



BMH TECHNOLOGY

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# FUELLING A CLEANER FUTURE

Today we combat two global problems: the amount of waste dumped on landfills and CO<sub>2</sub> emissions caused by fossil fuels. Our goal is to respond to both of these challenges and to boost material recovery.

**90**  
years of experience

Since 1980,  
**514**  
million tons of fossil CO<sub>2</sub> emissions saved by BMH

BMH Technology is a pioneer in delivering demanding solid biofuel handling systems for power plants. We are also a world-class player in designing and manufacturing industrial scale waste refining solutions for the needs of waste management companies, energy production and process industry.

For several decades BMH has operated with various applications of material

handling. This is recorded in an extensive portfolio of key references with power plants and pulp and paper industry providing proof of technological concept and customer satisfaction.

**MISSION**  
We master smart solutions for material recovery and sustainable fuel production.

**VISION**  
Fuelling a Cleaner Future.

**VALUES**  
Success  
Co-operation  
Passion

**STRATEGY**  
Preferred lifecycle partner in sustainable energy and advanced material recovery technologies.

**BMH STRENGTHS**  
Total plant solution knowhow for RDF/ SRF and wood-based biomass.  
Experienced project execution teams.  
Service expertise and global networks.  
High capacity, industrial scale solutions.

This equals the emissions of **213 million** single flights around the world.

**WHERE TO FIND US**  
Headquarters | Rauma, Finland  
Branch Office | Pori, Finland  
Sales offices | Sweden | Poland | Spain | China  
Agents | All over the world  
Web | www.bmh.fi



2 1929 1936 1959 1971 1987 1992 1994 2007 2010 3

- 1929: Osakeyhtiö Sytytin
- 1936: AMMUS
- 1959: AMMUS-SYTTYIN OY
- 1971: Lönnström Oy
- 1987: Consillum Bulk
- 1992: Consillum Bulk Babcock
- 1994: BMH Wood Technology
- 2007: BMH Technology
- 2010: BMH TECHNOLOGY

We do it all: design, build, install, service. Delivery of comprehensive turnkey installations worldwide is guaranteed by our experience and know-how.

# SMART SOLUTIONS FOR SUSTAINABLE FUELS

## WASTE REFINING AND HANDLING

BMH Technology offers fully integrated, industrial scale solutions for waste refining and handling. The TYRANNOSAURUS® process from BMH turns the **MSW** (Municipal Solid Waste) and **ICW** (Industrial and Commercial Waste) into **SRF** (Solid Recovered Fuel) or **RDF** (Refuse Derived Fuel). Local, affordable and environmentally friendly SRF/RDF can then be used for replacing coal and other fossil fuels in power boilers and cement kilns.

The strength of BMH solutions lies in the robustness, availability and high capacity of our equipment. Our key references include SRF/RDF production plants, which are integrated to efficient boilers and cement kilns with annual waste processing capacity of 100-1000 thousand tons per year.

## SOLID BIOFUEL HANDLING

With more than 60 years of experience in solid biofuel handling for large-scale power boilers BMH Technology is a pioneer in its field. During the past decades, we have refined our systems into a true turnkey solution. The main components are fuel receiving, fuel quality control, storage and boiler feeding. There are also other complementary value adding features such as automatic sampling.

Our systems are capable of handling all solid biofuels, such as wood chips, round wood and other forest residues, eucalyptus, energy willow, olive kerns and pellets, from receiving to boiler feeding.

## LIFE CYCLE SERVICES

BMH Service provides a large scale of services and know-how from preventive maintenance to modernisation of lines. As a partner, our goal is to maximise the return on your investment throughout the equipment's life cycle.

During the decades, BMH has gathered valuable background information about industrial processes and equipment life cycles. We know how various materials with specific characteristics behave in customer's handling processes and can offer you tailored solutions to keep your production running.

BMH Service's maintenance network guarantees fast response and actions when needed. Remote control solutions and local maintenance networks minimise interruptions in operation. The continuous process running is our top priority.

