

# Pre-engineered Air Preheaters & Gas Heaters

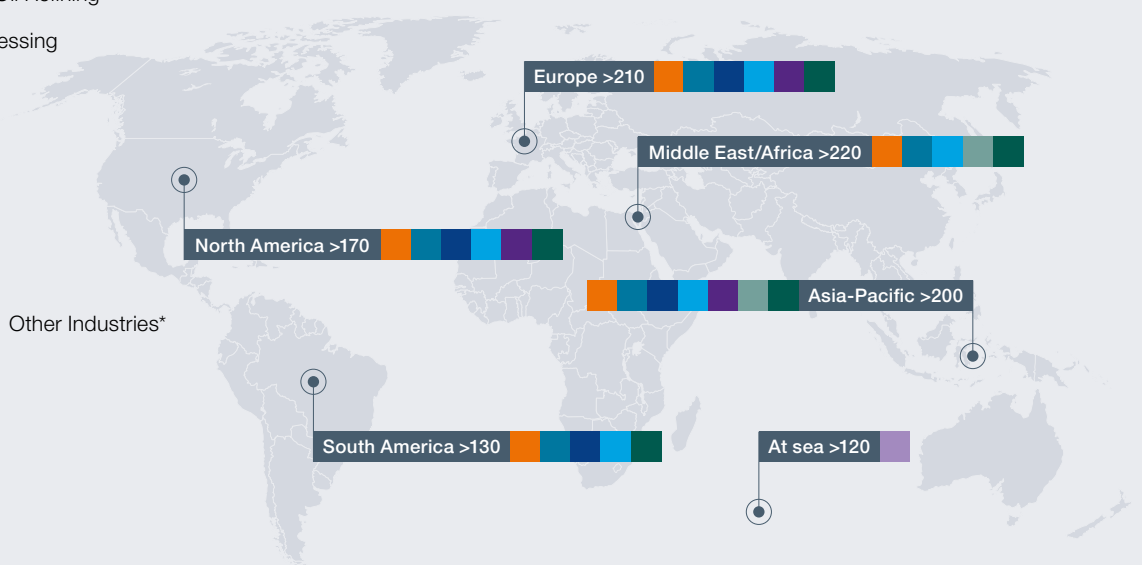
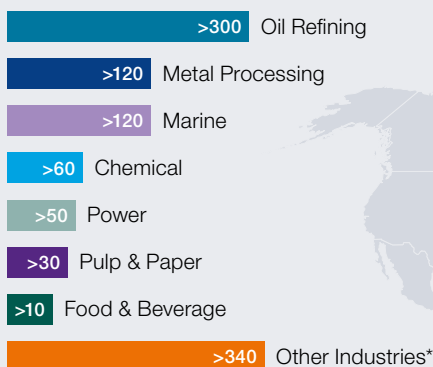
Installation base and reference projects



Howden has a long history of supply going back multiple decades and totalling more than 5000 heaters. Over 1000 of these are within range of our pre-engineered heaters.

Our heaters, operating in air preheating and gas/gas heating applications, are based on the original rotating regenerative heater design developed in collaboration with the inventor in 1923. Since then the design has been continually enhanced to reach our industry leading levels of thermal efficiency and performance enabling our customers' vital processes.

## Projects summary



\*Other industries includes cement, automotive, textiles, universities and hospitals.



## Recent projects

### Refining

Client	End user	Plant	Country	Application	Rotor Dia. (m)	Gas Mass Flow (t/h)	Quantity
AST / AR Technic	Gomelenergo	Mozyr oil refinery	Belarus	Power boiler APH	5.4	280	2
Phillips 66	Phillips 66	Sweeny oil refinery	USA	Vacuum distillation APH	4.4	80	1
Foster Wheeler	PEMEX	Madero oil refinery	Mexico	Power boiler APH	5.4	259	1
Jacobs	Esso Netherlands	Rotterdam oil refinery	Netherlands	Vacuum distillation APH	3.2	67	1
Confab	Petrobras	Comperj oil refinery	Brazil	Vacuum distillation APH	3.7	163	1
Confab	Petrobras	Comperj oil refinery	Brazil	Atmospheric distillation APH	3.7	92	1
Confab	Petrobras	Comperj oil refinery	Brazil	Fractionator APH	3.7	155	1
Imperial Oil	Imperial Oil	Sarnia oil refinery	Canada	Gas cracker APH	4.2	76	1
SES	Slovnaft	Slovnaft oil refinery	Slovakia	Power boiler APH	5.4	164	2
Petrobras	Petrobras	Repar oil refinery	Brazil	Atmospheric distillation APH	3.5	71	1
ExxonMobil	ExxonMobil	Baytown oil refinery	USA	Hydrocracker APH	3.7	65	1
BIH	Imperial Oil	Dartmouth oil refinery	Canada	Vacuum distillation APH	3.35	57	1

### Metals

Client	End user	Plant	Country	Application	Rotor Dia. (m)	Gas Mass Flow (t/h)	Quantity
Rodabilsa	Nicar	Nicar nickel refinery	Cuba	Power boiler APH	3.7	103	1
Winalco	Winalco	Kirkvine aluminium plant	Jamaica	Power boiler APH	4.2	95	1
Hangzhou Boiler	Erdemir	Karadeniz Ereğli steel plant	Turkey	Power boiler APH	4.4	186	2
ACRE Coking & Refractory Engineering Consulting Corp.	Hebei Bohai Coal Coking Co., Ltd	Cangzhou Zhongtie steel plant	China	Coke Oven FGD GGH (DeSOx)	4.4	86	1

### Power

Client	End user	Plant	Country	Application	Rotor Dia. (m)	Gas Mass Flow (t/h)	Quantity
Chiyoda	Toshiba	Biomass power plant	Mikawa, Japan	Carbon Capture (CCS) GGH	4.4	150	1
AES Itabo	AES Itabo	Power plant	Itabo, Dominican Republic	Power boiler APH	3.0	21	2
CFE	CFE	Power plant	Guaymas, Mexico	Power boiler APH	4.8	161	2
Yucheng Jiu Hua Environment Technology Co.	Qingdao Chemical Industry Park	Waste-to-energy power plant	Qingdao, China	Tail End SCR GGH (DeNOx)	3.5	56	1

**For further information please contact:**  
[sales.hs@howden.com](mailto:sales.hs@howden.com)