

# GC118...R

## BAR CLAMP FOR HOCKEY PUK DEVICES

- Clamping total thickness of assembly from 0mm to 126mm
- Pre-loaded to the specific clamping force ( $F = 22 \div 32$  kN)
- Maximum device diameter:  $L = 105$ mm
- Surface passivation to provide extra protection
- Various lengths of bolts and insulating cups
- Round shaped clamping head for even clamping force application
- Four styles available
- User friendly clamping force indicator
- UL94 certified insulation material
- RoHS compliant

Characteristic		Unit	Types	Notes	Values		
					Min	Typ	Max
m	Mass	g	GC118S...R		930		1030
			GC118B...R		1750		1870
F	Clamping Force*	kN	GC118...22R			22	
			GC118...24R			24	
			GC118...30R			30	
			GC118...32R			32	
$\Delta F$	Clamping Force tolerance						$\pm 10\%$
$V_{INS}$	Insulation Voltage	V		50 Hz, RMS, 60 s		3000	
	Insulating Material				PPO** or PPS***		
	UL Files		PPO		E121562		
			PPS		E95746		
T	Operating temperature range	$^{\circ}C$	PPO		-30		110
			PPS		-40		230
$T_{stg}$	Storage temperature range	$^{\circ}C$	PPO		-30		135
			PPS		-40		240
$D_s$	Surface creepage distance	mm				28	
$D_a$	Air strike distance	mm				20.3	
CTI	Comparative Tracking Index	V	PPO	According to UL746		225.0	
			PPS	According to IEC112/3rd		250.0	
	Flammability	mm	PPO	UL94 V-1 Flame class rating		1.5	
				UL94 V-0 Flame class rating		6.0	
			PPS	UL94 V-0 Flame class rating		1.6	

\* Other clamping forces available upon request: contact factory

\*\* Polyphenylene Oxide

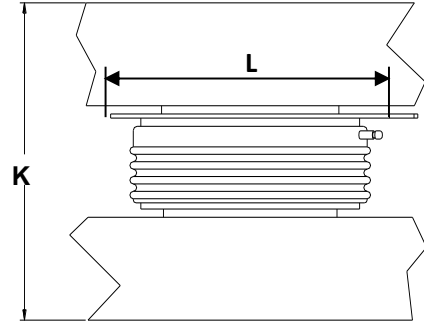
\*\*\* Polyphenylene Sulfide

ORDERING INFORMATION TABLE

Use this part numbering system to order

<b>GC118</b>	<b>B</b>	<b>N</b>	<b>B</b>	<b>A</b>	<b>20</b>	<b>R</b>	<b>S</b>	<b>H</b>	<b>X</b>	<b>L</b>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

<b>(1) Construction type:</b>	<b>B</b> = with reaction bar <b>S</b> = without reaction bar
<b>(2) Insulator position:</b>	<b>N</b> = on load bar <b>R</b> = on reaction bar
<b>(3) Insulator code:</b>	<b>_</b> = no insulating cup <b>other</b> : see table below
<b>(4) Bolt code:</b>	<b>_</b> = no bolt <b>other</b> : see table below
<b>(5) Clamping force (in kN):</b>	22÷32, with step of 1 kN
<b>(6) Special accessories</b>	<b>blank</b> = no accessories <b>S</b> = extra bar spacer (*) <b>D</b> = pressure disc in place of distribution bar
<b>(7) Insulating cup material</b>	<b>0</b> = standart PPO insulating cup <b>H</b> high temperature PPS insulating cup
<b>(8) Bolt steel type</b>	<b>0</b> = standard 8.8 steel bolts <b>X</b> = A2 stainless steel bolts (**)
<b>(9) Bar thickness</b>	<b>0</b> = standart bar thickness (25mm)



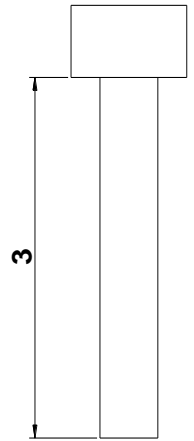
K: Total thickness of the assembly to be clamped  
L: Max inner diameter allowable

