

Assembly Instructions for QC100 Base, QC110HD, and Quick-Change Units

NOTE: System is held together by the taper, not by the bolt. The following assembly process is critical. If the block and base are not assembled properly, excessive movement between the two units will occur and the system may fail prematurely.

STEP 1:

Assembling the Block/Base for Welding

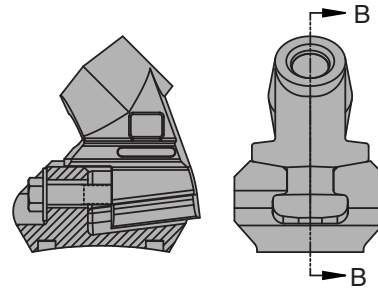
Choose Method 1 or 2 to assemble the quick-change block and base prior to welding. To make sure the block and base are positioned properly on the drum, use the cutting tool point as the locator point.

Method 1: Lightly Hammered

1. Place the quick-change block in the base. In this position, the front of the quick-change block will protrude out from the base about 1/4" - 3/8".
2. Lightly hammer the front of the block "T" section to seat the block into the base.
3. Properly locate the base unit on the drum and tack weld into position.
4. Check alignment. Finish-weld the base unit to the drum. The quick-change block can remain in the base or be removed during the finish weld.

Method 2: Press-Fit

1. Pressing the quick-change block and QC100 base together is the most precise method of assembly.
2. Secure the base in a pressing fixture that enables 10,000 pounds of pressure to be applied safely.
3. Press the block into the base using 10,000 pounds of pressure.
4. With the block pressed in the base, the unit can be tack welded to the drum and then finish welded.



STEP 2:

Assembling the Block/Base after Final Welding

Follow Step 1 if the quick-change block is not in the QC100 base. If the block is in the base, proceed as follows:

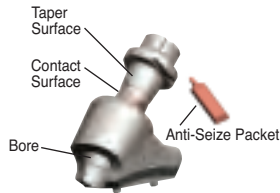
1. Hit the block on the front of the "T" section four to five times with a 4- to 5-pound steel hammer. This will drive the block into the base to a point where the front of the block protrudes out in front of the base by about 1/8" to 3/16". At this point, the two pieces will be locked together by the tapers.
2. When hit, the block/base unit will start out making a dull "thud" sound. As they become properly seated, the "ringing" becomes a high-pitched sound as the block and base lock together.
3. Once the block is seated, install the bolt supplied with the holder and torque to 60 - 70 pounds. DO NOT SEAT THE QUICK-CHANGE BLOCKS USING THE TORQUE ON THE BOLT ONLY. THE BOLT STRENGTH IS INSUFFICIENT TO APPLY THE REQUIRED ASSEMBLY LOAD.
4. Operate the machine four to six hours.
5. Check blocks and bolts. Reseat any loose units and re-torque any loose bolts according to Step 2.
6. Check all block assemblies after 10 to 12 hours of operation. All units should be tight at this point. If some units are found to be loose, disassemble and re-assemble per Step 2, above.
7. Block and base units that have been tightened twice, as noted in Step 2, are considered locked together by the tapers. They should remain locked together under normal working conditions. It is normal for bolts to be loose. Loss of bolts completely from a properly assembled unit will not be detrimental. The block/base unit is sufficiently locked together by the tapers.

Changing Worn Blocks

1. To remove a worn block from the base, hit the back of the block as close as possible to the top of the base with a 4-to 5-pound hammer. Be careful not to damage the base.
2. Remove the block and clean any debris from the base.
3. Install the new block according to directions in Step 2.

Questions?

If you have questions about assembling the QC100 base and the QC110HD, contact your Kennametal representative for assistance.



