



COMPANY PROFILE

1. ENGINEERING & FIELD ENGINEERING SERVICES
2. INSPECTION / CONSTRUCTION SUPERVISION SERVICES
3. PROJECT MANAGEMENT SERVICES
4. ELECTRICAL & INSTRUMENT EPC



Introduction

Established in 2001, PT REKAYASA ENGINEERING, which has been an important subsidiary of PT REKAYASA INDUSTRI, has gradually evolved from a Profit Centre of Detailed Engineering with only a handful of employees to become a multi-service engineering firm that now employs hundreds of people.

The establishment was an effort to improve our competence in engineering area to serve wider industrial markets and to expand prospective engineering business in the future. Our capabilities are also supported by excellent competence that was formulated based on experience to manage manpower efficiently.

Our unflinching commitment to achieving excellence and stringent quality controls, together with the application of the state-of-the-art engineering technologies, have firmly established PT REKAYASA ENGINEERING as a new high competent engineering company.

Among our milestone achievements are winning the engineering and design services contract for five years for WICO Indonesia, one of the top five oil and gas companies in Indonesia. In addition, we have gained recognition in the petrochemical and fertilizer industries. We value our participation in essential national infrastructure projects as clear evidence of our competence and expertise in undertaking large-scale projects.

We provide a wide range of engineering services in at least five business fields: petrochemical and chemical area, oil, gas and power generation area, cement and mineral area, agro industry area as well as in manpower supply for field services.



Rekayasa Engineering Office - RGS II



Rekayasa Engineering Branch Office
Balikpapan - Kalimantan

We promise our clients "efficient service at the most competitive cost, on-time delivery of commitments, and confidence on their quality", which also forms the bedrock of its customers service and quality policy. Our commitment is supported by utilizing a sophisticated and efficient IT-driven engineering project execution system. Signifying our continuous strive toward excellence, SUCOFINDO International Certification Services approved and certified PT REKAYASA ENGINEERING for ISO 9001:2000 / SNI 19-9001:2001 together with Quality Management System Certification for Engineering and Inspection Services for Process, Piping, Instrument, Electrical, Mechanical and Civil.



Rekayasa Engineering Front Office

VISION STATEMENT

We are committed to gain the trust and confidence of our customers by being a high competent engineering company that gives added values to clients.

MISSION STATEMENT

Our goal is to provide the best engineering services for client through value creation and continuous improvement.

QUALITY POLICY STATEMENT

We are committed to provide our clients with efficient service at the most competitive cost, to complete our commitments on time and to deliver our products with confidence on their quality.



ISO Certificate 9001 - 2009

Product & Services

PT REKAYASA ENGINEERING can handle any plant design engineering job, whether it is large or small, from start to finish. Our experienced staffs are capable of carrying out basic and detailed engineering. These services are adequately provided by a project team, organized for individual jobs to assure perfect project management involving schedule, cost and quality control.

During construction phase, we can provide Field Engineer and Supervision Services. We continue, perform and finalize the engineering services to ensure necessary information is available for procurement, construction, installation, fabrication and other field execution, commissioning, start-up and integration activities. It can also make any required revisions to design and drawings to take into account evolving circumstances during the construction and as built drawing after construction is finished.

Construction Supervision is to manage, direct and monitor all construction activities to align with safety, schedule and quality based on contract agreement. To generate the projects, PT REKAYASA ENGINEERING will provide a solid engineering team from several disciplines (Process, Instrument, Electrical, Mechanical, Piping and Civil Engineering) and utilize the latest technology in 3-D design application.

