CLAIMS

I claim:

1. A component polishing method, comprising:

polishing a component; and

protecting at least a portion of the component during the polishing using a sacrificial mask, wherein at least some of the sacrificial mask is removed during the polishing.

2. The component polishing method of claim 1, wherein the sacrificial mask comprises wax.

3. The component polishing method of claim 1, wherein the sacrificial mask is secured directly to the portion of the component.

4. The component polishing method of claim 1, wherein the sacrificial mask is removed entirely from the component during the polishing.

5. The component polishing method of claim 1, wherein some of the sacrificial mask remains secured to the portion of the component after the polishing.

6. The component polishing method of claim 1, wherein the component is an airfoil and the portion comprises a leading edge or a trailing edge of the airfoil.

7. The component polishing method of claim 1, wherein the polishing comprises vibratory polishing the component using a media, and the sacrificial mask limits contact between the media and the portion of the component.

8. The component polishing method of claim 1, including dipping the portion of the component in a liquid before the polishing, the liquid hardening to form the sacrificial mask.

9. The component polishing method of claim 8, wherein the liquid comprises a paraffin wax.

10. The component polishing method of claim 1, including removing some of the sacrificial mask using media during a vibratory polishing of the component.

11. A protective mask, comprising:

a sacrificial mask secured directly to a portion of a component, wherein the sacrificial mask protects the portion when polishing the component.

12. The protective mask of claim 11, wherein the sacrificial mask comprises a paraffin wax.

13. The protective mask of claim 11, wherein the component is an airfoil of a turbomachine.

14. The protective mask of claim 11, wherein the portion comprises a leading-edge or a trailing edge of a turbomachineairfoil.

15. The protective mask of claim 11, wherein some of the sacrificial mask is configured to remain secured to the component after polishing.

IN THE CLAIMS

1. A component polishing method, comprising:

polishing a component; and

protecting at least a portion of the component during the polishing using a sacrificial mask, wherein at least some of the sacrificial mask is removed during the polishing, and a thickness of the sacrificial mask prior to polishing is greater than a thickness of the sacrificial mask after some polishing.

2. The component polishing method of claim 1, wherein the sacrificial mask comprises wax.

3. The component polishing method of claim 1, wherein the sacrificial mask is secured directly to the portion of the component.

4. The component polishing method of claim 1, wherein the sacrificial mask is removed entirely from the component during the polishing .

5. The component polishing method of claim 1, wherein some of the sacrificial mask remains secured to the portion of the component after the polishing and some of the sacrificial mask is removed entirely from the component during the polishing to expose a portion of the component that was previously covered by some of the sacrificial mask.

6. The component polishing method of claim 1, wherein the component is an airfoil and the portion comprises a leading edge or a trailing edge of the airfoil.

7. The component polishing method of claim 1, wherein the polishing comprises vibratory polishing the component using a media, and the sacrificial mask limits contact between the media and the portion of the component.

8. The component polishing method of claim 1, including dipping the portion of the component in a liquid before the polishing, the liquid hardening to form the sacrificial mask.

9. The component polishing method of claim 8, wherein the liquid comprises a paraffin wax.

10. The component polishing method of claim 1, including removing some of the sacrificial mask using media during a vibratory polishing of the component.

11. A protective mask, comprising:

a sacrificial mask secured directly to a portion of a component, wherein the sacrificial mask protects the portion when polishing the component, and a thickness of the sacrificial mask is reduced during the polishing.

12. The protective mask of claim 11, wherein the sacrificial mask comprises a paraffin wax.

13. The protective mask of claim 11, wherein the component is an airfoil of a turbomachine.

14. The protective mask of claim 11, wherein the portion comprises a leading-edge or a trailing edge of a turbomachine airfoil.

15. The protective mask of claim 11, wherein some of the sacrificial mask is configured to remain secured to the component after polishing and some of the sacrificial mask is configured to be removed entirely from the component when polishing the component to expose a portion of the component previously covered by the sacrificial mask.

16. A polished component, comprising:

a component having first surfaces and second surfaces, wherein the first surfaces were directly contacted by media during a polishing, and the second surfaces were protected during the polishing by a sacrificial mask, wherein a size of the sacrificial mask is reduced during the polishing.

17. The polished component of claim 16, wherein the component is a turbomachine blade and the second surfaces comprise a leading edge of the blade.

18. The polished component of claim 16, wherein the second surfaces were contacted by media during the polishing after removal of the sacrificial mask.

19. The component polishing method of claim 1, wherein the sacrificial mask is not reusable after the polishing.

20. The polished component of claim 16, wherein the first surfaces were covered by a portion of the sacrificial mask prior to the polishing.