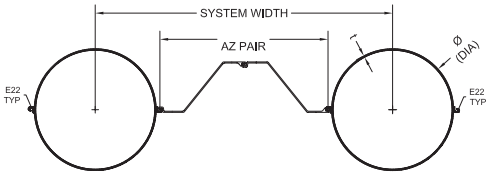
PIPE AZ COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / AZ 60% (m)"	PIPE / AZ 80% (m)"	PIPE / AZ 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE AZ18-800			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/AZ18-800	AZ18-800	E22	2422 95.35	1336.2 81.5	113956 834	2991.0 55.6	1031.5 231.8	1237.7 278.2	142.0 29.1	157.0 32.2	172.0 35.2	3.28 10.75	3.28 10.75
JDF 30 ODx0.625/AZ18-800	AZ18-800	E22	2422 95.35	1522.0 92.9	134266 983	3524.1 65.5	1215.3 273.1	1458.3 327.7	165.7 33.9	180.7 37.0	195.7 40.1	3.28 10.75	3.28 10.75
JDF 30 ODx0.750/AZ18-800	AZ18-800	E22	2422 95.35	1706.2 104.1	154053 1128	4043.4 75.2	1394.4 313.4	1673.3 376.0	189.2 38.7	204.2 41.8	219.2 44.9	3.28 10.75	3.28 10.75
JDF 36 ODx0.500/AZ18-800	AZ18-800	E22	2574 101.35	1490.6 91.0	167744 1228	3668.9 68.2	1265.3 284.3	1518.3 341.2	152.1 31.2	166.2 34.0	180.4 36.9	3.52 11.53	3.52 11.53
JDF 36 ODx0.625/AZ18-800	AZ18-800	E22	2574 101.35	1715.0 104.7	201410 1475	4405.3 81.9	1519.2 341.4	1823.0 409.7	179.0 36.7	193.2 39.6	207.3 42.5	3.52 11.53	3.52 11.53
JDF 36 ODx0.750/AZ18-800	AZ18-800	E22	2574 101.35	1937.9 118.3	234356 1716	5125.9 95.3	1767.7 397.3	2121.2 476.7	205.8 42.1	219.9 45.0	234.0 47.9	3.52 11.53	3.52 11.53
JDF 40 ODx0.500/AZ18-800	AZ18-800	E22	2676 105.35	1593.6 97.2	212965 1560	4192.2 78.0	1445.7 324.9	1734.9 389.9	158.2 32.4	171.8 35.2	185.4 38.0	3.67 12.06	3.67 12.06
JDF 40 ODx0.625/AZ18-800	AZ18-800	E22	2676 105.35	1843.7 112.5	257824 1888	5075.3 94.4	1750.2 393.3	2100.3 472.0	187.1 38.3	200.7 41.1	214.3 43.9	3.67 12.06	3.67 12.06
JDF 40 ODx0.750/AZ18-800	AZ18-800	E22	2676 105.35	2092.3 127.7	301822 2210	5941.4 110.5	2048.9 460.5	2458.7 552.6	215.8 44.2	229.4 47.0	243.0 49.8	3.67 12.06	3.67 12.06
JDF 42 ODx0.500/AZ18-800	AZ18-800	E22	2727 107.35	1645.1 100.4	238502 1747	4471.4 83.2	1542.0 346.5	1850.4 415.8	161.1 33.0	174.4 35.7	187.8 38.5	3.75 12.32	3.75 12.32
JDF 42 ODx0.625/AZ18-800	AZ18-800	E22	2727 107.35	1908.1 116.4	289675 2121	5430.7 101.0	1872.8 420.9	2247.4 505.1	190.9 39.1	204.3 41.8	217.6 44.6	3.75 12.32	3.75 12.32
JDF 42 ODx0.750/AZ18-800	AZ18-800	E22	2727 107.35	2169.5 132.4	339914 2489	6372.6 118.5	2197.6 493.9	2637.1 592.7	220.5 45.2	233.9 47.9	247.2 50.6	3.75 12.32	3.75 12.32
JDF 44 ODx0.500/AZ18-800	AZ18-800	E22	2778 109.35	1696.5 103.5	266036 1948	4760.8 88.6	1641.8 369.0	1970.2 442.8	163.9 33.6	177.0 36.2	190.1 38.9	3.83 12.58	3.83 12.58
JDF 44 ODx0.625/AZ18-800	AZ18-800	E22	2778 109.35	1972.4 120.4	324013 2373	5798.4 107.9	1999.6 449.4	2399.5 539.3	194.6 39.9	207.7 42.5	220.8 45.2	3.83 12.58	3.83 12.58
JDF 44 ODx0.750/AZ18-800	AZ18-800	E22	2778 109.35	2246.7 137.1	380982 2790	6817.9 126.8	2351.2 528.4	2821.4 634.1	225.1 46.1	238.2 48.8	251.3 51.5	3.83 12.58	3.83 12.58
JDF 48 ODx0.500/AZ18-800	AZ18-800	E22	2879 113.35	1799.5 109.8	327215 2396	5367.7 99.8	1851.1 416.0	2221.3 499.2	169.1 34.6	181.8 37.2	194.4 39.8	3.99 13.10	3.99 13.10
JDF 48 ODx0.625/AZ18-800	AZ18-800	E22	2879 113.35	2101.1 128.2	400306 2931	6566.7 122.1	2264.6 508.9	2717.5 610.7	201.5 41.3	214.2 43.9	226.8 46.5	3.99 13.10	3.99 13.10
JDF 48 ODx0.750/AZ18-800	AZ18-800	E22	2879 113.35	2401.2 146.5	472234 3458	7746.6 144.1	2671.5 600.4	3205.7 720.4	233.7 47.9	246.4 50.5	259.0 53.0	3.99 13.10	3.99 13.10
JDF 52 ODx0.625/AZ18-800	AZ18-800	E22	2981 117.35	2229.9 136.1	486985 3566	7374.1 137.2	2543.0 571.5	3051.6 685.8	208.0 42.6	220.2 45.1	232.4 47.6	4.15 13.63	4.15 13.63
JDF 52 ODx0.750/AZ18-800	AZ18-800	E22	2981 117.35	2555.6 156.0	575921 4217	8720.8 162.2	3007.4 675.9	3608.9 811.0	241.8 49.5	254.0 52.0	266.2 54.5	4.15 13.63	4.15 13.63
JDF 52 ODx0.875/AZ18-800	AZ18-800	E22	2981 117.35	2879.8 175.7	663545 4859	10047.6 186.9	3465.0 778.7	4158.0 934.4	275.4 56.4	287.6 58.9	299.8 61.4	4.15 13.63	4.15 13.63
JDF 56 ODx0.750/AZ18-800	AZ18-800	E22	3082 121.35	2710.1 165.4	692339 5070	9734.8 181.1	3357.1 754.5	4028.5 905.3	249.3 51.1	261.1 53.5	272.9 55.9	4.31 14.15	4.31 14.15
JDF 56 ODx0.875/AZ18-800	AZ18-800	E22	3082 121.35	3060.0 186.7	798906 5850	11233.2 208.9	3873.8 870.6	4648.6 1044.7	284.4 58.2	296.2 60.7	308.0 63.1	4.31 14.15	4.31 14.15
JDF 56 ODx1.00/AZ18-800	AZ18-800	E22	3082 121.35	3408.3 208.0	904010 6620	12711.1 236.4	4383.5 985.1	5260.1 1182.1	319.3 65.4	331.1 67.8	342.9 70.2	4.31 14.15	4.31 14.15
JDF 60 ODx0.750/AZ18-800	AZ18-800	E22	3184 125.35	2864.5 174.8	821750 6018	10784.1 200.6	3718.9 835.8	4462.7 1002.9	256.3 52.5	267.7 54.8	279.2 57.2	4.47 14.67	4.47 14.67
