

INFRASTRUCTURE SYSTEM



OUR VISION

To become a world brand by researching, developing and producing new Technologies that will form distinctions in transfer of the fluids

OUR MISSION

In order to transfer the fluids with the most optimal method; to achieve becoming a reliable and productive company by developing projects, products and systems peculiar to the problem with the accurate technology.



SELLING ITS PRODUCTS OVER 80 COUNTRIES



 **Sodinco**

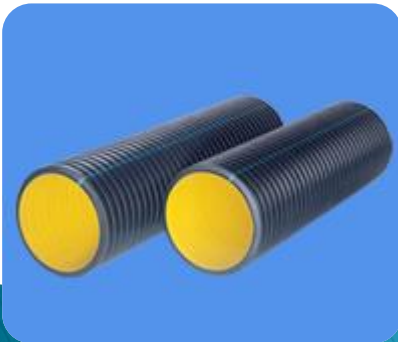
Soluciones y Distribuciones para
la Industria y la Construcción

**HDPE 100 Potable
Network Systems**

**Sewage Discharge
Systems**

**HDPE 80 Natural
Gas Systems**

INFRASTRUCTURE PRODUCTS



**Spiral Self
Systems**

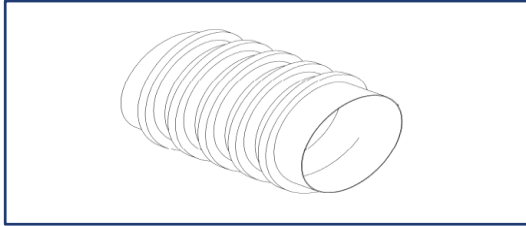


SEWAGE DISCHARGE SYSTEMS

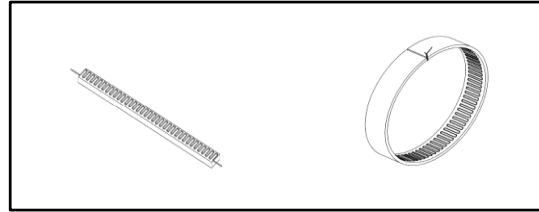
Advantages

- Perfect leak proof
- Flexibility
- High durability
- Strength against abrasion
- Resistance to chemicals
- Different welding techniques
- Resistance to earthquakes
- Long service life
- Resistance to decaying
- Mobile production

