

# APEX

## GROUP OF COMPANIES



**APEX EMIRATES  
GENERAL TRADING CO LLC**



**APEX INT'L CONST. &  
LAND DEWATERING LLC**

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# APEX GROUP OF COMPANIES

## INTRODUCTION



With vision to provide full support to various professional engineering services, started trading in 1993 based on stockiest & Distributorship of products which can cater to piling / foundation contractors for their operations. Today, in 2017 we have an ever-growing specialized product range of all kind of pumps, engines, piling/anchoring equipment and accessories. We have been successful in offering the latest technology based equipment & accessories for piling / Anchoring / dewatering fields. Supply of Engineering equipments / goods Hydraulic Jacks 3T to 5000T, Power Packs, Piston Pumps, Submersible Pumps and Dewatering accessories of all kind. Diesel Engines, Pre-stressing / Anchoring equipments & tools, Heavy duty chain links, piling accessories, anchoring accessories of all kinds. Dewatering contracts, well point system and deep well system. Tie-back Anchoring contracts, pile load test, anchor stressing & rebar coupler works.

Realizing the opportunities around us, made a strategic decision to expand our network of services out of traditional boundaries into booming market of neighboring countries in Middle East. We feel proud to say today that we offer best services including technical know how for any project of dewatering, anchoring and supply of any equipment/accessories for piling/anchoring field.

We are dedicated to offer best quality products and services to our valued clients and assure you our full support to serve you in different expended fields in coming years.



# INTERNATIONAL ICON OF PHILANTHROPY

## Prof. (Dr.) Surinder Pal Singh Oberoi

Grand Ph.D.

Dr. Surinder Pal Singh Oberoi, the first Indian, that too Punjabi, is an International Icon in the field of Philanthropy & Social Services. He is deeply dedicated to serve the weaker & socially underprivileged sections of society living in rural & remote areas, in particular, through their social, cultural, educational and economic upliftment. He has vowed to serve the humanity irrespective of Cast, Color and Creed (SARBAT DA BHALA) financed from his personal resources only, with no donation (in any shape) from anyone.

- He has been conferred with World's first Honorary, Causa Grand Ph.D. Degree in Philanthropy by International University of Fundamental Studies (IUFS).
- He is the First Indian elevated as Consul General of Seborga (an European Country) in India.
- Hony. Professor Degree is awarded to Dr. S.P. Singh Oberoi by Prof. Marcel Valentin, Vice Rector of IUFS Moscow Russian Federation.
- In recognition of his relentless global humanitarian works, activities and campaigns, the Grand
- Prix Humanitarian Association France has honoured First Turban Sikh Dr. S.P. Singh Oberoi with a Gold Medal for his outstanding work in the field of philanthropy.

### **Apart form these academic degress, he has been nominated**

- Member of Senate of Punjabi University Patiala.
- Member of Senate of Baba Farid University of Health Sciences Faridkot,
- Member of advisory Committee Punjab University Chandigarh.
- Selected as a member of Ararat International Academy of Science, (AIAS) International University of fundamental studies in UNO Geneva.

### **Dr. S.P. Singh Oberoi has been honoured by more than 700 national & international social and educational institutions. A few of prestigious awards are mentioned below :**

- Sikh of the Year Award 2013 by International Sikh Forum at House of Lord, London.
- Sharjah Police General Directorate, Correctional & Punishment Organisation (under Ministry of Interior), honoured thrice during December 2010, April 2011 & November 2011.
- State Award 2011 by Chief Minister Punjab.
- Honoured in World Scientific Congress, Geneva in UNO

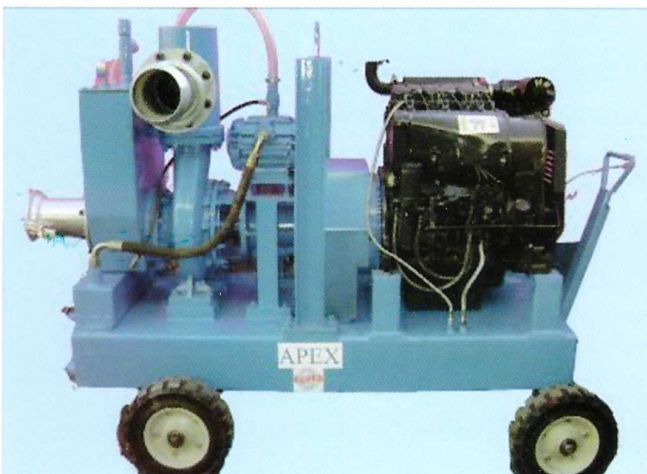
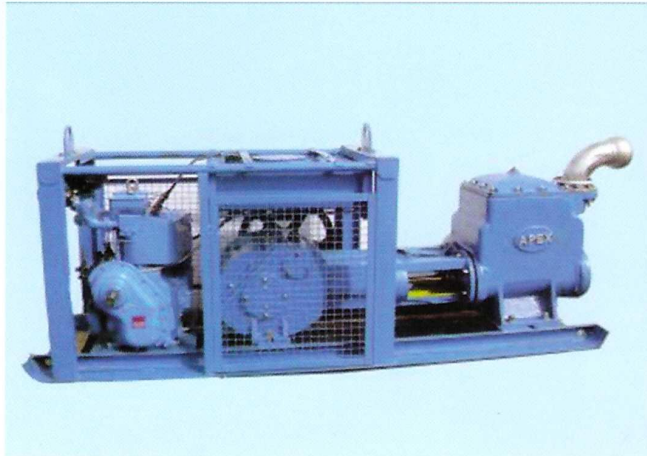




# **APEX EMIRATES GENERAL TRADING CO.L.L.C.**

## **GENERAL TRADING DIVISION**

- **HYDRAULICS EQUIPMENT SECTION**
  - **DEWATERING EQUIPMENT SECTION**
    - **ANCHORING/PRESTRESSING/PILING ACCS.**
    - **REBAR COUPLERS SECTION**





# HYDRAULIC EQUIPMENTS AND ACCESSORIES

We are stockist and dealers of hydraulic jacks and cylinder capacity from 3 ton up to 5000 ton capacity. We do develop CUSTOM made jacks/cylinders. The range of pumps includes hand pumps and electric power packs for double acting and single acting cylinders/jacks.



