Recoules®
Quackenbush®

15QRHD Series
Positive Feed Drill

January 2015

TOOLimpex
CZECH REPUBLIC s.r.o.

Product Overview

Recoules Quackenbush

Productivity

- 1.0hp/1.5hp options at the spindle to maximize cutting speed
- Governed vane motor option to minimize speed drop when drilling
- Mitis™ option for chip fragmentation

Compact

- Low head height
- Low side to center distance
- Access hard to reach areas

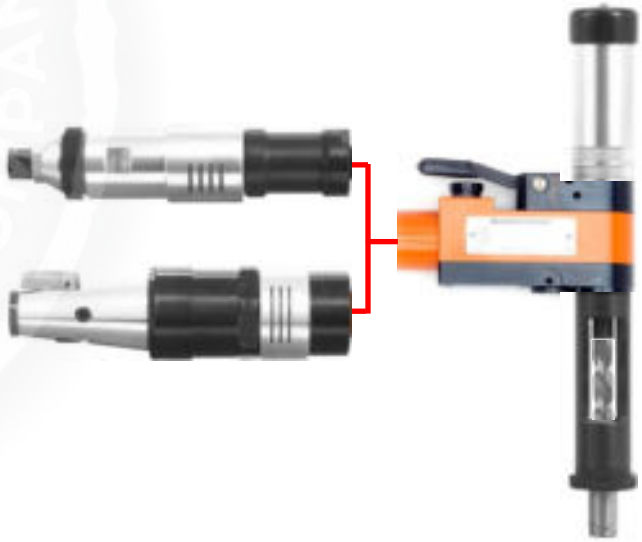
Ergonomic

- Low weight

Quality

- Proven Design
- Minimized speed drop for optimum hole quality and cutter life
- Optional counter for cutter change and service monitoring

