

# GC70...R

## BAR CLAMP FOR HOCKEY PUK DEVICES

Clamping total thickness of assembly  
 from 1.5mm to 136.5mm

Pre-loaded to the specific clamping  
 force ( $F = 5 \div 12$  kN)

Maximum device diameter:  $L = 57$ 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	GC70S...R		420		520
			GC70B...R		590		730
F	Clamping Force*	kN	GC70...05R			05	
			GC70...08R			08	
			GC70...10R			10	
			GC70...12R			12	
$\Delta F$	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	°C	PPO		-30		110
			PPS		-40		230
$T_{stg}$	Storage temperature range	°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

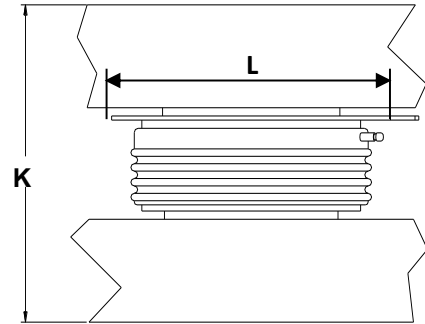
\*\*\* Polyphenylene Sulfide

ORDERING INFORMATION TABLE

Use this part numbering system to order

<b>GC70</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>	5÷12, 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 (20mm) <b>L</b> = low profile bars (15mm)



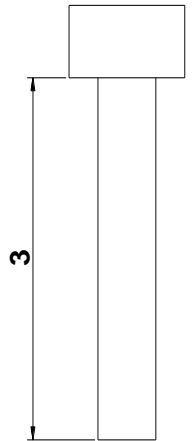
K: Total thickness of the assembly to be clamped  
L: Max inner diameter allowable

(\*) 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

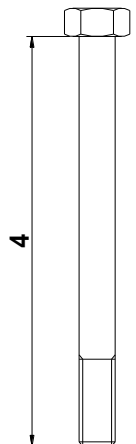
Type GC70BN...R: suggested insulator/bolt types

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]
1.5	15.5	Z	34	U	70	92
6.5	20.5	Z	34	V	75	97
11.5	25.5	A	50	W	80	102
21.5	35.5	A	50	Y	90	112
31.5	45.5	B	70	Z	100	122
41.5	55.5	B	70	A	110	132
51.5	65.5	B	70	B	120	142
55.5	75.5	C	95	C	130	158
65.5	85.5	C	95	D	140	168
75.5	95.5	C	95	E	150	178
85.5	105.5	D	120	F	160	188
95.5	115.5	D	120	G	170	198



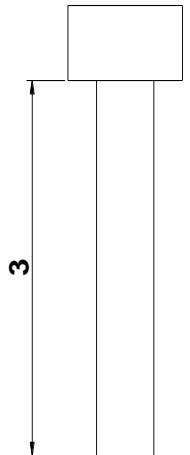
Type GC70BR...R: suggested insulator/bolt types

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]
1.5	15.5	Z	34	U	70	96
6.5	20.5	Z	34	V	75	101
11.5	25.5	A	50	W	80	106
21.5	35.5	A	50	Y	90	116
31.5	45.5	B	70	Z	100	126
41.5	55.5	B	70	A	110	136
51.5	65.5	B	70	B	120	146
55.5	75.5	C	95	C	130	156
65.5	85.5	C	95	D	140	166
75.5	95.5	C	95	E	150	176
85.5	105.5	D	120	F	160	186
95.5	115.5	D	120	G	170	196



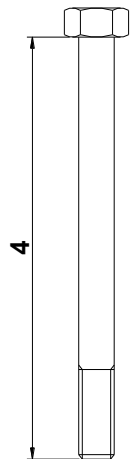
Type GC70SN...R: suggested insulator/bolt types

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]
10.5	24.5	Z	34	U	70	78
15.5	29.5	Z	34	V	75	83
20.5	34.5	A	50	W	80	88
30.5	44.5	A	50	Y	90	98
40.5	54.5	B	70	Z	100	108
50.5	64.5	B	70	A	110	118
60.5	74.5	B	70	B	120	128
64.5	84.5	C	95	C	130	138
74.5	94.5	C	95	D	140	148
84.5	104.5	C	95	E	150	158
94.5	114.5	D	120	F	160	168
104.5	124.5	D	120	G	170	178

