Corrugated & Smooth Flow fittings

NOTE: CORRUGATED FITTINGS AVAILABLE IN 2" - 24" *FOR A FULL CORRUGATED FITTING LIST SEE OUR CATALOG OR YOUR SALES PERSON

NOTE: OTHER SMOOTH FLOW FITTINGS, STRUCTURES, AND SYSTEMS FABRICATED UPON REQUEST, UP THROUGH 60"

| Size | Desription | #/Ba |
|-------|-----------------------------------|------|
| 4 | Тее | 25 |
| 4 | Combo Tee (3"External/4"Internal) | 25 |
| 4 | Blind Tee | 25 |
| 4 | Internal Tee | 10 |
| 4 | Internal Tap Tee | 50 |
| 4 | Short Tap Tee | 50 |
| 4 | Long Tap Tee | 50 |
| 4 | Internal Coupler (Injection Mold) | 50 |
| 4 | Internal Coupler (Blow Mold) | 50 |
| 4 | Snap Coupler | 50 |
| 4 | Split Coupler | 50 |
| 4 | Wye | 10 |
| 4 | 401 End Plug | 100 |
| 4 | 402 End Plug | 100 |
| 4 | 402 Perf End Plug | 100 |
| 4 | Elbow | 25 |
| 4 | Clay to Plastic Adaptor | 50 |
| 4 | PVC to Plastic Adaptor | 50 |
| 4x3 | Reducer | 25 |
| 5x4 | Reducer | 10 |
| 6x5x4 | Reducer | 10 |

| Size | Desription |
|-------------|-------------------------------|
| 4x4 - 60x60 | Tees - Plain End |
| 4x4 - 48x48 | Tees - Bell End |
| 6x4 - 60x48 | Reducing Tees - Plain End |
| 6x4 - 48x42 | Reducing Tees - Bell End |
| 4x4 - 60x60 | Wyes - Plain End |
| 4x4 - 48x48 | Wyes - Plain End |
| 6x4 - 60x48 | Reducing Wyes - Plain End |
| 6x4 - 48x42 | Reducing Wyes - Bell End |
| 6x4 - 60x48 | Reducers - Plain End |
| 6x4 - 48x42 | Reducers - Bell End |
| 4x4 - 48x48 | Double/Cross Tees - Plain End |
| 4x4 - 48x48 | Double/Cross Tees - Bell End |
| 4 - 60 | 22 1/2° Elbow - Plain End |
| 4 - 48 | 22 1/2° Elbow - Bell End |
| 4 - 60 | 45° Elbow - Plain End |
| 4 - 48 | 45° Elbow - Bell End |
| 4 - 60 | 90° Elbow - Plain End |
| 4 - 48 | 90° Elbow - Bell End |



Tri-Wall Pipe

| Size | Length (ft) | Description | Hole Diameter |
|--------|-------------|-----------------------------------|---------------|
| 3 | 1380 | Tri-Wall Solid | |
| 3 | 1380 | Tri-Wall 2 Hole | 1/2" |
| 4 | 900 | Tri-Wall Solid | |
| 4 | 900 | Tri-Wall 2 Hole | 1/2" |
| 4 | 900 | Tri-Wall 4-6-8 | 5/8" |
| 4 | 900 | Tri-Wall 4-8-12 | 5/8" |
| 6 6 | 390 390 | Tri-Wall Solid Tri-Wall 2 Hole | 1/2" |



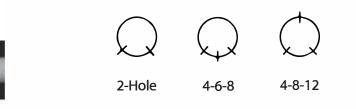
4" x 900' Tri-Wall Solid |

Haviland Drainage Products Co. offers a wide variety of pipe, Smooth Flow and corrugated fittings and additional drainage accessories. For a complete listing of all our current products, please visit our website at www.haviland-drainage.com or call us at the number listed below.

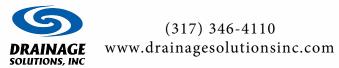
> 100 West Main Street P.O. Box 97 Haviland, OH 45851-0097