## SINGLE & DOUBLE ACTING JACKS LOAD RETURN (APEX JACKS)

Sr.	Capacity Ton	Stroke mm	Outer Dia mm	Piston Dia mm	Bore Dia mm	Closed Height mm	Weight Kgs.	Working Pressure Bar
1	500	150	450	290	300	410	506	700
2	1000	150	620	410	420	460	1082	700
3	1500	150	775	520	530	680	2508	700
4	2000	150	900	590	600	795	3960	700

**\*\* Tilting Saddle provided on all jacks to avoid the eccentric load.**



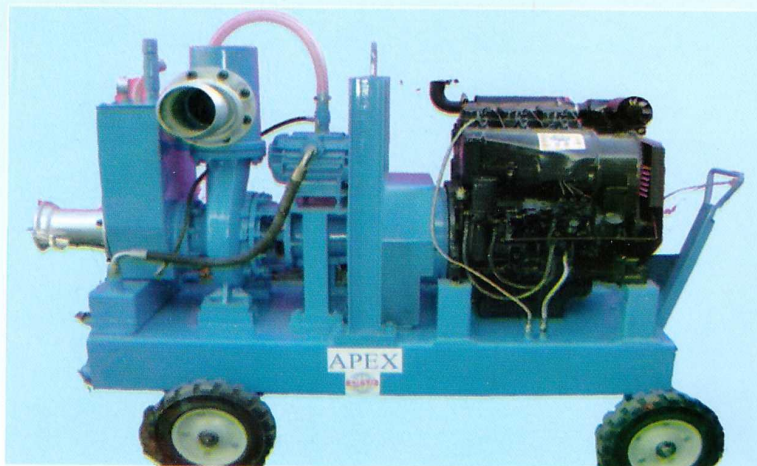
## ELECTRIC POWER PACK MODELS

Sr	Valve Action	Motor size	Pressure rating Bar	Output Flow Rate L/Min.	Model Number
	Lift Hold - Retrace	HP - Kw	I Stage -II stage	I stage - II stage	
1	* * *	7.5 - 5.5	100 - 700	11.7 - 3.7	APP1x4
2	* * *	5.0 - 3.7	100 - 700	----- - 2.6	APP1x2



# DEWATERING EQUIPMENT SECTION

## Apex Centrifugal Dewatering Pump



### SPECIFICATION AND PERFORMANCE

AIR COOLED DEUTZ/KIRLOSKAR THREE-CYLINDER DIESEL ENGINE, 34 HP, 2000 RPM, WITH FUEL TANK CAPACITY OF 200 LTR. Vacuum pump for automatic PRIMING & REPRIMING at 70 CFM. Carbon ceramic special mechanical seal for long life when used for sandy seawater.

#### Main Components

Volute	SG/Cast Iron/316 SS
PN16	
Impeller	Bronze
PN16	
Shaft	316 SS

#### Suction & Discharge

Suction Flange: 150 mm

Discharge Flange: 150 mm

Quick acting coupling optional

#### Pump Performance

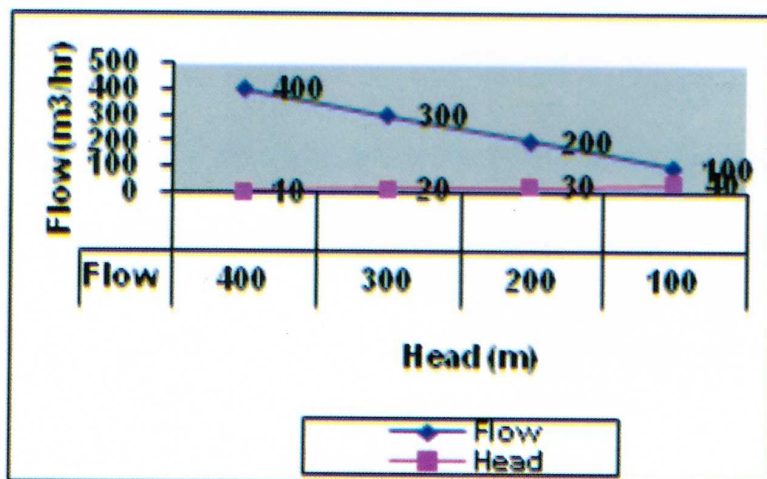
Max. Head	50 m
Max. Flow	400 m <sup>3</sup> /Hour
Max. Solid	50 mm
Suction Head	9 mtr.

#### Chasis

4 wheel site trailer.

#### Weight

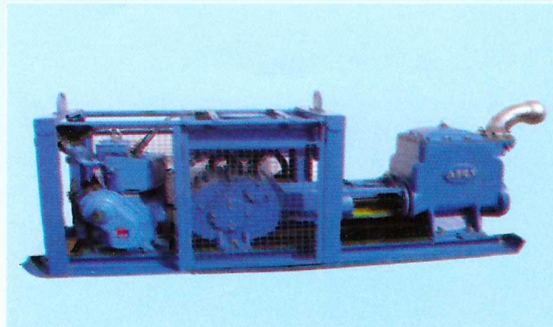
1072 Kgs.





# APEX PISTON PUMPS

## A.OPEN TYPE PUMP



## B.CANOPY TYPE PUMP



## SPECIFICATION AND PERFORMANCE

AIR COOLED ZEN TWO-CYLINDER DIESEL ENGINE, 15 HP, 1800 RPM, WITH FUEL TANK CAPACITY OF 100 LTR.

### Main Components

Liner 316 SS  
Piston Collar Leather  
Shaft 316 SS

### Pump Performance

Max. Head 50 m  
Max. Flow 300 m<sup>3</sup>/Hour  
Max. Solid 50 mm  
Suction Head 7 mtr.

### Suction & Discharge

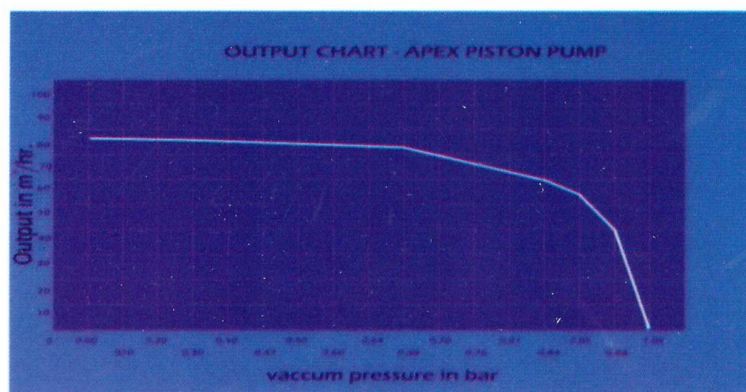
Suction Flange: 150 mm PN16  
Discharge Flange: 150 mm PN16  
Quick acting coupling optional

### Chasis

Skid Mounted.

### Weight

1175 Kgs.



**\*\* SPECIALLY DESIGNED PISTON PUMPS WITH CANOPY FOR SOUNDPROOF OPERATION**



# SUBMERRSIBLE TYPE PUMPS

We are the Stockiest for the Single Stage & Multistage Submersible Pumps available in 3" & 6" Head Dia.



