RUHRPUMPEN

Specialist for Pumping Technology

COKE CUTTING TOOL

HYDRAULIC DECOKING SYSTEMS

Hydraulic Decoking Systems
Coke Cutting Tool

Standard components for Heavy-Duty Decoking Industry

Ruhrpumpen provides a patented combination Drilling and Cutting Tool. The RP Automatic Cutting Tool design provides advantages in operation and safety. The tool is especially designed for minimum torque and lift forces. The manual switching tool has been in operation successfully since 2001. It can be upgraded to an Automatic Cutting Tool. The auto-switch version has been available since 2006.

Basic Design

- Slim Tool, diameter 13.75" (350 mm)
- Low lift force due to reduced cross sectional area
- Low torque due to reduced gusset area
- Hydrodynamically optimized Cutting Tool channels for increased efficiency
- Optimized switching pressure to save equipment and quick switching operation
- No oil or grease lubrication required
- Single spring cartridge unit

Valves

- Double coated valves
- No extra seals
- Pressure operated

Cutting Nozzles

- Nozzles captured inside of the casing to prevent nozzles and screws to prevent damage & wear to nozzles and screws
- Designed to avoid positive cone in coke bed:
  - 0° horizontal nozzles
  - 10° upwards nozzles
- Designed for easy access to clean plugged rectifiers and remove coke chunks quickly

Drilling Nozzles

- 1 strong center nozzle for high performance
- 3 auxiliary nozzles

Special Features

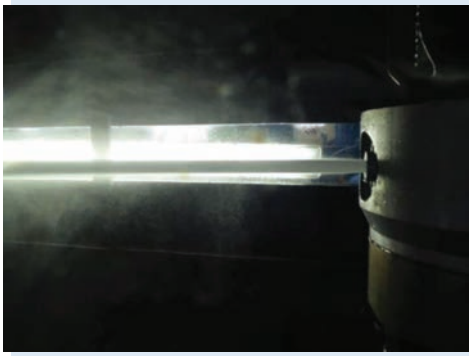
- Manual override device for Automatic Cutting Tool to switch safely in an emergency
- Operator switches from the distance and at the side of the Tool
- In case of trapped water, the operator is not exposed to outpouring hot water
- Easy maintenance access to change Auto-switch cartridge without Tool removal
- Visual mode indicator

Top Deheading

Cutting Tool and guideplate together with Top Deheading Valve

- Coking mode
- Decoking mode
- Installation of Top Deheading Valve
- RP Tool containment dome with guideplate
- RP operator shelter (in background)

Transparent Cutting Tool Model



Coherent Water Jet

Visual Mode Indicator

Realisation Top Deheading