

Heavy-Duty Stuffing Box

- ▶ Designed for Sealing: Stern Tubes, Bulkheads, Rudder Ports
- ▶ Air Seal for Maintenance at Sea
- ▶ Water & Grease Service Options



- ▶ Bronze (Standard)
or Aluminum

Johnson® Duramax® Heavy-duty Stuffing Box Systems are engineered and built to seal out seawater and give unmatched protection for your propulsion system. Johnson Stuffing Boxes, when combined with Duramax® Ultra-X® Packing, reduce maintenance costs drastically and keep your vessel moving full steam ahead.

Air Seal Ring Allows Re-packing Without Dry-docking.

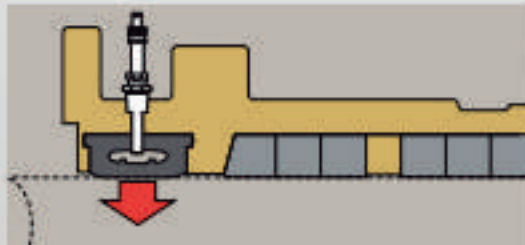
The ship's engineer can simply inflate the Air Seal rubber ring, making journal contact, creating a water-tight seal that holds out seawater during packing change. Optimum sealing is achieved when seal is inflated to 15 psi.

Exclusive "Positive Retraction" permits repeated inflation-deflation cycles without damaging shaft.

Once repacking is complete, the Air Seal ring is deflated. The rubber ring retracts to its original concave configuration in the housing, away from the journal. The rubber remains perfectly smooth. No wrinkles develop to cause wearing contact against the rotating shaft.



The Air Seal ring in original concave configuration



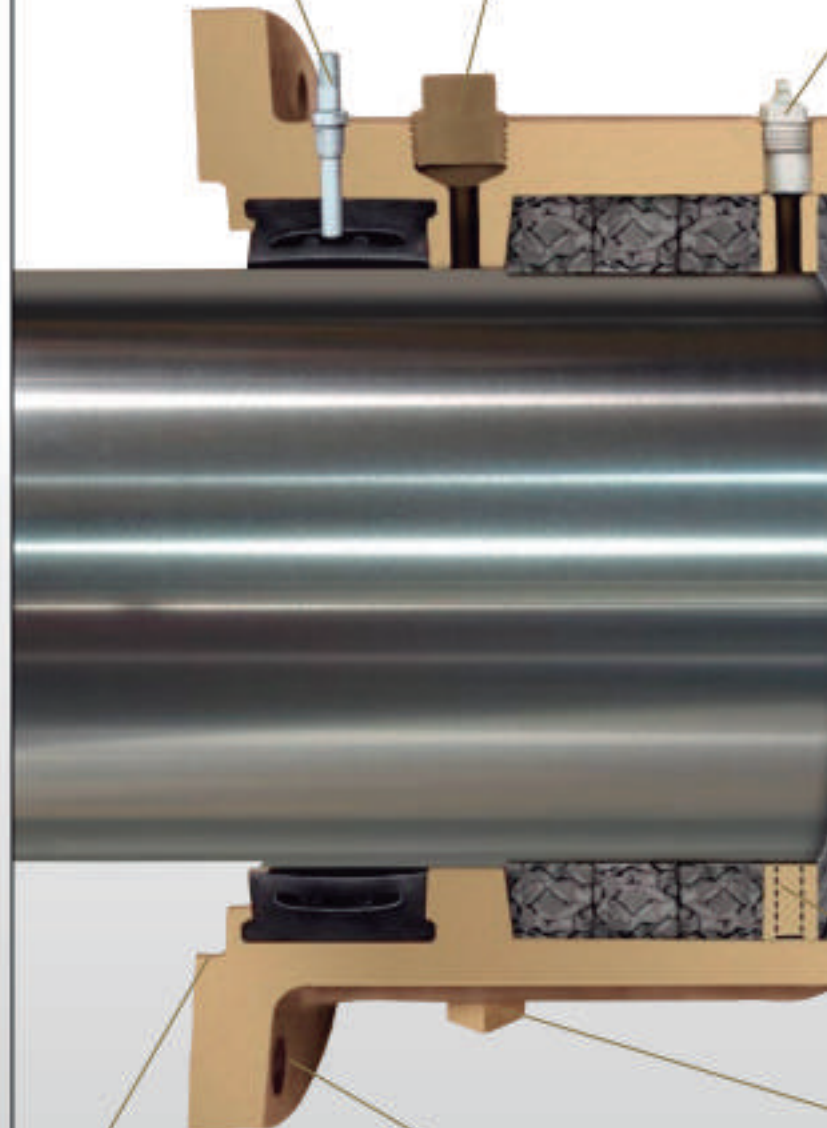
The Air Seal ring inflates, forming a water-tight seal during re-packing

Air Valve Extension

Used to inflate and deflate Air Seal ring. Inflate to 15 psi to engage seal. Maximum 40 psi.

Water-Lubrication Service Inlet

Inlet is aft of packing and connects to ship's piping. It delivers water-lubrication to shaft bearing.



Male Pilot or Female Recess

Custom-machined for mating with a Johnson Cutless forward stem bearing or vessel bulkhead.

Pre-drilled Flanges

Housing flanges are precision-drilled for easy, accurate mounting, unless otherwise specified.



"Zerk" Grease Service Fitting

Channels grease to packing.

Packing Retaining Gland

Retaining gland surfaces are slightly beveled to exert controlled packing pressure against shaft. Insures full-length contact with moderate compression force, an aid to longer packing life.

Additional Water-lubrication Service Inlet

Can be used to deliver additional water-lubrication to shaft bearing if required.

Ribbed & Perforated Lantern Ring

Metal or rubber ring uniformly distributes grease along packing.

Duramax® Ultra-X® High Performance Compression Packing.

Ultra-X® is the recommended packing for the Johnson® Duramax® Stuffing Box. It is engineered specifically to meet the demands of marine propulsion. It lasts 5 times longer than other packing, 300% lower friction than flax, with superior thermal conductivity. Ultra-X® will outperform all other marine packing in any stuffing box.



Virtually eliminates the high cost of packing failure.

You can install it and never need to worry about it again. It requires no grease, stays flexible, will not harden, swell or become brittle – virtually eliminating costly damage caused by extensive shaft scoring and wear.

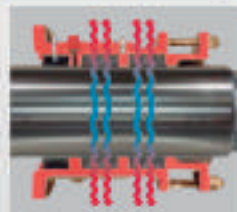


Shaft scoring caused by flax packing.

Duramax® Ultra-X® eliminates excessive shaft scoring that causes leaking, packing replacement and equipment damage.

Transfers frictional heat away from shaft.

With Duramax® Ultra-X® the stuffing box functions as a heat sink, lowering the temperature of the shaft and packing at high shaft speeds. Unlike flax packing that acts as an insulator, trapping the heat to the shaft causing costly damage.



Complete Duramax® System for optimum journal life & performance.

Trust the leader in water-lubricated bearing technology, proven performance of Johnson® Heavy Duty Stuffing Boxes and Ultra-X® Compression Packing engineered to meet the demands of marine propulsion systems.



Forward Stern Tube Stuffing Boxes

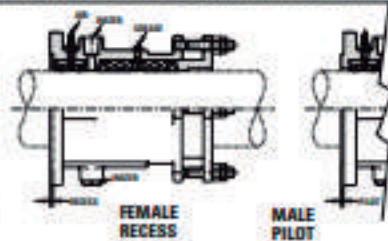
Stuffing Box Options to Match Every Application. (Shafts 2-1/2 inches to 15 inches)

Stuffing boxes can be ordered with a female recess or male pilot to mate with Johnson Cutless® forward stern tube bearings or vessel's bulkhead.

A	W	G
AIR SEAL	WATER SERVICE	GREASE SERVICE



MODEL 1786 Water & Grease Service with Air Seal

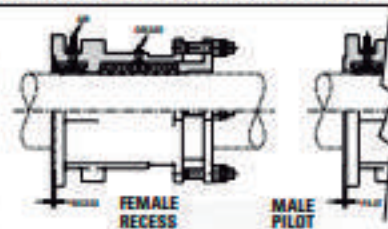


A W G

For use with water lubricated stern tube bearings. The 1786 is fitted with inflatable Air Seal ring; also inlets for water service to bearings, and "zerk" fitting with lantern-ring for grease lubrication of packing if required.



MODEL 1787 Grease Service with Air Seal

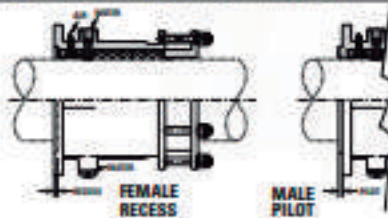


A G

Identical to Fig. 1786, but does not include inlets for water lubrication. Suitable for a short stern-tube where a forward bearing is not used. Includes "zerk" fitting and lantern-ring for grease lubrication of packing.



MODEL 1788 Water Service with Air Seal

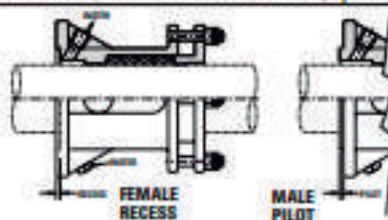


A W

Fitted with water inlet for bearing lubrication. Does not include grease fitting or lantern-ring; packing gland accommodates seven rings of packing as opposed to six for grease-lubricated glands. For use with self-lubricated packing.



MODEL 1789 & 1789G Water Service (Optional with Grease Service)



W

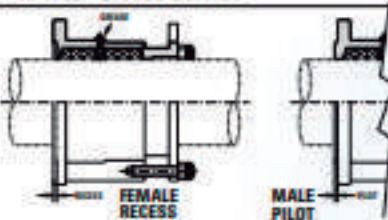
Lower in cost, does not include Air Seal feature or packing grease fitting. Water inlet delivers water to stern tube bearings. Accommodates 7 rows of packing.

W G

MODEL 1789G Water & Grease Service
Fitted with water inlet, grease fitting, lantern ring and can accommodate 6 rows of packing.



MODEL 1790 Grease Service



G

For vessels with shafts up to 7" (177.80mm) this economical unit offers high efficiency at moderate cost. Equipped with grease-fitting, lantern-ring and space for six rings of packing. Four gland studs provide high strength for gland compression.

Bulkhead & Rudder Stuffing Boxes

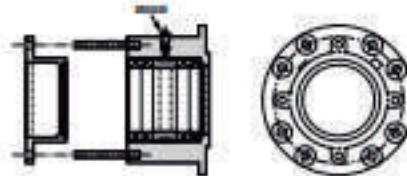
Space saving, Short-barrel Stuffing Box Options. (Shafts 2 inches to 6-1/4 inches)

MODEL 1790M Grease Service



G

This short-barreled model accommodates four packing rings. Flange has a 3/16" (4.76mm) male pilot to project into bulkhead. "Zerk" fitting and lantern ring included.

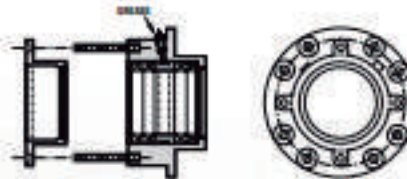


MODEL 1791 Grease Service



G

A space-saver, the exceptionally short barrel has an extended male pilot which allows for four packing rings which projects through the bulkhead. "Zerk" fitting and lantern ring included.



**DURAMAX®
DX490 RUDDER BUSHING**
Also available - See Johnson
Cutless® Bearing Catalog



Custom Options

Johnson® Duramax® Stuffing Boxes can be custom built to match your specific needs. These are a few options to consider before ordering your custom system.

Custom Engineered Castings

If our large selection of standard sizes do not fit your need, or if you need a stuffing box larger than 15" we can custom build a unit up to 36". Castings can be easily modified to accommodate unique applications.



Split Design for Ease of Installation

Because of the excessive weight, stuffing boxes larger than 15" are only built in split design. A split box at these sizes offers obvious installation and service advantages when working in confined quarters. Any size and model Johnson Cutless® Heavy-Duty Stuffing Box can be custom split.



Add a Dutchman Air Seal to hold out seawater during maintenance.

The Dutchman housing permits the addition of our unique Air Seal Ring that allows you to change packing without drydocking. This cost-saving unit can be custom built and added to any of our split design or solid stuffing boxes that do not have it already incorporated into their design.

The Air Seal easily seals out seawater with a minimum 15 psi. The seal can be inflated to a maximum of 40 psi. See page 30 for more information on ordering a Duramax® Dutchman Air Seal.

Stuffing Box Flange Configurations

With female recess.

For mating with flange-type forward stern tube Cutless® Bearing with male boss. Precisely machined to fit the male bearing flange pilot to form a solid unit.



With male pilot.

For registering to the stern tube or for use with demountable rubber-stave bearing. Machined male pilot fits into stern tube compressing the bearing staves, locking them into position and assuring alignment with the stern tube.



Stuffing Boxes Are Available in 2 Alloys



Bronze (Standard)



Aluminum (Optional)

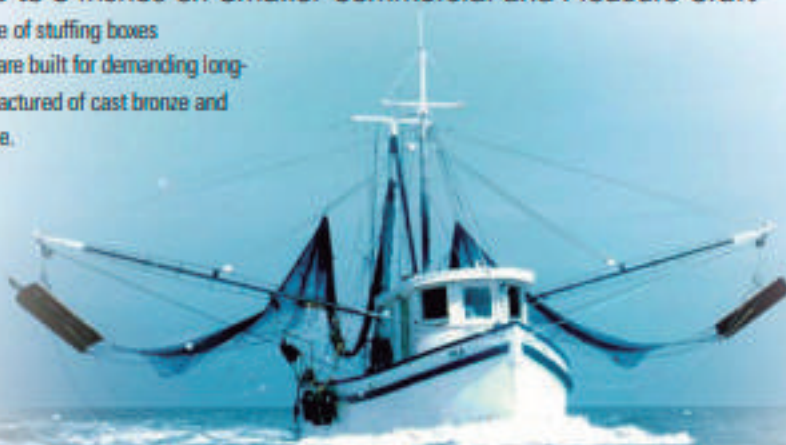
Service Options

Available with Air Seal, water service or "zerk" grease service fitting, or a combination of all three.

Duramax® "Strong Boy" Stuffing Box & Stern Casting

For Shafts 4 inches to 6 inches on Smaller Commercial and Pleasure Craft

The Duramax® Strong Boy line of stuffing boxes and matching stern-castings are built for demanding long-term service. They are manufactured of cast bronze and require minimum maintenance.



"Strong-Boy" Series

"Strong-Boy" Series Stuffing Boxes

Solid bronze stuffing boxes designed with extra-thick ribs spaced at 90° for maximum rigidity and a heavy rectangular mounting flange. The extended male pilot mates with the shaft log to insure alignment. Three configurations are offered:

Model 102: Supplied with packing only

Model 102L: Supplied with packing, lantern-ring and grease fitting for packing lubrication

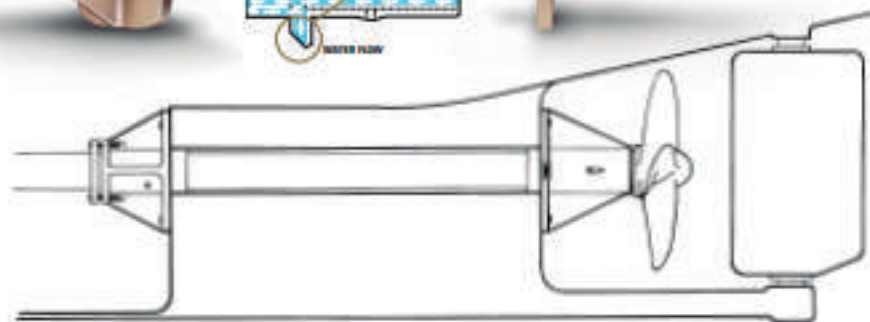
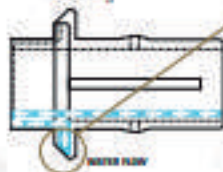
Model 102LB: Supplied with packing, lantern-ring and grease fitting, with 1/3-length standard rubber sleeve bearing, for extra support of longer shafts



"Strong-Boy" Series Matching Stern-Castings

They are fitted with Johnson Cutless® rubber sleeve bearings, are ideal for through-the-skeg installations. Their short barrel design includes an extended barrel which allows the bearing to project into the stern-post, thus leaving more space aft for propeller and rudder, and adding support for heavy propeller loads.

Forward-facing water scoops pass lubricating water to internal "forward-flow" passages to lubricate the entire length of the bearing.