## SPECIFICATION & PERFORMANCE

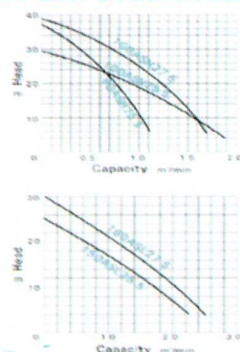


## AS Type CONSTRUCTION DRAINAGE PUMPS

### ■ FEATURES

- Specifically designed for civil engineering applications for heavy duty, light weight, top outlet required
- Double outer casing and water cooled motor design extremely appropriate for low water level and extended operation applications
- Special designed high efficient and wear resistant HCR (High Chrome) impeller
- Multi-impeller design suitable from high head with small capacity to low head with large capacity of application requirement (H high, N normal, L large)
- Complete stainless steel outer cover of AS5.5-7.5kW exceptional consolidation design - weight less than 80kg of light weight structure and diameter 286mm of miniature outlook
- Optional discharge connection (hose flange and thread connection)

### ■ PERFORMANCE CURVE



### ■ PERFORMANCE SPEC.

Hz	Model	Power HP(kW)	Discharge Inch(mm)	Phase $\phi$	Start Method	Head m	Capacity m³/min	Max Head m	Weight kg	Solid passage mm	Dimension(mm) Width x Height
50	80ASH25.5	7.5(5.5)	3"(80)	3	Direct	28	0.5	37	74	10	286 x 661
	100ASN25.5	7.5(5.5)	4"(100)	3	Direct	19	1.0	29	76	10	286 x 661
	100ASN27.5	10(7.5)	4"(100)	3	Direct	25	1.0	39	78	10	286 x 661
	150ASL25.5	7.5(5.5)	6"(150)	3	Direct	12	1.5	25	78	10	286 x 723
	150ASL27.5	10(7.5)	6"(150)	3	Direct	16	1.5	30	80	10	286 x 723

### ■ APPLICATIONS

- Civil engineering - tunneling and ground works dewatering
- Dewatering of fluids contain solid sediments
- Easy of mobility for use by contractors - installers and service industries

### ■ MODEL CODE

100	AS	N	2	5.5
Discharge mm	PUMP type	Impeller type	Pole	kW

### ■ SPECIFICATION

Pumping liquid	Discharge mm	80	100 - 150
	Liquid temp.	0-40°C	
	Liquid nature	Sandy - Waste water	
	Max depth	30m	
Pump	Impeller	Open	Enclosed
	Mech. Seal	Double Mechanical seal	
	Structure	Bearing	
	Bearing	Ball type bearing	
	Out cover	SUS304	
	Upper cover	FC200	
	Casing	FC200	
	Impeller	HCR	
Motor	Wear ring	HCR	
	Mech. Seal	Sic/Sic	
	Type	Dry motor	
	Pole	2P	
	Insulation	F	
	Frequency - Phase	50Hz 3 $\phi$	
	Protector	Auto cut	
	Material	Frame	FC200
		Shaft	SUS420J2
		Cable	HVCT

• Optional cable H07RN-F

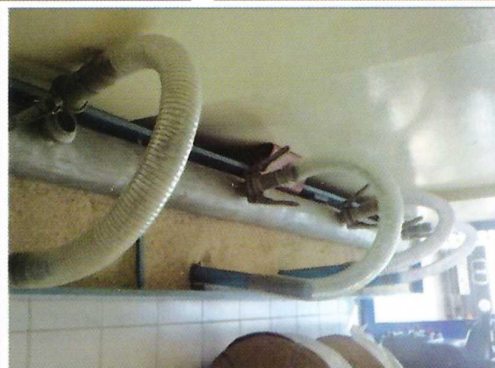


# DEWATERING ACCESSORIES

We do keep stock of complete dewatering accessories for "Miller Type" & "Bauer Type"  
Product range covers size from 3" to 8".

## Miller Type/Bauer Type

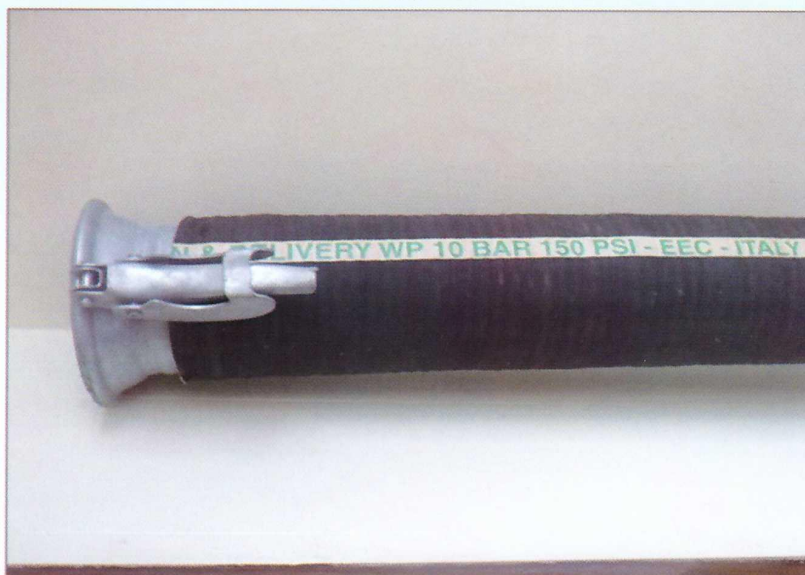
- 3" M+F Coupling set, Gal.
- 3" 90° Elbow, Gal
- 3" 45° Elbow, Gal
- 3" Y Joint, Gal
- 3" T- Joint, Gal
- 3" M+F End cap set
- 3" O-ring
- 4" M+F coupling set, Gal
- 4" 90° Elbow, Gal
- 4" 45° Elbow, Gal
- 4" Y- Joint, Gal
- 4" T Joint, Gal
- 4" M+F End cap set
- 4" O-ring
- 4" x 6m Discharge pipe w/o Mushrooms with end coupling, Gal, W.T. 2.2 mm
- 6" x 6m Header pipe with mushroom with end coupling, Gal, W.T. 2.2 mm
- 6" x 6 m Discharge pipe w/o mushroom with end coupling, Gal, W.T. 2.2 mm
- 6" M+F Coupling set, Gal.
- 6" 90° Elbow, Gal
- 6" 45° Elbow, Gal
- 6" Y Joint, Gal
- 6" T- Joint, Gal
- 6" M+F End cap set
- 6" O-ring
- 8" M+F coupling set, Gal
- 8" 90° Elbow, Gal
- 8" 45° Elbow, Gal
- 8" Y- Joint, Gal
- 8" T Joint, Gal
- 8" M+F End cap set
- 8" O-ring





# SUCTION AND DISCHARGE HOSES

## Suction hose in sizes 3", 4" & 6"



Sr.	Description	Size	Packing size	Origin
1	3" Suction hose W.P. 10 Bar	3"	40 m roll	Italy
2	4" Suction hose W.P. 10 Bar	4"	40 m roll	Italy
3	6" Suction hose W.P. 10 Bar	6"	30 m roll	Italy

