

CORPORATE PROFILE



Pearl Engineering (Private) Limited

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1.0 Company Brief

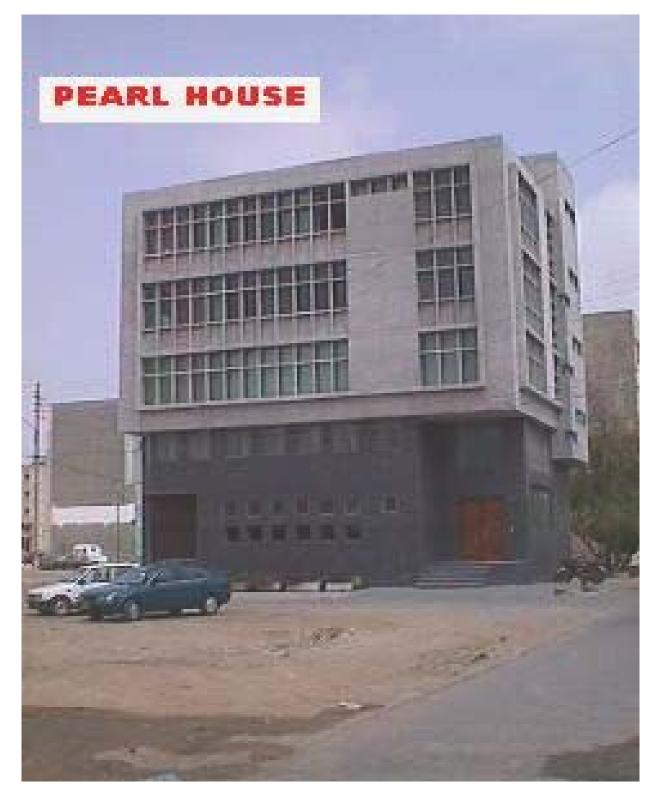
On closure of General Electric Company (GEC) in Pakistan as a wholly owned subsidiary of GEC plc and in keeping with the wishes of UK top management, senior officers of GEC Pakistan formed Pearl Engineering as a successor to GEC, Pakistan. Our Chairman and CEO, Mr. F.U. Ahmad, at the time was the Director and General Manager GEC Group of Companies in Pakistan.

Our association with Fisher started in 1968 via GEC Elliott Controls, licensee of Fisher Controls, Marshalltown. Since then, there have been many changes in Company Names, from Fisher Controls to Fisher-Rosemount and now to Emerson Process Management (EPM). These changes did not affect our relationship, rather cemented it further.

With Rosemount, Daniel and Fisher joining together in 90's under Emerson – USA ownership, Pearl was selected to represent all EPM divisions which till then were represented by more than one companies in Pakistan. This move was well received by customers in Pakistan, especially in the Oil and Gas Sector, Refinery, Fertilizer and ther Process Industries. Over a period of time Pearl and EPM are looked at as two sides of same coin; a unique culture affinity has developed between the two companies and their staff.

All our future planes are based on the belief that this business sector will continue to grow. With this in view we have constructed our own office building, spread over to six floors and having 11,000 square feet covered space, with a floor fully equipped to hold seminars, customer training, lectures and product presentation. We also have instrument workshop and staging area for system integration.





- NAME : PEARL ENGINEERING (PRIVATE) LIMITED
- ADDRESS : Corporate Office Pearl Engineering (Private) Limited Pearl House 2-C, 21st Street, Khayaban-e-Sehar Phase 6, Defence Housing Authority Karachi-75500.

Phone : (92-21) 584-9631 to 38 (8 lines) Fax : (92-21) 585-4690 Email : <u>saifi.ahmad@pearl-pk.com</u>

Branch Office: 2-B, LDA Complex Lawrance Road Lahore-54000.

Phone : (92-42) 636-8927 and 28 Fax : (92-42) 636-8960 Email : <u>pearllhr@nexlinx.net.pk</u>

BANKERS : Standard Chartered Bank I.I. Chundrigar Road Karachi.

Hongkong and Shanghai Banking Corporation Limited Shaheen Complex, M.R. Kayani Road, Karachi.

