

Arc Chute Removal

Periodically, the arc chutes may need to be removed to perform maintenance on the breaker. This procedure provides instructions for the removal of the arc chutes.

Key Points

The following is a list of items to keep in mind when removing the arc chutes.

- The phase barriers will need removed.
- With the arc chutes in place, there is not a whole lot of room to move around inside the high voltage compartment.
- With the arc chutes in place, it is especially dark inside the high voltage compartment.
- A hoisting device will need to be used.

Safety

This procedure requires personnel to be in the high voltage compartment of the breaker. The breaker reservoir should be drained. Close the supply valve, and open the drain valve for the duration of the job. Use the Kirk-Key interlock to lock the breaker in the open position.

Summary of Method

The following list is a summary of work needed to be done.

- The arc chute seal angle will need removed.
- The breaker doors should be removed.
- The angle in the front of the upper cabinet will need to be removed.
- The contact cover bolts will need at least loosened.
- The arc chutes will need to be hoisted out of the breaker.

Removing The Arc Chute

The following are the steps required to remove the arc chutes.

Method

1. Remove the doors from at least the upper cabinet.
2. Open the doors of the ventilation chamber.
3. Remove the inter-phase barriers.
4. Remove the arc chute seal angle including the entire angle on the front.
5. Hang a hoisting device from the top of the ventilation chamber.
6. Put the arc chute lifting bracket in place.
7. Connect the hoisting device to the lifting bracket.
8. Put some tension on the hoisting device.
9. Loosen the bolts holding the contact cover in place.
Note: The bolts may need to be removed entirely if the covers are stuck to the arc chute. Otherwise, it will be difficult to remove the arc chute.
10. Remove the bolts securing the arc chute to the pole unit.
11. Lift the arc chute a little and push out on the arc chute at the same time.
12. While holding the arc chute out away from the breaker, lower the arc chute safely to the floor.
13. Repeat the above steps until all three arc chutes are removed.

Recommended Manpower

Three people with a power hoisting device

Five people using a none-power hoisting device

Recommended Tools:

½” Drive ratchet with extension and ¾” socket

Hoisting device

Arc chute lifting bracket

Cotter pins (preferably reusable/knee-hump)

Pliers

Channel-locks

Regular flathead screwdriver

9/16” wrench and socket

Recommended PPE

Hard Hat

Gloves

Safety Glasses

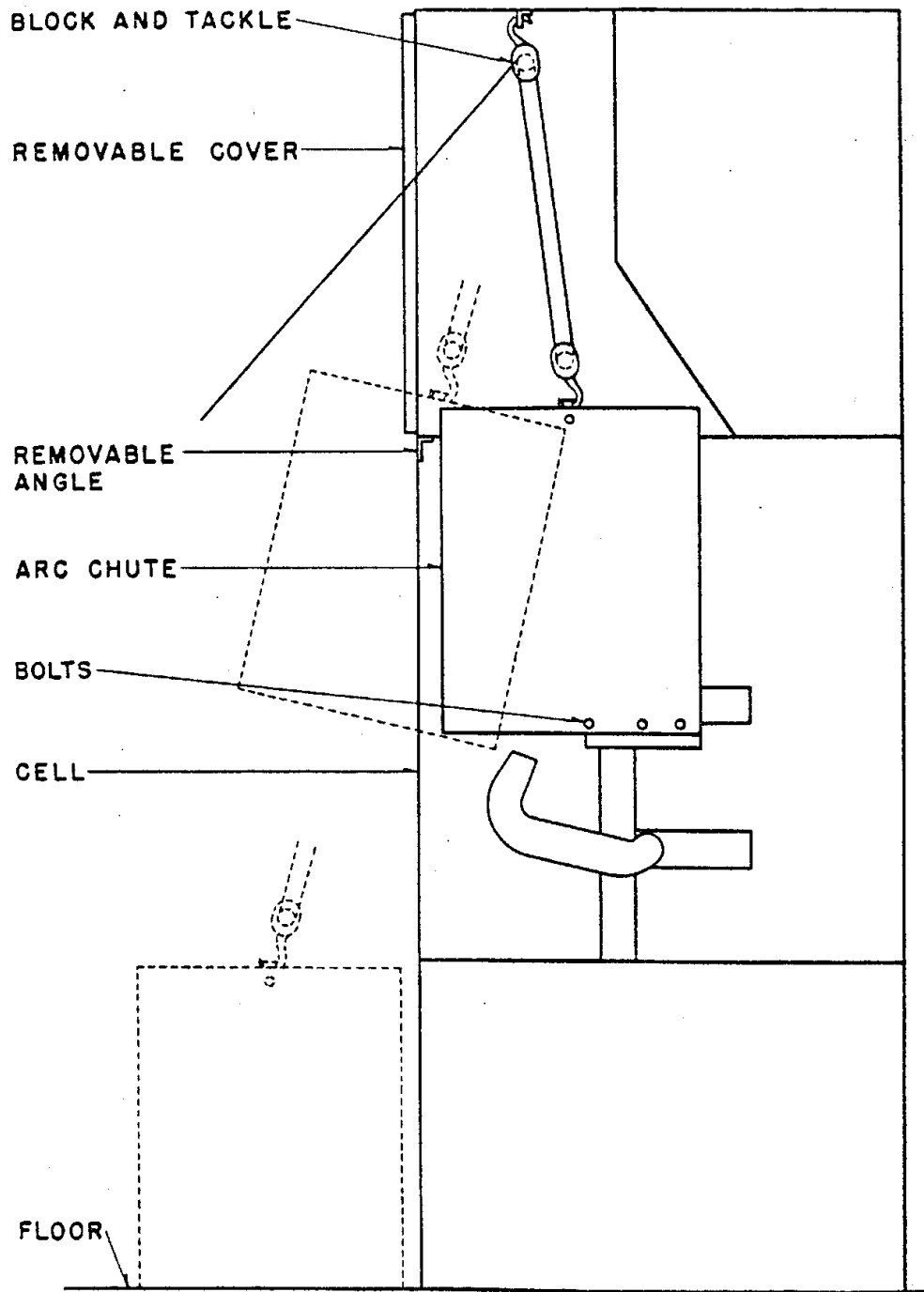


Figure 11 Arc chute removal