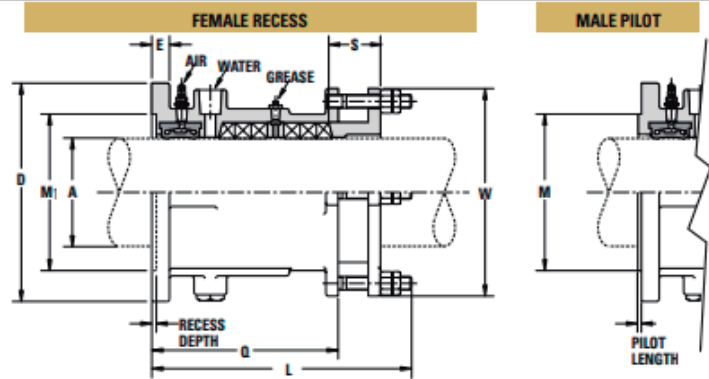
Forward Stern Tube Stuffing Boxes

Model 1786

Water and Grease Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

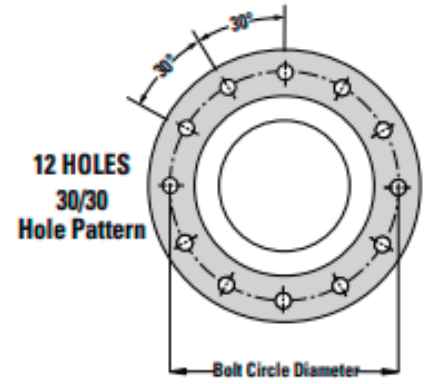
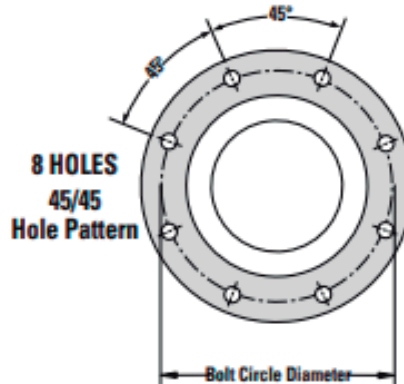
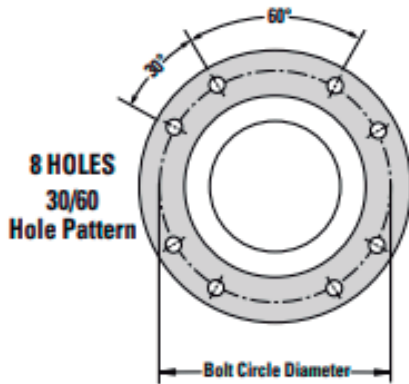


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W					Drilling Information		
2-1/2 63.5	0212	6-1/4 158.75	7/16 11.11	3-1/2 88.90	4 101.60	5-7/16 138.11	7-1/2 190.50	-	5-3/4 146.05	3-1/4 82.55	3/8 9.53	6	8	9/16 14.29	5 127.00	30/60
3 76.20	0300	7-1/2 190.50	7/16 11.11	4-1/2 114.30	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4 101.60	1/2 12.70	6	8	11/16 17.46	6-1/4 158.75	30/60
3-1/4 82.55	0314	7-1/2 190.50	7/16 11.11	-	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4-1/4 107.95	1/2 12.70	6	8	11/16 17.46	6-1/4 158.75	30/60
3-1/2 88.90	0312	8-1/8 206.38	5/8 15.88	4-1/2 114.30	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-1/2 114.30	1/2 12.70	6	8	11/16 17.46	6-3/4 171.45	30/60
3-3/4 95.25	0334	8-1/8 206.38	5/8 15.88	-	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-3/4 120.65	1/2 12.70	6	8	11/16 17.46	6-3/4 171.45	30/60
4 101.60	0400	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5 127.00	1/2 12.70	6	8	11/16 17.46	7-1/4 184.15	30/60
4-1/4 107.95	0414	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5-1/4 133.35	1/2 12.70	6	8	11/16 17.46	7-1/4 184.15	30/60
4-1/2 114.30	0412	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	5-3/4 146.05	5/8 15.88	6	8	11/16 17.46	8 203.20	30/60
4-3/4 120.65	0434	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	6 152.40	5/8 15.88	6	8	11/16 17.46	8 203.20	30/60
5 127.00	0500	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-1/2 165.10	3/4 19.05	6	8	11/16 17.46	8-3/4 222.25	30/60
5-1/4 133.35	0514	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-3/4 171.45	3/4 19.05	6	8	11/16 17.46	8-3/4 222.25	30/60
5-1/2 139.70	0512	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7 177.80	3/4 19.05	6	8	11/16 17.46	9-1/4 234.95	30/60
5-3/4 146.05	0534	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7-1/4 184.15	3/4 19.05	6	8	11/16 17.46	9-1/4 234.95	30/60
6 152.40	0600	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-1/2 190.50	3/4 19.05	6	8	11/16 17.46	10-1/8 257.18	30/60
6-1/4 158.75	0614	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-3/4 196.85	3/4 19.05	6	8	11/16 17.46	10-1/8 257.18	30/60
6-1/2 165.10	0612	13-1/2 342.90	7/8 22.23	8-1/2 215.90	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-1/4 209.55	7/8 22.23	6	8	13/16 20.64	11-3/8 288.93	45/45
6-5/8 168.28	0658	13-1/2 342.90	7/8 22.23	-	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-3/8 212.73	7/8 22.23	6	8	13/16 20.64	11-3/8 288.93	45/45
6-3/4 171.45	0634	13-3/4 349.25	7/8 22.23	8-1/2 215.90	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-1/2 215.90	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
6-7/8 174.63	0678	13-3/4 349.25	7/8 22.23	-	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-5/8 219.08	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
7 177.80	0700	13-3/4 349.25	7/8 22.23	9-1/4 234.95	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-3/4 222.25	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
7-1/8 180.98	0718	14-1/8 358.78	7/8 22.23	-	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/8 231.78	1 25.40	6	8	13/16 20.64	12-3/8 314.33	45/45

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CO DE	Flange Dia meter	Flange Thick ness	Male Pilot Dia meter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Dia meter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
7 -1/4 184.15	0714	14 -1/8 358.78	7/8 22.23	9 -1/4 234.95	9 -5/8 244.48	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	12 -7/8 327.03	9 -1/4 234.95	1 25.40	6	8	13/16 20.64	12 -3/8 314.33	45/45
7 -3/8 187.33	0738	14 -1/8 358.78	7/8 22.23	— —	9 -5/8 244.48	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	12 -7/8 327.03	9 -3/8 238.13	1 25.40	6	8	13/16 20.64	12 -3/8 314.33	45/45
7 -1/2 190.50	0712	14 -1/2 368.30	7/8 22.23	10 -1/4 260.35	10 254.00	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -1/4 336.55	9 -1/2 241.30	1 25.40	6	8	13/16 20.64	12 -3/4 323.85	45/45
7 -5/8 193.68	0758	14 -1/2 368.30	7/8 22.23	— —	10 254.00	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -1/4 336.55	9 -5/8 244.48	1 25.40	6	8	13/16 20.64	12 -3/4 323.85	45/45
7 -3/4 196.85	0734	14 -1/2 368.30	7/8 22.23	10 -1/4 260.35	10 254.00	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -1/4 336.55	9 -3/4 247.65	1 25.40	6	8	13/16 20.64	12 -3/4 323.85	45/45
7 -7/8 200.03	0778	14 -7/8 377.83	7/8 22.23	— —	10 -3/8 263.53	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -5/8 346.08	9 -7/8 250.83	1 25.40	6	8	13/16 20.64	13 -1/8 333.38	45/45
8 203.20	0800	14 -7/8 377.83	7/8 22.23	10 -1/4 260.35	10 -3/8 263.53	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -5/8 346.08	10 254.00	1 25.40	6	8	13/16 20.64	13 -1/8 333.38	45/45
8 -1/8 206.38	0818	14 -7/8 377.83	7/8 22.23	— —	10 -3/8 263.53	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	13 -5/8 346.08	10 -1/8 257.18	1 25.40	6	8	13/16 20.64	13 -1/8 333.38	45/45
8 -1/4 209.55	0814	15 -1/4 387.35	7/8 22.23	11 279.40	10 -3/4 273.05	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 355.60	10 -1/4 260.35	1 25.40	6	8	13/16 20.64	13 -1/2 342.90	45/45
8 -3/8 212.73	0838	15 -1/4 387.35	7/8 22.23	— —	10 -3/4 273.05	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 355.60	10 -3/8 263.53	1 25.40	6	8	13/16 20.64	13 -1/2 342.90	45/45
8 -1/2 215.90	0812	15 -1/4 387.35	7/8 22.23	11 279.40	10 -3/4 273.05	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 355.60	10 -1/2 266.70	1 25.40	6	8	13/16 20.64	13 -1/2 342.90	45/45
8 -5/8 219.08	0858	15 -5/8 396.88	1 25.40	— —	11 -1/8 282.58	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/8 365.13	10 -5/8 269.88	1 25.40	6	8	13/16 20.64	13 -7/8 352.43	45/45
8 -3/4 222.25	0834	15 -5/8 396.88	1 25.40	11 279.40	11 -1/8 282.58	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/8 365.13	10 -3/4 273.05	1 25.40	6	8	13/16 20.64	13 -7/8 352.43	45/45
8 -7/8 225.43	0878	15 -5/8 396.88	1 25.40	— —	11 -1/8 282.58	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/8 365.13	10 -7/8 276.23	1 25.40	6	8	13/16 20.64	13 -7/8 352.43	45/45
9 228.60	0900	16 406.40	1 25.40	11 -3/4 298.45	11 -1/2 292.10	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/4 374.65	11 279.40	1 25.40	6	8	13/16 20.64	14 -1/4 361.95	45/45
9 -1/8 231.78	0918	16 406.40	1 25.40	— —	11 -1/2 292.10	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/4 374.65	11 -1/8 282.58	1 25.40	6	8	13/16 20.64	14 -1/4 361.95	45/45
9 -1/4 234.95	0914	16 406.40	1 25.40	11 -3/4 298.45	11 -1/2 292.10	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	14 -3/4 374.65	11 -1/4 285.75	1 25.40	6	8	13/16 20.64	14 -1/4 361.95	45/45
9 -3/8 238.13	0938	16 -3/8 415.93	1 25.40	— —	11 -7/8 301.63	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/8 384.18	11 -3/8 288.93	1 25.40	6	8	13/16 20.64	14 -5/8 371.48	45/45
9 -1/2 241.30	0912	16 -3/8 415.93	1 25.40	11 -3/4 298.45	11 -7/8 301.63	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/8 384.18	11 -1/2 292.10	1 25.40	6	8	13/16 20.64	14 -5/8 371.48	45/45
9 -5/8 244.48	0958	16 -3/8 415.93	1 25.40	— —	11 -7/8 301.63	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/8 384.18	11 -5/8 295.28	1 25.40	6	8	13/16 20.64	14 -5/8 371.48	45/45
9 -3/4 247.65	0934	16 -7/8 428.63	1 25.40	12 -3/4 323.85	12 -3/8 314.33	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/2 393.70	11 -3/4 298.45	1 25.40	6	8	13/16 20.64	15 381.00	45/45

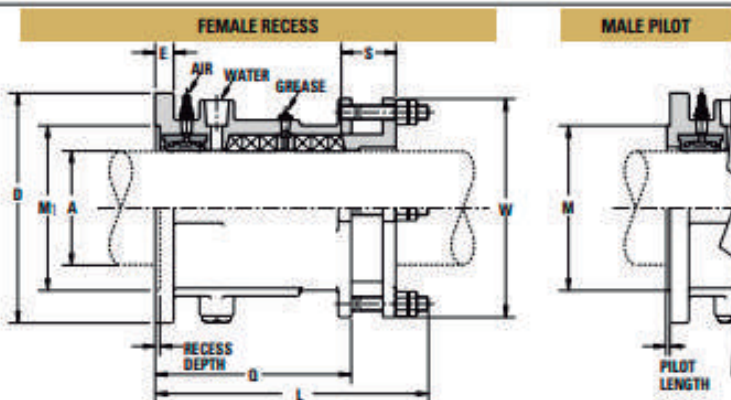
Forward Stern Tube Stuffing Boxes

Model 1786 (continued)

Water and Grease Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

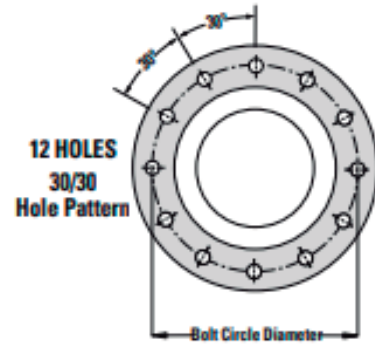
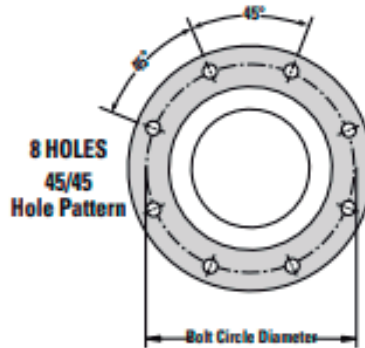
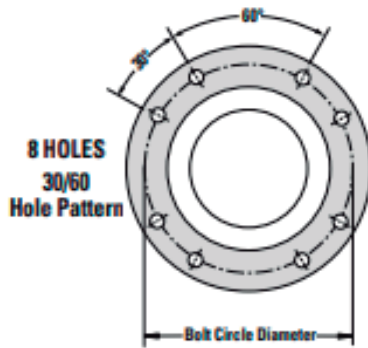


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CO DE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
9 -7/8 250.83	0978	16 -7/8 428.63	1 25.40	— —	12 -3/8 314.33	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/2 393.70	11 -7/8 301.63	1 25.40	6	8	13/16 20.64	15 381.00	45/45
10 254.00		16 -7/8 428.63	1 25.40	12 -3/4 323.85	12 -3/8 314.33	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/2 393.70	12 304.80	1 25.40	6	8	13/16 20.64	15 381.00	45/45
10 -1/8 257.18	1018	17 -7/8 454.03	1 25.40	— —	12 -3/4 323.85	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -1/8 307.98	1 25.40	6	8	15/16 23.81	15 -3/4 400.05	45/45
10 -1/4 260.35		17 -7/8 454.03	1 25.40	12 -3/4 323.85	12 -3/4 323.85	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -1/4 311.15	1 25.40	6	8	15/16 23.81	15 -3/4 400.05	45/45
10 -3/8 263.53	1038	17 -7/8 454.03	1 25.40	— —	12 -3/4 323.85	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -3/8 314.33	1 25.40	6	8	15/16 23.81	15 -3/4 400.05	45/45
10 -1/2 266.70		18 -1/4 463.55	1 25.40	13 -3/4 349.25	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -1/2 317.50	1 25.40	6	8	15/16 23.81	16 -1/8 409.58	45/45
10 -5/8 269.88	1058	18 -1/4 463.55	1 25.40	— —	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -5/8 320.68	1 25.40	6	8	15/16 23.81	16 -1/8 409.58	45/45
10 -3/4 273.05		18 -1/4 463.55	1 25.40	13 -3/4 349.25	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -3/4 323.85	1 25.40	6	8	15/16 23.81	16 -1/8 409.58	45/45
10 -7/8 276.23	1078	18 -5/8 473.08	1 25.40	— —	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	12 -7/8 327.03	1 25.40	6	8	15/16 23.81	16 -1/2 419.10	45/45
11 279.40		18 -5/8 473.08	1 25.40	13 -3/4 349.25	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	13 330.20	1 25.40	6	8	15/16 23.81	16 -1/2 419.10	45/45
11 -1/8 282.58	1118	18 -5/8 473.08	1 25.40	— —	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	13 -1/8 333.38	1 25.40	6	8	15/16 23.81	16 -1/2 419.10	45/45
11 -1/4 285.75		19 482.60	1 25.40	14 -1/2 368.30	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -1/4 336.55	1 25.40	6	8	15/16 23.81	16 -7/8 428.63	45/45
11 -3/8 288.93	1138	19 482.60	1 25.40	— —	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -3/8 339.73	1 25.40	6	8	15/16 23.81	16 -7/8 428.63	45/45
11 -1/2 292.10		19 482.60	1 25.40	14 -1/2 368.30	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -1/2 342.90	1 25.40	6	8	15/16 23.81	16 -7/8 428.63	45/45
11 -5/8 295.28	1158	19 -3/8 492.13	1 25.40	— —	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -5/8 346.08	1 25.40	6	12	15/16 23.81	17 -1/4 438.15	30/30
11 -3/4 298.45		19 -3/8 492.13	1 25.40	14 -1/2 368.30	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -3/4 349.25	1 25.40	6	12	15/16 23.81	17 -1/4 438.15	30/30
11 -7/8 301.63	1178	19 -3/8 492.13	1 25.40	— —	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -7/8 352.43	1 25.40	6	12	15/16 23.81	17 -1/4 438.15	30/30
12 304.80		19 -3/4 501.65	1 25.40	15 -1/2 393.70	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 355.60	1 25.40	6	12	15/16 23.81	17 -5/8 447.68	30/30
12 -1/8 307.98	1218	19 -3/4 501.65	1 25.40	— —	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 -1/8 358.78	1 25.40	6	12	15/16 23.81	17 -5/8 447.68	30/30
12 -1/4 311.15		19 -3/4 501.65	1 25.40	15 -1/2 393.70	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 -1/4 361.95	1 25.40	6	12	15/16 23.81	17 -5/8 447.68	30/30
12 -3/8 314.33	1238	20 -1/8 511.18	1 -1/8 28.58	— —	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -3/8 365.13	1 25.40	6	12	15/16 23.81	18 457.20	30/30

