

ISOTHERMING® HYDROPROCESSING TECHNOLOGY CUSTOMER LIST

| LOCATION | YEAR OF STARTUP | CAPACITY BPSD / M3/HR | PROJECT SCOPE | FEED TYPE | STATUS |
|----------|-----------------|-----------------------|------------------------------------|-------------------------|----------------------|
| USA | 2003 | 3,800 / 25 | ULSD Revamp | LCO, SRD | Operational |
| USA | 2006 | 5,000 / 33 | Grassroots Kerosene Hydrotreater | Kerosene | Operational |
| USA | 2006 | 12,000 / 79 | Grassroots ULSD Hydrotreater | LCO, SRD, Kerosene | Operational |
| USA | 2009 | 15,000 / 99 | Grassroots Mild Hydrocracker | VGO, BW | Operational |
| USA | 2009 | 15,000 / 99 | Grassroots Mild Hydrocracker | VGO, DAO | Operational |
| USA | 2010 | 55,000 / 364 | Revamp VGO Hydrotreater | VGO | Operational |
| China | 2011 | 8,000 / 53 | Grassroots Mild Hydrocracker | LCO | Operational |
| China | 2012 | 20,000 / 132 | Grassroots Diesel Hydrotreater | LCO, SRD, LCGO, HCGO | Operational |
| China | 2012 | 6,026 / 40 | Grassroots Diesel Hydrotreater | LCO | Operational |
| China | 2013 | 12,487 / 83 | Grassroots Diesel Hydrotreater | LCO, SRD | Operational |
| China | 2014 | 78,501 / 520 | Grassroots Diesel Hydrotreater | LCGO, LCO, RDS, SRD, CN | Construction |
| India | 2014 | 50,000 / 331 | Revamp ULSD Hydrotreater | SRD, LCO | Detailed Engineering |
| China | 2014 | 6,026 / 40 | Grassroots Mild Hydrocracker | LCO | Detailed Engineering |
| Russia | 2014 | 2,264 / 15 | Grassroots Diesel Hydrotreater | SRD | Detailed Engineering |
| China | 2014 | 6,026 / 40 | Grassroots Mild Hydrocracker | LCO | Basic Engineering |
| China | 2015 | 78,501 / 520 | Revamp ULSD Hydrotreater | LCGO, LCO, RDS, SRD, CN | Construction |
| China | TBA | 6,026 / 40 | Grassroots Diesel Hydrotreater | LCO | Commissioning |
| USA | TBA | 46,000 / 305 | Revamp ULSD Hydrotreater | LCO, LCGO, CN, SRD | On Hold |
| USA | — | 10,000 / 66 | Grassroots ULSD Hydrotreater | DHT Product | Project Cancelled |
| China | TBA | 71,639 / 475 | Grassroots ULSD Hydrotreater | SRD, RDS, VGO Product | Basic Engineering |
| China | TBA | 59,105 / 392 | Grassroots VGO Hydrotreater | VGO | Basic Engineering |
| USA | TBA | 20,000 / 132 | Grassroots ULSD Hydrotreater | SRD | Basic Engineering |
| Canada | TBA | 1,500 / 10 | Grassroots Distillate Hydrotreater | OD | Basic Engineering |

LEGEND: BW Black Wax – Heavy Paraffinic Crude Oil
 CN Coker Naphtha
 DAO De-Asphalted Oil
 HCGO Heavy Coker Gas Oil
 LCO FCC Light Cycle Oil
 LCGO Light Coker Gas Oil
 SRD Straight Run Diesel
 VGO Vacuum Gas Oil
 RDS Diesel From Resium Desulfurization Unit
 OD Olefinic Distillate

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