

Optimizing Closed Cycle Cooling Performance With Less Pumping Load And Smaller Footprint

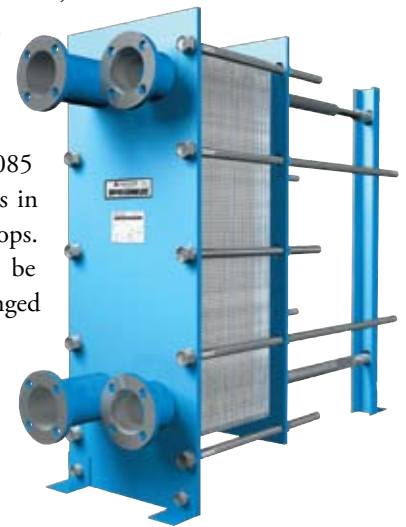
SUPERCHANGER® Plate & Frame Exchangers' heat transfer efficiency serves cooling applications well in constricted power houses

Spurlock Power Station, located in Maysville, KY, on the Ohio River, is the largest plant owned by East Kentucky Power Cooperative. Spurlock is a four-unit, coal-fired baseload facility generating 1,371 MW net.

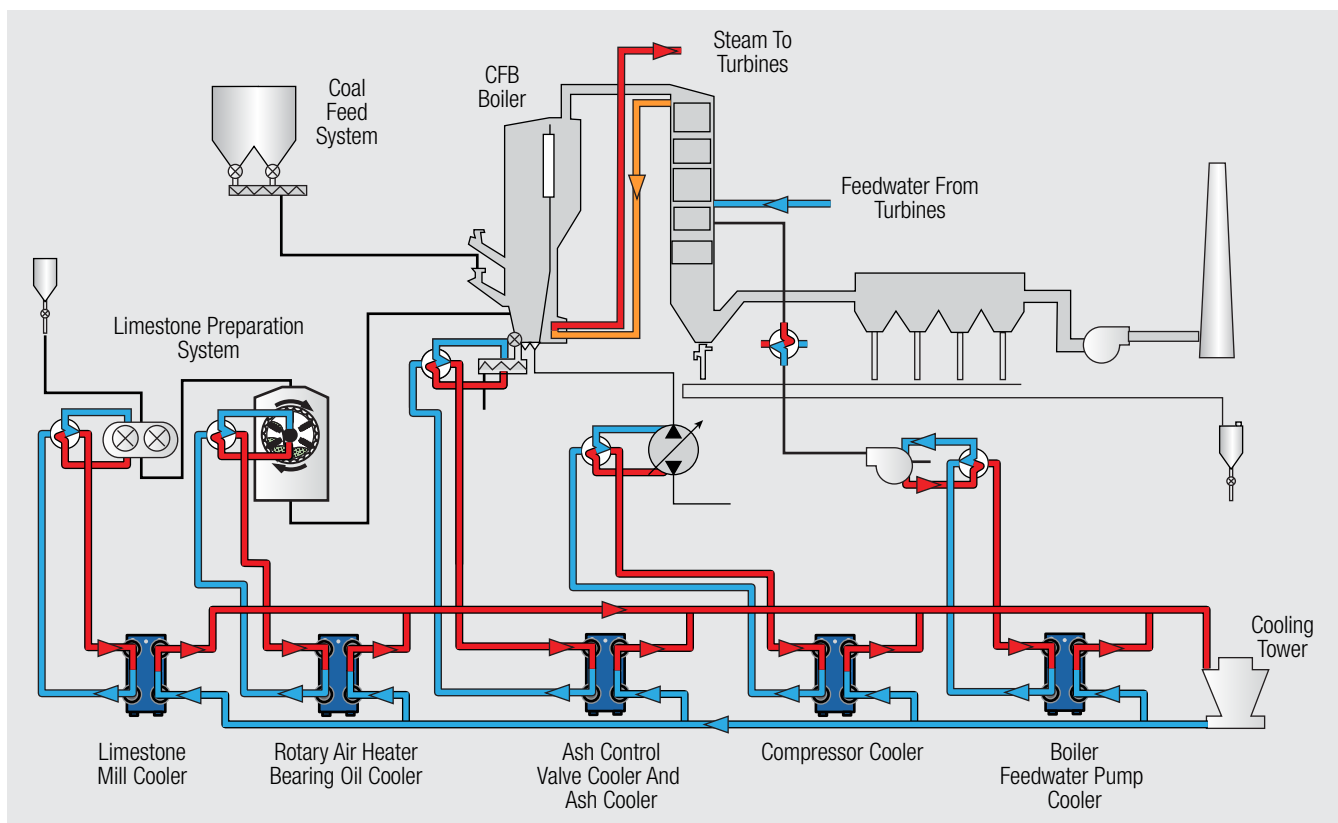
In April 2005 Spurlock started up the Unit 3 268-MW unit using clean coal technology, particularly a circulating fluidized bed (CFB) furnace section in its power boiler. The similarly sized CFB Unit 4 went on line in 2009. Units 3 and 4 rank as among the cleanest coal-powered units in the nation and the cleanest in Kentucky.

