

Progressive Divider

Application of Progressive Dividers

Operational principle

Diagram beside describes the operational system of progressive divider sectional type, model DPA and monobloc type, model DPM.

Black line means lubricant flow under pressure that determines piston movement (identified with letters).

Gray line means lubricant flow sent to discharge ports (identified with number) of divider.

Sequence of operation

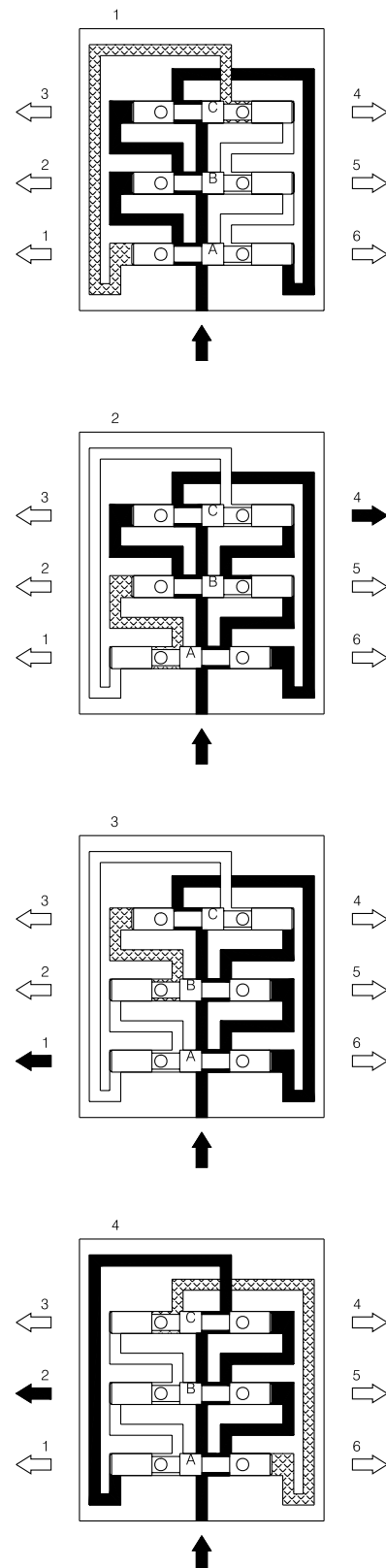
- 1 - Lubricant under pressure moves piston "A" to the left and sends a pre metered flow of lubricant to discharge port number 4.
- 2 - When piston "A" is displaced to the left side, it opens internal way to direct lubricant under pressure then to move piston "B" which, by its turn, sends a pre metered discharge of lubricant to discharge port number 1.
- 3 - When piston "B" is displaced to the left side, it opens internal way to direct lubricant under pressure then to move piston "C" which, by its turn, sends a pre metered discharge of lubricant to discharge port number 2.
- 4 - When piston "C" is displaced to the left side and inverts flow when opening internal way and direct lubricant under pressure to piston "A" (returning to the right, its original position) that sends a pre metered flow of lubricant to discharge port number 3. Continuing the sequence, pistons "B" and "C" will be moved to the right side (returning to its original position) sending pre metered flow of lubricant to discharge ports number 6 and 5. While there is enough lubricant supply under adequate pressure, this sequence shall repeat endlessly.

Note: Interdependency of piston action shows us that, in case of obstruction of lubricant flow at some discharge ports, all the sequence shall be interrupted. So, lubricant supply is interrupted at all discharge ports. On the contrary, if the sequence is fully accomplished, you are assured that all discharge ports have received lubricant. This demonstrates the high reliability degree of progressive dividers.

Black - Lubricant supplied under pressure.

Gray - Lubricant being distributed to the bearings.

White - Static, without pressure.



Progressive Divider

Lubricant distributing sequence

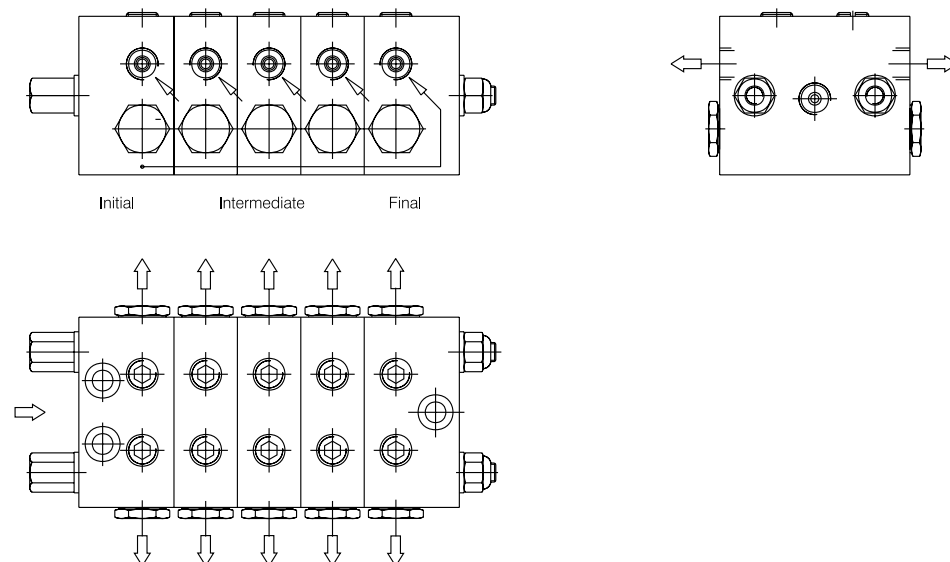
Metering pistons of progressive dividers DPM and DPA do not distribute lubricant previously established for corresponding discharge port, but based on a pre-determined sequence of the circuit.

Initial piston distributes lubricant to discharge ports corresponding to the final piston.

Final piston distributes lubricant at discharge ports corresponding to the central piston or, if there is more than one, to the closest intermediate piston correspondent discharge ports.

Intermediate piston distributes lubricant to discharge ports corresponding to the initial piston.

Circuit DPA



Circuit DPM