JDF 60 ODx0.875/AZ18-800	AZ18-800	E22	3184 125.35	3240.2 197.7	949400 6952	12459.3 231.7	4296.6 965.6	5156.0 1158.7	292.8 60.0	304.2 62.3	315.6 64.6	4.47 14.67	4.47 14.67
JDF 60 ODx1.00/AZ18-800	AZ18-800	E22	3184 125.35	3614.2 220.6	1075416 7875	14113.1 262.5	4867.0 1093.8	5840.3 1312.5	329.1 67.4	340.5 69.7	351.9 72.1	4.47 14.67	4.47 14.67
JDF 64 ODx0.750/AZ18-800	AZ18-800	E22	3286 129.35	3019.0 184.2	964380 7062	11864.9 220.7	4091.7 919.5	4910.0 1103.4	262.9 53.9	274.0 56.1	285.1 58.4	4.63 15.20	4.63 15.20
JDF 64 ODx0.875/AZ18-800	AZ18-800	E22	3286 129.35	3420.4 208.7	1115294 8167	13721.6 255.2	4732.0 1063.4	5678.4 1276.1	300.7 61.6	311.7 63.9	322.8 66.1	4.63 15.20	4.63 15.20
JDF 64 ODx1.00/AZ18-800	AZ18-800	E22	3286 129.35	3820.1 233.1	1264400 9259	15556.1 289.3	5364.6 1205.6	6437.5 1446.7	338.3 69.3	349.3 71.6	360.4 73.8	4.63 15.20	4.63 15.20
JDF 68 ODx0.750/AZ18-800	AZ18-800	E22	3387 133.35	3173.4 193.7	1120429 8205	12973.9 241.3	4474.1 1005.5	5368.9 1206.6	269.1 55.1	279.9 57.3	290.6 59.5	4.79 15.72	4.79 15.72
JDF 68 ODx0.875/AZ18-800	AZ18-800	E22	3387 133.35	3600.5 219.7	1296823 9496	15016.5 279.3	5178.5 1163.8	6214.2 1396.5	308.1 63.1	318.8 65.3	329.6 67.5	4.79 15.72	4.79 15.72
JDF 68 ODx1.00/AZ18-800	AZ18-800	E22	3387 133.35	4026.1 245.7	1471232 10774	17036.0 316.9	5874.9 1320.3	7049.9 1584.4	346.9 71.1	357.7 73.3	368.4 75.5	4.79 15.72	4.79 15.72
JDF 72 ODx0.750/AZ18-800	AZ18-800	E22	3489 137.35	3327.9 203.1	1290075 9447	14108.4 262.4	4865.4 1093.4	5838.4 1312.1	275.0 56.3	285.4 58.5	295.8 60.6	4.95 16.24	4.95 16.24
JDF 72 ODx0.875/AZ18-800	AZ18-800	E22	3489 137.35	3780.7 230.7	1494197 10942	16340.7 303.9	5635.2 1266.4	6762.2 1519.7	315.1 64.5	325.5 66.7	335.9 68.8	4.95 16.24	4.95 16.24
JDF 72 ODx1.00/AZ18-800	AZ18-800	E22	3489 137.35	4232.0 258.3	1696152 12421	18549.4 345.0	6396.8 1437.6	7676.2 1725.1	355.0 72.7	365.5 74.9	375.9 77.0	4.95 16.24	4.95 16.24

* Larger, custom pipe sizes and wall thicknesses are available upon request. Please contact us at eng@jdfields.com for availability.

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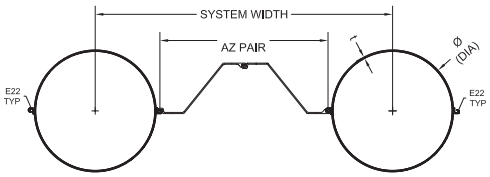
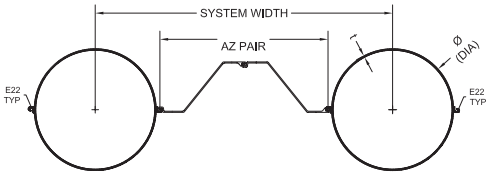
PIPE AZ COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / AZ 60% (m)"	PIPE / AZ 80% (m)"	PIPE / AZ 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE AZ23-800			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/AZ23-800	AZ23-800	**E22**	2422 95.35	1455.5 88.8	123159 902	3232.5 60.1	1114.7 250.5	1337.7 300.6	148.8 30.5	166.1 34.0	183.4 37.6	3.31 10.87	3.31 10.87
JDF 30 ODx0.625/AZ23-800	AZ23-800	**E22**	2422 95.35	1641.3 100.2	143469 1051	3765.6 70.0	1298.6 291.8	1558.3 350.2	172.5 35.3	189.8 38.9	207.1 42.4	3.31 10.87	3.31 10.87
JDF 30 ODx0.750/AZ23-800	AZ23-800	**E22**	2422 95.35	1825.6 111.4	163256 1196	4284.9 79.7	1477.7 332.1	1773.2 398.5	196.0 40.1	213.3 43.7	230.6 47.2	3.31 10.87	3.31 10.87
JDF 36 ODx0.500/AZ23-800	AZ23-800	**E22**	2574 101.35	1610.0 98.2	176402 1292	3858.3 71.8	1330.6 299.0	1596.7 358.8	158.5 32.5	174.8 35.8	191.1 39.1	3.55 11.65	3.55 11.65
JDF 36 ODx0.625/AZ23-800	AZ23-800	**E22**	2574 101.35	1834.4 111.9	210068 1538	4594.7 85.5	1584.5 356.1	1901.4 427.3	185.5 38.0	201.8 41.3	218.1 44.7	3.55 11.65	3.55 11.65
JDF 36 ODx0.750/AZ23-800	AZ23-800	**E22**	2574 101.35	2057.2 125.5	243014 1780	5315.3 98.9	1833.0 411.9	2199.6 494.3	212.2 43.5	228.5 46.8	244.8 50.1	3.55 11.65	3.55 11.65
JDF 40 ODx0.500/AZ23-800	AZ23-800	**E22**	2676 105.35	1712.9 104.5	221295 1621	4356.2 81.0	1502.3 337.6	1802.7 405.1	164.4 33.7	180.1 36.9	195.8 40.1	3.71 12.18	3.71 12.18
JDF 40 ODx0.625/AZ23-800	AZ23-800	**E22**	2676 105.35	1963.1 119.8	266153 1949	5239.2 97.5	1806.8 406.0	2168.1 487.3	193.3 39.6	209.0 42.8	224.6 46.0	3.71 12.18	3.71 12.18
JDF 40 ODx0.750/AZ23-800	AZ23-800	**E22**	2676 105.35	2211.7 135.0	310151 2271	6105.3 113.6	2105.5 473.2	2526.5 567.8	222.0 45.5	237.7 48.7	253.3 51.9	3.71 12.18	3.71 12.18
JDF 42 ODx0.500/AZ23-800	AZ23-800	**E22**	2727 107.35	1764.4 107.7	246677 1806	4624.6 86.0	1594.8 358.4	1913.8 430.1	167.2 34.2	182.6 37.4	197.9 40.5	3.79 12.44	3.79 12.44
JDF 42 ODx0.625/AZ23-800	AZ23-800	**E22**	2727 107.35	2027.5 123.7	297849 2181	5584.0 103.9	1925.7 432.8	2310.8 519.3	197.0 40.3	212.4 43.5	227.7 46.6	3.79 12.44	3.79 12.44
JDF 42 ODx0.750/AZ23-800	AZ23-800	**E22**	2727 107.35	2288.9 139.7	348088 2549	6525.8 121.4	2250.5 505.8	2700.6 606.9	226.6 46.4	242.0 49.6	257.4 52.7	3.79 12.44	3.79 12.44