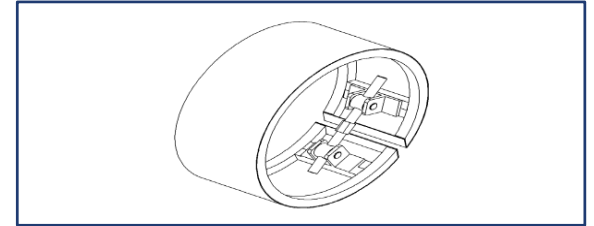




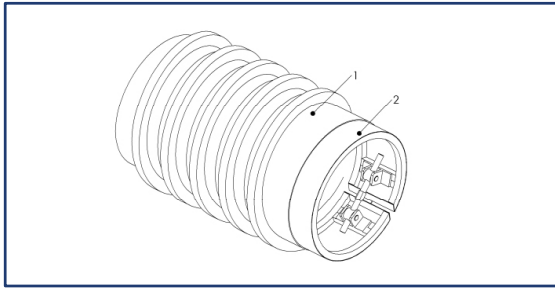
New technology spiral pipe



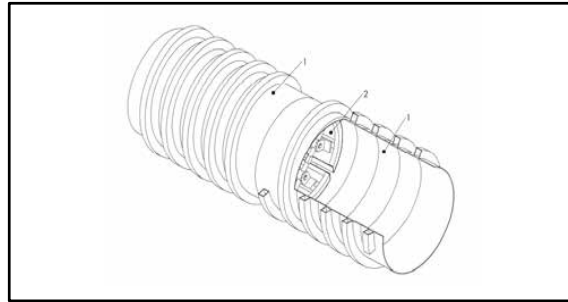
New technology electro fusion muff



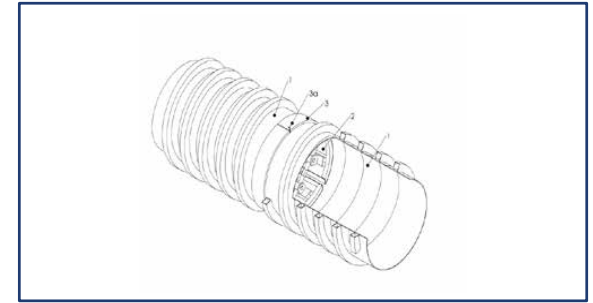
: Internal Stay Apparatus



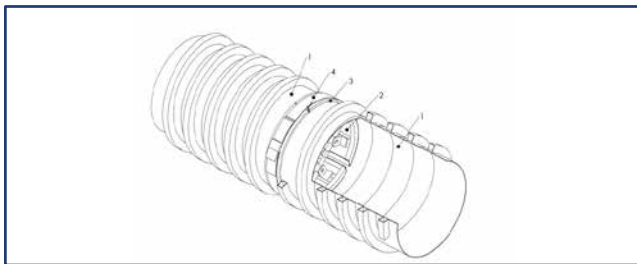
Installation of the Internal Stay Apparatus



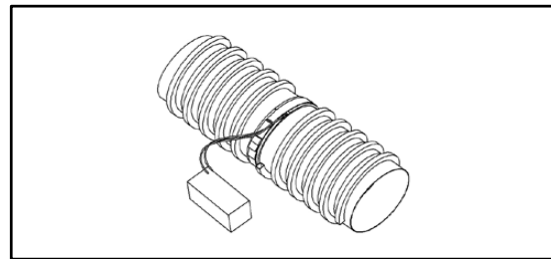
Internal Stay and assembly of pipes



: Placing the electro fusion muff on the pipe



Using the external stay apparatus



Performing EF welding



SPIRAL SELF PIPES

Raw Material : HDPE 100

Production Color : Black

Production Range : 500 mm – 3000 mm

Pressure Range : SR2 – SR32

1,5 Bar – Gravitational Flow

Unit Lengths : 6 or 12 meters Bar (Customized Length may also be produced)

Production Standard : EN 13476 -1, DIN 16961

Certificates : TSE, Ghost ASTM F894-13



Advantages of Mobile Production

- ▶ Logistics Advantages
- ▶ Competative Unit Prices
- ▶ Dead Line
- ▶ Application Advantages

SAMPLE PROJECT:

1 000 mm 6 km SR 16

1 200 mm 6 km SR 16

1 400 mm 6 km SR 16



LOGISTICS ADVANTAGES

MOBILE PRODUCTION RAW MATERIAL TRANSPORT		PIPE IN PIPE CALCULATION PIPE TRANSPORT	
TOTAL WEIGHT	1135104	TOTAL WEIGHT	1135104
TRUCK LOADING CAPACITY - kg	20000	TRUCK LOADING CAPACITY - meter	12
TRUCK QUANTITY	56,7552	TRUCK QUANTITY	263,5833333
MACHINE TRANSPORT TRANSPORT COST PER TRUCK	15.000,00 \$ 2.500,00 \$	TRANSPORT COST PER TRUCK	2.500,00 \$
TOTAL	156.888,00 \$	TOTAL	658.958,33 \$



COMPETATIVE UNIT PRICES

MOBILE PRODUCTION RAW MATERIAL TRANSPORT

TOTAL EXWORKS ÇORLU	2240760
TRANSPORT OF RAW MATERIAL	156.888,00 \$
TOTAL	2.397.648,00 \$

PIPE IN PIPE CALCULATION PIPE TRANSPORT

TOTAL EXWORKS ÇORLU	2240760
TRANSPORT OF PIPES	658.958,33 \$
TOTAL	2.899.718,33 \$

DIFFERENCES \$ **502.070,33 \$**

DIFFERENCES % **20,94**



DEADLINE ADVANTAGES

- ▶ Mobile Production can be ready to ship in 1 week.
- ▶ The Production will be completed on Application Side so the goods can be applied just in time.
- ▶ The Pipe length does not have to be standard 6 meter.