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CO DE	Range Diameter	Range Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
12 -1/2 317.50	1212	20 -1/8 511.18	1 -1/8 28.58	15 -1/2 393.70	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 3/4 95.25	18 -1/4 463.55	14 -1/2 368.30	1 25.40	6	12	15/16 23.81	18 457.20	30/30
12 -5/8 320.68	1258	20 -1/8 511.18	1 -1/8 28.58	— —	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -5/8 371.48	1 25.40	6	12	15/16 23.81	18 457.20	30/30
12 -3/4 323.85	1234	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -3/4 374.65	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
12 -7/8 327.03	1278	20 -1/2 520.70	1 -1/8 28.58	— —	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -7/8 377.83	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
13 330.20	1300	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	15 381.00	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
13 -1/8 333.38	1318	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/8 384.18	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/4 336.55	1314	21 533.40	1 -1/8 28.58	16 -1/4 412.75	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/4 387.35	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -3/8 339.73	1338	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -3/8 390.53	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/2 342.90	1312	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -1/2 393.70	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -5/8 346.08	1358	21 -3/8 542.93	1 -1/8 28.58	— —	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -5/8 396.88	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -3/4 349.25	1334	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -3/4 400.05	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -7/8 352.43	1378	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	15 -7/8 403.23	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 355.60	1400	21 -3/4 552.45	1 -1/8 28.58	17 -1/4 438.15	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 406.40	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/8 358.78	1418	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 -1/8 409.58	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/4 361.95	1414	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/4 412.75	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -3/8 365.13	1438	22 -1/8 561.98	1 -1/8 28.58	— —	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -3/8 415.93	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -1/2 368.30	1412	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/2 419.10	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -5/8 371.48	1458	22 -1/2 571.50	1 -1/8 28.58	— —	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -5/8 422.28	1 25.40	6	12	15/16 23.81	20 -3/8 517.53	30/30
14 -3/4 374.65	1434	22 -1/2 571.50	1 -1/8 28.58	18 -1/4 463.55	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -3/4 425.45	1 25.40	6	12	15/16 23.81	20 -3/8 517.53	30/30
14 -7/8 377.83	1478	22 -3/4 577.85	1 -1/8 28.58	— —	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	16 -7/8 428.63	1 25.40	6	12	15/16 23.81	20 -5/8 523.88	30/30
15 381.00	1500	22 -3/4 577.85	1 -1/8 28.58	19 482.60	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	17 431.80	1 25.40	6	12	15/16 23.81	20 -5/8 523.88	30/30

Consult factory for sizes 15-1/8" to 35"

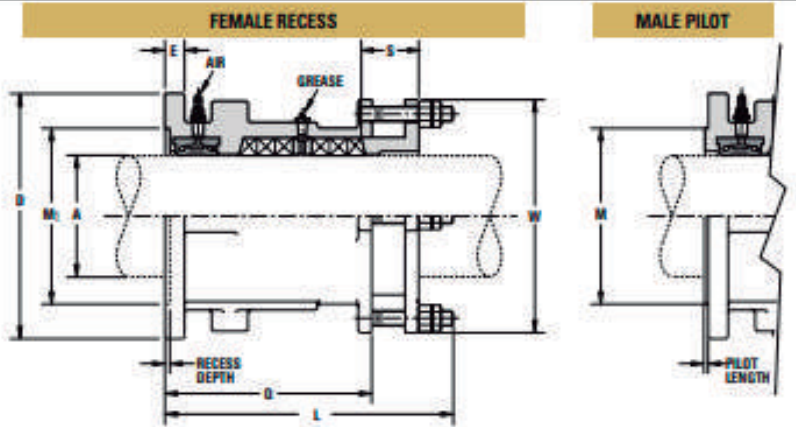
Forward Stern Tube Stuffing Boxes

Model 1787

Grease Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

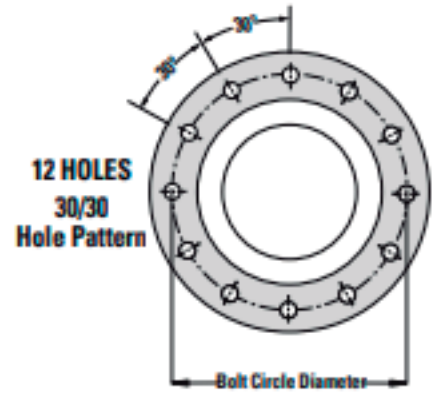
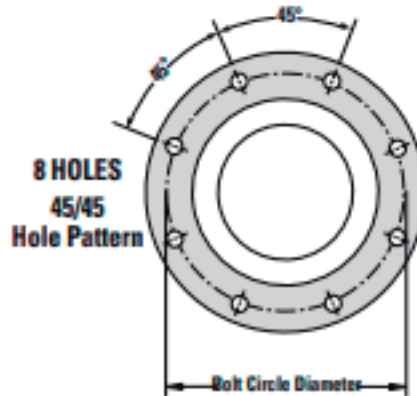
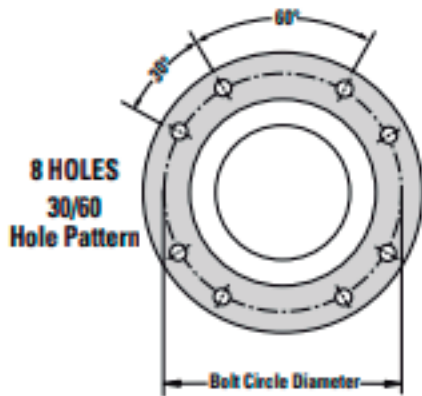


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing		Drilling Information				
2-1/2 63.5	0212	6-1/4 158.75	7/16 11.11	3-1/2 88.90	4 101.60	5-7/16 138.11	7-1/2 190.50	- -	5-3/4 146.05	3-1/4 82.55	3/8 9.53	6	8	9/16 14.29	5 127.00	30/60
3 76.20	0300	7-1/2 190.50	7/16 11.11	4-1/2 114.30	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4 101.60	1/2 12.70	6	8	11/16 17.46	6-1/4 158.75	30/60
3-1/4 82.55	0314	7-1/2 190.50	7/16 11.11	- -	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4-1/4 107.95	1/2 12.70	6	8	11/16 17.46	6-1/4 158.75	30/60
3-1/2 88.90	0312	8-1/8 206.38	5/8 15.88	4-1/2 114.30	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-1/2 114.30	1/2 12.70	6	8	11/16 17.46	6-3/4 171.45	30/60
3-3/4 95.25	0334	8-1/8 206.38	5/8 15.88	- -	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-3/4 120.65	1/2 12.70	6	8	11/16 17.46	6-3/4 171.45	30/60
4 101.60	0400	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5 127.00	1/2 12.70	6	8	11/16 17.46	7-1/4 184.15	30/60
4-1/4 107.95	0414	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5-1/4 133.35	1/2 12.70	6	8	11/16 17.46	7-1/4 184.15	30/60
4-1/2 114.30	0412	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	5-3/4 146.05	5/8 15.88	6	8	11/16 17.46	8 203.20	30/60
4-3/4 120.65	0434	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	6 152.40	5/8 15.88	6	8	11/16 17.46	8 203.20	30/60
5 127.00	0500	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-1/2 165.10	3/4 19.05	6	8	11/16 17.46	8-3/4 222.25	30/60
5-1/4 133.35	0514	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-3/4 171.45	3/4 19.05	6	8	11/16 17.46	8-3/4 222.25	30/60
5-1/2 139.70	0512	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7 177.80	3/4 19.05	6	8	11/16 17.46	9-1/4 234.95	30/60
5-3/4 146.05	0534	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7-1/4 184.15	3/4 19.05	6	8	11/16 17.46	9-1/4 234.95	30/60
6 152.40	0600	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-1/2 190.50	3/4 19.05	6	8	11/16 17.46	10-1/8 257.18	30/60
6-1/4 158.75	0614	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-3/4 196.85	3/4 19.05	6	8	11/16 17.46	10-1/8 257.18	30/60
6-1/2 165.10	0612	13-1/2 342.90	7/8 22.23	8-1/2 215.90	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-1/4 209.55	7/8 22.23	6	8	13/16 20.64	11-3/8 288.93	45/45
6-5/8 168.28	0658	13-1/2 342.90	7/8 22.23	- -	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-3/8 212.73	7/8 22.23	6	8	13/16 20.64	11-3/8 288.93	45/45
6-3/4 171.45	0634	13-3/4 349.25	7/8 22.23	8-1/2 215.90	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-1/2 215.90	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
6-7/8 174.63	0678	13-3/4 349.25	7/8 22.23	- -	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-5/8 219.08	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
7 177.80	0700	13-3/4 349.25	7/8 22.23	9-1/4 234.95	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-3/4 222.25	7/8 22.23	6	8	13/16 20.64	12 304.80	45/45
7-1/8 180.98	0718	14-1/8 358.78	7/8 22.23	- -	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/8 231.78	1 25.40	6	8	13/16 20.64	12-3/8 314.33	45/45

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Dall Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
7-1/4 184.15	0714	14-1/8 358.78	7/8 22.23	9-1/4 234.95	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/4 234.95	1 25.40	6	8	13/16 20.64	12-3/8 314.33	45/45
7-3/8 187.33	0738	14-1/8 358.78	7/8 22.23	— —	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-3/8 238.13	1 25.40	6	8	13/16 20.64	12-3/8 314.33	45/45
7-1/2 190.50	0712	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-1/2 241.30	1 25.40	6	8	13/16 20.64	12-3/4 323.85	45/45
7-5/8 193.68	0758	14-1/2 368.30	7/8 22.23	— —	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-5/8 244.48	1 25.40	6	8	13/16 20.64	12-3/4 323.85	45/45
7-3/4 196.85	0734	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-3/4 247.65	1 25.40	6	8	13/16 20.64	12-3/4 323.85	45/45
7-7/8 200.03	0778	14-7/8 377.83	7/8 22.23	— —	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	9-7/8 250.83	1 25.40	6	8	13/16 20.64	13-1/8 333.38	45/45
8 203.20	0800	14-7/8 377.83	7/8 22.23	10-1/4 260.35	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10 254.00	1 25.40	6	8	13/16 20.64	13-1/8 333.38	45/45
8-1/8 206.38	0818	14-7/8 377.83	7/8 22.23	— —	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10-1/8 257.18	1 25.40	6	8	13/16 20.64	13-1/8 333.38	45/45
8-1/4 209.55	0814	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/4 260.35	1 25.40	6	8	13/16 20.64	13-1/2 342.90	45/45
8-3/8 212.73	0838	15-1/4 387.35	7/8 22.23	— —	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-3/8 263.53	1 25.40	6	8	13/16 20.64	13-1/2 342.90	45/45
8-1/2 215.90	0812	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/2 266.70	1 25.40	6	8	13/16 20.64	13-1/2 342.90	45/45
8-5/8 219.08	0858	15-5/8 396.88	1 25.40	— —	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-5/8 269.88	1 25.40	6	8	13/16 20.64	13-7/8 352.43	45/45
8-3/4 222.25	0834	15-5/8 396.88	1 25.40	11 279.40	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-3/4 273.05	1 25.40	6	8	13/16 20.64	13-7/8 352.43	45/45
8-7/8 225.43	0878	15-5/8 396.88	1 25.40	— —	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-7/8 276.23	1 25.40	6	8	13/16 20.64	13-7/8 352.43	45/45
9 228.60	0900	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11 279.40	1 25.40	6	8	13/16 20.64	14-1/4 361.95	45/45
9-1/8 231.78	0918	16 406.40	1 25.40	— —	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/8 282.58	1 25.40	6	8	13/16 20.64	14-1/4 361.95	45/45
9-1/4 234.95	0914	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/4 285.75	1 25.40	6	8	13/16 20.64	14-1/4 361.95	45/45
9-3/8 238.13	0938	16-3/8 415.93	1 25.40	— —	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-3/8 288.93	1 25.40	6	8	13/16 20.64	14-5/8 371.48	45/45
9-1/2 241.30	0912	16-3/8 415.93	1 25.40	11-3/4 298.45	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-1/2 292.10	1 25.40	6	8	13/16 20.64	14-5/8 371.48	45/45
9-5/8 244.48	0958	16-3/8 415.93	1 25.40	— —	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-5/8 295.28	1 25.40	6	8	13/16 20.64	14-5/8 371.48	45/45
9-3/4 247.65	0934	16-7/8 428.63	1 25.40	12-3/4 323.85	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	11-3/4 298.45	1 25.40	6	8	13/16 20.64	15 381.00	45/45

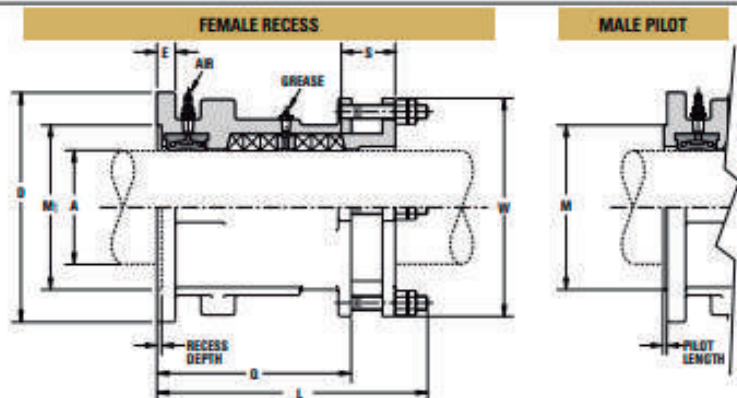
Forward Stern Tube Stuffing Boxes

Model 1787 (continued)

Grease Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

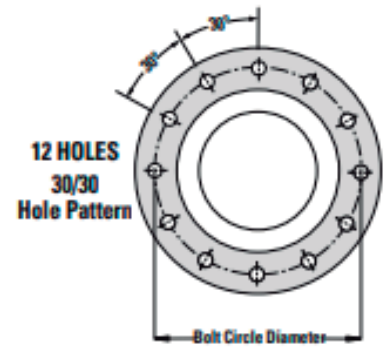
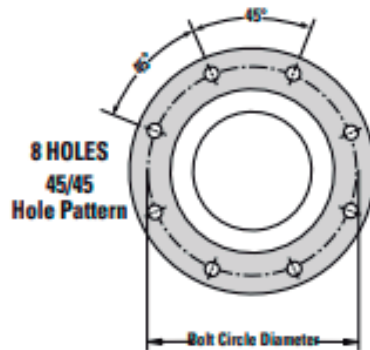
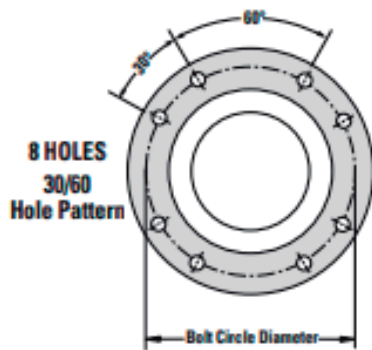


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing		Drilling Information				
9-7/8 250.83	0978	16-7/8 428.63	1 25.40	— —	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	11-7/8 301.63	1 25.40	6	8	13/16 20.64	15 381.00	45/45
10 254.00		16-7/8 428.63	1 25.40	12-3/4 323.85	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	12 304.80	1 25.40	6	8	13/16 20.64	15 381.00	45/45
10-1/8 257.18	1018	17-7/8 454.03	1 25.40	— —	12-3/4 323.85	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16 406.40	12-1/8 307.98	1 25.40	6	8	15/16 23.81	15-3/4 400.05	45/45
10-1/4 260.35		17-7/8 454.03	1 25.40	12-3/4 323.85	12-3/4 323.85	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16 406.40	12-1/4 311.15	1 25.40	6	8	15/16 23.81	15-3/4 400.05	45/45
10-3/8 263.53	1038	17-7/8 454.03	1 25.40	— —	12-3/4 323.85	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16 406.40	12-3/8 314.33	1 25.40	6	8	15/16 23.81	15-3/4 400.05	45/45
10-1/2 266.70		18-1/4 463.55	1 25.40	13-3/4 349.25	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-1/2 317.50	1 25.40	6	8	15/16 23.81	16-1/8 409.58	45/45
10-5/8 269.88	1058	18-1/4 463.55	1 25.40	— —	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-5/8 320.68	1 25.40	6	8	15/16 23.81	16-1/8 409.58	45/45
10-3/4 273.05		18-1/4 463.55	1 25.40	13-3/4 349.25	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-3/4 323.85	1 25.40	6	8	15/16 23.81	16-1/8 409.58	45/45
10-7/8 276.23	1078	18-5/8 473.08	1 25.40	— —	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	12-7/8 327.03	1 25.40	6	8	15/16 23.81	16-1/2 419.10	45/45
11 279.40		18-5/8 473.08	1 25.40	13-3/4 349.25	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	13 330.20	1 25.40	6	8	15/16 23.81	16-1/2 419.10	45/45
11-1/8 282.58	1118	18-5/8 473.08	1 25.40	— —	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	13-1/8 333.38	1 25.40	6	8	15/16 23.81	16-1/2 419.10	45/45
11-1/4 285.75		19 482.60	1 25.40	14-1/2 368.30	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-1/4 336.55	1 25.40	6	8	15/16 23.81	16-7/8 428.63	45/45
11-3/8 288.93	1138	19 482.60	1 25.40	— —	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-3/8 339.73	1 25.40	6	8	15/16 23.81	16-7/8 428.63	45/45
11-1/2 292.10		19 482.60	1 25.40	14-1/2 368.30	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-1/2 342.90	1 25.40	6	8	15/16 23.81	16-7/8 428.63	45/45
11-5/8 295.28	1158	19-3/8 492.13	1 25.40	— —	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-5/8 346.08	1 25.40	6	12	15/16 23.81	17-1/4 438.15	30/30
11-3/4 298.45		19-3/8 492.13	1 25.40	14-1/2 368.30	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-3/4 349.25	1 25.40	6	12	15/16 23.81	17-1/4 438.15	30/30
11-7/8 301.63	1178	19-3/8 492.13	1 25.40	— —	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-7/8 352.43	1 25.40	6	12	15/16 23.81	17-1/4 438.15	30/30
12 304.80		19-3/4 501.65	1 25.40	15-1/2 393.70	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14 355.60	1 25.40	6	12	15/16 23.81	17-5/8 447.68	30/30
12-1/8 307.98	1218	19-3/4 501.65	1 25.40	— —	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14-1/8 358.78	1 25.40	6	12	15/16 23.81	17-5/8 447.68	30/30
12-1/4 311.15		19-3/4 501.65	1 25.40	15-1/2 393.70	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14-1/4 361.95	1 25.40	6	12	15/16 23.81	17-5/8 447.68	30/30
12-3/8 314.33	1238	20-1/8 511.18	1-1/8 28.58	— —	15-1/8 384.18	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-1/4 463.55	14-3/8 365.13	1 25.40	6	12	15/16 23.81	18 457.20	30/30