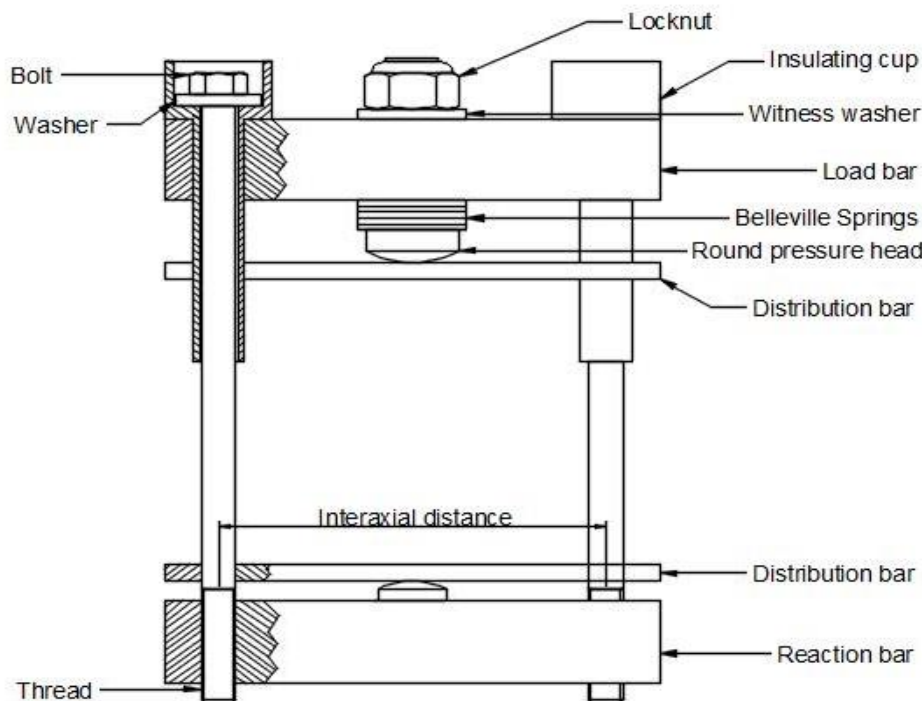


Type GC70SR...R: suggested insulator/bolt types

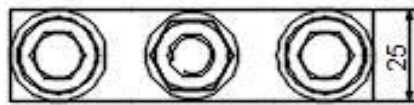
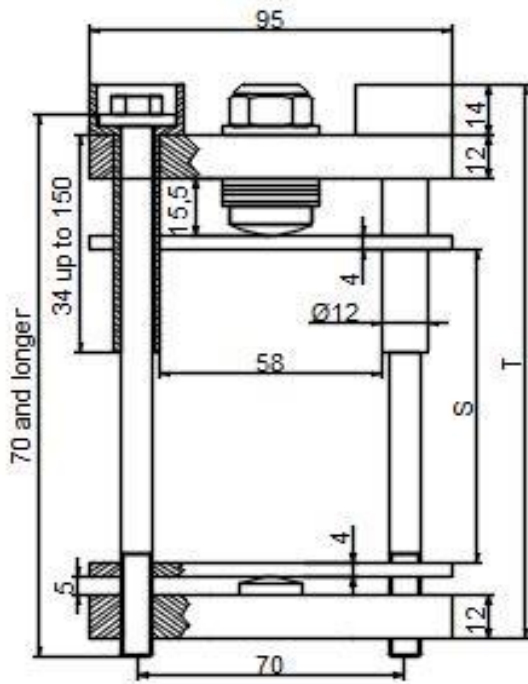
Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
22.5	36.5	Z	34	U	70	106
27.5	41.5	Z	34	V	75	111
32.5	46.5	A	50	W	80	116
42.5	56.5	A	50	Y	90	126
52.5	66.5	B	70	Z	100	136
62.5	76.5	B	70	A	110	146
72.5	86.5	B	70	B	120	156
76.5	96.5	C	95	C	130	172
86.5	106.5	C	95	D	140	182
96.5	116.5	C	95	E	150	192
106.5	126.5	D	120	F	160	202
116.5	136.5	D	120	G	170	212



