

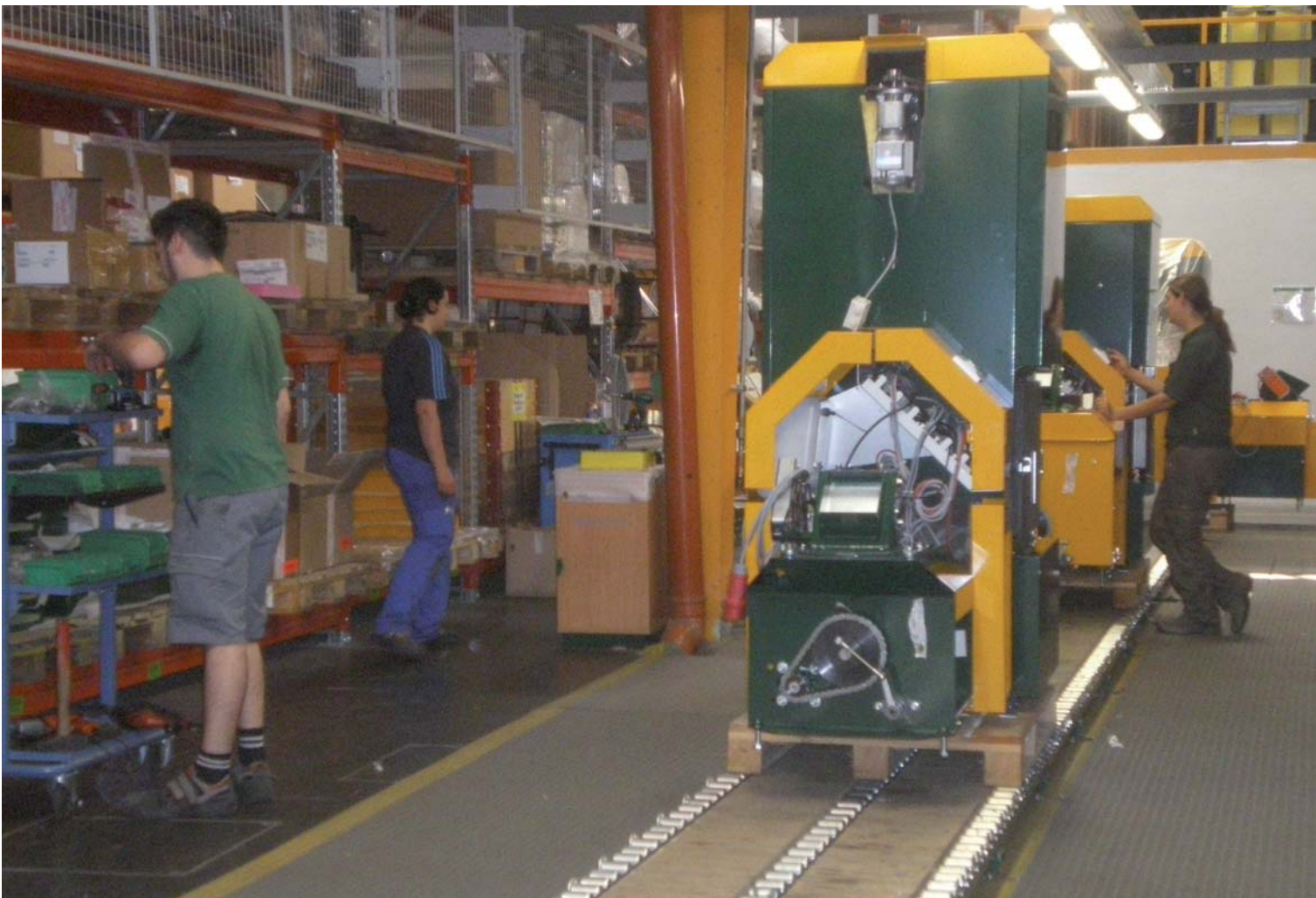
'Lowest emission is o

Biomass

[Jacqueline Wijbenga]

The Austrian company KWB produces biomass heating systems. With twenty-six employees in research and development the company has the largest private European biomass research centre. "The energy problem won't be solved by wood alone. Research has to contribute to optimize the burning process and find new energy sources," says Andreas Giselbrecht of KWB.

KWB with headquarters in the Austrian town of St. Margarethen/Raab was founded in 1994 by two partners: Dr. August Raggam, professor at the University of Graz, and Erwin Stubenschrott, fitter of profession. Professor Raggam has an impressive research history in combustion of biomass. His goal was to implement this knowledge at a practical level. With the technical know-how and experience of Stubenschrott this was made possible



The heating systems of KWB are exported to ten different EU countries and Chili.



our goal'

Austrian KWB contributes to 'Energy for life'



The heaters are assembled in two stages. Stage 1 results in a module, stage 2 is the finishing touch.



Not all parts of the heaters are home made. All parts are available in storage two weeks before assembly of the demanded heating system.



KWB has two production lines: one for pellet heaters and one for chip heaters.

within KWB, producer of biomass heating systems. Today the company employs over 200 people, 26 of them are involved in research and development forming the biggest private research centre on biomass.

Automatic

The Austrian company specializes in fully automatic biomass heating systems that use either wood pellets, wood chips or fire wood. "Our heaters range from 10 to 300 kW. This means the system meets the heating demands of low-energy houses, single and multi-family buildings as well as regional heating such as housing developments and public buildings," explains Andreas Giselbrecht, responsible for marketing. The heaters are in general 1.5 times more expensive than the conventional oil-heated boiler systems, says Giselbrecht. "However in most cases the purchase of a wood heated boiler is subsidized by the government. If so, our

heaters are only 20 percent higher in price. However, our boiler systems offer maximum energy with minimum emission." Lowest emission is one of the major goals of KWB. Not only is the efficiency of the heating system itself of importance to the company. They also focus on environmentally friendly production when producing the heaters. "For example, we use green electricity in our facilities."

Feedstock

The KWB heating systems use either pellets, wood chips or fire wood. "The pellets are made from rest wood or saw dust and contain a little grain or corn for the oil content." Wood chips contain less energy than pellets. For this reason this energy source is only interesting to use if readily available in a circle of around 50 km from the heating system. "Pellets have a higher energy density which allows transportation over longer distances."

Energy systems that use wood chips require more storage space. "Pellets contain about 3.5 times more energy than chips", explains Wolfgang Torschitz. This also explains the difference in volume between the two feed stocks.

Fresh wood is not yet used, says Giselbrecht. "But if farmers shift towards growing energy crops and fast growing wood types, this might well change." According to KWB biomass will be the energy source of the future. "But we have to use it well", warns Giselbrecht. "It's important not to use more than what's added by nature each year otherwise we create a new problem."

KWB is aware the energy problem won't be solved by wood. "Other resources are needed as well. Research is needed to find the optimal burning process that will supply us with sufficient energy." ■

