

# CPM strengthens portfolio with Innovative Pelleting Solutions

With revamped website, the opening of a new state-of-the-art manufacturing facility in Waterloo, Iowa, and the recent acquisition of Innovative Pelleting Solutions GmbH, CPM Holdings Inc., (CPM), is strengthening its position as a leading global provider of process equipment and engineered technology solutions for the biomass-, recycling, and waste-to-fuel sectors.

"One CPM" has a very concise mission statement – "to sustainably feed, fuel, and build a better world." While the animal feed, and oilseed processing technologies in the brand portfolio are the "feed" part of the mission, CPM has demonstrated time and again over the years how some of the same technologies can be adapted to the "fuel", and "build" parts of the mission.

The company has officially opened its new state-of-the-art facility in Waterloo, Iowa (IA) in the United States to serve the animal feed, oilseed, alternative fuel, and other industries. The new site produces a wide variety of equipment including pellet mills, flaking mills, hammermills, roller mills, pellet crumbles, and related aftermarket parts. It includes space for advanced manufacturing, modern workspaces and offices, testing and application development, and equipment and parts engineering and design.

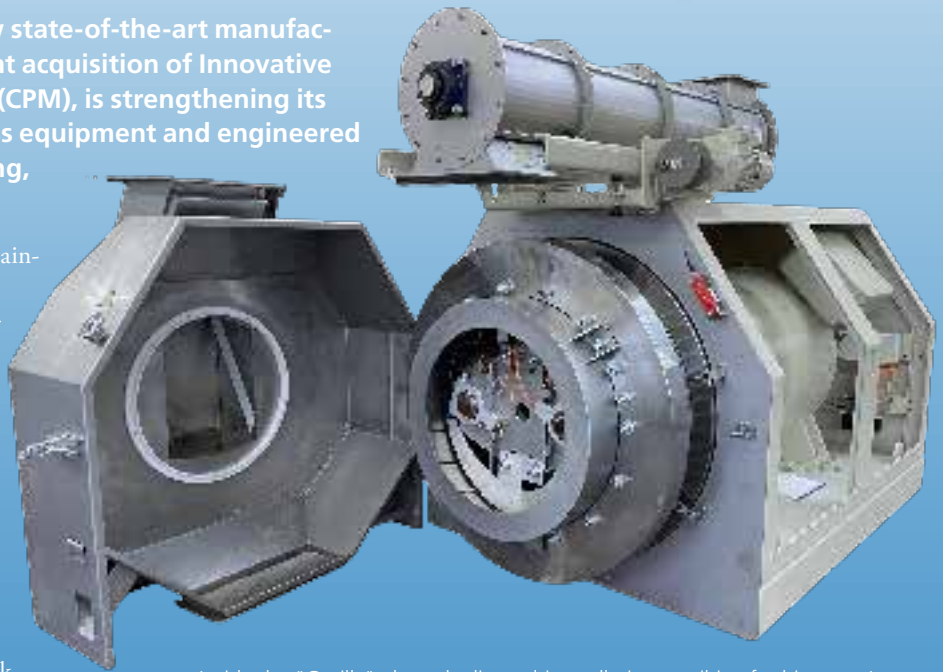
## Five Centers of Excellence

The portfolio of technology brands work together in CPM's five Centers of Excellence: Engineered Solutions, Industrial Solutions, Process Solutions, Packaging Group, and Automation Group. Zvantdam in Amsterdam, the Netherlands is where CPM's Global Industrial Solutions Center of Excellence is located, and which includes its biomass business. Here the Bliss, CPM, Dorssers, Di Piu, Roskamp equipment, and now Innovative Pelleting Solutions technology brands are "housed".

– We have customers which use CPM equipment and solutions to convert used tennis balls into playground bedding, turn broken shipping pallets and plastic bags into building materials, perform bottle-to-bottle plastic recycling, and much more. But it is in the broader waste-to-fuel, including biomass, that perhaps the most exciting applications for CPM solutions are found, said Maarten Visser, General Manager of CPM Global Industrial Solutions when asked about the waste management and recycling end of the business.



Founder and owner of Innovative Pelleting Solutions Jürgen Joachim signs the dotted line joining the CPM Industrial Solutions team.



Inside the "Gorilla", the only direct-drive pelleting machine for biomass. Invented by Graf Equipment and produced by Innovative Pelleting Solutions, it is now part of the CPM portfolio.