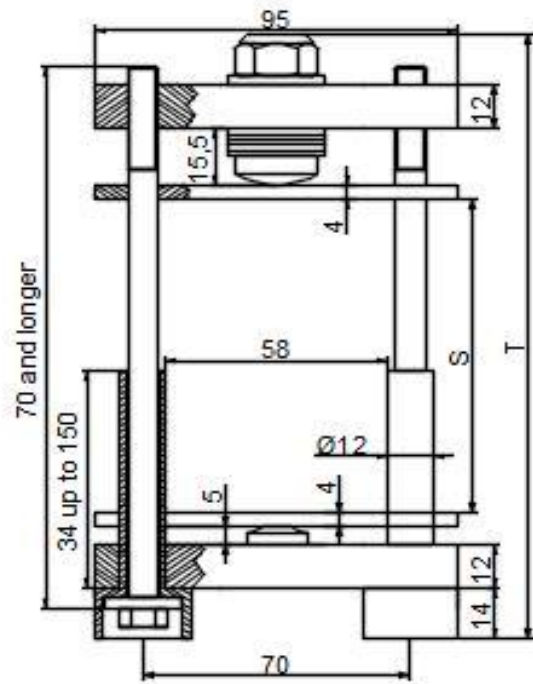
BAR CLAMP COMPONENTS LEGEND



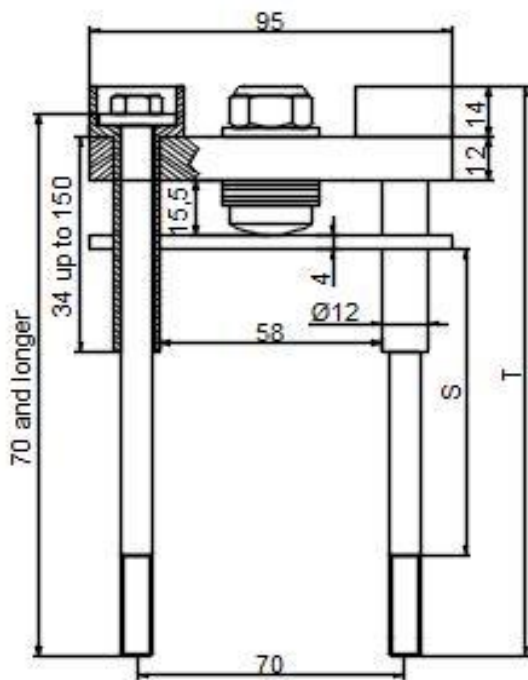
BAR CLAMP OUTLINES



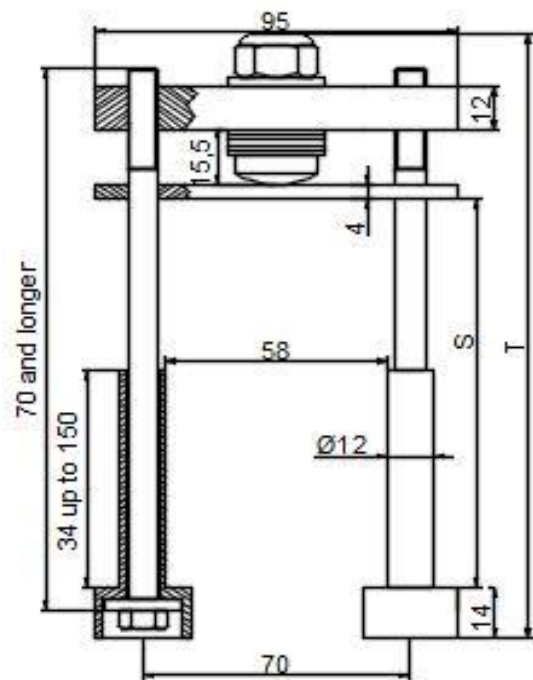
GC70BN...R



GC70BR...R

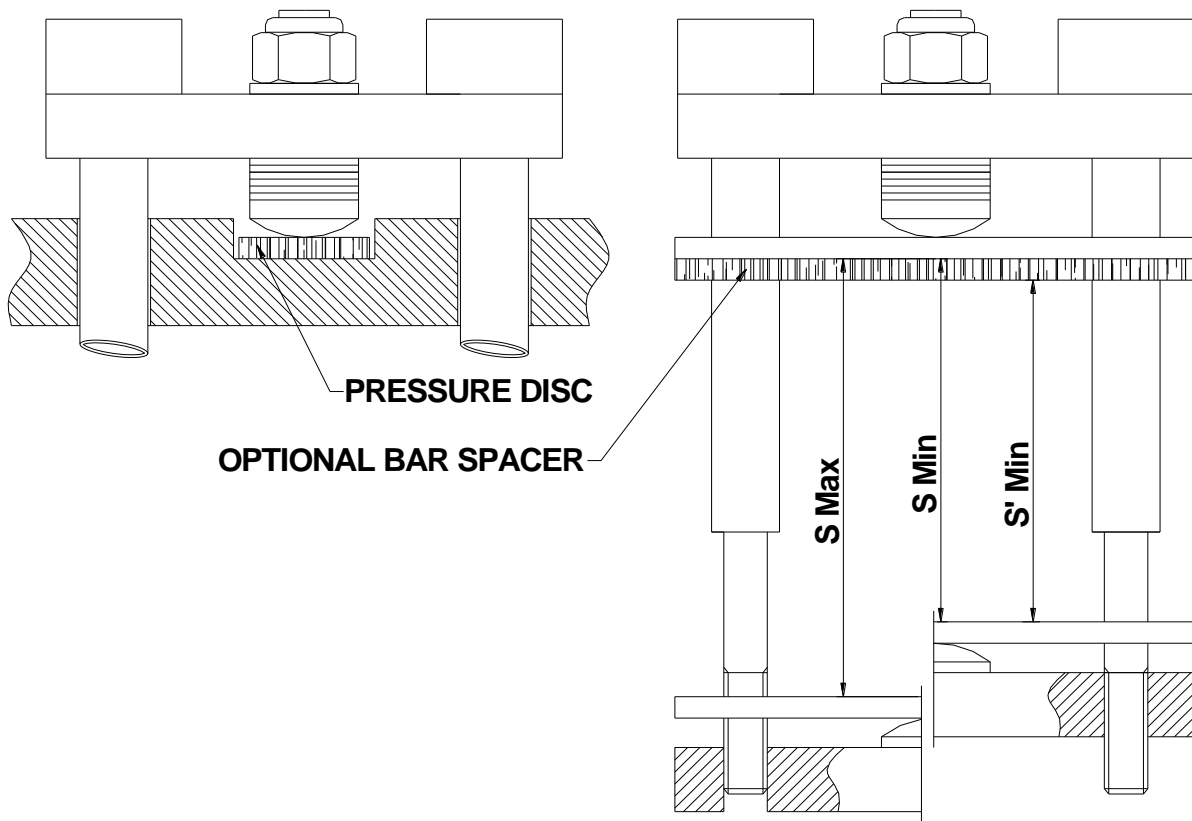


GC70SN...R



GC70SR...R

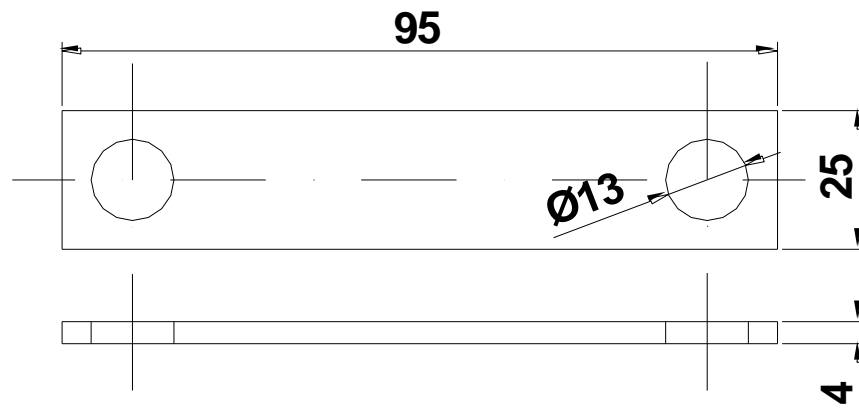
Dimensions in mm - Tolerances according to ISO 2768 MK



**SPECIAL ACCESSORIES**

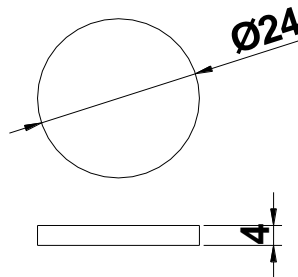
The following special accessories are available on request (see ordering information table)

**Bar spacer**



**Pressure disc**

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.