## Discharge Hose (Heavy Duty)

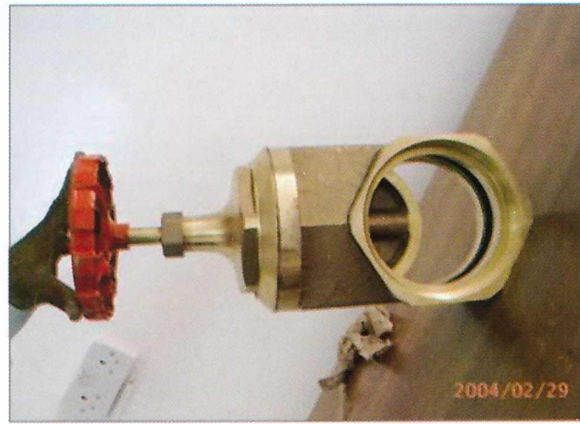


Sr.	Description	Weight	Packing size	Origin
1	3" Discharge hose W.P. 4 Bar	75 Kg	100 m roll	Greece
2	4" Discharge hose W.P. 4 Bar	95 Kg	100 m roll	Greece
3	6" Discharge hose W.P. 4 Bar	140 Kg	100 m roll	Greece
4	8" Discharge hose W.P. 4 Bar	220 Kg	100 m roll	Greece



## GENERAL OTHER ACCESSORIES FOR DEWATERING OPERATIONS

- 3" Brass non-return valves
- 3" King nipples
- 6" Brass Gate Valves
- 6" Pipe menders
- 8" Pipe menders
- 3" PVC connectors
- Waterproof electrical joints
- Waterproof cable 6mm 4 core full gauge
- Jubilee Clips 2", 3", 4", 6" and 8"
- Denso tape
- Strainer Gal.
- Swing hose 50 mm dia





# ANCHORING ACCESSORIES/PRESTRESSING/ PILING EQUIPMENTS

## Strand Anchors (Approved by Dubai Central Laboratory):

### General Information:

The anchors are structural elements, which are capable of transmitting stress to the ground by means of structures and anchoring devices.

These consist in a particular application of pre-stress in the field civil engineering and their most common applications can be found in the anchoring of face walls.

**P.C. Strand wire - ASTM A416/A416M-98 grade 270** with below specifications:

Nominal diameter <b>Mm</b>	<b>In</b>	Nominal steel area <b>mm<sup>2</sup></b>	Nominal weight <b>Kg/1000 m</b>	Min. breaking Load <b>KN</b>	Min. Yield
15.24	0.6	140.0	1102	260.7	234.6

### Chemical composition(%)

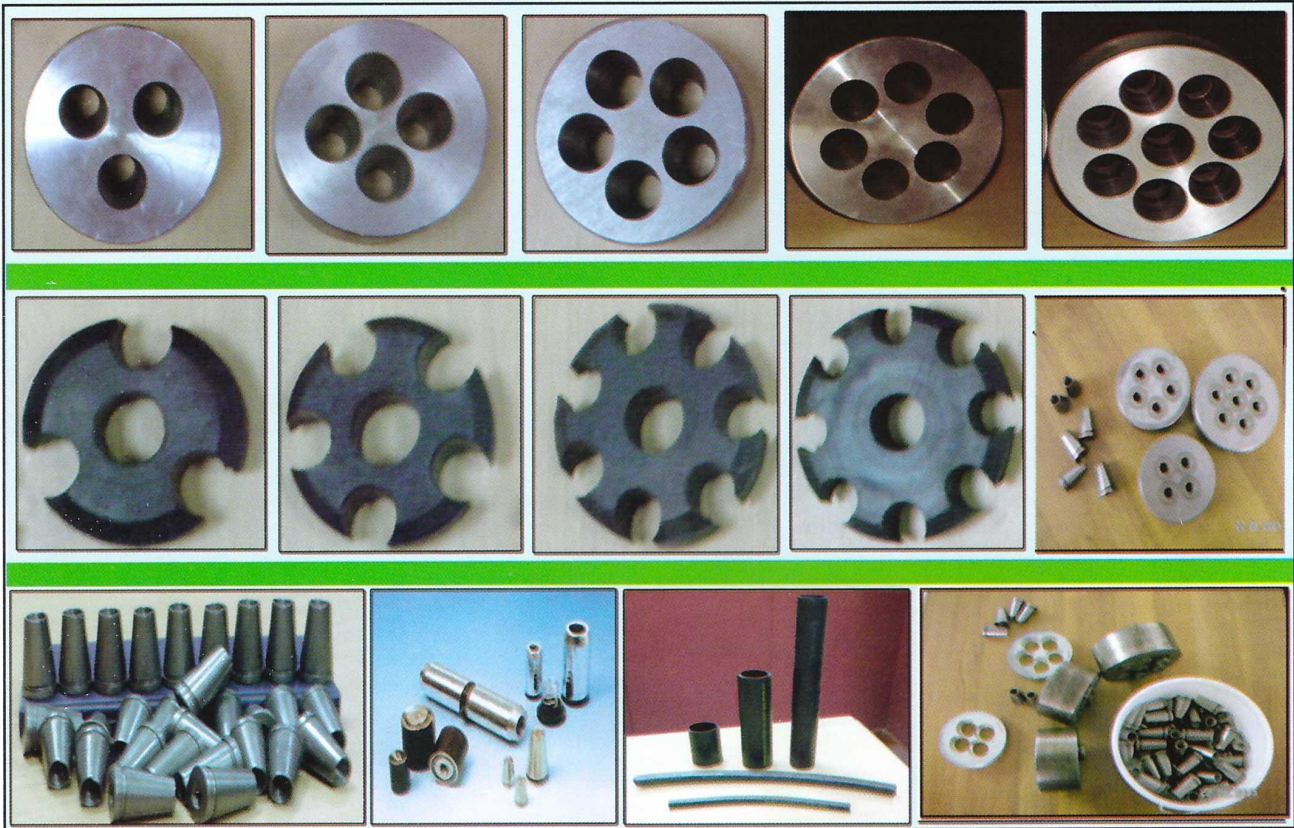
<u>Heat no.</u>	<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Cr</u>	<u>Ni</u>
X 41839	0.84	0.19	0.76	0.013	0.005	0.22	0.02



**Packing Coil** Reel-less coils of 2.7 MT to 3.5 MT  
(ID / OD / Width) 800 / 1300 / 750 mm



# ANCHORING ACCESSORIES



## Anchor head specification:

S.R.	DESCRIPTION	THICKNESS	DIAMETER
1	Anchor head 3 hole	60 mm	115 mm
2	Anchor head 4 hole	60 mm	115 mm
3	Anchor head 5 hole	60 mm	115 mm
4	Anchor head 6 hole	60 mm	135 mm
5	Anchor head 7 hole	60 mm	135 mm
6	Anchor head 8 hole	60 mm	135 mm
7	Anchor head 10 hole	60 mm	157 mm
8	Anchor head 12 hole	60 mm	185 mm
9	Anchor head 16 hole	60 mm	198 mm

## Anchor Spacer (Rubber)

S.R.	DESCRIPTION	Outer Dia	Center Hole Dia
1	Anchor Spacer 3 hole	60 mm	22 mm
2	Anchor Spacer 4 hole	60 mm	22 mm
3	Anchor Spacer 5 hole	60 mm	22 mm
4	Anchor Spacer 6,7 hole	72 mm	22 mm
5	Anchor Spacer 16 hole	110 mm	40mm