Each discipline is staffed with a number of qualified personnel who has high competence and capability of comprehensive service and backed by discipline specialist. Our engineering team from each discipline has good competences to serve you the following job specification:



PLTP Kambojang Unit - 4 (600 MW) Project

ENGINEERING SERVICES

Process Engineering

1. Piping & Instrumentation Diagram
2. Process Simulation
3. Line Sizing
4. Line Index
5. Equipment List
6. Hydraulic Calculation
7. Vessel & Tank Sizing
8. Design and Rating Heat Exchanger
9. Preliminary Control Valve Calculation
10. Preliminary Safety Valve Calculation
11. Restriction Orifice Calculation
12. Control Description
13. Process Data for Instrument
14. Instrument Set Point Table
15. Tie-in Procedure
16. Process Safety Analysis
17. Pre-commissioning Procedure
18. Operation Manual Procedure
19. Hazardous Area Classification
20. Hazardous and Operability Study (HAZOP)

Instrument Engineering

1. Layout Drawing
2. Boundary Work for Civil, Electrical, Piping, Mechanical
3. Typical Drawing
4. Symbol and Index
5. Standard Drawing
6. Configuration Diagram for Control System
7. Power Supply Diagram
8. Drawing LIO for Control System
9. Instrument Nozzle Elevation
10. Loop Diagram
11. Interlock Diagram
12. Hook-up Tubing
13. Connection List / Termination Diagram
14. Cable / Cable Drum Schedule
15. Material Take Off (MTO)
16. Instrument Datasheet
17. Instrument Calculation Sheet

Electrical Engineering

1. One Line Diagram
2. Substation Equipment Layout
3. Hazardous Area Classification
4. Power Wiring Layout
5. Cable and Gland Schedule Power & Control
6. Cable Tray & Cable Pit Layout
7. Schematic and Connection Diagram
8. Lighting and Receptacle Wiring Layout
9. Connection Diagram and Panel Schedule of Lighting
10. Street Lighting Wiring Layout
11. Grounding Wiring Layout
12. Lightning Protection System Layout
13. Fire Alarm System Wiring Layout
14. Communication System Wiring Layout
15. Material Take Off (MTO)
16. Standard Drawing
17. Specification / Data Sheet

Mechanical Engineering

1. Plot plan
2. General Arrangement Drawing
3. Engineering Detail Drawing
4. Mechanical Standard Drawing
5. Mechanical Building
6. Mechanical Data Sheet
7. Material Take Off

Piping Engineering

1. Plot Plan Drawing
2. Key Plans Drawing
3. Piping Layout
4. Underground Piping Layout
5. Isometric
6. Spool Drawing
7. Test Block Diagram
8. Pipe Stress Analysis
9. Wall Thickness Calculation
10. Nozzle Orientation
11. Nozzle Loading Data
12. Civil Loading Data for Pipe-rack
13. Clape-Supports
14. Piping Standard Drawing
15. Support Standard Drawing
16. Piping Material Specification
17. Material Take Off (MTO)

Civil Engineering

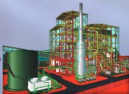
1. Control Building Structure
2. Substation Building Structure
3. Equipment Foundation (Static & Dynamic)
4. Tank Foundation
5. Table Top Structure for Elevated Vibration Equipment
6. Steel and Concrete Pipe/Rack Structure
7. Steel Storage Structure
8. Compressor House
9. Conveyor Gallery and Conveyor System
10. Equipment Structure (Concrete & Steel)
11. Underground Structure (Culvert, Basin, Pond, etc)
12. Infrastructure for Plant (Road, Pavement, Under Ground Composite, Sewer and Drainage)
13. Equipment Package Foundation (Gas Turbine Generator, Boiler, Reformer, Desulfurizer, etc)
14. Any Facilities for On-Shore Plant (Cement, Mineral, Oil & Gas, Fertilizer, Agro Industry)
15. Shop Drawing for Steel Structure Fabrication and Construction

FIELD ENGINEERING SERVICES

INSPECTION / CONSTRUCTION SUPERVISION SERVICES

PROJECT MANAGEMENT SERVICES

ELECTRICAL & INSTRUMENT EPC



3D NPK Project - Malaysia

Engineering Execution

PT REKAYASA ENGINEERING has a proven track record of success in Oil and Gas, Chemical and Petrochemical, Cement and Mineral, Power Plants projects and many other types of upstream and downstream projects. Customers have the opportunity to apply this wealth of knowledge and expertise to the Project Conception and Initiation of their project. As an overall group, PT REKAYASA ENGINEERING project team works hand-in-hand with our respected Customers.