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
12 -1/2 317.50	1212	20 -1/8 511.18	1 -1/8 28.58	15 -1/2 393.70	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 3/4 95.25	18 -1/4 463.55	14 -1/2 368.30	1 25.40	6	12	15/16 23.81	18 457.20	30/30
12 -5/8 320.68	1258	20 -1/8 511.18	1 -1/8 28.58	— —	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -5/8 371.48	1 25.40	6	12	15/16 23.81	18 457.20	30/30
12 -3/4 323.85	1234	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -3/4 374.65	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
12 -7/8 327.03	1278	20 -1/2 520.70	1 -1/8 28.58	— —	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -7/8 377.83	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
13 330.20	1300	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	15 381.00	1 25.40	6	12	15/16 23.81	18 -3/8 466.73	30/30
13 -1/8 333.38	1318	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/8 384.18	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/4 336.55	1314	21 533.40	1 -1/8 28.58	16 -1/4 412.75	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/4 387.35	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -3/8 339.73	1338	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -3/8 390.53	1 25.40	6	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/2 342.90	1312	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -1/2 393.70	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -5/8 346.08	1358	21 -3/8 542.93	1 -1/8 28.58	— —	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -5/8 396.88	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -3/4 349.25	1334	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -3/4 400.05	1 25.40	6	12	15/16 23.81	19 -1/4 488.95	30/30
13 -7/8 352.43	1378	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	15 -7/8 403.23	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 355.60	1400	21 -3/4 552.45	1 -1/8 28.58	17 -1/4 438.15	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 406.40	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/8 358.78	1418	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 -1/8 409.58	1 25.40	6	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/4 361.95	1414	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/4 412.75	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -3/8 365.13	1438	22 -1/8 561.98	1 -1/8 28.58	— —	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -3/8 415.93	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -1/2 368.30	1412	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/2 419.10	1 25.40	6	12	15/16 23.81	20 508.00	30/30
14 -5/8 371.48	1458	22 -1/2 571.50	1 -1/8 28.58	— —	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -5/8 422.28	1 25.40	6	12	15/16 23.81	20 -3/8 517.53	30/30
14 -3/4 374.65	1434	22 -1/2 571.50	1 -1/8 28.58	18 -1/4 463.55	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -3/4 425.45	1 25.40	6	12	15/16 23.81	20 -3/8 517.53	30/30
14 -7/8 377.83	1478	22 -3/4 577.85	1 -1/8 28.58	— —	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	16 -7/8 428.63	1 25.40	6	12	15/16 23.81	20 -5/8 523.88	30/30
15 381.00	1500	22 -3/4 577.85	1 -1/8 28.58	19 482.60	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	17 431.80	1 25.40	6	12	15/16 23.81	20 -5/8 523.88	30/30

Consult factory for sizes 15-1/8" to 36"

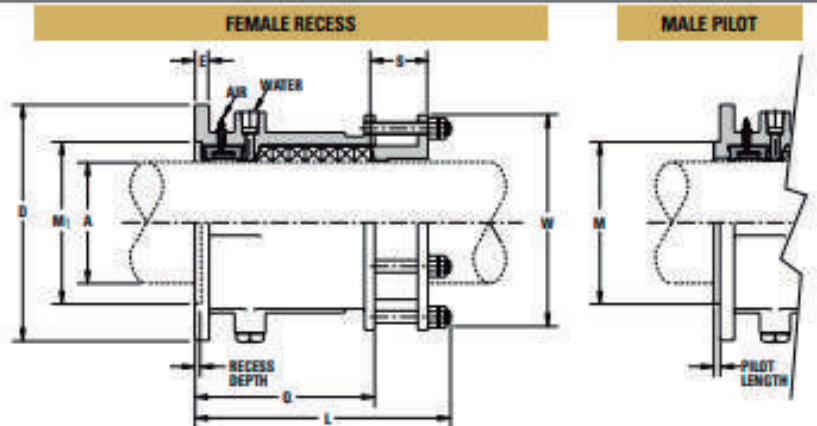
Forward Stern Tube Stuffing Boxes

Model 1788

Water Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

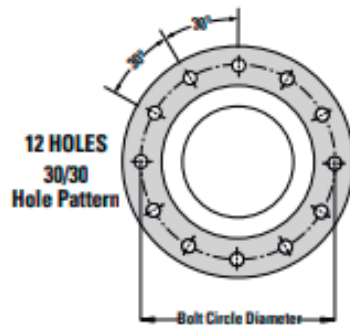
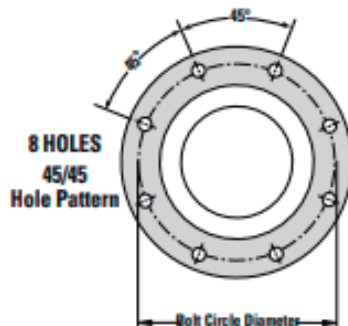
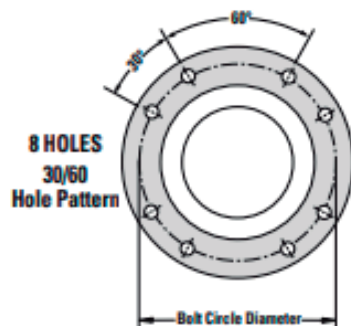


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
2-1/2 63.5	0212	6-1/4 158.75	7/16 11.11	3-1/2 88.90	4 101.60	5-7/16 138.11	7-1/2 190.50	- -	5-3/4 146.05	3-1/4 82.55	3/8 9.53	7	8	9/16 14.29	5 127.00	30/60
3 76.20	0300	7-1/2 190.50	7/16 11.11	4-1/2 114.30	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4 101.60	1/2 12.70	7	8	11/16 17.46	6-1/4 158.75	30/60
3-1/4 82.55	0314	7-1/2 190.50	7/16 11.11	- -	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4-1/4 107.95	1/2 12.70	7	8	11/16 17.46	6-1/4 158.75	30/60
3-1/2 88.90	0312	8-1/8 206.38	5/8 15.88	4-1/2 114.30	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-1/2 114.30	1/2 12.70	7	8	11/16 17.46	6-3/4 171.45	30/60
3-3/4 95.25	0334	8-1/8 206.38	5/8 15.88	- -	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-3/4 120.65	1/2 12.70	7	8	11/16 17.46	6-3/4 171.45	30/60
4 101.60	0400	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5 127.00	1/2 12.70	7	8	11/16 17.46	7-1/4 184.15	30/60
4-1/4 107.95	0414	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5-1/4 133.35	1/2 12.70	7	8	11/16 17.46	7-1/4 184.15	30/60
4-1/2 114.30	0412	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	5-3/4 146.05	5/8 15.88	7	8	11/16 17.46	8 203.20	30/60
4-3/4 120.65	0434	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	6 152.40	5/8 15.88	7	8	11/16 17.46	8 203.20	30/60
5 127.00	0500	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-1/2 165.10	3/4 19.05	7	8	11/16 17.46	8-3/4 222.25	30/60
5-1/4 133.35	0514	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-3/4 171.45	3/4 19.05	7	8	11/16 17.46	8-3/4 222.25	30/60
5-1/2 139.70	0512	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7 177.80	3/4 19.05	7	8	11/16 17.46	9-1/4 234.95	30/60
5-3/4 146.05	0534	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7-1/4 184.15	3/4 19.05	7	8	11/16 17.46	9-1/4 234.95	30/60
6 152.40	0600	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-1/2 190.50	3/4 19.05	7	8	11/16 17.46	10-1/8 257.18	30/60
6-1/4 158.75	0614	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-3/4 196.85	3/4 19.05	7	8	11/16 17.46	10-1/8 257.18	30/60
6-1/2 165.10	0612	13-1/2 342.90	7/8 22.23	8-1/2 215.90	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-1/4 209.55	7/8 22.23	7	8	13/16 20.64	11-3/8 288.93	45/45
6-5/8 168.28	0658	13-1/2 342.90	7/8 22.23	- -	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-3/8 212.73	7/8 22.23	7	8	13/16 20.64	11-3/8 288.93	45/45
6-3/4 171.45	0634	13-3/4 349.25	7/8 22.23	8-1/2 215.90	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-1/2 215.90	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
6-7/8 174.63	0678	13-3/4 349.25	7/8 22.23	- -	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-5/8 219.08	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
7 177.80	0700	13-3/4 349.25	7/8 22.23	9-1/4 234.95	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-3/4 222.25	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
7-1/8 180.98	0718	14-1/8 358.78	7/8 22.23	- -	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/8 231.78	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45

DRILL HOLE PATTERNS



Q.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A	D	E	M	M1	Q	L	S	W	Packing			Drilling Information				
7-1/4 184.15	0714	14-1/8 358.78	7/8 22.23	9-1/4 234.95	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/4 234.95	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45
7-3/8 187.33	0738	14-1/8 358.78	7/8 22.23	— —	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-3/8 238.13	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45
7-1/2 190.50	0712	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-1/2 241.30	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-5/8 193.68	0758	14-1/2 368.30	7/8 22.23	— —	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-5/8 244.48	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-3/4 196.85	0734	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-3/4 247.65	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-7/8 200.03	0778	14-7/8 377.83	7/8 22.23	— —	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	9-7/8 250.83	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8 203.20	0800	14-7/8 377.83	7/8 22.23	10-1/4 260.35	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10 254.00	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8-1/8 206.38	0818	14-7/8 377.83	7/8 22.23	— —	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10-1/8 257.18	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8-1/4 209.55	0814	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/4 260.35	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-3/8 212.73	0838	15-1/4 387.35	7/8 22.23	— —	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-3/8 263.53	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-1/2 215.90	0812	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/2 266.70	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-5/8 219.08	0858	15-5/8 396.88	1 25.40	— —	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-5/8 269.88	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
8-3/4 222.25	0834	15-5/8 396.88	1 25.40	11 279.40	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-3/4 273.05	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
8-7/8 225.43	0878	15-5/8 396.88	1 25.40	— —	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-7/8 276.23	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
9 228.60	0900	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11 279.40	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-1/8 231.78	0918	16 406.40	1 25.40	— —	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/8 282.58	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-1/4 234.95	0914	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/4 285.75	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-3/8 238.13	0938	16-3/8 415.93	1 25.40	— —	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-3/8 288.93	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-1/2 241.30	0912	16-3/8 415.93	1 25.40	11-3/4 298.45	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-1/2 292.10	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-5/8 244.48	0958	16-3/8 415.93	1 25.40	— —	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-5/8 295.28	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-3/4 247.65	0934	16-7/8 428.63	1 25.40	12-3/4 323.85	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	11-3/4 298.45	1 25.40	7	8	13/16 20.64	15 381.00	45/45

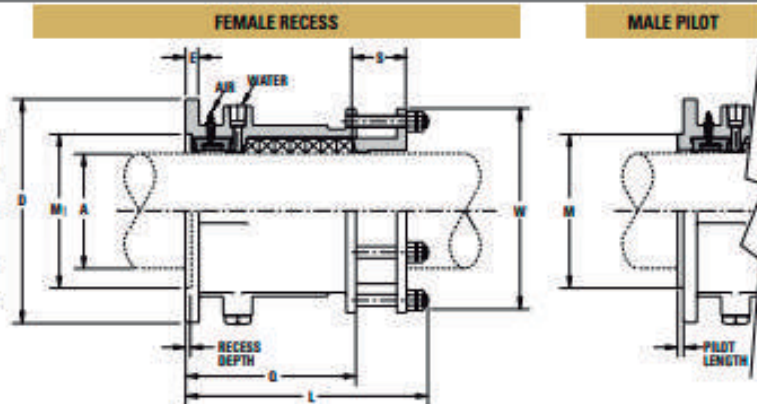
Forward Stern Tube Stuffing Boxes

Model 1788 (continued)

Water Service with Air Seal Ring



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

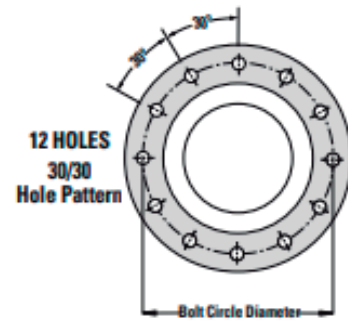
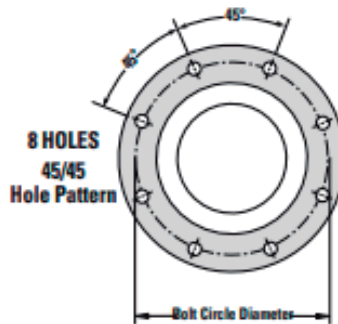
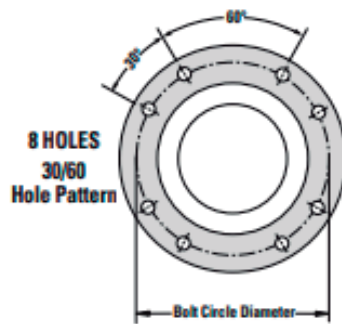


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A	D	E	M	M1	Q	L	S	W	Packing	Drilling Information						
9-7/8 250.83	0978	16-7/8 428.63	1 25.40	-	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	11-7/8 301.63	1 25.40	7	8	13/16 20.64	15 381.00	45/45
10 254.00	1000	16-7/8 428.63	1 25.40	12-3/4 323.85	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	12 304.80	1 25.40	7	8	13/16 20.64	15 381.00	45/45
10-1/8 257.18	1018	17-7/8 454.03	1 25.40	-	12-3/4 323.85	11-1/8 282.58	16-1/4 412.75	3-1/2 88.90	16 406.40	12-1/8 307.98	1 25.40	7	8	15/16 23.81	15-3/4 400.05	45/45
10-1/4 260.35	1014	17-7/8 454.03	1 25.40	12-3/4 323.85	12-3/4 323.85	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16 406.40	12-1/4 311.15	1 25.40	7	8	15/16 23.81	15-3/4 400.05	45/45
10-3/8 263.53	1038	17-7/8 454.03	1 25.40	-	12-3/4 323.85	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16 406.40	12-3/8 314.33	1 25.40	7	8	15/16 23.81	15-3/4 400.05	45/45
10-1/2 266.70	1012	18-1/4 463.55	1 25.40	13-3/4 349.25	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-1/2 317.50	1 25.40	7	8	15/16 23.81	16-1/8 409.58	45/45
10-5/8 269.88	1058	18-1/4 463.55	1 25.40	-	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-5/8 320.68	1 25.40	7	8	15/16 23.81	16-1/8 409.58	45/45
10-3/4 273.05	1034	18-1/4 463.55	1 25.40	13-3/4 349.25	13-1/8 333.38	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/8 415.93	12-3/4 323.85	1 25.40	7	8	15/16 23.81	16-1/8 409.58	45/45
10-7/8 276.23	1078	18-5/8 473.08	1 25.40	-	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	12-7/8 327.03	1 25.40	7	8	15/16 23.81	16-1/2 419.10	45/45
11 279.40	1100	18-5/8 473.08	1 25.40	13-3/4 349.25	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	13 330.20	1 25.40	7	8	15/16 23.81	16-1/2 419.10	45/45
11-1/8 282.58	1118	18-5/8 473.08	1 25.40	-	13-1/2 342.90	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	16-3/4 425.45	13-1/8 333.38	1 25.40	7	8	15/16 23.81	16-1/2 419.10	45/45
11-1/4 285.75	1114	19 482.60	1 25.40	14-1/2 368.30	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-1/4 336.55	1 25.40	7	8	15/16 23.81	16-7/8 428.63	45/45
11-3/8 288.93	1138	19 482.60	1 25.40	-	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-3/8 339.73	1 25.40	7	8	15/16 23.81	16-7/8 428.63	45/45
11-1/2 292.10	1112	19 482.60	1 25.40	14-1/2 368.30	13-7/8 352.43	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/8 434.98	13-1/2 342.90	1 25.40	7	8	15/16 23.81	16-7/8 428.63	45/45
11-5/8 295.28	1158	19-3/8 492.13	1 25.40	-	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-5/8 346.08	1 25.40	7	12	15/16 23.81	17-1/4 438.15	30/30
11-3/4 298.45	1134	19-3/8 492.13	1 25.40	14-1/2 368.30	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-3/4 349.25	1 25.40	7	12	15/16 23.81	17-1/4 438.15	30/30
11-7/8 301.63	1178	19-3/8 492.13	1 25.40	-	14-1/8 358.78	11-3/4 298.45	16-1/4 412.75	3-1/2 88.90	17-1/2 444.50	13-7/8 352.43	1 25.40	7	12	15/16 23.81	17-1/4 438.15	30/30
12 304.80	1200	19-3/4 501.65	1 25.40	15-1/2 393.70	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14 355.60	1 25.40	7	12	15/16 23.81	17-5/8 447.68	30/30
12-1/8 307.98	1218	19-3/4 501.65	1 25.40	-	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14-1/8 358.78	1 25.40	7	12	15/16 23.81	17-5/8 447.68	30/30
12-1/4 311.15	1214	19-3/4 501.65	1 25.40	15-1/2 393.70	14-1/2 368.30	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	17-7/8 454.03	14-1/4 361.95	1 25.40	7	12	15/16 23.81	17-5/8 447.68	30/30
12-3/8 314.33	1238	20-1/8 511.18	1-1/8 28.58	-	15-1/8 384.18	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-1/4 463.55	14-3/8 365.13	1 25.40	7	12	15/16 23.81	18 457.20	30/30

