



Certificate of Compliance

This certificate is issued for the following:

**Fiber Reinforced Plastic Pipe and Fittings, Maintenance Couplings and
Van Stone Flanges, Sizes 4 to 24 Inch
(see attached listing)**

Prepared for:

National Oilwell Varco
2700 W 65th St
Little Rock, AR 72209
United States

Manufactured at:

National Oilwell Varco
2700 W 65th St
Little Rock, AR 72209
United States

FM Approvals Class: 1614

Approval Identification: 0003053375

Approval Granted: November 18, 2014

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

A handwritten signature in dark ink, appearing to read "Richard B. Dunne", is written over a horizontal line.

Richard B. Dunne
Manager of Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062



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<i>Product Designation</i>	<i>Model</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating (psi)</i>	<i>Pressure Rating (kpa)</i>	<i>Remarks</i>
Pipe, cement joint	011040-073-3	4	200	1380	a, b, c, d, f
Pipe, cement joint	011060-120-3	6	200	1380	a, b, c, d, f
Pipe, cement joint	011080-126-3	8	200	1380	a, b, c, d, f
Pipe, cement joint	011100-156-3	10	200	1380	a, b, c, d, f
Pipe, cement joint	011120-185-3	12	200	1380	a, b, c, d, f
Pipe, cement joint	011140-220-3	14	200	1380	a, b, c, d, f
Pipe, cement joint	011160-250-3	16	200	1380	a, b, c, d, f
Pipe, cement joint	011180-277-3	18	200	1380	a, b, c, d, f
Pipe, cement joint	011200-286-3	20	200	1380	a, b, c, d, f
Pipe, cement joint	011240-334-3	24	200	1380	a, b, c, d, f
Sleeve Coupling	012040-101-5	4	200	1380	d, e, f
Sleeve Coupling	012060-101-3	6	200	1380	d, e, f
Sleeve Coupling	012080-101-3	8	200	1380	d, e, f
Sleeve Coupling	012100-101-3	10	200	1380	d, e, f
Sleeve Coupling	012120-101-3	12	200	1380	d, e, f
Sleeve Coupling	012140-101-3	14	200	1380	d, e, f
Sleeve Coupling	012160-101-3	16	200	1380	d, e, f
Sleeve Coupling	022180-101-3	18	200	1380	d, e, f
Sleeve Coupling	022200-101-3	20	200	1380	d, e, f
Sleeve Coupling	022240-101-3	24	200	1380	d, e, f
Elbow 1-90°	022040-360-3	4	200	1380	d, e, f
Elbow 1-90°	022060-360-3	6	200	1380	d, e, f
Elbow 1-90°	022080-360-3	8	200	1380	d, e, f
Elbow 1-90°	022100-360-3	10	200	1380	d, e, f



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Elbow 1-90°	022120-360-3	12	200	1380	d, e, f
Elbow 1-90°	022140-360-3	14	200	1380	d, e, f
Elbow 1-90°	022160-360-3	16	200	1380	d, e, f
Elbow 1-90°	022180-360-3	18	200	1380	d, e, f
Elbow 1-90°	022200-360-3	20	200	1380	d, e, f
Elbow 1-90°	022240-360-3	24	200	1380	d, e, f
Tee, Equal	022040-410-3	4	200	1380	d, e, f
Tee, Equal	022060-410-3	6	200	1380	d, e, f
Tee, Equal	022080-410-3	8	200	1380	d, e, f
Tee, Equal	022100-410-3	10	200	1380	d, e, f
Tee, Equal	022120-410-3	12	200	1380	d, e, f
Tee, Equal	022140-410-3	14	200	1380	d, e, f
Tee, Equal	022160-410-3	16	200	1380	d, e, f
Tee, Equal	022180-410-3	18	200	1380	d, e, f
Tee, Equal	022200-410-3	20	200	1380	d, e, f
Tee, Equal	022240-410-3	24	200	1380	d, e, f
Reducer, Concentric	022060-236-3	6 x 4	200	1380	d, e, f
Reducer, Concentric	022080-237-3	8 x 6	200	1380	d, e, f
Reducer, Concentric	022080-235-3	10 x 8	200	1380	d, e, f
Reducer, Concentric	022100-237-3	12 x 10	200	1380	d, e, f
Reducer, Concentric	022100-235-3	8 x 4	200	1380	d, e, f
Reducer, Concentric	022120-237-3	10 x 6	200	1380	d, e, f
Reducer, Concentric	022120-235-3	12 x 8	200	1380	d, e, f
Reducer, Concentric	022140-237-3	14 x 10	200	1380	d, e, f
Reducer, Concentric	022140-235-3	14 x 12	200	1380	d, e, f



