slurry is supplied, and supplying a second abrasive grain slurry to a part of an area where the saw wire meshes with the workpiece~~.~~, wherein

~~In the method for cutting a workpiece with a wire saw according to the present invention,~~ the supplying of the second abrasive grain slurry is performed by immersing the part of the area where the saw wire meshes with the workpiece into the second abrasive grain slurry, and wherein the saw wire is located above the surface of the abrasive grain slurry at the entry/exit points that are the two ends of the meshing area.

In the method for cutting a workpiece with a wire saw according to the present invention, the second abrasive grain slurry is stored in a tank, and the part of the area where the saw wire meshs with the workpiece is immersed into an abrasive grain slurry surface of the second abrasive grain slurry stored in the tank.

In the method for cutting a workpiece with a wire saw according to the present invention, the two points on the saw wire where the first abrasive grain slurry is supplied are located above the abrasive grain slurry surface of the second abrasive grain slurry stored in the tank.

In the method for cutting a workpiece with a wire saw according to the present invention, the workpiece is cut by disposing a plurality of the saw wires in parallel with each other with a predetermined distance therebetween, running the plurality of saw wires in the lateral

CLAIMS

1. A method for cutting a workpiece with a wire saw, in which a workpiece is cut by running at least one saw wire in a lateral direction and bringing the workpiece into contact with the saw wire, the method comprising the steps of:

supplying a first abrasive grain slurry to the saw wire on two points which are separated by a predetermined distance in the lateral direction; starting cutting of the workpiece by moving at least either one of the saw wire or the workpiece relative to the other and bringing the workpiece into contact with the saw wire from above at a location between the two points on the saw wire where the first abrasive grain slurry is supplied; and supplying a second abrasive grain slurry to a part of an area where the saw wire meshs with the workpiece.

2. A method for cutting a workpiece with a wire saw according to claim 1, wherein:

the supplying of the second abrasive grain slurry is performed by immersing the part of the area where the saw wire meshs with the workpiece into the second abrasive grain slurry.

3. A method for cutting a workpiece with a wire saw according to claim 2, wherein:

the second abrasive grain slurry is stored in a tank, and the part of the area where the saw wire meshs with the workpiece is immersed into an surface of the second abrasive grain slurry stored in the tank.

4. A method for cutting a workpiece with a wire saw according to claim 3, wherein:
the two points on the saw wire where the first abrasive grain slurry is supplied are located above the surface of the second abrasive grain slurry stored in the tank.

5. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 4, wherein:
the workpiece is cut by disposing a plurality of the saw wires in parallel with each other with a predetermined distance therebetween, running the plurality of saw wires in the lateral direction, and bringing the workpiece into contact with the plurality of saw wires.

6. A method for cutting a workpiece with a wire saw according to claim 5, wherein:
the first abrasive grain slurry is supplied from one supply source to one of the two points on the plurality of saw wires, and the first abrasive grain slurry is supplied from another supply source to the other of the two points on the plurality of saw wires.

7. A method for cutting a workpiece with a wire saw according to claim 5, wherein:
the first abrasive grain slurry is supplied from one supply source to one of the two points on each of the plurality of saw wires, and the first abrasive grain slurry is supplied from another supply source to the other of the two points on each of the plurality of saw wires.

8. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 7, wherein:
the supply of the first abrasive grain slurry is performed by spraying from a nozzle.

9. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 8, wherein:
the two points on the saw wire where the first abrasive grain slurry is supplied are changed as the cutting of the workpiece progresses.

10. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 9, wherein:
a temperature of the first abrasive grain slurry and a temperature of the second abrasive grain slurry are controlled.

CLAIMS

1. A method for cutting a workpiece with a wire saw, in which a workpiece is cut by running at least one saw wire in a lateral direction and bringing the workpiece into contact with the saw wire, the method comprising the steps of:
supplying a first abrasive grain slurry to two points on the saw wire which are separated by a predetermined distance in the lateral direction; starting cutting of the workpiece by moving at least either one of the saw wire or the workpiece relative to the other and bringing the workpiece into contact with the saw wire from above at a location between the two points on the saw wire where the first abrasive grain slurry is supplied; and supplying a second abrasive grain slurry to a part of an area where the saw wire meshes with the workpiece,
wherein the supplying of the second abrasive grain slurry is performed by immersing the part of the area where the saw wire meshes with the workpiece into the second abrasive grain slurry, and
wherein the saw wire is located above the surface of the abrasive grain slurry at the entry/exit points that are the two ends of the meshing area.

2. A method for cutting a workpiece with a wire saw according to claim 1, wherein:
the second abrasive grain slurry is stored in a tank, and the part of the area where the saw wire meshs with the workpiece is immersed into an surface of the second abrasive grain slurry stored in the tank.

3. A method for cutting a workpiece with a wire saw according to claim 2, wherein:

the two points on the saw wire where the first abrasive grain slurry is supplied are located above the surface of the second abrasive grain slurry stored in the tank.

4. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 3, wherein:
the workpiece is cut by disposing a plurality of the saw wires in parallel with each other with a predetermined distance therebetween, running the plurality of saw wires in the lateral direction, and bringing the workpiece into contact with the plurality of saw wires.

5. A method for cutting a workpiece with a wire saw according to claim 4, wherein:
the first abrasive grain slurry is supplied from one supply source to one of the two points on the plurality of saw wires, and the first abrasive grain slurry is supplied from another supply source to the other of the two points on the plurality of saw wires.

6. A method for cutting a workpiece with a wire saw according to claim 4, wherein:
the first abrasive grain slurry is supplied from one supply source to one of the two points on each of the plurality of saw wires, and the first abrasive grain slurry is supplied from another supply source to the other of the two points on each of the plurality of saw wires.

7. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 3, wherein:
the supply of the first abrasive grain slurry is performed by spraying from a nozzle.

8. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 3, wherein:
the two points on the saw wire where the first abrasive grain slurry is supplied are changed as the cutting of the workpiece progresses.

9. A method for cutting a workpiece with a wire saw according to any one of claims 1 to 3, wherein:
a temperature of the first abrasive grain slurry and a temperature of the second abrasive grain slurry are controlled.