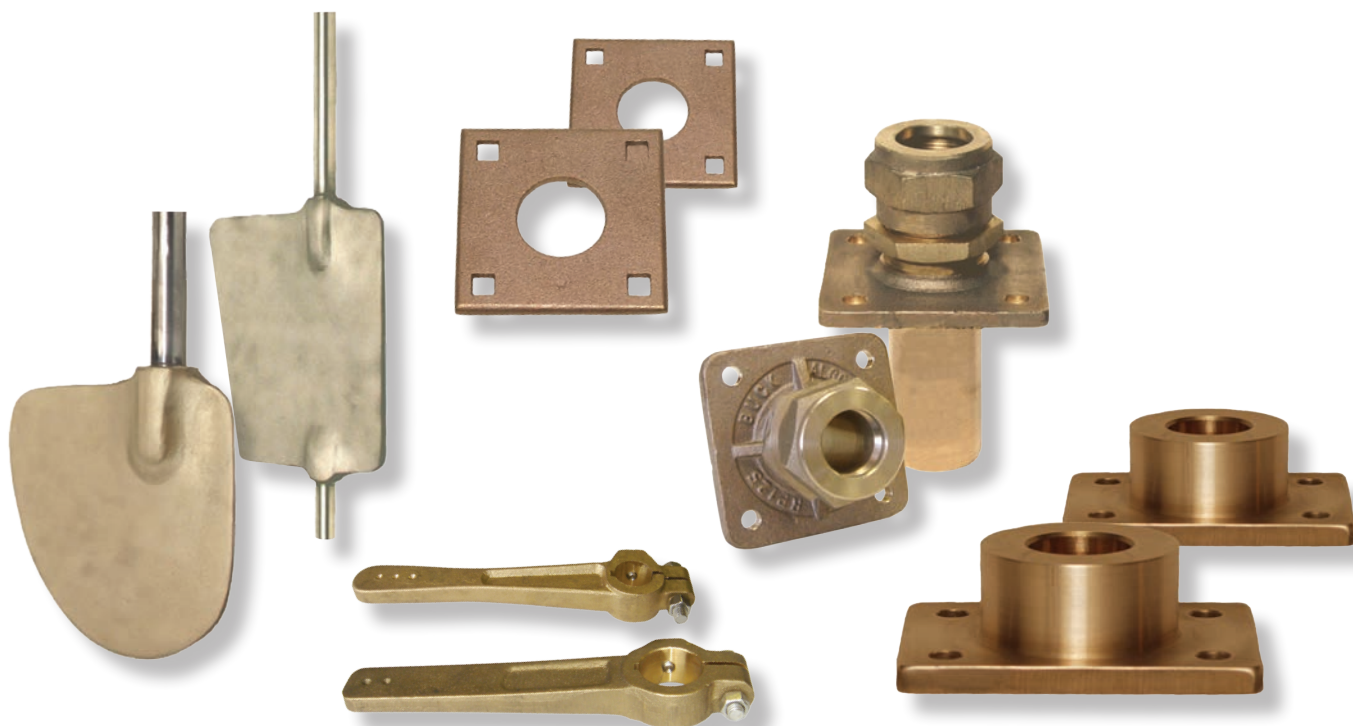
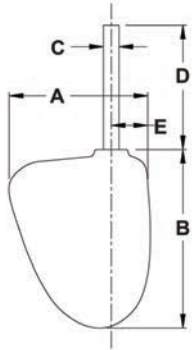


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Rudders

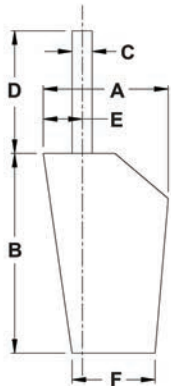


Features:

- stainless steel shaft cast into the blade
- rudder shafts do not come with keyways installed, keyways can be machined upon request
- stock shaft lengths shown, other lengths are available upon request

Blade Width (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Weight lbs.	Bronze Part #
9½"	12"	1"	12"	2 ¹³ / ₁₆ "	15.00	10R2SS1.00
9½"	12"	1⅛"	12"	2 ¹³ / ₁₆ "	15.00	10R2SS1.12
9½"	12"	1¼"	12"	2 ¹³ / ₁₆ "	15.00	10R2SS1.25
9½"	13"	1"	13"	2⅝"	15.00	10R3SS1.00
9½"	13"	1⅛"	13"	2⅝"	15.00	10R3SS1.12
9½"	13"	1¼"	13"	2⅝"	15.00	10R3SS1.25
11"	14"	1⅛"	16"	2⅝"	20.00	10R3XSS1.1
11"	14"	1¼"	16"	2⅝"	20.00	10R3XSS1.2
12"	16"	1¼"	18"	2¾"	26.00	10R5SS1.25
13"	18"	1¼"	20"	3⅞"	34.00	10R6SS1.25
13"	18"	1⅜"	20"	3⅞"	34.00	10R6SS1.37
13"	18"	1½"	20"	3⅞"	34.00	10R6SS1.50
13¾"	20"	1¼"	17"	3 ⁵ / ₁₆ "	40.00	10R7XSS1.2
13¾"	20"	1⅜"	17"	3 ⁵ / ₁₆ "	40.00	10R7XSS1.3
14½"	22"	1½"	24"	4¼"	60.00	10R8SS1.50
14½"	22"	1¾"	24"	4¼"	70.00	10R8SS1.75
14½"	22"	2"	24"	4¼"	71.00	10R8SS2.00

