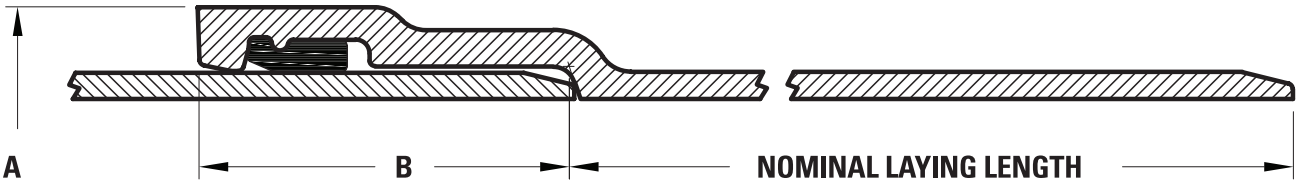
McWANE DUCTILE | IRON STRONG

DUCTILE IRON PIPE

TYTON® JOINT PIPE

3"–12"



PIPE SIZE IN.	PIPE THICKNESS IN.		NOMINAL OUTSIDE DIAMETER	*DIMENSIONS IN.	
	FROM	TO	IN.	A	B
3	.25	.40	3.96	5.80	3.00
4	.25	.41	4.80	7.10	3.15
6	.25	.43	6.90	8.63	3.38
8	.25	.45	9.05	10.94	3.69
10	.26	.47	11.10	13.32	3.75
12	.28	.49	13.20	15.06	3.75

* Nominal laying length is 18 feet.

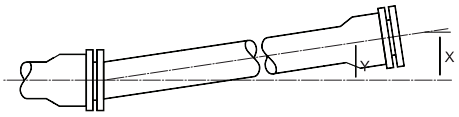
ASSEMBLY INSTRUCTIONS

STEP 1. Thoroughly clean out the bell with special attention to the gasket recess. Remove any foreign material or excess paint. Clean the spigot or beveled plain end and remove any sharp edges with a standard file.

STEP 2. After making sure that the correct gasket is being used, insert it into the recess in the bell with the small end of the gasket facing the bell face.

STEP 3. Apply lubricant to the inside surface of the gasket, making sure that the entire surface is coated. Apply a generous coating of lubricant to the beveled portion of the plain end. **Note:** Use only lube as supplied and/or approved by the manufacturer. *Currently approved lubricants provided by McWane Ductile include Phoenix XL-27 and Black Swan.*

STEP 4. Guide the plain end into the bell, and while maintaining straight alignment, push the plain end into the bell socket. Once the joint is assembled, necessary deflection can be accomplished.



PUSH-ON JOINT PIPE

MAXIMUM ALLOWABLE JOINT DEFLECTION

PIPE SIZE IN.	Y-MAXIMUM JOINT DEFLECTION IN DEGREES	X DEFLECTION IN INCHES 18 FT. LENGTH	APPROXIMATE RADIUS IN FT. OF CURVE PRODUCED BY SUCCESSION OF JOINTS 18 FT. LENGTH
3	5°	19	206
4	5°	19	206
5	5°	19	206
6	5°	19	206
8	5°	19	206
10	5°	19	206
12	5°	19	206

Note: If using Sure Stop 350® locking gaskets, please refer to the deflection limits for that product.

DIMENSIONS AND WEIGHTS FOR SPECIAL CLASSES OF PUSH-ON DUCTILE IRON PIPE

PIPE SIZE IN.	THICKNESS CLASS	NOMINAL THICKNESS IN.	OD* IN.	WT. OF BARREL PER FT. † LB.	TYTON® JOINT		
					WT. OF BELL LB.	WT. PER LGTH.† LB.	AVG. WT. PER FT.‡ LB.
3	52	0.28	3.96	9.9	7	185	10.3
3	54	0.34	3.96	11.8	7	220	12.2
3	56	0.40	3.96	13.7	7	255	14.1
4	51	0.26	4.80	11.3	9	210	11.8
4	52	0.29	4.80	12.6	9	235	13.1
4	53	0.32	4.80	13.8	9	255	14.3
4	54	0.35	4.80	15	9	280	15.5
4	55	0.38	4.80	16.1	9	300	16.7
4	56	0.41	4.80	17.3	9	320	17.8
6	50	0.25	6.90	16	11	300	16.6
6	51	0.28	6.90	17.8	11	330	18.4
6	52	0.31	6.90	19.6	11	365	20.2
6	53	0.34	6.90	21.4	11	395	22.0
6	54	0.37	6.90	23.2	11	430	23.8
6	55	0.40	6.90	25	11	460	25.6
6	56	0.43	6.90	26.7	11	490	27.3
8	50	0.27	9.05	22.8	17	425	23.7
8	51	0.30	9.05	25.2	17	470	26.1
8	52	0.33	9.05	27.7	17	515	28.6
8	53	0.36	9.05	30.1	17	560	31.0
8	54	0.39	9.05	32.5	17	600	33.4
8	55	0.42	9.05	34.8	17	645	35.7
8	56	0.45	9.05	37.2	17	685	38.1
10	50	0.29	11.10	30.1	24	565	31.4
10	51	0.32	11.10	33.2	24	620	34.5
10	52	0.35	11.10	36.2	24	675	37.5
10	53	0.38	11.10	39.2	24	730	40.5
10	54	0.41	11.10	42.1	24	780	43.4
10	55	0.44	11.10	45.1	24	835	46.4
10	56	0.47	11.10	48	24	890	49.3
12	50	0.31	13.20	38.4	29	720	40.0
12	51	0.34	13.20	42	29	785	43.6
12	52	0.37	13.20	45.6	29	850	47.2
12	53	0.40	13.20	49.2	29	915	50.8
12	54	0.43	13.20	52.8	29	980	54.4
12	55	0.46	13.20	56.3	29	1040	57.9
12	56	0.49	13.20	59.9	29	1105	61.5