15QRHD Series Positive Feed Heavy Duty Gear Head

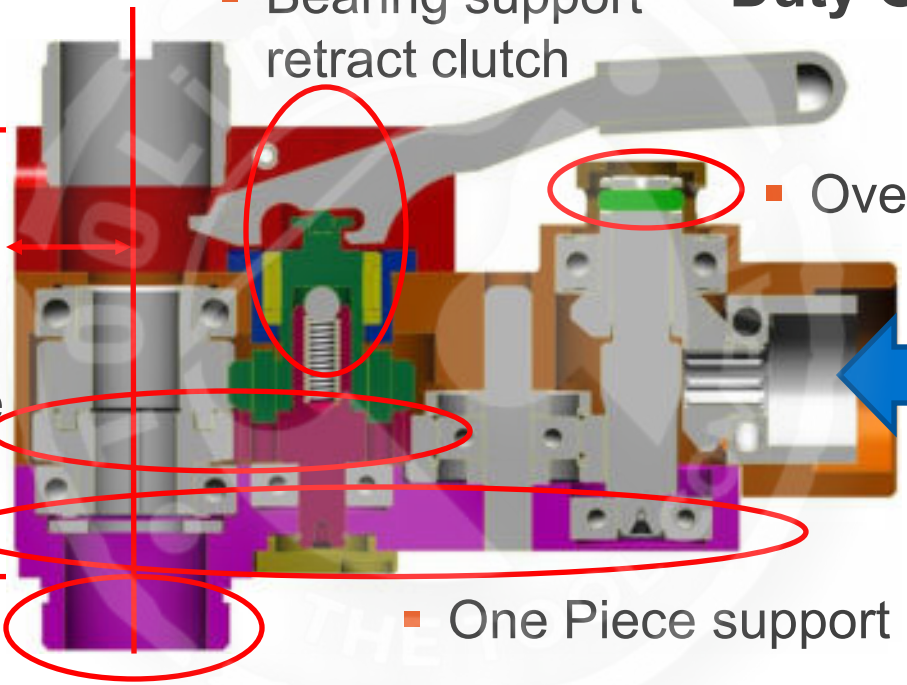


Design Features

Recoules Quackenbush

15QRHD Series Positive Feed Heavy Duty Gear Head

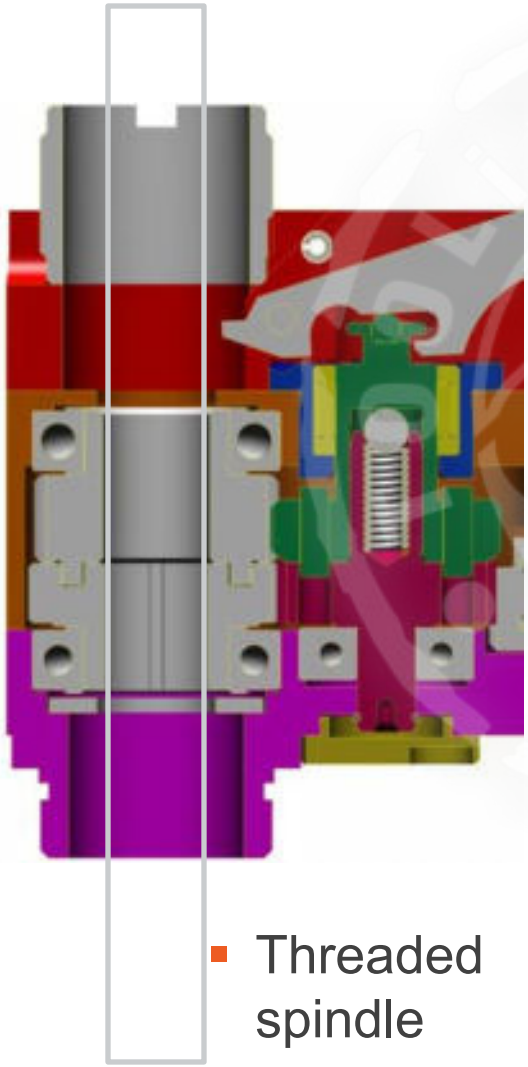
- Head retrofittable to existing tools
- Low head height
  - Low side to center distance
  - Positive Feed
- Bearing support retract clutch
- Overtorque – Shear Pin
- Flexpower power unit options 1.0/1.5hp



- One Piece support plate
- Integrated Thread for Nose
- Adaptive two speed option
- External Mitis™ Option

Recoules Quackenbush

Positive Feed - Gear driven inches per rev(ipr) or mm/rev



- Spindle feed gear
- Differential feed gear
- Threaded spindle

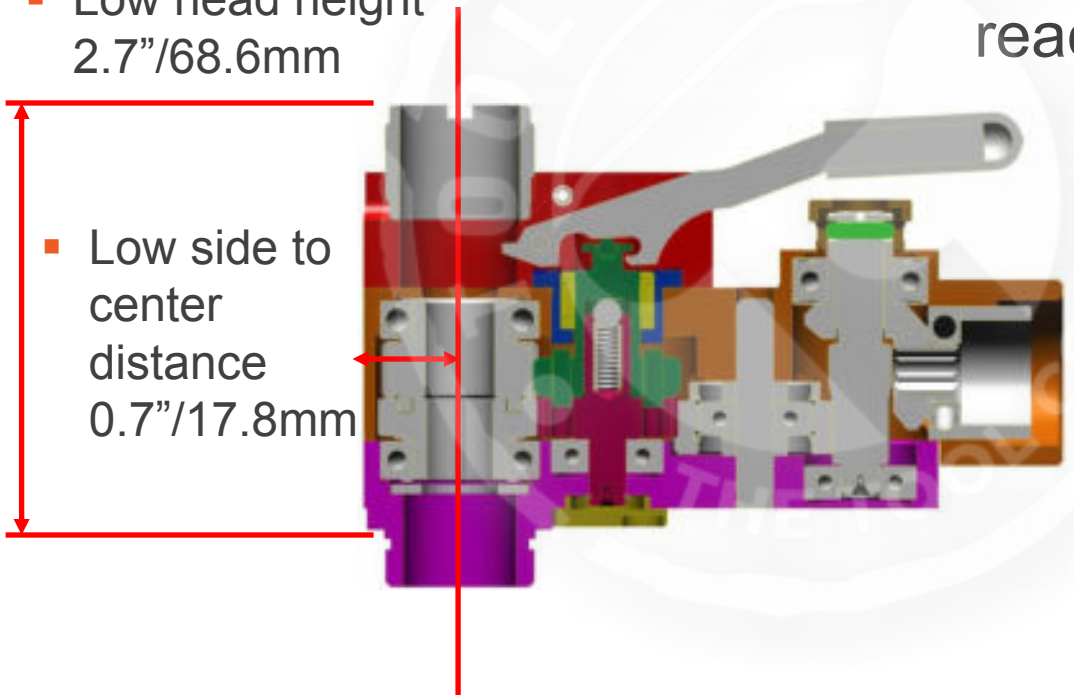
- Feed rate fixed through gearing
- Consistent chip load
- Controlled breakthrough
- Operator tamper proof

