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| Case Study: | |
| Production benefits and Overview to replacing a Symons 5 ½ and installing a new SRH SC320 Cone Crusher. | |
| Crushing Equipment Supplied | SRH SC320 Direct replacement for a Symons 5 ½ STD Coarse Cone Crusher |
| Site Province: | Gauteng |
| Material Processed: | Dolerite SD 2.98 BD 1.86 |
| Commodities, Aggregates or Recycling: | Aggregates |
| Crusher Detail | SRH SC320 replaced a Symons 5 ½ |
| Product Sizes Produced: | -73mm |
| Primary Product Produced: | Product to be produced at Primary Plant: -73mm. Max Stone size into Cone from Jaw crusher: SC320: 240mm (Crusher draws more tonnage, cavity fuller, better interparticle crushing in Jaw and Cone) |

26 Yaldwyn Road, Witfield/ Jet Park, Boksburg, South Africa
PO Box 30032, Jet Park, 1469, South Africa
Tel: +27 11 842 5600 · Fax: +27 11 842 5610

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| Production Tonnage: | SC320: 370 tph |
| Feed Properties i.e. Max Feed Size and general grading overview | Dolerite -700mm feed into Jaw onto screen with 40mm sq/app. Oversize +40mm -240mm into Cone Crusher. Extremely coarse feed. -40mm is 26% of feed from Jaw |
| Rationale behind suggested equipment: | Direct Symons replacement, SC320 is the most compatible replacement with the Same footprint, improved features, and performance. |
| Method of Feeding: | Screen oversize into cone |
| Current Feed Rate into cone: | 5 ½ 370tph |
| Current output tonnage of Plant: | SC320: 370tph Feed from Jaw 500tph, 26% material is 0-40mm screened out before cone |
| Liner profile – where applicable | SC320: STD Coarse Symons 5 ½: STD Extra Coarse SC320 Maximum feed size 250mm |
| Crusher speed – where applicable | SC2320: 620rpm (increased speed and larger stroke) Symons 5 ½: 485rpm |

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| CSS – Where applicable | 45mm |
| Motor Power Kw: | SC320: 355kw Symons 5 ½: 220kw |
| Power consumption | SC320: 108 kw- 340 Amps / 320v Symons 5 ½: Unknown |
| Screen Media Used – Where applicable (By Deck with aperture) | Screen feeding Cone 40mm Aperture Poly Panels |
| Photo of feed material | |



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Photo of products produced



Photo of equipment in operation



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The Direct Benefits include increased production, improved product shape for the tertiary plant to produce aggregates. This alleviates the pressure on the balance of the plant which was designed originally to accept crushed material from the Symons 5 ½ - but with the increased power and stroke of the SC320, the product shape and consistency of sized material has aided in operations downstream.

Increased uptime dues to machine improvements like the hydraulic bowl opening for quicker liner changes. The same direct footprint as the previous crusher meant minimal structural changes to the plant were required to install the new crusher and begin operations.

The New machine has translated to less downtime and improved availability with improved access to spare and wear parts.