



ExxonMobil refinery in Baton Rouge. Photo by Adbar

MAJOR FACILITIES WHERE I-ROD® IS INSTALLED

I-Rod has been installed many thousands of times worldwide since we began offering it in 1989. Most I-Rod products are sold through OEM companies, supply houses and distributors, so end-users are not always known to us. This is a partial list of positively identified major refineries and plants using I-Rod pipe supports.

CARSON REFINERY (TESORO), CARSON, CA

Carson has a throughput capacity of 363,000 barrels per day. The TESORO Los Angeles Refinery - Carson Operations in Carson, California occupies 650 acres and employs more than 1,000. The refinery can process 265,000 barrels of crude oil per day to produce a variety of petroleum products including gasoline, jet fuel, diesel fuel and petroleum coke, as well as products such as propylene, natural gas liquids and other petrochemicals.

GOLDEN EAGLE REFINERY (TESORO), MARTINEZ, CA

Tesoro's Martinez Refinery is located in Martinez, Calif. near San Francisco on 2,200 acres and has a crude oil capacity of 166,000 barrels per day (bpd). It produces motor fuels, including cleaner-burning California Air Resources Board (CARB) gasoline and CARB diesel fuel, as well as conventional gasoline and diesel fuel. The refinery also produces heavy fuel oils, liquefied petroleum gas and petroleum coke.

LOS ANGELES REFINERY (TESORO), WILMINGTON, CA

Tesoro's Los Angeles refinery is located near the Port of Long Beach on 930 acres. It's the largest refinery on the West Coast and is a major producer of clean fuels. It can operate at 380,000 barrels per day (bpd) and employs 1,450 full-time workers. The facility manufactures gasoline, jet fuel, diesel fuel, petroleum coke, fuel oil, fuel gases, propylene and calcined coke.

MARTINEZ REFINERY (SHELL), MARTINEZ, CA

Located 30 miles northeast of San Francisco on 1,000 acres of land, Shell's Martinez Refinery converts up to 165,000 barrels of crude oil a day into products including automotive gasoline, jet fuel, diesel, petroleum coke, industrial fuel oils, liquefied petroleum gas, asphalt, and sulfur.

COMMERCE CITY REFINERY, SUNCOR ENERGY, COMMERCE CITY, CO

Commerce City, Colorado's 98,000-barrel-per-day Suncor refinery produces gasoline, diesel fuel and paving-grade asphalt.

**LEMONT REFINERY (CITGO), LEMONT, IL**

The Lemont, Ill., refinery has crude processing capacity of 167,000 barrels per-day (bpd) and manufactures several grades of gasoline, diesel, jet fuel and hydrocarbon solvents used in the production of paints, adhesives and coatings. It covers 900 acres and employs 803 workers.

JOLIET REFINERY (EXXONMOBIL), JOLIET, IL

The ExxonMobil Joliet Refinery handles 250,000 barrels of crude per day and produces approximately nine million gallons of gasoline and diesel fuel per day, plus products including propane, butane, industrial fuels and asphalt.

WOOD RIVER REFINERY (WRB REFINING LP BY PHILLIPS 66/CENOVUS, ROXANA, IL

The complex can refine 360,000 barrels of crude oil per day and is the largest refinery operated by Phillips 66. The facility produces 165,000 barrels per day of gasoline, 90,000 barrels per day of diesel and jet fuels, and other products including chemical feedstocks, asphalt and propane. It sits on 2,200 acres and employs 1,100.

EL DORADO REFINERY (HOLLYFRONTIER), EL DORADO, KS

The El Dorado Refinery in El Dorado, Kansas is one of the largest refineries in the plains states and Rocky Mountain region with a crude oil capacity of 135,000 barrels per day.

MCPHERSON REFINERY (NCRA BY CHS INC.), MCPHERSON, KS

The refinery's production rate is 85,000 barrels per day, and is currently expanding its capacity to 100,000 barrels per day.

CONVENT REFINERY (MOTIVA ENTERPRISES), CONVENT, LA

The Convent facility is an integrated oil refinery that produces a full slate of conventional petroleum products including regular, premium and low-sulfur gasoline. The refinery produces reformulated and conventional gasoline, primarily for the southeastern United States, and has a crude capacity of 230,000 barrels per day.

NORCO REFINERY (MOTIVA ENTERPRISES), NORCO, LA

Products processed or produced in the Norco refinery include gasoline, jet-A aviation fuel, low sulfur diesel and anode grade coke. The refinery's crude capacity is 235,000 barrels per day.