Spade Rudders



Features:

- stainless steel shaft cast into the blade
- rudder shafts do not come with keyways installed, keyways can be machined upon request
- stock shaft lengths shown, other lengths are available upon request

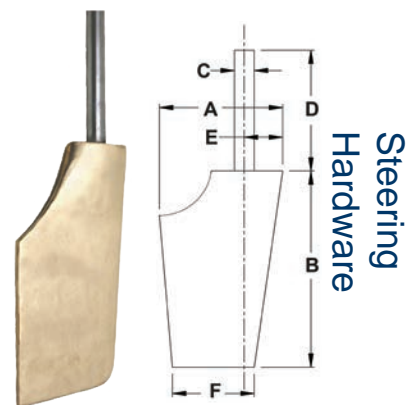
Blade Top (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Blade Bottom (F)	Weight lbs.	Bronze Part #
10 ⁵ / ₁₆ "	14"	1¼"	15¼"	2⅜"	8 ¹ / ₁₆ "	20.00	10R20SS1.2
8½"	11½"	1¼"	12"	2⅜"	6½"	16.00	10R20MSS1
10 ⁵ / ₁₆ "	16"	1¼"	16¼"	2⅜"	8 ¹ / ₁₆ "	24.00	10R30SS1.2
10¼"	17½"	1¼"	18½"	2⅜"	7¼"	28.00	10R30LSS1
10¼"	17½"	1⅜"	16"	2⅜"	7¼"	28.00	10R30LSS13
10"	20 ³ / ₁₆ "	1¼"	18"	2½"	7"	37.00	10R30L3SS
10"	15½"	1¼"	16"	2⅛"	7¼"	24.00	10R32SS1.2
10"	15½"	1⅜"	16"	2⅛"	7¼"	24.00	10R32SS1.3
10"	21¾"	1⅜"	17"	2⅜"	7"	29.00	10R38SS1.3
13½"	20½"	1¼"	20¼"	3½"	10⅞"	40.00	10R40SS1.2
13½"	20½"	1⅜"	20¼"	3½"	10⅞"	40.00	10R40SS1.3
13½"	20½"	1½"	20¼"	3½"	10⅞"	40.00	10R40SS1.5
16"	27 ¹ / ₁₆ "	2"	21"	3⅜"	11½"	78.00	10R50SS2.0
12 ⁹ / ₁₆ "	25¼"	1¾"	21"	3"	9 ³ / ₁₆ "	63.00	10R56SS1.7
15½"	32"	2"	21"	3⅜"	13⅞"	94.00	10R58SS2.0

Special Rudders

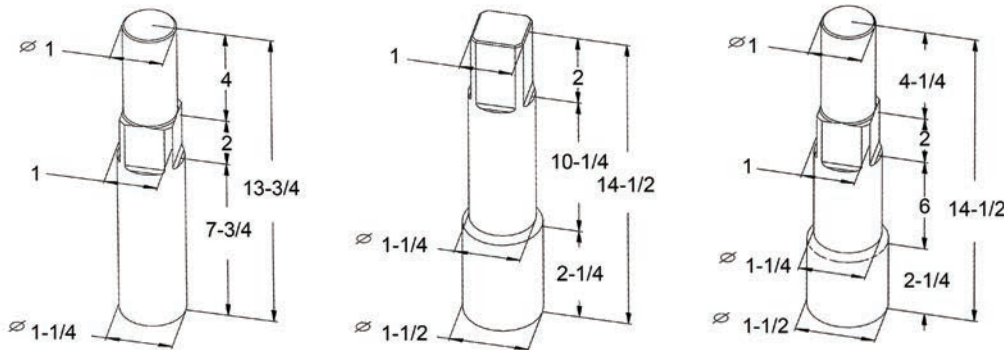
Features:

- stainless steel shaft cast into the blade
- rudder shafts do not come with keyways installed, keyways can be machined upon request
- stock shaft lengths shown, other lengths are available upon request

Blade Top (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Blade Bottom (F)	Weight lbs.	Bronze Part #
10 ³ / ₈ "	14"	1"	15"	2"	7 ¹ / ₄ "	12.00	10R21MSS1
10 ¹ / ₂ "	22"	1 ³ / ₄ "	19"	3"	9 ¹ / ₂ "	50.00	10R23MSS1
9 ¹ / ₂ "	17"	1 ¹ / ₄ "	16"	2 ¹ / ₂ "	6 ⁷ / ₈ "	16.00	10R25MSS1
8"	14 ¹ / ₄ "	1 ¹ / ₄ "	16 ¹ / ₄ "	2 ⁵ / ₁₆ "	5 ¹ / ₂ "	14.00	10R26MSS1
13 ¹ / ₂ "	20"	1 ¹ / ₂ "	17"	5 ³ / ₄ "	17 ¹⁷ / ₃₂ "	70.00	10R30MSS15
9 ³ / ₄ "	17 ¹ / ₂ "	1 ¹ / ₄ "	18 ¹ / ₂ "	2"	7 ¹ / ₄ "	24.00	10R33ESS1