## Densification a core process

CPM offers a variety of solutions for the waste-to-fuel industry including intelligent systems that automate and streamline waste material processing operations, or custom process engineering and equipment for end-to-end operations that turn agricultural waste into biofuels. And of course, machinery for particle size reduction, sorting, drying and densification by pelletizing or briquetting that CPM is perhaps best known for.

– Biomass and waste are bulky and hard to handle. Turning it into pellets or briquettes is a key transformation process that makes it suitable for many waste-to-fuel processes, Maarten Visser said.

## Methaplanet's Maxximiser

A recent application example is pelletizing of horse manure into energy pellets which are then fed into an anaerobic digester to produce biogas. The company, Methaplanet International BV, an innovative scale-up focused on preparing and optimizing agricultural waste streams to enhance their utilization in biogas plants, has just built its first Maxximiser project in France. CPM engineers and process experts worked closely with Methaplanet's staff to plan, develop, build, and launch the Maxximiser energy pellet plant.

– The results are quite spectacular, up to 500 percent greater biogas yield using the energy pellets compared to just the manure in the digester, remarked Maarten Visser.

## CPM-approved Gorilla

Veering back to the biggest news item – Innovative Pelleting Solutions GmbH and its high-capacity, direct-drive pellet mill technology, invented by Graf Equipment GmbH is now a CPM portfolio brand. Furthermore, that founder and owner Jürgen Joachim joins the CPM Industrial Solutions team. Known as the "Gorilla", the new technology brings a high-capacity, direct-drive pellet mill capable of processing various biomass feedstocks to the CPM biomass portfolio.

– I am delighted that the Gorilla has found a home in CPM, and for me it is the ideal solution, not least in terms of timing, said Jürgen Joachim.

He explained that as a small engineering company with an innovative game-changing solution, size can be a disadvantage.

– Pioneers will always try, test and embrace a new solution or technology that they believe in and not worry so much about the company supplying the technology. Most pellet producers are not pioneers but are streamlined operations with more emphasis placed on business risk, financing,

>> Cont p. 33

>> Cont from p. 30

after sales support and service. All else being equal, there is a higher perceived risk of doing business with a young and small company contra a well-established corporation with a global presence. I am very excited going forward now that the Gorilla is “CPM-approved”, said Jürgen Joachim.

### Three types of pellet mill solutions

According to CPM, the move demonstrates the company’s “commitment to its customers looking for higher-capacity, more energy-efficient biomass machines.” The CPM biomass- and waste-to-fuel portfolio now offers a full range of technologies including three types of pellet mill solutions – Direct Drive, Gear Drive, and Belt Drive.

– We are steadily and systematically expanding our biomass technology portfolio, and are well-positioned to supply and service the global biomass market. This direct-drive pellet mill is the only one of its kind in the biomass industry today. I am really impressed by it and I’m thrilled that we have Jürgen Joachim on board the CPM Industrial Solutions team. Our customers asked for a higher capacity, lower energy pellet mill with a small footprint, and we listened, said Maarten Visser.

### Energy efficient and low maintenance

Direct drive technology means that the motor power is transmitted directly and without intermediate components such as belt drives or gears to the mechanical unit that is being powered. The force from the pellet mill mo-

tor is directly driven to the machine reducing the need for other mechanical components. This leads to a smaller footprint and simplified maintenance. Low vibration and low die speed lowers the use of grease and preserves the longevity of machine parts.

– The footprint of the Gorilla 900 is 3 x 3 x 2 metres, which is roughly the space a conventional 2-3 tonnes per hour (tph) press would occupy. However, the 900 does 5-6 tph. This means that, in theory, you could double production output of a plant with the same physical footprint, said Jürgen Joachim.

Direct drive also translates into lower energy consumption per tonne of product produced.

– The 900 press has a 304 kW motor and generates up to 29,000 Nm torque with a die speed of 1 to 2 rpm. The 1200 press we are developing will have a production output of 10 to 12 tph, double that of the 900 but is powered by a 470 kW motor and generates 60,000 Nm torque. Higher torque produces denser pellets, explained Jürgen Joachim.

The energy savings are significant – around 20 percent – and have been verified by both parties at a pioneer installation in Vietnam.

– The client replaced one existing pellet machine with a 900 and we could compare energy consumption side-by-side with the remaining machines over time. Incidentally, the installation was done during the height of the Covid-19 lockdowns so it was carried out remotely. This was not a problem since the whole machine is very much plug-n-play, ended Jürgen Joachim.

