

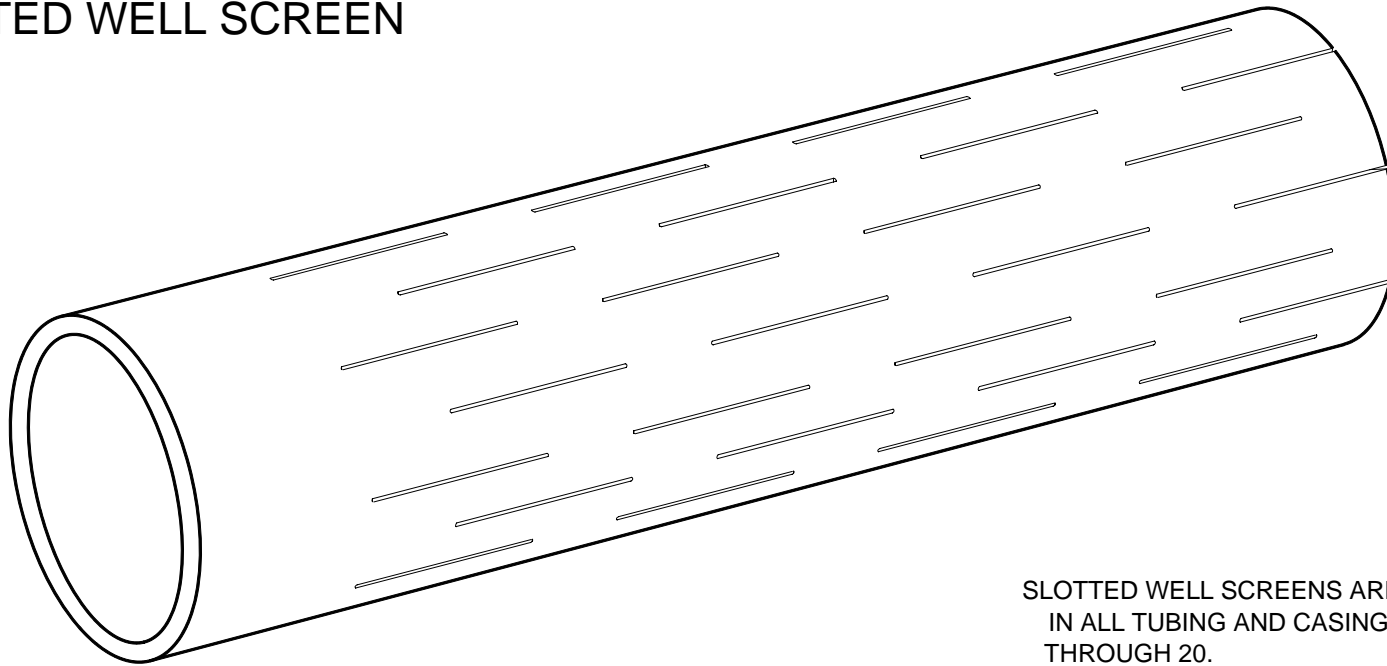
### Special Products

- **Pup Joints and Sub Joints.** Pup joints (male by female), and sub joints (male by male) are available both individually and in sets. Standard sets consist of five joints in lengths of 2, 4, 6, 8, and 10 feet. Custom non-standard lengths are available on request. All pup and sub joints are manufactured at the maximum wall thickness available for the size ordered, and all are equipped with a nexus veil internal liner.
- **Downhole Crossover Joints.** In addition to the typical fitting type crossover, full or partial length crossover joints are available for mixed string downhole applications. The connections on these crossovers are as per tubing or casing of the same size and all performance capabilities of the main string are maintained.
- **Slotted Well Screens.** Well screens in all tubing and casing sizes slotted to customer specified slot opening dimensions are available. Further details on this product are included on the drawing provided in this section.
- **Centralizers.** Molded epoxy casing and tubing centralizers are available for all sizes. Further details on this product are included on the drawing provided in this section.
- **Reverse Osmosis Tubes.** Reverse osmosis tubes or containers are available manufactured to customer specifications up to an inside diameter of 12 inches.
- **Epoxy Kits.** Complete epoxy kits for on-site bonding of fiberglass products are available. The kit includes epoxy, curing agent, cleaning solution, and the required mixing and application tools.
- **Field Threads.** Tapered bond-on field threads are available in all pipe sizes. Field threads can be installed on site and are used to break into already constructed lines in order to install parts or equipment, such as valves or tees, not originally included when the line was built. Field threads and their installation procedure is detailed in the Yellow Box Linepipe Installation section of the catalogue.
- **Linepipe Repair Joints.** Repair joints, designed to replace damaged joints in the middle of a pipeline are available in all sizes produced. The repair joint and the repair procedure is detailed in the Yellow Box Linepipe Installation section of the catalogue.