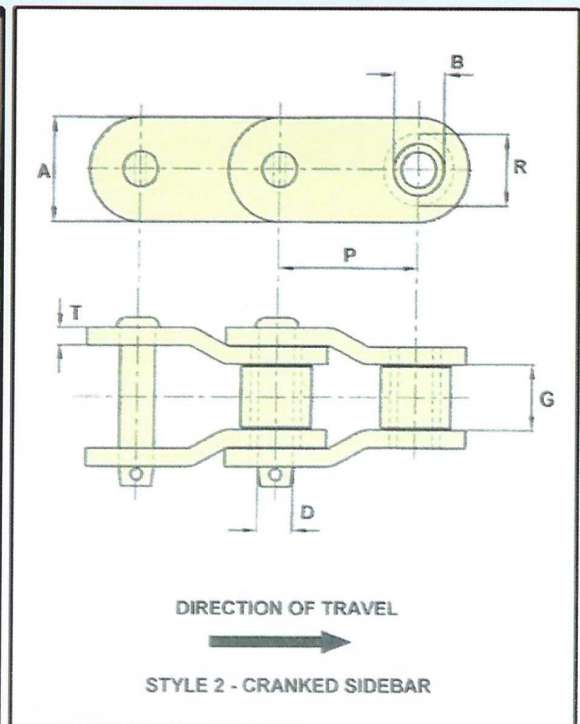
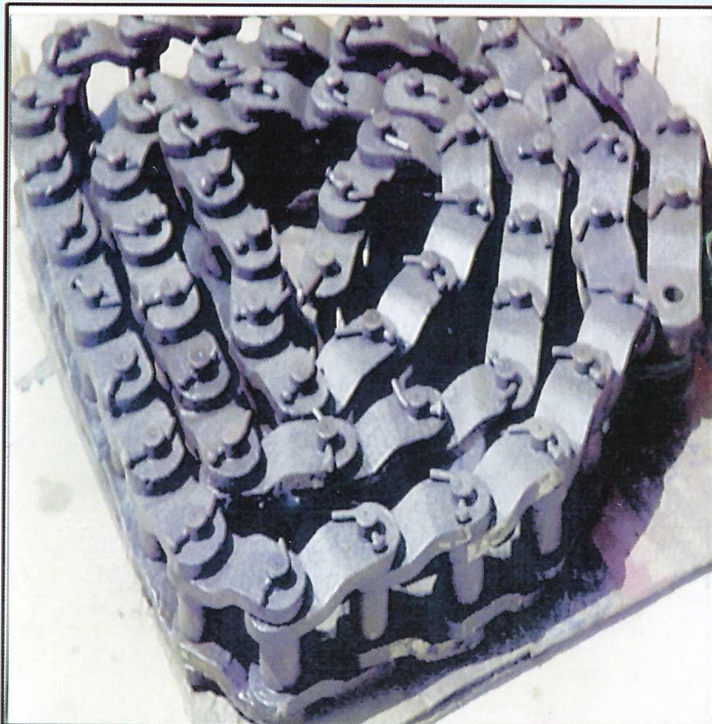
## Wedges

Wedges 15.24 mm three piece wedges.

## HDPE PIPE AND LDPE PIPES FOR ALL SIZES



# ROTARY DRIVE CHAINS



## CHAIN LINK MODELS

Heavy duty Chain links of Pitch 3.067"  
And all other specification as in table  
Below with **breaking load 110,000 Lbs.**  
Origin: Ewart, UK

<b>Model</b>	:	<b>3067X</b>
Pitch of chain	:	3.067"
Dia of bush	:	41.40 mm
Dia of Pin	:	19.05 mm
Length of bush	:	38.86 mm
Thickness of side link	:	9.65 mm
Width of side link	:	50.80 mm
Total length of Pin	:	99.06 mm

Heavy duty Chain links of Pitch 4.073"  
And all other specification as in table  
Below with **breaking load 170,000 Lbs.**  
Origin: Ewart, UK

<b>Model</b>	:	<b>E4073</b>
Pitch of chain	:	4.073"
Dia of bush	:	44.70 mm
Dia of Pin	:	25.4 mm
Length of bush	:	48.51 mm
Thickness of side link	:	14.22 mm
Width of side link	:	60.45 mm
Total length of Pin	:	131.32 mm

Heavy duty Chain links of Pitch 3.5"  
And all other specification as in table  
Below with **breaking load 150,000 Lbs.**  
Origin: Ewart, UK

<b>Model</b>	:	<b>E238R</b>
Pitch of chain	:	3.5"
Dia of bush	:	44.45 mm
Dia of Pin	:	22.22 mm
Length of bush	:	36.57 mm
Thickness of side link	:	12.7 mm
Width of side link	:	57.15 mm
Total length of Pin	:	113.79 mm

## OTHER MODELS ALSO AVAILABLE ON REQUEST



# ULTRA SONIC TUBES

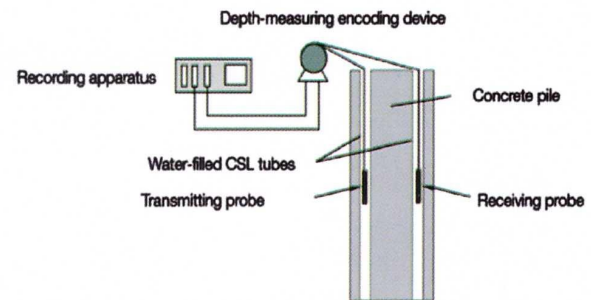
## Definition

Crosshole Sonic Logging (CSL) is an accurate method to determine the structural integrity and homogeneity of concrete within diaphragm walls, bored piles, drilled shafts, barrettes, concrete piles or augercast piles.

This method is:

Widely used for more than 30 years

Practical and economical for deep foundation integrity testing



## Product features

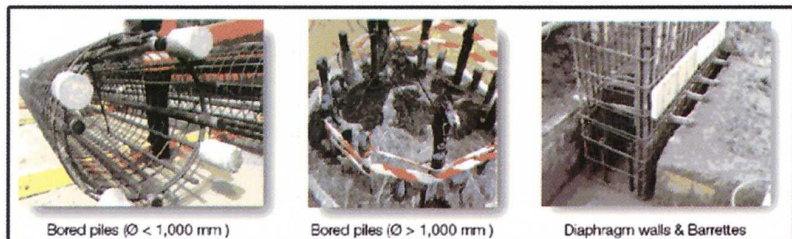
Sonitec are thin black steel tubes available in different diameters with an enlarged end in a bell mouth shape. This makes the connection between 2 tubes an easy process and minimises labour cost.

The bell mouth and rubber gasket ensure a concrete-tight joint that will maintain the tube integrity and prevent the entry of foreign material.