- AUDITORS : Ford, Rhodes, Sidat Hyder & Company Chartered Accountants Finlay House, P.O. Box 74000, Karachi.
- CORPORATE : Private Limited Company ENTITY
- National Tax Number : 12-06-071167-9
- Sales Tax Number : 12-00-8500-012-91

2.0 Business Philosophy

Our Business Philosophy is based on Three Factors:

- High quality of Products we Sell
- Quick and Efficient Service after Sales
- Unquestionable Business Integrity

Our Actions are guided by these Values:

- We meet Commitments
- We live by the Quality Process
- We hire good technical people and create the environment for them to maximize their involvement and contribution.

We are committed:

• To identify with our customers point of view and fulfill their real needs with speed and professionalism

In Partnership with our customers:

- We seek Opportunity, Opportunity to Serve and Opportunity to Share
- We seek their guidance to fulfill our responsibilities

3.0 Organization Set-up and Manpower Resources

From Pearl Chairman and Managing Director down to our sales and applications / design engineers, all our staff is qualified and trained engineers. We have a well equipped service center and field service engineers, who have been factory trained for the products that we presently market.

- * Pearl Set-up per Annexure I, having total staff strength of 30 excluding Associates.
- * Focus on Information Technology.
- * The list of key personals are presented per Annexure II.

Focus on Information Technology

Several years ago Pearl recognized the importance of information technology and embarked on an extensive program of acquiring and developing these skills. We have invested deeply in hardware, software and staff training. All our staff are equipped with latest PC's including laptops running on a Microsoft Windows network. This Fisher Division utilizes the Fisher First software, which is updated monthly. System Division uses the Sales Wizard for generating System quotes / proposals locally, RMD uses the sales link for the preparation of quotes, MMI / Daniel Orifice sizing is also done in Pakistan. We are now also trained to use the System configuration program, and have started to act as System integrator. Pearl's service department is also equipped with laptops with various EPM diagnostic programs and is up-to-date with these tools. We have our own mail server which enables each staff member to have their own email addresses and they are now able to send/receive emails from their desktops / laptops, this has vastly improved our communication network and now we are able to respond to the needs of the customer quickly.

Further in-house Auto-cad /Visio drawing services are available to provide shop, detail and as-built drawing.

4.0 E&I Supports

Pearl range of services covers sales, applications, after sales support, engineering, installation / commissioning and training services.

Pearl is also an integrated engineering, consultancy, solution Provider Company; in particular for Oil & Gas industries providing complete range of services mentioned below:

- Project Development and Planning
- Basic and Detailed Engineering
- Procurement Assistance through EPM offerings and buy-outs
- Installation, Commissioning and training services
- Maintenance Services
- Promotion of EPM & Alstom Protection & Control Products and others.

Instrument and Control Engineering

PEARL's instrumentation group is managed by highly experienced design application and field engineers. These engineers work in close collaboration with process and electrical engineers to establish plant operating and control requirements. The group is responsible for:

- Review and comments on of P&ID
- Design of control system
- Preparation of field instrument specification and data sheets, control room instruments (i.e. DCS/ESD systems) specifications.
- Calculation sheets for flow elements, and control valves sizing etc.
- Preparation of panel drawings, control rooms layout.
- Preparation of installation, instrument loop and logic drawings.
- Development of instrument material, BOQs and cost estimates.
- Preparation of instrument/alarm schedules wiring diagrams to ensure system integrity.
- Preparation of RFQ for quotations.
- Bid evaluation and recommendation.
- Supervision of works, testing of major system components and system and installation, commissioning and training.
- Witnessing factory and site acceptance test.

The group has wide application experience of both modern scalable microprocessor based control systems as well as conventional electronic, electromechanical and pneumatic systems. They have the capability of complete system specification including the requirements for regulation, sequence control, interlocking, protection, data acquisition, process instrumentation and fiscal metering. This expertise has been used in the design of oil/gas processing/production and pipeline transmission distribution facilities.