JDF 44 ODx0.500/AZ23-800	AZ23-800	**E22**	2778 109.35	1815.9 110.8	274061 2007	4904.5 91.2	1691.3 380.1	2029.6 456.1	169.9 34.8	185.0 37.9	200.0 41.0	3.87 12.70	3.87 12.70
JDF 44 ODx0.625/AZ23-800	AZ23-800	**E22**	2778 109.35	2091.8 127.7	332038 2431	5942.0 110.5	2049.1 460.5	2458.9 552.6	200.6 41.1	215.6 44.2	230.7 47.3	3.87 12.70	3.87 12.70
JDF 44 ODx0.750/AZ23-800	AZ23-800	**E22**	2778 109.35	2366.1 144.4	389007 2849	6961.5 129.5	2400.7 539.5	2880.8 647.4	231.1 47.3	246.2 50.4	261.3 53.5	3.87 12.70	3.87 12.70
JDF 48 ODx0.500/AZ23-800	AZ23-800	**E22**	2879 113.35	1918.9 117.1	334956 2453	5494.7 102.2	1894.9 425.8	2273.8 511.0	174.9 35.8	189.5 38.8	204.0 41.8	4.03 13.22	4.03 13.22
JDF 48 ODx0.625/AZ23-800	AZ23-800	**E22**	2879 113.35	2220.5 135.5	408048 2988	6693.7 124.5	2308.3 518.8	2770.0 622.5	207.3 42.5	221.9 45.4	236.4 48.4	4.03 13.22	4.03 13.22
JDF 48 ODx0.750/AZ23-800	AZ23-800	**E22**	2879 113.35	2520.6 153.8	479976 3515	7873.6 146.5	2715.2 610.2	3258.3 732.3	239.5 49.1	254.1 52.0	268.6 55.0	4.03 13.22	4.03 13.22
JDF 52 ODx0.625/AZ23-800	AZ23-800	**E22**	2981 117.35	2349.2 143.4	494463 3621	7487.3 139.3	2582.0 580.3	3098.4 696.3	213.6 43.7	227.6 46.6	241.7 49.5	4.19 13.75	4.19 13.75
JDF 52 ODx0.750/AZ23-800	AZ23-800	**E22**	2981 117.35	2675.0 163.2	583398 4272	8834.0 164.3	3046.4 684.6	3655.7 821.6	247.3 50.7	261.4 53.5	275.5 56.4	4.19 13.75	4.19 13.75
JDF 52 ODx0.875/AZ23-800	AZ23-800	**E22**	2981 117.35	2999.2 183.0	671023 4914	10160.9 189.0	3504.0 787.5	4204.8 945.0	280.9 57.5	295.0 60.4	309.1 63.3	4.19 13.75	4.19 13.75
JDF 56 ODx0.750/AZ23-800	AZ23-800	**E22**	3082 121.35	2829.4 172.7	699571 5123	9836.5 183.0	3392.2 762.3	4070.6 914.8	254.7 52.2	268.3 54.9	281.9 57.7	4.35 14.27	4.35 14.27
JDF 56 ODx0.875/AZ23-800	AZ23-800	**E22**	3082 121.35	3179.4 194.0	806137 5903	11334.9 210.8	3908.9 878.5	4690.7 1054.2	289.8 59.3	303.4 62.1	317.0 64.9	4.35 14.27	4.35 14.27
JDF 56 ODx1.00/AZ23-800	AZ23-800	**E22**	3082 121.35	3527.7 215.3	911241 6673	12812.7 238.3	4418.5 993.0	5302.2 1191.6	324.7 66.5	338.3 69.3	351.9 72.1	4.35 14.27	4.35 14.27
JDF 60 ODx0.750/AZ23-800	AZ23-800	**E22**	3184 125.35	2983.9 182.1	828751 6069	10876.0 202.3	3750.6 842.9	4500.8 1011.5	261.5 53.6	274.7 56.3	287.9 59.0	4.51 14.79	4.51 14.79
JDF 60 ODx0.875/AZ23-800	AZ23-800	**E22**	3184 125.35	3359.5 205.0	956400 7004	12551.2 233.5	4328.3 972.7	5194.0 1167.3	298.0 61.0	311.2 63.7	324.3 66.4	4.51 14.79	4.51 14.79
JDF 60 ODx1.00/AZ23-800	AZ23-800	**E22**	3184 125.35	3733.6 227.8	1082417 7926	14205.0 264.2	4898.6 1100.9	5878.4 1321.1	334.3 68.5	347.5 71.2	360.6 73.9	4.51 14.79	4.51 14.79
JDF 64 ODx0.75/AZ23-800	AZ23-800	**E22**	3286 129.35	3138.3 191.5	971164 7112	11948.4 222.2	4120.4 926.0	4944.5 1111.2	268.0 54.9	280.7 57.5	293.5 60.1	4.67 15.32	4.67 15.32
JDF 64 ODx0.875/AZ23-800	AZ23-800	**E22**	3286 129.35	3539.7 216.0	1122078 8217	13805.1 256.8	4760.7 1069.9	5712.9 1283.9	305.7 62.6	318.5 65.2	331.2 67.8	4.67 15.32	4.67 15.32
JDF 64 ODx1.00/AZ23-800	AZ23-800	**E22**	3286 129.35	3939.5 240.4	1271184 9309	15639.6 290.9	5393.4 1212.1	6472.0 1454.5	343.3 70.3	356.1 72.9	368.8 75.5	4.67 15.32	4.67 15.32
JDF 68 ODx0.750/AZ23-800	AZ23-800	**E22**	3387 133.35	3292.8 200.9	1127010 8253	13050.1 242.7	4500.4 1011.4	5400.5 1213.7	274.0 56.1	286.4 58.7	298.8 61.2	4.83 15.84	4.83 15.84
JDF 68 ODx0.875/AZ23-800	AZ23-800	**E22**	3387 133.35	3719.9 227.0	1303404 9545	15092.7 280.7	5204.8 1169.7	6245.7 1403.6	313.0 64.1	325.4 66.6	337.7 69.2	4.83 15.84	4.83 15.84
JDF 68 ODx1.00/AZ23-800	AZ23-800	**E22**	3387 133.35	4145.4 253.0	1477812 10822	17112.2 318.3	5901.2 1326.2	7081.5 1591.4	351.8 72.1	364.2 74.6	376.6 77.1	4.83 15.84	4.83 15.84
JDF 72 ODx0.750/AZ23-800	AZ23-800	**E22**	3489 137.35	3447.2 210.4	1296464 9494	14178.3 263.7	4889.4 1098.8	5867.3 1318.6	279.7 57.3	291.7 59.8	303.8 62.2	4.99 16.36	4.99 16.36
JDF 72 ODx0.875/AZ23-800	AZ23-800	**E22**	3489 137.35	3900.1 238.0	1500586 10989	16410.6 305.2	5659.3 1271.8	6791.1 1526.2	319.8 65.5	331.9 68.0	343.9 70.4	4.99 16.36	4.99 16.36
JDF 72 ODx1.00/AZ23-800	AZ23-800	**E22**	3489 137.35	4351.4 265.5	1702541 12468	18619.2 346.3	6420.9 1443.0	7705.1 1731.6	359.8 73.7	371.8 76.2	383.8 78.6	4.99 16.36	4.99 16.36

* Larger, custom pipe sizes and wall thicknesses are available upon request. Please contact us at eng@jdfields.com for availability.

