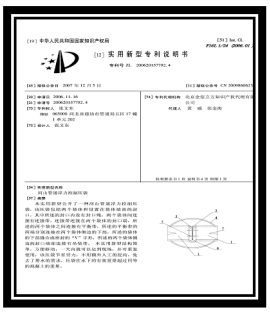
Geotextile Pipeline Weights





PRODUCT BRIEF

Geotextile Pipeline Weights is a patented system of weighting pipelines with high density aggregate gravel filled permeable geotextile sacks that are designed to either set-on or strap-on and straddle the pipeline in order to achieve buoyancy control. They consist of two lobes with multiple chambers, lying on opposite sides of the pipeline, which are secured by connector straps that fit tightly over the saddle of the pipeline. They can be applied on all type of conduits. *Geotextile Weights* provides an effective, economical and environment friendly solution to your pipelines weighting requirements.

SCOPE OF APPLICATION

In geographical areas having little or no foundational support, for instance, rivers, lakes, foreshore, swamps, marshes and areas having high water tables, installed pipelines are weighted down with ballast of some kind including concrete weights, concrete coating and clamp-on weights in order to achieve negative-buoyancy of pipelines. But such emplacements are often subject to hydrostatic and hydrodynamic forces which can manifest in the displacement of pipeline from its original position, thus rupturing the outer coated surface of the pipeline and leading to adverse catastrophic failure and financial repercussions.

Geotextile Pipeline Weights

SCOPE OF APPLICATION

Geotextile Pipeline Weights resolves or atleast reduces the impact of all such problems set-out above, thus being an excellent replacement of all traditional pipeline weighting systems. They can more effectively achieve negative-buoyancy of pipelines, and at the same time, be cost-effective by reducing the high costs associated with traditional weighting systems. Furthermore, *Geotextile Pipeline Weights* being soft and abrasion-resistant avoids corrosion and prevents damage to the outer coated surface of the pipeline during installation and also during shifting of pipeline due to hydrostatic and other adverse conditions.

MATERIAL SPECIFICATION

Geotextile Pipeline Weights are manufactured from Woven Non-Coated Geo-textile Polypropylene Fabric that exhibits a combination of outstanding physical, chemical, mechanical, thermal and electrical properties not found in any other thermoplastic making it suitable for application in weighting pipelines:

- Non-Biodegradable and Extremely tough suitable for buried application
- Excellent Heat resistance and low moisture absorption
- High Permeability of fabric ensures cathodic protection
- UV Treatment of fabric ensures UV resistance
- Most stable polymer having a pH range of 2-13
- Excellent Di-electric properties making it resistant from electrolytic attack
- High Tensile Strength, High Comprehensive Strength and Impact Resistant
- Retains Stiffness and Flexibility and resists stress cracking
- Excellent resistance to organic solvents, degreasing agents, most alkalis and acids

Geotextile Pipeline Weights

COMPARATIVE ADVANTAGES

Geotextile Pipeline Weights offers many economic, safety and environmental advantages relative to traditional forms of buoyancy control systems.

A. FAST AND EASY INSTALLATION

1. *Geotextile Weights* can be fabricated and delivered to the site within days.
2. Installation of *Geotextile Weights* is simple. It involves:
    i) Filling the *Weights* with gravel from a local source.
    ii) Distributing the *Weights* along the Right of Way.
    iii) Lowering the *Weights* over the pipeline, and back-fill.
3. Construction period is shortened.

B. ECONOMICAL WEIGHTING SYSTEM

1. *Geotextile Weights* can be filled with gravel from a local source which saves handling and transportation costs.
2. *Geotextile Weights* do not require any heavy-duty equipment for hoisting, so equipment cost is saved.
3. The "effective weight" of *Geotextile Weights* under water often exceeds that of equivalent concrete weights or cement press products due to less water being displaced. Hence, less weighting is required, so the procurement cost is cut down.
4. Leftover, *Geotextile Weights* can be folded up and put on a shelf until next project.

