X,X / XX

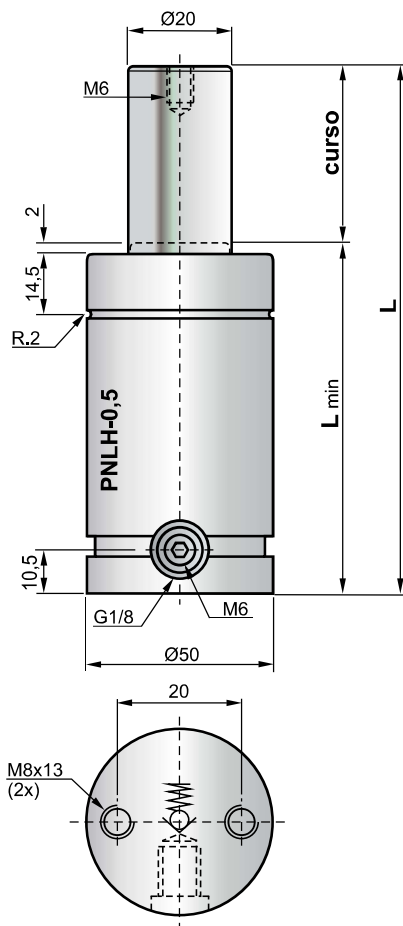
Cilindro autônomo, com menor incremento de pressão.

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

Alternativas de montagem**Alternativas de interligação**

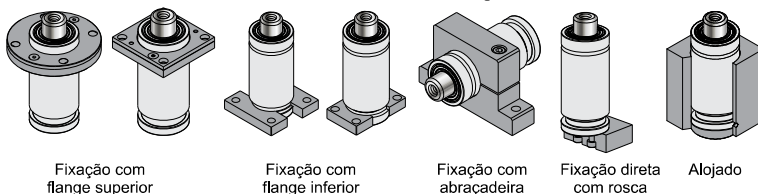
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



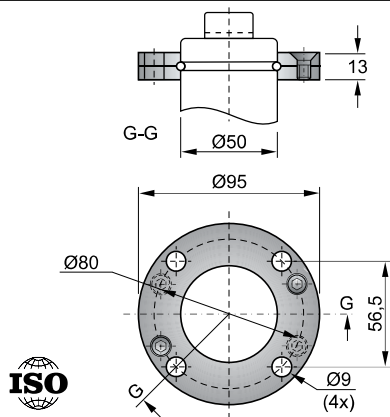
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=85 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNLH-0,5-010	10	471,2	562,8	105	95	19,2	1.212
PNLH-0,5-015	15	471,2	577,6	115	100	25,5	1.259
PNLH-0,5-020	20	471,2	586,9	125	105	31,8	1.298
PNLH-0,5-025	25	471,2	593,4	135	110	38,1	1.342
PNLH-0,5-032	32	471,2	599,6	149	117	46,9	1.392
PNLH-0,5-038	38	471,2	603,4	161	123	54,4	1.441
PNLH-0,5-050	50	471,2	608,6	185	135	69,5	1.541
PNLH-0,5-063	63	471,2	612,3	211	148	85,8	1.642
PNLH-0,5-075	75	471,2	614,6	235	160	100,9	1.738
PNLH-0,5-080	80	471,2	615,4	245	165	107,2	1.775
PNLH-0,5-100	100	471,2	617,8	285	185	132,3	1.935
PNLH-0,5-125	125	471,2	619,8	335	210	163,8	2.132
PNLH-0,5-160	160	471,2	621,6	405	245	207,7	2.427
PNLH-0,5-200	200	471,2	622,9	485	285	258,0	2.737

* Força Final Isotérmica a 20°C, curso totalmente atuado.

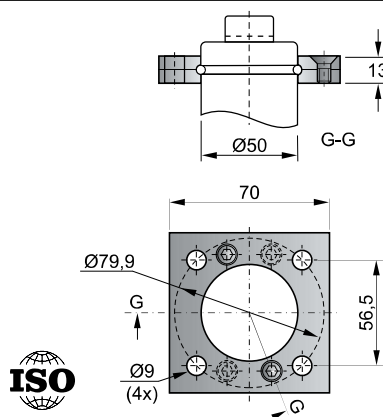
Alternativas de montagem



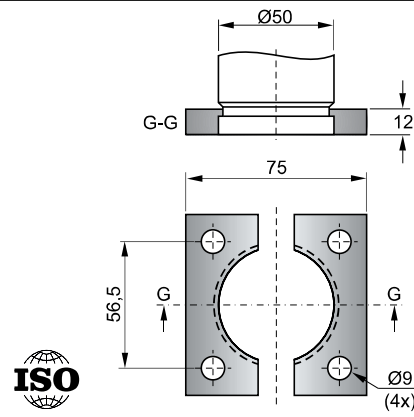
PNB-54-050



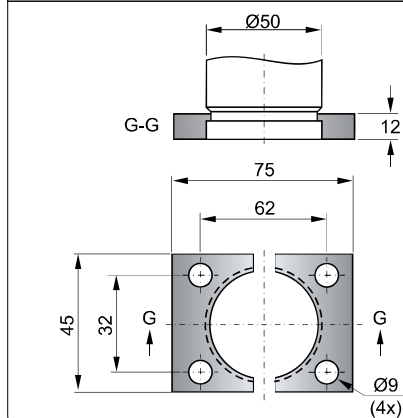
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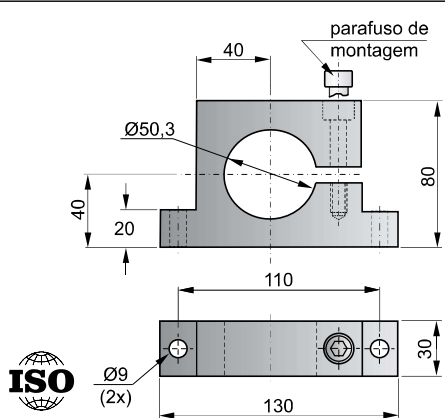
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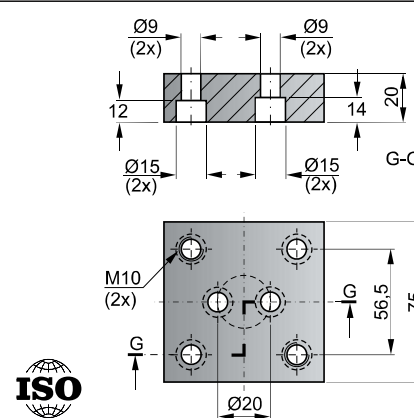
PNB-32-050



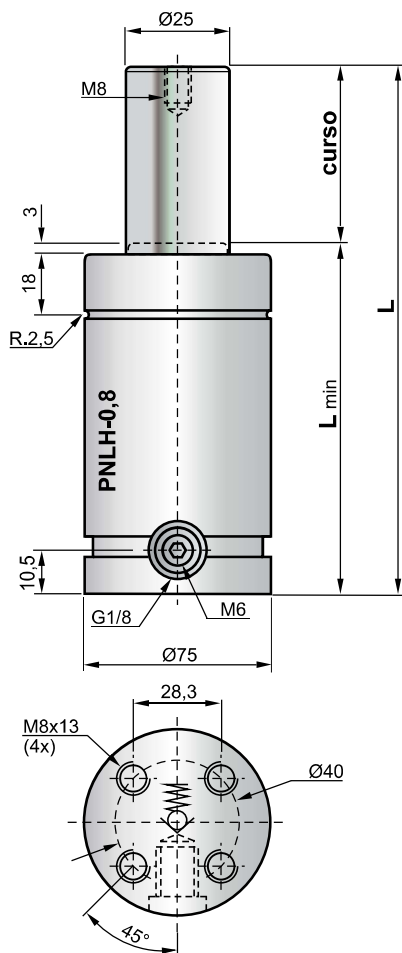
PNB-57-050



PNB-56-050

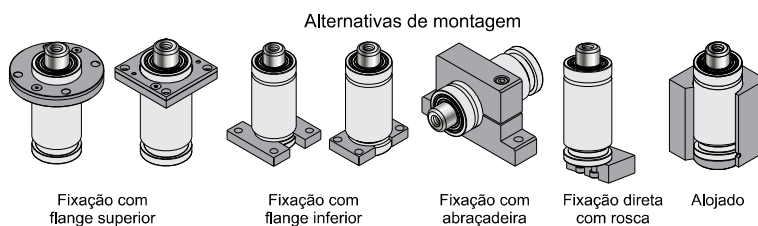


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

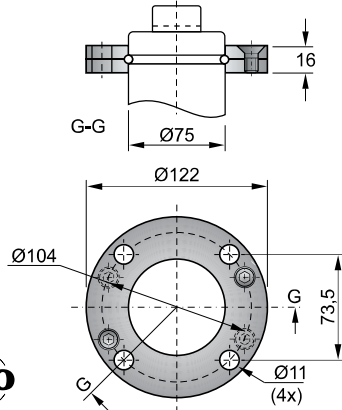


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=95 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNLH-0,8-015	15	736,3	828,8	125	110	65,9	3.121
PNLH-0,8-020	20	736,3	837,1	135	115	81,5	3.186
PNLH-0,8-025	25	736,3	842,8	145	120	97,1	3.258
PNLH-0,8-032	32	736,3	848,3	159	127	118,9	3.349
PNLH-0,8-038	38	736,3	851,7	171	133	137,6	3.431
PNLH-0,8-050	50	736,3	856,3	195	145	175,0	3.611
PNLH-0,8-063	63	736,3	859,6	221	158	215,5	3.780
PNLH-0,8-075	75	736,3	861,7	245	170	252,9	3.956
PNLH-0,8-080	80	736,3	862,4	255	175	268,5	4.035
PNLH-0,8-100	100	736,3	864,5	295	195	330,9	4.310
PNLH-0,8-125	125	736,3	866,3	345	220	408,8	4.662
PNLH-0,8-160	160	736,3	867,9	415	255	517,9	5.127
PNLH-0,8-200	200	736,3	869,0	495	295	642,6	5.724
PNLH-0,8-250	250	736,3	870,0	595	345	798,4	6.374

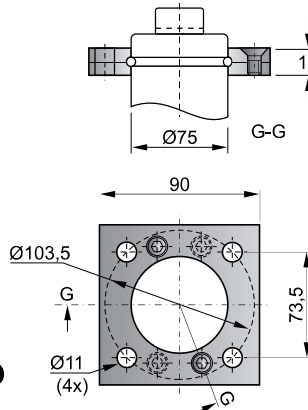
* Força Final Isotérmica a 20°C, curso totalmente atuado.