PIPE AZ COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / AZ 60% (m)"	PIPE / AZ 80% (m)"	PIPE / AZ 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE AZ28-750			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/AZ28-750	AZ28-750	E22	2322 91.42	1466.5 89.5	136603 1000	3585.4 66.7	1236.4 277.9	1483.7 333.4	158.4 32.4	177.6 36.4	196.7 40.3	3.31 10.87	3.31 10.87
JDF 30 ODx0.625/AZ28-750	AZ28-750	E22	2322 91.42	1652.4 100.8	157788 1155	4141.4 77.0	1428.2 321.0	1713.8 385.2	183.2 37.5	202.3 41.4	221.4 45.3	3.31 10.87	3.31 10.87
JDF 30 ODx0.750/AZ28-750	AZ28-750	E22	2322 91.42	1836.6 112.1	178428 1307	4683.1 87.1	1615.0 362.9	1938.0 435.5	207.7 42.5	226.8 46.5	245.9 50.4	3.31 10.87	3.31 10.87
JDF 36 ODx0.500/AZ28-750	AZ28-750	E22	2474 97.42	1621.0 98.9	191170 1400	4181.3 77.8	1441.9 324.1	1730.3 388.9	168.0 34.4	185.9 38.1	203.9 41.8	3.55 11.65	3.55 11.65
JDF 36 ODx0.625/AZ28-750	AZ28-750	E22	2474 97.42	1845.4 112.6	226196 1656	4947.4 92.0	1706.1 383.4	2047.4 460.1	196.0 40.1	213.9 43.8	231.9 47.5	3.55 11.65	3.55 11.65
JDF 36 ODx0.750/AZ28-750	AZ28-750	E22	2474 97.42	2068.2 126.2	260475 1907	5697.2 106.0	1964.7 441.5	2357.6 529.8	223.8 45.8	241.8 49.5	259.7 53.2	3.55 11.65	3.55 11.65
JDF 40 ODx0.500/AZ28-750	AZ28-750	E22	2576 101.42	1724.0 105.2	237223 1737	4669.8 86.9	1610.4 361.9	1932.5 434.3	173.7 35.6	190.9 39.1	208.2 42.6	3.71 12.18	3.71 12.18
JDF 40 ODx0.625/AZ28-750	AZ28-750	E22	2576 101.42	1974.1 120.5	283823 2078	5587.1 103.9	1926.7 433.0	2312.1 519.6	203.7 41.7	220.9 45.3	238.2 48.8	3.71 12.18	3.71 12.18
JDF 40 ODx0.750/AZ28-750	AZ28-750	E22	2576 101.42	2222.7 135.6	329529 2413	6486.8 120.7	2237.0 502.7	2684.4 603.3	233.5 47.8	250.8 51.4	268.0 54.9	3.71 12.18	3.71 12.18
JDF 42 ODx0.500/AZ28-750	AZ28-750	E22	2627 103.42	1775.4 108.3	263263 1928	4935.6 91.8	1702.1 382.5	2042.5 459.0	176.4 36.1	193.3 39.6	210.2 43.1	3.79 12.44	3.79 12.44
JDF 42 ODx0.625/AZ28-750	AZ28-750	E22	2627 103.42	2038.5 124.4	316384 2317	5931.5 110.3	2045.5 459.7	2454.6 551.6	207.3 42.5	224.2 45.9	241.1 49.4	3.79 12.44	3.79 12.44
JDF 42 ODx0.750/AZ28-750	AZ28-750	E22	2627 103.42	2299.9 140.3	368535 2699	6909.2 128.5	2382.7 535.5	2859.2 642.6	238.1 48.8	255.0 52.2	271.9 55.7	3.79 12.44	3.79 12.44
JDF 44 ODx0.500/AZ28-750	AZ28-750	E22	2678 105.42	1826.9 111.5	291355 2134	5213.9 97.0	1798.1 404.1	2157.7 484.9	179.0 36.7	195.6 40.1	212.2 43.5	3.87 12.70	3.87 12.70
JDF 44 ODx0.625/AZ28-750	AZ28-750	E22	2678 105.42	2102.8 128.3	351498 2574	6290.2 117.0	2169.2 487.5	2603.1 585.0	210.8 43.2	227.4 46.6	244.0 50.0	3.87 12.70	3.87 12.70
JDF 44 ODx0.750/AZ28-750	AZ28-750	E22	2678 105.42	2377.1 145.1	410594 3007	7347.8 136.7	2533.9 569.5	3040.7 683.3	242.5 49.7	259.1 53.1	275.7 56.5	3.87 12.70	3.87 12.70
JDF 48 ODx0.500/AZ28-750	AZ28-750	E22	2779 109.42	1929.9 117.8	353810 2591	5804.0 108.0	2001.5 449.8	2401.8 539.8	183.9 37.7	199.9 40.9	215.8 44.2	4.03 13.22	4.03 13.22
JDF 48 ODx0.625/AZ28-750	AZ28-750	E22	2779 109.42	2231.5 136.2	429531 3145	7046.1 131.1	2429.9 546.1	2915.9 655.3	217.4 44.5	233.4 47.8	249.4 51.1	4.03 13.22	4.03 13.22
JDF 48 ODx0.750/AZ28-750	AZ28-750	E22	2779 109.42	2531.6 154.5	504047 3691	8268.5 153.8	2851.4 640.8	3421.7 769.0	250.8 51.4	266.8 54.6	282.7 57.9	4.03 13.22	4.03 13.22
JDF 52 ODx0.625/AZ28-750	AZ28-750	E22	2881 113.42	2360.2 144.0	518188 3795	7846.6 145.9	2705.9 608.1	3247.1 729.7	223.6 45.8	239.0 48.9	254.4 52.1	4.19 13.75	4.19 13.75
JDF 52 ODx0.750/AZ28-750	AZ28-750	E22	2881 113.42	2686.0 163.9	610211 4469	9240.0 171.9	3186.5 716.1	3823.8 859.3	258.5 52.9	273.9 56.1	289.3 59.3	4.19 13.75	4.19 13.75
JDF 52 ODx0.875/AZ28-750	AZ28-750	E22	2881 113.42	3010.2 183.7	700877 5132	10612.9 197.4	3659.9 822.5	4391.9 987.0	293.3 60.1	308.7 63.2	324.1 66.4	4.19 13.75	4.19 13.75
JDF 56 ODx0.750/AZ28-750	AZ28-750	E22	2982 117.42	2840.5 173.3	729365 5341	10255.4 190.8	3536.6 794.8	4243.9 953.8	265.7 54.4	280.6 57.5	295.5 60.5	4.35 14.27	4.35 14.27
JDF 56 ODx0.875/AZ28-750	AZ28-750	E22	2982 117.42	3190.4 194.7	839505 6148	11804.1 219.6	4070.7 914.8	4884.8 1097.8	302.0 61.8	316.9 64.9	331.7 67.9	4.35 14.27	4.35 14.27
JDF 56 ODx1.00/AZ28-750	AZ28-750	E22	2982 117.42	3538.7 215.9	948133 6943	13331.5 248.0	4597.4 1033.2	5516.9 1239.8	338.1 69.2	352.9 72.3	367.8 75.3	4.35 14.27	4.35 14.27
JDF 60 ODx0.750/AZ28-750	AZ28-750	E22	3084 121.42	2994.9 182.8	861752 6311	11309.1 210.4	3900.0 876.5	4680.0 1051.8	272.4 55.8	286.8 58.7	301.2 61.7	4.51 14.79	4.51 14.79
JDF 60 ODx0.875/AZ28-750	AZ28-750	E22	3084 121.42	3370.5 205.7	993541 7276	13038.6 242.5	4496.4 1010.5	5395.7 1212.6	310.1 63.5	324.5 66.5	338.9 69.4	4.51 14.79	4.51 14.79
JDF 60 ODx1.00/AZ28-750	AZ28-750	E22	3084 121.42	3744.6 228.5	1123644 8228	14746.0 274.3	5085.2 1142.8	6102.3 1371.4	347.6 71.2	361.9 74.1	376.3 77.1	4.51 14.79	4.51 14.79
JDF 64 ODx0.750/AZ28-750	AZ28-750	E22	3186 125.42	3149.3 192.2	1007584 7378	12396.5 230.6	4275.0 960.7	5130.0 1152.9	278.7 57.1	292.7 59.9	306.6 62.8	4.67 15.32	4.67 15.32
JDF 64 ODx0.875/AZ28-750	AZ28-750	E22	3186 125.42	3550.7 216.7	1163235 8518	14311.5 266.2	4935.4 1109.1	5922.4 1331.0	317.7 65.1	331.6 67.9	345.5 70.8	4.67 15.32	4.67 15.32
