

# GC140...R

## BAR CLAMP FOR HOCKEY PUK DEVICES

Clamping total thickness of assembly  
 from 0 mm to 145 mm

Pre-loaded to the specific clamping  
 force ( $F = 35 \div 45$  kN)

Maximum device diameter:  $L = 124$  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

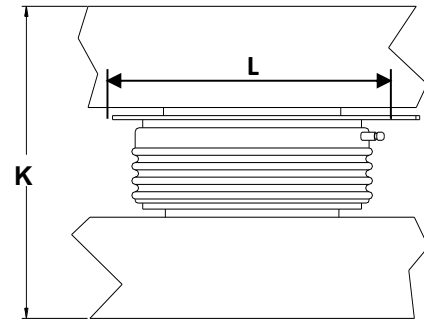
Characteristic		Unit	Types	Testing conditions	Values		
					Min	Typ	Max
m	Mass	g	GC140S...R		1980		2050
			GC140B...R		2380		2450
F	Clamping Force*	kN	GC140...35R			35	
			GC140...40R			40	
			GC140...45R			45	
$\Delta F$	Clamping Force tolerance						$\pm 10\%$
$V_{INS}$	Insulation Voltage	V		50 Hz, RMS, 60 s		3000	
	Insulating Material		PPO		Polyphenylene Oxide		
	UL Files		PPO		E121562		
T	Operating temperature range	$^{\circ}C$	PPO		-30		110
$T_{stg}$	Storage temperature range	$^{\circ}C$	PPO		-20		135
$D_s$	Surface creepage distance	mm				28	
$D_a$	Air strike distance	mm				20,3	
CTI	Comparative Tracking Index	V	PPO	According to UL746		225,0	
	Flammability	mm	PPO	UL94 V-1 Flame class rating		1,5	
				UL94 V-0 Flame class rating		6,0	

**ORDERING INFORMATION TABLE**

Use this part numbering system to order

<b>GC140</b>	<b>B</b>	<b>N</b>	<b>B</b>	<b>A</b>	<b>20</b>	<b>R</b>	<b>S</b>	<b>0</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>	35÷45, 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>(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)



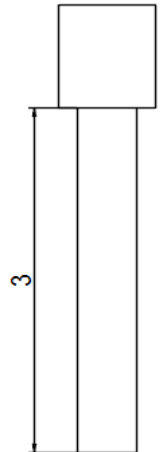
**K:** Total thickness of the assembly to be clamped  
**L:** Max inner diameter allowable

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

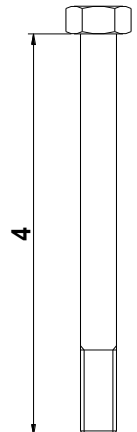
(\*\*) Suggested for high current applications, magnetic sensitive applications or any application working in very high E.M. fields

**Type GC140BN...R: suggested insulator/bolt types**

Allowed clearance <b>S</b>		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
0	10	A	100	B	120	149
0	20	A	100	C	130	159
8	30	A	100	D	140	169
18	40	A	100	E	150	179
28	50	A	100	F	160	189
38	60	A	100	G	170	199
48	70	A	100	H	180	209
58	80	A	100	I	190	219
68	90	A	100	J	200	229
78	100	A	100	K	210	239
88	110	A	100	L	220	249
98	120	A	100	M	230	259
108	130	A	100	N	240	269

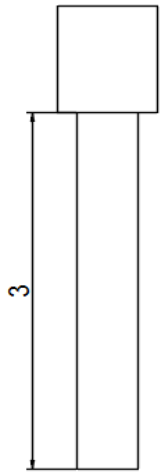

**Type GC140BR...R: suggested insulator/bolt types**

Allowed clearance <b>S</b>		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
0	10	A	100	B	120	149
0	20	A	100	C	130	159
8	30	A	100	D	140	169
18	40	A	100	E	150	179
28	50	A	100	F	160	189
38	60	A	100	G	170	199
48	70	A	100	H	180	209
58	80	A	100	I	190	219
68	90	A	100	J	200	229
78	100	A	100	K	210	239
88	110	A	100	L	220	249
98	120	A	100	M	230	259
108	130	A	100	N	240	269