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
12 -1/2 317.50	1212	20 -1/8 511.18	1 -1/8 28.58	15 -1/2 393.70	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -1/2 368.30	1 25.40	7	12	15/16 23.81	18 457.20	30/30
12 -5/8 320.68	1258	20 -1/8 511.18	1 -1/8 28.58	— —	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -5/8 371.48	1 25.40	7	12	15/16 23.81	18 457.20	30/30
12 -3/4 323.85	1234	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -3/4 374.65	1 25.40	7	12	15/16 23.81	18 -3/8 466.73	30/30
12 -7/8 327.03	1278	20 -1/2 520.70	1 -1/8 28.58	— —	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	14 -7/8 377.83	1 25.40	7	12	15/16 23.81	18 -3/8 466.73	30/30
13 330.20	1300	20 -1/2 520.70	1 -1/8 28.58	16 -1/4 412.75	15 -1/2 393.70	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -5/8 473.08	15 381.00	1 25.40	7	12	15/16 23.81	18 -3/8 466.73	30/30
13 -1/8 333.38	1318	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/8 384.18	1 25.40	7	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/4 336.55	1314	21 533.40	1 -1/8 28.58	16 -1/4 412.75	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -1/4 387.35	1 25.40	7	12	15/16 23.81	18 -7/8 479.43	30/30
13 -3/8 339.73	1338	21 533.40	1 -1/8 28.58	— —	15 -3/4 400.05	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/8 485.78	15 -3/8 390.53	1 25.40	7	12	15/16 23.81	18 -7/8 479.43	30/30
13 -1/2 342.90	1312	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -1/2 393.70	1 25.40	7	12	15/16 23.81	19 -1/4 488.95	30/30
13 -5/8 346.08	1358	21 -3/8 542.93	1 -1/8 28.58	— —	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -5/8 396.88	1 25.40	7	12	15/16 23.81	19 -1/4 488.95	30/30
13 -3/4 349.25	1334	21 -3/8 542.93	1 -1/8 28.58	17 -1/4 438.15	16 -1/4 412.75	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -1/2 495.30	15 -3/4 400.05	1 25.40	7	12	15/16 23.81	19 -1/4 488.95	30/30
13 -7/8 352.43	1378	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	15 -7/8 403.23	1 25.40	7	12	15/16 23.81	19 -5/8 498.48	30/30
14 355.60	1400	21 -3/4 552.45	1 -1/8 28.58	17 -1/4 438.15	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 406.40	1 25.40	7	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/8 358.78	1418	21 -3/4 552.45	1 -1/8 28.58	— —	16 -5/8 422.28	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	19 -7/8 504.83	16 -1/8 409.58	1 25.40	7	12	15/16 23.81	19 -5/8 498.48	30/30
14 -1/4 361.95	1414	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/4 412.75	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14 -3/8 365.13	1438	22 -1/8 561.98	1 -1/8 28.58	— —	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -3/8 415.93	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14 -1/2 368.30	1412	22 -1/8 561.98	1 -1/8 28.58	18 -1/4 463.55	17 -1/4 438.15	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -1/4 514.35	16 -1/2 419.10	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14 -5/8 371.48	1458	22 -1/2 571.50	1 -1/8 28.58	— —	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -5/8 422.28	1 25.40	7	12	15/16 23.81	20 -3/8 517.53	30/30
14 -3/4 374.65	1434	22 -1/2 571.50	1 -1/8 28.58	18 -1/4 463.55	17 -1/2 444.50	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -5/8 523.88	16 -3/4 425.45	1 25.40	7	12	15/16 23.81	20 -3/8 517.53	30/30
14 -7/8 377.83	1478	22 -3/4 577.85	1 -1/8 28.58	— —	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	16 -7/8 428.63	1 25.40	7	12	15/16 23.81	20 -5/8 523.88	30/30
15 381.00	1500	22 -3/4 577.85	1 -1/8 28.58	19 482.60	17 -3/4 450.85	11 -7/8 301.63	16 -5/8 422.28	3 -3/4 95.25	20 -7/8 530.23	17 431.80	1 25.40	7	12	15/16 23.81	20 -5/8 523.88	30/30

Consult factory for sizes 15-1/8" to 36"

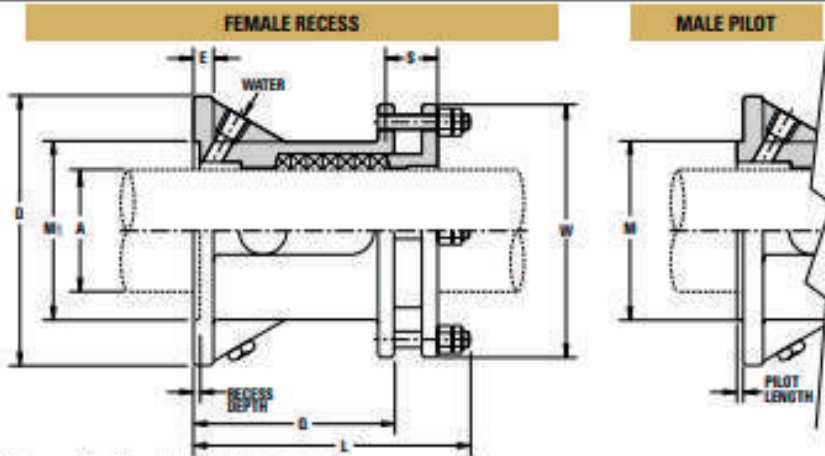
Forward Stern Tube Stuffing Boxes

Model 1789

Water Service. Model 1789G adds optional Grease Service.



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

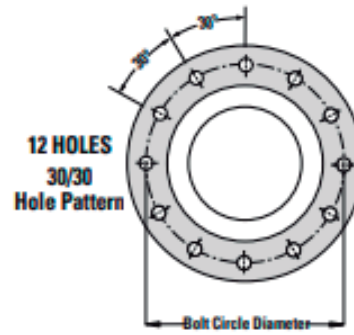
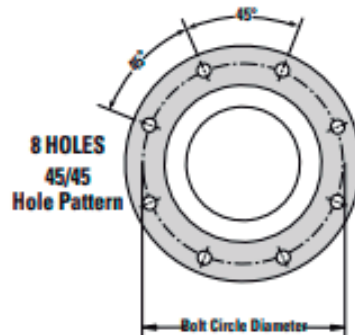
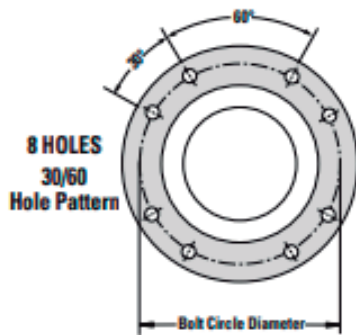


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing			Drilling Information			
2-1/2 63.5	0212	6-1/4 158.75	7/16 11.11	3-1/2 88.90	4 101.60	5-7/16 138.11	7-1/2 190.50	- -	5-3/4 146.05	3-1/4 82.55	3/8 9.53	7	8	9/16 14.29	5 127.00	30/60
3 76.20	0300	7-1/2 190.50	7/16 11.11	4-1/2 114.30	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4 101.60	1/2 12.70	7	8	11/16 17.46	6-1/4 158.75	30/60
3-1/4 82.55	0314	7-1/2 190.50	7/16 11.11	- -	4-3/4 120.65	6-5/16 160.34	8-1/2 215.90	1-7/16 36.51	7 177.80	4-1/4 107.95	1/2 12.70	7	8	11/16 17.46	6-1/4 158.75	30/60
3-1/2 88.90	0312	8-1/8 206.38	5/8 15.88	4-1/2 114.30	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-1/2 114.30	1/2 12.70	7	8	11/16 17.46	6-3/4 171.45	30/60
3-3/4 95.25	0334	8-1/8 206.38	5/8 15.88	- -	5-1/4 133.35	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	7-5/8 193.68	4-3/4 120.65	1/2 12.70	7	8	11/16 17.46	6-3/4 171.45	30/60
4 101.60	0400	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5 127.00	1/2 12.70	7	8	11/16 17.46	7-1/4 184.15	30/60
4-1/4 107.95	0414	8-5/8 219.08	5/8 15.88	5-1/2 139.70	5-3/4 146.05	6-5/16 160.34	8-11/16 220.66	1-5/8 41.28	8-1/8 206.38	5-1/4 133.35	1/2 12.70	7	8	11/16 17.46	7-1/4 184.15	30/60
4-1/2 114.30	0412	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	5-3/4 146.05	5/8 15.88	7	8	11/16 17.46	8 203.20	30/60
4-3/4 120.65	0434	9-3/8 238.13	13/16 20.64	6-1/8 155.58	6-1/2 165.10	7-5/16 185.74	9-15/16 252.41	1-7/8 47.63	8-7/8 225.43	6 152.40	5/8 15.88	7	8	11/16 17.46	8 203.20	30/60
5 127.00	0500	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-1/2 165.10	3/4 19.05	7	8	11/16 17.46	8-3/4 222.25	30/60
5-1/4 133.35	0514	10-1/8 257.18	13/16 20.64	6-1/2 165.10	7-1/4 184.15	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	9-5/8 244.48	6-3/4 171.45	3/4 19.05	7	8	11/16 17.46	8-3/4 222.25	30/60
5-1/2 139.70	0512	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7 177.80	3/4 19.05	7	8	11/16 17.46	9-1/4 234.95	30/60
5-3/4 146.05	0534	10-5/8 269.88	13/16 20.64	7-1/2 190.50	7-3/4 196.85	8-9/16 217.49	11-15/16 303.21	2-3/8 60.33	10-1/8 257.18	7-1/4 184.15	3/4 19.05	7	8	11/16 17.46	9-1/4 234.95	30/60
6 152.40	0600	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-1/2 190.50	3/4 19.05	7	8	11/16 17.46	10-1/8 257.18	30/60
6-1/4 158.75	0614	11-3/8 288.93	13/16 20.64	8 203.20	8 203.20	8-3/4 222.25	12-3/4 323.85	3 76.20	11-1/8 282.58	7-3/4 196.85	3/4 19.05	7	8	11/16 17.46	10-1/8 257.18	30/60
6-1/2 165.10	0612	13-1/2 342.90	7/8 22.23	8-1/2 215.90	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-1/4 209.55	7/8 22.23	7	8	13/16 20.64	11-3/8 288.93	45/45
6-5/8 168.28	0658	13-1/2 342.90	7/8 22.23	- -	8-5/8 219.08	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/8 307.98	8-3/8 212.73	7/8 22.23	7	8	13/16 20.64	11-3/8 288.93	45/45
6-3/4 171.45	0634	13-3/4 349.25	7/8 22.23	8-1/2 215.90	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-1/2 215.90	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
6-7/8 174.63	0678	13-3/4 349.25	7/8 22.23	- -	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-5/8 219.08	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
7 177.80	0700	13-3/4 349.25	7/8 22.23	9-1/4 234.95	9 228.60	9-3/4 247.65	13-3/4 349.25	3 76.20	12-1/2 317.50	8-3/4 222.25	7/8 22.23	7	8	13/16 20.64	12 304.80	45/45
7-1/8 180.98	0718	14-1/8 358.78	7/8 22.23	- -	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/8 231.78	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45

DRILL HOLE PATTERNS



O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pil of Diameter	Female Neck as Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing		Drilling Information				
7-1/4 184.15	0714	14-1/8 358.78	7/8 22.23	9-1/4 234.95	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-1/4 234.95	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45
7-3/8 187.33	0738	14-1/8 358.78	7/8 22.23	-	9-5/8 244.48	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	12-7/8 327.03	9-3/8 238.13	1 25.40	7	8	13/16 20.64	12-3/8 314.33	45/45
7-1/2 190.50	0712	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-1/2 241.30	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-5/8 193.68	0758	14-1/2 368.30	7/8 22.23	-	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-5/8 244.48	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-3/4 196.85	0734	14-1/2 368.30	7/8 22.23	10-1/4 260.35	10 254.00	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-1/4 336.55	9-3/4 247.65	1 25.40	7	8	13/16 20.64	12-3/4 323.85	45/45
7-7/8 200.03	0778	14-7/8 377.83	7/8 22.23	-	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	9-7/8 250.83	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8 203.20	0800	14-7/8 377.83	7/8 22.23	10-1/4 260.35	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10 254.00	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8-1/8 206.38	0818	14-7/8 377.83	7/8 22.23	-	10-3/8 263.53	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	13-5/8 346.08	10-1/8 257.18	1 25.40	7	8	13/16 20.64	13-1/8 333.38	45/45
8-1/4 209.55	0814	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/4 260.35	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-3/8 212.73	0838	15-1/4 387.35	7/8 22.23	-	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-3/8 263.53	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-1/2 215.90	0812	15-1/4 387.35	7/8 22.23	11 279.40	10-3/4 273.05	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14 355.60	10-1/2 266.70	1 25.40	7	8	13/16 20.64	13-1/2 342.90	45/45
8-5/8 219.08	0858	15-5/8 396.88	1 25.40	-	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-5/8 269.88	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
8-3/4 222.25	0834	15-5/8 396.88	1 25.40	11 279.40	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-3/4 273.05	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
8-7/8 225.43	0878	15-5/8 396.88	1 25.40	-	11-1/8 282.58	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/8 365.13	10-7/8 276.23	1 25.40	7	8	13/16 20.64	13-7/8 352.43	45/45
9 228.60	0900	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11 279.40	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-1/8 231.78	0918	16 406.40	1 25.40	-	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/8 282.58	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-1/4 234.95	0914	16 406.40	1 25.40	11-3/4 298.45	11-1/2 292.10	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	14-3/4 374.65	11-1/4 285.75	1 25.40	7	8	13/16 20.64	14-1/4 361.95	45/45
9-3/8 238.13	0938	16-3/8 415.93	1 25.40	-	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-3/8 288.93	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-1/2 241.30	0912	16-3/8 415.93	1 25.40	11-3/4 298.45	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-1/2 292.10	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-5/8 244.48	0958	16-3/8 415.93	1 25.40	-	11-7/8 301.63	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/8 384.18	11-5/8 295.28	1 25.40	7	8	13/16 20.64	14-5/8 371.48	45/45
9-3/4 247.65	0934	16-7/8 428.63	1 25.40	12-3/4 323.85	12-3/8 314.33	11-1/8 282.58	15-5/8 396.88	3-1/2 88.90	15-1/2 393.70	11-3/4 298.45	1 25.40	7	8	13/16 20.64	15 381.00	45/45

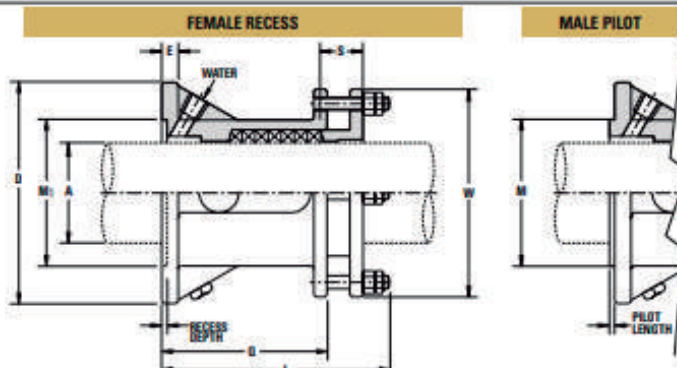
Forward Stern Tube Stuffing Boxes

Model 1789 (continued)

Water Service. Model 1789G adds optional Grease Service.