## Product benefits

- Easy assembly with PUSH-FIT concept
- Fast and easy handling by operatives
- No preparation time
- No power / welding / threading required
- No equipment required

Easy visual inspection at site with the PUSH-FIT mark



## Recommendation storage

As Sonitec tubes are made of black steel, if subjected to normal weather conditions discoloration may occur.

To avoid this issue, please note the following instructions:

Cover the steel tubes with tarpaulin or keep the steel tubes in a covered area or closed container

Avoid exposing them to environmental conditions (humidity, rain, heat ...)

For better storage conditions and easy tube management on site, storage containers are available upon request.



Type	Push fit type
Outer diameter (D)	50mm
Wall Thickness (t)	1 mm
Length (L)	5.8 m





# STRESSING JACK DIVISION

## MULTI STRESSING JACK

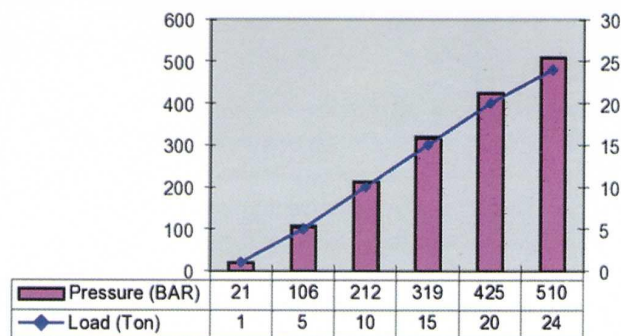


## MONO STRESSING JACK



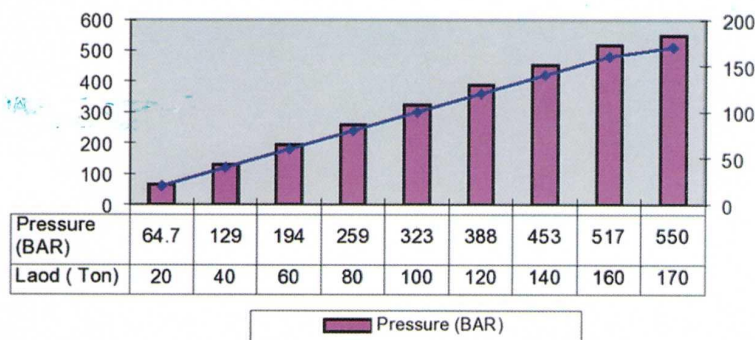
Multi stressing jack which can cater from 2 strands to 9 strands by changing front head and tail head with use of different support plates, which are integral part of stressing jack.

**CFRP stressing jack is latest innovation in stressing technology, lightweight and easy to use in sites without requirement of crane to hold the jack. Weight of jack is only 55 kgs.**



Mono-stressing jacks graphical representation of Load Vs. Pressure.

Multi stressing jack's graphical representation





# LOAD CELLS AND READ OUT UNIT

We are stockist and distributor of load cells from German, maximum capacity for load cells available is 1000 ton. Detail for the same with readout unit is as below:

Type	PRE10000/0/120
Nominal capacity (FS)	0 - 10000 KN
Outside diameter (A)	189 mm
Bearing ring outside diameter (B)	153 mm
Bearing ring inside diameter (C)	Without hole
Overall height (D)	120 mm
Measuring system	Strain gauges
Precision	1% FS
Temperature error	0.01% /°C
Resolution	10 KN
Signal	3.3m V/V
Operating Temperature	-30°C to +60°C
Cable	TS-PUR/TAP47



## READOUT UNIT

Type	Indipoc $\mu$ P1
Sensors	Load cells Type PRE
Measuring range	600kN,1000kN,1500kN,2000kN,2500kN,3000Kn
Resolution	1 Kn
Precision	Max. combined overall error $\pm 0.2\%$ $\pm 1$ digit incl. Temperature influence
Display	LCD display, 4 digits
Power supply	Batteries 9V (6x1.5V batteries, round cells LR6, UM3)
Protection	Splash water resistant
Interface	RS232 (Optional)
Temperature range	-5°C to +45°C
Battery warnings	In case of low battery capacity
Dimensions	Approx. 260 x 200 x 80mm
Weight	Approx. 2.5 kg (Icl. Case)
Accessories (Incl.)	Carrying case, cables, batteries



# REBAR COUPLERS SECTION

## Swage Machine



Rebar crimping machine with power pack unit

Description	RebarØ	Coupler outer Dia mm	Coupler Length Mm
B S G 18	18	33	108
B S G 20	20	36	120
B S G 22	22	40	132
B S G 25	25	45	150
B S G 28	28	50	168
B S G 32	32	56	192
B S G 36	36	63	216
B S G 40	40	70	240





# APEX INTERNATIONAL

## CONSTRUCTION & LAND DEWATERING LLC

- APEX DEWATERING DIVISION
- APEX ANCHORING DIVISION
- APEX HYDRAULIC DIVISION





# APEX DEWATERING DIVISION

## **Profile :**

APEX Dewatering Services started its dewatering activities by taking forward the existing dewatering projects in all over UAE and Dewatering system design & Installation in GCC. We have done so much of Government projects with DEWA & FEWA and also we are approved Sub contractor in RTA, Dubai Municipality, Tecom & Nakheel.

APEX with its expertise in dewatering system design & highly experienced & dedicated field personnel has become one of the most preferred dewatering contractors by Clients & Consultants on many major projects in UAE for past 23 years.

APEX has been providing innovative solutions with the help of their dewatering equipments and services to the construction industry and has been playing a major role in the development of infrastructure projects. We have earned a very high reputation in construction industry by successfully executing over hundreds of projects.

## **APEX salient features :**

### **Dewatering :**

- Dewatering system design
- Deep well system
- Well point system
- French drain system
- Sump pumping system
- Pump Rental

### **Deep well Dewatering System:**

Deep well dewatering is suited to deep excavations and where soil permeability is moderate to high. Deep well systems also work well where artesian groundwater pressures threaten base stability. Capable of pumping tens of thousands of gallons of water per minute, deep well systems are effective when there are large volumes of groundwater. This systems lower groundwater levels using a series of drilled wells, each fitted with its own electric submersible pump. Large drawdown as much as 40 meters can be achieved.

APEX aware of sensitivity to noise in residential areas. Our deep well systems are designed to work quietly and efficiently.





## WELLPOINT DEWATERING SYSTEM :

WellPoint spears are generally used to draw out groundwater in sandy soil conditions while sump pumps are usually employed instead of spears if the ground conditions contain significant clay or rock content due to the difference in permeability. The rate at which spears draw out the water is largely dependent on the pumps used and the soil conditions, soils that are fine will have less pores for water to travel between which will decrease the water flow. Alternatively large sand soils will have plenty of pores between each grain and therefore will allow a generous flow of water which will mean a faster draw-down and higher discharge of water.



## French Drain :



To control any surface water or seepage of water between the cavities of hard impermeable strata, French drain system proves very efficient. French Drain system involves extracting water through cavities of hard strata or draining surface water. The extraction of ground water can take place by gravity or vacuum. In case of formation with low permeability we advise to refill the drain trench with drainage sand or gravel. As a result the flow of ground water to drains will be improved.



