PIPING FOR BASIC AIR DEEP HOLE DRILLING CIRCUIT

- Recocking Cylinder
- Interlock Switch
- Depth Switch
- Flow Control Valves with controlled flow out
- Feed Sol.
- Retract Sol.
- Recocking Sol.
- 3-way N.O. Air Valve
- 4-way Double Solenoid Momentary Contact 2-position Air Valve
- Lubricator
- Regulator
- Filter
- Air In

Rear Port Open to Atmosphere
230/460 Volts
3 Phase 60 Cycle
Thru Fused Disconnect

IMPORTANT

THIS CIRCUIT IS A BASIC METHOD OF CONTROLLING HYPNEUMAT EQUIPMENT.
CHECK LOCAL, STATE, & OSHA REGULATIONS FOR SPECIFIC CIRCUIT REQUIREMENTS.
1. Turn Motor Selector Switch to “ON”

2. Push Cycle Start Button
   a. Supplies power to Circuit (1CR)

3. Push Twin Palm Feed Buttons
   a. Valve shifts and unit feeds forward
   b. Cycle relay (4CR) is energized and held
   c. Recocking Valve is energized and held
   d. Deep hole drilling timer (T) is energized and begins timing out when unit leaves retract position

4. Deep Hole Drilling Timer (T) times out
   a. Valve shifts and unit rapid retracts
   b. Unit actuates Interlock Relay (2CR)
   c. Valve shifts and unit feeds forward
   d. Deep hole drill timer (T) is energized and begins timing out

NOTE: Operation #4 keeps repeating until Depth Switch is actuated

5. Depth Switch is actuated
   a. Cycle relay (4CR) is dropped out
   b. Valve shifts and unit rapid retracts and stays back
   c. Recocking Valve is dropped out and recocking Cylinder pulls Hydra-Brake to retract position ending cycle

   EMERGENCY STOP

1. Push Emergency Stop Button
   a. 1CR Master Relay Drops Out
   b. Motor shuts off and coasts to stop
   c. Valve shifts and unit rapid retracts
OPTIONAL PIPING FOR DUAL PRESSURE SYSTEM

Note!
This System Used For Vertical Operation With Heavy Multiple Spindle Heads. Separate Pressures For Feed And Retract Strokes.

Depth Switch
Interlock Switch
Flow Control Valves With Controlled Flow Out

4-way, 5-port Air Valve
Double Solenoid Momentary Contact.
Normal Exhaust ports Used As Inlet Ports.
Not All 4-way Valves Can Be Piped In This Manner.

Feed Sol.
Retract Sol.

Feed Regulator
Retract Regulator
Air In
Filter
Lubricator

Flow Control Valves


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