

Garden City Fan

A FläktWoods Company

CCR Platforming Fans



1701 Terminal Road, Suite B
Niles, MI 49120-1253
269-683-1150
www.gardencityfan.com

Garden City Fan

World's leading manufacturer of fans for CCR Platforming*

No one knows more about fan technology for Continuous Catalyst Regeneration in oil refineries than Garden City Fan / FlaktWoods. When Universal Oil Products (U.O.P.) introduced CCR platforming, we assisted in the development of the specifications for the fans used in this proprietary process. (CCR platforming allows continuous regeneration of a controlled quantity of catalyst and is used for reforming applications by refineries).

Since then, we have installed hundreds of fans for CCR Platforming operations around the world. Most recently, we put our experience to work, providing new fan technology for the newest U.O.P. process – high pressure CCR Platforming.

Top Manufacturing Capabilities

Our fans are designed by our team of experienced Engineers and Designers, and are manufactured by our network of qualified manufacturing partners. The tools we use to design and fabricate are state of the art, including CAD/CAM, computerized plasma burning machines, CNC lathes, MIG welders, and dynamic balancing equipment.

The skill of the individuals fabricating your fans is highly specialized. Welding requirements meet the stringent AWS D14.6 standard for rotating machinery, qualifying them to fabricate fans to your most exacting specifications.



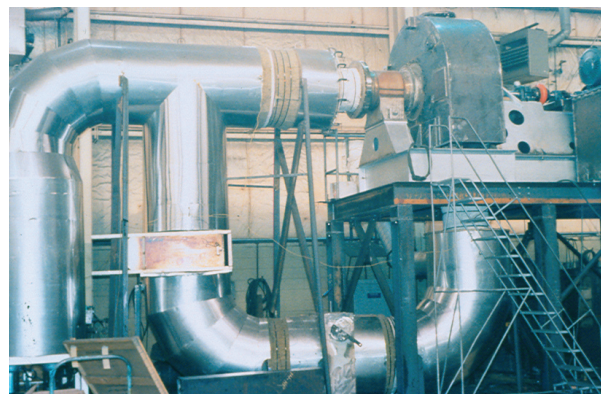
Regeneration Fan

The manufacturing process is initiated by a testing/traceability procedure used to check the quality of the alloy rich materials used to fabricate your fans for conventional and high pressure CCR Platforming. Throughout the process, controlled audit procedures monitor the efficiency of our operation. These procedures are open to review by our customers, and are frequently witnessed by refinery's Quality Assurance Inspectors in addition to Garden City Fan / FlaktWoods' inspectors.

Quality Fans for CCR Platforming

Garden City Fan / FlaktWoods' radial fans, used for conventional and high pressure CCR Platforming applications, are designed to operate efficiently at continuous high speeds and temperatures (typically between 950°F and 1,100°F). Direct driven fans are manufactured for lasting performance. The fans are constructed with rigid double walls, and filled with high density insulation. This unique, double wall insulated housing acts to reduce heat loss while adding personnel protection. Standard fan features include a custom fabricated Monoblock Bearing assembly, nitrogen purged Shaft Seal, and shrouded Fan Wheel.

Various bearing lubrication methods are available for the Monoblock Bearing assembly, including static oil, forced lubrication, or oil mist lubrication. Temperature and vibration monitoring equipment is also available to provide long term protection and reliability for the Monoblock Bearing assembly.



Hot Gas Test Stand

High pressure CCR Platforming fans are very stable, typically with ½" thick casing, bracing on 6" centers, rigid sub-base mounting, tight anchors on the inlet, and anvils in the housing to resist forces. Every fan we manufacture for high pressure CCR Platforming is built and tested to withstand 150 psi of hydrostatic pressure.

Vigilant Quality Assurance

Fans from Garden City Fan / FlaktWoods are inspected and tested in accordance with a comprehensive quality assurance and control program, encompassing elements of ASNT TC-1A, ASQ, and ISO 9001-2000 standards.

In addition, all air performance and sound testing complies with the standards of AMCA (Air Movement and Control Association) – standards we helped establish as a charter member of AMCA. We also conduct mechanical run test using our Hot Gas Test Stand to verify mechanical performance. These tests are conducted at temperatures and speeds simulating the actual process conditions and – when applicable – using the actual fan motor.

*CCR Platforming is a registered trademark of Universal Oil Products.