**LOCAL FUEL IS A GLOBAL SOLUTION**

**UNDERLINING AVAILABILITY**

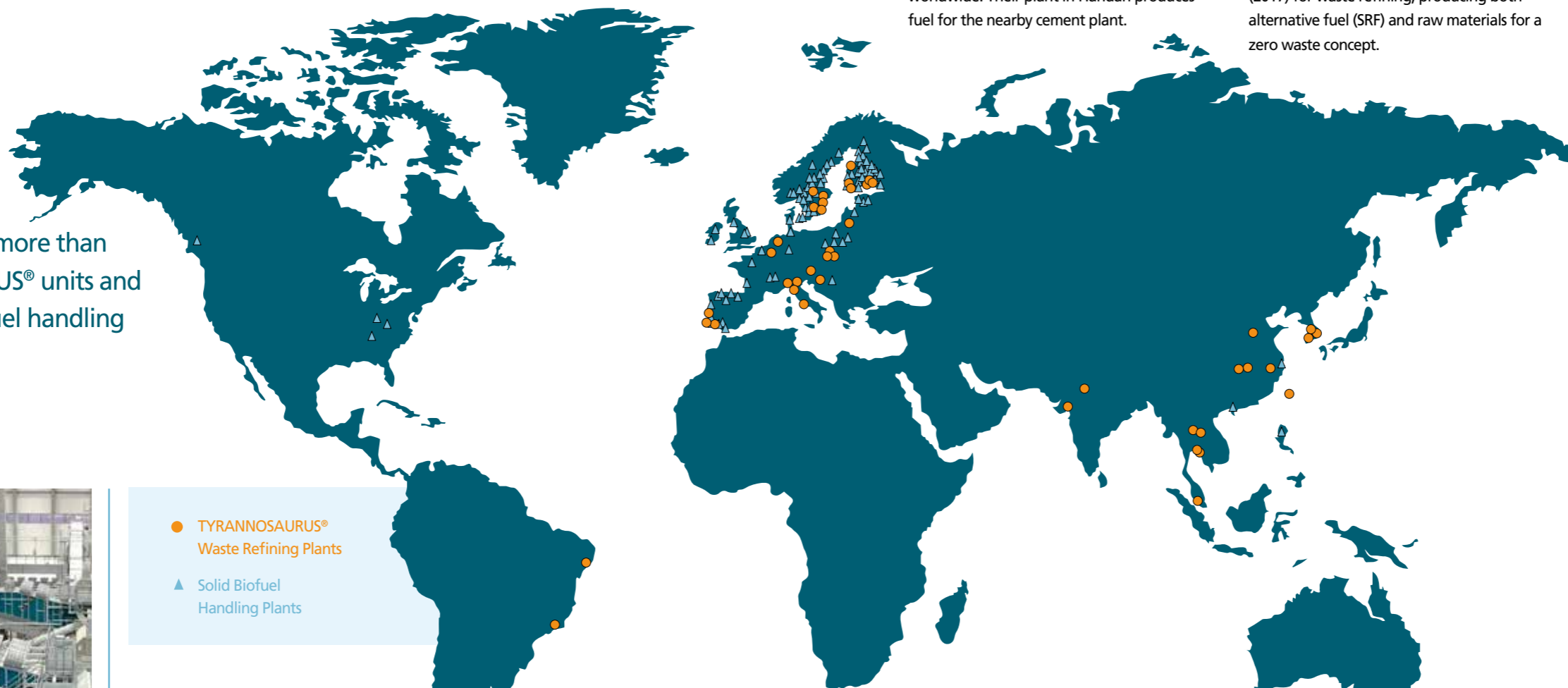
**RECOVERING VALUE FROM WASTE**

**MAXIMISING PROCESS LIFE CYCLE**



# OVER 200 PLANT SOLUTIONS WORLDWIDE

Our unique technology is designed and developed in Finland. To this day, we have delivered more than 70 TYRANNOSAURUS® units and over 170 solid biofuel handling systems worldwide.



