Chain knockers deliver wall-to-wall clean and can get pipes working like new, creating opportunities for warranties or up charges. Total cleaning also lets you prepare damaged pipe for relining as an alternative to digging and replacing.

When an emergency blockage needs to be cleared to get water running and the client doesn’t want to pay for total pipe cleaning, just clearing the blockage is also a solution.

**CHOOSING THE RIGHT ACCESSORY**

RIDGID® FlexShaft® Machines utilize specialized accessories attached to a flexible cable that are spun at high speeds for effective wall-to-wall cleaning action. Selecting the correct chain knocker or brush for your application and pipe material will ensure an efficient clean-out.

**RANGE OF ACCESSORIES**

**PIPE WALL CLEANING**

**CHAIN KNOCKERS**

**SMOOTH CHAIN KNOCKERS**
- For all pipe types
- For soft blockages and grease

**CARBIDE TIPPED CHAIN KNOCKERS**
- For hard-walled pipes
- For scale, roots, grease and soft blockages

**PENETRATING, CARBIDE TIPPED CHAIN KNOCKERS**
- For hard-walled pipes
- For wipes, scale, roots and soft blockages

**BRUSHES**

**NYLON BRUSH**
- Gentle cleaning of fragile pipes
- Centering guide for other tools
- For spreading resin when spray lining
- For final cleanup to sweep fine debris downstream

**NYLON-STEEL BRUSH**
- For cleaning & light grinding
- For relining preparation of PVC & cast iron pipes
- For final cleanup to sweep fine debris downstream

**PENETRATING HEADS**

**BALL HEAD**
- Penetrating head functionality with smooth chains when carbide tipped chains are too aggressive

**DROP HEAD**
- Specifically designed for dropping down stacks in back-to-back applications

**CLEANING V. CLEARING**

**MAINTENANCE AND RELINING**

Chain knockers deliver wall-to-wall clean and can get pipes working like new, creating opportunities for warranties or up charges. Total cleaning also lets you prepare damaged pipe for relining as an alternative to digging and replacing.

**EMERGENCY BLOCKAGES**

When an emergency blockage needs to be cleared to get water running and the client doesn’t want to pay for total pipe cleaning, just clearing the blockage is also a solution.
FLEX YOUR COVERAGE.
FIND THE RIGHT CHAIN KNOCKER FOR THE JOB TO GET WALL-TO-WALL CLEAN

Use below table for recommended options based on blockage, pipe size and pipe type.

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>K9-102 MACHINE</th>
<th>K9-204 MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1¼&quot;-1½&quot; (32-40 mm)</td>
<td>K9-102 1½&quot;</td>
<td>K9-102 2&quot;</td>
</tr>
<tr>
<td>2&quot; (50 mm)</td>
<td>K9-102 1½&quot; CARBIDE</td>
<td>K9-102 2&quot; CARBIDE</td>
</tr>
<tr>
<td>2&quot; (50 mm)</td>
<td>K9-102 - 1½&quot; PENETRATING HEAD</td>
<td>K9-102 - 2&quot; PENETRATING HEAD</td>
</tr>
<tr>
<td>2½&quot; (64 mm)</td>
<td>K9-204 2&quot;</td>
<td>K9-204 3&quot;</td>
</tr>
<tr>
<td>3&quot; (75 mm)</td>
<td>K9-204 2½&quot; CARBIDE</td>
<td>K9-204 3&quot; CARBIDE</td>
</tr>
<tr>
<td>3½&quot; (90 mm)</td>
<td>K9-204 - 2½&quot; PENETRATING HEAD</td>
<td>K9-204 - 3&quot; PENETRATING HEAD</td>
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<tr>
<td>4&quot; (100 mm)</td>
<td>K9-204 3½&quot;</td>
<td>K9-204 4&quot;</td>
</tr>
<tr>
<td>4½&quot; (110 mm)</td>
<td>K9-204 - 3½&quot; PENETRATING HEAD</td>
<td>K9-204 - 4&quot; PENETRATING HEAD</td>
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</tbody>
</table>

- **COPPER**
- **GALVANIZED**
- **CAST IRON**
- **PVC**
- **ABS**
- **ORANGEBURG**
- **CORRUGATED**
- **CLAY**
- **GREASE**
- **SOFT BLOCKAGE**
- **SCALING**
- **LIGHT ROOTS**
- **WIPES**
- **INCLUDED WITH KIT**

Any chain knocker can be purchased separately. Read manual for setup.
FLEX YOUR COVERAGE.
FIND THE RIGHT BRUSH AND HEAD ACCESSORIES
FOR THE JOB TO GET WALL-TO-WALL CLEAN

Use below table for recommended options based on application, pipe size and pipe type.

### K9-102 MACHINE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>NYLON BRUSH</th>
<th>BALL / DROP HEAD</th>
<th>NYLON BRUSH</th>
<th>NYLON AND STEEL BRUSH</th>
<th>BALL / DROP HEAD</th>
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<tr>
<td>PIPE SIZE</td>
<td>1½” (40 mm)</td>
<td>2” (50 mm)</td>
<td>1½” (40 mm)</td>
<td>2” (50 mm)</td>
<td>2” (50 mm)</td>
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<td>2” (50 mm)</td>
<td>2” (50 mm)</td>
<td>3” (75 mm)</td>
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<td>Pipe Type</td>
<td>COPPER</td>
<td>GALVANIZED</td>
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<td>ABS</td>
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<tr>
<td>APPLICATIONS PIPE TYPE</td>
<td>LIGHT GRINDING</td>
<td>SPRAY RELINING</td>
<td>FRAGILE PIPES/ GENTLE CLEANING</td>
<td>FINAL CLEANUP</td>
<td>PENETRATES BLOCKAGES</td>
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</tbody>
</table>

* These brushes can be used for light grinding and pipe preparation prior to lining jobs.

Any accessory can be purchased separately. Read manual for setup.
CLEANING WITH YOUR FLEXSHAFT MACHINE

- **STEP 1**
  - Once the drill is properly set up (items 1-4 above), make sure the clutch is set to 25%, attach the drill chuck to the drill shaft.

- **STEP 2**
  - Choose the right chain knocker based on your cleaning situation (see back for details).

- **STEP 3**
  - When clearing blockages, operate drill at full speed for best cleaning. Do not force the chain knocker into blockages. If drill clutches out, back out of blockage and get chain knockers spinning again before re-entering the blockage.

- **STEP 4**
  - If the drill continues to clutch out, the adjustable clutch setting can be increased. Increase the clutch setting, but do not exceed 75% of the total clutch adjustment range as this increases the risk of cable damage in the drum of the drain cleaner.

- **STEP 5**
  - If the drill continues to clutch out, consider using another RIDGID® drain cleaning machine.