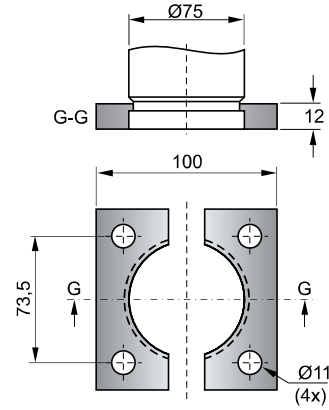
PNB-54-075



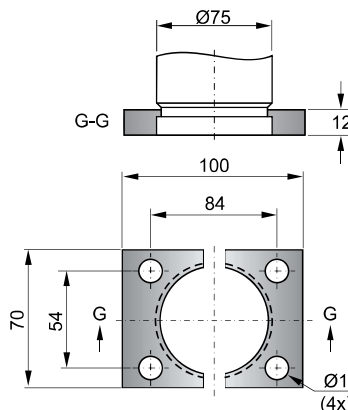
PNB-65-075



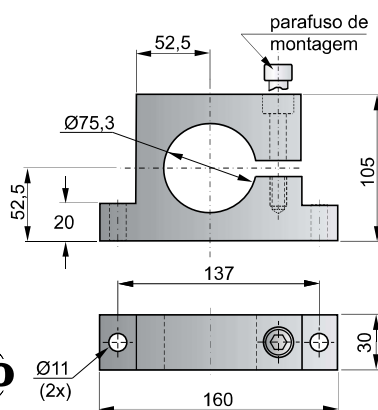
PNB-55-075



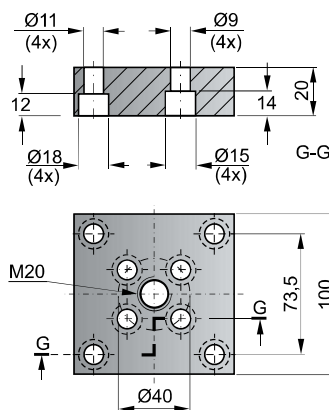
PNB-32-075



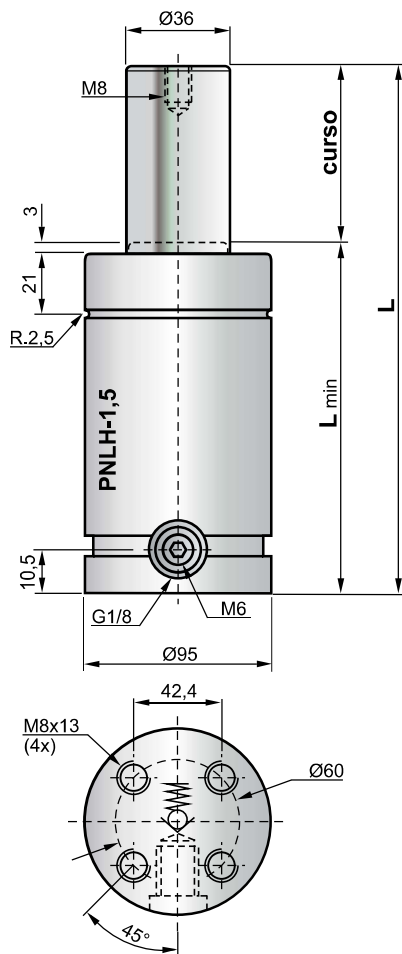
PNB-57-075



PNB-56-075

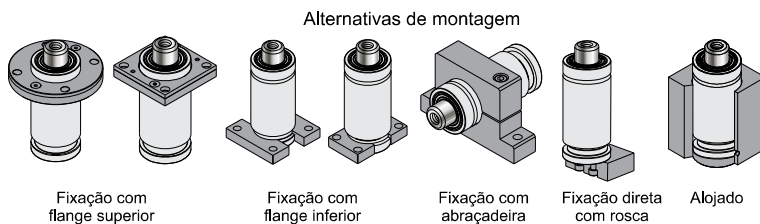


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

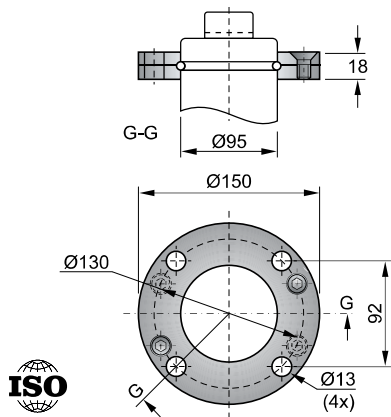


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=110 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNLH-1,5-015	15	1.526	1.780	140	125	107,1	5.733
PNLH-1,5-020	20	1.526	1.804	150	130	132,2	5.842
PNLH-1,5-025	25	1.526	1.821	160	135	157,4	5.973
PNLH-1,5-032	32	1.526	1.837	174	142	192,5	6.124
PNLH-1,5-038	38	1.526	1.847	186	148	222,7	6.286
PNLH-1,5-050	50	1.526	1.861	210	160	283,0	6.550
PNLH-1,5-063	63	1.526	1.871	236	173	348,4	6.883
PNLH-1,5-075	75	1.526	1.877	260	185	408,7	7.166
PNLH-1,5-080	80	1.526	1.879	270	190	433,8	7.275
PNLH-1,5-100	100	1.526	1.886	310	210	534,4	7.772
PNLH-1,5-125	125	1.526	1.891	360	235	660,0	8.349
PNLH-1,5-160	160	1.526	1.896	430	270	835,9	9.222
PNLH-1,5-200	200	1.526	1.899	510	310	1.037,0	10.213
PNLH-1,5-250	250	1.526	1.902	610	360	1.288,3	11.435
PNLH-1,5-300	300	1.526	1.904	710	410	1.539,7	12.656

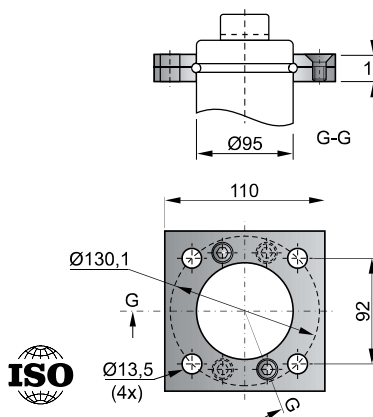
* Força Final Isotérmica a 20°C, curso totalmente atuado.



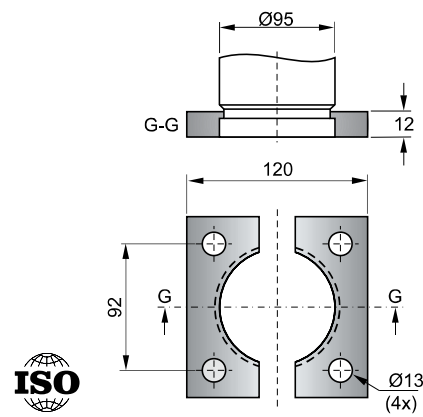
PNB-54-095



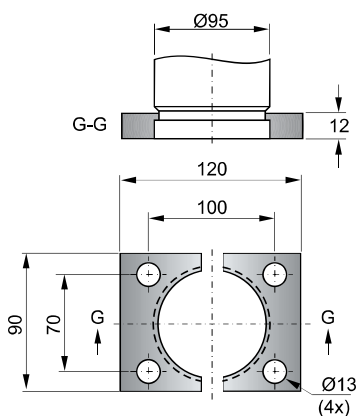
PNB-65-095



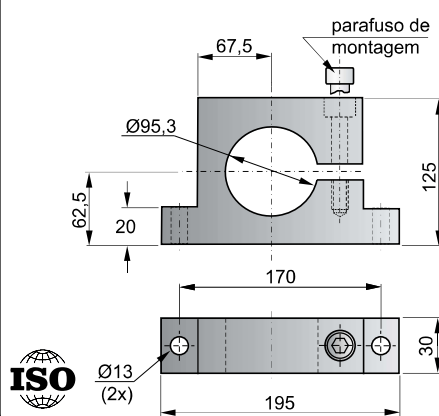
PNB-55-095



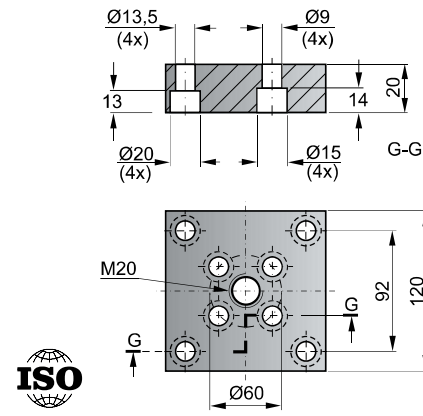
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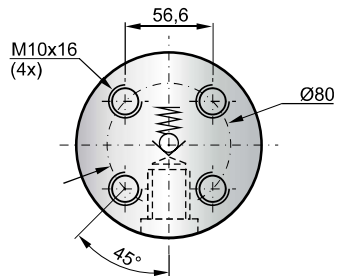
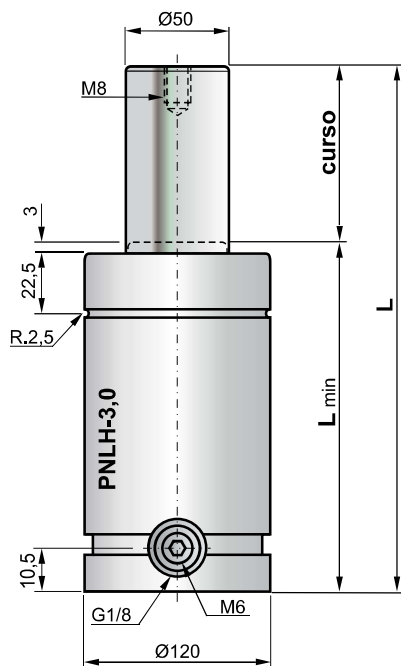
PNB-57-095