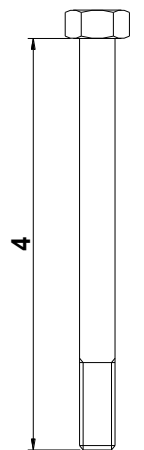
Type GC140SN...R: suggested insulator/bolt types

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]
13	35	A	100	B	120	149
23	45	A	100	C	130	159
33	55	A	100	D	140	169
43	65	A	100	E	150	179
53	75	A	100	F	160	189
63	85	A	100	G	170	199
73	95	A	100	H	180	209
83	105	A	100	I	190	219
93	115	A	100	J	200	229
103	125	A	100	K	210	239
113	135	A	100	L	220	249
123	145	A	100	M	230	259
133	155	A	100	N	240	269

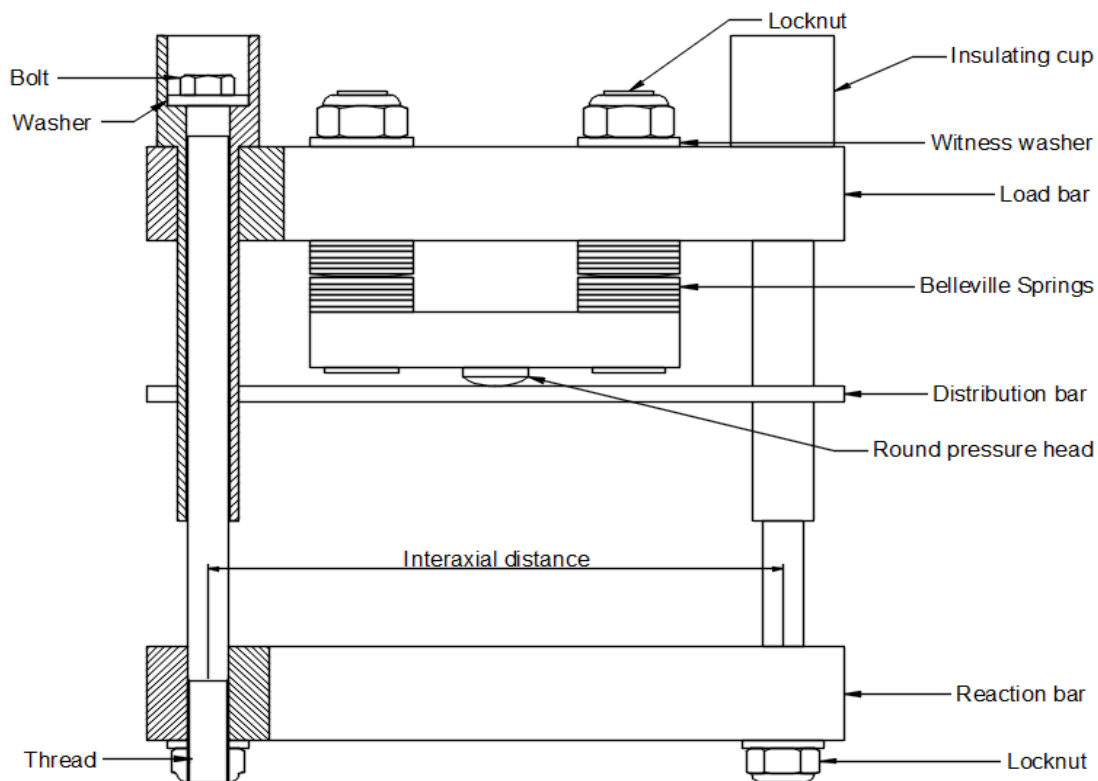


Type GC140SR...R: suggested insulator/bolt types

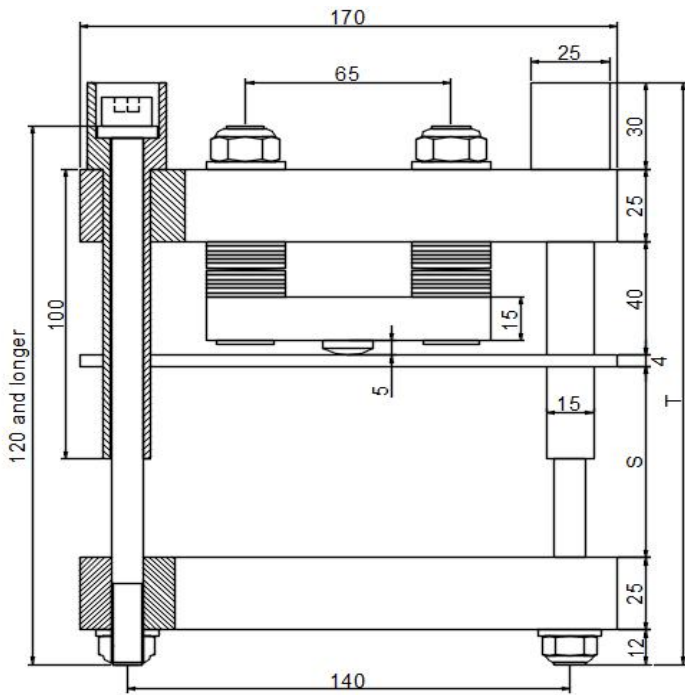
Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
13	35	A	100	B	120	149
23	45	A	100	C	130	159
33	55	A	100	D	140	169
43	65	A	100	E	150	179
53	75	A	100	F	160	189
63	85	A	100	G	170	199
73	95	A	100	H	180	209
83	105	A	100	I	190	219
93	115	A	100	J	200	229
103	125	A	100	K	210	239
113	135	A	100	L	220	249
123	145	A	100	M	230	259
133	155	A	100	N	240	269