- **Pre-fabricated Assemblies.** Prefabricated manifolds, spools, and other assemblies are available. These are manufactured to the customers design, assembled either in whole or in part, and tested.
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- **Test Coupons.** Test coupons are available for chemical resistance monitoring and testing. The coupons are typically perforated for handling and are epoxy coated on all exposed saw cut edges.
- **Strap Wrenches.** Aluminum heavy duty strap wrenches cast and manufactured exclusively for Future Pipe Industries, Inc. are available together with extra straps. These wrenches are specifically designed for use with fiberglass pipe and are unavailable outside of Future Pipe Industries, Inc..
- **Thread Compound.** Several types of thread compound specifically suitable for fiberglass threaded products are available. Consult with Future Pipe Industries, Inc. to determine the compound best suited for a specific application.
- **Teflon Tape.** Teflon tape, recommended for the makeup of linepipe is available in rolls 1" wide. Consult the Installation Instructions for usage for each pipe size.
- **Flange Gaskets, Bolts, Nuts, and Washers.** Spiral wound Flexitallic style gaskets together with studs, nuts, and washers for each size and rating of flange are available. Note that the bolt length for fiberglass flanges differs from that required for steel. The flange drawings in the fittings section of the catalogue can be used to determine the proper lengths required.

Customers with special requirements should feel free to propose any new or different products to be manufactured. Our business is to provide working solution to application problems with fiberglass products, be they standard or unique.

# SLOTTED WELL SCREEN



SLOTTED WELL SCREENS ARE AVAILABLE  
IN ALL TUBING AND CASING SIZES, 2-3/8  
THROUGH 20.

SLOTS PER LINEAR FOOT REQUIRED FOR A MINIMUM OF 3% OPEN AREA.

SLOT WIDTH	LINER/CASING SIZE							
	4-1/2	5-1/2	6-5/8	7, 7-5/8	9-5/8	10-3/4	11-3/4	13-3/8
0.020	169	187	250	263	296	334	404	452
0.025	135	150	200	210	236	267	323	362
0.028	120	134	179	188	211	238	289	323
0.038	89	98	132	138	156	176	213	128
0.058	58	64	86	91	102	115	139	156
0.125	27	30	40	42	47	53	65	72
0.250	13	15	20	21	24	27	32	36