PNB-56-095

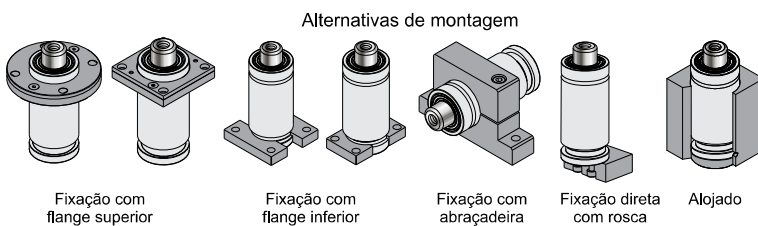


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

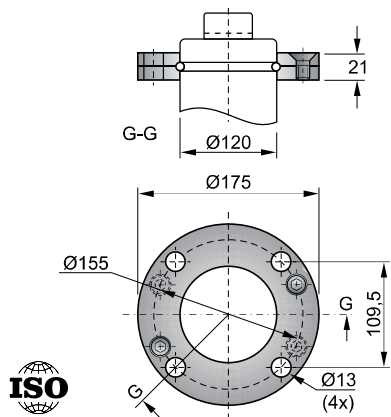


Código	Curso Cilindro (mm)	Força da N Pressão à 150bar Inicial	Força da N Pressão à 150bar Final*	L K=120 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNLH-3,0-015	15	2.945	3.606	150	135	160,7	10.510
PNLH-3,0-020	20	2.945	3.664	160	140	199,9	10.721
PNLH-3,0-025	25	2.945	3.705	170	145	239,2	10.931
PNLH-3,0-032	32	2.945	3.744	184	152	294,2	11.230
PNLH-3,0-038	38	2.945	3.769	196	158	341,3	11.482
PNLH-3,0-050	50	2.945	3.802	220	170	435,6	11.992
PNLH-3,0-063	63	2.945	3.825	246	183	537,7	12.544
PNLH-3,0-075	75	2.945	3.840	270	195	631,9	13.056
PNLH-3,0-080	80	2.945	3.845	280	200	671,2	13.267
PNLH-3,0-100	100	2.945	3.860	320	220	828,3	14.116
PNLH-3,0-125	125	2.945	3.872	370	245	1.024,6	15.178
PNLH-3,0-160	160	2.945	3.884	440	280	1.299,5	16.665
PNLH-3,0-200	200	2.945	3.892	520	320	1.613,6	18.365
PNLH-3,0-250	250	2.945	3.899	620	370	2.006,3	20.489
PNLH-3,0-300	300	2.945	3.903	720	420	2.399,0	22.614

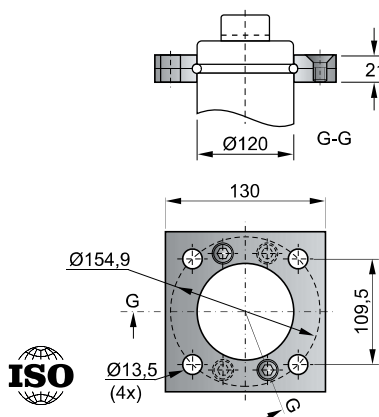
* Força Final Isotérmica a 20°C, curso totalmente atuado.



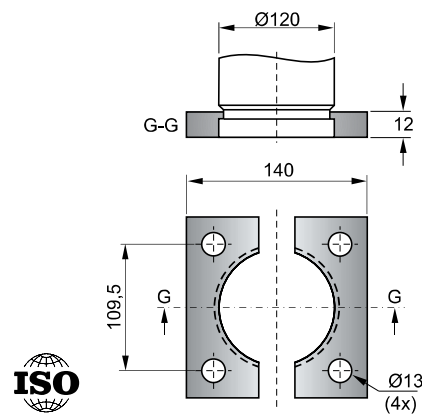
PNB-54-120



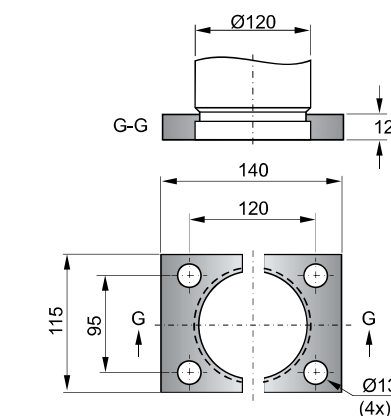
PNB-65-120



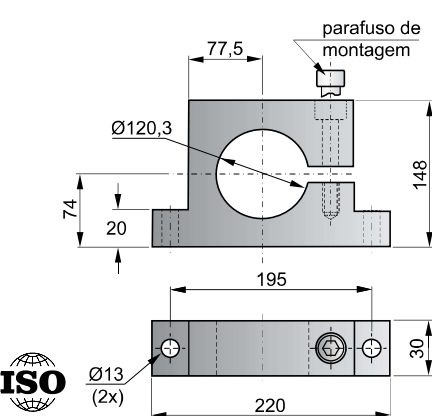
PNB-55-120



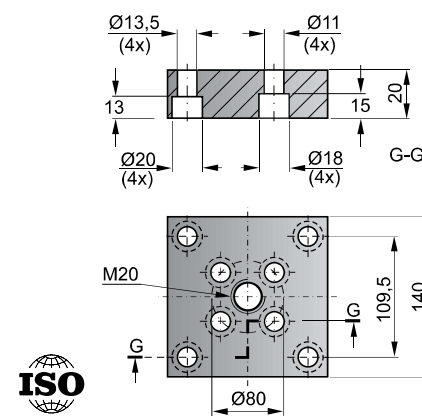
PNB-32-120



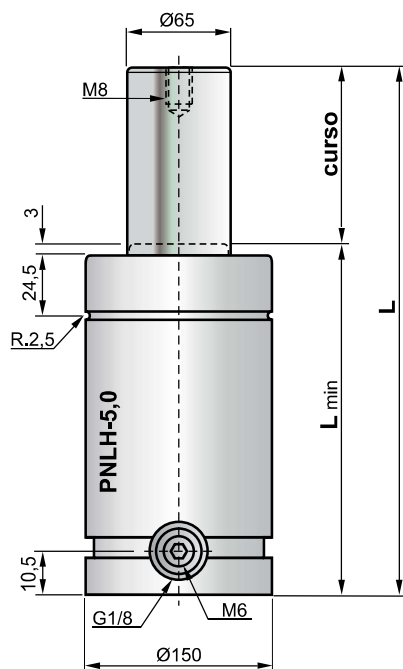
PNB-57-120



PNB-56-120

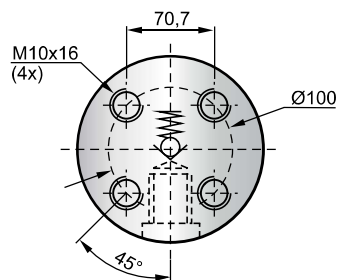


A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

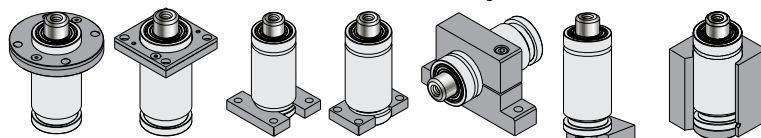


Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*		L K=140 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNLH-5,0-015	15	4.977	6.068	170	155	276,8	19.234
PNLH-5,0-020	20	4.977	6.192	180	160	338,1	19.575
PNLH-5,0-025	25	4.977	6.281	190	165	399,5	19.917
PNLH-5,0-032	32	4.977	6.371	204	172	485,4	20.397
PNLH-5,0-038	38	4.977	6.427	216	178	559,0	20.807
PNLH-5,0-050	50	4.977	6.505	240	190	706,3	21.629
PNLH-5,0-063	63	4.977	6.561	266	203	865,8	22.518
PNLH-5,0-075	75	4.977	6.598	290	215	1.013,1	23.340
PNLH-5,0-080	80	4.977	6.610	300	220	1.074,4	23.682
PNLH-5,0-100	100	4.977	6.649	340	240	1.319,9	25.050
PNLH-5,0-125	125	4.977	6.681	390	265	1.626,7	26.761
PNLH-5,0-160	160	4.977	6.710	460	300	2.056,2	29.157
PNLH-5,0-200	200	4.977	6.731	540	340	2.547,1	31.894
PNLH-5,0-250	250	4.977	6.748	640	390	3.160,0	35.316
PNLH-5,0-300	300	4.977	6.760	740	440	3.774,3	38.738

* Força Final Isotérmica a 20°C, curso totalmente atuado.



Alternativas de montagem



Fixação com flange superior

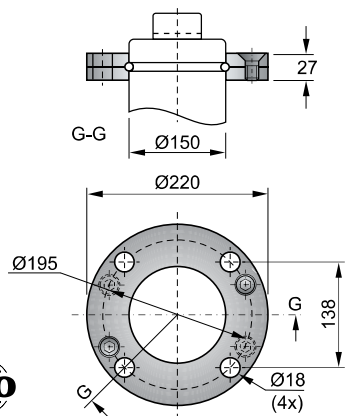
Fixação com flange inferior

Fixação com abraçadeira

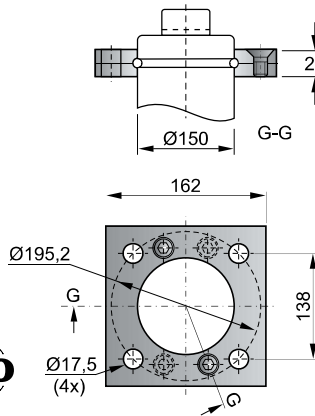
Fixação direta com rosca

Alojado

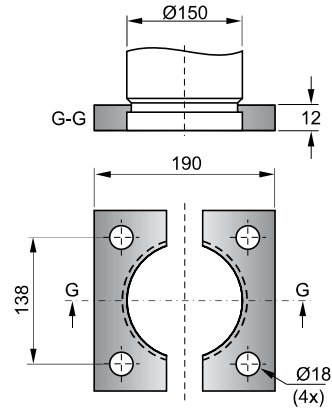
PNB-54-150



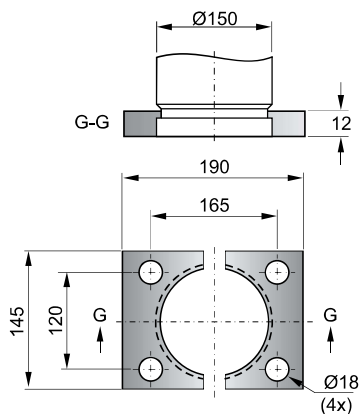
PNB-65-150



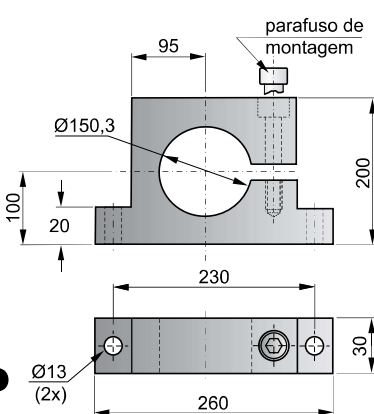
PNB-55-150



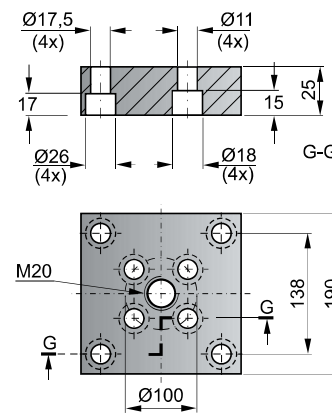
PNB-32-150



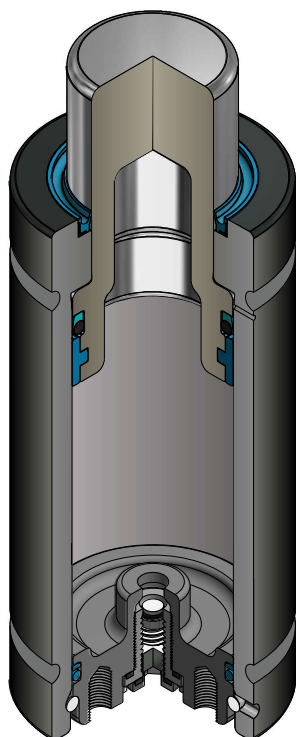
PNB-57-150



PNB-56-150



A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.