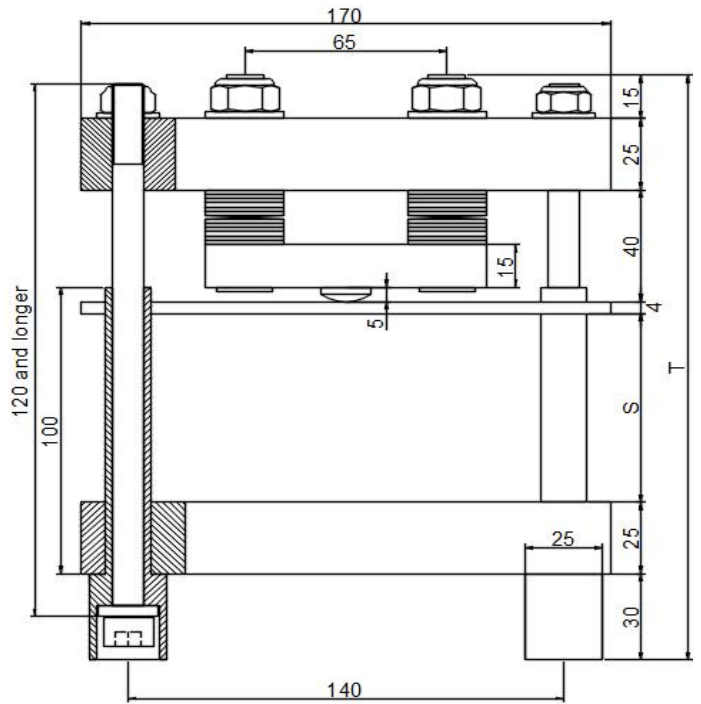
BAR CLAMP COMPONENTS LEGEND



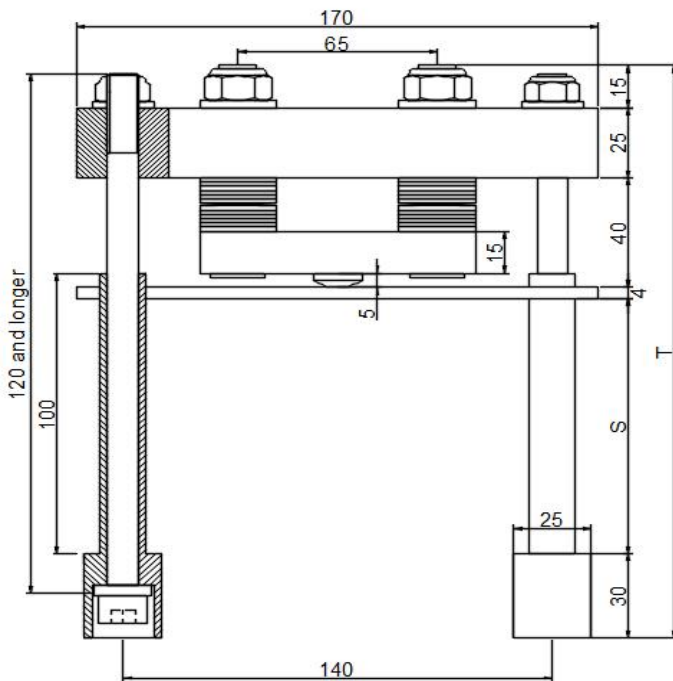
BAR CLAMP OUTLINES



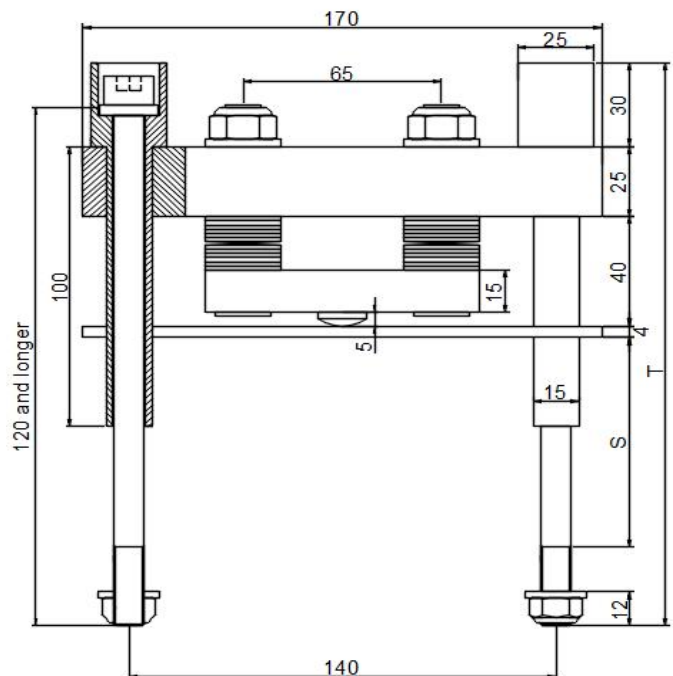
GC140BN...R