(\*) Needed to reduce  $S_{Min}$  if a lower allowed clearance is required

(\*\*) Suggested for high current applications, magnetic sensitive applications or any application working in very high E.M. fields

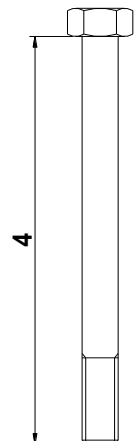
Type GC118BN...R: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
0	12	A	50	Y	90	112
8	22	B	70	Z	100	122
18	32	B	70	A	110	132
28	42	B	70	B	120	142
32	52	C	95	C	130	158
42	62	C	95	D	140	168
52	72	C	95	E	150	178
62	82	D	120	F	160	188
72	92	D	120	G	170	198
82	102	D	120	H	180	208
92	112	E	150	I	190	218
102	122	E	150	J	200	228



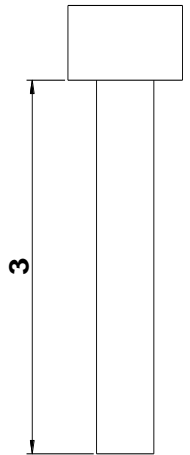
Type GC118BR...R: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
0	12	Z	34	Y	90	129
8	22	A	50	Z	100	139
18	32	B	70	A	110	149
28	42	B	70	B	120	159
32	52	B	70	C	130	169
42	62	C	95	D	140	179
52	72	C	95	E	150	189
62	82	D	120	F	160	199
72	92	D	120	G	170	209
82	102	D	120	H	180	208
92	112	E	150	I	190	218
102	122	E	150	J	200	228



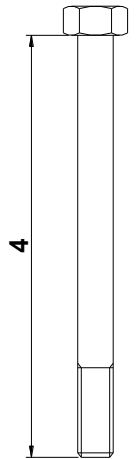
Type GC118SN...R: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
0	11	A	50	W	80	88
7	21	A	50	Y	90	98
17	31	B	70	Z	100	108
27	41	B	70	A	110	118
37	51	B	70	B	120	128
41	61	C	95	C	130	138
51	71	C	95	D	140	148
61	81	C	95	E	150	158
71	91	D	120	F	160	168
81	101	D	120	G	170	178
91	111	D	120	H	180	188
101	121	E	150	I	190	198