www.haviland-drainage.com

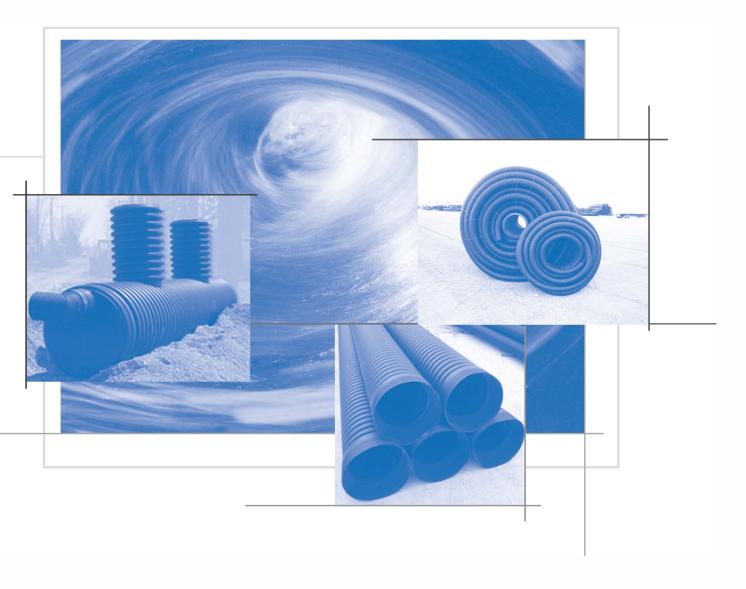
Tri-Wall pipe is a three layered high density polyethylene sewer and drain pipe. With a welded bell for consistent fit, this product is truly revolutionary. It provides better impact resistance, added strength and is easier to handle than conventional sewer and drain pipe. Consisting of a white exterior and a black interior, tri-wall pipe meets or exceeds ASTMF 810 when installed in accordance to ASTM F 481. It is available in 3", 4" and 6" diameter, in 10' lengths and bundled in pallets. Thirty pallets can be shipped per truckload on 53' trailers. 4" 2 - Hole Tri-Wall is available with 5/8" holes upon special request.



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Heavy Pipe & Tubing

Haviland's heavy pipe and tubing has the strength, flexibility and endurance to fulfill most job requirements. Made of high-density polyethylene plastic, our tubing meets or exceeds ASTMF 405 and ASTM F 667 standards. Our tubing and pipe is available in 2" through 24" diameters in the lengths listed below.

| Size | Length (fi |) Description | Stock |
|------|--------------|---------------------------------------|-------|
| 2" | 100 | Perf | |
| - | 100 | Solid | |
| | 500 | Perf | |
| | 500 | Solid | |
| 3" | 10 | Perf | |
| • | 10 | Perf w/Coupler 10/Bundle | |
| | 10 | Solid | |
| | 100 | Perf | |
| | 100 | Solid | |
| | 250 | Perf | |
| | 250 | Solid | |
| | 300 | Perf | |
| | 300 | Solid | |
| | 5600 5600 | Perf * Sand * | |
| 4.11 | 10 | Perf w/Bell 10/bundle | |
| 4" | 10 | Solid w/Bell 10/bundle | |
| | 10 | Leach w/Bell 10/bundle | |
| | 10 | MI Leach w/Stripe & Bell 10/bundle | |
| | 100 | Perf | |
| | 100 | Solid | |
| | 100 | Leach | |
| | 150 | Perf | |
| | 150 | Solid | |
| | 250 | Yellow Solid | |
| | 250 | Co-Ex 416 | |
| | 250 | Co-Ex 418 | |
| | 250 | Co-Ex Sand | |
| | 250 | Co-Ex Solid | |
| | 250 | Co-Ex Staggered | |
| | 250 | Perf | |
| | 250 | Sand | |
| | 250 | Solid | |
| | 250 | | |
| | 3250 3250 | Co-Ex 416 * | |
| | | Co-Ex 418 * Extra Heavy Co-Ex 418* | |
| | 3250 3250 | Co-Ex Sand * | |
| | 3250 | Extra Heavy Co-Ex Sand* | |
| | 3250 | Co-Ex Staggered * | |
| | 3250 | Extra Heavy Co-Ex Staggered* | |
| | 3250 | Staggered * | N |
| | 3250 | Extra Heavy Staggered * | |
| | 3250 | Sand * | |
| | 3250 | Extra Heavy Sand* | |
| | 3250 | Solid * | |
| | 3250 | Leach* | |



| 6" x 100' Sock | | 4" x 100' Solid | | 4" x 250' Sock |

| 6" X 100 | SOCK | 4" x 100' Solid | 4" x 250' Sock |
|----------|---|--|----------------|
| Size | Length (f |) Description | Stock |
| 5" | 150 150 2150 2150 2150 2150 2150 2150 | Perf Solid Leach Perf * Extra Heavy Perf* Sand * Solid * Leach* | Ν |
| 6" | 20 20 100 100 1600 1600 1600 1600 1600 1 | Perf Solid Perf Solid Leach Perf * Sand * Co-Ex Staggered * Extra Heavy Perf* Solid * Leach* | Ν |
| 8" | 20 20 620 620 875 875 875 | Perf Solid Perf * Sand * Solid * Perf * Sand * Solid * | |
| 10" | 20 20 580 580 580 | Perf Solid Perf * Sand * Solid * | |
| 12" | 20 20 24 330 330 330 | Perf Solid Solid Perf * Sand * Solid * | |
| 15" | 20 20 24 | Perf Solid Solid | |
| 18" | 20 20 20 | Perf Solid Solid (only) | Ν |
| 24" | | | |
| | * requires s | pecialized handling equipme | ent |