Company	Website	Code
Dreyer and Bosse Kraftwerke GmbH	www.dreyer-bosse.com	g9
Dryer One	www.dryer-one.com	g6
Low temperature drying technology DRYER ONE enables the processing of a larger range of products and allows massive energy savings, outstanding safety, high flexibility, low dust and VOC emissions.		
DSM Bio-based Products & Services B.V.	www.dsmbiogas.com	g9
Ductor Corporation	www.ductor.com	g9
DuPont Industrial Biosciences	www.biosciences.dupont.com	g9
Duratech Industries	www.duratechindustries.net	g1
Dutch Milling Technology International B.V.	www.dmt-int.com	g2
Döscher Microwave Systems GmbH	www.moisturemeter.eu	g5
E-PIC S.r.l.	www.epic-srl.com	g9
E.H.W. GmbH	www.ehw-holzwerke.at	g2
Eco Log Sweden AB	www.eco-log.se	g1 g2
EcoKraft AG	www.ecokraft.com	g2
EConvert Water & Energy	www.econvert.nl	g9
Ecoprotech	www.envorprotech.fi	g9
Ecostar srl	www.eco-star.it	g2
EDGE Innovation at Work	www.edgeinnovate.com	g2
Eggersmann Gruppe GmbH & Co. KG	www.f-e.de	g2 g6 g9
ElectraTherm Inc	www.electratherm.com	g6 g8 g9
Eliopig S.r.l.	www.eliopig.it	g9
Ellmann Engineering GmbH	www.ellmann-gmbh.de	g9
Elocom S.L.	www.elocom.com	g7
Eneco	www.eneco.nl	g9
Enercont GmbH	www.enercont.at	g6 g7
Enerkem	www.enerkem.com	g9
Enerstena Group	www.enerstena.eu	g3
Ennox Biogas Technology	www.ennox.at	g9
Enspar Biogas GmbH	www.enspar.de	g9
Entec Biogas GmbH	www.entec-biopower.at	g9
EnviGas	www.envigas.com	g9
Enviroburners Oy	www.enviroburners.fi	g3
EnviTec Biogas AG	www.envitec-biogas.de	g9
Epsilon Kran GmbH	www.palfingerepsilon.com	g1
Erich Stallkamp ESTA GmbH	www.stallkamp.de	g5, g7
ERK Eckrohrkessel GmbH	www.erk-systems.com	g3

Company	Website	Code
Eschlböck Maschinenfabrik GmbH	www.eschlobeck.at/	g1 g2
Esri Sverige AB	www.esri.se	g1
Essegi 2 s.r.l	www.essegi.com	g7
ETIA S.A.S.	www.biogreen-energy.com	g6 g9
ETW Energietechnik GmbH	www.etw-energie.de	g3 g9
Euromilling A/S	www.euromilling.dk	g7
Europe Forestry V.O.F	www.europeforestry.com	g1
Eurotank Environmental Ltd	www.eurotank.eu.com	g5
Evonik Fibres GmbH	www.evonik.com	g9
Evonik Industries AG	www.evonik.com	g3
Evoqua Water Technologies	www.evoqua.com	g9
EWK Umwelttechnik GmbH	www.ewk.de	g4 g6
Excellent Biogas	www.excellent-biogas.com	g9
Exergyn Ltd	www.exergyn.com	g9
Exodraft A/S	www.exodraft.se	g4
Extech GmbH	www.extech-de.com	g9
Fabryka Kotów Sefako S.A.	www.sefako.com.pl	g3
Fagen Inc.	www.fageninc.com	g9
Fagus-GreCon Greten GmbH & Co. KG	www.fagus-grecon.com	g5
Farmatic Anlagenbau GmbH	www.farmatic.com	g9
Faust A/S	www.faust.dk	g3
Fecon Inc	www.fecon.com	g1
Feldbinder Spezialfahrzeugwerke GmbH	www.feldbinder.de	g7
Feniks Pro d.o.o	www.feniks-pro.com	g5 g9
Ferotec	www.ferotec.eu	g2
Fiedler Zdenek s.r.o	www.kotlenabiomasu.com	g3
Fike Canada Inc	www.fike.com	g5
Filcon A/S	www.filcon.dk	g4
Filtertechnik	www.filtertechnik.co.uk	g9
Fincantieri S.p.A	www.fincantieri.com	g3 g5 g8
Firefly AB	www.firefly.se	g5
Fisker A/S	www.fisker.as	g7
Supplier of bag machines, carton and corrugated cardboard systems for retail and transport packaging, palletising and weighing systems, stretch film coilers and hydraulic presses.		
Five Continents Machinery Co. Ltd.	www.fcm-cn.com	g2 g7
Fixteri Oy	www.fixteri.fi	g1