

The present invention relates to a method of repairing a one-piece bladed disc or blisk of turbomachine having at least one damaged zone, by build-up of metal in said damaged zone by means of a build-up welding machine, which comprises the steps of preparing the damaged zone, of building up the zone with metal and of re-work of the repaired zone. The method is characterized in that:

- the preparation step comprises the machining of the zone so as to obtain a defined profile;
- the build-up welding operation is carried out on a test piece, called start-of-run test piece, having said defined profile, using a build-up welding machine, which is a laser-type machine and the operating parameters of which are preset;
- the quality of the test piece after build-up welding is checked; and, if the quality of the test piece corresponds to the acceptance criteria,
- the zone to be repaired is built up using the same machine without changing the operating parameters thereof.

The invention also relates to the start-of-run or end-of-run test pieces and to the test piece for validating the installation.