Electrical Engineering Work

PEARL's electrical engineering group is managed by experienced design and field engineers having responsibility of plant electrical systems. Electrical systems are developed starting from an existing off-take point such as power supply authority, an existing utility or by incorporating in-plant generation facilities. Additionally, review and modification of third party design is also carried out as per plant's operational requirements.

As part of the project execution team and working in close collaboration with the instrumentation, process design and mechanical engineering group, the electrical engineering group overseas supervision of equipment inspection, testing, installation and pre-commissioning works during construction phase and start-up, commissioning and training.

Site Services

Our site services team provides the following services in the electrical and instrumentation discipline

- Commissioning Services for all types of field instruments.
- Calibration Services
- Regular Maintenance Services
- Emergency Maintenance Service
- Annual Maintenance Contracts
- Complete Emerson, DeltaV service
- Instrumentation / DCS training services both on-site or in our Karachi head office

4.1 Engineering, Supply, Installation Commissioning Services Extended To:

1. Sui Northern Gas Pipelines Ltd. – Interfacing of Pneumatic Pressure Reducing Stations with SCADA System

Engineering, procurement, supply, installation and commissioning of system for interfacing existing <u>pneumatic</u> pressure regulators / valves with newly installed <u>SCADA</u> System at 71 Nos. sales metering and/or regulating stations located at various locations from Sadiqabad To Peshawar. Pearl Engineering proposed system with the feature that normally pressure will be controlled by electronic pressure controller that will get pressure set point from SCADA System and in case of power supply or electronics or SCADA System failure, gas supply to consumer must not be stopped and system should be switched-over to pneumatic system. SUI Northern accepted the system. Pearl Engineering designed the system and supplied electronic controller, electronic positioner for control valve and switching system for switching to pneumatic system. Existing RTU Panel was modified to implement the system. A panel for pneumatic system and switching was also designed and supplied by Pearl Engineering.

2. OGDCL Qadirpur Project

OGDCL is executing the Qadirpur Gas Expansion Development Project through a EPC Contractor. The Project includes gas-gathering lines, compression / processing facilities and associated infrastructure.

- (a) Pearl had been involved in Developing / detailing the instrument specifications along with ENAR / OGDCL.
- (b) Pearl are also engaged fully in engineering, selection of instrument / metering equipment supply, installation commissioning and training for Gas Sales Metering System. This is being executed along with Daniel, a Division of Emerson Process Management.

3. SSGC – Gas Chromatographs and Flow Computers for their Sales Metering Stations

Pearl had successfully extended the services for developing the specifications for GCS and Field Mounted Flow Computers supply, installing / installation supervision and commissioning of Daniel GCS and Fisher FloBoss (Flow Computers). Presently, **Pearl is the only company who has developed this capability in these specialized state of the art Products.**

It is worth mentioning that we, as company, are well placed with SSGC by knowing their Distribution / Transmission Systems and therefore may be of assistance to you to satisfy their needs of Custody Transfer, Metering, etc., applications.

4. ENAR – Condensate Processing Facility

The facility is primarily a topping unit for fractionating the local condensate into petroleum fractions. There are about 45 regulatory PID and Complex Control Loops are involved with about 200 digital points used for interlock logic and shutdown and alarm Systems.

Pearl has been engaged with ENAR for developing specifications for field instrument, transmitters and control valves. Pearl also acted as System integrator of scalable DCS System (Delta-V) right from finalization of System specifications & commissioning.

5. PRL - Automatic Truck Loading System:

Provided assistance in engineering of Automatic Truck Loading system for Furnace Oil Gantry consisting of 08 loading arms, supplied system, supervised installation and commissioned the system.

6. NRL Revamp - II Project

The Project aimed capacity enhancement and energy efficiency improvement of following units.

- Naptha Hydro Treate
- Plat former
- Propane De-Asphalting (PDA) Unit

The NRL Revamp – II Project involved major revamp of instruments for fuel Refinery which comprised of about 65 closed loop and 80 open loops. All field instrumentation was to 4-20MA electronic type and in control room instrumentation was changed to microprocessor based single loop digital controller.

Pearl had been deeply involved in assisting in engineering, developing the specs for field and control room instrumentation along with ENAR / NRL.