**Modelo: PNRC-1,8-025**

Modelo Tonelagen Curso
CILINDROS : PNRC - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNRC - X,X / XX

Cilindro autônomo compacto, vedação na camisa .

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	0,5 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

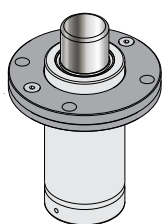
Tonelagens disponíveis:

0,5 - 1,0 - 1,8 - 2,9 - 4,7 - 7,5 - 11,8 - 18,3

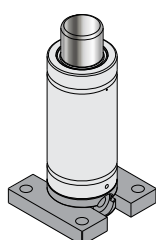
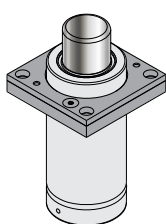
Cursos padrões dos cilindros em mm:

10 , 15 , 20 , 25 , 32 , 38 e 50mm

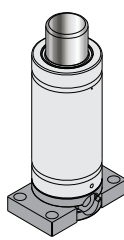
Alternativas de montagem



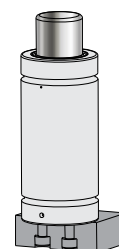
Fixação com
flange superior



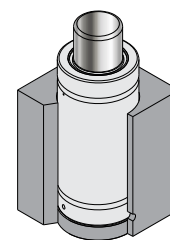
Fixação com
flange inferior



Com base
de interligação

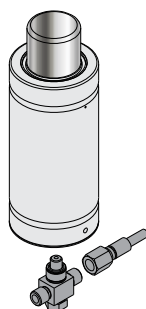


Fixação direta
com rosca

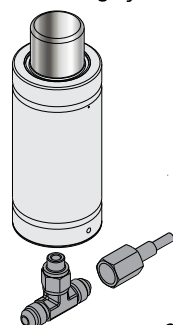
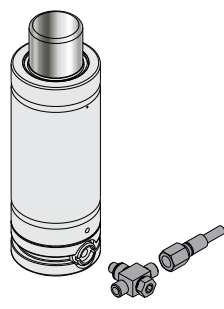


Alojado

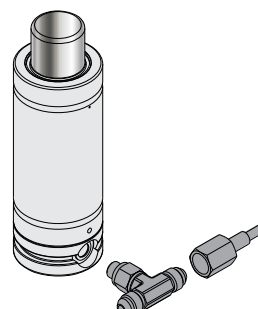
Alternativas de interligação

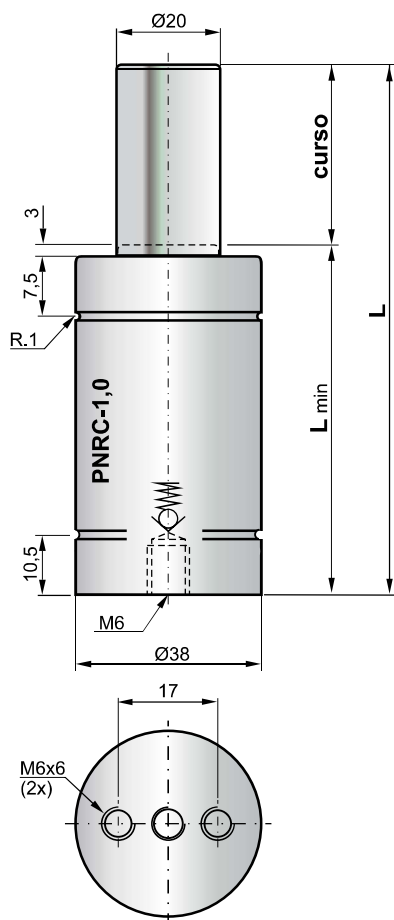


Micro conexões
M6x1 x M8x1



Conexões
G1/8 x 1/2-20F.P.P

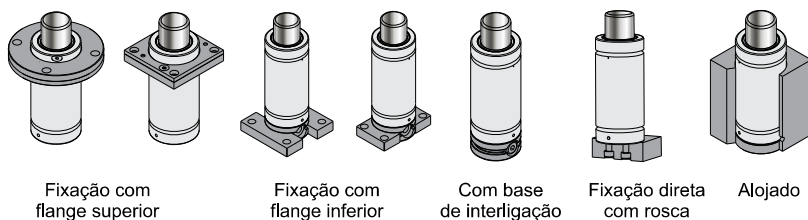




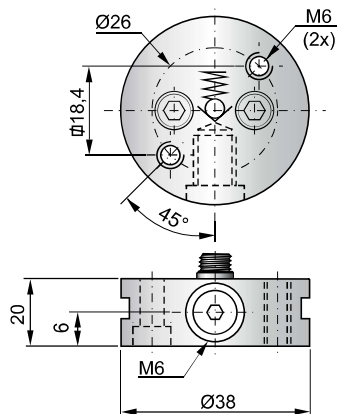
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-1,0-010	10	1.046	1.724	78	68	18,3	0,437
PNRC-1,0-015	15	1.046	1.759	96	81	26,6	0,489
PNRC-1,0-020	20	1.046	1.692	116	96	37,8	0,546
PNRC-1,0-025	25	1.046	1.671	135	110	48,3	0,599
PNRC-1,0-032	32	1.046	1.603	167	135	66,7	0,698
PNRC-1,0-038	38	1.046	1.616	188	150	78,0	0,751
PNRC-1,0-050	50	1.046	1.634	230	180	100,6	0,878

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem

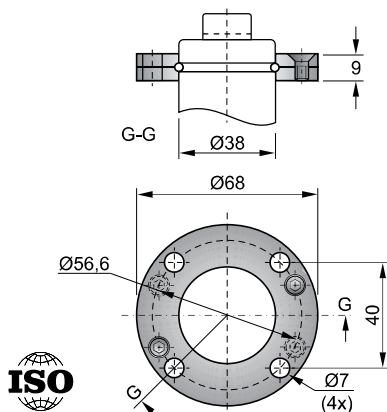


PNB-100-038 - Base de Interligação

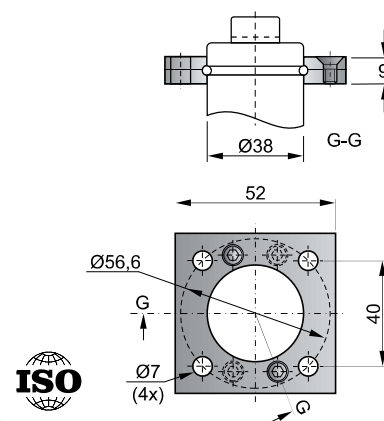


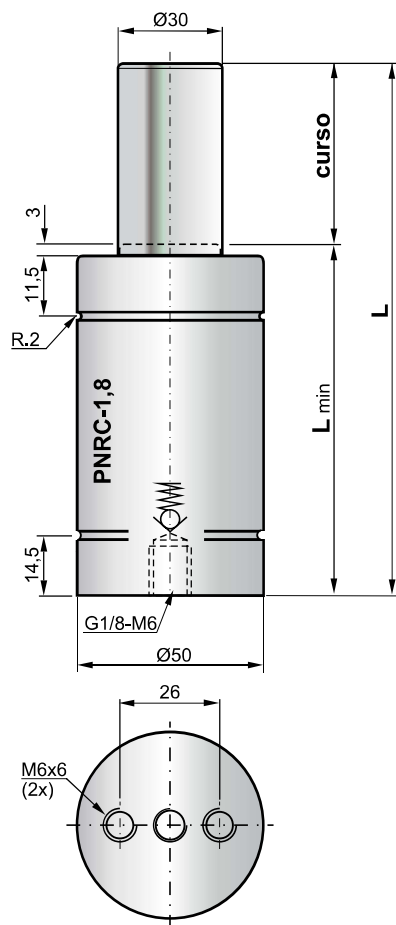
Acompanha válvula M6x1
O cilindro também poderá trabalhar de forma autônoma

PNB-54-038



PNB-65-038

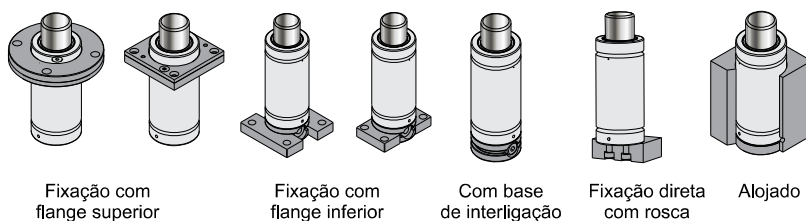




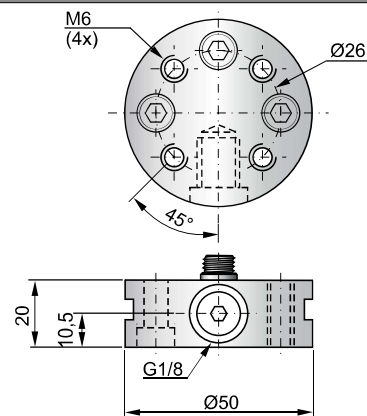
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial Final*	L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-1,8-010	10	1.860 3.111	80	70	31,8	0,761
PNRC-1,8-015	15	1.860 2.877	102	87	54,6	0,874
PNRC-1,8-020	20	1.860 2.914	119	99	71,1	0,956
PNRC-1,8-025	25	1.860 2.962	135	110	86,3	1,040
PNRC-1,8-032	32	1.860 2.919	162	130	113,5	1,164
PNRC-1,8-038	38	1.860 2.927	183	145	134,0	1,264
PNRC-1,8-050	50	1.860 3.001	220	170	168,8	1,454

