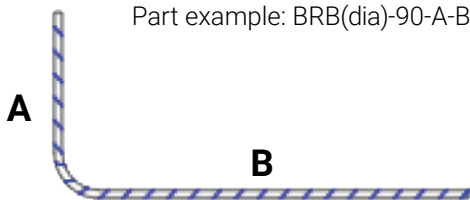


## STANDARD STOCK BENDS

### G1 90° Bent (Steel 2, 17)



General Max Dimensions:  
 If  $A \leq 24"$ , B may be up to 110"  
 If  $A \leq 55"$ , B may be up to 95"  
 If  $A \leq 80"$ , B may be up to 80"

**OR**  
 $\text{Sqrt}(A^2+B^2)$  shall be  $\leq 110"$   
 Min Legs:  $\geq 10 \times \text{Dia}$

G1 available in custom lengths – see Custom bends below for limitations.

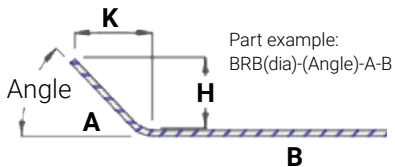
Bar Size	Description	Item #	Weight per bend (lb)
#3	.375 in diameter; 90 degree bend; 24x24	BRB3-90-24-24	0.50
#3	.375 in diameter; 90 degree bend; 36x36	BRB3-90-36-36	0.75
#4	.500 in diameter; 90 degree bend; 24x24	BRB4-90-24-24	0.82
#4	.500 in diameter; 90 degree bend; 36x36	BRB4-90-36-36	1.23
#5	.625 in diameter; 90 degree bend; 36x36	BRB5-90-36-36	1.67

Bends must be ordered in 500 piece increments – minimum of 500 bends per order.

## CUSTOM BENDS

- Lead time for custom bends will be determined once the final bar is approved.
- Minimum quantities may apply for custom bends production.

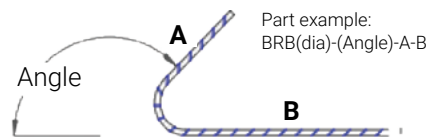
### G2 <90° Bent (Steel 3)



General Max Dimensions:  
 Combined A+B of 110" available regardless of Angle Max A+B may increase as angle increases

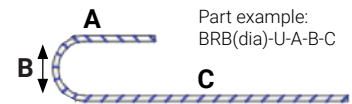
**OR**  
 $\text{Sqrt}(A^2+B^2)$  shall be  $\leq 110"$  regardless of Angle  
 Min Legs:  $\geq 10 \times \text{Dia}$

### G3 >90° Bent (Steel 13, 21, 30)



General Max Dimensions:  
 Combined A+B of 130" available regardless of Angle.  
 Max A+B may increase as angle increases  
 Min Legs:  $\geq 10 \times \text{Dia}$

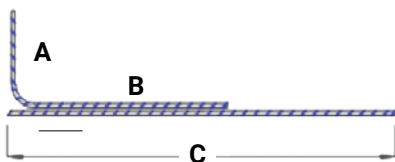
### G4 Hooked Bar (Steel 1)



$B = 8 \times (\text{dia})$  out-to-out  
 Max Legs:  $\leq 110"$  for A & C  
 Min Legs:  $\geq 10 \times \text{Dia}$  for A & C

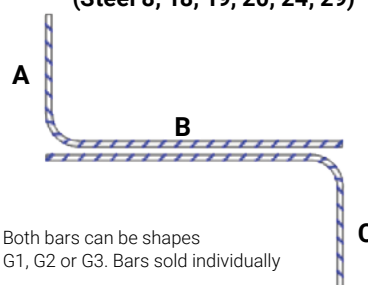
Note: A 90° bend with a 12 bar diameter tail is equally effective and more economical

### G5 Long Leg Bent (Steel 2, 17)



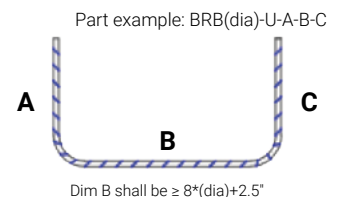
Bar comprised of sides A & B can be shapes G1, G2, G3, or G4  
 Straight bar (C) can be produced up to 40' in length.  
 Bars sold individually

### G6 Z Bar or Similar (Steel 8, 18, 19, 20, 24, 29)



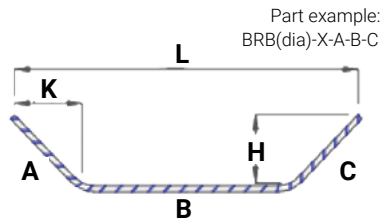
Both bars can be shapes G1, G2 or G3. Bars sold individually