MALE PILOT / FEMALE RECESS DIMENSIONS		
For Shaft Diameter Size	Male Pilot	Female Recess
2-1/2" - 5-3/4"	3/16"	3/16"
6" - 15"	1/4"	3/8"

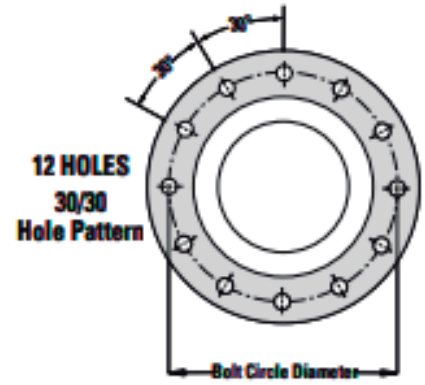
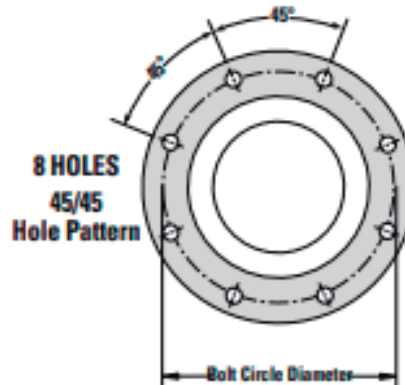
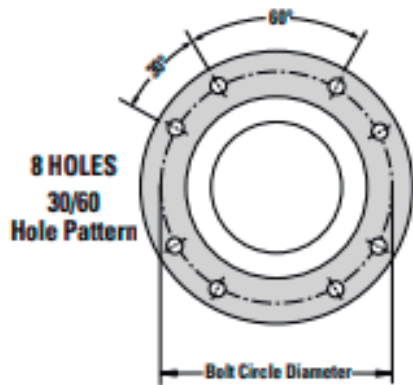


SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot of Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	M1	Q	L	S	W	Packing		Drilling Information				
9 -7/8 250.83	0978	16 -7/8 428.63	1 25.40	— —	12 -3/8 314.33	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/2 393.70	11 -7/8 301.63	1 25.40	7	8	13/16 20.64	15 381.00	45/45
10 254.00	1000	16 -7/8 428.63	1 25.40	12 -3/4 323.85	12 -3/8 314.33	11 -1/8 282.58	15 -5/8 396.88	3 -1/2 88.90	15 -1/2 393.70	12 304.80	1 25.40	7	8	13/16 20.64	15 381.00	45/45
10 -1/8 257.18	1018	17 -7/8 454.03	1 25.40	— —	12 -3/4 323.85	11 -1/8 282.58	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -1/8 307.98	1 25.40	7	8	15/16 23.81	15 -3/4 400.05	45/45
10 -1/4 260.35	1014	17 -7/8 454.03	1 25.40	12 -3/4 323.85	12 -3/4 323.85	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -1/4 311.15	1 25.40	7	8	15/16 23.81	15 -3/4 400.05	45/45
10 -3/8 263.53	1038	17 -7/8 454.03	1 25.40	— —	12 -3/4 323.85	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 406.40	12 -3/8 314.33	1 25.40	7	8	15/16 23.81	15 -3/4 400.05	45/45
10 -1/2 266.70	1012	18 -1/4 463.55	1 25.40	13 -3/4 349.25	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -1/2 317.50	1 25.40	7	8	15/16 23.81	16 -1/8 409.58	45/45
10 -5/8 269.88	1058	18 -1/4 463.55	1 25.40	— —	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -5/8 320.68	1 25.40	7	8	15/16 23.81	16 -1/8 409.58	45/45
10 -3/4 273.05	1034	18 -1/4 463.55	1 25.40	13 -3/4 349.25	13 -1/8 333.38	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/8 415.93	12 -3/4 323.85	1 25.40	7	8	15/16 23.81	16 -1/8 409.58	45/45
10 -7/8 276.23	1078	18 -5/8 473.08	1 25.40	— —	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	12 -7/8 327.03	1 25.40	7	8	15/16 23.81	16 -1/2 419.10	45/45
11 279.40	1100	18 -5/8 473.08	1 25.40	13 -3/4 349.25	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	13 330.20	1 25.40	7	8	15/16 23.81	16 -1/2 419.10	45/45
11 -1/8 282.58	1118	18 -5/8 473.08	1 25.40	— —	13 -1/2 342.90	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	16 -3/4 425.45	13 -1/8 333.38	1 25.40	7	8	15/16 23.81	16 -1/2 419.10	45/45
11 -1/4 285.75	1114	19 482.60	1 25.40	14 -1/2 368.30	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -1/4 336.55	1 25.40	7	8	15/16 23.81	16 -7/8 428.63	45/45
11 -3/8 288.93	1138	19 482.60	1 25.40	— —	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -3/8 339.73	1 25.40	7	8	15/16 23.81	16 -7/8 428.63	45/45
11 -1/2 292.10	1112	19 482.60	1 25.40	14 -1/2 368.30	13 -7/8 352.43	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/8 434.98	13 -1/2 342.90	1 25.40	7	8	15/16 23.81	16 -7/8 428.63	45/45
11 -5/8 295.28	1158	19 -3/8 492.13	1 25.40	— —	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -5/8 346.08	1 25.40	7	12	15/16 23.81	17 -1/4 438.15	30/30
11 -3/4 298.45	1134	19 -3/8 492.13	1 25.40	14 -1/2 368.30	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -3/4 349.25	1 25.40	7	12	15/16 23.81	17 -1/4 438.15	30/30
11 -7/8 301.63	1178	19 -3/8 492.13	1 25.40	— —	14 -1/8 358.78	11 -3/4 298.45	16 -1/4 412.75	3 -1/2 88.90	17 -1/2 444.50	13 -7/8 352.43	1 25.40	7	12	15/16 23.81	17 -1/4 438.15	30/30
12 304.80	1200	19 -3/4 501.65	1 25.40	15 -1/2 393.70	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 355.60	1 25.40	7	12	15/16 23.81	17 -5/8 447.68	30/30
12 -1/8 307.98	1218	19 -3/4 501.65	1 25.40	— —	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 -1/8 358.78	1 25.40	7	12	15/16 23.81	17 -5/8 447.68	30/30
12 -1/4 311.15	1214	19 -3/4 501.65	1 25.40	15 -1/2 393.70	14 -1/2 368.30	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	17 -7/8 454.03	14 -1/4 361.95	1 25.40	7	12	15/16 23.81	17 -5/8 447.68	30/30
12 -3/8 314.33	1238	20 -1/8 511.18	1 -1/8 28.58	— —	15 -1/8 384.18	11 -5/8 295.28	16 -3/8 415.93	3 -3/4 95.25	18 -1/4 463.55	14 -3/8 365.13	1 25.40	7	12	15/16 23.81	18 457.20	30/30

DRILL HOLE PATTERNS



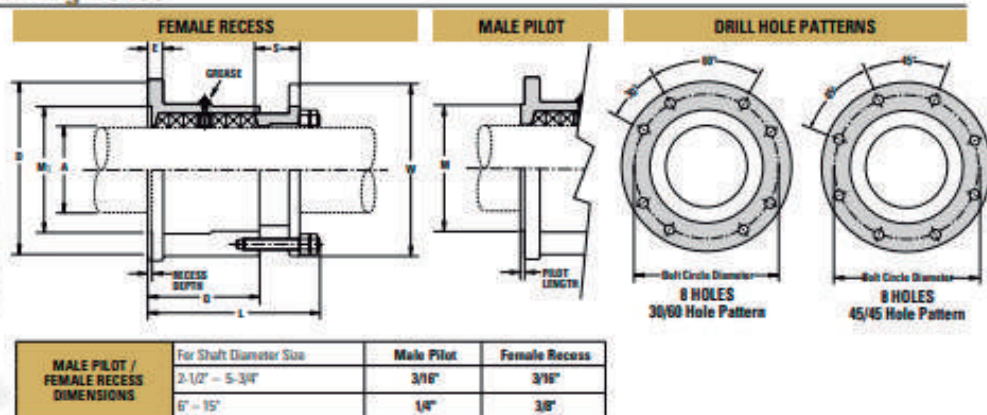
O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A	D	E	M	M1	Q	L	S	W	Packing			Drilling Information				
12-1/2 317.50	1212	20-1/8 511.18	1-1/8 28.58	15-1/2 393.70	15-1/8 384.18	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-1/4 463.55	14-1/2 368.30	1 25.40	7	12	15/16 23.81	18 457.20	30/30
12-5/8 320.68	1258	20-1/8 511.18	1-1/8 28.58	—	15-1/8 384.18	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-1/4 463.55	14-5/8 371.48	1 25.40	7	12	15/16 23.81	18 457.20	30/30
12-3/4 323.85	1234	20-1/2 520.70	1-1/8 28.58	16-1/4 412.75	15-1/2 393.70	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-5/8 473.08	14-3/4 374.65	1 25.40	7	12	15/16 23.81	18-3/8 466.73	30/30
12-7/8 327.03	1278	20-1/2 520.70	1-1/8 28.58	—	15-1/2 393.70	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-5/8 473.08	14-7/8 377.83	1 25.40	7	12	15/16 23.81	18-3/8 466.73	30/30
13 330.20	1300	20-1/2 520.70	1-1/8 28.58	16-1/4 412.75	15-1/2 393.70	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	18-5/8 473.08	15 381.00	1 25.40	7	12	15/16 23.81	18-3/8 466.73	30/30
13-1/8 333.38	1318	21 533.40	1-1/8 28.58	—	15-3/4 400.05	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/8 485.78	15-1/8 384.18	1 25.40	7	12	15/16 23.81	18-7/8 479.43	30/30
13-1/4 336.55	1314	21 533.40	1-1/8 28.58	16-1/4 412.75	15-3/4 400.05	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/8 485.78	15-1/4 387.35	1 25.40	7	12	15/16 23.81	18-7/8 479.43	30/30
13-3/8 339.73	1338	21 533.40	1-1/8 28.58	—	15-3/4 400.05	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/8 485.78	15-3/8 390.53	1 25.40	7	12	15/16 23.81	18-7/8 479.43	30/30
13-1/2 342.90	1312	21-3/8 542.93	1-1/8 28.58	17-1/4 438.15	16-1/4 412.75	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/2 495.30	15-1/2 393.70	1 25.40	7	12	15/16 23.81	19-1/4 488.95	30/30
13-5/8 346.08	1358	21-3/8 542.93	1-1/8 28.58	—	16-1/4 412.75	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/2 495.30	15-5/8 396.88	1 25.40	7	12	15/16 23.81	19-1/4 488.95	30/30
13-3/4 349.25	1334	21-3/8 542.93	1-1/8 28.58	17-1/4 438.15	16-1/4 412.75	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-1/2 495.30	15-3/4 400.05	1 25.40	7	12	15/16 23.81	19-1/4 488.95	30/30
13-7/8 352.43	1378	21-3/4 552.45	1-1/8 28.58	—	16-5/8 422.28	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-7/8 504.83	15-7/8 403.23	1 25.40	7	12	15/16 23.81	19-5/8 498.48	30/30
14 355.60	1400	21-3/4 552.45	1-1/8 28.58	17-1/4 438.15	16-5/8 422.28	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-7/8 504.83	16 406.40	1 25.40	7	12	15/16 23.81	19-5/8 498.48	30/30
14-1/8 358.78	1418	21-3/4 552.45	1-1/8 28.58	—	16-5/8 422.28	11-5/8 295.28	16-3/8 415.93	3-3/4 95.25	19-7/8 504.83	16-1/8 409.58	1 25.40	7	12	15/16 23.81	19-5/8 498.48	30/30
14-1/4 361.95	1414	22-1/8 561.98	1-1/8 28.58	18-1/4 463.55	17-1/4 438.15	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-1/4 514.35	16-1/4 412.75	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14-3/8 365.13	1438	22-1/8 561.98	1-1/8 28.58	—	17-1/4 438.15	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-1/4 514.35	16-3/8 415.93	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14-1/2 368.30	1412	22-1/8 561.98	1-1/8 28.58	18-1/4 463.55	17-1/4 438.15	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-1/4 514.35	16-1/2 419.10	1 25.40	7	12	15/16 23.81	20 508.00	30/30
14-5/8 371.48	1458	22-1/2 571.50	1-1/8 28.58	—	17-1/2 444.50	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-5/8 523.88	16-5/8 422.28	1 25.40	7	12	15/16 23.81	20-3/8 517.53	30/30
14-3/4 374.65	1434	22-1/2 571.50	1-1/8 28.58	18-1/4 463.55	17-1/2 444.50	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-5/8 523.88	16-3/4 425.45	1 25.40	7	12	15/16 23.81	20-3/8 517.53	30/30
14-7/8 377.83	1478	22-3/4 577.85	1-1/8 28.58	—	17-3/4 450.85	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-7/8 530.23	16-7/8 428.63	1 25.40	7	12	15/16 23.81	20-5/8 523.88	30/30
15 381.00	1500	22-3/4 577.85	1-1/8 28.58	19 482.60	17-3/4 450.85	11-7/8 301.63	16-5/8 422.28	3-3/4 95.25	20-7/8 530.23	17 431.80	1 25.40	7	12	15/16 23.81	20-5/8 523.88	30/30

Consult factory for sizes 15-1/8" to 36"

Forward Stern Tube Stuffing Boxes

Model 1790

Grease Service



SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters Configurations: Male Pilot or Female Recess

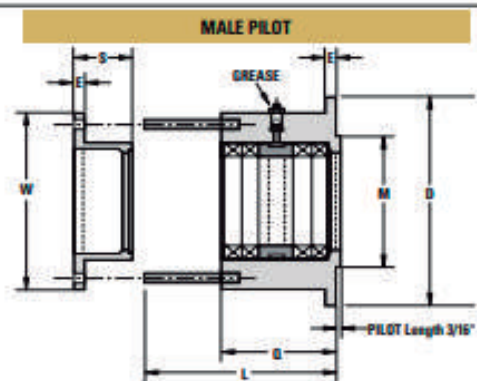
O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Female Recess Diam.	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A	D	E	M	M1	Q	L	S	W		Packing				Drilling Information		
3	0300	7-1/2	7/16	4-1/2	4-3/4	4-1/8	6-5/16	1-7/16	7	4	1/2	6	8	11/16	6-1/4	30/60
76.20		190.50	11.11	114.30	120.65	104.78	160.34	36.51	177.80	101.60	12.70			17.46	158.75	
3-1/4	0314	7-1/2	7/16	4-1/2	4-3/4	4-1/8	6-5/16	1-7/16	7	4-1/4	1/2	6	8	11/16	6-1/4	30/60
82.55		190.50	11.11	114.30	120.65	104.78	160.34	36.51	177.80	107.95	12.70			17.46	158.75	
3-1/2	0312	8-1/8	5/8	4-1/2	5-1/4	4-1/8	6-1/2	1-5/8	7-5/8	4-1/2	1/2	6	8	11/16	6-3/4	30/60
88.90		206.38	15.88	114.30	133.35	104.78	165.10	41.28	193.68	114.30	12.70			17.46	171.45	
3-3/4	0334	8-1/8	5/8	5-1/2	5-1/4	4-1/8	6-1/2	1-5/8	7-5/8	4-3/4	1/2	6	8	11/16	6-3/4	30/60
95.25		206.38	15.88	139.70	133.35	104.78	165.10	41.28	193.68	120.65	12.70			17.46	171.45	
4	0400	8-5/8	5/8	5-1/2	5-3/4	4-1/8	6-1/2	1-5/8	8-1/8	5	1/2	6	8	11/16	7-1/4	30/60
101.60		219.08	15.88	139.70	146.05	104.78	165.10	41.28	206.38	127.00	12.70			17.46	184.15	
4-1/4	0414	8-5/8	5/8	5-1/2	5-3/4	4-1/8	6-1/2	1-5/8	8-1/8	5-1/4	1/2	6	8	11/16	7-1/4	30/60
107.95		219.08	15.88	139.70	146.05	104.78	165.10	41.28	206.38	133.35	12.70			17.46	184.15	
4-1/2	0412	9-3/8	13/16	6-1/8	6-1/2	5	7-5/8	1-7/8	8-7/8	5-3/4	5/8	6	8	11/16	8	30/60
114.3		238.13	20.64	155.58	165.10	127.00	193.68	47.63	225.43	146.05	15.88			17.46	203.20	
4-3/4	0434	9-3/8	13/16	6-1/8	6-1/2	5	7-5/8	1-7/8	8-7/8	6	5/8	6	8	11/16	8	30/60
120.65		238.13	20.64	155.58	165.10	127.00	193.68	47.63	225.43	152.40	15.88			17.46	203.20	
5	0500	10-1/8	13/16	6-1/2	7-1/4	5-7/8	9-1/4	2-3/8	9-5/8	6-1/2	3/4	6	8	11/16	8-3/4	30/60
127.00		257.18	20.64	165.10	184.15	149.23	234.95	60.33	244.48	165.10	19.05			17.46	222.25	
5-1/4	0514	10-1/8	13/16	6-1/2	7-1/4	5-7/8	9-1/4	2-3/8	9-5/8	6-3/4	3/4	6	8	11/16	8-3/4	30/60
133.35		257.18	20.64	165.10	184.15	149.23	234.95	60.33	244.48	171.45	19.05			17.46	222.25	
5-1/2	0512	10-5/8	13/16	7-1/2	7-3/4	5-7/8	9-1/4	2-3/8	10-1/8	7	3/4	6	8	11/16	9-1/4	30/60
139.70		269.88	20.64	190.50	196.85	149.23	234.95	60.33	257.18	177.80	19.05			17.46	234.95	
5-3/4	0534	10-5/8	13/16	7-1/2	7-3/4	5-7/8	9-1/4	2-3/8	10-1/8	7-1/4	3/4	6	8	11/16	9-1/4	30/60
146.45		269.88	20.64	190.50	196.85	149.23	234.95	60.33	257.18	184.15	19.05			17.46	234.95	
6	0600	11-3/8	13/16	8	8	6	10	3	11-1/8	7-1/2	3/4	6	8	11/16	10-1/8	30/60
152.40		288.93	20.64	203.20	203.20	152.40	254.00	76.20	282.58	190.50	19.05			17.46	257.18	
6-1/4	0614	11-3/8	13/16	8	8	6	10	3	11-1/8	7-3/4	3/4	6	8	11/16	10-1/8	30/60
158.75		288.93	20.64	203.20	203.20	152.40	254.00	76.20	282.58	196.85	19.05			17.46	257.18	
6-1/2	0612	13-1/2	7/8	8-1/2	8-5/8	6-7/8	10-7/8	3	12-1/8	8-1/4	7/8	6	8	13/16	11-3/8	45/45
165.10		342.90	22.23	215.90	219.08	174.63	276.23	76.20	307.98	209.55	22.23			20.64	288.93	
6-5/8	0658	13-1/2	7/8	-	8-5/8	6-7/8	10-7/8	3	12-1/8	8-3/8	7/8	6	8	13/16	11-3/8	45/45
168.28		342.90	22.23	-	219.08	174.63	276.23	76.20	307.98	212.73	22.23			20.64	288.93	
6-3/4	0634	13-3/4	7/8	8-1/2	9	6-7/8	10-7/8	3	12-1/2	8-1/2	7/8	6	8	13/16	12	45/45
171.45		349.25	22.23	215.90	228.60	174.63	276.23	76.20	317.50	215.90	22.23			20.64	304.80	
6-7/8	0678	13-3/4	7/8	-	9	6-7/8	10-7/8	3	12-1/2	8-5/8	7/8	6	8	13/16	12	45/45
174.63		349.25	22.23	-	228.60	174.63	276.23	76.20	317.50	219.08	22.23			20.64	304.80	
7	0700	13-3/4	7/8	9-1/4	9	6-7/8	10-7/8	3	12-1/2	8-3/4	7/8	6	8	13/16	12	45/45
177.80		349.25	22.23	234.95	228.60	174.63	276.23	76.20	317.50	222.25	22.23			20.64	304.80	