JDF 64 ODx1.00/AZ28-750	AZ28-750	E22	3186 125.42	3950.5 241.1	1317022 9644	16203.5 301.4	5587.8 1255.8	6705.4 1506.9	356.4 73.0	370.4 75.9	384.3 78.7	4.67 15.32	4.67 15.32
JDF 68 ODx0.750/AZ28-750	AZ28-750	E22	3287 129.42	3303.8 201.6	1167045 8546	13513.7 251.4	4660.3 1047.3	5592.3 1256.8	284.6 58.3	298.1 61.1	311.6 63.8	4.83 15.84	4.83 15.84
JDF 68 ODx0.875/AZ28-750	AZ28-750	E22	3287 129.42	3730.9 227.7	1348805 9877	15618.4 290.5	5386.1 1210.4	6463.3 1452.5	324.8 66.5	338.3 69.3	351.8 72.1	4.83 15.84	4.83 15.84
JDF 68 ODx1.00/AZ28-750	AZ28-750	E22	3287 129.42	4156.4 253.6	1528520 11193	17699.4 329.2	6103.7 1371.7	7324.5 1646.1	364.8 74.7	378.3 77.5	391.8 80.2	4.83 15.84	4.83 15.84
JDF 72 ODx0.750/AZ28-750	AZ28-750	E22	3389 133.42	3458.2 211.0	1340300 9815	14657.7 272.6	5054.8 1136.0	6065.7 1363.2	290.2 59.4	303.3 62.1	316.4 64.8	4.99 16.36	4.99 16.36
JDF 72 ODx0.875/AZ28-750	AZ28-750	E22	3389 133.42	3911.1 238.7	1550445 11354	16955.9 315.4	5847.3 1314.1	7016.8 1576.9	331.5 67.9	344.6 70.6	357.7 73.3	4.99 16.36	4.99 16.36
JDF 72 ODx1.00/AZ28-750	AZ28-750	E22	3389 133.42	4362.4 266.2	1758359 12876	19229.7 357.7	6631.4 1490.3	7957.7 1788.4	372.6 76.3	385.7 79.0	398.8 81.7	4.99 16.36	4.99 16.36

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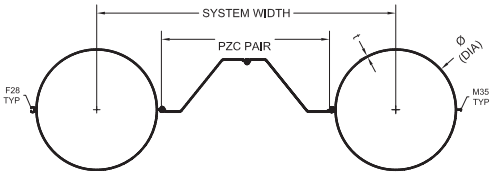
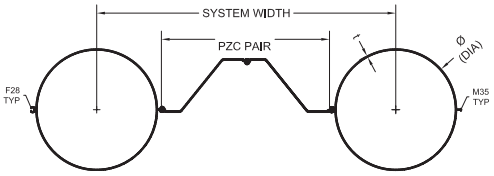
PIPE PZC COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / PZC 60% (m)"	PIPE / PZC 80% (m)"	PIPE / PZC 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE PZC13			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/PZC13	**PZC13**	**MF63**	2241 88.23	1295.1 79.0	106762.0 781.8	2802.2 52.1	966.3 217.2	1159.6 260.6	149.0 30.5	163.8 33.6	178.6 36.6	2.90 9.53	2.90 9.53
JDF 30 ODx0.625/PZC13	**PZC13**	**MF63**	2241 88.23	1480.9 90.4	128711.6 942.5	3378.3 62.8	1165.0 261.8	1398.0 314.2	174.7 35.8	189.4 38.8	204.2 41.8	2.90 9.53	2.90 9.53
JDF 30 ODx0.750/PZC13	**PZC13**	**MF63**	2241 88.23	1665.1 101.6	150096.0 1099.1	3939.5 73.3	1358.6 305.3	1630.3 366.4	200.1 41.0	214.8 44.0	229.6 47.0	2.90 9.53	2.90 9.53
JDF 36 ODx0.500/PZC13	**PZC13**	**MF63**	2393 94.23	1449.6 88.5	165073.6 1208.8	3610.5 67.2	1245.1 279.8	1494.1 335.8	159.5 32.7	173.3 35.5	187.2 38.3	3.14 10.31	3.14 10.31
JDF 36 ODx0.625/PZC13	**PZC13**	**MF63**	2393 94.23	1674.0 102.2	201283.5 1474.0	4402.5 81.9	1518.2 341.2	1821.9 409.4	188.5 38.6	202.3 41.4	216.1 44.3	3.14 10.31	3.14 10.31
JDF 36 ODx0.750/PZC13	**PZC13**	**MF63**	2393 94.23	1896.8 115.8	236720.3 1733.5	5177.6 96.3	1785.5 401.3	2142.6 481.5	217.2 44.5	231.1 47.3	244.9 50.2	3.14 10.31	3.14 10.31
JDF 40 ODx0.500/PZC13	**PZC13**	**MF63**	2495 98.23	1552.5 94.7	213682.3 1564.8	4206.3 78.2	1450.6 326.0	1740.7 391.2	165.7 33.9	179.0 36.7	192.3 39.4	3.30 10.84	3.30 10.84
JDF 40 ODx0.625/PZC13	**PZC13**	**MF63**	2495 98.23	1802.7 110.0	261792.8 1917.1	5153.4 95.9	1777.2 399.4	2132.6 479.3	196.7 40.3	210.0 43.0	223.3 45.7	3.30 10.84	3.30 10.84
JDF 40 ODx0.750/PZC13	**PZC13**	**MF63**	2495 98.23	2051.3 125.2	308981.1 2262.6	6082.3 113.1	2097.5 471.4	2517.0 565.7	227.5 46.6	240.8 49.3	254.1 52.0	3.30 10.84	3.30 10.84
JDF 44 ODx0.500/PZC13	**PZC13**	**MF63**	2597 102.23	1655.5 101.0	270422.0 1980.3	4839.3 90.0	1668.9 375.1	2002.6 450.1	171.5 35.1	184.3 37.7	197.0 40.4	3.46 11.36	3.46 11.36
JDF 44 ODx0.625/PZC13	**PZC13**	**MF63**	2597 102.23	1931.4 117.9	332438.4 2434.4	5949.2 110.7	2051.6 461.1	2461.9 553.3	204.3 41.9	217.1 44.5	229.9 47.1	3.46 11.36	3.46 11.36
JDF 44 ODx0.750/PZC13	**PZC13**	**MF63**	2597 102.23	2205.7 134.6	393376.2 2880.6	7039.7 130.9	2427.7 545.6	2913.2 654.7	237.0 48.5	249.7 51.2	262.5 53.8	3.46 11.36	3.46 11.36
JDF 48 ODx0.500/PZC13	**PZC13**	**MF63**	2698 106.23	1758.5 107.3	335537.3 2457.1	5504.2 102.4	1898.2 426.6	2277.8 511.9	176.8 36.2	189.1 38.7	201.4 41.2	3.62 11.88	3.62 11.88
JDF 48 ODx0.625/PZC13	**PZC13**	**MF63**	2698 106.23	2060.1 125.7	413529.0 3028.2	6783.6 126.2	2339.4 525.7	2807.2 630.9	211.4 43.3	223.7 45.8	235.9 48.3	3.62 11.88	3.62 11.88
JDF 48 ODx0.750/PZC13	**PZC13**	**MF63**	2698 106.23	2360.1 144.0	490279.5 3590.3	8042.6 149.6	2773.5 623.3	3328.2 748.0	245.8 50.3	258.0 52.8	270.3 55.4	3.62 11.88	3.62 11.88
JDF 52 ODx0.625/PZC13	**PZC13**	**MF63**	2800 110.23	2188.8 133.6	505328.8 3700.5	7651.9 142.3	2638.8 593.0	3166.5 711.6	217.9 44.6	229.8 47.1	241.6 49.5	3.78 12.41	3.78 12.41
JDF 52 ODx0.750/PZC13	**PZC13**	**MF63**	2800 110.23	2514.6 153.5	600010.6 4393.8	9085.6 169.0	3133.2 704.1	3759.8 845.0	253.9 52.0	265.7 54.4	277.5 56.8	3.78 12.41	3.78 12.41
JDF 52 ODx0.875/PZC13	**PZC13**	**MF63**	2800 110.23	2838.8 173.2	693296.6 5076.9	10498.1 195.3	3620.3 813.6	4344.4 976.3	289.7 59.3	301.5 61.8	313.3 64.2	3.78 12.41	3.78 12.41
JDF 56 ODx0.750/PZC13	**PZC13**	**MF63**	2901 114.23	2669.0 162.9	722844.4 5293.3	10163.7 189.0	3505.0 787.7	4206.0 945.2	261.4 53.5	272.9 55.9	284.3 58.2	3.94 12.93	3.94 12.93
JDF 56 ODx0.875/PZC13	**PZC13**	**MF63**	2901 114.23	3018.9 184.2	836055.3 6122.3	11755.6 218.7	4054.0 911.1	4864.7 1093.3	298.7 61.2	310.1 63.5	321.5 65.9	3.94 12.93	3.94 12.93