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem

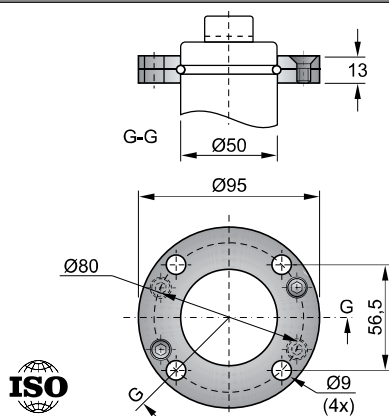


PNB-100-050 - Base de Interligação

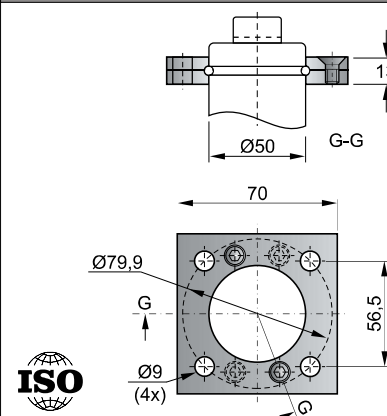


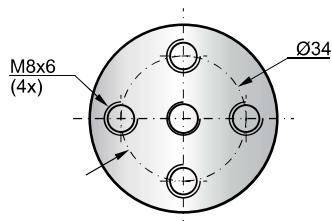
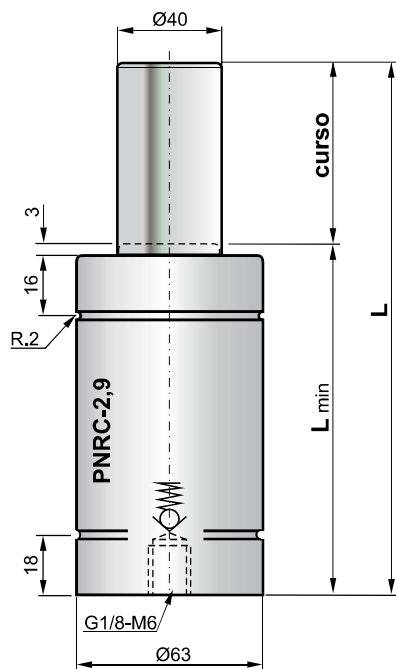
Não acompanha válvula M6x1
O cilindro só poderá trabalhar de forma interligado

PNB-54-050



PNB-65-050

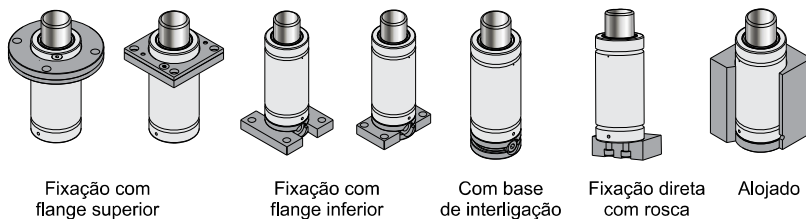




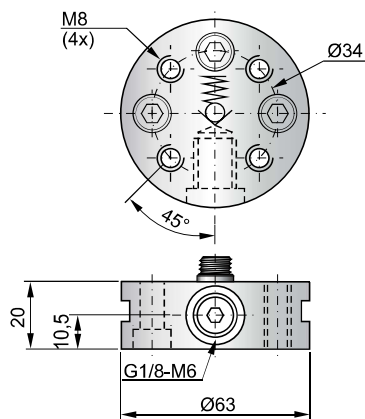
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-2,9-010	10	3.266	4.715	85	75	52,3	1.335
PNRC-2,9-015	15	3.266	4.875	100	85	74,3	1.457
PNRC-2,9-020	20	3.266	4.966	115	95	96,4	1.576
PNRC-2,9-025	25	3.266	5.025	130	105	118,5	1.697
PNRC-2,9-032	32	3.266	5.130	150	118	147,5	1.857
PNRC-2,9-038	38	3.266	5.155	168	130	174,0	2.012
PNRC-2,9-050	50	3.266	5.155	205	155	229,0	2.295

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem

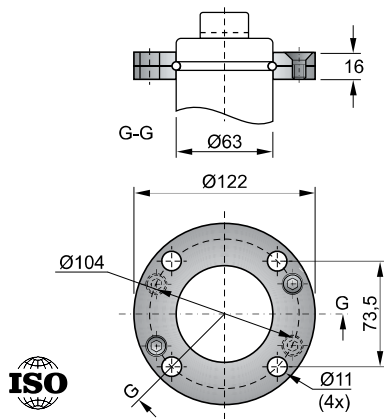


PNB-100-063 - Base de Interligação

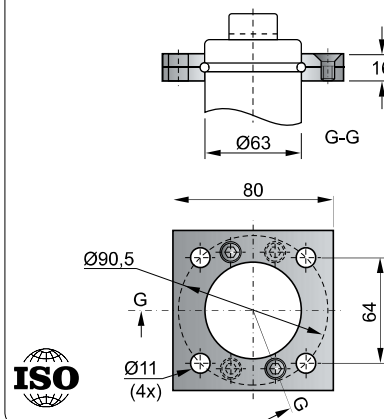


Acompanha adaptador de interligação G1/8 x M6x1
O cilindro também poderá trabalhar de forma autônoma

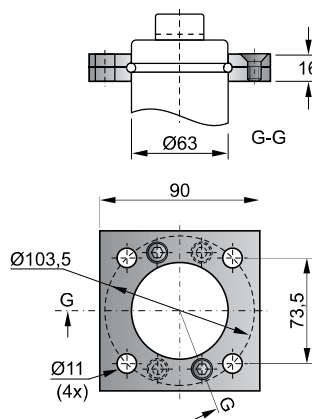
PNB-54-063



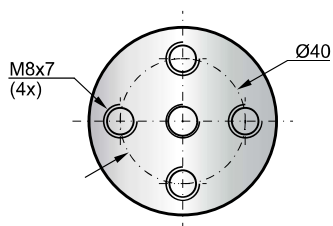
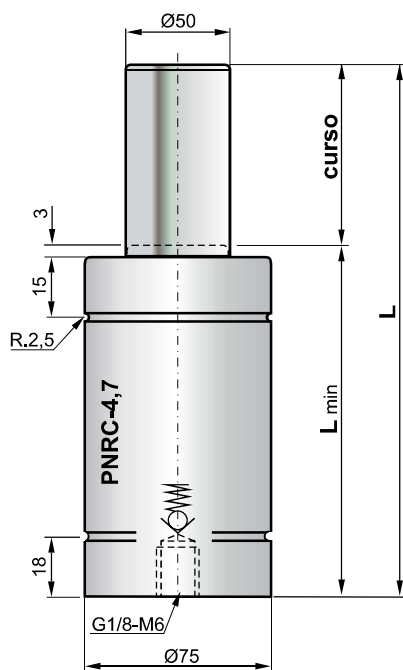
PNB-65-063-ISO



PNB-65-063



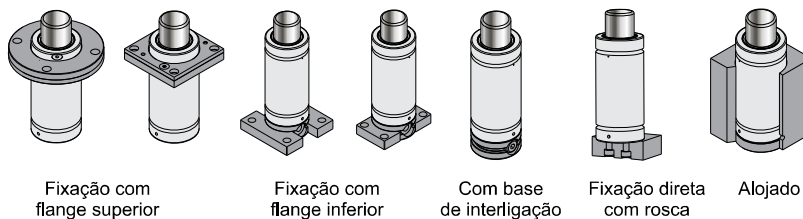
A PRODTY é detentora de patentes nacionais e internacionais, que cobrem características de seus produtos.



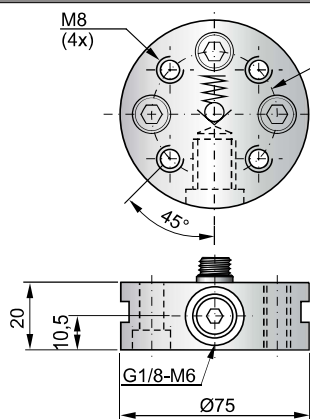
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-4,7-010	10	4.615	7.463	80	70	83,4	1.722
PNRC-4,7-015	15	4.615	6.968	102	87	142,1	1.934
PNRC-4,7-020	20	4.615	7.048	119	99	185,2	2.088
PNRC-4,7-025	25	4.615	7.150	135	110	225,1	2.236
PNRC-4,7-032	32	4.615	6.883	167	135	311,0	2.536
PNRC-4,7-038	38	4.615	6.817	192	154	377,0	2.767
PNRC-4,7-050	50	4.615	6.775	240	190	502,8	3.209

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem

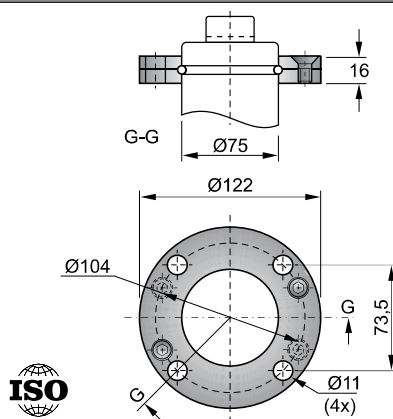


PNB-100-075 - Base de Interligação

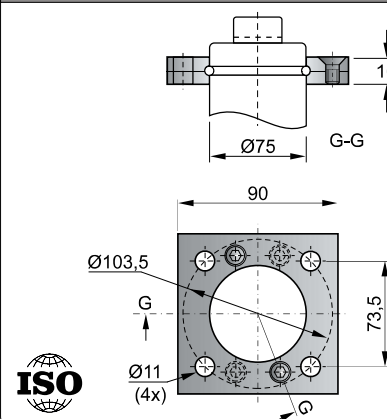


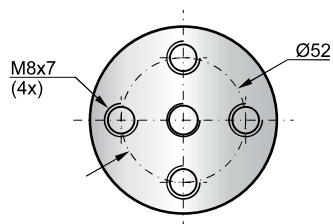
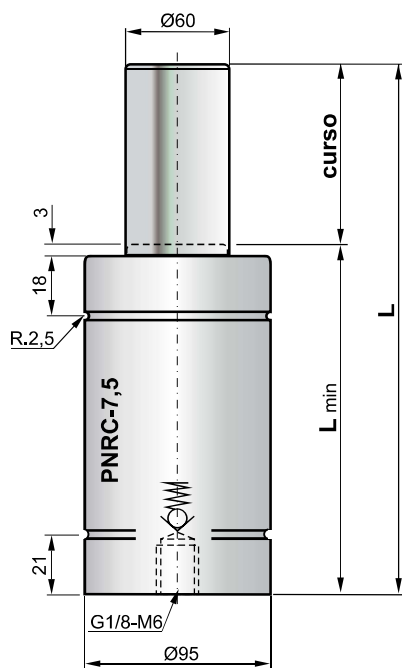
Acompanha adaptador de interligação G1/8 x M6x1
O cilindro também poderá trabalhar de forma autônoma

PNB-54-075



PNB-65-075

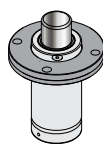




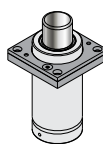
Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-7,5-010	10	7.441	11.819	90	80	138,8	3.250
PNRC-7,5-015	15	7.441	11.203	112	97	230,5	3.568
PNRC-7,5-020	20	7.441	11.394	129	109	297,1	3.854
PNRC-7,5-025	25	7.441	11.605	145	120	358,7	4.048
PNRC-7,5-032	32	7.441	10.932	182	150	518,3	4.639
PNRC-7,5-038	38	7.441	11.050	203	165	601,2	4.966
PNRC-7,5-050	50	7.441	10.887	255	205	817,4	5.726

* Força Final Isotérmica a 20°C, curso totalmente atuado.

