MKEC ENGINEERING SUCCESS

Submittal - 024 Pump Station

TYTON Joint Pipe (Submittal on the following page(s), this sheet is the response page)

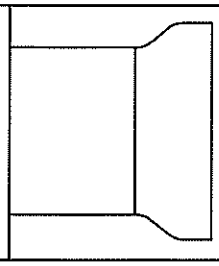
Response:

MKEC ENGINEERING, INC.
411 North Webb Road – Wichita, KS 67206

☑ Reviewed ☐ Reviewed As Noted
☐ Revise and Resubmit ☐ Rejected
☐ Not Required by the Contract Documents

Reviewed for conformance with the design concept of the project and compliance with the information given in the contract documents. Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to techniques of construction; and coordination of work of all other trades. If "Resubmit" or "Rejected" are not checked resubmission is neither desired or required.

By Date 6-28-16



TYTON JOINT® Pipe

TYTON JOINT Pipe

TYTON JOINT is U.S. Pipe's trademark for pipe with a push-on type connection. Simplicity, sturdiness and water-tightness of the system are built into the system by design. Convincing proof of its worldwide acceptance is shown by the fact that more than 95% of the pipe now sold by U.S. Pipe is TYTON JOINT Pipe.

TYTON JOINT Pipe is available in sizes 4" through 64". Sizes 4" through 42" are available in nominal 18-foot laying lengths. 6" through 24" sizes along with sizes 48" through 64" are available in nominal 20-foot laying lengths.

TYTON JOINT Pipe in sizes 4" through 36" are UL Listed and sizes 4" through 16" are FM Approved.

When TYTON JOINT Pipe are used for bridge crossings or other above-ground installations, each length of pipe must be supported in a manner to restrict both vertical and horizontal movement.

TYTON® Gasket is the only accessory required when installing TYTON JOINT Pipe. It is a circular rubber gasket which has a modified bulb shape in cross section. Gaskets are furnished in accordance with ANSI/AWWA C111/A21.1. Composition and dimensions of the gasket have been carefully engineered to ensure a water-tight and lasting seal. The standard TYTON Gasket is manufactured of SBR - styrene butadiene rubber. Gaskets of special elastomers may be ordered for special applications. The gasket contour and bell socket contour ensure that the gasket will remain seated during proper assembly of the pipe. When joint restraint is required for push-on joint pipe, two options are available from U.S. Pipe. For joint restraint of 4" through 24", FIELD LOK 350® Gaskets may be used and for joint restraint for 30" and 36", FIELD LOK® Gaskets may be used. FIELD LOK 350 Gaskets are rated for 350 psi in sizes 4" through 24". In addition, for 4" through 64" sizes, TR FLEX® Pipe and Fittings may be used. TR FLEX Pipe and Fittings are rated for working pressures for 350 psi in 4" through 24" sizes, 250 psi in sizes 30" through 48", and 200 psi in sizes 54" through 64". For higher pressure applications contact your U.S. Pipe representative. Complete details on both FIELD LOK 350 Gaskets and TR FLEX Pipe and Fittings can be found on our website, www.uspipe.com.

NOTE: *U.S. Pipe qualifies for Federal Procurement under Public Law No. 94-580, Section 6002, known as the Resource Recovery Act of 1976, since, due to modern technology, recycled iron and steel scrap is used to a large degree in our Ductile Iron Pipe production.*

The plain end of the pipe is furnished beveled or with a quarter ellipse on the edge to allow assembly. More than 40 years of successful experience have proved its sealing capabilities. Hydrostatic tests have shown that the system will withstand pressures far in excess of rated pressures.

TYTON®, TYTON JOINT®, TR FLEX® and FIELD LOK 350® are Registered Trademarks of U.S. Pipe and Foundry Company, LLC.

PIPE SPECIFICATIONS

ANSI/AWWA C151/A21.5, Ductile-Iron Pipe, Centrifugally Cast for Water.

Ductile Iron TYTON JOINT Pipe is centrifugally cast in metal molds in accordance with ANSI/AWWA C151/A21.5.

The asphaltic outside coating is in accordance with ANSI/AWWA C151/A21.51.

As specified in ANSI/AWWA C151/A21.51, pipe weights have been calculated using standard barrel weights and weights of bells being produced.