Recoules Quackenbush

Compact – Low head height and low side to center distance

- Compact size to access difficult to reach areas

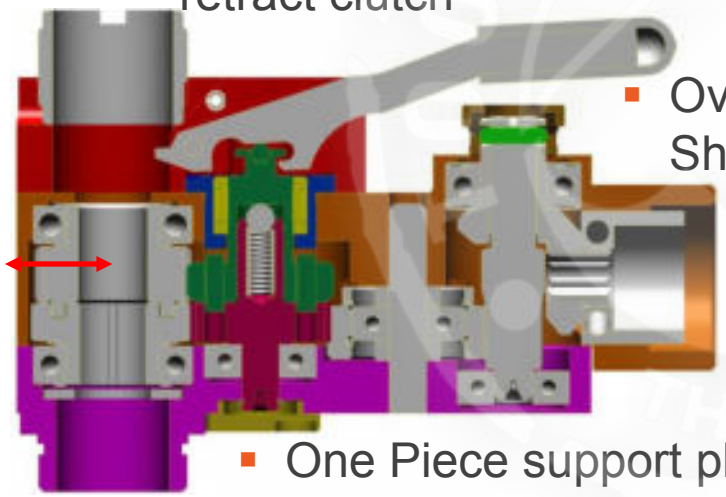
- Low head height 2.7”/68.6mm
- Low side to center distance 0.7”/17.8mm



Recoules Quackenbush

Increased Durability/Retrofittable

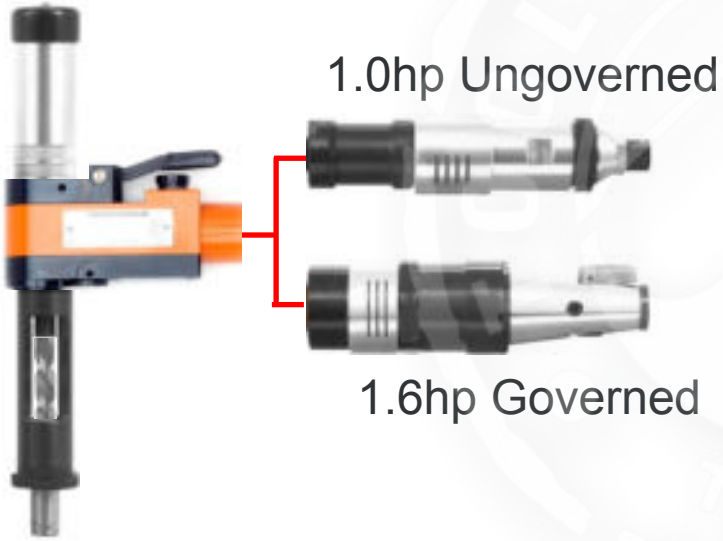
- Bearing support retract clutch
- Overtorque – Shear Pin
- One Piece support plate
- Integrated Thread for Nose



- Improved robustness gives greater torque and hole capacity up to 150inslbs
- Shear pin protection in event of over torque protects gear train damage
- Head can be retrofitted to existing 15QR series to give greater durability/hole capacity

Recoules Quackenbush

Flexpower – Power Unit Options



- 1.0hp Ungoverned
  - Lower weight
  - Less air consumption at peak power
- 1.6hp Governed
  - More power/torque
  - Less speed drop under load
  - Less no load air consumption
  - Wider range of speed options

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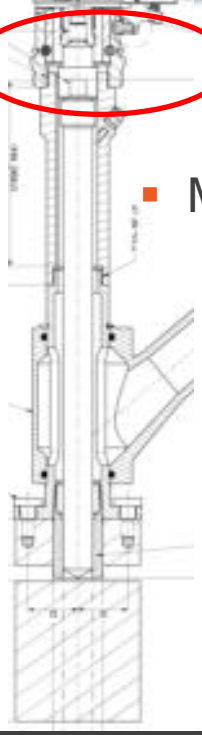
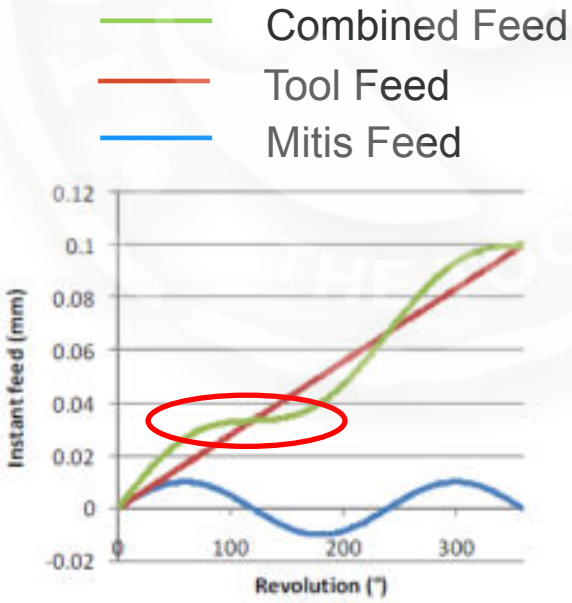
Chip Fragmentation – External Mitis™ Option