ST. PAUL PARK REFINERY (NORTHERN TIER ENERGY), ST. PAUL PARK, MN

Northern Tier's St. Paul Park refinery in Minnesota handles 97,800 barrels per stream day and the facility's complexity allows it to process a variety of light, heavy, sweet and sour crudes into higher-value refined products.

BILLINGS REFINERY (PHILLIPS 66), BILLINGS, MT

The refinery covers 2,437 acres, employs 430 and produces 66,000 bpd. Output is a high percentage of gasoline, diesel and aviation fuels as well as fuel-grade petroleum coke.



BILLINGS REFINERY (EXXONMOBIL), BILLINGS, MT

The complex has a 60,000 barrel-per-day output and produces a diverse set of products including all grades of gasoline, conventional gasoline blendstocks for blending with ethanol, Ultra Low Sulfur Diesel fuels, asphalt, butane and propane.

BAYWAY REFINERY (PHILLIPS 66), LINDEN, NJ

It handles 285,000 bpd, and employs 800 workers. The refinery produces a high percentage of transportation fuels and petrochemical feedstocks, residual fuel oil and home heating oil.

PAULSBORO REFINERY (PBF ENERGY) PAULSBORO, NJ

The refinery has a throughput capacity of 180,000 bpd and is located on 950 acres on the Delaware River in Paulsboro, New Jersey, just south of Philadelphia. It mostly produces gasoline, heating oil and aviation jet fuel.

NUSTAR REFINERY (NUSTAR ENERGY) PAULSBORO, NJ

The refinery has a capacity of 90,800 barrels and produces gasoline, ethanol, low sulfur diesel, #2 fuel oil and jet fuel.

CANTON REFINERY (MARATHON PETROLEUM COMPANY), CANTON, OH

Located 60 miles southeast of Cleveland, Ohio on 180 acres, it has 375 employees and 300 contract workers and can handle 93,000 barrels per day. Its products include gasoline, distillates, asphalt, roofing flux, propane, refinery-grade propylene, slurry and sulfur.

TOLEDO REFINERY (PBF ENERGY) TOLEDO, OH

The petroleum refinery is located on a 282-acre site near Toledo, Ohio, 60 miles south of Detroit. It has a throughput capacity of 170,000 bpd and produces a high volume of finished products including gasoline and ultra-low sulfur diesel, in addition to a variety of petrochemicals including nonene, xylene, tetramer and toluene.

PONCA CITY REFINERY (PHILLIPS 66) PONCA CITY, OK

The facility produces gasoline, diesel and aviation fuels, liquefied petroleum gas (LPG) and anode-grade petroleum coke. It has a total capacity of 220,000 barrels per day, covers 2,500 acres and employs 960.

TULSA REFINERY EAST & WEST (HOLLYFRONTIER), TULSA, OK

The Tulsa Refinery has a crude oil capacity of 125,000 barrels per day and mainly processes sweet crude oils.

TESORO ANACORTES REFINERY (TESORO), ANACORTES, WA

Located about 70 miles north of Seattle on Puget Sound, the Anacortes refinery has a total crude-oil capacity of 120,000 barrels per day. The refinery mostly supplies gasoline, jet fuel and diesel fuel to markets in Washington and Oregon and also manufactures heavy fuel oils, liquefied petroleum gas and asphalt.

TACOMA REFINERY (U.S. OIL AND REFINING), TACOMA, WA

The Tacoma refinery produces motor, aviation and marine fuels and asphalt for the Puget Sound market with a capacity of 42,000 barrels per stream day.



DOUGLAS REFINERY (GENESIS ENERGY), DOUGLAS, WY

Genesis Energy's Douglas refinery in eastern Wyoming has a total capacity of 4,500 bpd.

HONEYWELL SPECIALTY MATERIALS, BATON ROUGE, LA.

The 36-acre UOP Baton Rouge site on the Mississippi River employs approximately 50 workers and supplies alumina, which is a non-toxic chemical used by other industries to cleanse and assist in manufacturing processes.

HONEYWELL SPECIALTY MATERIALS, GEISMAR, LA.

The Honeywell Specialty Materials facility on the Mississippi River in Geismar, Louisiana, covers 1,900 acres and houses Honeywell and four other companies. Honeywell employs 275 full-time workers and 85 contractors there, and produces several chemical products including hydrofluoric acid, fluorocarbon refrigerants and Alcon™ Resin.

EXXONMOBIL REFINERY, BATON ROUGE, LA

The Baton Rouge Refinery is the fourth-largest oil refinery in the United States and tenth-largest in the world, with an input capacity of 503,000 barrels per day. The main plant is located on the east bank of the Mississippi River, and the facility is part of a complex of nine individual plants across the region. There are 6,300 workers spread across these sites, including 4,000 full-time employees and 2,300 contractors.