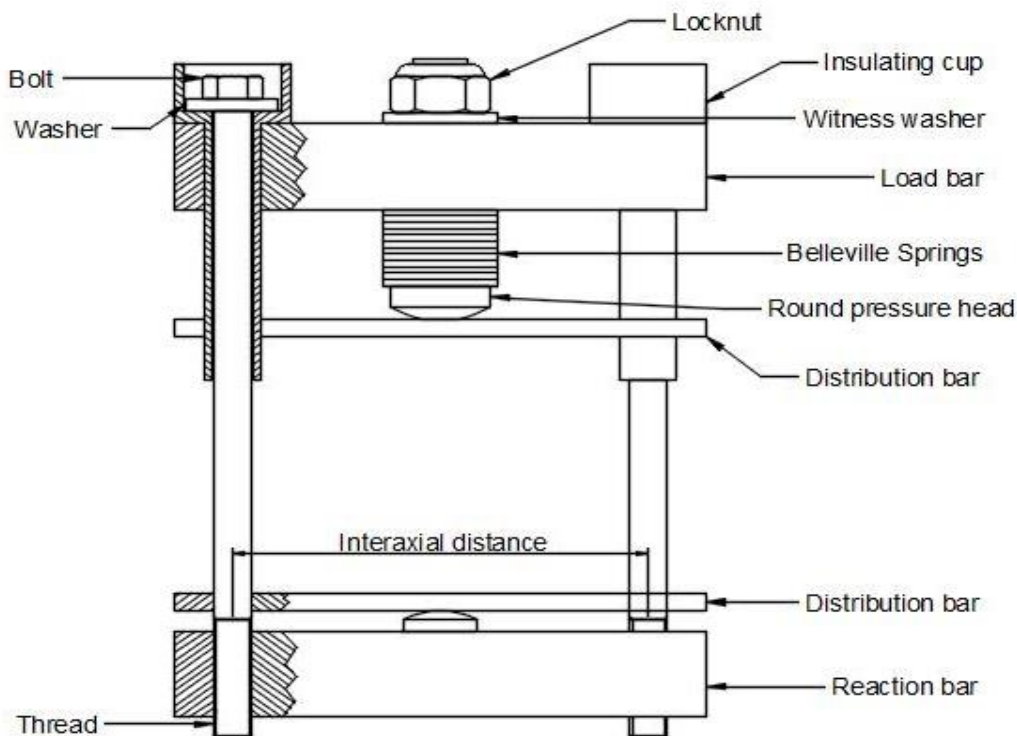


Type GC118SR...R: suggested insulator/bolt types

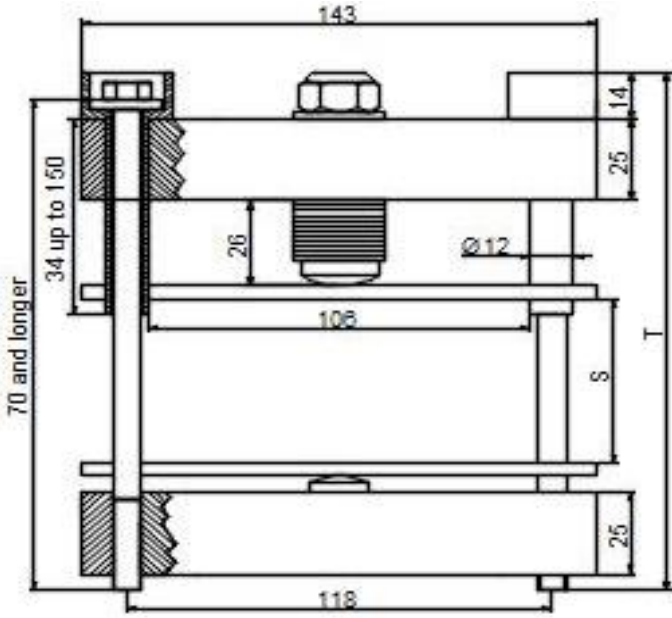
Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
12	26	Z	34	U	70	106
17	31	Z	34	V	75	111
22	36	A	50	W	80	116
32	46	A	50	Y	90	126
42	56	B	70	Z	100	136
52	66	B	70	A	110	146
62	76	B	70	B	120	156
66	86	C	95	C	130	172
76	96	C	95	D	140	182
86	106	C	95	E	150	192
96	116	D	120	F	160	202
106	126	D	120	G	170	212



