

Refinery Units - Project References

Year of Order	Customer	Plant Location	Plant / Product / Unit	Capacity (TPA)	Licensor	Services Rendered
2018	Bharat Petroleum Corporation (GR Engineering)	Kochi	CCR Cyclemax Regeneration package for BS VI MS Block Project	800 KTA	UOP	DE
2017	Indian Oil Corpn.	Odisha (Paradip Refinery)	BS VI Quality Upgradation Project			EPCM
			Isomerisation Unit	1,100 KTA	UOP	
			Indmax Gasoline Desulphurisation Unit	1,150 TKA	Axens	
			Hydrogen Generation Unit	60 KTA	Linde	
			Kero Hydro Desulphurisation Unit	300 KTA	IOCL, EIL (R&D)	
			DHDT Revamp	5.2 KTA to 6.24 KTA	Shell	
			Vacuum Gas Oil Hydrotreating (VGO HDT)	Quality Revamp thru Catalyst change	Axens	
2016	Indian Oil Corpn.	Assam (Bongaigaon Refinery)	Indmax FCC Unit	0.740 MMTPA	ABB Lummus	PMC
			Gasoline Desulphurisation Unit (Prime G+)	Splitter : 0246 MMTPA	Axens	
			Offsites & Utilities	HDS Section : 0.155 MMTPA		
2015	Chennai Petroleum Corpn.	Chennai (Manali Refinery)	Diesel Hydro Desulphurisation Unit Revamp	1.8 to 2.34 MMTPA	Axens	DFR, EPCM
2015	Indian Oil Corpn.	Baroda (Gujarat Refinery)	BS IV Quality Upgradation project DHDS Revamp	1.77 to 2.3 MMTPA	EIL EIL	DFR, EPCM

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			DHDT Revamp	2.2 to 2.86 MMTPA	UOP	
			VGO-HDT	2.1 to 2.76 MMTPA		
2015	IBN-Zahr (Saudi European Petrochemical Co)	Saudi Arabia	Air Pre-heater (replacement)	-	-	PDP, FEED
2014	BioNext (TKIS – PT)	France	Biomass to Liquid (Gasification)	5,000 Nm ³ /hr (Syngas)	TKIS – PT	E (Detailed)
2013	Sasol Synfuels (Pty) [TK IS]	South Africa	Secunda Clean Fuels 2 Project	-	Various	E (Basic)
2011	Indian Oil Corpn.	Baroda (Gujarat Refinery)	Conversion of Hydrogen Generation Unit 1 to Natural Gas Feed	38,000	Linde	E, P, CS, COS
2010	Nagarjuna Oil Corpn.	Cuddalore	Hydrogen Plant	40,000 Nm ³ /hr	Uhde	LSTK
			Sulfur Recovery Unit	2 x 90 tpd	Uhde	LSTK
			Sulfur Recovery Unit	1 x 60 tpd	Uhde	EPCM
2010	SABIC	Saudi Arabia	Benzene Mitigation Project	-	By Client	FEED
2009	Praxair India (for Indian Oil Corpn.)	Orissa (Paradip Refinery)	Hydrogen plant	100,000 Nm ³ /hr	Uhde	LSTK

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2009	Bharat Petroleum Corporation	Mumbai (Mahul Refinery)	Naphtha Hydrotreater, Continuous Catalytic Regeneration Reformer	1.2 MMTPA	Axens	PMC
2009	Nagarjuna Oil Corpn.	Cuddalore	A02, A04 Units for 6.0 MMTPA refinery including Isomerisation Unit & various Open Arts Units	-	UOP (Isomerisation Unit)	E, P, CS, COS
2009	Indian Oil Corpn.	Orissa (Paradip Refinery)	VGO-HDT Unit DHDT Unit Hydrogen Compression Distribution System	5.4 MMTPA 5.2 MMTPA -	Axens Shell Global Foster Wheeler	E, P, CS, COS
2008	Mangalore Refinery and Petrochemicals	Mangalore	Crude Distillation Unit, Vacuum Distillation Unit, Gas Oil Hydro Desulphurisation unit	CDU/VDU : 3.69MMTPA to 4.8MMTPA / GOHDS : 4,000 to 5,200 tpd	CDU/VDU : Engineers India GOHDS : Axens	PMC EPCM
2008	Bongaigaon Refinery & Petrochemicals (Indian Oil Corpn.)	Assam (Dhaligaon)	Fractionation Unit, Isomerisation Reformer, Reformer De-heptaniser, Parex Unit – for Motor Spirit Quality Upgradation	224,000 TPA 167,280 TPA 160,000 TPA	Engineers India	E, P, CS, COS

