

Petrochemical Industry

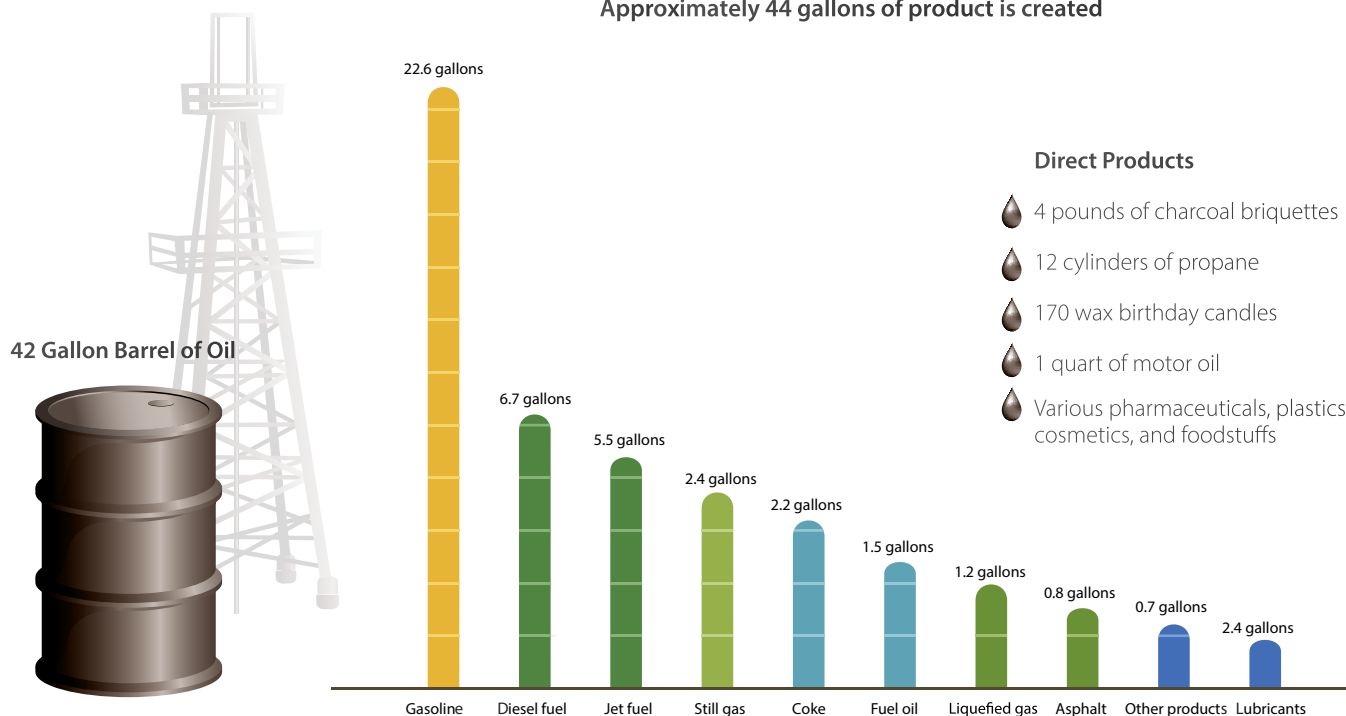


Petrochemical Refinery

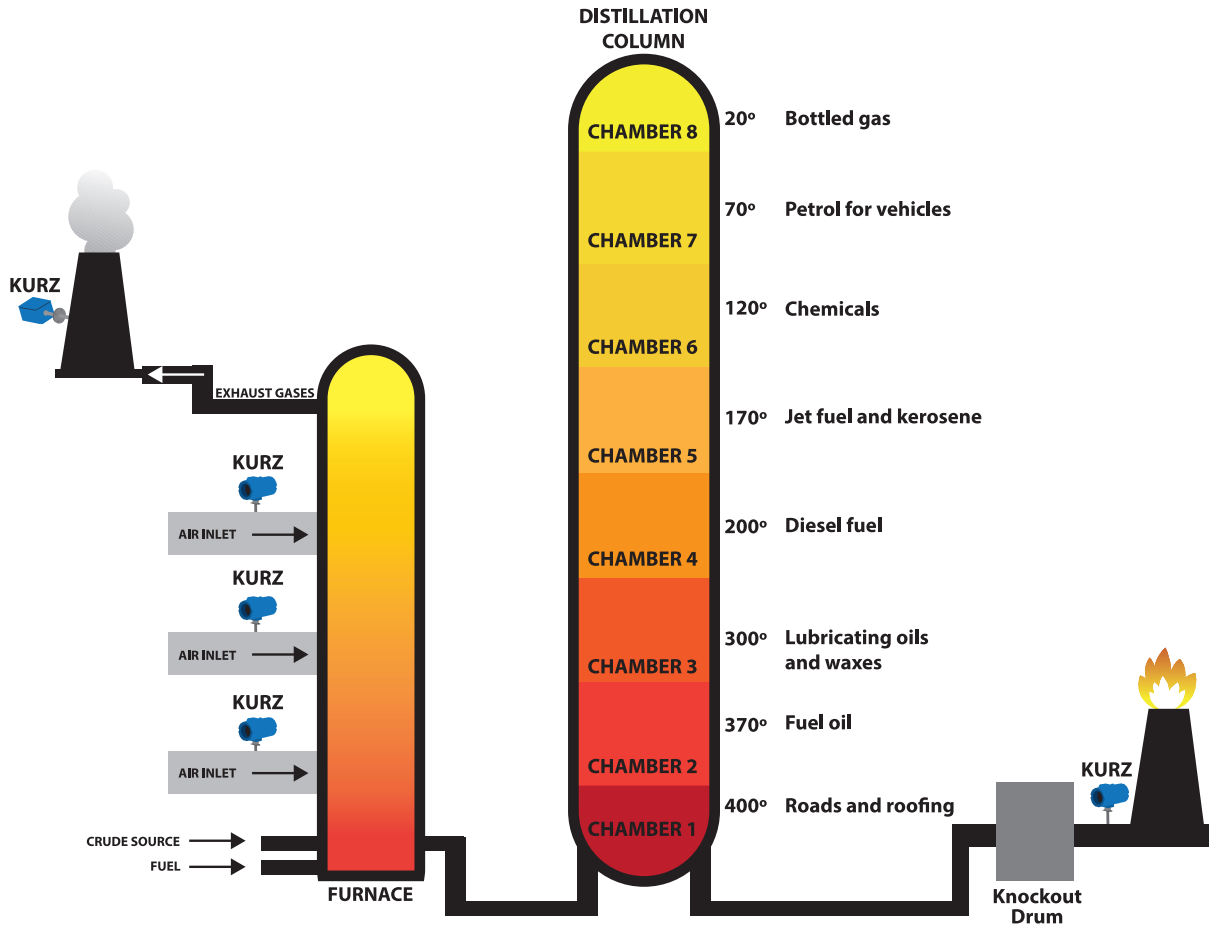
The petrochemical industry creates products from petroleum that includes oil and gas. But petroleum is also used to create ethylene, propylene, benzene, toluene, and xylene — all of which provide the building blocks for solvents, dyes, detergents, fertilizers, adhesives, rubbers, plastics, resins, synthetic fibers, lubricants, and gels.

To create all these different products, petroleum is put through a cracking process that breaks the petroleum into simpler molecules. The type of cracking (fluid catalytic cracking, hydrocracking, or thermal cracking) depends on the temperature and influence of specific catalysts or solvents. Gas crackers used in the petrochemical industry include naphtha, refinery off-gas, gas from cokers, and natural gas, with natural gas being the most common feed stock. Cracking with natural gas produces olefins, such as ethylene and propylene.

Approximately 44 gallons of product is created



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Simplified Distillation Process

Most petrochemical facilities use generated heat to run boilers for site power requirements, which involves measuring combustion air flow and fuel flow to boilers, and measuring stack exhaust gas. Many applications in the petroleum industry involve waste gas handling, emission monitoring, waste burning, vapor recovery, and odor control. Specific installations have included flow meters used in the following environments:

- Measuring combustion air to a boiler
- Measuring gas to flares
- Monitoring stack flue gas
- Measuring emissions (CEM)
- Monitoring low-pressure hydrocarbon storage vessel vent lines
- Measuring combustion fuel-to-air ratios
- Monitoring high-pressure distillation column off-gases
- Monitoring very-low flow for stuck open relief valves alarms
- Monitoring knockout drum relief valve switch to the flare

Kurz offers thermal flow meters with the highest turndown ratio available in the market and the only thermal meters capable of accurately monitoring up to 100,000 FPM (500 NMPS).



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