Step 1. SLEEVE INSTALLATION

- Use anti-seize or light oil to lubricate sleeve contact surface prior to installation (anti-seize packet included inside the bore of each sleeve)
- Do not lubricate the taper surface
- Always clear debris from the base bore prior to installation



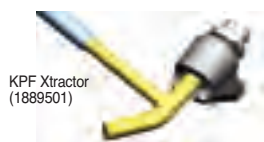
Step 2. SLEEVE INSTALLATION

- Easy Pull notches on the sleeve should be aligned with the opening towards the top of the block as illustrated above or rotated slightly for outside gage cutter blocks. This allows access for wedge puller during sleeve removal (wedge puller shown here and in Step 3, figures A and B below).
- Always protect the face of sleeve during installation — KPF installation bit (1968708) as shown above.
- Maintain proper alignment of sleeve with base bore when installing. If sleeve is misaligned it could damage internal bore of base.



Step 3. SLEEVE REMOVAL

1. Use the starter KPF301 SHP Wedge Puller (3395861), to break the taper on the sleeve (Fig. A).
2. Use the KPF301 LGP Wedge Puller to move the sleeve the rest of the way out of the Base (Fig. B). If planning to re-install, be sure to clean bore and sleeve before installation procedure.



Step 4. X-TRACTOR TOOL

This punch can provide another means to remove sleeves after breaking the taper lock with the KPF301 SHP Wedge Puller. This can only be used where accessible to rear of the sleeve.

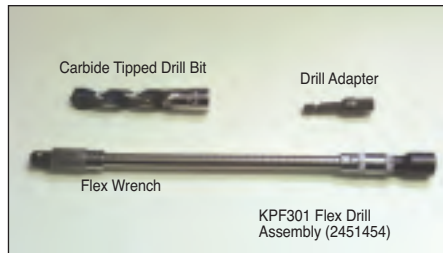


Step 5. BROKEN SLEEVE REMOVAL

To remove a broken sleeve, first clear the bore of any material. This can be done with a 3/4" masonry bit and drill. Next, install the KPF301 sleeve removal assembly into bore of the sleeve and tighten nut as shown above. Then refer to normal removal with the KPF301 Puller shown in Step 3.

Step 6. FLEX DRILL ASSEMBLY

For cleaning bores of KPF303 sleeves when broken bit shanks are still in the bore. Note: For other cleaning applications, use the drill from the front of the block without the flex assembly.



Features:

- 1/4" hex fits any standard drill.
- Flexible drill extension for hard to reach areas.
- Outer surface does not rotate.
- Carbide tipped drill bit gives high performance and long life.

Advantages:

- Cleans bore more effectively than other methods.
- Faster, more efficient method of material removal.
- Easy, safe way to maintain the KPF301 system.

Note: Lubricate flexible drive with two drops of machine oil in each end as needed.



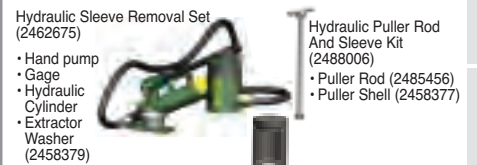
Step 7. TOOTH REMOVAL (MANUAL)

Using the U70 padded puller and a hammer. Use puller to wedge between the tool and the sleeve to extract the tooth. Also can use RP puller, order code 1761401. Note: Always use proper eye and face protection when extracting tools from sleeves.



Step 8. TOOTH REMOVAL (AIR HAMMER)

Using the KPF300CH Air Hammer chisel, start with the chisel between the tool and sleeve and wedge the tool out. Note: Always use proper eye and face protection when extracting tools from sleeves.



Step 9. HYDRAULIC SLEEVE REMOVAL

- Hydraulically assisted removal
- Flexible hose allows access to tight areas
- Cylinder can move independently of pump
- Light, portable design
- 10,000 psi pump
- Cylinder rated for 20 tons at 10,000 psi
- Removes sleeves more efficiently
- Less physical strain to remove a sleeve
- Safest way to remove sleeves

Step 10. HYDRAULIC SLEEVE REMOVAL



.76" SHANK

BLOCK SYSTEMS

.86" SHANK

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DRUMS

ACCESSORIES

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SCRAPER BLADES