THE DOW CHEMICAL COMPANY, PLAQUEMINE, LA

Dow's operation in Plaquemine is one of the largest petrochemical facilities in Louisiana. Home to most of Dow's global businesses, the 3,000-acre integrated manufacturing site produces more than 50 different basic and specialty chemical products

DOW CHEMICAL USA, FREEPORT TX

The Freeport location is Dow's largest integrated site. The four major complexes – Plant A, Plant B, Oyster Creek and Salt Dome – operate as an integrated unit spanning 7,000 acres. The site contains more than 3,200 acres of waterways and pipeline corridors and houses more than 1,900 buildings across the site.

PCA (PACKAGING CORPORATION OF AMERICA) DERIDDER CONTAINERBOARD MILL, DERIDDER, LA

The DeRidder mill annually produces over 3.7 million tons of kraft linerboard (the outer layers of a corrugated container) and semi-chemical corrugating medium (the fluted center layer).

UNION CARBIDE CORP., SEADRIFT TX

At the UCC Seadrift Operations site on the Texas Gulf Coast south of Victoria in Seadrift, TX, more than 1,000 employees and contractors make basic and specialty chemical products.



UNION CARBIDE CORP., HAHNVILLE LA

Dow's St. Charles Operations consists of a 2,000-acre petrochemical manufacturing complex in Hahnville, just upriver from New Orleans. It employs 1,000 full-time workers and 1,500 contractors. Products made at SCO are used in thousands of household, business and consumer products

EXXONMOBIL REFINERY, CHALMETTE LA

The Chalmette refinery sits on 400 acres and handles 189,000-barrels per day. The refinery runs both light and heavy crudes, and about 530 ExxonMobil employees and 500 contractors work there.

COLUMBIA PIPELINE GROUP, RAYNE LA

Columbia Pipeline Group (CPG) owns and operates more than 15,000 miles of interstate pipeline that stretches from New York to the Gulf of Mexico and is integrated with one of the largest underground natural gas storage systems in North America.

PHILLIPS 66 REFINERY, BELLE CHASSE LA

The Alliance Refinery covers 2,437 acres on the Mississippi River in Belle Chasse, Louisiana, 25 miles south of New Orleans. 850 full-time employees and contractors process mainly light, low-sulfur crude oil into gasoline, diesel, aviation fuels, petrochemical feedstocks, home heating oil and anode-grade petroleum coke.

SABINE PASS LNG TERMINAL, CAMERON PARISH, LA

The Sabine Pass LNG terminal is on 1,000 acres of land along the Sabine Pass River on the border between Texas and Louisiana, in Cameron Parish, Louisiana, at the widest point on the Sabine River Navigation Channel. The terminal has two docks that are recessed far enough so that the LNG vessel will not protrude into the open waterway while docked.

MOBIL ALTONA REFINERY, ALTONA, VIC

Located 13 kilometers west of Melbourne, the Altona refinery can produce 13 million liters of refined product per day. It employs 350 workers.

EXXONMOBIL AUSTRALIA YARRAVILLE TERMINAL, YARRAVILLE, VIC

The Yarraville Terminal is ExxonMobil's fuels distribution terminal for petrol, diesel, and aviation fuel and heating oil in Victoria. It's located on the banks of the Yarra River in the western suburbs of Melbourne, and handles 8 million liters of product per day.

AUSTRALIA PACIFIC LNG FACILITY, CURTIS ISLAND, QLD

Australia Pacific LNG is a coal seam gas to liquefied natural gas (LNG) project constructed in Queensland. It includes development of coal seam gas fields in the Surat and Bowen Basins, a transmission pipeline and a two-train LNG facility on Curtis Island.

GLADSTONE LNG FACILITY, CURTIS ISLAND, QLD

Newly constructed, gas will be piped 270 miles from coal seam gas fields to a gas liquefaction plant at Hamilton Point West on Curtis Island near Gladstone, Queensland, where coal seam natural gas will be converted into LNG. The capacity will be between 3 million and 4 million tonnes of LNG annually.



SHELL MOSSMORRAN

The Fife NGL Plant is on 250 acres located 3 km southeast of Cowdenbeath, Fife, and processes natural gas liquids from the St Fergus, Total and SAGE gas terminals. Its NGL capacity is 12,500 tonnes per day. Products manufactured at the plant include propane, butane and gasoline.

