Bringing superior breaking technology to the local steel and mining industries

Technology driven Fractum GmbH will shortly be introducing its range of rock and steel breaking attachments to the South African market. Previously only available to the overseas market, Fractum's technology will bring cost savings, combined with enhanced productivity, to the local arena.

Aimed at quarries and mines; steel mills and demolition companies, Fractum's patented technology has created the world's biggest hammer. With up to 400 000 joules produced per stroke, the Fractum breaker has an energy impact of 15 times more than the energy released by the biggest hydraulic hammer on the market.

The breaker is compatible with all popular earthmoving equipment but unlike traditional connection methods, the coupler uses no hydraulic pressure, air pressure or electric energy for its operation. In fact, only the lifting cable is attached to the coupler, which makes the system failsafe.

Because the hammerhead is completely independent of the chassis, there will be very few vibrations transmitted from the hammer back to the carrier. The load on the excavator is typically 50% lower than when used with hydraulic hammers, thus resulting in extended life of excavators, with the related reduction in costs and increase in productivity. Additionally, because the excavator's engine can run at very low rpm, the noise from the Fractum hammer is considerably less than that produced by hydraulic hammers, which makes it particularly suitable for use in densely populated areas.

By integrating innovative controlled drop ball technology with a rugged hammer head, Fractum's attachments provide precision impact every time they are used. In this way, reliability, safety and performance are enhanced and costs are effectively reduced. In addition, the rugged, problem-free breakers can be safely used in close proximity to other on-site equipment and personnel because the impact is contained inside the tube.

Operation of the breaker does not depend on penetration of, for instance, rocks. Instead, the hammer head simply impacts on rocks or concrete with such a high energy force in a short space of time that they easily shatter. The hammer can break boulders of more than 150 tons which results in only primary blasting being necessary. The harder the material, the easier it will break because harder materials are less able to absorb energy and since materials are broken more effectively into smaller pieces, there is less need for secondary crushing of the material.

In steel mills the Fractum breaker obviates the need to transport slag skulls to a drop ball since they can process the skulls/boulders wherever they are dumped on site. This results in attractive savings for clients since 50% of the total processing cost is from transportation. Similar cost savings are realised when demolishing concrete.

Another area where the Fractum breaker shows its mettle is with hot skulls. The Fractum breaker can easily remove the hot skull from the pot quickly and efficiently, thus resulting in no unnecessary damage to the pot. This has positive benefits in terms of an increase in cooling rate of more than five times, translating into faster turnaround times within the slag area.