### G7 U/C Shape Bar (Steel 2/17)



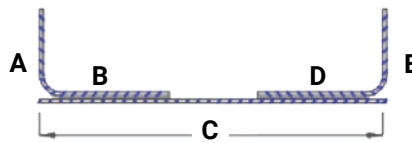
General Max Dimensions:  
 If  $B \leq 36"$ , A & C may be up to 110" If  $60 < B \leq 80"$ , A & C may be up to 80"  
 If  $36 < B \leq 60"$ , A & C may be up to 100" If  $80 < B \leq 110"$ , A & C may be up to 45"  
 Min A & C Legs:  $\geq 10 \times \text{Dia}$

### G8 Open U (Steel 3d, 4c, 14ab, 22B)



Dim B shall be  $\geq 8 \times (\text{dia}) + 2.5"$   
Please enquire for max tolerances on Open U shapes  
Min A & C Legs:  $\geq 10 \times \text{Dia}$

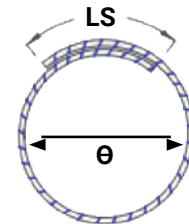
### G9 Long Leg U (Steel 2/17)



Bars comprised of sides A & B and D & E can be shapes shapes G1, G2, G3, or G4.  
Straight bar (C) can be produced up to 40' in length.  
Bars sold individually

### G10 Hoop (Steel T3)

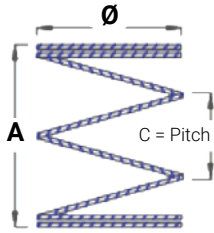
Part example: BRB(dia)-H-(Int. Ø)-(LS)



Max Size:  
 $8 \leq \text{Ø} \leq 48"$

Larger diameter available upon request.  
Additional tooling charges may apply.

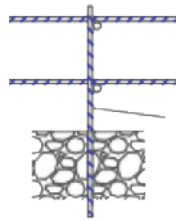
### G11 Spiral (Steel SP1)



Part example:  
BRB(dia)-S-(Int. Ø)-  
(Turns)

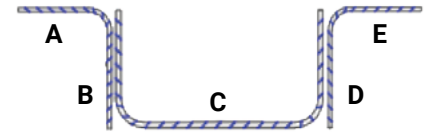
Max Size: Ø conforms to shape G10.  
Max number of turns:  
#3-#4: 22 Turns  
#5-#6: 18 Turns  
#7-#8: 15 Turns

### G12 Standees/Stakes (Steel 25, 26 alternative)



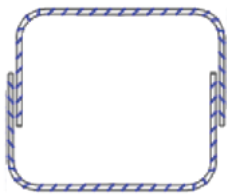
Standees available on request.  
An OCIS Fibreglas™ Rebar Stake is a more economical alternative for the Standee shape where possible and can be directly embedded into the ground without concerns of corrosion.

### G13 Gull Wing (Steel 3, 4, 7, 22, 23)



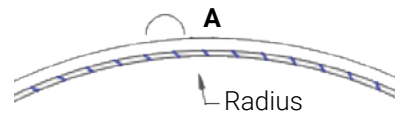
Bars comprised of sides A & B and D & E can be shapes G1, G2, G3, or G4. Bar comprised of sides B, C & D can be shapes G7 or G8. Bars sold individually.

### G14 Closed Loop Stirrup-Two U Shapes with Overlap



Includes (2) bars in the shape of G7.

### G15 Large Radius (Steel 9)



Straight bar can be produced up to 40' in length Refer to Field Forming section for Large Radius Curve allowances. Large Radius curves are field formed to shape. The table gives the minimum allowable radius for induced bending stresses without any consideration for additional sustained structural loads.

MODULUS OF ELASTICITY (KSI)	6800	8700
	RADIUS (IN)	RADIUS (IN)
#3	38	NA
#4	51	63
#5	NA	81
#6	NA	101
#8	NA	136

#### NOTES:

1. Please note that bends have a black resin, and the finished product is black.
2. This guide intends to capture the majority of our bent bar capabilities. Shapes and dimensions exceeding listed tolerances may be available. Please check with your Mateenbar™ representative for details or alternatives.
3. "dia" or "d" refer to bar diameter
4. Bent Bars available in sizes #3 - #8
5. Inner bend radii equal to 3x Bar Diameter
6. All dimensions are out-to-out.
7. Bent bar shape dimensions and tolerance details are specified in ASTM D7957, ACI 440, ACI 318, and ACI 117.

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