APPLICATION ADVANTAGES

- ▶ Electrofusion makes more strong welding on applied points so any leakage is possible on welding points.
- ▶ The pipe length can be produced more then 6 meter so the quantity of welding points will be reduced.
- ▶ The application time will be reduced because of long pipe length.



MOBILE PRODUCTION CONDITIONS

- ▶ **EXPECTATIONS FROM LOCAL PARTNER**

 - 500 m² closed area

 - 630 kWA trafo and electricity connections

 - Water connections

 - Customs clearance for raw material (definitive import)

 - Customs clearance for machine (temporary import)

 - Hotel, flight cost for 4 production supervisors

 - Local workers which will be worked on production side

 - Local Trade Rules and Office Tax



MOBILE PRODUCTION CONDITIONS

▶ RESPONSIBILITIES

Management of Production Area

The start up the Production

Transport of Raw Material and

Machines

Technical Approval of Produced Pipe

Internal Management of Stock



Production Area Sinop – Erfelek



Production Area Sinop – Erfelek



Production Area Sinop – Erfelek



The pipes are joined by means of a specially developed EF welding system. This special joining method guarantees a reliable weld and 100% tightness.



MOBILE PRODUCTION TECHNOLOGY



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MOBILE PRODUCTION TECHNOLOGY




Some of Successful Projects Achieved by Dizayn Group

ERFELEK, SINOP MOBILE PRODUCTION PROJECT

Sinop Erfelek HEPP Project
Sinop Erfelek Hes Projesi

Turkey
Türkiye



Project Owner: Birim Hydroelectric
Proje Sahibi: Birim Hidroelektrik

Product Ürün	HDPE CORRUGATED SPIRAL PIPE (SR4) HDPE SPIRAL SARIMLI BORU (SR4)	Diameters: Çap	Ø1600 mm	Total Quantity: Toplam Miktar	7.400 M	Year: Yıl	2009
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Canakkale Biga Sewage System
Canakkale Biga Kanalizasyon Projesi

Turkey
Türkiye

Project Owner: Gintek Construction
Proje Sahibi: Gintek İnşaat

Product Ürün	HDPE CORRUGATED SPIRAL PIPE (SR8) HDPE SPIRAL SARIMLI BORU (SR8)	Diameters: Çap	Ø1000 mm	Total Quantity: Toplam Miktar	1.885 M	Year: Yıl	2009
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Thanks to this newly-developed technology, the manufacturing yard is erected on the territory of the power plant and the resulting on-site manufacturing process clears the transport costs. Under this technology, when water supply lines are designed with plastic pipes, competitive costs can be produced compared



Production Area Sinop – Erfelek



Stock in Mobile Production



Application Erfelek – Sinop



Application Erfelek – Sinop



Application Erfelek – Sinop



Application Erfelek – Sinop



Some of Successful Projects Achieved by

RIZE CAYELI UZUNDERE HEPP PROJECT

Rize Cayeli Uzundere HEPP Project
Rize Cayeli Uzundere Hes Projesi

Turkey
Türkiye



Project Owner: Black Sea Electricity Generation Co. Inc.
Rize Sanayi Karadeniz Elektrik Üretim A.Ş.