Smooth Flow Pipe

Smooth Flow pipe is a corrugated polyethylene pipe with a smooth interior. This combination provides a light weight, durable product for storm sewers, culverts, and many other applications where high strength and maximum flow are essential. Haviland Smooth Flow pipe is available with plain ends from 8" to 30" and with belled ends from 4" to 60". Smooth Flow pipe conforms to AASHTO M-252 and AASHTO M-294 specifications. An installation guide is available specifically for Smooth Flow pipe on our website. As shown below, 4" and 6" pipe can be ordered in pallets.



| 6" x 20' SF Solid |



| 8" x 20' SF Solid w/Bell |





| Size | Length (ft) | Description | Stock |
|------|--|--|-------|
| 4" | 20 20 20 20 20 | SF Perf w/ Bell SF Sock w/ Bell SF Solid w/ Bell SF Solid w/ Bell F-477 | |
| 6" | 20 20 | WT SF Perf w/ Bell | |
| Ū | 20 20 20 20 | SF Sock w/ Bell SF Solid w/ Bell SF Solid w/ Bell F-477 WT | Ν |
| 8" | 20 20 20 20 20 20 20 20 20 20 | SF Perf SF Perf w/ Bell SF Sock SF Sock w/ Bell SF Solid SF Solid w/ Bell SF Solid w/ Bell F-477 WT | Ν |
| 10" | 20 20 20 20 20 20 20 20 20 20 | SF Perf SF Perf w/ Bell SF Sock SF Sock w/ Bell SF Solid SF Solid w/ Bell SF Solid w/ Bell F-477 WT | N |
| 12" | 10 10 20 20 20 20 20 20 20 20 20 24 30 20 | SF Perf w/ Bell SF Sock w/ Bell SF Solid w/ Bell F-477 SF Perf SF Perf w/ Bell SF Sock SF Sock w/ Bell SF Solid SF Solid w/ Bell F-477 SF Solid SF Solid WT | Ν |
| 15" | 9.5 9.5 20 20 20 20 20 20 20 20 24 30 20 | SF Solid w/ Bell F-477 SF Perf w/ Bell SF Sock w/ Bell SF Perf SF Perf w/ Bell SF Sock SF Sock w/ Bell SF Solid SF Solid w/ Bell F-477 SF Solid SF Solid WT | Ν |



| Size | Length (ft) | Description | Stock |
|------|--|--|-------------|
| 18" | 10 10 20 20 20 20 20 20 20 24 30 20 | SF Solld w/ Bell F-477 SF Perf w/ Bell SF Sock w/ Bell SF Perf SF Perf w/ Bell SF Sock SF Sock w/ Bell SF Solid SF Solid w/ Bell F-477 SF Solid SF Solid WT | Ν |
| 24" | 9.25 9.25 20 20 20 20 20 20 24 30 20 | SF Perf w/ Bell SF Sock w/ Bell SF Solid w/ Bell F-477 SF Perf SF Solid SF Perf w/ Bell SF Sock w/ Bell SF Solid w/ Bell F-477 SF Solid SF Solid VT | N |
| 30" | 13.5 13.5 20 20 20 20 20 20 | SF Perf w/ Bell SF Solid w/ Bell F-477 SF Perf SF Perf w/ Bell SF Solid SF Solid w/ Bell F-477 WT | N |
| 36" | 13 13 20 20 20 | SF Solid w/ Bell F-477 SF Perf w/ Bell SF Perf w/ Bell SF Solid w/ Bell F-477 WT | N |
| 42" | 13 13 20 20 20 | SF Perf w/ Bell SF Solid w/ Bell F-477 SF Perf w/ Bell SF Solid w/ Bell F-477 WT | N N N |
| 48" | 14.5 14.5 20 20 20 | SF Perf w/ Bell SF Solid w/ Bell F-477 SF Perf w/ Bell SF Solid w/ Bell F-477 WT | N N N |
| 60" | 14.5 20 20 | SF Solid w∄ Bell F-477 SF Solid w/ Bell F-477 WT | Ν |