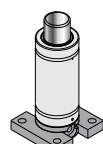
Alternativas de montagem



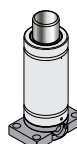
Fixação com flange superior



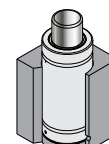
Fixação com flange inferior



Com base de interligação

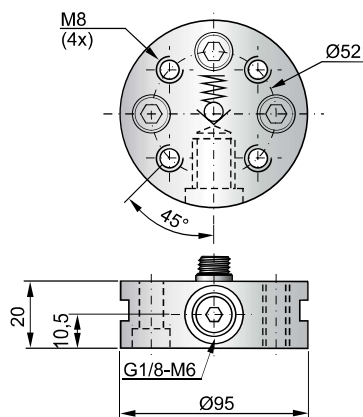


Fixação direta com rosca



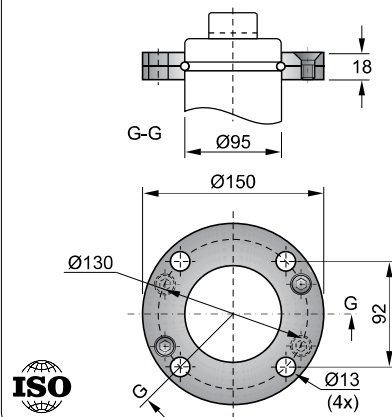
Alojado

PNB-100-095 - Base de Interligação

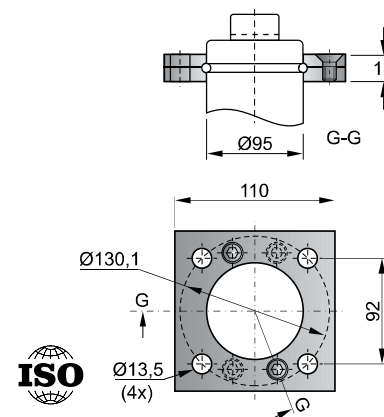


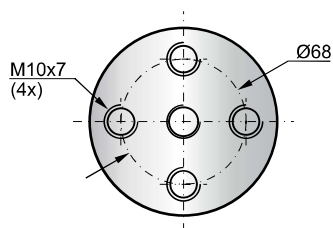
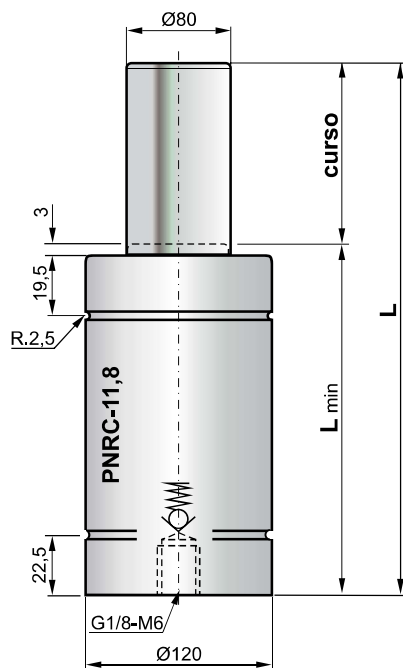
Acompanha adaptador de interligação G1/8 x M6x1
O cilindro também poderá trabalhar de forma autônoma

PNB-54-095



PNB-65-095

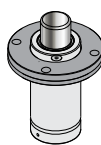




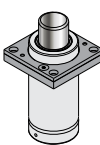
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-11,8-010	10	11.627	16.219	100	90	286,9	5.679
PNRC-11,8-015	15	11.627	16.161	122	107	434,6	6.332
PNRC-11,8-020	20	11.627	16.575	139	119	543,0	6.750
PNRC-11,8-025	25	11.627	16.953	155	130	643,5	7.196
PNRC-11,8-032	32	11.627	16.647	187	155	859,7	7.959
PNRC-11,8-038	38	11.627	16.614	212	174	1.025,8	8.555
PNRC-11,8-050	50	11.627	16.651	260	210	1.342,5	9.728

* Força Final Isotérmica a 20°C, curso totalmente atuado.

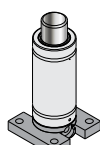
Alternativas de montagem



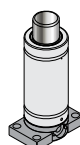
Fixação com flange superior



Fixação com flange inferior



Com base de interligação

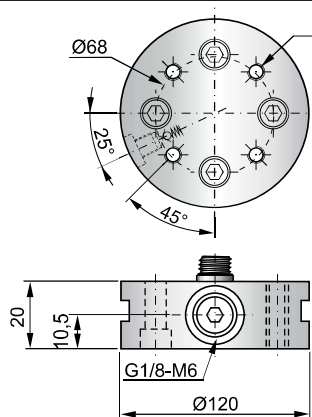


Fixação direta com rosca



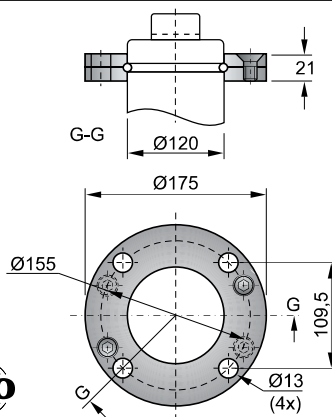
Alojado

PNB-100-120 - Base de Interligação

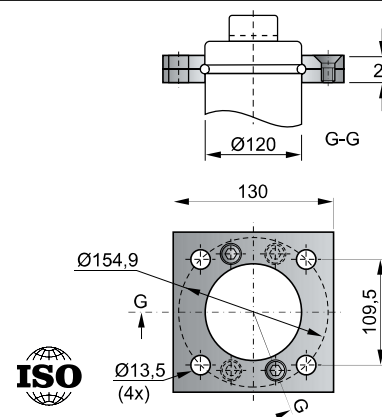


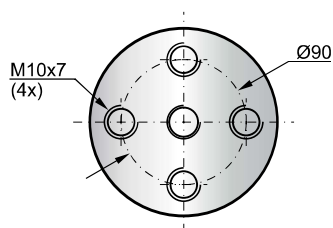
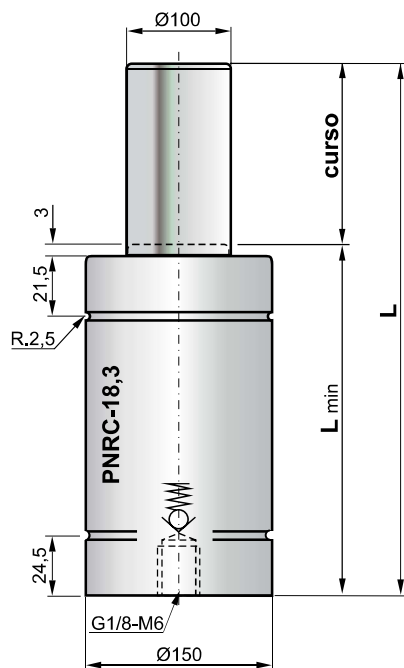
Acompanha adaptador de interligação G1/8 x M6x1
O cilindro também poderá trabalhar de forma autônoma

PNB-54-120



PNB-65-120

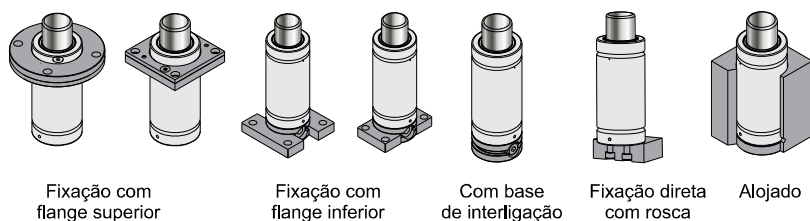




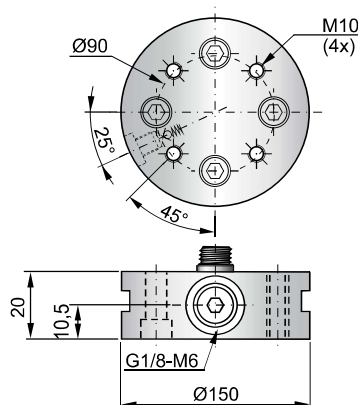
Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRC-18,3-010	10	18.167	24.421	110	100	498,3	9.789
PNRC-18,3-015	15	18.167	24.618	132	117	729,6	10.639
PNRC-18,3-020	20	18.167	25.314	149	129	899,5	11.278
PNRC-18,3-025	25	18.167	25.933	165	140	1.057,2	11.874
PNRC-18,3-032	32	18.167	25.614	197	165	1.395,7	13.254
PNRC-18,3-038	38	18.167	25.336	226	188	1.705,2	14.264
PNRC-18,3-050	50	18.167	25.747	270	220	2.152,4	15.873

* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem

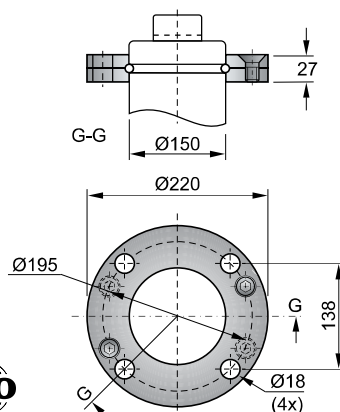


PNB-100-150 - Base de Interligação

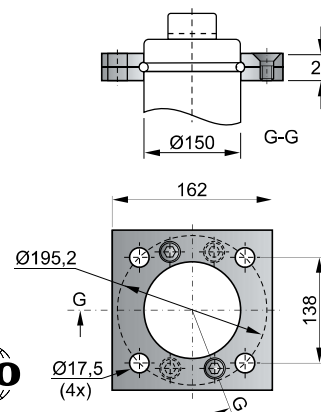


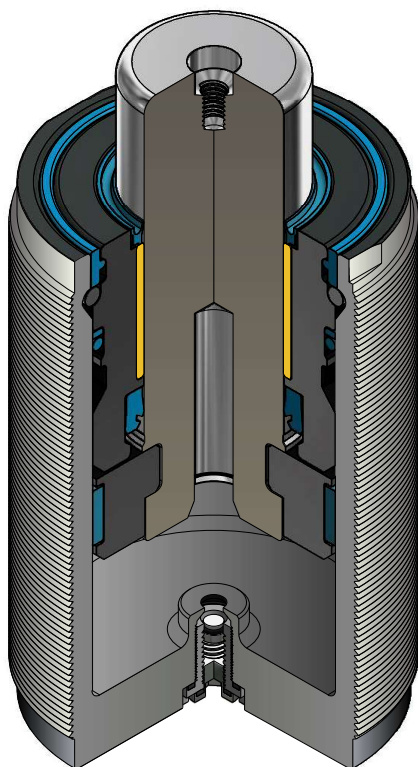
Acompanha adaptador de interligação G1/8 x M6x1
O cilindro também poderá trabalhar de forma autônoma

PNB-54-150



PNB-65-150





Modelo Tonelagen Curso
CILINDROS : PNRR - X,X - xxx

Modelo Tonelagen Série
Kit reparo : RNRR - X,X / XX

Cilindro autônomo, corpo com rosca .