ANSI/AWWA C104/A21.4, Cement-Mortar Lining For Ductile-Iron Pipe and Fittings For Water.

The cement-mortar lining and inside coating are in accordance with ANSI/AWWA C104/ A21.4. Special linings and/or coatings can be furnished for specific conditions.

ANSI/AWWA C111/A21.11, Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

TYTON® Gaskets are furnished in accordance with ANSI/AWWA C111/A21.11.

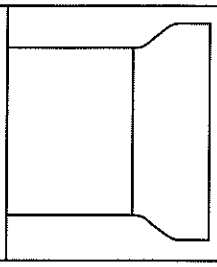
ANSI/AWWA C105/A21.5, Polyethylene Encasement for Ductile Iron Pipe Systems.

If specifiers and users believe that corrosive soils will be encountered where our products are to be installed, please refer to ANSI/AWWA C105/A21.5, for proper external protection procedures.

ASTM A746-03 "Standard specification for Ductile Iron Gravity Sewer Pipe."

ASTM A716-08 "Standard Specification for Ductile Iron Culvert Pipe."

ASTM A536 "Standard Specification for Ductile Iron Castings."



TYTON JOINT® Pipe

Pressure Class – Thickness, Dimensions and Weight

SIZE Inches	PRESSURE CLASS psi	THICKNESS Inches	OUTSIDE DIAMETER* Inches	18-FOOT LAYING LENGTH WEIGHT PER LENGTH† Pounds	18-FOOT LAYING LENGTH AVG. WEIGHT PER FOOT†† Pounds	20-FOOT LAYING LENGTH WEIGHT PER LENGTH† Pounds	20-FOOT LAYING LENGTH AVG. WEIGHT PER FOOT†† Pounds
4	350	0.25	4.80	205	10.9	—	—
6	350	0.25	6.90	305	16.0	335	16.0
8	350	0.25	9.05	400	21.1	445	21.1
10	350	0.26	11.10	515	27.1	570	27.1
12	350	0.28	13.20	660	34.8	730	34.8
14	250	0.28	15.30	780	40.4	865	40.4
14	300	0.30	15.30	920	43.3	1010	43.3
14	350	0.31	15.30	860	44.7	945	44.7
16	250	0.30	17.40	950	49.3	1050	49.3
16	300	0.32	17.40	1010	52.5	1115	52.5
16	350	0.34	17.40	1065	55.8	1175	55.8
18	250	0.31	19.50	1095	57.2	1210	57.2
18	300	0.34	19.50	1195	62.6	1320	62.6
18	350	0.36	19.50	1260	66.2	1390	66.2
20	250	0.33	21.60	1285	67.5	1420	67.5
20	300	0.36	21.60	1395	73.5	1540	57.2
20	350	0.38	21.60	1465	77.5	1620	73.5
24	200	0.33	25.80	1550	80.8	1710	77.5
24	250	0.37	25.80	1725	90.5	1905	80.8
24	300	0.40	25.80	1855	97.7	2050	90.5
24	350	0.43	25.80	1985	104.9	2195	97.9
30	150	0.34	32.00	2005	103.5	—	—
30	200	0.38	32.00	2220	115.5	—	—
30	250	0.42	32.00	2595	127.5	—	—
30	300	0.45	32.00	2810	136.5	—	—
30	350	0.49	32.00	2685	148.4	—	—
36	150	0.38	38.30	2945	138.5	—	—
36	200	0.42	38.30	2940	152.9	—	—
36	250	0.47	38.30	3265	170.9	—	—
36	300	0.51	38.30	3525	185.3	—	—
36	350	0.56	38.30	3845	203.2	—	—

NOTE: *Thicknesses and dimensions of 4" through 64" Ductile Iron pipe conform to ANSI/AWWA C151/A21.51. Weights may vary from the standard because of differences in bell weights.*

**Tolerance of O.D. of spigot end: 4-12 in., ±0.06 in.; 14-24 in., +0.05 in., -0.08 in.; 30-48 in., +0.08 in., -0.06 in.; 54-64 in., +0.04 in., -0.10 in.*

† Including bell; calculated weight of pipe rounded off to nearest 5 lbs.

†† Including bell; average weight, per foot, based on calculated weight of pipe before rounding.

Table continued on next page.