- Mitis Module
- Mitis Nose
- Vacuum Nose





- Mitis™ module
  - Varying feed causes chips to fragment
  - Improves vacuuming/reduces clean up
  - Less lubrication – chip dissipates heat
  - Potential tool life extension

Standard Chips

Fragmented Chips

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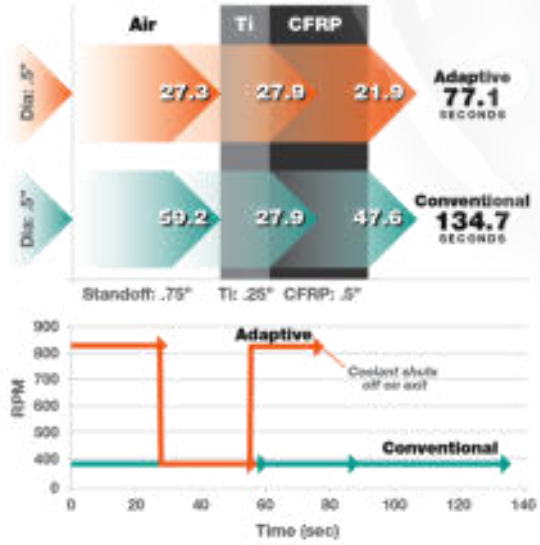
Adaptive – Automatic two speed drilling

- For CFRP/Ti/Al stacks



- Productivity
  - Two speed drilling – up to 50% drilling time saving
  - Coolant shut off – up to 90% clean up time saving/reduced FOD
  - More holes per cutter possible by running at higher speed in CFRP
- Error Proofing
  - Limit number of holes per cutter reducing chance of using a worn cutter/cost of a blown hole
  - Monitor tool performance/service and life
- Flexibility
  - Programmable – allows better tool utilization for different applications
  - Can be retrofitted to existing standard tools
- Running Costs
  - Optimizes use of air to actual drilling requirements
  - Programmable coolant rates to optimize usage

Value

Productivity

- Optimize drill time
- Minimize clean up time
- Reduce coolant use
- Optimize cutter usage
- Access to tight areas for automatic drilling

Ergonomics

- Reduce operator exposure to drilling forces
- Low tool weight reduces operator fatigue

Quality

- Controlled cutting with positive feed
- Electronic counter to monitor cutter cycles, maintenance interval

Configurations & Options

Recoules Quackenbush

Up to 5/8” in Ti

- Spindles
  - Interface for cutter and length stroke dependent
- Spindle guard
  - Standard
  - Coolant inducing
- Attachments
  - Noses standard and vacuum
  - Concentric Collet
- Accessories
  - Mitis™
  - Cutters
  - Handles
  - Electronic counter, service and overall life

15QRHD-Base Tool

Speeds	1650	1000	660	465	335	265	165

Configurations & Options

Recoules Quackenbush

Up to 5/8” in Ti

- Spindles
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158-15QRHD-Base Tool

Speeds	3000	2000	1200	1000	600	490	290	230	140	110

Configurations & Options

Recoules Quackenbush

Adaptive two speed drilling up to 7/16” in Ti

158-15QRAHD-Base Tool

- Spindles
  - Interface for cutter and length stroke dependent
- Spindle guard
  - Standard
  - Coolant inducing
- Attachments
  - Noses standard and vacuum
  - Concentric Collet
- Accessories
  - Mitis™
  - Cutters
  - Handles

Speed	1200/400 Programmable

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Products

Advanced Drilling

- Positive Feed

- Self Colleting

Specialty Cutters

- Drilling

- Countersinking (Manual)

- Drill and Countersink

- Reamers

- Back Spot Face

Tightening

- DC Electric Fastening

- Pneumatic Fastening

- Riveting

- Bits & Sockets

Material Removal

- Hand Drills & Microstop Cages

- Rivet Shavers

- Grinders

- Sanders

Universal Joints

- Universal Joints

APEX

Custom Solution/ Service

Brands

Recoules Quackenbush

Recoules

Cleco
APEX

Recoules
DOTCO

Recoules Quackenbush
Cleco
DOTCO