Every project awarded to PT REKAYASA ENGINEERING is organized under the direction of a Project Manager who is responsible for the maintenance of quality, costs and schedules and reports to the Project Director. Supporting the Project Manager in every aspect of engineering, Engineering Division consists of engineers specialized in process, mechanical, instrument, piping, electrical and civil engineering, who participate in the project execution, preparation of proposals and consultancy services.

Depending on the scale and complexity of the project, engineering projects are carried out by a task force or a combination of task force and matrix. This approach increases efficiency and reliability, and locates all members of the task force team in a single location to facilitate the back up, speedy communication and centralized control that the Project Manager depends on. Working directly under the administrative control of the Project Manager, the type, size, composition and location of the task force is determined according to the scale and type of project.



Compressor Erection 25 MMFCO at WCOO Project



Inspection for Gas Station - Subang



Training for First Aid and Fire Fighting

ENGINEERING STANDARD

ACI	American Concrete Institute
ANSI	American National Standards Institute
API	American Petroleum Institute
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
ISA	Instrument Society of America
ISO	International Organization for Standardization
JIS	Japanese Industrial Standard
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
PUIL	Peraturan Umum Instalasi Listrik
TEMA	Tubular Exchanger Manufacturers Association
UBC	Uniform Building Code
AISC	American Institute of Steel Construction
AGA	American Gas Association
IES	International Lighting Standard

ETC



Rekayasa Engineering Activities



PDS (Plant Design System) Station

Manpower

The Directors and Management of PT REKAYASA ENGINEERING share a vision of technology and integrity based business development reflecting national capabilities in a highly competitive global market. Toward fulfillment of this vision PT REKAYASA ENGINEERING is developing a nucleus of competence and healthy management together with responsible, professional and talented human resources.

In recognizing the importance of qualified people in successful management and execution of projects, PT REKAYASA ENGINEERING continuously develops and up-grades the skills of its personnel. The Company requires that its Engineers hold Certificates from the Indonesian Association of Engineers.

PT REKAYASA ENGINEERING supports two types of Training Program, Specialized and Corporate Management. Engineers may also be awarded the opportunity to be sent abroad to earn higher degrees or the PMBOK (Project Management Body of Knowledge) Certificate from PMI (Project Management Institute) of Philadelphia, USA.

During 2002 and 2003, all engineering projects including basic and detail design engineering were established accomplished by spending 350,000 and 400,000 man-hours respectively. Our manpower average capacity per year is about 400,000 man-hours.

Information Technology

PT REKAYASA ENGINEERING realizes the importance of technology in carrying out its business by investing heavily on state of the art IT infrastructure to ensure an effective system of communication and collaboration.

In order to accelerate working progress, PT REKAYASA ENGINEERING utilizes information system technology using intranet and internet network system. Therefore, all employees could communicate by electronic mail and construct an integrated information technology.

Hardware

Plant Design System (PDS) Station, Personal Computer, Laser Printer, Plotter, Big Size Printer (A0), Scanner, Server and Local Area Network (LAN)

Software

Process Engineering

1. HYSYS version 3.1
2. HTRI version 2.0
3. Exchanger Suite version 2.0
4. PHA-Pro version 5.0
5. Math Lab version 6.5
6. Micro Station version 5.0
7. Auto Cad version R14/2000
8. Auto Cad Version 2006
9. Auto Cad Version 2009

Mechanical Engineering

1. Dssu version 2.2
2. HTRI version 2.0
3. Carrier version 1.41
4. Math Cad version 2001
5. Auto Cad version R14/2000
6. Micro Station version 5.0
7. Auto Cad 2006
8. Auto Cad mechanical 2009
9. Autodesk inventor pro 2009

Piping Engineering

1. Caesar II version 4.2
2. Auto Cad version R14/2000
3. Auto Plant 2D/3D
4. Micro Station version 5.0
5. Caesar II 450
6. Auto Cad 2006