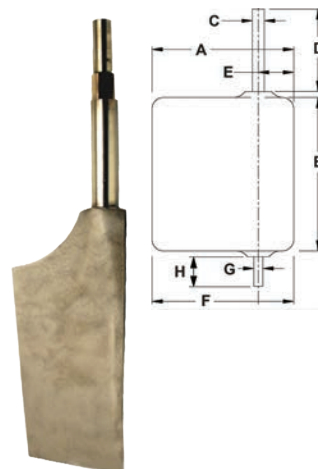
Stepped Shaft Rudders



Features:

- stainless steel shaft cast into the blade

Blade Top (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Blade Bottom (F)	Weight lbs.	Bronze Part #
8 ¹ / ₄ "	14 ⁷ / ₈ "	Dia. 2	14 ¹ / ₂ "	1 ¹ / ₂ "	7"	25.00	10R17312RD
10 ⁷ / ₈ "	17 ⁷ / ₈ "	Dia. 3	14 ¹ / ₂ "	1 ³ / ₄ "	18 ¹³ / ₁₆ "	35.00	10R1735RUD

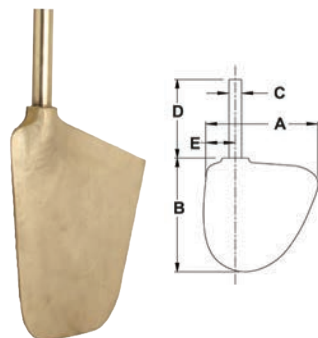


High Speed Rudders

Features:

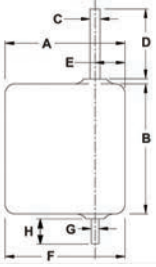
- stainless steel shaft cast into the blade
- rudder shafts do not come with keyways installed, keyways can be machined upon request
- stock shaft lengths shown, other lengths are available upon request

Blade Width (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Weight lbs.	Bronze Part #
11 ¹ / ₂ "	16"	1 ¹ / ₄ "	18"	2 ³ / ₄ "	26.00	10R2HSSS1
8 ³ / ₄ "	13"	1"	12 ³ / ₄ "	1 ³ / ₄ "	14.00	10R3HSSS1
10"	13 ¹ / ₂ "	1 ¹ / ₄ "	14"	2 ¹ / ₂ "	15.00	10R4HSSS1
10"	13 ¹ / ₂ "	1 ¹ / ₈ "	15"	2 ¹ / ₂ "	16.00	10R6HSSS1
16"	24"	2"	21"	3 ¹ / ₄ "	55.00	10R7HSSS2



Skeg Rudders

Steering Hardware



Features:

- stainless steel shaft and pintle cast into the blade
- rudder shafts do not come with keyways installed, keyways can be machined upon request
- stock shaft lengths shown, other lengths are available upon request

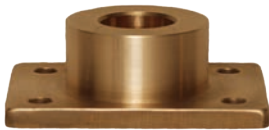
Blade Top (A)	Blade Length (B)	Shaft Diameter (C)	Shaft Length (D)	(E)	Blade Bottom (F)	Pintle Diameter (G)	Pintle Length (H)	Weight lbs.	Bronze Part #
11½"	14½"	1"	12"	2"	9½"	7⁄8"	3¼"	18.00	10RS2SS1.0
12"	14"	1⅛"	18"	3⅛"	12"	7⁄8"	2"	29.00	10RS5BR1.1
18"	18"	1"	12"	3"	18"	1"	3¾"	35.00	10RS12SS1
18"	20"	1¼"	18"	3"	18"	1"	4"	37.00	10RS13SS1
24"	22"	1½"	18"	3"	24"	1"	4"	79.00	10RS19SS15

Skeg Bearings



Bore Diameter	Bore Depth	Hub Diameter	Overall Height	Flange Width	Flange Length	Flange Thickness	Weight lbs.	Bronze Part #
1"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83100
1⅛"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83112
1¼"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83125
1⅜"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83138
1½"	1½"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	3.80	83150
1¾"	1¾"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	5.75	83175
2"	1¾"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	5.70	83200
2¼"	2½"	3"	2¹⁵⁄₁₆"	6"	6"	7⁄₁₆"	11.20	83225
2½"	2½"	3"	2¹⁵⁄₁₆"	6"	6"	7⁄₁₆"	11.15	83250

Reverse Skeg Bearings



Bore Diameter	Bore Depth	Hub Diameter	Overall Height	Flange Width	Flange Length	Flange Thickness	Weight lbs.	Bronze Part #
1"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83100R
1⅛"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83112R
1¼"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83125R
1⅜"	1"	2³⁄₁₆"	1⅜"	2⅞"	3⅞"	5⁄₁₆"	2.50	83138R
1½"	1½"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	3.80	83150R
1¾"	1¾"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	5.75	83175R
2"	1¾"	2⅜"	2¹⁄₁₆"	3⅝"	5"	7⁄₁₆"	5.70	83200R
2¼"	2½"	3"	2¹⁵⁄₁₆"	6"	6"	7⁄₁₆"	11.20	83225R
2½"	2½"	3"	2¹⁵⁄₁₆"	6"	6"	7⁄₁₆"	11.15	83250R

Rudder Collars

Feature:

- setscrew included

Shaft Size	Outside Diameter	Overall Height	Weight lbs.	Bronze Part #
1"	1¾"	1"	0.45	00RC100
1⅛"	1¾"	1"	0.75	00RC113
1¼"	2"	1"	0.65	00RC125
1⅜"	2¼"	1"	1.20	00RC138
1½"	2 ⁵ / ₁₆ "	1 ¹³ / ₁₆ "	1.15	00RC150
1¾"	2 ¹¹ / ₁₆ "	1 ¹¹ / ₁₆ "	1.15	00RC175
2"	2 ¹⁵ / ₁₆ "	1 ⁵ / ₈ "	2.90	00RC200
2¼"	3 ³ / ₈ "	1 ⁵ / ₈ "	3.00	00RC225
2½"	3 ³ / ₈ "	1 ⁵ / ₈ "	2.80	00RC250
2¾"	4½"	2"	6.00	00RC275
3"	4½"	2"	5.50	00RC300
3½"	5"	2"	6.00	00RC350
4"	5½"	2"	6.61	00RC400

Steering
Hardware

Rudder Bearing Flanges

Round Flange

Shaft Size	Outside Diameter	Overall Height	Bolt Circle	Bolt Size	Weight lbs.	Bronze Part #
1"	3 ³ / ₁₆ "	1 ⁷ / ₁₆ "	2 ⁹ / ₁₆ "	#10	0.90	00RBF100
1⅛"	3 ³ / ₁₆ "	1 ⁷ / ₁₆ "	2 ⁹ / ₁₆ "	#10	0.80	00RBF113
1¼"	3 ³ / ₁₆ "	1 ⁷ / ₁₆ "	2 ⁹ / ₁₆ "	#10	0.70	00RBF125
1⅜"	3 ³ / ₁₆ "	1 ⁷ / ₁₆ "	2 ⁹ / ₁₆ "	#10	0.75	00RBF138



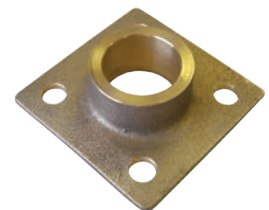
Oval Flange

Shaft Size	Flange Size W x L	Overall Height	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1¼"	2 ¹ / ₁₆ " x 5 ³ / ₈ "	1 ⁵ / ₁₆ "	4 ⁵ / ₁₆ "	⅜"	0.90	00RBOF125
1⅜"	2 ¹ / ₁₆ " x 5 ³ / ₈ "	1 ⁵ / ₁₆ "	4 ⁵ / ₁₆ "	⅜"	0.85	00RBOF138
1½"	2 ⁹ / ₁₆ " x 5 ⁹ / ₁₆ "	1 ¹³ / ₁₆ "	4 ¹³ / ₃₂ "	⅜"	1.50	00RBOF150



Square Flange

Shaft Size	Flange Size Squared	Overall Height	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1½"	3¾"	1 ³ / ₈ "	2 ⁷ / ₈ "	½"	1.05	00RBF150
1¾"	3¾"	1 ³ / ₈ "	2 ⁷ / ₈ "	½"	1.90	00RBF175
2"	3¾"	1 ³ / ₈ "	2 ⁷ / ₈ "	½"	1.65	00RBF200
2¼"	4 ⁵ / ₈ "	1¼"	3¼"	½"	2.60	00RBF225
2½"	4 ⁵ / ₈ "	1¼"	3¼"	½"	2.80	00RBF250
2¾"	5¾"	1 ⁵ / ₁₆ "	4¼"	½"	6.50	00RBF275
3"	5¾"	1 ⁵ / ₁₆ "	4¼"	½"	6.20	00RBF300



Dripless Rudder Port Spuds

**Feature:**

- retaining ring, lip seal and O-ring included

Shaft Size	Outside Diameter	Hex Size	Overall Length	Bronze Part #
1¼"	2½"	2 ³ / ₁₆ "	1 ⁷ / ₈ "	00PB125LS
1½"	2 ⁷ / ₈ "	2 ³ / ₁₆ "	2 ¹ / ₈ "	00PB150LS
1¾"	3½"	3¼"	2½"	00PB175LS
2"	3 ⁵ / ₈ "	3 ¹ / ₈ "	2 ⁷ / ₁₆ "	00PB200LS

Rectangular Flanges



Shaft Size	Packing Size	Length Under Flange	Flange Size W x L	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1 ³ / ₈ "	5/ ₁₆ "	5"	3 ⁵ / ₈ " x 7"	2¼" x 5¼"	½"	9.15	00RP138
1½"	¼"	5"	3 ⁵ / ₈ " x 7"	2¼" x 5¼"	½"	8.70	00RP150
1¾"	7/ ₁₆ "	5"	4 ¹ / ₈ " x 7 ¹ / ₈ "	2½" x 5½"	½"	13.30	00RP175
2"	3/ ₈ "	5"	4 ¹ / ₈ " x 7 ¹ / ₈ "	2½" x 5½"	½"	13.00	00RP200
2¼"	3/ ₈ "	7"	6" x 10"	n/a	n/a	25.00	00RP225¹
2½"	3/ ₈ "	8½"	6" x 12"	n/a	n/a	43.00	00RP250¹
2¾"	9/ ₁₆ "	5"	6¼" x 10¾"	4¼" x 8¾"	½"	40.00	00RP275¹
3"	11/ ₁₆ "	5"	6¼" x 10¾"	4¼" x 8¾"	½"	38.00	00RP300¹

¹ Comes without base holes machined.