C. SAFETY AND ENVIRONMENT FRIENDLY

1. *Geotextile Weights* are made of polypropylene fabric, with features such as corrosion-resistant, anti-acid, non-pollutant to water quality, which is a kind of reinforced material with high durability.
2. *Geotextile Weights* made from non-biodegradable polypropylene fabric is filled with local gravel, so it is as permeable as the ballast used to fill it, allowing groundwater and cathodic protection an easy path.
3. *Geotextile Weights* are soft buoyancy control, allowing the pipeline the ability to move slightly while still maintaining negative buoyancy and coating protection.
4. *Geotextile Weights* do not require extra trench depth. They also require less trench dewatering.
5. *Geotextile Weights* do not require men to place them in trench avoiding potential safety concern.
6. Due to the "effective weight" of *Geotextile Weights,* weight tilting problem is avoided.

Geotextile Pipeline Weights

Dimensions & Specifications

Carrier Pipe Size		Wall Thickness		Pipeline Weight		Filled Weight		Spacing Estimate	
Inches	mm	Inches	mm	lbs/ft	kg/m	lbs	Kg	Feet	Meter
4	102	.125	3.2	5.84	8.69	220	100	8.5	2.6
		.188	4.8	8.66	12.89			11.1	3.4
6	152	.188	4.8	12.92	19.23	440	200	14.1	4.3
		.250	6.4	17.02	25.33			19.4	6.0
8	203	.188	4.8	16.94	25.21	660	300	13.6	4.1
		.219	5.6	19.66	29.26			15.4	4.7
		.312	7.9	27.70	41.22			25.2	7.7
10	254	.279	7.1	31.20	46.43	1100	500	20.4	6.2
		.312	7.9	34.78	51.76			23.7	7.3
12	305	.219	5.6	29.31	43.62	1600	726	18.1	5.5
		.312	7.9	41.45	61.68			27.0	8.3
		.375	9.5	49.56	73.75			40.2	12.3
16	406	.281	7.1	47.17	70.20	2500	1134	18.3	5.6
		.344	8.7	57.52	85.60			22.4	6.8
		.406	10.3	67.62	100.63			28.5	8.7
18	457	.375	9.5	70.59	105.05	2500	1134	17.0	5.2
		.406	10.3	76.29	113.53			18.8	5.7
20	508	.375	9.5	78.60	116.97	5000	2268	24.8	7.6
		.406	10.3	84.96	126.43			26.8	8.2
		.500	12.7	104.13	154.96			35.6	10.9
24	610	.375	9.5	94.62	140.81	5000	2268	14.9	4.6
		.406	10.3	102.31	152.25			15.8	4.8
		.500	12.7	125.49	186.75			19.2	5.8

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Dimensions & Specifications

Carrier Pipe Size		Wall Thickness		Pipeline Weight		Filled Weight		Spacing Estimate	
Inches	mm	Inches	mm	lbs/ft	kg/m	lbs	Kg	Feet	Meter
26	660	.375	9.5	102.63	152.73	5000	2268	12.1	3.7
		.406	10.3	110.98	165.16			12.7	3.9
		.500	12.7	136.17	202.64			15.0	4.6
28	711	.375	9.5	110.64	164.65	7000	3175	14.0	4.3
		.406	10.3	119.65	178.06			14.6	4.5
		.500	12.7	146.85	218.54			17.0	5.2
30	762	.375	9.5	118.65	176.57	7000	3175	11.8	3.6
		.406	10.3	128.32	190.96			12.3	3.7
		.500	12.7	157.53	234.43			14.0	4.3
34	864	.375	9.5	134.67	200.41	7000	3175	8.7	2.7
		.406	10.3	145.67	216.78			9.0	2.7
		.500	12.7	178.89	266.22			10.0	3.1
36	914	.406	10.3	154.34	229.68	9000	4082	10.1	3.1
		.500	12.7	189.57	282.11			11.1	3.4
		.625	15.9	236.13	351.40			12.9	3.9
42	1067	.406	10.3	180.35	268.39	14000	6350	10.9	3.3
		.500	12.7	221.61	329.79			11.8	3.6
		.625	15.9	276.18	411.00			13.2	4.0
48	1219	.406	10.3	206.37	307.11	14000	6350	8.0	2.4
		.500	12.7	253.65	377.47			8.5	2.6
		.625	15.9	316.23	470.60			9.4	2.9
56	1422	.406	10.3	241.06	358.74	14000	6350	5.6	1.7
		.500	12.7	296.37	441.05			6.0	1.8
		.625	15.9	369.63	550.07			6.4	2.0