Civil / Structure Engineering

1. Staad Pro version 3.1
2. Staad Pro 2007
3. Math CAD version 2001
4. Siru CAD version 99
5. X-Steel version 6.0
6. Tekla 12
7. Plaxis version 7.11
8. SAP-90 version 7.4.2
9. Auto Civil version 7.0
10. Auto CAD version R14/2000
11. Auto Cad Version 2006
12. Micro Station version 5.0
13. Auto Cad architecture 2009
14. Auto Cad revit architecture 2009

Instrument Engineering

1. Orifice Flow version 4.0
2. Instru Calc version 4.0
3. RS View version 6.3
4. Intools version 5.2
5. First View version 1.0
6. Safety Size version 5.0
7. Auto Cad version R14/2000
8. Micro Station version 5.0
9. Auto Cad Version 2006
10. Auto Cad Version 2009



Documentation Station



Operational Meeting

Electrical Engineering

1. DAPPER version 4.5
2. ETAP version 4.7.4
3. EDSA version Technical 2000
4. Micro Station version 5.0
5. Auto Cad version R14/2000
6. Etap 5.5
7. Auto Cad Version 2006
8. Auto Cad electrical 2009



API/INDO Certificate



MUK Certificate



SKT MIGA3 Certificate



IRKINDO Certificate

Experiences List

1. OIL AND GAS PROJECTS

NO.	CLIENT / OWNER	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT Rekayasa Industri / PT Pertamina	Seangon Crude Oil Tank	18.800	Eng	2008-2010
2	PT Rekayasa Industri / PT Pertamina	RCC Off Gas to Propane Project	46.750	Eng	2008 - 2009
3	PT Total E&P Indonesia	Engineering Service for Building and Associated Works 2008	45.594	Eng	2008 - 2011
4	PT WahanaKarya Swacrida / Chevron	Piping Engineering Facilities Station Pengumpul dan Pengalihan Air Injeksi Pungut	2.300	Eng	2008
5	ConocoPhillips	Onshore Operations Small Project - Short Term Engineering	10.170	Eng	2008
6	ConocoPhillips	Engineering Design For Metal Electrical Power	5.340	Eng	2007 - 2008
7	ConocoPhillips	Engineering Design For Metal Facilities	2.380	Eng	2007
8	PT Chevron Pacific Indonesia	Engineering Design Service For Installation of New Instrument Air Package	9.900	Eng	2007 - 2008
9	PT Rekayasa Industri / PT Pertamina	Modernization L&SFP UPP-Surabaya Project, Capacity : 101.000 t/dy	14.170	Eng	2007
10	PT Rekayasa Industri / PT Pertamina	Clayco Crude Tank Floating Roof Project, 2 x 500.000 Barrel	12.200	Eng	2007
11	WCO Indonesia	Engineering & Design Service for Various API and API Project	229.423	Eng	2007 - 2009
12	Medco E&P Indonesia Project	BP 887-1 Engineering Blanket Contract for Kalimantan	4.900	Eng	2006
13	Medco E&P Indonesia Project	BP 880 Engineering Blanket Contract for SBE	20.707	Eng	2006
14	Medco E&P Indonesia Project	BP 880-1 Engineering Blanket Contract for Sarulak	4.400	Eng	2006
15	PT Total E&P Indonesia	Asset/CD Drafting Services	20.274	Eng	2006 - 2008
16	PT Rekayasa Industri / BP	Engineering Services for LNG Tangguh	32.200	Eng	2005 - 2007
17	PT Wapoga / Pertamina	Gas Pipeline Project	1.342	Eng	2004
18	PT Pertamina Uprya Sejahtera	Field & Engineering Services of LPG Filling Gas Station	4.633	Eng	2005
19	PT Sabak MG.	Study Pemastian Pipa Pemondok Kelabakan & Evalasi Design Sistem Distribusi	5.458	Eng	2005
20	PT Sabak MG.	Engineering Service for Sabak Facilities	26.500	Eng	2004 - 2006
21	PT Rekayasa Industri / PT PGR	Detail & Design Engineering of Subbagal Paket 1	44.544	Eng, Field Eng	2004 - 2005
22	Pertamina Sumatera Utara	Gas Pipeline	4.900	Eng	2004
23	PT Enra Khatul	MPU New Camp	600	Eng	2004
24	PT Rekayasa Industri / PT Pertamina	Seangon Blue Sky Project	104.448	Eng, Field Eng	2003 - 2004
25	Pertamina JPM Balikpapan	Premium Tank Construction	388	Eng	2002
26	PT Rekayasa Industri / PT Pertamina	CO2 Removal, 2 x 100 MMSCFD	11.261	Eng, Field Eng	2002 - 2003
27	WCO Indonesia	Engineering & Design Service	28.400	Eng	2002 - 2003
28	PT Caltex Pacific Indonesia	API-10 Bid Package Development	2.800	Eng	2002
29	PT Rekayasa Industri / PT PGR	Gas Booster Station, 400 MMSCFD	22.887	Eng	2002
30	Gulf Indonesia Resources	Crack Operation Support	11.400	Eng	2002
31	PT Rekayasa Industri / WCO	Engineering & Design Service for Various API and API Project	111.288	Eng	2001 - 2002
32	Econ Mobil Indonesia	Piping Design & Drafting Service	15.900	Eng	2001
33	PT Rekayasa Industri / WCO	Engineering & Design Service for Various API and API Project	178.900	Eng	2000
34		Ramatrumahantun Railway Plant	11.800	Eng	
35	PT Rekayasa Industri / WCO	Sembelih-14 Upgrading	1.400	Eng	1999
36	PT Rekayasa Industri / WCO	Control Panel Recovation, Niam Central Plant	2.400	Eng	1999
37	PT Rekayasa Industri / WCO	Niam HP Compression Project	1.300	Eng	1999
38	PT Rekayasa Industri / WCO	Pemaguan-AG Compression & Motors Facilities Upgrading	29.400	Eng	1999
39	PT Rekayasa Industri / WCO	Niam and Sembelih-13 Gas Compression	40.300	Eng	1999
	Eng + Engineering				