Replacement Parts



For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates	
			Weight lbs.	Part #
00RP138	00138PBN	00RP138	1.80	00RPBP150
00RP150		00RP150		
00RP175	00175PBN	00RP175	2.00	00RPBP175
00RP200		00RP200		
00RPN225	00RP225	00RP225	---	---
00225PBN	00RP250	00RP250		
00RP275	00300PBN	00RP275		
00RP300		00RP300		

Tournament Rectangular Flanges

Feature:

- packing nut and lock nut included

Shaft Size	Packing Size	Length Under Flange	Flange Width	Flange Length	Barrel Diameter	Weight lbs.	Bronze Part #
1¼"	¼"	3"	4¼"	4¼"	1⅝"	10.00	82125
1⅜"	9/16"	1¼"	4½"	6⅞"	2⅛"	14.25	82138
1½"	7/16"	1¼"	4½"	6⅞"	2⅛"	14.20	82150
1¾"	½"	1⅝"	4½"	6⅝"	2½"	22.50	82175
2"	⅜"	1⅝"	4½"	6⅝"	2⅝"	22.45	82200
2¼"	9/16"	1¾"	4½"	6⅝"	3¼"	22.40	82225
2½"	5/16"	1¾"	4⅞"	9"	3¼"	32.00	82250



Steering Hardware

Replacement Parts

For Use With Part #	Lock Nuts Part #	Packing Spuds Part #
82125	00125PBN	86125S
82138	82138N	82138S
82150		82150S
82175	00175PBN	82175S
82200		82200S
82225		82225S
82250	00225PBN	82250S



packing spud

Tournament Rectangular Flanges

Feature:

- packing nut and lock nut included

Shaft Size	Packing Size	Length Under Flange	Flange Width	Flange Length	Barrel Diameter	Weight lbs.	Bronze Part #
1¼"	¼"	3"	4"	4"	1¾"	7.00	86125
1⅜"	9/16"	3"	4"	7⅞"	2¼"	16.50	86138
1½"	7/16"	3"	4"	7⅞"	2¼"	16.20	86150
2"	⅜"	4⅜"	4½"	8¼"	3"	24.00	86200



Replacement Parts

For Use With Part #	Lock Nuts Part #	Packing Spuds Part #
86125	00125PBN	86125S
86138	82138N	82138S
86150		82150S
86200	00175PBN	82200S
86225	82225N	82225S



00125PBN



packing spud

Tournament Rectangular Flanges



Feature:

- packing nut and lock nut included

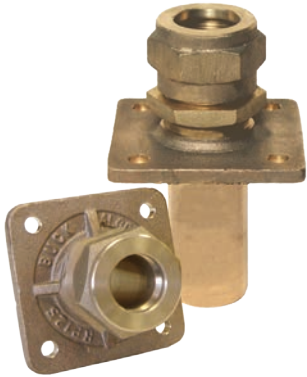
Shaft Size	Packing Size	Length Under Flange	Flange Size W x L	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1¼"	¾"	5"	4⅞" x 7⅞"	2½" x 5½"	½"	18.00	290520M
1⅜"	⅝"	5"	4⅞" x 7⅞"	2½" x 5½"	½"	17.50	290522M
1½"	⅞"	5"	4⅞" x 7⅞"	2½" x 5½"	½"	17.00	290524M

Replacement Parts



For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates	
			Weight lbs.	Part #
290520M	00175PBN	00175PBS20	2.00	00RPBP175
290522M		00175PBS22		
290524M		00175PBS24		

Square Flanges

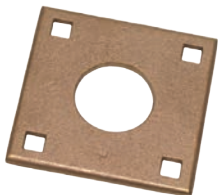


Feature:

- packing nut and lock nut included

Shaft Size	Packing Size	Length Under Flange	Flange Size Square	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1"	¼"	4"	3⅞"	2¾"	⅜"	3.15	00RP100
1"	¼"	2⅞"	3½"	2⅞"	⅜"	2.45	00RP100L
1⅞"	⅜"	4"	3⅞"	2¾"	⅜"	3.00	00RP113
1¼"	¼"	4"	4¼"	3⅛"	⅜"	5.00	00RP125
1¼"	¼"	3"	4¼"	3⅛"	⅜"	4.00	00RP125L
1¼"	¼"	6"	4¼"	3⅛"	⅜"	6.00	00RP12506
1½"	¼"	5"	4½"	3⅞"	½"	12.00	00RP150S

Replacement Parts



00RPBP100A



00100PBS



For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates	
			Weight lbs.	Part #
00RP100 00RP100L	00100PBN	00100PBS	0.65	00RPBP100
00RP113		00113PBS		
00RP125 00RP125L 00RP12506	00125PBN	00125PBS	1.15	00RPBP125
00RP150S	00138PBN	00150PBS	0.65	00RPBP150S

Tournament Square Flanges

Feature:

- packing nut and lock nut included

Shaft Size	Packing Size	Length Under Flange	Flange Size Squared	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1¼"	¼"	3½"	4"	2⅞"	⅜"	4.40	2902
1⅝"	5/16"	3½"	4"	2⅞"	⅜"	4.20	2903
1½"	¼"	3½"	4"	2⅞"	⅜"	4.20	2904



Steering Hardware

Replacement Parts

Description	For Use With Part #	Bronze Part #
Lock Nuts	2902	00125PBN
	2903	00138PBN
	2904	00138PBN
Packing Spuds	2902	00125PBS
	2903	00138PBS
	2904	00150PBS
Backing Plates	2902	2902BP
	2903	
	2904	



Tournament Square Flanges - Low Profile - Gland Style

Feature:

- packing gland and two nuts on each stud included

Shaft Size	Packing Size	Length Under Flange	Flange Size Squared	Barrel Diameter	Weight lbs.	Bronze Part #
1⅝"	5/16"	1⅝"	4¾"	2⅝"	8.70	88138
1½"	¼"	1⅝"	5⅝"	2⅝"	8.60	88150
1¾"	½"	1⅝"	5⅝"	3¼"	15.80	88175
2"	⅜"	1⅝"	5⅝"	3¼"	15.70	88200



Rectangular Flanges



- Feature:**
- packing nut and lock nut included

Shaft Size	Packing Size	Length Above Flange	Flange Size W x L	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1"	1/4"	4 1/8"	3 1/4" x 4"	2 1/4" x 3"	3/8"	3.65	10RP100ACC
1 1/4"	1/4"	4 3/8"	3 1/4" x 4"	2 1/4" x 3"	3/8"	4.00	10RP125ACC



00RPBP12CC

Replacement Parts

For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates Part #
10RP100ACC	00100PBN	00100PBS	00RPBP12CC
10RP125ACC	00125PBN	00125PBS	00RPBP12CC

Square Flanges

- Feature:**
- packing nut and lock nut included



Shaft Size	Packing Size	Length Above Flange	Flange Size Squared	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1"	1/4"	3 3/4"	3 1/2"	2 3/8"	3/8"	4.00	00RP100A
1 1/8"	3/16"	3 3/4"	3 1/2"	2 3/8"	3/8"	4.00	00RP113A
1 1/4"	1/4"	6"	4 1/2"	3 1/16"	3/8"	6.00	00RP125A
1 3/8"	3/16"	6"	4 1/2"	3 1/16"	3/8"	6.00	00RP138A
1 1/2"	1/4"	5"	5 1/8"	3 1/4"	3/8"	14.30	00RP150A
1 3/4"	5/16"	5"	5 1/8"	3 1/4"	3/8"	15.00	00RP175A
2"	3/8"	5"	5 1/8"	3 1/4"	1/2"	18.00	00RP200A
2 1/4"	7/16"	6 7/16"	6"	4 1/2"	1/2"	22.50	00RP225A
2 1/2"	5/16"	6 7/16"	6"	4 1/2"	1/2"	21.00	00RP250A
2 3/4"	1 1/16"	6 1/2"	6 3/4"	4 3/4"	1/2"	32.00	00RP275A
3"	9/16"	6 1/2"	6 3/4"	4 3/4"	1/2"	30.00	00RP300A



00RPBP100A

Replacement Parts

For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates	
			Weight lbs.	Part #
00RP100A	00100PBN	00100PBS	0.40	00RPBP100A
00RP113A			0.90	00RPBP113A
00RP125A	00125PBN	00125PBS	1.15	00RPBP125A
00RP138A				
00RP150A	00138PBN	00150PBS	1.75	00RPBP150A
00RP175A	00175PBN	00175PBSOY	1.75	00RPBP175200A
00RP200A	00175PBN	00200PBS		
00RP225A	00225PBN	00225PBS	6.00	00RPBP225A
00RP250A			6.00	00RPBP250A
00RP275A	00300PBN	00275PBS	6.00	00RPBP275A
00RP300A			6.00	00RPBP300A

Square Flanges - Angled

Feature:

- packing nut and lock nut included

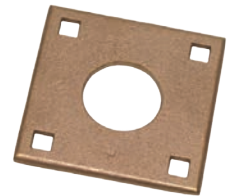
Shaft Size	Packing Size	Length Above Flange	Flange Size Squared	Flange Angle	Bolthole C to C	Bolt Size	Weight lbs.	Bronze Part #
1 1/4"	1/4"	6"	4 1/2"	85°	3 1/16"	3/8"	6.00	00RP125B
1 1/4"	1/4"	6 1/8"	4 1/8"	12°	2 7/8"	1/2"	6.25	00RP125B12
1 1/4"	1/4"	4 5/16"	5 1/8"	17°	3 1/4"	7/16"	11.00	00RP125B17
1 3/8"	3/16"	6"	4 1/2"	85°	3 1/16"	3/8"	6.00	00RP138B
1 1/2"	1/4"	7"	4 1/8"	12°	2 7/8"	1/2"	6.90	00RP150A12



Steering Hardware

Replacement Parts

For Use With Part #	Lock Nuts Part #	Packing Spuds Part #	Backing Plates	
			Weight lbs.	Part #
00RP125B	00125PBN	00125PBS	1.15	00RPBP125
00RP125B12			1.15	00RPBP150S
00RP125B17			1.20	320028BP
00RP138B			1.15	00RPBP125
00RP150A12	00138PBN	00150PBS	0.65	00RPBP150S