JDF 56 ODx1.00/PZC13	**PZC13**	**MF63**	2901 114.23	3367.2 205.5	947711.9 6940.0	13325.5 247.9	4595.4 1032.7	5514.4 1239.3	335.8 68.8	347.2 71.1	358.6 73.5	3.94 12.93	3.94 12.93
JDF 60 ODx0.750/PZC13	**PZC13**	**MF63**	3003 118.23	2823.5 172.3	859018.5 6290.5	11273.2 209.7	3887.6 873.7	4665.1 1048.4	268.5 55.0	279.5 57.3	290.5 59.5	4.10 13.45	4.10 13.45
JDF 60 ODx0.875/PZC13	**PZC13**	**MF63**	3003 118.23	3199.1 195.2	994357.7 7281.6	13049.3 242.7	4500.1 1011.3	5400.1 1213.6	307.1 62.9	318.2 65.2	329.2 67.4	4.10 13.45	4.10 13.45
JDF 60 ODx1.00/PZC13	**PZC13**	**MF63**	3003 118.23	3573.2 218.0	1127965.5 8260.0	14802.7 275.3	5104.8 1147.2	6125.7 1376.7	345.6 70.8	356.7 73.1	367.7 75.3	4.10 13.45	4.10 13.45
JDF 64 ODx0.750/PZC13	**PZC13**	**MF63**	3105 122.23	2977.9 181.7	1008739.6 7386.9	12410.7 230.8	4279.9 961.8	5135.8 1154.2	275.1 56.3	285.7 58.5	296.4 60.7	4.26 13.98	4.26 13.98
JDF 64 ODx0.875/PZC13	**PZC13**	**MF63**	3105 122.23	3379.3 206.2	1168446.7 8556.4	14375.6 267.4	4957.5 1114.1	5949.0 1336.9	315.0 64.5	325.7 66.7	336.4 68.9	4.26 13.98	4.26 13.98
JDF 64 ODx1.00/PZC13	**PZC13**	**MF63**	3105 122.23	3779.1 230.6	1326241.1 9711.9	16317.0 303.5	5627.0 1264.6	6752.4 1517.5	354.8 72.7	365.5 74.9	376.2 77.0	4.26 13.98	4.26 13.98
JDF 68 ODx0.750/PZC13	**PZC13**	**MF63**	3206 126.23	3132.4 191.1	1172188.0 8583.8	13573.3 252.5	4680.8 1051.9	5617.0 1262.3	281.2 57.6	291.6 59.7	301.9 61.8	4.42 14.50	4.42 14.50
JDF 68 ODx0.875/PZC13	**PZC13**	**MF63**	3206 126.23	3559.5 217.2	1358534.5 9948.4	15731.1 292.6	5424.9 1219.2	6509.9 1463.0	322.4 66.0	332.7 68.2	343.1 70.3	4.42 14.50	4.42 14.50
JDF 68 ODx1.00/PZC13	**PZC13**	**MF63**	3206 126.23	3985.0 243.2	1542783.2 11297.6	17864.6 332.3	6160.7 1384.5	7392.8 1661.4	363.4 74.4	373.8 76.6	384.1 78.7	4.42 14.50	4.42 14.50
JDF 72 ODx0.750/PZC13	**PZC13**	**MF63**	3308 130.23	3286.8 200.6	1349521.9 9882.4	14758.6 274.5	5089.5 1143.8	6107.5 1372.6	287.0 58.8	297.0 60.8	307.1 62.9	4.58 15.02	4.58 15.02
JDF 72 ODx0.875/PZC13	**PZC13**	**MF63**	3308 130.23	3739.7 228.2	1564807.1 11458.9	17112.9 318.3	5901.5 1326.3	7081.8 1591.5	329.3 67.5	339.4 69.5	349.4 71.6	4.58 15.02	4.58 15.02
JDF 72 ODx1.00/PZC13	**PZC13**	**MF63**	3308 130.23	4190.9 255.7	1777806.1 13018.7	19442.3 361.6	6704.8 1506.8	8045.7 1808.1	371.5 76.1	381.5 78.1	391.5 80.2	4.58 15.02	4.58 15.02

* Larger, custom pipe sizes and wall thicknesses are available upon request. Please contact us at eng@jdfields.com for availability.

PIPE PZC COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / PZC 60% (m)"	PIPE / PZC 80% (m)"	PIPE / PZC 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE PZC18			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/PZC18	**PZC18**	**MF63**	2095 82.48	1295.2 79.0	121326.9 888.5	3184.4 59.2	1098.2 246.8	1317.8 296.2	159.4 32.7	175.2 35.9	191.0 39.1	2.90 9.53	2.90 9.53
JDF 30 ODx0.625/PZC18	**PZC18**	**MF63**	2095 82.48	1481.0 90.4	144806.7 1060.4	3800.7 70.7	1310.7 294.6	1572.8 353.5	186.8 38.3	202.6 41.5	218.4 44.7	2.90 9.53	2.90 9.53
JDF 30 ODx0.750/PZC18	**PZC18**	**MF63**	2095 82.48	1665.2 101.6	167681.9 1227.9	4401.1 81.9	1517.7 341.1	1821.3 409.3	214.0 43.8	229.8 47.1	245.6 50.3	2.90 9.53	2.90 9.53
JDF 36 ODx0.500/PZC18	**PZC18**	**MF63**	2247 88.48	1449.6 88.5	182440.2 1336.0	3990.4 74.2	1376.1 309.3	1651.3 371.1	169.9 34.8	184.6 37.8	199.3 40.8	3.14 10.31	3.14 10.31
JDF 36 ODx0.625/PZC18	**PZC18**	**MF63**	2247 88.48	1674.0 102.2	221003.3 1618.4	4833.8 89.9	1667.0 374.6	2000.4 449.6	200.7 41.1	215.4 44.1	230.2 47.1	3.14 10.31	3.14 10.31
JDF 36 ODx0.750/PZC18	**PZC18**	**MF63**	2247 88.48	1896.8 115.8	258743.0 1894.7	5659.3 105.3	1951.6 438.6	2342.0 526.3	231.4 47.4	246.1 50.4	260.8 53.4	3.14 10.31	3.14 10.31
JDF 40 ODx0.500/PZC18	**PZC18**	**MF63**	2349 92.48	1552.6 94.7	233320.0 1708.6	4592.9 85.4	1583.9 356.0	1900.7 427.1	176.1 36.1	190.2 38.9	204.2 41.8	3.30 10.84	3.30 10.84
JDF 40 ODx0.625/PZC18	**PZC18**	**MF63**	2349 92.48	1802.7 110.0	284421.9 2082.8	5598.9 104.1	1930.8 433.9	2316.9 520.7	209.0 42.8	223.1 45.7	237.2 48.6	3.30 10.84	3.30 10.84
JDF 40 ODx0.750/PZC18	**PZC18**	**MF63**	2349 92.48	2051.3 125.2	334544.1 2449.8	6585.5 122.5	2271.0 510.4	2725.3 612.5	241.7 49.5	255.8 52.4	269.9 55.3	3.30 10.84	3.30 10.84
JDF 44 ODx0.500/PZC18	**PZC18**	**MF63**	2451 96.48	1655.5 101.0	292627.2 2142.9	5236.7 97.4	1805.9 405.8	2167.1 487.0	181.7 37.2	195.3 40.0	208.8 42.8	3.46 11.36	3.46 11.36
JDF 44 ODx0.625/PZC18	**PZC18**	**MF63**	2451 96.48	1931.4 117.9	358339.6 2624.1	6412.7 119.3	2211.4 497.0	2653.7 596.4	216.5 44.3	230.0 47.1	243.6 49.9	3.46 11.36	3.46 11.36
JDF 44 ODx0.750/PZC18	**PZC18**	**MF63**	2451 96.48	2205.7 134.6	422909.2 3096.9	7568.2 140.8	2609.9 586.5	3131.9 703.8	251.1 51.4	264.6 54.2	278.1 57.0	3.46 11.36	3.46 11.36
JDF 48 ODx0.500/PZC18	**PZC18**	**MF63**	2552 100.48	1758.5 107.3	360584.8 2640.5	5915.1 110.0	2039.8 458.4	2447.8 550.1	187.0 38.3	199.9 41.0	212.9 43.6	3.62 11.88	3.62 11.88