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2008	Indian Oil Corpn.	Assam (Guwahati Refinery)	Indmax Gasoline Splitter, Light Naphtha Splitter, Isomerisation Unit - for Motor Spirit Quality Upgradation	55,000 MTPA 75,000 MTPA 45,000 MTPA	Axens Lurgi (Light Naphtha) Axens	E, P, CS, COS
2008	Indian Oil Corpn.	Assam (Digboi Refinery)	Naphtha Splitter, Reformate Splitter, Isomerisation Unit - for Motor Spirit Quality Upgradation	130,000 MTPA 82,000 MTPA 47,000 MTPA	Axens	E, P, CS, COS
2008	Indian Oil Corpn.	Baroda (Gujarat Refinery)	VGO-HDT, ATF, FCC LPG Merox & associated facilities for residue upgradation & Motor Spirit / HSD quality improvement	2.1 MMTPA 200 TMPTA 225 TMPTA	UOP	E, P, CS, COS
2007	Nagarjuna Oil Corporation	Cuddalore	Offsites & Utilities of Refinery Project including Refinery Refurbishment Mgt.	-	-	E, P, CS, COS
2007	Reliance Petroleum	Jamnagar	Refinery Offsites Packages	-	-	E (Detailed)
2005	China National Offshore Oil Company (Uhde GmbH)	China	Hydrogen plant	2 x 100,000 Nm ³ /hr	Uhde	E
2005	Essar Oil / ICICI Bank	Vadinar	Refinery – Lenders Engineering	-	ABB Lummus	E
2004	Neste Oil Oyj (Uhde GmbH)	Finland	Hydrogen plant Reformer	153,500 Nm ³ /hr	Uhde	E

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2004	Mangalore Refinery and Petrochemicals	Mangalore	Offsites & Utilities for Main Refinery Expansion Project	-	-	E, P, CS, COS
2003	Kuwait National Petroleum Corpn., MAA Refinery (ISCO, Kuwait)	Kuwait	Implementation of Hazop Studies of Refinery Units	-	-	E
2003	UD-Koch-Glitsch Project (Uhde GmbH)	Belarus	Hydrogen plant Reformer	39,000 Nm ³ /hr	Uhde	E
2003	Indian Oil Corpn., Gujarat Refinery	Baroda	Motor Spirit Quality Upgradation	-	-	PMC (incl. FEED), E
2003	Kuwait National Petroleum Corpn. (ISCO, Kuwait)	Kuwait	Enhancement of Local Marketing Distribution facilities	-	-	E
2002	Reliance Petroleum	Jamnagar	Offsites & Utilities	-	Uhde India	E
1998	BASF AG. (Uhde GmbH)	Belgium	Benzene / Toluene (Extractive Distillation of Pyrolysis Gasoline)	680,000	Uhde/ BASF	E
1998	Saras Refinery (Parsons, U.K.)	Italy	Mild Hydrocracker	55,000 blpd	ABB Lummus/ Shell	E
1998	Indian Oil Corpn., Gujarat Refinery (Petrofac, Sharjah)	Baroda	Sulfur Recovery	23,000	Stork/ UOP	E, P
1997	Indian Oil Corpn., Panipat Refinery (Larsen & Toubro, India)	Panipat	Diesel Hydro Desulphurisation	700,000	IFP	E

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1997	Titan Petrochemicals (Uhde GmbH)	Malaysia	Aromatics plant (Extractive Distillation of Reformate)	232,000	Uhde	E
1995	Mangalore Refinery and Petrochemicals	Mangalore	Visbreaker (Duplication)	2,300 tpd	ABB Lummus	E, P, CS, COS
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