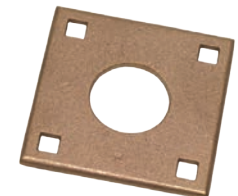
Rectangular Flange Backing Plates

Plate Dimensions	Weight lbs.	Bronze Part #
3 3/4" x 6 3/4"	1.80	00RPBP150
4 1/8" x 6 1/4"	2.00	00RPBP175



Square Flange Backing Plates

Plate Dimensions	Weight lbs.	Bronze Part #
3 1/4" x 3 1/4"	0.40	00RPBP100A
3 3/4" x 3 3/4"	0.65	00RPBP100
4" x 4"	0.85	2902BP
4 3/8" x 4 3/8"	1.15	00RPBP125
4 1/2" x 4 1/2"	0.65	00RPBP150S
5" x 5"	1.75	00RPBP150A
5" x 5"	1.75	00RPBP175200A
6" x 6"	6.00	00RPBP250A



Tiller Arms Machined for a Square Shaft



10TA12X71S 10TA12X91S

Shaft Size Squared	Overall Length	Max C to C	Weight lbs.	Bronze Part #
1"	10½"	6" & 8"	2.20	10TA12X71S ¹
1¼"	13¼"	9¼"	7.00	10TA12X91S
1⅝"	14¾"	11¼"	8.00	10TA16X91S

¹ Tiller arm includes two stainless steel balls at 6" & 8" centers. It is available without balls upon request.

Split Head Tiller Arms



Shaft Size	Overall Length	Max C to C	Keyway Size	Weight	Bronze Part #
1¼"	15½"	13"	¼"	6.40	10TA12X130
1⅜"	15½"	13"	¼"	6.20	10TA13X130
1½"	15½"	13"	⅜"	6.00	10TA15X130
1¾"	15½"	13"	⅜"	10.00	10TA17X130
2"	15½"	13"	⅜"	10.00	10TA20X130

Tournament Tiller Arms



Feature:

- pinch bolt, nut and setscrew

Shaft Size	Overall Length	Max C to C	Keyway Size	Weight	Bronze Part #
1"	11"	8⅝"	¼"	5.00	81100
1¼"	11"	8⅝"	¼"	5.00	81125
1⅜"	11¾"	9½"	¼"	7.30	81138
1½"	11¾"	9½"	⅜"	7.20	81150
1¾"	20"	8-9/16"	⅜"	7.10	81175
2"	20"	8-9/16"	⅜"	7.00	81200

Tiller Arms

Feature:

- pinch bolt, nut and setscrew



Shaft Size	Overall Length	Max C to C	Keyway Size	Weight	Bronze Part #
1"	9¼"	7"	¼"	1.45	10TA10X700
1⅝"	9¼"	7"	¼"	1.4	10TA11X700
1¼"	9¼"	7"	¼"	2.6	10TA12X700
1¼"	9¼"	7"	5/16"	2.6	MACKAYTA125X700
1¼"	11½"	9"	¼"	2.8	10TA12X900
1⅜"	9¼"	7"	¼"	2.6	10TA13X700
1⅜"	9¼"	7"	5/16"	2.6	MACKAYTA138X700
1⅜"	11½"	9"	¼"	2.8	10TA13X900
1½"	15¾"	12"	⅜"	5	10TA15X100
1¾"	15¾"	12"	⅜"	5	10TA17X100
1¾"	15¾"	12"	7/16"	5	MACKAYTA175X100
2"	15¾"	12"	⅜"	5.5	10TA20X100
2"	15¾"	12"	½"	5.5	MACKAYTA200X100
2¼"	17"	13"	½"	7	10TA22X170
2¼"	17"	13"	9/16"	7	MACKAYTA225X170
2½"	17"	13"	½"	7	10TA25X170
2½"	17"	13"	⅝"	7	MACKAYTA250X170

Heavy Duty Tiller Arms

Feature:

- two pinch bolt, nut and setscrew



Shaft Size	Overall Length	Max C to C	Keyway Size	Weight	Bronze Part #
2"	20¾"	13"	⅜"	17.00	10TA20X14H
2¼"	20¾"	16"	½"	17.80	10TA22X14H
2½"	20¾"	16"	⅝"	17.10	10TA25X14H
2¾"	21⅝"	16"	⅝"	24.00	10TA27X16HD
3"	21⅝"	16"	¾"	23.50	10TA30X16HD

Clevises

Feature:

- stainless steel clevis and cotter pin included

Thread Size	Overall Length	Thread Length	Pin Hole Diameter	Between Jaw Size	Weight lbs.	Bronze Part #
½" - 14 NPT	3½"	¾"	½"	¾"	0.70	00CL50
¾" - 14 NPT	4¼"	1"	½"	½"	1.15	00CL75
¾" - 14 NPT	4¼"	1"	½"	⅝"	1.15	00CL75E
1" - 11½ NPT	4¼"	⅞"	½"	⅞"	1.80	00CL100
1" - 11½ NPT	6"	1¾"	¾"	⅞"	3.00	00CL100HD