Consult factory for sizes larger than 7"

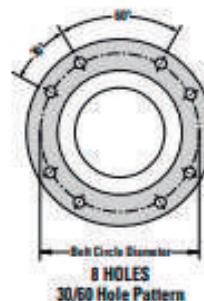
Bulkhead & Rudder Stuffing Boxes

Model 1790M

Grease Service



DRILL HOLE PATTERNS



SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In inches or Millimeters

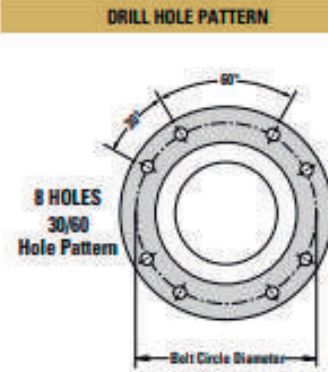
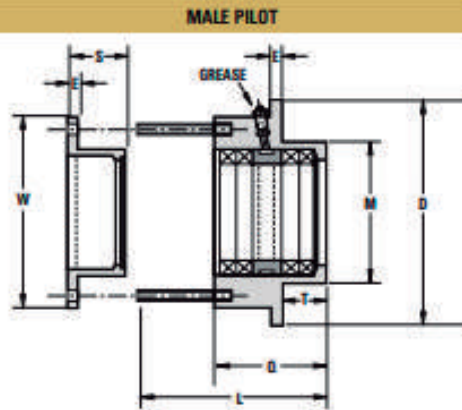
O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Length	Overall Length	Gland Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	Q	L	S	W	Packing				Drilling Information		
2	0200	5-3/4	1/2	3-1/4	2-1/2	4-11/16	1-1/4	5-1/4	2-3/4	3/8	4	8	9/16	4-1/2	30/60
50.80		146.05	12.70	82.55	63.50	119.06	31.75	133.35	69.85	9.53			14.29	114.30	
2-1/4	0214	6	1/2	3-1/2	2-1/2	4-11/16	1-1/4	5-1/2	3	3/8	4	8	9/16	4-3/4	30/60
57.15		152.40	12.70	88.90	63.50	119.06	31.75	139.70	76.20	9.53			14.29	120.65	
2-1/2	0212	6-1/4	1/2	3-3/4	2-5/8	4-13/16	1-3/8	5-3/4	3-1/4	3/8	4	8	9/16	5	30/60
63.50		158.75	12.70	95.25	66.68	122.24	34.93	146.05	82.55	9.53			14.29	127.00	
2-3/4	0234	6-1/2	1/2	4	2-5/8	4-13/16	1-3/8	6	3-1/2	3/8	4	8	9/16	5-1/2	30/60
69.85		165.10	12.70	101.60	66.68	122.24	34.93	152.40	88.90	9.53			14.29	139.70	
3	0300	7-1/2	7/16	4-3/4	3-1/16	5-1/4	1-7/16	7	4	1/2	4	8	11/16	6-1/4	30/60
76.20		190.50	11.11	120.65	77.79	133.35	36.51	177.80	101.60	12.70			17.46	158.75	
3-1/4	0314	7-1/2	7/16	4-3/4	3-1/16	5-1/4	1-7/16	7	4-1/4	1/2	4	8	11/16	6-1/4	30/60
82.55		190.50	11.11	120.65	77.79	133.35	36.51	177.80	107.95	12.70			17.46	158.75	
3-1/2	0312	8-1/8	5/8	5-1/4	3-1/4	5-5/8	1-5/8	7-5/8	4-1/2	1/2	4	8	11/16	6-3/4	30/60
88.90		206.38	15.88	133.35	82.55	142.88	41.28	193.68	114.30	12.70			17.46	171.45	
3-3/4	0334	8-1/8	5/8	5-1/4	3-1/4	5-5/8	1-5/8	7-5/8	4-3/4	1/2	4	8	11/16	6-3/4	30/60
95.25		206.38	15.88	133.35	82.55	142.88	41.28	193.68	120.65	12.70			17.46	171.45	
4	0400	8-5/8	5/8	5-3/4	3-1/4	5-5/8	1-5/8	8-1/8	5	1/2	4	8	11/16	7-1/4	30/60
101.60		219.08	15.88	146.05	82.55	142.88	41.28	206.38	127.00	12.70			17.46	184.15	
4-1/4	0414	8-5/8	5/8	5-3/4	3-1/4	5-5/8	1-5/8	8-1/8	5-1/4	1/2	4	8	11/16	7-1/4	30/60
107.95		219.08	15.88	146.05	82.55	142.88	41.28	206.38	133.35	12.70			17.46	184.15	
4-1/2	0412	9-3/8	3/4	6-1/2	3-5/8	6-1/4	1-7/8	8-7/8	5-3/4	5/8	4	8	11/16	8	30/60
114.30		238.13	19.05	165.10	92.08	158.75	47.63	225.43	146.05	15.88			17.46	203.20	
4-3/4	0434	9-3/8	3/4	6-1/2	3-5/8	6-1/4	1-7/8	8-7/8	6	5/8	4	8	11/16	8	30/60
120.65		238.13	19.05	165.10	92.08	158.75	47.63	225.43	152.40	15.88			17.46	203.20	
5	0500	10-1/8	3/4	7-1/4	4-1/4	7-5/8	2-3/8	9-5/8	6-1/2	3/4	4	8	11/16	8-3/4	30/60
127.00		257.18	19.05	184.15	107.95	193.68	60.33	244.48	165.10	19.05			17.46	222.25	
5-1/4	0514	10-1/8	3/4	7-1/4	4-1/4	7-5/8	2-3/8	9-5/8	6-3/4	3/4	4	8	11/16	8-3/4	30/60
133.35		257.18	19.05	184.15	107.95	193.68	60.33	244.48	171.45	19.05			17.46	222.25	
5-1/2	0512	10-5/8	3/4	7-3/4	4-1/4	7-5/8	2-3/8	10-1/8	7	3/4	4	8	11/16	9-1/4	30/60
139.70		269.88	19.05	196.85	107.95	193.68	60.33	257.18	177.80	19.05			17.46	234.95	
5-3/4	0534	10-5/8	3/4	7-3/4	4-1/4	7-5/8	2-3/8	10-1/8	7-1/4	3/4	4	8	11/16	9-1/4	30/60
146.05		269.88	19.05	196.85	107.95	193.68	60.33	257.18	184.15	19.05			17.46	234.95	
6	0600	11-3/8	3/4	8-3/8	4-1/4	8-1/4	2-3/8	10-7/8	7-1/2	3/4	4	8	11/16	10-1/8	30/60
152.40		288.93	19.05	212.73	107.95	209.55	60.33	276.23	190.50	19.05			17.46	257.18	
6-1/4	0614	11-3/8	3/4	8-3/8	4-1/4	8-1/4	2-3/8	10-7/8	7-3/4	3/4	4	8	11/16	10-1/8	30/60
158.75		288.93	19.05	212.73	107.95	209.55	60.33	276.23	196.85	19.05			17.46	257.18	

Consult factory for sizes larger than 6-1/4"

Bulkhead & Rudder Stuffing Boxes

Model 1791

Grease Service



SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum Shaft Diameter: In Inches or Millimeters

O.D. Shaft or Sleeve Journal	CODE	Flange Diameter	Flange Thickness	Male Pilot Diameter	Length	Overall Length	Gland Length	Pilot Length	Gland Flange Diameter	Packing O.D.	Packing Size	No. of Rings	No. of Holes	Drill Size	Bolt Circle	Hole Spacing
A		D	E	M	Q	L	S	T	W	Packing		Drilling Information				
2	0200	5-3/4	1/4	3-1/4	2-1/2	4-11/16	1-1/4	1	5-1/4	2-3/4	3/8	4	8	9/16	4-1/2	30/60
50.80		146.05	6.35	82.55	63.50	119.06	31.75	25.40	133.35	69.85	9.53			14.29	114.30	
2-1/4	0214	6	1/4	3-1/2	2-1/2	4-11/16	1-1/4	1	5-1/2	3	3/8	4	8	9/16	4-3/4	30/60
57.15		152.40	6.35	88.90	63.50	119.06	31.75	25.40	139.70	76.20	9.53			14.29	120.65	
2-1/2	0212	6-1/4	3/8	3-3/4	2-5/8	4-13/16	1-3/8	1	5-3/4	3-1/4	3/8	4	8	9/16	5	30/60
63.50		158.75	9.53	95.25	66.68	122.24	34.93	25.40	146.05	82.55	9.53			14.29	127.00	
2-3/4	0234	6-1/2	3/8	4	2-5/8	4-13/16	1-3/8	1	6	3-1/2	3/8	4	8	9/16	5-1/2	30/60
69.85		165.10	9.53	101.60	66.68	122.24	34.93	25.40	152.40	88.90	9.53			14.29	139.70	
3	0300	7-1/2	7/16	4-3/4	3-1/16	5-1/4	1-7/16	1-5/16	7	4	1/2	4	8	11/16	6-1/4	30/60
76.20		190.50	11.11	120.65	77.79	133.35	36.51	33.34	177.80	101.60	12.70			17.46	158.75	
3-1/4	0314	7-1/2	7/16	4-3/4	3-1/16	5-1/4	1-7/16	1-5/16	7	4-1/4	1/2	4	8	11/16	6-1/4	30/60
82.55		190.50	11.11	120.65	77.79	133.35	36.51	33.34	177.80	107.95	12.70			17.46	158.75	
3-1/2	0312	8-1/8	5/8	5-1/4	3-1/4	5-5/8	1-5/8	1-3/8	7-5/8	4-1/2	1/2	4	8	11/16	6-3/4	30/60
88.90		206.38	15.88	133.35	82.55	142.88	41.28	34.93	193.68	114.30	12.70			17.46	171.45	
3-3/4	0334	8-1/8	5/8	5-1/4	3-1/4	5-5/8	1-5/8	1-3/8	7-5/8	4-3/4	1/2	4	8	11/16	6-3/4	30/60
95.25		206.38	15.88	133.35	82.55	142.88	41.28	34.93	193.68	120.65	12.70			17.46	171.45	
4	0400	8-5/8	5/8	5-3/4	3-1/4	5-5/8	1-5/8	1-1/4	8-1/8	5	1/2	4	8	11/16	7-1/4	30/60
101.60		219.08	15.88	146.05	82.55	142.88	41.28	31.75	206.38	127.00	12.70			17.46	184.15	
4-1/4	0414	8-5/8	5/8	5-3/4	3-1/4	5-5/8	1-5/8	1-1/4	8-1/8	5-1/4	1/2	4	8	11/16	7-1/4	30/60
107.95		219.08	15.88	146.05	82.55	142.88	41.28	31.75	206.38	133.35	12.70			17.46	184.15	
4-1/2	0412	9-3/8	3/4	6-1/2	3-5/8	6-1/4	1-7/8	1-1/2	8-7/8	5-3/4	5/8	4	8	11/16	8	30/60
114.30		238.13	19.05	165.10	92.08	158.75	47.63	38.10	225.43	146.05	15.88			17.46	203.20	
4-3/4	0434	9-3/8	3/4	6-1/2	3-5/8	6-1/4	1-7/8	1-1/2	8-7/8	6	5/8	4	8	11/16	8	30/60
120.65		238.13	19.05	165.10	92.08	158.75	47.63	38.10	225.43	152.40	15.88			17.46	203.20	
5	0500	10-1/8	3/4	7-1/4	4-1/4	7-5/8	2-3/8	1-7/8	9-5/8	6-1/2	3/4	4	8	11/16	8-3/4	30/60
127.00		257.18	19.05	184.15	107.95	193.68	60.33	47.63	244.48	165.10	19.05			17.46	222.25	
5-1/4	0514	10-1/8	3/4	7-1/4	4-1/4	7-5/8	2-3/8	1-7/8	9-5/8	6-3/4	3/4	4	8	11/16	8-3/4	30/60
133.35		257.18	19.05	184.15	107.95	193.68	60.33	47.63	244.48	171.45	19.05			17.46	222.25	
5-1/2	0512	10-5/8	3/4	7-3/4	4-1/4	7-5/8	2-3/8	1-7/8	10-1/8	7	3/4	4	8	11/16	9-1/4	30/60
139.70		269.88	19.05	196.85	107.95	193.68	60.33	47.63	257.18	177.80	19.05			17.46	234.95	
5-3/4	0534	10-5/8	3/4	7-3/4	4-1/4	7-5/8	2-3/8	1-7/8	10-1/8	7-1/4	3/4	4	8	11/16	9-1/4	30/60
146.05		269.88	19.05	196.85	107.95	193.68	60.33	47.63	257.18	184.15	19.05			17.46	234.95	
6	0600	11-3/8	3/4	8-3/8	4-1/4	8-1/4	2-3/8	1-7/8	10-7/8	7-1/2	3/4	4	8	11/16	10-1/8	30/60
152.40		288.93	19.05	212.73	107.95	209.55	60.33	47.63	276.23	190.50	19.05			17.46	257.18	
6-1/4	0614	11-3/8	3/4	8-3/8	4-1/4	8-1/4	2-3/8	1-7/8	10-7/8	7-3/4	3/4	4	8	11/16	10-1/8	30/60
158.75		288.93	19.05	212.73	107.95	209.55	60.33	47.63	276.23	196.85	19.05			17.46	257.18	

Consult factory for sizes larger than 6-1/4"

"Strong Boy" Stuffing Boxes & Stern Castings

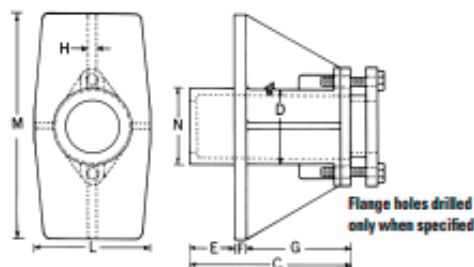
Model 102

Stuffing Box

Model 102: Supplied with packing only

Model 102L: Supplied with packing, lantern-ring and grease service for packing lubrication

Model 102LB: Supplied with packing, lantern-ring and grease service, with 1/3-length standard rubber sleeve bearing



SPECIFY WHEN ORDERING:

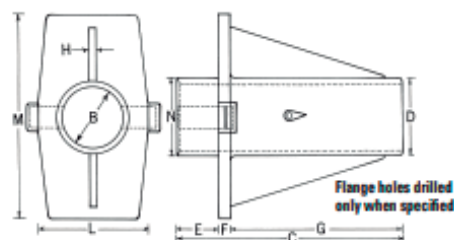
Model Number: Alloy: Bronze (standard) or Aluminum **Shaft Diameter:** In Inches or Millimeters