2. GEOTHERMAL & POWER PLANT PROJECTS

NO.	CLIENT / OWNER	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT Rekayasa Industri / PLN	Detail Engineering Pemasangan MRSI PLN Muara Tevar - Bekas	1.292	Eng	2008
2	PT Rekayasa Industri / PLN	PLTU Sunbay, 1 x 600 MW	8.582	Eng	2008
3	PT Rekayasa Industri / PLN	Wajay Windu Geothermal Power Plant Project, 1 x 110 MW	20.348	Eng, Field Eng	2007
4	PT Rekayasa Industri / PLN	Lahendong II Geothermal Power Plant Project, 1 x 20 MW	14.370	Eng, Field Eng	2007
5	PT Rekayasa Industri / PLN	Lahendong I Geothermal Power Plant Project, 1 x 20 MW	8.620	Eng, Field Eng	2006
6	PT Rekayasa Industri / Pertamina	Kerinci IV Geothermal Power Plant Project, 1 x 60 MW	30.290	Eng, Field Eng	2006
7	PT Sepeoth Daya Prima	Field & Engineering Services of Coal Fired Steam Power Plant 2 x 7 MW	23.810	Eng, Field Eng	2002
8	BLD Engineering, Singapore	Detailed Engineering of Lahendong Geothermal Power Plant	11.100	Eng	1999