Spurlock has consistently practiced excellent environmental stewardship. In recent years, nearly \$600 million in new environmental-control equipment has been added at Spurlock Station.

Cooling machinery more efficiently
In character with the environmental stewardship provided by tight emissions control, the Spurlock station has taken measures to reduce its own internal energy consumption. One strategy has been to install SUPERCHANGER® GXD-085 plate & frame heat exchangers in several closed cycle cooling loops. These USA-made units can be furnished in a weld neck, flanged design or with studded ports.



SUPERCHANGER units are available with weld neck flanges or studded ports.



Typical cooling loops in power generation.

Reduced pumping load, less space

The close temperature approach of these highly efficient exchangers reduces the volume of cooling water required to keep various types of equipment within operating temperature specifications. Less volume means less flow and reduced pumping energy demand, which saves power and fuel. This means better thermal efficiency throughout the power station and improved net power output to the cooperatives.

Another benefit is the compact footprint of the highly efficient SUPERCHANGER. These units can fit in very tight boiler house spaces and make pipefitting and service much simpler tasks. These units can even be assembled in place after delivery of component pieces through manways.

Where application conditions exceed the capabilities of gaskets,

Other Tranter PHE Applications In Power

- Component Cooling Water (CCW) Exchangers
- Blow Down Coolers (from steam generator/boiler, from cooling tower)
- Turbine Lube Oil Coolers
- Compressor Motor Oil Coolers
- Feedwater Pump Lube Oil Coolers
- Seal Water Coolers (at various pumps)
- Transformer Oil Coolers
- Condensate Trim Coolers
- Low Pressure Feed Water (condensate) Heaters
- Gland Steam Condensers (steam turbine seal)
- Amine or Ammonia Solution Heat Exchangers (Wet Flue Gas Cleaning)
- HRSG (Heat Recovery Steam Generator) Cross Exchangers

the Tranter SUPERMAX® Shell & Plate exchanger is a proven alternative, providing significant cooling volume and footprint advantages over conventional shell & tube units.



North America
Tranter, Inc.
Wichita Falls, TX USA
Tel: (940) 723-7125
Fax: (940) 723-5131
E-mail: sales@tranter.com

Mexico
Tranter LA de CV
Querétaro, México 76154
Tel: +52 (442) 217 44 98
Fax: +52 (442) 210 11 27
E-mail: gscully@tranter.com

Europe
Tranter International AB
Vänersborg, Sweden
Tel: +46 521 799 800
Fax: +46 521-673 93
E-mail: info@se.tranter.com

Mid-East/Africa/Asia
Tranter India Pvt. Ltd.
Pune, India
Tel: +91 20-30519300
Fax: +91 20-30519350
E-mail: sales@in.tranter.com

South America
Tranter Ind e Com de Equip. Ltda
Osasco, Brazil
Tel: +55 11 36084154
E-mail: vendas@tranter.com

China/Southeast Asia
Tranter China
Beijing, China
Tel: +86 10 6554 4920/21
E-mail: paulyang@tranter.com.cn
Support: tina@tranter.com.cn