GC140BR...R

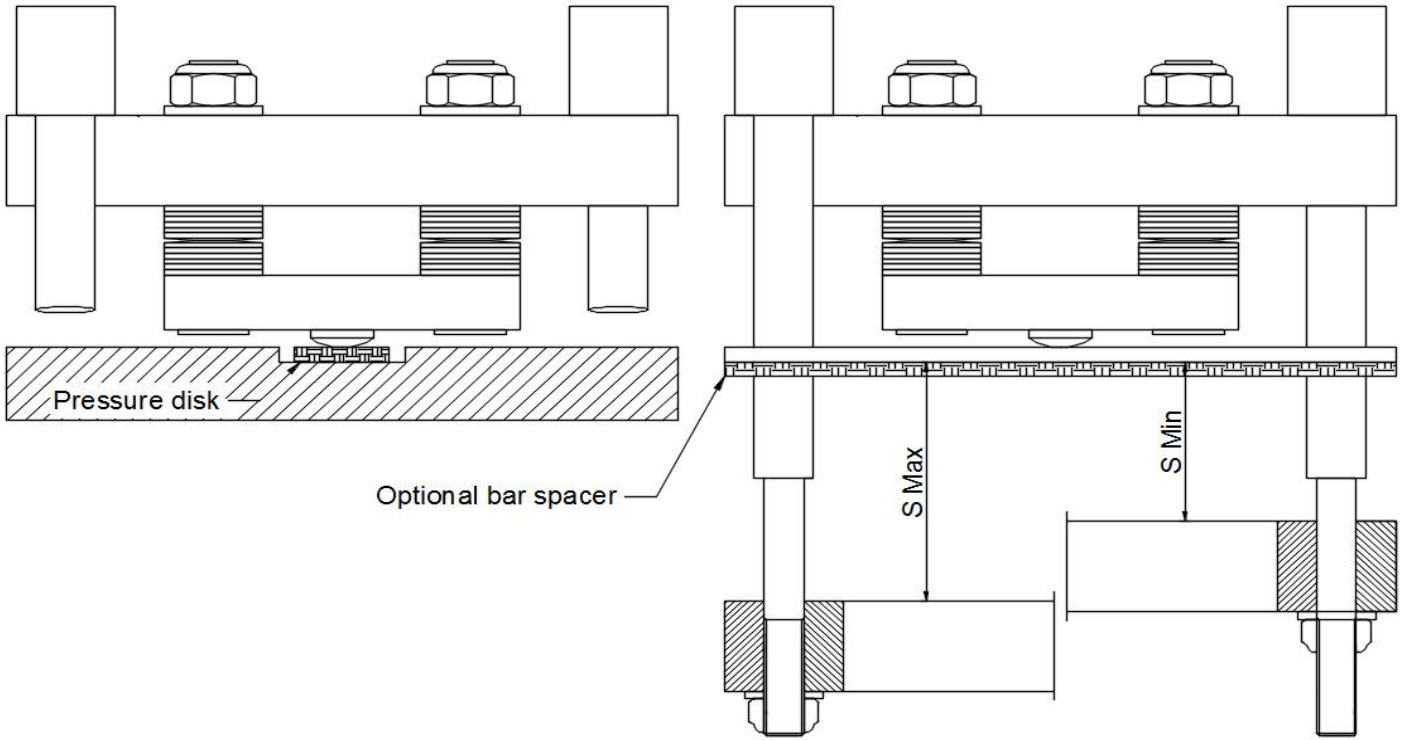


GC140SR...R



GC140SN...R

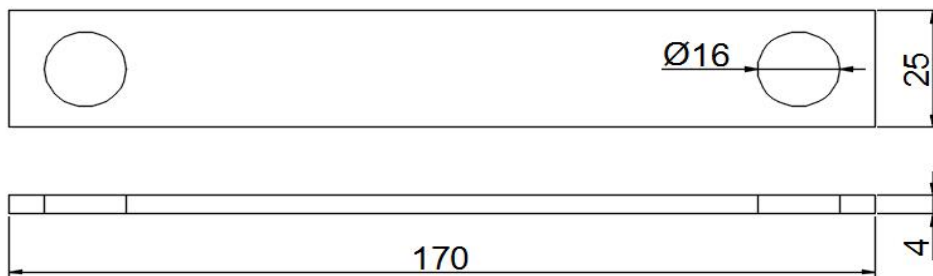
Dimensions in mm - Tolerances according to ISO 2768 MK



**SPECIAL ACCESSORIES**

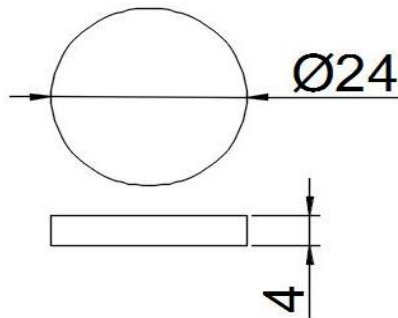
The following special accessories are available on request (see ordering information table)

**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.