Ball Pump is a unique pump with totally new concept. By placing several sets of tiny balls at equal distance to the center of rotation in the tubular type fluidic path of a circle of which shape is partly deformed. Then, by moving such balls at isogonic speed, it makes flow and performs as a pump.

**Characteristics**

1. Since the ball driving unit and ball pump chip are separate, you can change ball pump chips according to the different liquids and different conditions.
2. You can realize a low pulsation flow with ball pump.
3. Flow rate can be controlled in proportion to the rotation of the balls.
4. Wide range of flow rate can be available by selecting different ball diameter.

**Performance of Sample**

1. Specification of the ball pump chip
   - Diameter of balls: 2.00 mm
   - Inside diameter of flow path: 2.05 mm
   - Number of ball: 4 x 2 = 8 balls

2. Measured data
   - Liquid: Water
   - Temperature: Room temperature (25 degree C.)

2-1 Flow rate & Discharge Pressure

![Flow rate & Discharge Pressure Chart](image)

2-2 Flow rate and time (data for 5 sec.)

![Flow rate and time Chart](image)