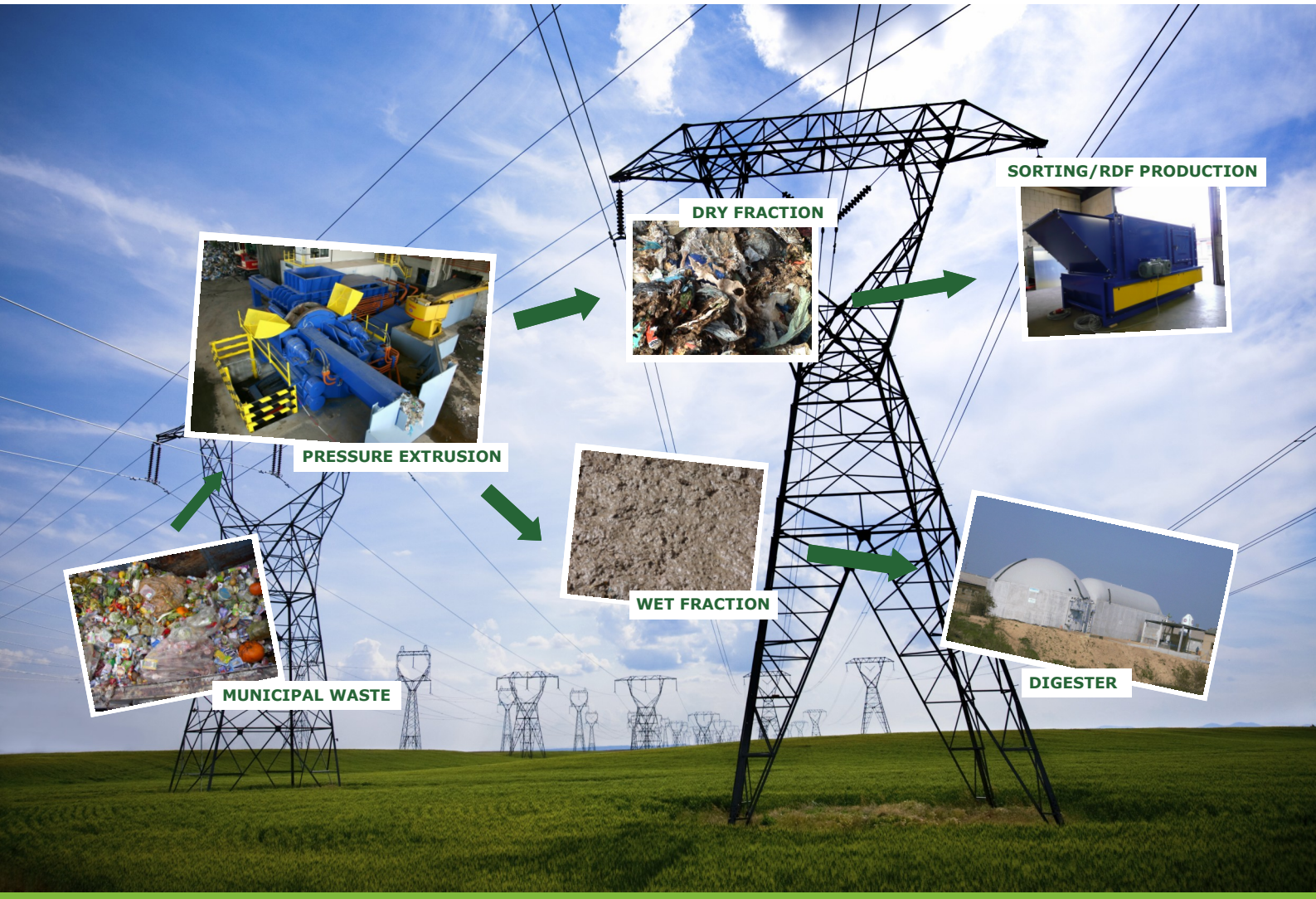
vmpress TECHNOLOGIES

ENERGIZING YOUR WASTE



PRESSURE EXTRUSION PROCESS

Municipal solid waste (MSW) or **green household waste** contains a large amount of energy. The organic part has great potential for anaerobic digestion. The non-organic part contains refuge derived fuel (RDF). Its high caloric content makes RDF a valuable energy resource. Current separation systems create an organic fraction with a lot of non-organics and a non-organic fraction still containing organics. In this way, the organics are very difficult to digest, whereas the RDF is difficult to extract at an acceptable quality level. There are thermal processes to split these fractions, but these are very energy inefficient.

The VM Press, however, is a waste pressurizing machine designed to physically separate waste into two fundamental fractions, an **organic wet fraction** with hardly any non-organics and a **solid dry fraction** with almost total absence of organic substances. The separation process consists of a chamber with a very strong mesh, in which waste is compressed using as high a pressure as 1000Bar. This results in changing the structure of the organic material into a fluid plasma, allowing it to be pressed through the mesh. This wet organic fraction can be used in **anaerobic digestion** plants. The dry non-organic fraction contains mainly RDF, but also some minerals and metals. After the dry fraction has undergone an additional separation process by sorting out these materials, only **RDF** remains.

The VM Press is available in two designs, one in which 17 tons of waste can be processed per hour and an other that can process 35 tons per hour.

Image credits: DIGESTER on front page, in courtesy of company Drössler, Germany

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