JDF 48 ODx0.625/PZC18	**PZC18**	**MF63**	2552 100.48	2060.1 125.7	443039.5 3244.3	7267.7 135.2	2506.3 563.3	3007.6 675.9	223.5 45.8	236.5 48.4	249.4 51.1	3.62 11.88	3.62 11.88
JDF 48 ODx0.750/PZC18	**PZC18**	**MF63**	2552 100.48	2360.2 144.0	524182.1 3838.5	8598.8 159.9	2965.3 666.4	3558.4 799.7	259.8 53.2	272.8 55.9	285.8 58.5	3.62 11.88	3.62 11.88
JDF 52 ODx0.625/PZC18	**PZC18**	**MF63**	2654 104.48	2188.8 133.6	538761.7 3945.3	8158.1 151.7	2813.4 632.3	3376.0 758.7	229.9 47.1	242.4 49.6	254.9 52.2	3.78 12.41	3.78 12.41
JDF 52 ODx0.750/PZC18	**PZC18**	**MF63**	2654 104.48	2514.6 153.5	638654.2 4676.8	9670.7 179.9	3335.0 749.5	4002.0 899.4	267.9 54.9	280.3 57.4	292.8 60.0	3.78 12.41	3.78 12.41
JDF 52 ODx0.875/PZC18	**PZC18**	**MF63**	2654 104.48	2838.8 173.2	737074.2 5397.5	11161.0 207.6	3848.9 865.0	4618.7 1038.0	305.6 62.6	318.1 65.1	330.6 67.7	3.78 12.41	3.78 12.41
JDF 56 ODx0.750/PZC18	**PZC18**	**MF63**	2755 108.48	2669.1 162.9	766573.9 5613.5	10778.6 200.5	3717.0 835.3	4460.5 1002.4	275.3 56.4	287.3 58.8	299.3 61.3	3.94 12.93	3.94 12.93
JDF 56 ODx0.875/PZC18	**PZC18**	**MF63**	2755 108.48	3019.0 184.2	885785.7 6486.5	12454.8 231.7	4295.1 965.3	5154.1 1158.3	314.5 64.4	326.6 66.9	338.6 69.3	3.94 12.93	3.94 12.93
JDF 56 ODx1.00/PZC18	**PZC18**	**MF63**	2755 108.48	3367.3 205.5	1003360.6 7347.5	14108.0 262.4	4865.2 1093.4	5838.2 1312.1	353.6 72.4	365.6 74.9	377.6 77.3	3.94 12.93	3.94 12.93
JDF 60 ODx0.750/PZC18	**PZC18**	**MF63**	2857 112.48	2823.5 172.3	908154.2 6650.3	11918.0 221.7	4110.0 923.7	4932.0 1108.4	282.2 57.8	293.8 60.2	305.4 62.6	4.10 13.45	4.10 13.45
JDF 60 ODx0.875/PZC18	**PZC18**	**MF63**	2857 112.48	3199.2 195.2	1050412.0 7692.0	13784.9 256.4	4753.8 1068.3	5704.5 1282.0	322.8 66.1	334.4 68.5	346.0 70.9	4.10 13.45	4.10 13.45
JDF 60 ODx1.00/PZC18	**PZC18**	**MF63**	2857 112.48	3573.2 218.1	1190849.8 8720.5	15628.0 290.7	5389.4 1211.2	6467.2 1453.4	363.3 74.4	374.9 76.8	386.5 79.2	4.10 13.45	4.10 13.45
JDF 64 ODx0.75/PZC18	**PZC18**	**MF63**	2959 116.48	2977.9 181.7	1063578.9 7788.5	13085.4 243.4	4512.5 1014.1	5415.1 1216.9	288.7 59.1	299.9 61.4	311.0 63.7	4.26 13.98	4.26 13.98
JDF 64 ODx0.875/PZC18	**PZC18**	**MF63**	2959 116.48	3379.3 206.2	1231169.9 9015.7	15147.3 281.7	5223.6 1173.9	6268.3 1408.7	330.6 67.7	341.8 70.0	353.0 72.3	4.26 13.98	4.26 13.98
JDF 64 ODx1.00/PZC18	**PZC18**	**MF63**	2959 116.48	3779.1 230.6	1396753.8 10228.3	17184.5 319.6	5926.1 1331.8	7111.4 1598.2	372.3 76.3	383.5 78.6	394.7 80.8	4.26 13.98	4.26 13.98
JDF 68 ODx0.750/PZC18	**PZC18**	**MF63**	3060 120.48	3132.4 191.2	1233007.3 9029.2	14277.5 265.6	4923.7 1106.5	5908.4 1327.8	294.7 60.4	305.5 62.6	316.3 64.8	4.42 14.50	4.42 14.50
JDF 68 ODx0.875/PZC18	**PZC18**	**MF63**	3060 120.48	3559.5 217.2	1428247.3 10458.9	16538.3 307.6	5703.3 1281.7	6844.0 1538.1	337.8 69.2	348.6 71.4	359.4 73.6	4.42 14.50	4.42 14.50
JDF 68 ODx1.00/PZC18	**PZC18**	**MF63**	3060 120.48	3985.0 243.2	1621289.4 11872.5	18773.6 349.2	6474.2 1455.0	7769.0 1746.0	380.8 78.0	391.6 80.2	402.4 82.4	4.42 14.50	4.42 14.50
JDF 72 ODx0.750/PZC18	**PZC18**	**MF63**	3162 124.48	3286.8 200.6	1416578.3 10373.4	15491.9 288.2	5342.4 1200.6	6410.9 1440.8	300.3 61.5	310.8 63.7	321.2 65.8	4.58 15.02	4.58 15.02
JDF 72 ODx0.875/PZC18	**PZC18**	**MF63**	3162 124.48	3739.7 228.2	1641808.0 12022.8	17955.0 334.0	6191.9 1391.5	7430.2 1669.8	344.6 70.6	355.0 72.7	365.5 74.9	4.58 15.02	4.58 15.02
JDF 72 ODx1.00/PZC18	**PZC18**	**MF63**	3162 124.48	4191.0 255.7	1864645.8 13654.6	20392.0 379.3	7032.3 1580.4	8438.7 1896.5	388.7 79.6	399.1 81.7	409.6 83.9	4.58 15.02	4.58 15.02

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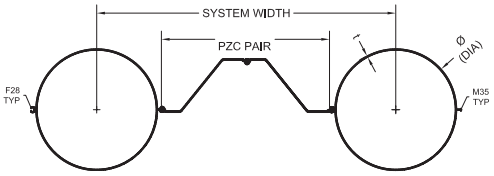
PIPE PZC COMBI-WALL SYSTEM



HDM STEEL PIPE	Sheet Pile Section	Pipe-Sheet Connector	System Width	Per Unit of Wall			50 ksi	60 ksi	Mass: Beam/Sheet Ratio			Coating Area	
				Cross Sectional Area (A)	Combined Moment of Inertia (Iy)	Combined Elastic Modulus (Sx)	Ultimate Bend. Moment [No S.F.] (Mmax)		PIPE / PZC 60% (m)"	PIPE / PZC 80% (m)"	PIPE / PZC 100% (m)"	Waterside Surface (A')	Landside Surface (A")
PIPE PZC26			mm	cm^2	cm^4/m	cm^3/m	kN-m/m		kg/m^2	kg/m^2	kg/m^2	m^2/m	m^2/m
			in	in^2	in^4/ft	in^3/ft	kip-ft/ft		lbs/ft^2	lbs/ft^2	lbs/ft^2	ft^2/ft	ft^2/ft
JDF 30 ODx0.500/PZC26	**PZC26**	**MF63**	2238 88.11	1521.3 92.8	130762.3 957.6	3432.1 63.8	1183.6 266.0	1420.3 319.2	168.0 34.4	189.0 38.7	210.1 43.0	3.07 10.08	3.07 10.08
JDF 30 ODx0.625/PZC26	**PZC26**	**MF63**	2238 88.11	1707.1 104.2	152741.8 1118.5	4009.0 74.6	1382.5 310.7	1659.0 372.8	193.6 39.7	214.7 44.0	235.7 48.3	3.07 10.08	3.07 10.08
JDF 30 ODx0.750/PZC26	**PZC26**	**MF63**	2238 88.11	1891.3 115.4	174155.3 1275.3	4571.0 85.0	1576.3 354.3	1891.6 425.1	219.1 44.9	240.1 49.2	261.2 53.5	3.07 10.08	3.07 10.08
JDF 36 ODx0.500/PZC26	**PZC26**	**MF63**	2390 94.11	1675.7 102.3	187618.0 1373.9	4103.6 76.3	1415.2 318.0	1698.2 381.6	177.2 36.3	196.9 40.3	216.6 44.4	3.31 10.86	3.31 10.86
JDF 36 ODx0.625/PZC26	**PZC26**	**MF63**	2390 94.11	1900.1 116.0	223874.1 1639.4	4896.6 91.1	1688.6 379.5	2026.3 455.4	206.2 42.2	225.9 46.3	245.6 50.3	3.31 10.86	3.31 10.86