STANDARD DIMENSIONS AND WEIGHTS OF 3" THROUGH 12" PUSH-ON JOINT DUCTILE IRON PIPE

PIPE SIZE IN.	PRESSURE CLASS PSI	NOMINAL THICKNESS IN.	OD* IN.	WT. OF BARREL PER FT. † LB.	TYTON® JOINT		
					WT. OF BELL LB.	WT. PER LGTH.† LB.	AVG. WT. PER FT.‡ LB.
3	350	0.25	3.96	8.90	7.00	185	9.20
4	350	0.25	4.80	10.90	9.00	225	11.30
6	350	0.25	6.90	16.00	11.00	300	16.60
8	350	0.25	9.05	21.10	17.00	395	22.00
10	350	0.26	11.10	27.10	24.00	510	28.40
12	350	0.28	13.20	34.80	29.00	655	36.40

* Tolerances of OD of spigot end: 3 –12 in. = +0.06 in. & -0.06 in.

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

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

STANDARDS APPLICABLE TO DUCTILE IRON PIPE AND FITTINGS

THICKNESS DESIGN OF DUCTILE IRON PIPE	ANSI/AWWA C150/A21.50
DUCTILE IRON PIPE FOR WATER AND OTHER LIQUIDS	ANSI/AWWA C151/A21.51, FEDERAL WWP421D, GRADE C
DUCTILE IRON PIPE FOR GRAVITY FLOW SERVICE	ANSI/ASTM A746
DUCTILE IRON FITTINGS FOR WATER AND OTHER LIQUIDS	ANSI/AWWA C110/A21.10
DUCTILE IRON COMPACT FITTINGS	ANSI/AWWA C153/A21.53
FLANGED FITTINGS	ANSI/AWWA C110/A21.10, ANSI B16.1
DUCTILE IRON PIPE WITH THREADED FLANGES	ANSI/AWWA C115/21.15
COATINGS AND LININGS	
Asphaltic	ANSI/AWWA C151/A21.51, ANSI/AWWA C110/A21.10, ANSI/AWWA C153/A21.53
Cement Lining	ANSI/AWWA C104/A21.4
Various Epoxy Linings and Coatings	MANUFACTURER'S STANDARD
Exterior Polyethylene Encasement	ANSI/AWWA C105/A21.5
JOINTS – PIPE AND FITTINGS	
Push-On and Mechanical Rubber-Gasket Joints	ANSI/AWWA C111/A21.11, FEDERAL WWP421D
Flanged	ANSI/AWWA C115/A21.15, ANSI B16.1
Grooved and Shouldered	ANSI/AWWA C606
PIPE THREADS	ANSI B2.1
INSTALLATION	ANSI/AWWA C600

Tyton® and Tyton Joint® are registered trademarks of US Pipe and Foundry.

POCKET ENGINEER
Available for **iOS + Android**
or online at **pe.mcwane.com**

CONNECT WITH US ON

McWANE DUCTILE

NEW JERSEY
183 Sitgreaves St.
Phillipsburg, NJ 08865
908-454-1161

OHIO
2266 S. 6th St.
Coshocton, OH 43812
740-622-6651

UTAH
1401 E. 2000 South
Provo, UT 84606
801-373-6910

McWaneDuctile.com

McWANE CANADA

CANADA
55 Frid St. Unit #1
Hamilton, ON, L8P 4M3
905-547-3251

CanadaPipe.com

Rev. November 2025