# APEX ANCHORING DIVISION

- ✦ TIE-BACK ANCHORING WORK
- ✦ STATIC COMPRESSION PILE LOAD TEST USING CROWN
- ✦ UPLIFT & COMPRESSION PILE LOAD TEST
- ✦ HORIZONTAL LATERAL PILE LOAD TEST
- ✦ ANCHOR STRESSING WORK
- ✦ MICRO PILING
- ✦ INJECTION GROUTING
- ✦ SOILNAILING
- ✦ ROCKBOLT ANCHOR
- ✦ SHORTCRETE





# ANCHORING MACHINE MODEL ANC 140

## DOUBLE HEAD SYSTEM



- ✦ High drive output allows the operation of double head systems with a torque of up to 20,000 Nm.
- ✦ Inner rod  $\Phi$  88.9 mm and casing are of  $\Phi$  133.0 mm
- ✦ 149 kw Cummins diesel engine, turbo charged.



# TIE-BACK ANCHORING WORK FOR SHORING PILES

We have done tie-back anchoring works for shoring piles using our double head rotary drilling rig system successfully at various locations in UAE.



## **464 tie-back anchors installed successfully at mixed murur site in Ajman.**

- ➔ We have done tie-back anchors for shoring pile using our double head rotary drilling rig system successfully at various locations in UAE.
- ➔ Anchor component design, manufacture and supply
- ➔ Anchor machine and all necessary equipments mobilization
- ➔ Drilling work using double head rotary drilling rig machine (150mm dia to 250mm dia hole)
- ➔ Anchor tendon fabrication and installation
- ➔ Anchor site installation and supervision
- ➔ Grouting of tendons, (pre grouting and post grouting)
- ➔ Waller beam supply, preparation and site installation
- ➔ Strand coupler supply and site installation
- ➔ Anchor stressing work
- ➔ Anchor de-stressing work
- ➔ Anchor hole leakage arrest and water proofing



# STATIC COMPRESSION LOAD TEST OF PILES USING

## REACTION ANCHORS AND CROWN

We have done pile load test using latest technology of reaction anchor system successfully at various locations.

We are also supplier of crowns and accessories up to 3500 Ton capacities.

- ➔ We have done static load test of pile using latest technology crown system successfully at various location.
- ➔ Static pile load test component design
- ➔ Anchor machine, Crown and all necessary equipments supply
- ➔ Vertical drilling work using double head rotary drilling rig machine (150mm dia to 250mm dia bore hole)
- ➔ Anchor tendon fabrication and Site installation
- ➔ Crown, Hydraulic jack, power pack supply and setting
- ➔ Calibrated Testing equipments (Dial gauge, magnetic stand and pressure gauge) supply, fixing and supervision
- ➔ Supply of experienced technician during load test for supervision



**Static compression load test of 3270 Ton done at Conrad Hotel Project site at Shk. Zayed Road.**



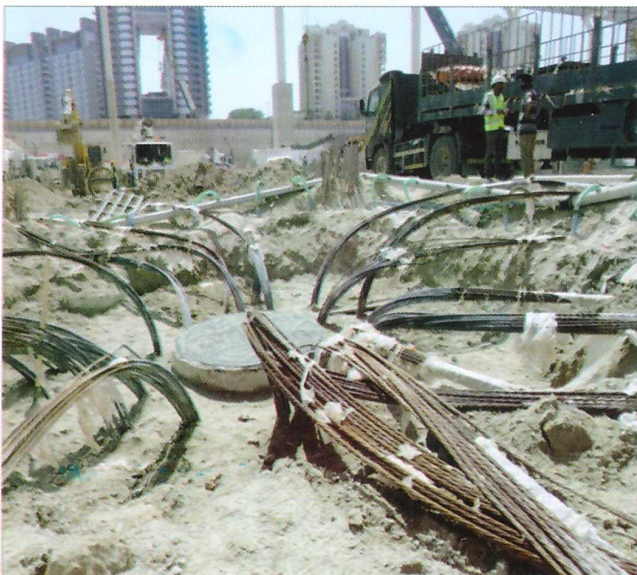
# STATIC COMPRESSION LOAD TEST OF PILES USING

## REACTION ANCHORS AND DOUBLE CROWN SYSTEM.

We have done pile load test using latest technology of reaction anchor system using Double Crowns successfully at various locations.

We are also supplier of crowns and accessories up to 3500 Ton capacities.

- ➔ We have done static compression load test of pile using latest technology of crown system with Double Crown Method successfully at various locations.
- ➔ Static pile load test component design
- ➔ Anchor machine, Crown and all necessary equipments supply
- ➔ Vertical drilling work using double head rotary drilling rig machine (150mm dia to 250mm dia bore hole)
- ➔ Anchor tendon fabrication and Site installation
- ➔ Crown, Hydraulic jack, power pack supply and setting
- ➔ Calibrated Testing equipments (Dial gauge, magnetic stand and pressure gauge) supply, fixing and supervision
- ➔ Supply of experienced technician during load test for supervision.





## APEX ANCHORING DIVISION



**Static compression load test of 4350 Ton done at Nakheel Mall Project site in Palm Jumeirah.**



# HORIZONTAL LATERAL PILE LOAD TEST USING REACTION BAR

- We have done Horizontal lateral pile load test using latest technology of reaction bar system (for tension pile) successfully at various locations
- Supply of reaction bar, hydraulic jack & power pack and all necessary equipments.
- Site preparation and test arrangements
- Calibrated Testing equipments (Hydraulic jack, power pack, dial gauge, magnetic stand and pressure gauge) supply, fixing and supervision.
- Supply of experienced technician during load test for supervision



Horizontal lateral pile load test of 150 Ton done at Gulf Jyoti Foundation site at Jabel Ali.

## **ANCHOR STRESSING WORK**

- We have done anchor stressing work using mono stressing jack and multi stressing jack successfully at various locations.
- Stressing jack, Anchor plate, Bearing plate, Wedges and all necessary equipments supply and installation
- Mono-strand stressing: The system of stressing anchors by means of applying hydraulic force to each strand individually and progressively transferring the load to the anchor
- Multi-strand stressing: The system of stressing anchors by means of applying the load simultaneously to all strands(2 strands to 9 strands)
- Stressing Operator: Person suitably trained and nominated by the employer to operate the stressing equipment