4.2 Installation / Commissioning Services Extended To:

- 1. National Refinery Limited
 - NRL Revamp II Project
 - Commissioning of Base Oil Meters installed at the Oil Movement Terminal.
- 2. Asia Petroleum
 - Commissioning of Fisher Field Instruments.
- 3. Pakistan Oil Fields Limited
 - Meyel Oilfield Expansion Project.
- 4. Pirkoh Gas Field
 - Installation supervision and commissioning for Fisher-Rosemount field instruments.
- 5. Dhodak Gas Field
 - Installation Commissioning of LPG, Fuel, Diesel, Oil, Gasoline for Truck Loading System.
- 6. Shell Pakistan
 - Commissioning of Brooks Petrocount at Shell Terminal.
- 7. AES Power Plant, Lalpir
 - Supply, Installation Commissioning of MMI Meters.
- 8. Habib Sugar Mills
 - Supply, Installation Commissioning of Field Instruments and DeltaV, Pakistan's First PlantWeb Installation.
 - Provide software upgradatrion from ver4.2.3 to 6.3.4 and after sales support.
- 9. Pakistan Air force (PAF)
 - Commissioning of instruments related to fuel supply, buffer tank system at PAF Kamra Factory.
- 10. Karachi Electric Supply Corporation (KESC)
 - Installation Commissioning of Fisher-Rosemount field instruments at KESC Thermal Power Plant, Bin Qasim. BYI, Kansas City, USA was the EPC.
- 11.ICI Polyester Plant, Lahore
 - Commissioning of MMI Meters.

- 12.Gul Ahmad Energy
 - Commissioning of MMI Meters, EPC Tomen, Japan
- 13. Tapal Power
 - Commissioning of MMI Meters, EPC Warstila
- 14.Evian Fats and Oil
 - Installation Supervision, Commissioning of MMI Meters.
- 15.Engro Pak Tank
 - Commissioning of MMI Meters.
- 16. Uch Power Plant
 - Installation supervision and Commissioning for Fisher-Rosemount field instruments, EPC GE Int'l.
- 17. Enar Condensate plant
 - Supply, Installation Commissioning of Field Instruments and configuration and commissioning services of DeltaV system. After sales support services
- 18. Rafhan Maize Product Company limited
 - Supply, Installation Commissioning of Field Instruments and configuration and commissioning services of DeltaV system. After sales support services
 - Working on phase-1 project
- 19. Gatron Polyester Plant
 - Supply, configuration/engineer, FAT/SAT, Installation Commissioning of DeltaV system. After sales support services
 - Working on new SSP Plant
- 20. Novatex SSP Plant
 - Software upgradation services from ver.5.3 to ver7.3 and after sales support services.
 - Working for new SSP plant
- 21. OMV Gas Plant
 - Software upgradation services from ver.6.3 to ver7.3 and provide after sales support services.
- 22. BHP Gas Plant
 - Design, configuration and commissioning of Redundant gas metering system. System includes three floboss 407, two ABB gas chromatographs and DeltaV control system.

- Provide after sales support
- 23. MOL Gas Plant
 - Configure flow computer ROC809 and integrate it with two Daniel gas chromatographs, Galvanic Moisture analyzer and Alen Bradley PLC.
- 24.Orient Petroleum:
 - Commission two Daniel gas chromatographs and floboss 407 custody transfer end points.
- 25.Pakistan Petroleum Li mited:
 - Installation and commissioning of C7+ Daniel gas chromatograph.
- 26. Pakistan Oil Fields Limited
 - Installation supervision, Commissioning of services of DeltaV system. And after sales support services
- 27. Liberty Gas Plant
 - Installation supervision, Commissioning of services of DeltaV system. And after sales support services
- 28. Pakistan PTA Limited
 - Provide Installation supervision, Commissioning services of DOP upgrade at PPTA Plant.
- 29. OGDCL
 - Installation/Commissioning of DeltaV services at OGTI training centre.
- 30. Micromotion install in different CNG stations
 - Installation/Commissioning of Micromotion in different CNG station of Pakistan.
- 31. OMV-Sawan Gas field software upgradation services
 - Successfully completed software upgradation services and change NT to XP platform in 2005.
- 32. Novatex-SSP-2
 - Supply and test new SSP2 plant 2006.
- 33. Gatron-Polyester software upgradation services
 - Successfully completed software upgradation services and change NT to XP platform in 2006.
- 34. Novatex-SSP software upgradation services
 - Successfully completed software upgradation services and change NT to XP platform in 2005.