JDF 36 ODx0.750/PZC26	**PZC26**	**MF63**	2390 94.11	2123.0 129.6	259356.1 1899.2	5672.7 105.5	1956.3 439.6	2347.5 527.6	235.1 48.1	254.8 52.2	274.5 56.2	3.31 10.86	3.31 10.86
JDF 40 ODx0.500/PZC26	**PZC26**	**MF63**	2492 98.11	1778.7 108.5	235367.0 1723.6	4633.2 86.2	1597.8 359.1	1917.3 430.9	182.8 37.4	201.7 41.3	220.6 45.2	3.47 11.39	3.47 11.39
JDF 40 ODx0.625/PZC26	**PZC26**	**MF63**	2492 98.11	2028.9 123.8	283536.4 2076.3	5581.4 103.8	1924.8 432.6	2309.7 519.1	213.8 43.8	232.7 47.7	251.6 51.5	3.47 11.39	3.47 11.39
JDF 40 ODx0.750/PZC26	**PZC26**	**MF63**	2492 98.11	2277.4 139.0	330782.4 2422.3	6511.5 121.1	2245.5 504.6	2694.6 605.6	244.6 50.1	263.5 54.0	282.4 57.8	3.47 11.39	3.47 11.39
JDF 44 ODx0.500/PZC26	**PZC26**	**MF63**	2594 102.11	1881.6 114.8	291324.0 2133.3	5213.4 97.0	1797.9 404.0	2157.4 484.8	187.9 38.5	206.0 42.2	224.2 45.9	3.63 11.91	3.63 11.91
JDF 44 ODx0.625/PZC26	**PZC26**	**MF63**	2594 102.11	2157.6 131.7	353413.2 2588.0	6324.5 117.6	2181.0 490.2	2617.2 588.2	220.8 45.2	238.9 48.9	257.1 52.7	3.63 11.91	3.63 11.91
JDF 44 ODx0.750/PZC26	**PZC26**	**MF63**	2594 102.11	2431.9 148.4	414422.7 3034.8	7416.3 137.9	2557.5 574.8	3069.0 689.7	253.4 51.9	271.6 55.6	289.8 59.3	3.63 11.91	3.63 11.91
JDF 48 ODx0.500/PZC26	**PZC26**	**MF63**	2695 106.11	1984.6 121.1	355725.0 2604.9	5835.4 108.5	2012.4 452.2	2414.8 542.7	192.6 39.4	210.1 43.0	227.6 46.6	3.79 12.43	3.79 12.43
JDF 48 ODx0.625/PZC26	**PZC26**	**MF63**	2695 106.11	2286.3 139.5	433804.9 3176.7	7116.2 132.4	2454.1 551.5	2944.9 661.8	227.2 46.5	244.7 50.1	262.1 53.7	3.79 12.43	3.79 12.43
JDF 48 ODx0.750/PZC26	**PZC26**	**MF63**	2695 106.11	2586.3 157.8	510642.1 3739.4	8376.7 155.8	2888.7 649.2	3466.5 779.0	261.6 53.6	279.1 57.2	296.5 60.7	3.79 12.43	3.79 12.43
JDF 52 ODx0.625/PZC26	**PZC26**	**MF63**	2797 110.11	2415.0 147.4	524968.1 3844.3	7949.2 147.9	2741.3 616.1	3289.6 739.3	233.2 47.8	250.0 51.2	266.8 54.7	3.95 12.96	3.95 12.96
JDF 52 ODx0.750/PZC26	**PZC26**	**MF63**	2797 110.11	2740.7 167.3	619753.1 4538.4	9384.5 174.6	3236.3 727.3	3883.5 872.8	269.2 55.1	286.0 58.6	302.8 62.0	3.95 12.96	3.95 12.96
JDF 52 ODx0.875/PZC26	**PZC26**	**MF63**	2797 110.11	3064.9 187.0	713140.8 5222.2	10798.6 200.9	3723.9 836.9	4468.7 1004.3	305.0 62.5	321.8 65.9	338.6 69.4	3.95 12.96	3.95 12.96
JDF 56 ODx0.750/PZC26	**PZC26**	**MF63**	2898 114.11	2895.2 176.7	742024.0 5433.8	10433.4 194.1	3598.0 808.6	4317.6 970.3	276.2 56.6	292.4 59.9	308.7 63.2	4.11 13.48	4.11 13.48
JDF 56 ODx0.875/PZC26	**PZC26**	**MF63**	2898 114.11	3245.1 198.0	855354.0 6263.7	12026.9 223.7	4147.5 932.1	4977.0 1118.5	313.5 64.2	329.7 67.5	346.0 70.9	4.11 13.48	4.11 13.48
JDF 56 ODx1.00/PZC26	**PZC26**	**MF63**	2898 114.11	3593.4 219.3	967128.1 7082.2	13598.5 252.9	4689.5 1053.9	5627.4 1264.7	350.6 71.8	366.9 75.1	383.1 78.5	4.11 13.48	4.11 13.48
JDF 60 ODx0.750/PZC26	**PZC26**	**MF63**	3000 118.11	3049.6 186.1	877687.0 6427.2	11518.2 214.2	3972.1 892.7	4766.5 1071.2	282.7 57.9	298.4 61.1	314.1 64.3	4.27 14.00	4.27 14.00
JDF 60 ODx0.875/PZC26	**PZC26**	**MF63**	3000 118.11	3425.3 209.0	1013163.7 7419.3	13296.1 247.3	4585.2 1030.5	5502.3 1236.5	321.4 65.8	337.1 69.1	352.8 72.3	4.27 14.00	4.27 14.00
JDF 60 ODx1.00/PZC26	**PZC26**	**MF63**	3000 118.11	3799.3 231.8	1146907.2 8398.7	15051.3 280.0	5190.5 1166.5	6228.6 1399.8	360.0 73.7	375.7 76.9	391.4 80.2	4.27 14.00	4.27 14.00
JDF 64 ODx0.750/PZC26	**PZC26**	**MF63**	3102 122.11	3204.1 195.5	1026943.7 7520.2	12634.6 235.0	4357.1 979.2	5228.5 1175.0	288.9 59.2	304.0 62.3	319.2 65.4	4.43 14.53	4.43 14.53
JDF 64 ODx0.875/PZC26	**PZC26**	**MF63**	3102 122.11	3605.5 220.0	1186807.7 8690.9	14601.5 271.6	5035.4 1131.6	6042.5 1357.9	328.9 67.4	344.0 70.5	359.2 73.6	4.43 14.53	4.43 14.53
JDF 64 ODx1.00/PZC26	**PZC26**	**MF63**	3102 122.11	4005.2 244.4	1344757.2 9847.5	16544.8 307.7	5705.5 1282.2	6846.6 1538.7	368.7 75.5	383.9 78.6	399.1 81.7	4.43 14.53	4.43 14.53
JDF 68 ODx0.750/PZC26	**PZC26**	**MF63**	3203 126.11	3358.5 204.9	1189970.2 8714.0	13779.2 256.3	4751.8 1067.9	5702.2 1281.5	294.6 60.3	309.3 63.4	324.0 66.4	4.59 15.05	4.59 15.05
JDF 68 ODx0.875/PZC26	**PZC26**	**MF63**	3203 126.11	3785.6 231.0	1376494.0 10079.9	15939.0 296.5	5496.6 1235.3	6596.0 1482.3	335.8 68.8	350.5 71.8	365.2 74.8	4.59 15.05	4.59 15.05
JDF 68 ODx1.00/PZC26	**PZC26**	**MF63**	3203 126.11	4211.2 257.0	1560918.0 11430.4	18074.6 336.2	6233.1 1400.8	7479.7 1680.9	376.9 77.2	391.6 80.2	406.3 83.2	4.59 15.05	4.59 15.05
JDF 72 ODx0.750/PZC26	**PZC26**	**MF63**	3305 130.11	3513.0 214.4	1366921.0 10009.8	14948.8 278.1	5155.2 1158.5	6186.2 1390.3	300.0 61.4	314.2 64.4	328.5 67.3	4.75 15.57	4.75 15.57
JDF 72 ODx0.875/PZC26	**PZC26**	**MF63**	3305 130.11	3965.8 242.0	1582404.7 11587.8	17305.4 321.9	5967.8 1341.2	7161.4 1609.4	342.3 70.1	356.6 73.0	370.8 76.0	4.75 15.57	4.75 15.57
JDF 72 ODx1.00/PZC26	**PZC26**	**MF63**	3305 130.11	4417.1 269.5	1795600.1 13149.0	19636.9 365.2	6771.9 1521.9	8126.2 1826.2	384.5 78.8	398.8 81.7	413.0 84.6	4.75 15.57	4.75 15.57

* Larger, custom pipe sizes and wall thicknesses are available upon request. Please contact us at eng@jdfields.com for availability.