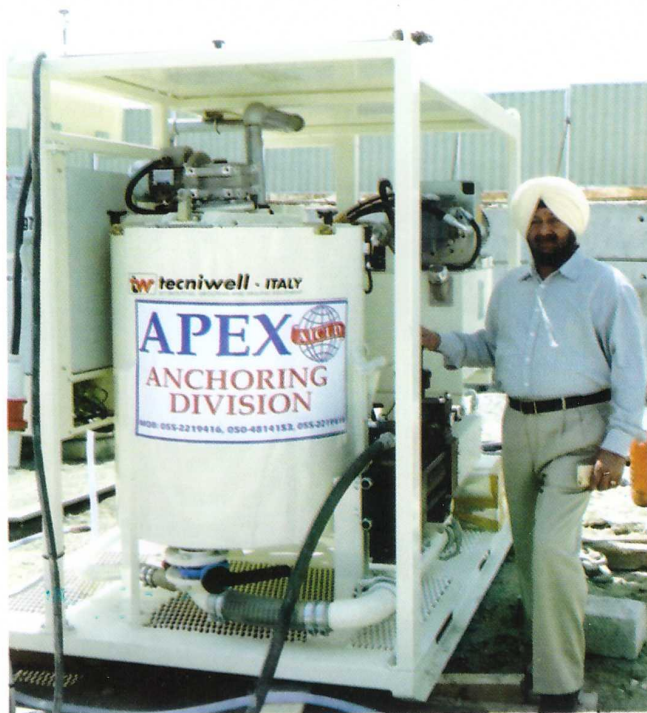
464 tie-back anchors stressing work done successfully at Mixed murur site in Ajman.



# INJECTION GROUTING

- ➔ We have done Injection Grouting using latest technology of Techniwell High Pressure Grout Pump (Italy) successfully at various locations.
- ➔ The Tecniwell Grout Pump can do injection grouting at a high pressure of 90 Mpa(bar).
- ➔ Injection Grouting is done to prevent the soil from collapsing and it helps in filling up the present cavities in soil.
- ➔ We have used Injection Grouting with the Chemicals that react with water to set and are ideal for solving High water pressure issues from micro-piles.
- ➔ We have successfully done injection grouting to fill up pores, voids and cavities in the soil to increase the soil stability and strength of the grout.
- ➔ The ability of our Injection Grouting is to penetrate cavities, channels and voids to a depth of 30 meters and fill them completely with the grout.

## PRESSURE GROUTING PUMP- 90BAR





# ON-GOING PROJECTS-ANCHORING

## PROJECT : BEACH PROMENADE, SAADIYAT.



<b>Client</b>	<b>: TDIC</b>
<b>Main Contractor</b>	<b>: Nael bin al harmal hydroexport.</b>
<b>Consultants</b>	<b>: Dewan Architects And Engineers.</b>
<b>Location</b>	<b>: Saadiyat Island, Abu-Dhabi.</b>
<b>Sub Contract Work</b>	<b>: Static Compression Pile Load Test using Crown System.</b>
<b>Work Profile</b>	<b>: Pile load Test.</b>

- **Test Load : Working Test Pile : 4500 KN : 34 No's.**
- **Test Load : Working Test Pile : 2250 KN : 3 No's.**
- **Test Load : Preliminary Test Pile : 4500 KN : 3 No's.**
- **Test Load : Preliminary Test Pile : 9000 KN : 3 No's.**



## PROJECT : NAKHEEL MALL/PALM MALL



**Client** : NAKHEEL

**Main Contractor** : AL-Ghurair Foundation L.L.C.

**Consultants** : RSP Architects Planners & Engineers LTD.

**Location** : Palm Jumeirah, Dubai

**Sub Contract Work** : Static Compression Pile Load Test using Crown System.

**Work Profile** : Pile load Test.

- Test Load : 4350 Ton : 24 Anchors x 16 Strands - Double Crown.
- Test Load : 3900 Ton : 22 Anchors x 14 Strands - Double Crown.
- Test Load : 3300 Ton : 16 Anchors x 16 Strands.
- Test Load : 2475 Ton : 12 Anchors x 14 Strands.
- Test Load : 1695 Ton : 12 Anchors x 10 Strands.



# PROJECT : DUBAI CANAL PROJECT



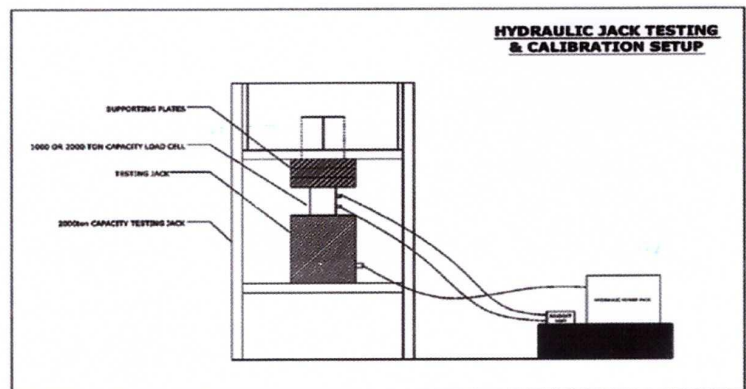
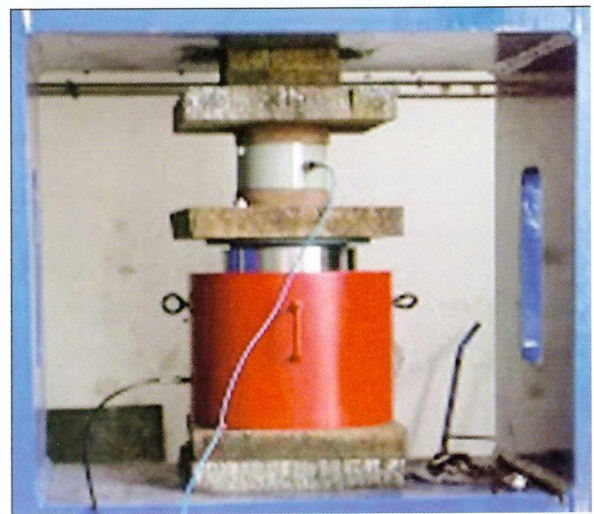
<b>Client</b>	:	<b>R.T.A</b>
<b>Main Contractor</b>	:	<b>MNG Zemas.</b>
<b>Consultants</b>	:	<b>Parsons Engineering Consultants.</b>
<b>Location</b>	:	<b>Sheikh Zayed Road, Business Bay, Dubai.</b>
<b>Sub Contract Work</b>	:	<b>Static Compression Pile Load Test using Crown System.</b>
<b>Work Profile</b>	:	<b>Drilling Work.</b>

- **Drilling Depth : 25 Meters : 16 Anchors x 16 Strands.**
- **Drilling Depth : 25 Meters : 16 Anchors x 10 Strands.**
- **Drilling Depth : 24 Meters : 16 Anchors x 08 Strands.**
- **Drilling Depth : 16 Meters : 08 Anchors x 06 Strands.**



# APEX HYDRAULIC REPAIR WORK & TESTING, CALIBRATION

Apex hydraulic division has the equipment and personnel to calibrate a wide range of hydraulic jacks, cylinders, hydraulic power pack and load cells. We do have testing frame up to 2000 ton capacity. Apex Hydraulic division has the ability to calibrate up to 20,000KN (2000 ton) Capacity hydraulic jacks and load cells.





# DEGREES & TESTIMONIALS