- 35. OMV-Sawan DBN Project
 - Successfully completed DBN project in 2006.
- 36. POL Pindori expansion Project
 - Successfully completed Pindori expansion project in 2006.
- 37. Gatron SSP Plant
 - Supply, configuration/engineer, FAT/SAT, Installation Commissioning of DeltaV system. After sales support services. In this plant initial FOXBORO system IA series was installed and we have replaced it with DeltaV system.
- 38. Indus Home Limited:
 - Successfully commission DeltaV system in Dyeing & Bleach range of Towel industry in 2007.
- 39. BHP NRU Project:
 - Successfully commission DeltaV system in BHP NRU project in 2007.
- 40. Sawan Compression Project:
 - Successfully commission 1 compressor and remaining three is still under commissioning in 2009

4.3 Preventive Maintenance and Diagnostic Services Extended for Field Instruments and Systems To:

- OGDCL Qadirpur & Dhodak Plant
- BHP Pakistan
- OMV Pakistan
- Pakistan Oil Fields Limited
- National Refinery Limited
- Pakistan Refinery Limited
- Sui Northern Gas Pipelines Ltd.
- Sui Southern Gas Company Ltd.
- Kohinoor Energy Limited
- Pak-American Fertilizers
- Agha Khan Hospital
- Proctor & Gamble Pakistan.
- AES Lal Pir Power.

4.4 Installed Base-Pakistan

Installed base DCS System in Pakistan

		in orall
1.	ICI PTA Plant	Provox and DeltaV
2.	Dhan Fibres Limited	Provox
3.	Ibrahim Fibres Limited	Provox SR-90 and Provox SRX
4.	Novatex	Provox and Delta-V (1 Provox and 3 DeltaV
		system are installed)
5.	Habib Sugar Mills	Delta-V (FOUNDATION FIELDBUS)
6.	Dewan Salman Acrylic Plant	Delta-V
7.	PEL (Shikarpure Gas field)	Delta-V
8.	BHP	Delta-V
9.	OMV	Delta-V
10.	Pakistan Oilfields	Delta-V
11.	ENAR Petrotech	Delta-V
12.	Rafhan Maize Product Co.	Delta-V
13.	PPL-ADHI Gas field	Delta-V
14.	Gatron Polyester	Delta-V and DeltaV (2 DeltaV)
15.	Liberty Gas plant	Delta-V
16.	OGTI Training center	Delta-V (FOUNDATION FIELDBUS)
17.5	Sitra Chemical Ltd	Delta-V (FOUNDATION FIELDBUS)

Installed base instruments in Pakistan

1. Oil and Gas Companies

- 1.1 OGDC
- 1.2 SNGPL
- 1.3 SSGC
- 1.4 Mari Gas
- 1.5 PPL
- 1.6 Lasmo/ENI
- 1.7 Premier
- 1.8 Orient Petroleum
- 1.9 OMV
- 1.10 PSO
- 1.11 BP
- 1.12 BHP
- 1.13 Petronas
- 1.14 MOL
- 1.15 Pakistan Oil Fields
- 1.16 Shell
- 1.17 Caltex.