- TYRANNOSAURUS® Waste Refining Plants
- ▲ Solid Biofuel Handling Plants



**Mälarenergi AB** is one of Sweden's largest combined power and heating plant. It uses only renewable fuels for energy production and provides both electricity and district heating to the surrounding city of Västerås.

**BMH deliveries to Mälarenergi AB**  
**Solid biofuel handling:** A complete solid biofuel handling system for wood chips, forest residues, bark and peat (2000). A complete solid biofuel handling system for wood, pellets and peat (2002).  
**Waste to Electricity:** A complete RDF production plant for MSW and industrial waste (2014). A complete external fuel handling system for recycled wood (2020).



**Etelä-Savon Energia Oy (ESE)** has a long history in energy production and is known for its mission to be a pioneer in using renewable resources. Pursiala Power plant in Mikkeli supplies district heating for the town and its surroundings.

**BMH delivery to ESE Oy**  
**Solid biofuel handling:** A complete solid biomass fuel handling system (2017) including receiving, preparation, storage and boiler feeding.



**Jönköping Energi AB** is a municipal energy producer, whose power plant Torsvik supplies both electricity and district heating. The latest unit built in 2014 operates on biomass, mainly forest residues but also wood based industrial residues.

**BMH delivery to Jönköping Energi AB**  
**Solid biofuel handling:** External fuel handling system (2014) for receiving, fuel preparation, storage and feeding to boiler.



**BBMG** (Beijing Building Material Group) is the largest cement producer in northern China and among the 10 biggest producers worldwide. Their plant in Handan produces fuel for the nearby cement plant.

**BMH delivery to BBMG**  
**Waste to Flame:** Complete TYRANNOSAURUS® SRF production plant (2017) for waste refining, producing both alternative fuel (SRF) and raw materials for a zero waste concept.



**Posco E&C** is a large South-Korean EPC company specialised in major complete plant deliveries. The Pohang plant refines the MSW into SRF, which is used in an integrated 50MW bubbling fluidized bed boiler at the same site. The plant's single processing line has a huge shredding capacity, 40 tons per hour.

**BMH delivery to Pohang**  
**Waste to Electricity:** A complete TYRANNOSAURUS® waste refining system for MSW and industrial waste (2018).



**GPSC's** (Global Power Synergy Public Company Ltd) plant in Rayong was built to solve the local waste problems and to produce alternative fuel for energy production. The plant refines local MSW into SRF and separates recyclables and raw materials.

**BMH delivery to GPSC**  
**Waste to Fuel:** A complete TYRANNOSAURUS® SRF production line (2017) including pre-treatment.



**CIMPOR's** plant in Souselas (Coimbra) is a major cement factory, part of one of the world's largest cement groups, Intercement. It produces 2,40 million tons of cement annually in Portugal. The plant uses waste based SRF in its main burner and precalciner.

**BMH delivery to Cimpor**  
**Waste to flame:** A turnkey solution (2011) for handling alternative fuels at a cement mill, including screening, dosing and feeding as well as storage systems.



**ACCIONA Energy's** Miajadas biomass plant was the first-ever plant in Europe to use two types of biomass (straw bales and wood residues) as fuel. The possibility to diversify the supply of fuel helps to guarantee supply as well as optimise costs. The plant produces on average of 128GWh annually.

**BMH delivery to Acciona Energy**  
**Solid biofuel handling:** A turn-key delivery of a biomass handling system with day silo and feeding into boiler (2010).



**Fortum's** new combined heat and power (CHP) plant in Zabrze aims to boost energy efficiency and lower emissions. It provides district heating to some 70.000 households. The plant is adaptable to several fuels and the amount of RDF can be up to 40%.

**BMH delivery to Fortum**  
**Fuel handling:** Complete solid fuel handling system including train unloading and automatic sampling (2018).



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