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Reducer, Concentric	022160-237-3	16 x 12	200	1380	d, e, f
Reducer, Concentric	022160-235-3	16 x 14	200	1380	d, e, f
Reducer, Concentric	022180-237-3	18 x 14	200	1380	d, e, f
Reducer, Concentric	022180-235-3	18 x 16	200	1380	d, e, f
Reducer, Concentric	022200-237-3	20 x 16	200	1380	d, e, f
Reducer, Concentric	022200-235-3	20 x 18	200	1380	d, e, f
Reducer, Concentric	022240-237-3	24 x 18	200	1380	d, e, f
Reducer, Concentric	022240-235-3	24 x 20	200	1380	d, e, f
Flange	022040-172-3	4	200	1380	d, e, f
Flange	022060-172-3	6	200	1380	d, e, f
Flange	022080-172-3	8	200	1380	d, e, f
Flange	022100-172-3	10	200	1380	d, e, f
Flange	022120-172-3	12	200	1380	d, e, f
Flange	022140-172-3	14	200	1380	d, e, f
Flange	022160-172-3	16	200	1380	d, e, f
Flange, Van Stone Stub End	022040-176-3	4	200	1380	d, e, f
Flange, Van Stone Stub End	022060-176-3	6	200	1380	d, e, f
Flange, Van Stone Stub End	022080-176-3	8	200	1380	d, e, f
Flange, Van Stone Stub End	022100-176-3	10	200	1380	d, e, f
Flange, Van Stone Stub End	022120-176-3	12	200	1380	d, e, f
Flange, Van Stone Stub End	022140-176-3	14	200	1380	d, e, f
Flange, Van Stone Stub End	022160-176-3	16	200	1380	d, e, f
Flange, Van Stone Stub End	022180-176-3	18	200	1380	d, e, f
Flange, Van Stone Stub End	022200-176-3	20	200	1380	d, e, f
Flange, Van Stone Stub End	022240-176-3	24	200	1380	d, e, f



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Flange, Bolt Ring	022040-179-3	4	200	1380	g
Flange, Bolt Ring	022060-179-3	6	200	1380	g
Flange, Bolt Ring	022080-179-3	8	200	1380	g
Flange, Bolt Ring	022100-179-3	10	200	1380	g
Flange, Bolt Ring	022120-179-3	12	200	1380	g
Flange, Bolt Ring	022140-179-3	14	200	1380	g
Flange, Bolt Ring	022160-179-3	16	200	1380	g
Flange, Bolt Ring	022180-179-3	18	200	1380	g
Flange, Bolt Ring	022200-179-3	20	200	1380	g
Flange, Bolt Ring	022240-179-3	24	200	1380	g
Tee, Reducing	022080-460-3	8 x 6	200	1380	d, e, f
Tee, Reducing	022100-460-3	10 x 6	200	1380	d, e, f
Tee, Reducing	022100-480-3	10 x 8	200	1380	d, e, f
Tee, Reducing	022120-460-3	12 x 6	200	1380	d, e, f
Tee, Reducing	022120-480-3	12 x 8	200	1380	d, e, f
Tee, Reducing	022120-490-3	12 x 10	200	1380	d, e, f
Tee, Reducing	022140-460-3	14 x 6	200	1380	d, e, f
Tee, Reducing	022140-480-3	14 x 8	200	1380	d, e, f
Tee, Reducing	022140-490-3	14 x 10	200	1380	d, e, f
Tee, Reducing	022140-490-3	14 x 12	200	1380	d, e, f
Tee, Reducing	022160-460-3	16 x 6	200	1380	d, e, f
Tee, Reducing	022160-480-3	16 x 8	200	1380	d, e, f
Tee, Reducing	022160-490-3	16 x 10	200	1380	d, e, f
Tee, Reducing	022160-492-3	16 x 12	200	1380	d, e, f
Tee, Reducing	022160-494-3	16 x 14	200	1380	d, e, f



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Tee, Reducing	022180-460-3	18 x 6	200	1380	d, e, f
Tee, Reducing	022180-480-3	18 x 8	200	1380	d, e, f
Tee, Reducing	022180-490-3	18 x 10	200	1380	d, e, f
Tee, Reducing	022180-492-3	18 x 12	200	1380	d, e, f
Tee, Reducing	022180-494-3	18 x 14	200	1380	d, e, f
Tee, Reducing	022180-496-3	18 x 16	200	1380	d, e, f
Tee, Reducing	022200-460-3	20 x 6	200	1380	d, e, f
Tee, Reducing	022200-480-3	20 x 8	200	1380	d, e, f
Tee, Reducing	022200-490-3	20 x 10	200	1380	d, e, f
Tee, Reducing	022200-492-3	20 x 12	200	1380	d, e, f
Tee, Reducing	022200-494-3	20 x 14	200	1380	d, e, f
Tee, Reducing	022200-496-3	20 x 16	200	1380	d, e, f
Tee, Reducing	022200-498-3	20 x 18	200	1380	d, e, f
Tee, Reducing	022240-460-3	24 x 6	200	1380	d, e, f
Tee, Reducing	022240-480-3	24 x 8	200	1380	d, e, f
Tee, Reducing	022240-490-3	24 x 10	200	1380	d, e, f
Tee, Reducing	022240-492-3	24 x 12	200	1380	d, e, f
Tee, Reducing	022240-494-3	24 x 14	200	1380	d, e, f
Tee, Reducing	022240-496-3	24 x 16	200	1380	d, e, f
Tee, Reducing	022240-498-3	24 x 18	200	1380	d, e, f
Tee, Reducing	022240-499-3	24 x 20	200	1380	d, e, f
Red Thread Maintenance Coupling	44RT0801	4	200	1380	h
Red Thread Maintenance Coupling	66RT0801	6	200	1380	h
Red Thread Maintenance Coupling	88RT0801	8	200	1380	h
Red Thread Maintenance Coupling	AART0801	10	200	1380	h



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Red Thread Maintenance Coupling	BBRT0801	12	200	1380	h

Remarks :

- a. Pipe lengths available in two configurations: two spigot ends or one spigot and one bell end.
- b. Pipes equipped with two spigot ends joined by sleeve couplings.
- c. Pipes equipped with one bell and one spigot end joined by bell and spigot joints.
- d. Joints must be made with adhesive kit No. 7014, 7069, 7024 or 7054.
- e. Fittings with bell ends.
- f. Joints must be made with adhesive kit No. 8014, 8024, 8069 or 8069-C.
- g. Bolt Ring is mated to Van Stone Stub End
- h. Joints must be made with ZC-275 adhesive.



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