2. Oil Relining Companies

- 2.1 NRL
- 2.2 ARL
- 2.3 Attock Oil
- 2.4 PARCO
- 2.5 Bosicor

3. Fertilizer // Chemicals

- 3.1 Engro Fertilizers Limited
- 3.2 Engro Polymer & Chemicals Limited
- 3.3 Fauji Fertilizers (Pak Saudi)
- 3.4 Fauji Fertilizers (Sadiqabad)
- 3.5 Pak American Fertilizers
- 3.6 Fatima Fertilizers (Pak Arab)
- 3.7 Fatima Fertilizers (Mukhtar Garh)
- 3.8 Dawood Hercules
- 3.9 Hazara Phosphate
- 3.10 Fauji Fertilizer (Bin Qasim)
- 3.11 PTA Plant (Lotte)
- 3.12 ICI, Soda Ash Plant
- 3.13 Sind Alkalies
- 3.14 BASF
- 3.15 Sitara Chemicals
- 3.16 Bela Chemicals
- 3.17 Ravi Chemicals
- 3.18 Nimer Chemicals

4. Power

- 4.1 Wapda
- 4.2 KESC
- 4.3 KANUPP
- 4.4 KAPCO
- 4.5 Fauji Kabirwala
- 4.6 Independent Private Power Projects (13 in number)

5. Polyester

- 5.1 ICI Polyester
- 5.2 Rupali Polyester
- 5.3 Ibrahim Fibers
- 5.4 Dhan Fibers
- 5.5 Dewan Salman Fibers
- 5.6 NOVATEX
- 5.7 Gatron
- 5.8 National Fibers

6. Sugar

6.1 30 Sugar Mills

7. Food and Beverage

- 7.1 Nestle
- 7.2 Rafhan Maize
- 7.3 Uni Lever
- 7.4 Evian Fats and Oil

8. Cement

- 8.1 Attock Cement
- 8.2 Cherat Cement
- 8.3 Pakland Cement
- 8.4 Thatta Cement
- 8.5 Khan Cement
- 8.6 Dadabhoy Cement
- 8.7 FETCO Cement
- 8.8 Javedan Cement
- 8.9 Kohat Cement
- 8.10 Mapple Leaf

9. Pulp and Paper

9.1 Packages

Annexure – II

List of Key Personnel

S.No.	Name	Designation	Educational Qualification	Years of Experience
01	Saifi Ahmad	Chairman & CEO	B.S.E.E (USA) PE	25
02	Amir Ali	Managing Director	B.S.E.E. (USA) PE	50
03	Lesli-Ann Derry Berry	Director	B.S.E.E. (USA) PE	25
04	Hamid Ali Khan	General Manager	B.Tech (Electrical) PE	24
05	Mirza Nazeer Baig	Manager	DAE (Electronics)	25
06	Shahrukh Waheed	Asst. Manager	B.E (Mechanical)	6
07	M. Abid Sheikh	Assistant Manager	DAE (Electronic)	9
08	Sanaullah Khan	Assistant Manager	M.Sc. (Applied Chemistry)	4
09	M. Amir Khan	Manager System	M.Sc. (Electronics)	8
10	Javeria Aftab	Assistant Engineer	B.E (Electronics)	4
11	Bushra Sharif	Assistant Engineer	B.E	4
12	Muhammad Bashir	In charge Spare Parts	D.A.E	14
13	Waqas Naseer	Assistant Engineer	B.E (Electronics)	2
14	S.Waqas Raza	Asistant Manager	B.E(Electronics)	5
15	Summaiya Fareed	Assistant Engineer	B.E(Electronics)	1
16	Ather Khan	Asst. Service Engineer	B.E (Electronics)	2
17	Tauqeer Ahmed	Assistant Engineer	B.E (Electronics)	1
18	Tariq Habib	Application Engineer	B.E, M Sc	1
19	Furqan Shamim	Asst. Software Engr	B. Sc	3
20	Zeeshan Hussain	Sales & Appl. Engr	B.E (Electronics)	5
21	Raheel Zafar	Sales & Appl. Engr	B.E (Electronics)	3
22	Shah Zaman Khan	Asst. Sales Engr	B.E (Electronics)	1
23	Fahad Ahmad	Assistant Manager	M. Sc. (Physics)	5
24	Muhammad Ali Kazmi	Installation supervisor	Apprentice ship	15 Page 1/2

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25	FAHAD AHMED KHAN	ASST. SALES AND APPLICATIONS ENGINEER	MSc. Physics and Msc. Telecommunications (U.K)	1
26	MUHAMMAD SHAHZAD FAISAL	ASST. SALES AND APPLICATIONS ENGINEER	B.E (Electronics)	1
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