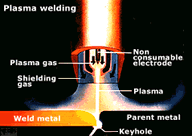
[Plasma Arc Welding](http://www.esab.com/global/en/education/processes-paw.cfm) (<https://www.esab.com/>)   
  
**PAW (Plasma Arc Welding) is a process, which is very similar to TIG welding. It is a development of the TIG method, which is designed to increase productivity.**  
  
In PAW, there are two separate gas flows, the plasma gas which flows round the tungsten electrode and subsequently forms the core of the plasma arc and the shielding gas which provides protection for the molten pool.  
**PAW is used in three modes:**  
1. Microplasma welding, with welding current from 0.1A to 20A.  
2. Medium-plasma welding, with welding current from 20A  
to 100A.  
3. Keyhole welding, above 100A, where the plasma arc penetrates the wall thickness.  
  
It is widely used for high-quality joints in the aircraft/space, process, chemical and petroleum industries.