**FUTURE PIPE INDUSTRIES, INC.**

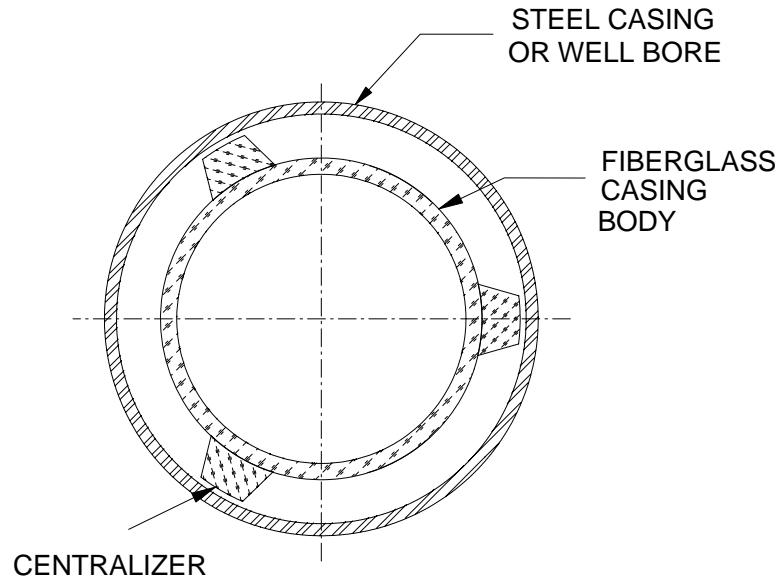
HOUSTON, TEXAS (281) 847-2987

**SLOTTED WELL SCREEN**

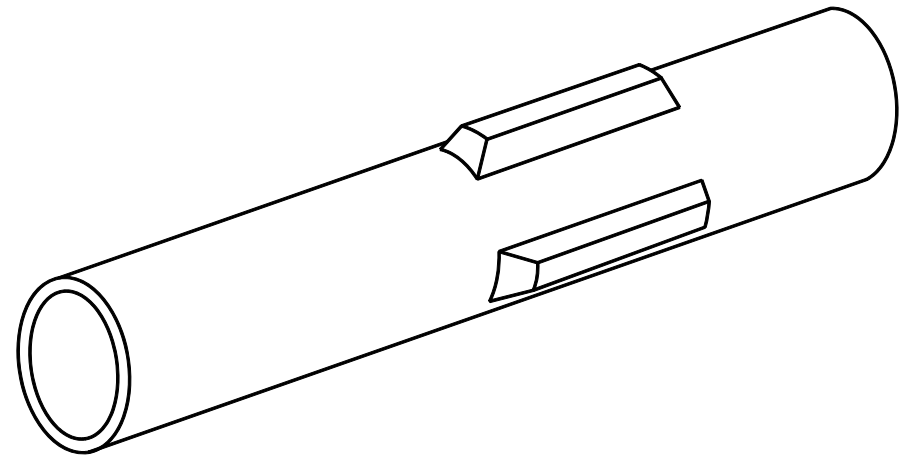
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# CASING CENTRALIZER



CENTRALIZERS CAN BE INSTALLED AT ANY GIVEN POSITION ON THE CASING BODY AND WITH ANY GIVEN QUANTITY PER JOINT. THE CENTRALIZERS ARE DURABLE AND OF CLOSE TOLERANCE DIMENSIONS



FUTURE PIPE INDUSTRIES, INC. CENTRALIZERS ARE COMPOSED OF MOLDED EPOXY GROUT AND ARE AVAILABLE AT CUSTOMER SPECIFIED CLEARANCE DIAMETERS.

**FUTURE PIPE INDUSTRIES, INC.**

HOUSTON, TEXAS (281) 847-2987

**CASING CENTRALIZER**

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### Special Product Features

In order to more closely fulfill the requirements of particular fiberglass applications, Future Pipe Industries, Inc. offers a variety of special product features to accommodating less common requirements and requests from our customers. The following list details some of the typical such features. Some of these items are presented more thoroughly in the pages following this list.

- **Turned Down Connections.** Particularly in the case of downhole products where tubing, liners, and casing must be inserted into either open hole or existing casing, a maximum connection outside diameter less than that of the standard product is occasionally necessary. In these circumstances the bell shaped female thread connection can, to a limited degree, be diminished by removing material on a lathe. This optional feature is more thoroughly detailed later in this section.
- **Strap-Lock Upset.** Strap wrenches and strap equipped hydraulic tongs are normally used to makeup fiberglass pipe and tubing. In order to do so the fabric belt must grip on the smooth glassy surface of the fiberglass and this frequently presents slippage problems. To resolve this common problem, Future Pipe Industries, Inc. offers, as a standard feature on all our pipe products, a patented process and product named **Strap-Lock**. This consists of a sparingly applied rough coat surface bonded to the upset area of the pipe. All strap type tools grip this surface firmly and positively and no performance properties of the product are diminished by this feature.
- **Rough Coat Exterior.** A rough coat exterior consisting of number 0 blasting abrasive bonded to the exterior of casing intended to be cemented into the well is available in all sizes. The abrasive is applied to the pipe surface prior to curing which results in the coating being essentially integral to the casing body. The rough coat consequently will not disbond from the casing body and provides a strong permanent anchor pattern for the intended cement.
- **High Chemical Resistant Liner.** For applications involving exposure to particularly aggressive chemicals and/or higher temperature environments, Future Pipe Industries, Inc. offers a nexus veil resin rich internal liner covering the entirety of the flow path through the pipe. Consult the Chemical Resistance Chart for details as to the increase in performance capabilities available through use of the liner feature.
- **Flush Joints and Custom Connections.** In some sizes and circumstances Future Pipe Industries, Inc. offers special non-standard connections and thread forms per the customer's specification. These connections include flush joints for downhole applications as well as varying thread forms.

Future Pipe Industries, Inc. responds to non-standard or custom requirements from our customers. If a customer's application requires a special feature or configuration to perform properly, we will examine the criteria and, if possible, provide a solution.