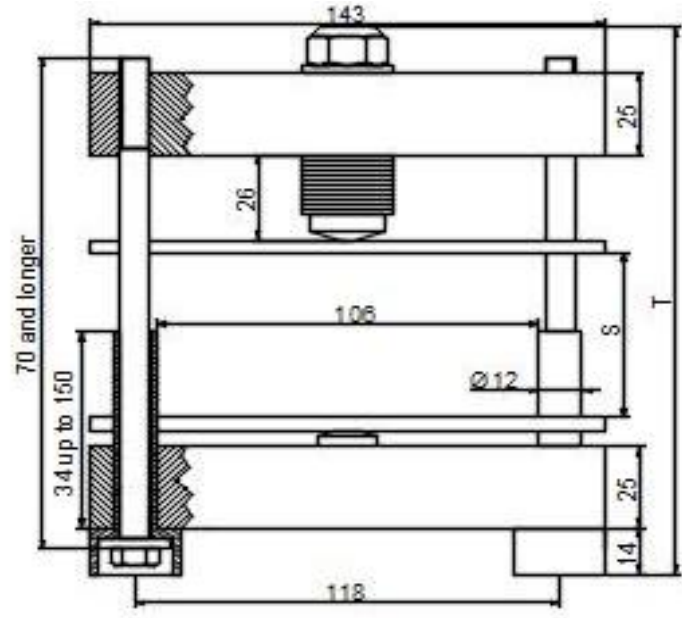
BAR CLAMP COMPONENTS LEGEND



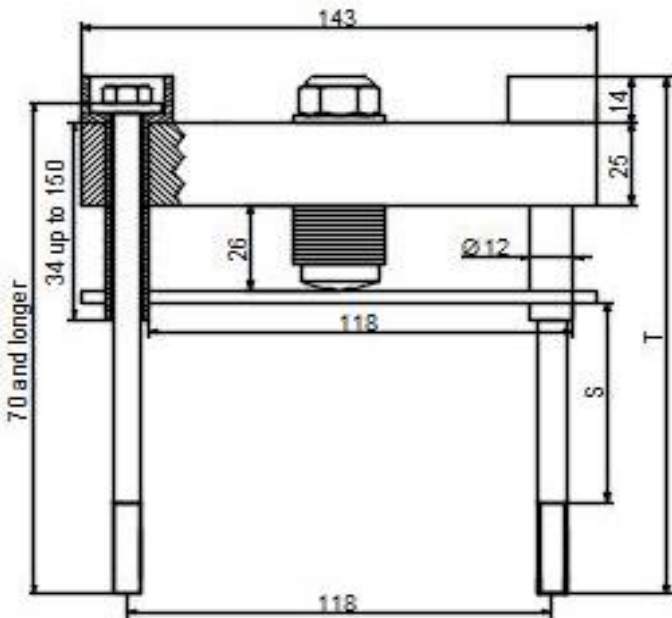
BAR CLAMP OUTLINES



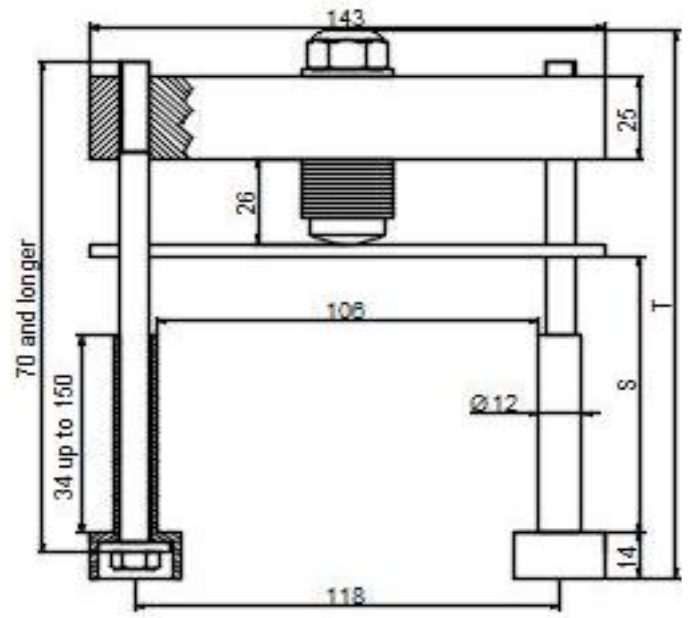
GC118BN...R



GC118BR...R



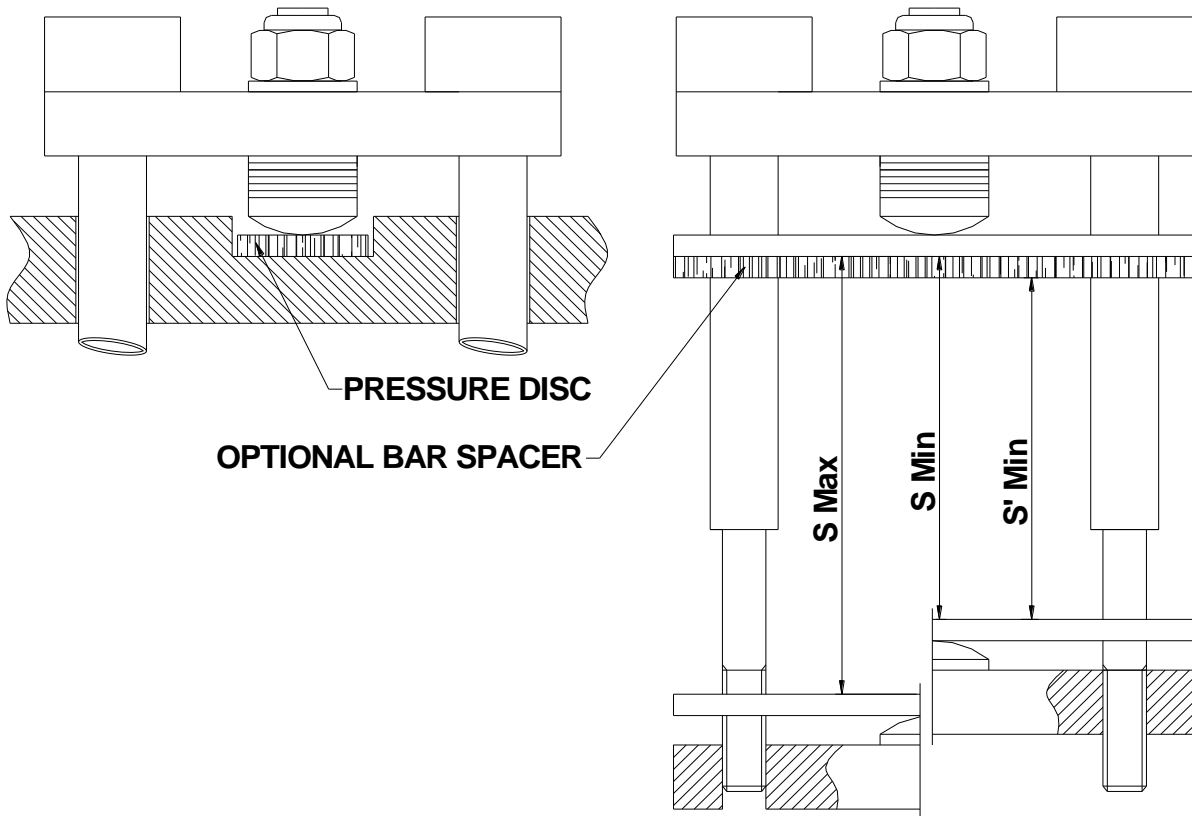
GC118SN...R



GC118SR...R

Dimensions in mm - Tolerances according to ISO 2768 MK

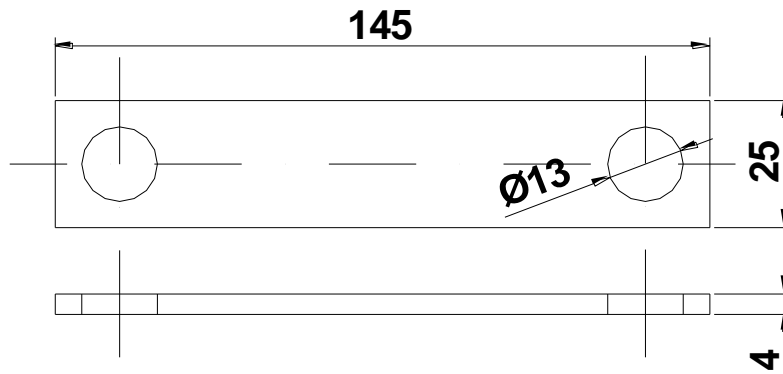




**SPECIAL ACCESSORIES**

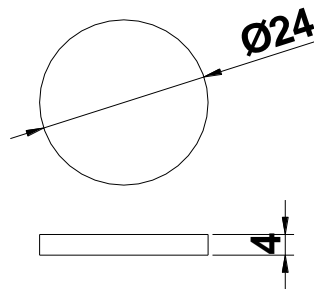
The following special accessories are available on request (see ordering information table)

**Bar spacer**



**Pressure disc**

Useful for grooved heatsink  
Suggested groove diameter 27mm +/- 0.5



**Dimensions in mm - Tolerances according to ISO 2768 MK**

In the interest of product improvement Green Power Solutions reserves the right to change any specification given in this data sheet without notice.