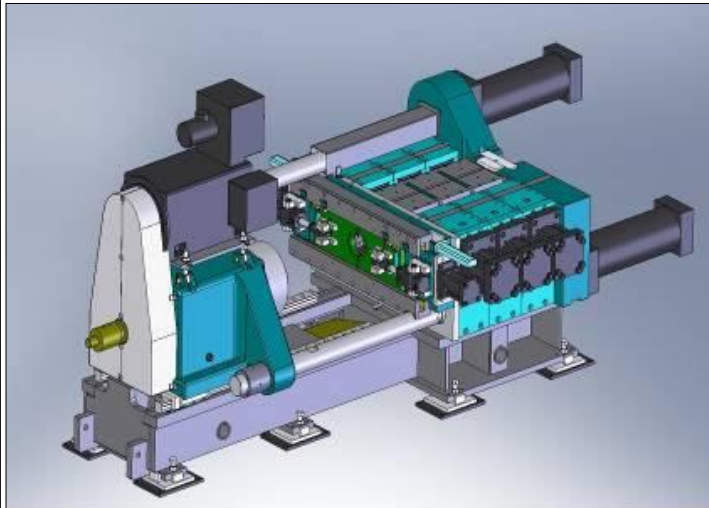


## GATWICK FULLY AUTOMATIC DRILL PIPE FRICTION WELDING MACHINE



### NC175,000 Specification

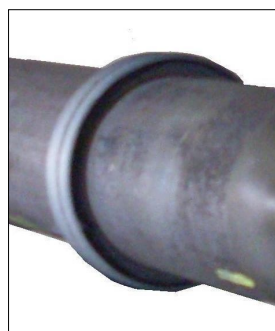
Pipe Diameter Range . . . . . 2 3/8" – 6 5/8"  
 (Drill Pipe API Spec D)  
 Pipe length Range . . . . . Unlimited  
 Typical production rate . . . . . 10 –20 parts per hour  
 Max Weld Area . . . . . 12,260 sq mm  
 (Drill Pipe Steel)  
 Total Connected Power . . . . . 200 kW  
 Spindle Speed . . . . . 1-800 rpm (Variable)  
 Max. Depth Spindle  
 Backstop . . . . . 750mm  
 Spindle Travel Head  
 Stroke . . . . . 900 mm  
 Pump Hydraulic pressure . . . . . 210 bar  
 Maximum Forge Force . . . . . 1,740 KN  
 Maximum Clamp Force . . . . . 6,312 KN  
 Machine Weight . . . . . 55 tonnes  
 Part Feeding . . . . . End loading  
 via automation  
 or Robot or manual

### Advantages of Friction Welding:

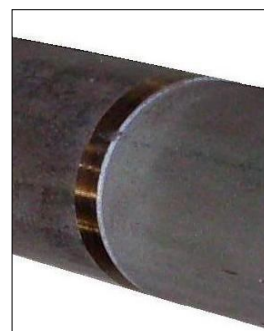
- No filler material, flux or shield gas
- Environmentally clean; no arcs, sparks, smoke or flames
- Surface impurities burn through during process
- Narrow heat affected zones
- Ability to weld dissimilar metals
- Weld strength usually as strong or stronger than the weaker material being joined
- Operators do not require manual operating skills
- Simple integration into the manufacturing area
- Easily automated for mass production
- Minimal plant requirements to install



Weld and Forge



Before Flash removal



After Flash removal



Example Component  
Cut-Through

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