

POINT SUPERABRASIVE MACHINING OF NICKEL ALLOYS

ABSTRACT OF THE DISCLOSURE

A process for point superabrasive machining of a nickel based material comprising the steps of providing a tool having a grinding surface coated with a superabrasive material, orienting the tool relative to a surface of the nickel based material to be machined so that there is point contact between the surface to be machined and the grinding surface, and forming a part by removing material at the point contact by rotating the tool. The tool comprises an enlarged portion, a tip portion, and a first shaft portion extending from the enlarged portion to the tip portion, the first shaft portion and the tip portion being coated with an abrasive material, and the first shaft portion having a constant diameter.

Figure 1