ESSAR STANLOW

Stanlow is the second largest refinery in the UK, with a refining capacity of 12 million tonnes per year and 296,000 barrel-per-day capacity. It provides a sixth of the UK's petrol consumption and is a large producer of commodities such as jet fuel and diesel. The refinery is linked to the UK oil pipeline network, so it's able to serve much of England. It's located near the River Mersey and covers nearly 1,900 acres, with a storage capacity of 2 million tonnes of crude oil and products, and a refining capacity of 12 million tonnes per year. The complex outputs 272,000 barrels per day, and employs 800 people. Products include petrol, diesel, kerosene, jet fuels, fuel oils and LPG & petrochemical feedstocks.

VALERO MILFORD HAVEN

The Pembroke oil refinery is situated on the Pembrokeshire coast in West Wales at Rhoscrowther in the community of Hundleton on the south bank of the Milford Haven Waterway.

Its capacity is 10.5 million tonnes per annum and 210,000 barrels per day. Around half of its output is gasoline, and the remainder is diesel, kerosene, jet fuel, fuel oil, LPG and petrochemical feedstocks.

SHELL PERNIS (ROTTERDAM)

Shell Pernis in Rotterdam is the largest integrated refinery/chemicals manufacturing site in Europe with a capacity of 416,000 barrels per day and 21 million tons per annum. It makes a wide range of products, including feedstock for chemical plants and a variety of fuels.

SABIC GELLEEN

SABIC Europe Chemicals Geleen plant in the Netherlands

SABIC has two naphtha crackers and several polymerization plants in Geleen that produce polyethylene and polypropylene. The Geleen facility produces 1.25 million tons per year of ethylene, 725,000 tons per year of propylene, 940,000 tons per year of polyethylene and 620,000 tons per year of polypropylene.

PHILIPS 66 IMMINGHAM HUMBER

The Humber Refinery is a British oil refinery ten miles northwest of Grimsby in South Killingholme, North Lincolnshire, that processes approximately 221,000 barrels of crude oil per day. 700,000 tons of petroleum coke are also produced each year and 130,000 barrels of petrol are produced daily. 70 percent of production is for the UK market and the remainder is exported.

NUSTAR AMSTERDAM

The tank farm has 44 tanks in sizes ranging from 2,000m³ to 30,000m³. The plant's capacity is 600,000m³. The terminal stores gasoline, gas oil, diesel, and fuel oil and the terminal also performs gasoline, biodiesel and gas oil blending operations. The terminal has two deep-water jetties for ships up to 80,000 DWT and 5 berths for smaller vessels.



NUSTAR GRANGEMOUTH

Nustar's Grangemouth terminal has a total storage capacity of 86,000m³ for storing diesel, gas oil, kerosene, gasoline, ethanol and various chemicals. The terminal has one berth capable of handling vessels with a maximum length of 180m (540 ft) and maximum draft of 9.75m (29 ft). Subject to available space, the terminal can receive loads of up to 18,000 tons.

BP GRANGEMOUTH

Grangemouth Refinery is the only crude oil refinery in Scotland. It's located on the Firth of Forth in Grangemouth, and is currently operated by Petroineos. The 700 hectare refinery employs 1,200 permanent staff and 1,000 contractors, and can process 210,000 barrels (33,000 m³) of crude oil per day.

TOTAL LINDSEY

Lindsey Oil Refinery in North Killingholme, Lincolnshire, England is Britain's third largest oil refinery and is owned by Total S.A. It can process 11 million tons of crude oil per year, or 200,000 barrels per day via two pipelines. It produces around 35 types of product and employs a permanent staff of 500 along with several hundred contractors.

PETROPLUS TEESIDE

The Teesside refinery is a crude oil reception, storage and trans-shipment installation. There are processing and tanker loading facilities that cover 307 acres (124 ha), and oil is stored in a 375 acre (152 ha) tank farm at Greatham. A two-mile (3.2 km) corridor containing pipelines, communications and utility services links the two sites, which employ 270 workers.

ESSO FAWLEY

The Esso refinery at Fawley, on Southampton Water near Southampton, is the largest in the UK. It has a mile-long marine terminal that handles 2,000 ship movements and 22 million tons of crude oil and other products each year. The refinery processes 270,000 barrels of crude oil per day and provides 20 percent of UK refinery capacity.

Products include propane and butane (LPG), petrol, jet fuel, diesel, marine fuels, heating oil, lubricant base stocks and fuel oil.

The site houses a chemical facility operated by ExxonMobil and Nalco that produces 750,000 tons of chemical products every year. The two key chemical products it produces are halobutyl rubber and methyl ethyl ketone.

PETROINEOS GRANGEMOUTH

This large petrochemical plant is located close to the Firth of Forth and employs 1,200 people. It has a capacity of 200,000 barrels per day and produces gasoline, diesel, gas oil, fuel oil, fuel gas, kerosene, jet fuel, LPG and petrochemical feedstocks.