3. PETROCHEMICAL AND INDUSTRY PROJECTS

NO.	CLIENT	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT Raska / PT Pertamina	Aromatic Unit Plant	36,414	Eng	2006-2010
2	PT Raska / Naftha Saja Kimia Sdn Bhd	3D Model of NPX Malaysia, Capacity 910 MT / Day	4,000	Eng	2004
3	PT Raska / PT Pupuk Kujang	Detailed Engineering of Pupuk Kujang 1B, Ammonia 1,000 MTPD, Urea 1,125 MTPD	127,512	Eng	2003 - 2004
4	PT Raska / PT Pupuk Kujang	Road and Bridge Strengthening	25,800	Eng	2003 - 2004
5	PT Raska / Naftha Saja Kimia Sdn Bhd	Detailed Engineering of NPX Malaysia, Capacity 911 MT / Day	79,425	Eng	2003
6	PT Raska / PT Pupuk Kalimantan Timur	Detailed Engineering of Kalten 4 Plant, Ammonia 1,000 MTPD, Urea 1,125 MTPD	70,000	Eng	1999 - 2002
7	PT Raska / PT Pupuk Iskandar Muda	Detailed Engineering of PIM 1 Plant, Ammonia 1,200 MTPD, Urea 1,320 MTPD	10,800	Eng	2001
8	Mitsubishi Heavy Industries, Japan	Instrumentation Design & Engineering Services of MH Phase I	3,550	Eng	2001
9	PT Raska / PT Pupuk Kalimantan Timur	Conveyer Urea System of Pupuk Plant, Capacity 570,000 MTPH	27,600	Eng	2000
10	Mitsubishi Heavy Industries, Japan	Simulation Dial Structure of MH Phase I	3,800	Eng	2000
11	Toyo Engineering Corp., Japan	Instrument Loop Diagram	1,300	Eng	2000

4. CHEMICAL AND AGRO INDUSTRY PROJECTS

NO.	CLIENT	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT Kelindo / Brunel	Brunel Methanol Project	600	Eng	2007
2	PT Rotand - Bakti (Consortium)	Detail Engineering 100,000 MTPY Bio-diesel Plant Project	19,276	Eng	2007
3	PT Raska / Medco E&P Indonesia	Bio-ethanol Project	41,721	Eng, Field Eng	2008
4	PT. Bumi Muli Jaya	Detail & Design Engineering Services of Paper Mill-2	26,327	Eng, Field Eng	2005
5	PT Sentana	Design Engineering Services of NH3 Plant	6,495	Eng	2004 - 2005
6	PT. Bogaean Sentra Flour Mills	Engineering Audit Ex. Sargento	2,558	Eng	2005
7	PTPN 10 Kalimantan	Design & Engineering of CPD Plant	2,300	Eng	2002 - 2003
8	PT Petrokimia Gresik	Engineering of NH3 Plant	2,800	Eng	2002
9	PT South Pacific Vessco	Stress Analysis of Piping Turbine	900	Eng	2001
10	PT Raska / PT Tanjung Eain Lestari	Instrument Technician for Masi Plant	10,800	Eng	2000 - 2001
11	PT Goldschmidt Sumi-Ash	Basic Engineering of betanac Plant	4,100	Eng	2000
12	PT Raska / PT Tanjung Eain Lestari	Engineering of Masi Pulp Mill	22,600	Eng	1999
13	PT Raska / PT Tanjung Eain Lestari	Complete Utility Bridge Complex	1,900	Eng	1999
14	PT Raska / PT Tanjung Eain Lestari	Engineering of Masi Pulp Mill	129,800	Eng	1997 - 1998

5. MINERAL, ENVIRONMENT & INFRASTRUCTURE PROJECTS

NO.	CLIENT / OWNER	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT Kalten Prima Coal	Engineering Services	5,110	Eng	2005 - 2008
2	PT Freeport Indonesia	MSA Engineering Design Services	11,500	Eng	2006 - 2009
3	PT Epitherma	Shop Drawing (Civil and Mechanical) for Mining Facility	-	Eng	2006
4	PT Anika Tambang	Design & Engineering of Gold Mining	7,401	Eng	2002
5	USM Industries Consulting Ltd.	Detailed Engineering of Tanaka Bridge	400	Eng	2002

6. RADIOGRAPHY, INSPECTION, SUPERVISION PROJECTS

NO.	CLIENT	PROJECT	MAN-HOUR	SCOPE	YEAR
1	PT. Total E&P Indonesia	Construction Supervision Services	47,148	Supervision	2006
2	PT Bakti NGL	Jasa Teknik Pengawasan Proyek	7,482	Supervision	2005
3	PT Raska / WICO Indonesia	Inspection Services	133,000	Inspection	2000 - 2005
4	PT Pupuk Kujang	Radiographic Examination	6,000	Radiography	2004
5	PT Pupuk Iskandar Muda	Radiographic Examination	8,100	Radiography	2003
6	PT Raska / WICO Indonesia	Inspection Services	43,600	Inspection	2001



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