Informações básicas

Pressão de carga mínima	25 bar
Pressão de carga máxima	150 bar
Temperatura de trabalho	0 a 80° C
Velocidade máxima da haste	1,6 m/s
Tratamento da haste	Cromo duro
Tratamento do corpo ou camisa	Oxidação preta

Modelo: PNRR-1,5-025

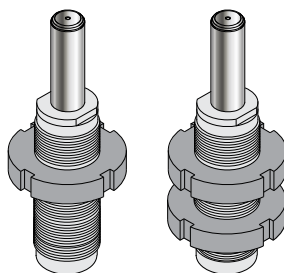
Tonelagens disponíveis:

0,2 - 0,3 - 0,5 - 0,8 - 1,5 - 3,0

Cursos padrões dos cilindros em mm:

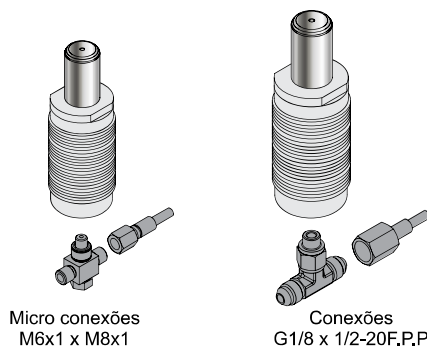
10 , 15 , 20 , 25 , 32 , 38 , 50 , 63 , 75 , 80 , 100 , 125 e 160mm

Alternativas de montagem



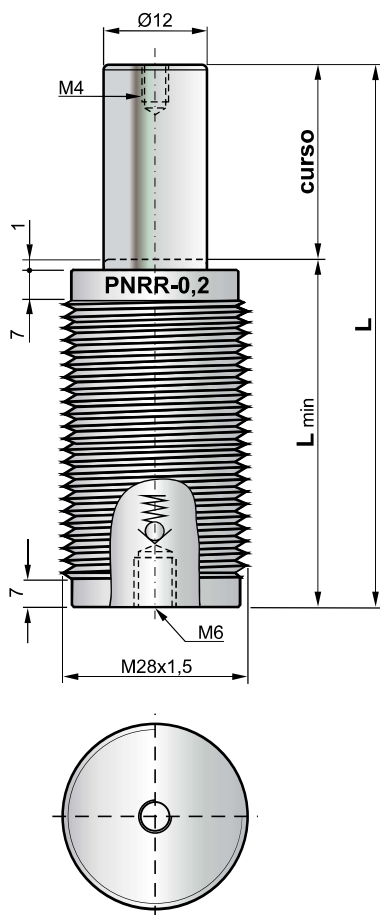
Fixação com flange ranhurada

Alternativas de interligação



Micro conexões
M6x1 x M8x1

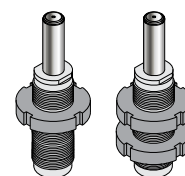
Conexões
G1/8 x 1/2-20F,P,P



Código	Curso Cilindro (mm)	Força daN Pressão à 150bar Inicial	Força daN Pressão à 150bar Final*	L K=42 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRR-0,2-007	7	169,6	218,5	56	49	3,5	0,146
PNRR-0,2-010	10	169,6	226,9	62	52	4,4	0,154
PNRR-0,2-015	15	169,6	235,7	72	57	6,0	0,165
PNRR-0,2-020	20	169,6	241,2	82	62	7,6	0,176
PNRR-0,2-025	25	169,6	245,0	92	67	9,1	0,188
PNRR-0,2-032	32	169,6	248,6	106	74	11,3	0,203
PNRR-0,2-038	38	169,6	250,8	118	80	13,2	0,217
PNRR-0,2-050	50	169,6	253,8	142	92	17,0	0,243
PNRR-0,2-063	63	169,6	255,9	168	105	21,1	0,273
PNRR-0,2-075	75	169,6	257,2	192	117	24,9	0,311
PNRR-0,2-080	80	169,6	257,7	202	122	26,4	0,322
PNRR-0,2-100	100	169,6	259,1	242	142	32,7	0,367
PNRR-0,2-125	125	169,6	260,2	292	167	40,6	0,425

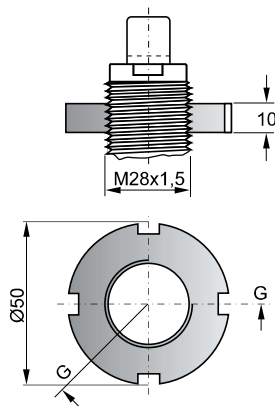
* Força Final Isotérmica a 20°C, curso totalmente atuado.

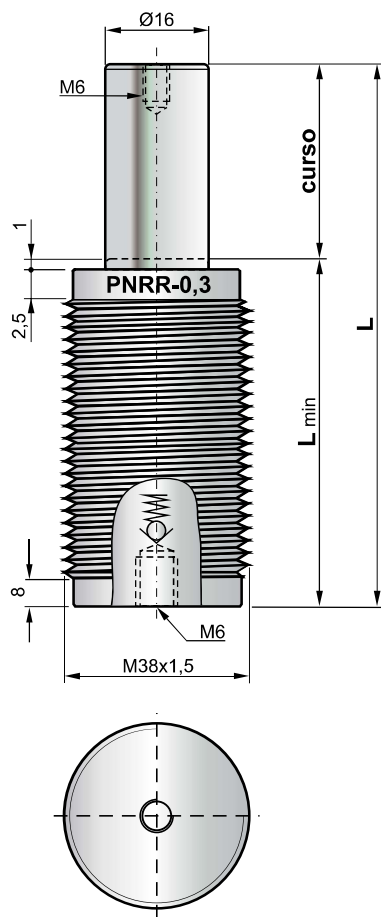
Alternativas de montagem



Fixação com flange ranhurada

PNB-24-M28

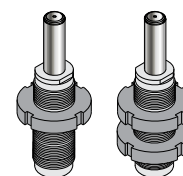




Código	Curso	Força da N		L	L	Vol.	
	Cilindro (mm)	Pressão à 150bar Inicial	Final*	K=50 (mm)	min. (mm)	inicial (cm³)	
PNRR-0,3-010	10	301,5	381,0	70	60	9,6	0,422
PNRR-0,3-015	15	301,5	398,7	80	65	12,3	0,453
PNRR-0,3-020	20	301,5	410,8	90	70	15,1	0,485
PNRR-0,3-025	25	301,5	419,7	100	75	17,8	0,515
PNRR-0,3-032	32	301,5	428,8	114	82	21,6	0,559
PNRR-0,3-038	38	301,5	434,5	126	88	24,9	0,596
PNRR-0,3-050	50	301,5	442,6	150	100	31,5	0,670
PNRR-0,3-063	63	301,5	448,5	176	113	38,6	0,750
PNRR-0,3-075	75	301,5	452,4	200	125	45,2	0,824
PNRR-0,3-080	80	301,5	453,7	210	130	47,9	0,856
PNRR-0,3-100	100	301,5	457,8	250	150	58,9	0,979
PNRR-0,3-125	125	301,5	461,2	300	175	72,5	1.134

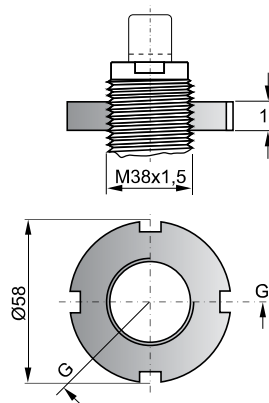
* Força Final Isotérmica a 20°C, curso totalmente atuado.

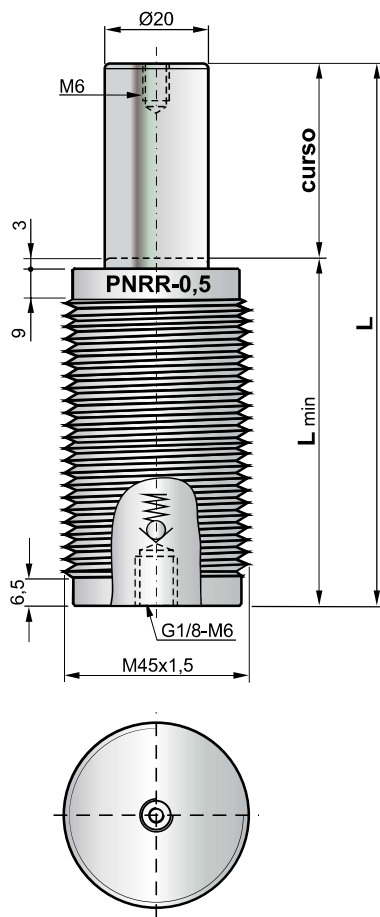
Alternativas de montagem



Fixação com
flange ranhurada

PNB-24-M38

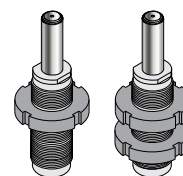




Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=63 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRR-0,5-010	10	471,2	582,0	83	73	16,5	0,715
PNRR-0,5-015	15	471,2	606,2	93	78	21,1	0,753
PNRR-0,5-020	20	471,2	622,8	103	83	25,8	0,792
PNRR-0,5-025	25	471,2	634,8	113	88	30,4	0,830
PNRR-0,5-032	32	471,2	647,0	127	95	36,9	0,884
PNRR-0,5-038	38	471,2	654,7	139	101	42,5	0,929
PNRR-0,5-050	50	471,2	665,7	163	113	53,7	1,021
PNRR-0,5-063	63	471,2	673,6	189	126	65,8	1,120
PNRR-0,5-075	75	471,2	678,8	213	138	77,0	1,212
PNRR-0,5-080	80	471,2	680,5	223	143	81,7	1,250
PNRR-0,5-100	100	471,2	686,0	263	163	100,3	1,403
PNRR-0,5-125	125	471,2	690,6	313	188	123,6	1,594

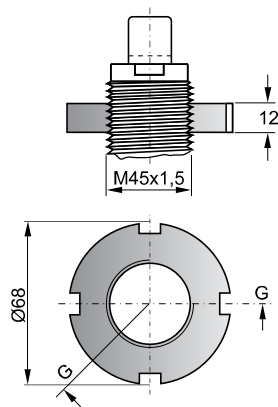
* Força Final Isotérmica a 20°C, curso totalmente atuado.