Product Ürün	HDPE CORRUGATED SPIRAL PIPE HDPE SİRALI SAKRIMLI BORU	Diameters Çap	Ø1 200 - Ø2000 mm	Total Quantity Toplam Miktar	1.300 M	Year Yıl	2009
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Some of Successful Projects Achieved

EUROPEAN FREE-ZONE NETWORK PROJECT

European Freezone Network Project Corlu
Aynaga Serbest Bölgesi Alt Yapı Projesi Corlu

Turkey
Türkiye



Project Owner: Sahinler Holding
Sahinler Holding

Product: HDPE CORRUGATED PIPE AND FITTINGS
HDPE KÖRGE BORU VE EKİPARJALARI

Diameters: $\varnothing 200 - \varnothing 2200$ mm

Total Quantity: 6.000 M

Year: 1999

COMPARATION BETWEEN OTHER RAW MATERIALS

FEATURES	PIPE TYPE	DIZAYN PE	PVC	STEEL	DUCTILE FONT	CONCRETE	GRP	ASBESTOS	EXPLANATION
Production range (mm)		Ø20 - Ø3600	Ø20 - Ø630	Ø15 - Ø4000	Ø50 - Ø2000	Ø200 - Ø3200	Ø20 - Ø1600	Ø... - Ø1600	
Guaranteed service life (year)		50	0-20	3-15	5-25	0-30	0-50	0-30	For the pipes other than PE 100 pipes, the service life depends on many parameters like quality of the raw material of the pipe, bedding in the trench, etc.
Feature of breaking		Very Durable	Weak	Durable	Durable	Very Weak	Partially Durable	Very Weak	
Max. Production length		500	6	12	6	4	6-12	4	
Standard production length (m)		12	6	6	6	2	6	2	
Strength against corrosion and abrasion		Very Durable	Partially Durable	Very Weak	Very Weak	Partially Durable	Durable	Weak	This evaluation depends on the nature and type of the chemical like SO ₂ , Na ₂ , Chlorine
The easiness of producing fittings		Very easy	Very easy	Difficult	Very Difficult	Very Difficult	Very Difficult	Very Difficult	
The easiness of the installation (The easiest: 100 The most difficult: 0)		100	50	25	40	15	45	5	
Superiority from the side of hygiene		Perfect	Doubtful	Doubtful	Doubtful	Doubtful	Good	Troubles	
Surface roughness coefficient (C)		149	149	120	130	100	145	130	Depend on the quality of the production and raw material.
Variety of fittings and their price		Perfect-Cheap	Perfect-Cheap	Limited-expensive	Limited-Very expensive	Limited-expensive	Limited-expensive	Limited-expensive	
Strength against chemicals		Perfect	Doubtful	Troubles	Doubtful	Doubtful	Good	Doubtful	
Surface elasticity coefficient (C)		377	33	0,5	1	4,4	>3	-0,5	
Ability for passifying the ram impact		Perfect	Troubles	Troubles	Troubles	Troubles	Troubles	Troubles	
The easiness of making pressure test at site		Perfect	Troubles	Troubles	Troubles	Troubles	Troubles	Troubles	Since the connection of the pipes other than steel and PE pipes is done using o-ring, it is very difficult to have perfect leak proof. It is necessary to take additional precautions for absolute leak proof.
Need of bends at turn points		Very little	Very much	Very much	Very much	Very much	Very much	Very much	For PE 100 pipes it is possible to make even full round shape with a diameter 25 times of the pipe outer diameter.
Max. instant test pressure (for PN 10)		>28 bar	>16 bar	>40 bar	>40bar	>13bar	>18 bar	>13 bar	
The safety of 1 connection points (max.:100-min.:0)		100	0-50	0-80	0-80	0-30	0-70	0-40	The connections with o-ring always create problems. For PE pipes, since the connection is done by welding, the molecular fusion makes.
Ability for passifying the ram impact		Perfect	Doubtful	Troubles	Doubtful	Troubles	Doubtful	Troubles	
Needed trench width (as %pipe diameter)		approx.%5-10 wider than the	approx.% 100 wider than the	approx.%200 wider than the	approx.% 110 wider than the	approx.%200 wider than the	approx.%200 wider than the	approx.%200 wider than the	These figures are for pipes with average 400 mm diameter.

Thank you

