

## Application**brief**

*Eclipse Product:* ThermJet Burners  
*Submitted by:* Eclipse Combustion – Calgary  
*Application:* Heat Treat Furnace

*Description:* Dacro Industries Ltd needed to stress relieve circumferential welds of seamless sections. Each section is 7' long, 16' OD and 9" wall thickness. Each weld area will start at 400° F, elevate to 1150° F at 50° F/hour and soak, then ramp down at 50° F/hour. Final center weld will be the same ramp time but will go to 1305° F and soak, then ramp down. A heat load was calculated and ThermJet burners selected. Due to width restrictions, the furnace chamber was limited to 6' in width. The furnace was 22' high and 22' long and 6' wide. Three TJ300 burners were used and fired into special combustion chambers built for this project and attached to the furnace. Combustion air was supplied by anSMJ blower. An air header was provided as well as gas trains and electrical panel to include safeguards, high limit, three operating controls and blower motor starter with all switches and lights. This system is presently working and we have completed three runs and have met conditions. Eclipse Calgary designed the system and provided drawings for Dacro to build the furnace and provide the T/C's. We provided controls, burners and valves.



*Eclipse ThermJet Burner*

