

Abstract: At recent time I was asked to describe Discrete Power Converter (DPC) in simple words without any math, graphs and drawings – just for basic understanding. Here is my attempt to do this.

Simple machine for simple people.

All the time the people need energy. Having energy people can do their works, mostly and ultimately - mechanical works. Applying even simple machines they can reduce amount of hard muscular labor based on human energy.

One of the oldest simple machine is lever, which was used from many thousands years ago. Well known that lever is able to amplify the input force by law of the lever. Armed with lever a man is becoming more stronger.

That's why the genius Archimedes stated: "Give me a place to stand on, and I will move the Earth."

Nobody may find that place, like me also. However, instead of that I invented self-oscillating automatic lever. What does it mean?

Actually lever is moveable bar and without moving of its end we do not have any mechanical advantage. Evidently, a worker should move lever manually.

Nevertheless the lever has been mechanized by force of gravity in my innovative mechanism - Discrete Power Converter (DPC or Kornich machine).

DPC operates as symmetrical (relatively to pivot) rocking bar-lever (exactly as see-saw). Both ends of bar-lever are attached to buckets which accumulate of working medium (water , mostly) when it going through DPC from top to bottom.

The filled bucket pulls down the bar-lever and generates working strokes periodically. Various mechanical loads (as piston pump, press, crusher) can be connected between pivot and lever's end. The machine (as Class 2 lever) will multiplied gravity force which is applied to load.

At the same time some loads (as sieve, shaker) can be connected to main shaft and be driven by its reversible torque.

Thus DPC is able to perform automatically a lot of different mechanical works without any fuel or electricity.

Just by combination of gravity, working medium and self- oscillating mode the lever can work automatically.

Archimedes could not even to dream about this !

Actually DPC is low-tech, low-cost technology as gravity powered prime mover. It's ideal for Renewable Energy applications in developing countries particularly.

Thanking to extremely simple and clear construction the DPC can be manufactured from non-expensive, regular materials (mostly from wood, even) under local conditions with regular production shop and manpower. Even with basic carpentry skills and knowledge this simple machine can be build by simple people in their households, farms and village communities.

There are many niches also for small businesses and for reducing of local unemployment. It is easy way for decentralized mechanical powering in remote areas by using of small local sources of water.

The endless amount of small rivers, streams and springs can be used for harnessing of mechanical power without need of large civil working and looking for funding of these works.

Even most importantly, with simple machines the people shall be *faster* in the getting of mechanical power. Time to cross the gap between demand and access to energy is critical because of rate of growth of population on our beautiful planet.

Thus DPC is additional to water wheel tool to supply the people with alternative mechanical energy.

More detailed information about DPC can be found on Internet:

<https://enviroresearch.wixsite.com/home/dpc>
<http://dpc-renewable-energy.com/>

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