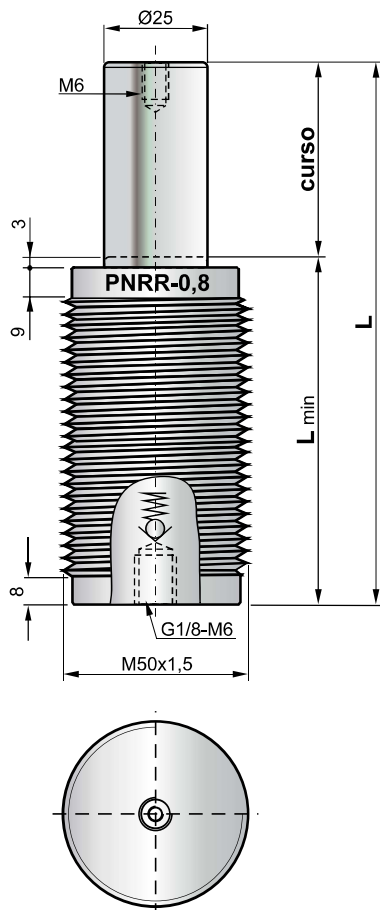
Alternativas de montagem



Fixação com flange ranhurada

PNB-24-M45

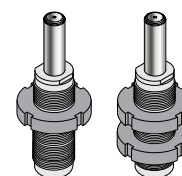




Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=63 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRR-0,8-010	10	736,3	961,3	83	73	20,9	0,891
PNRR-0,8-015	15	736,3	1.015	93	78	26,7	0,942
PNRR-0,8-020	20	736,3	1.053	103	83	32,5	0,992
PNRR-0,8-025	25	736,3	1.082	113	88	38,3	1.043
PNRR-0,8-032	32	736,3	1.111	127	95	46,5	1.114
PNRR-0,8-038	38	736,3	1.130	139	101	53,4	1.175
PNRR-0,8-050	50	736,3	1.157	163	113	67,4	1.297
PNRR-0,8-063	63	736,3	1.177	189	126	82,5	1.429
PNRR-0,8-075	75	736,3	1.190	213	138	96,4	1.551
PNRR-0,8-080	80	736,3	1.195	223	143	102,2	1.601
PNRR-0,8-100	100	736,3	1.209	263	163	125,5	1.804
PNRR-0,8-125	125	736,3	1.220	313	188	154,5	2.057

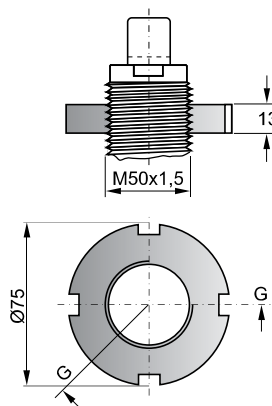
* Força Final Isotérmica a 20°C, curso totalmente atuado.

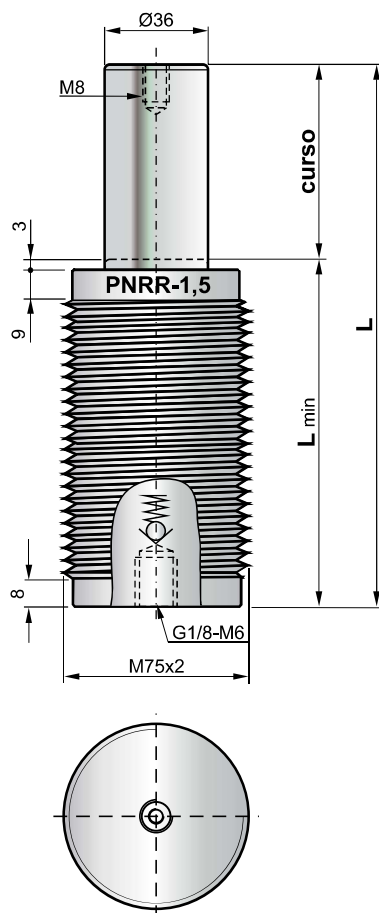
Alternativas de montagem



Fixação com flange ranhurada

PNB-24-M50

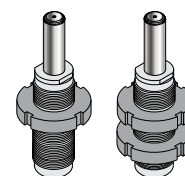




Código	Curso Cilindro (mm)	Força da N Pressão à 150bar		L K=92 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRR-1,5-010	10	1.526	1.986	112	102	43,9	2.897
PNRR-1,5-015	15	1.526	2.086	122	107	56,9	3.007
PNRR-1,5-020	20	1.526	2.151	132	112	70,1	3.117
PNRR-1,5-025	25	1.526	2.197	142	117	83,3	3.226
PNRR-1,5-032	32	1.526	2.244	156	124	101,8	3.380
PNRR-1,5-038	38	1.526	2.274	168	130	117,7	3.512
PNRR-1,5-050	50	1.526	2.315	192	142	149,4	3.774
PNRR-1,5-063	63	1.526	2.345	218	155	183,7	4.059
PNRR-1,5-075	75	1.526	2.364	242	167	215,4	4.322
PNRR-1,5-080	80	1.526	2.371	252	172	228,6	4.432
PNRR-1,5-100	100	1.526	2.391	292	192	281,5	4.871
PNRR-1,5-125	125	1.526	2.408	342	217	347,5	5.419
PNRR-1,5-160	160	1.526	2.423	412	252	440,0	6.186

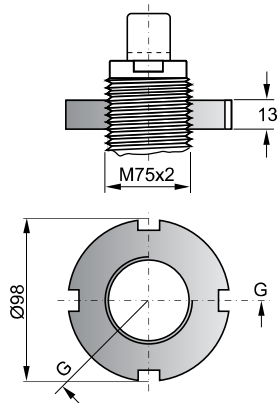
* Força Final Isotérmica a 20°C, curso totalmente atuado.

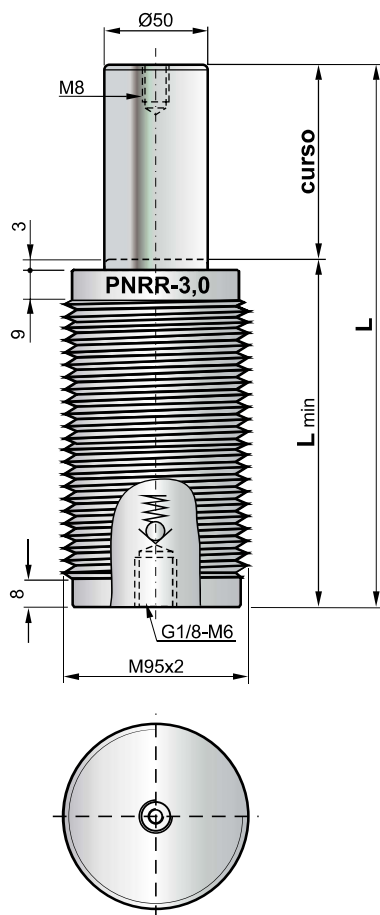
Alternativas de montagem



Fixação com flange ranhurada

PNB-24-M75

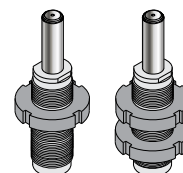




Código	Curso Cilindro (mm)	Força daN Pressão à 150bar		L K=92 (mm)	L min. (mm)	Vol. inicial (cm³)	Kg
PNRR-3,0-015	15	2.945	4.312	122	107	92,8	4.906
PNRR-3,0-020	20	2.945	4.473	132	112	114,9	5.088
PNRR-3,0-025	25	2.945	4.588	142	117	137,0	5.271
PNRR-3,0-032	32	2.945	4.705	156	124	167,9	5.524
PNRR-3,0-038	38	2.945	4.778	168	130	194,4	5.743
PNRR-3,0-050	50	2.945	4.881	192	142	247,5	6.180
PNRR-3,0-063	63	2.945	4.955	218	155	304,9	6.652
PNRR-3,0-075	75	2.945	5.003	242	167	357,9	7.089
PNRR-3,0-080	80	2.945	5.020	252	172	380,0	7.271
PNRR-3,0-100	100	2.945	5.070	292	192	468,3	7.999
PNRR-3,0-125	125	2.945	5.113	342	217	578,8	8.908
PNRR-3,0-160	160	2.945	5.151	412	252	733,4	10.181

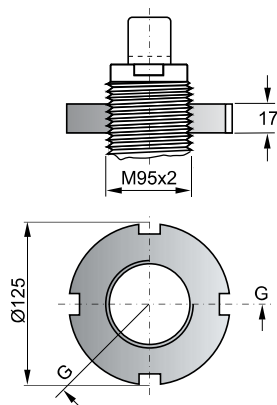
* Força Final Isotérmica a 20°C, curso totalmente atuado.

Alternativas de montagem



Fixação com flange ranhurada

PNB-24-M95



[illegible]

83

PRO-NITRO

Sistemas de pressão com nitrogênio

Cilindros de nitrogênio / molas a gás :

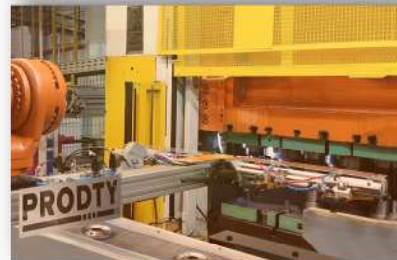
- Sistêmicos, autônomos
- Forças de 100 a 20,000 Kg
- Altura compacta
- Almofadas de pressão com nitrogênio
- Sistemas de pressão com nitrogênio



AUTOMAÇÃO

Manipuladores para prensa e outros processos:

- Alimentação, extração e transferência de peças
- Manipuladores com 2,3 ou mais eixos com acionamento por CNC
- Manipuladores pneumáticos
- Manipuladores mecânicos
- Transportadores de correia para peças estampadas
- Telescópios para peças e prensas de grande porte
- Compactos para retalhos e pequenas peças



TRANSFER



- Sistemas com 1,2 ou 3 eixos de acionamento
- Sistemas com acionamento mecânico
- Sistemas com acionamento por servo motores

GARRAS

Réguas Transfer Garras & Complementos



- Réguas
- Garras
- Pás
- Suportes
- Hastes Giratórias
- Presilhas
- Extra Passo
- Carros
- Berços



SR

Sistema de Troca Rápida



Prendedores

- Hidráulicos com posicionamento manual
- Com acionamento mecânico
- Carrinhos / estações de preparação / espera
- Levantadores de ferramenta com rodízios / esferas
- Consoles para : - prensa de grande , médio e pequeno porte
- injetoras e máquinas de usinagem

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