O.D. Shaft or Sleeve Journal	CODE											Lantern Ring I.D. & Length	Packing Size	No. of Rings
A		C	D	E	F	G	H	L	M	N			Packing	
4	102-400	12 -1/2	5 -3/4	3 -3/4	3/4	8	5/8	9	18	5 -7/8	---		1/2	23
4	102-400L	12 -1/2	5 -3/4	3 -3/4	3/4	8	5/8	9	18	5 -7/8	4 -1/8 x 3 -1/2		1/2	16
4	102-400LB	12 -1/2	5 -3/4	3 -3/4	3/4	8	5/8	9	18	5 -7/8	4 -1/8 x 2 -1/2		1/2	8
4 -1/4	102-414	12 -1/2	5 -7/8	3 -5/8	7/8	8	5/8	9	18	6	---		1/2	23
4 -1/4	102-414L	12 -1/2	5 -7/8	3 -5/8	7/8	8	5/8	9	18	6	4 -3/8 x 3 -1/2		1/2	16
4 -1/4	102-414LB	12 -1/2	5 -7/8	3 -5/8	7/8	8	5/8	9	18	6	4 -3/8 x 2 -1/2		1/2	8
4 -1/2	102-412	12 -1/2	6	3 1/2	1	8	5/8	9	18	6 -1/8	---		1/2	23
4 -1/2	102-412L	12 -1/2	6	3 -1/2	1	8	5/8	9	18	6 -1/8	4 -5/8 x 3 -1/2		1/2	16
4 -1/2	102-412LB	12 -1/2	6	3 -1/2	1	8	5/8	9	18	6 -1/8	4 -5/8 x 2 -1/2		1/2	8
4 -3/4	102-434	13 -3/4	6 -1/4	4	1	8 -3/4	3/4	9 -1/4	18	6 -3/8	---		1/2	26
4 -3/4	102-434L	13 -3/4	6 -1/4	4	1	8 -3/4	3/4	9 -1/4	18	6 -3/8	4 -7/8 x 3 -1/2		1/2	18
4 -3/4	102-434LB	13 -3/4	6 -1/4	4	1	8 -3/4	3/4	9 -1/4	18	6 -3/8	4 -7/8 x 2 -1/2		1/2	8
5	102-500	13 -3/4	6 -3/4	4	1	8 -3/4	3/4	9 -3/4	18	6 -7/8	---		1/2	26
5	102-500L	13 -3/4	6 -3/4	4	1	8 -3/4	3/4	9 -3/4	18	6 -7/8	5 -1/8 x 3 -1/2		1/2	18
5	102-500LB	13 -3/4	6 -3/4	4	1	8 -3/4	3/4	9 -3/4	18	6 -7/8	5 -1/8 x 2 -1/2		1/2	8
5 -1/4	102-514	14 -1/2	7	4 -1/2	1	9	3/4	10	18	7 -1/8	---		1/2	26
5 -1/4	102-514L	14 -1/2	7	4 -1/2	1	9	3/4	10	18	7 -1/8	5 -3/8 x 3 -1/2		1/2	18
5 -1/4	102-514LB	14 -1/2	7	4 -1/2	1	9	3/4	10	18	7 -1/8	5 -3/8 x 2 -1/2		1/2	8
5 -1/2	102-512	14 -1/2	7 -3/4	4 -7/16	1 1/16	9	3/4	10 -3/4	18	7 -7/8	---		3/4	18
5 -1/2	102-512L	14 -1/2	7 -3/4	4 -7/16	1 1/16	9	3/4	10 -3/4	18	7 -7/8	5 -5/8 x 3 -1/2		3/4	12
5 -1/2	102-512LB	14 -1/2	7 -3/4	4 -7/16	1 1/16	9	3/4	10 -3/4	18	7 -7/8	5 -5/8 x 2 -1/2		3/4	6
5 -3/4	102-534	15 -1/2	8	4 -7/8	1 1/8	9 -1/2	7/8	11	18	8 -1/8	---		3/4	18
5 -3/4	102-534L	15 -1/2	8	4 -7/8	1 1/8	9 -1/2	7/8	11	18	8 -1/8	5 -7/8 x 3 -1/2		3/4	12
5 -3/4	102-534LB	15 -1/2	8	4 -7/8	1 1/8	9 -1/2	7/8	11	18	8 -1/8	5 -7/8 x 2 -1/2		3/4	6
6	102-600	15 -1/2	8 -1/4	4 -7/8	1 1/8	9 -1/2	7/8	11 -1/4	18	8 -3/8	---		3/4	18
6	102-600L	15 -1/2	8 -1/4	4 -7/8	1 1/8	9 -1/2	7/8	11 -1/4	18	8 -3/8	6 -1/8 x 3 -1/2		3/4	12
6	102-600LB	15 -1/2	8 -1/4	4 -7/8	1 1/8	9 -1/2	7/8	11 -1/4	18	8 -3/8	6 -1/8 x 2 -1/2		3/4	6

Consult factory for sizes larger than 6"

Model 102

Stern Casting



SPECIFY WHEN ORDERING:

Model Number: Alloy: Bronze (standard) or Aluminum **Shaft Diameter:** In Inches or Millimeters

O.D. Shaft or Sleeve Journal	CODE													
A		B	C	D	E	F	G	H	L	M	N			
4	100-400	5	16 -1/4	5 -3/4	2 -3/8	15/16	13	5/8	9	16 -1/2	5 -3/4			
4 -1/4	100-414	5 -1/2	17 -1/4	6 -1/4	2 -3/4	1	13 -1/2	5/8	9	16 -1/2	6 -1/4			
4 -1/2	100-412	5 -1/2	18 -1/4	6 -1/4	3 -1/4	1	14	5/8	9	16 -1/2	6 -1/4			
4 -3/4	100-434	6 -1/8	19 -1/2	7 -1/8	3 -13/16	1 -1/16	14 -1/2	3/4	10	17 -1/2	7 -1/8			
5	100-500	6 -1/8	20 -1/2	7 -1/8	4 -3/8	1 -1/8	15	3/4	10	17 -1/2	7 -1/8			
5 -1/4	100-514	6 -3/4	21 -1/2	8	4 -7/8	1 -1/8	15 -1/2	3/4	11	18 -1/2	8			
5 -1/2	100-512	7	22 -1/2	8	5 -5/16	1 -3/16	16	7/8	11	18 -1/2	8			
5 -3/4	100-534	7	23 -1/2	8 -1/4	5 -13/16	1 -3/16	16 -1/2	7/8	12	19 -1/2	8 -1/4			
6	100-600	7 -1/2	24 -1/4	8 -1/2	5	1 -1/4	18	1 -1/8	11	20	8 -1/2			

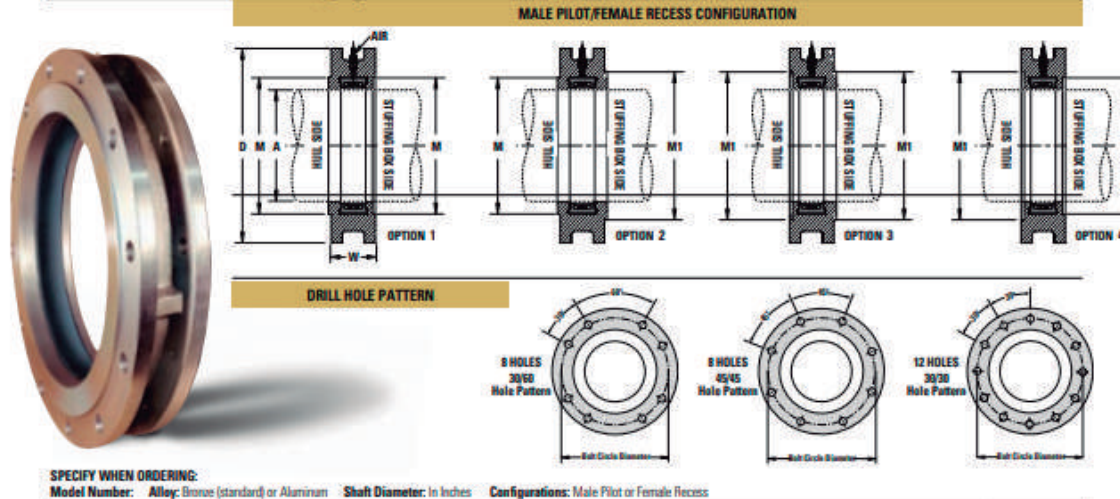
Consult factory for sizes larger than 6"

The Dutchman Add-On Air Seal Housing

Allows You To Change Packing Without Drydocking.

The Dutchman can be custom-built and added to any split design or solid stuffing box. The Air Seal makes it easy to seal out seawater with a minimum of 15 psi, DO NOT EXCEED 40 psi. It allows you to change packing or maintain a stuffing box at sea, greatly reducing maintenance time and cost. A Dutchman Air Seal Housing can be added to any size or any type stuffing box. The housing can be ordered with female recess or a male pilot on either side to fit forward stern tube, vessel's bulkhead, or mating with stuffing box.

Dutchman Air Seal Housing Specs



O.D. Shaft or Sleeve Journal	CODE	Outside Diameter	Male Pilot/ Female Recess Diameter	Male Pilot/ Female Recess Diameter	Overall Width	Hole Size	Number of Holes	Hole Drill and Tap	Hole Spacing
A		D	M	M1	W	Drilling Information			
2-1/2	0212	7-1/2	3-1/2	4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
3	0300	7-1/2	4-1/2	4-3/4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
3-1/4	0314	7-1/2	4-1/2	4-3/4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
3-1/2	0312	8-1/8	4-1/2	5-1/4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
3-3/4	0334	8-1/8	-	5-1/4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
4	0400	8-5/8	5-1/2	5-3/4	3-1/2	11/16	8	5/8 - 11 UNC	30/60
4-1/4	0414	8-5/8	5-1/2	5-3/4	4	11/16	8	5/8 - 11 UNC	30/60
4-1/2	0412	9-3/8	6-1/8	6-1/2	4	11/16	8	5/8 - 11 UNC	30/60
4-3/4	0434	9-3/8	6-1/8	6-1/2	4	11/16	8	5/8 - 11 UNC	30/60
5	0500	10-1/8	6-1/2	7-1/4	4	11/16	8	5/8 - 11 UNC	30/60
5-1/4	0514	10-1/8	6-1/2	7-1/4	4	11/16	8	5/8 - 11 UNC	30/60
5-1/2	0512	10-5/8	7-1/2	7-3/4	4	11/16	8	5/8 - 11 UNC	30/60
5-3/4	0534	10-5/8	7-1/2	7-3/4	4	11/16	8	5/8 - 11 UNC	30/60
6	0600	11-3/8	8	8	4	11/16	8	5/8 - 11 UNC	30/60
6-1/4	0614	11-3/8	8	8	4	11/16	8	5/8 - 11 UNC	30/60
6-1/2	0612	13-1/2	8-1/2	8-5/8	4	13/16	8	3/4 - 10 UNC	45/45
6-5/8	0658	13-1/2	8-1/2	8-5/8	4	13/16	8	3/4 - 10 UNC	45/45
6-3/4	0634	13-3/4	8-1/2	9	4	13/16	8	3/4 - 10 UNC	45/45
6-7/8	0678	13-3/4	-	9	4	13/16	8	3/4 - 10 UNC	45/45
7	0700	13-3/4	9-1/4	9	4	13/16	8	3/4 - 10 UNC	45/45
7-1/8	0718	14-1/8	9-1/4	9-5/8	4	13/16	8	3/4 - 10 UNC	45/45
7-1/4	0714	14-1/8	9-1/4	9-5/8	4	13/16	8	3/4 - 10 UNC	45/45
7-3/8	0738	14-1/8	-	9-5/8	4	13/16	8	3/4 - 10 UNC	45/45
7-1/2	0712	14-1/2	10-1/4	10	4	13/16	8	3/4 - 10 UNC	45/45

O.D. Shaft or Sleeve Journal	CODE	Outside Diameter	Male Pilot/ Female Recess Diameter	Male Pilot/ Female Recess Diameter	Overall Width	Hole Size	Number of Holes	Hole Drill and Tap	Hole Spacing
A		D	M	M1	W	Drilling Information			
7-5/8	0758	14-1/2	10-1/4	10	4	13/16	8	3/4 - 10 UNC	45/45
7-3/4	0734	14-1/2	10-1/4	10	4	13/16	8	3/4 - 10 UNC	45/45
7-7/8	0778	14-7/8	10-1/4	10-3/8	4	13/16	8	3/4 - 10 UNC	45/45
8	0800	14-7/8	10-1/4	10-3/8	4	13/16	8	3/4 - 10 UNC	45/45
8-1/8	0818	14-7/8	-	10-3/8	4	13/16	8	3/4 - 10 UNC	45/45
8-1/4	0814	15-1/4	11	10-3/4	4	13/16	8	3/4 - 10 UNC	45/45
8-3/8	0838	15-1/4	11	10-3/4	4	13/16	8	3/4 - 10 UNC	45/45
8-1/2	0812	15-1/4	11	10-3/4	4	13/16	8	3/4 - 10 UNC	45/45
8-5/8	0858	15-5/8	11	11-1/8	4	13/16	8	3/4 - 10 UNC	45/45
8-3/4	0834	15-5/8	11	11-1/8	4	13/16	8	3/4 - 10 UNC	45/45
8-7/8	0878	15-5/8	-	11-1/8	4	13/16	8	3/4 - 10 UNC	45/45
9	0900	16	11-3/4	11-1/2	4	13/16	8	3/4 - 10 UNC	45/45
9-1/8	0918	16	11-3/4	11-1/2	4	13/16	8	3/4 - 10 UNC	45/45
9-1/4	0914	16	11-3/4	11-1/2	4	13/16	8	3/4 - 10 UNC	45/45
9-3/8	0938	16-3/8	11-3/4	11-7/8	4	13/16	8	3/4 - 10 UNC	45/45
9-1/2	0912	16-3/8	11-3/4	11-7/8	4	13/16	8	3/4 - 10 UNC	45/45
9-5/8	0958	16-3/8	-	11-7/8	4	13/16	8	3/4 - 10 UNC	45/45
9-3/4	0934	16-7/8	12-3/4	12-3/8	4	13/16	8	3/4 - 10 UNC	45/45
9-7/8	0978	16-7/8	12-3/4	12-3/8	4	13/16	8	3/4 - 10 UNC	45/45
10	1000	16-7/8	12-3/4	12-3/8	4	13/16	8	3/4 - 10 UNC	45/45
10-1/8	1018	17-7/8	12-3/4	12-3/4	4	15/16	8	7/8 - 9 UNC	45/45
10-1/4	1014	17-7/8	12-3/4	12-3/4	4	15/16	8	7/8 - 9 UNC	45/45
10-3/8	1038	17-7/8	-	12-3/4	4	15/16	8	7/8 - 9 UNC	45/45
10-1/2	1012	18-1/4	13-3/4	13-1/8	4	15/16	8	7/8 - 9 UNC	45/45
10-5/8	1058	18-1/4	13-3/4	13-1/8	4	15/16	8	7/8 - 9 UNC	45/45
10-3/4	1034	18-1/4	13-3/4	13-1/8	4	15/16	8	7/8 - 9 UNC	45/45
10-7/8	1078	18-5/8	13-3/4	13-1/2	4	15/16	8	7/8 - 9 UNC	45/45
11	1100	18-5/8	13-3/4	13-1/2	4	15/16	8	7/8 - 9 UNC	45/45
11-1/8	1118	18-5/8	-	13-1/2	4	15/16	8	7/8 - 9 UNC	45/45
11-1/4	1114	19	14-1/2	13-7/8	4	15/16	8	7/8 - 9 UNC	45/45
11-3/8	1138	19	14-1/2	13-7/8	4	15/16	8	7/8 - 9 UNC	45/45
11-1/2	1112	19	14-1/2	13-7/8	4	15/16	8	7/8 - 9 UNC	45/45
11-5/8	1158	19-3/8	14-1/2	14-1/8	4	15/16	12	7/8 - 9 UNC	30/30
11-3/4	1134	19-3/8	14-1/2	14-1/8	4	15/16	12	7/8 - 9 UNC	30/30
11-7/8	1178	19-3/8	-	14-1/8	4	15/16	12	7/8 - 9 UNC	30/30
12	1200	19-3/4	15-1/2	14-1/2	4	15/16	12	7/8 - 9 UNC	30/30
12-1/8	1218	19-3/4	15-1/2	14-1/2	4	15/16	12	7/8 - 9 UNC	30/30
12-1/4	1214	19-3/4	15-1/2	14-1/2	4	15/16	12	7/8 - 9 UNC	30/30
12-3/8	1238	20-1/8	15-1/2	15-1/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
12-1/2	1212	20-1/8	15-1/2	15-1/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
12-5/8	1258	20-1/8	-	15-1/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
12-3/4	1234	20-1/2	16-1/4	15-1/2	4-1/4	15/16	12	7/8 - 9 UNC	30/30
12-7/8	1278	20-1/2	16-1/4	15-1/2	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13	1300	20-1/2	16-1/4	15-1/2	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-1/8	1318	21	16-1/4	15-3/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-1/4	1314	21	16-1/4	15-3/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-3/8	1338	21	-	15-3/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-1/2	1312	21-3/8	17-1/4	16-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-5/8	1358	21-3/8	17-1/4	16-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-3/4	1334	21-3/8	17-1/4	16-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
13-7/8	1378	21-3/4	17-1/4	16-5/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14	1400	21-3/4	17-1/4	16-5/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-1/8	1418	21-3/4	-	16-5/8	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-1/4	1414	22-1/8	18-1/4	17-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-3/8	1438	22-1/8	18-1/4	17-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-1/2	1412	22-1/8	18-1/4	17-1/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-5/8	1458	22-1/2	18-1/4	17-1/2	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-3/4	1434	22-1/2	18-1/4	17-1/2	4-1/4	15/16	12	7/8 - 9 UNC	30/30
14-7/8	1478	22-3/4	-	17-3/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30
15	1500	22-3/4	19	17-3/4	4-1/4	15/16	12	7/8 - 9 UNC	30/30

Consult factory for sizes 15-1/8" to 36"