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Clevis Eyes

Thread Size	Overall Length	Pin Hole Diameter	Between Jaw Size	Weight lbs.	Bronze Part #
¾" - 14 NPSM	4¾"	½"	11/16"	1.10	00CL75LT
¾" - 14 NPSM	4¾"	½"	11/16"	1.20	00CL75WEYE



00CL75WEYE

00CL75LT

Clevis Pins

Pin Diameter	Pin Length	Weight lbs.	304 Stainless Steel Part #
½"	1½"	0.10	70CLPIN150
½"	1¾"	0.10	70CLPIN175
½"	2"	0.15	70CLPIN200
½"	2¼"	0.15	70CLPIN225
¾"	2"	0.15	70CL100HDP



Swivel Sockets

Feature:

- cotter pin and set screw included

Thread Size	Overall Length	Ball Opening	Weight lbs.	Bronze Part #
½" - 14 NPSM	5"	1"	1.10	00SWS50
¾" - 14 NPSM	5"	1"	1.10	00SWS75



Threaded Balls

Feature:

- two nuts included

Ball Diameter	Overall Length	Thread Size	Weight lbs.	304 Stainless Steel Part #
1"	3⅞"	½" x 2"	1.20	70THDBALL

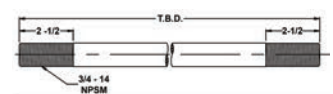


Tie Bars

Feature:

- two nuts included

Max Overall Length	Thread Size	Thread Length	304 Stainless Steel Part #
3'	¾" - 14 NPSM	2½"	TIEBAR3FT
4'	¾" - 14 NPSM	2½"	TIEBAR4FT
5'	¾" - 14 NPSM	2½"	TIEBAR5FT
6'	¾" - 14 NPSM	2½"	TIEBAR6FT



AQ-22 Rudders

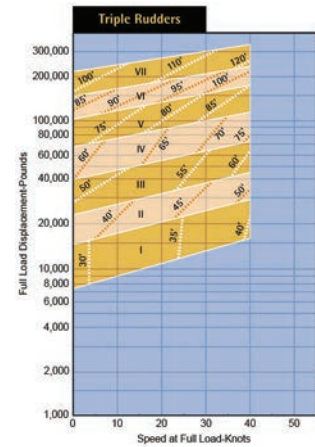
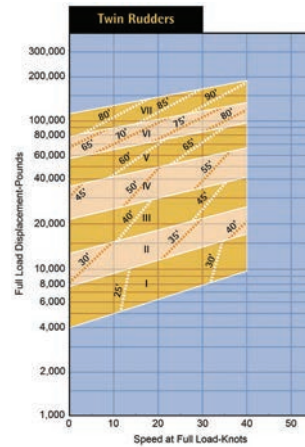
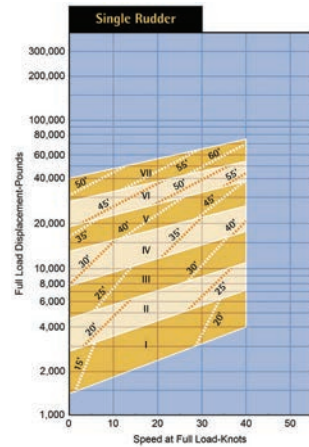
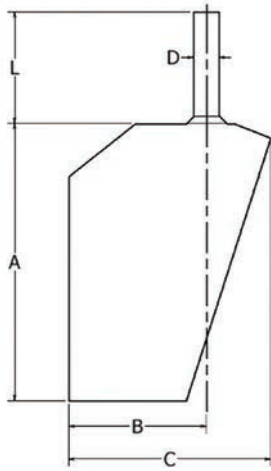
Steering Hardware



Features:

- rudder weights are estimated
- rudder torque is included so that the force required at the tiller are may be estimated
- dashed lines in the drawing indicate approximate boat length
- Roman numerals in the charts indicate rudder model recommended
- consult the manufacturer for rudder requirements outside those of stock design

Rudder Length (A)	Stock Location (B)	Rudder Width (C)	Dia. (D)	Estimated Rudder Torque 40 Knots	Weight lbs./ft.	Weight less Stock	Roman Numeral	Part #
13½"	6-11/16"	9-13/16"	1¼"	4,400 in/lb	4.17	19 lb	I	70RMODEL1
16½"	8¼"	12"	1½"	8,100 in/lb	6.01	30 lb	II	70RMODEL2
19"	9¾"	13¾"	1¾"	12,200 in/lb	8.18	47 lb	III	70RMODEL3
23¾"	11⅝"	17"	2¼"	22,300 in/lb	13.52	82 lb	IV	70RMODEL4
27"	13¾"	19½"	2¾"	34,300 in/lb	20.19	125 lb	V	70RMODEL5
31"	15¾"	22¾"	4"	52,200 in/lb	42.71	200 lb	VI	70RMODEL6
34½"	17"	25"	4½"	71,900 in/lb	54.05	275 lb	VII	70RMODEL7



Boat Characteristics

AQ-22 Rudders

1. Assume speed of 25 knots, 28,000 lbs. displacement:

- One Rudder Rudder V
- Two Rudders Rudder III
- Three Rudders Rudder II

2. Assume speed of 33 knots and a 38-foot boat:

- One Rudder Rudder IV
- Two Rudders Rudder II
- Three Rudders Rudder I

