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## EDC Cracking Heaters built by Foster Wheeler

To comply with the stringent requirements of this critical service, Foster Wheeler can offer two different designs which were developed through the years: a first, Radiant Box, with radiant tubes vertically or horizontally disposed and the second, Terrace-Wall™, with horizontal tube design.

Although both designs, which are based on double firing concept, have been proved reliable, the design recommended on the basis of process, mechanical simulation and operating feedback is the Foster Wheeler proprietary TerraceWall™. Such a design incorporates slightly sloped radiant section side-walls and burners at the terrace levels.

This distinctive design offers many advantages for petrochemical cracking where process tubes require an uniform and controlled heat distribution in the radiant section, with higher heat input in the heating section and a lower heat input into the hotter part of the cracking section. The multiple-level burners allow to provide a different heat input in the heating/cracking section, optimising the heater load, the required conversion and run length between decoking operations.

The double firing design assures a good distribution of circumferential heat flux with lower pick film temperature and consequent reduction in coke formation.

The Terrace Wall™ burners fire upward toward the sloped walls adjacent to the wall refractory, providing a firebox with high re-radiation and predictable gas re-circulation, ensuring safe and stable combustion. Elimination of flame impingement on the tubes is another advantage of the upward firing configuration. This reduces annual operating cost through improved run times.

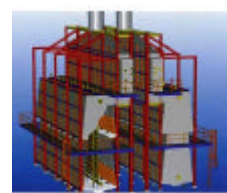
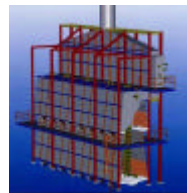
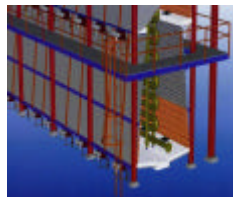


## Partial List of EDC Cracking Heaters built by Foster Wheeler

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The Terrace-Wall™ design can operate under total natural draft without the need for forced air or induced draft fans. If air preheat is required, the addition of combustion air ducts for forced draft operation is easy and cost-effective.

The heater can be supplied as single unit or pair of units – as shown below - depending on the capacity need, allows to continue production in one furnace while decoking the other furnace for improved operation and greater productivity.



A partial list of EDC Cracking heaters, both Radiant Box and Terrace Wall™ design, supplied by Foster Wheeler is included on the following pages.



Partial List of EDC Cracking Heaters built by Foster Wheeler

<b>Date</b>	<b>Company &amp; Location</b>	<b>Number</b>	<b>Type</b>
2003	Sasol Sasolburg (South Africa)	1	Rad. Box
2003	Shin Etsu Rotterdam (The Netherlands)	2	Rad. Box
2003	SCAC Shangai (China)	1	Rad. Box
2002	Shin Etsu Rotterdam (The Netherlands)	1	Rad. Box
2000	Vintron Huerth (Germany)	2	Rad. Box
1999	Vinnolit Burgkirchen (Germany)	1	Rad. Box
1997	EVC Runcorn (England)	1	Terrace Wall™
1996	Asashimasu Loekmaue (Indonesia)	1	Rad. Box
1987	Dow Chemicals Lousiana (USA)	1	Terrace Wall™
1985	Dow Chemicals Stade (Germany)	1	Terrace Wall™
1980	Dina Krk (Yugoslavia)	3	Terrace Wall™
1979	ICI Wilhemshaven (Germany)	2	Terrace Wall™
1977	ICI Wilton (England)	1	Terrace Wall™
1977	Ministry of Industry (Iraq)	1	Rad. Box
1977	Fluor (Korea)	1	Terrace Wall™
1975	SNEP Mohammedia (Morocco)	1	Terrace Wall™
1975	Dow Chemicals Lousiana (USA)	2	Terrace Wall™



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<b>Date</b>	<b>Company &amp; Location</b>	<b>Number</b>	<b>Type</b>
1974	Dow Chemicals Louisiana (USA)	2	Terrace Wall™
1974	Borden Chemicals Louisiana (USA)	1	Terrace Wall™
1973	Sun Arrow Chemicals (Japan)	1	
1973	Hemijaska Industria Pancevo (Yugoslavia)	1	Terrace Wall™
1973	Formosa Plastic (Taiwan)	2	Terrace Wall™
1972	Solvay Rheinberg (Germany)	2	Terrace Wall™
1971	Shell Norco (USA)	2	Terrace Wall™
1971	Shell Deer Park/TX (USA)	1	Terrace Wall™
1970	Asahi Dow Japan	1	
1969	Toa Gosei Chemicals Japan	1	
1969	Società Chimica Ravenna Ravenna (Italy)	1	Terrace Wall™
1968	Sun Arrow Chemicals Japan	1	
1967	Kanagafuchi Chemicals Japan	2	Rad. Box
1967	Sumitomo Chemicals Japan	1	
1967	Toa Gosei Chemicals Japan	1	
1965	Ethy Corporation Baton Rouge /TX (USA)	1	
1963	ICI Wilton (England)	3	