CLAIMS

What is claimed is:

1. A peeling apparatus for peeling a first substrate from a second substrate comprising:

a peeling member configured to rotate about a support axis, wherein the peeling member comprises an attachment member including an arcuate surface and configured to releasably mount the first substrate with respect to the arcuate surface; and

a translation mechanism configured to translate the support axis relative to the second substrate to move the peeling member away from the second substrate while the peeling member rotates about the support axis.

2. The peeling apparatus of claim 1, wherein the translation mechanism is configured to lift a weight of the peeling member to move the peeling member away from the second substrate.

3. The peeling apparatus of claim 1, wherein the peeling member is configured to rotate freely about the support axis while the translation mechanism translates the support axis.

4. The peeling apparatus of claim 1, wherein the arcuate surface comprises a radius of curvature that varies along an outer radial profile of the arcuate surface.

5. The peeling apparatus of claim 1, wherein the attachment member comprises one or more vacuum ports.

6. The peeling apparatus of claim 1, wherein the attachment member comprises a raised surface portion that extends from the arcuate surface, and the raised surface portion comprises a raised surface including a curvature that substantially matches a curvature of the arcuate surface.

7. The peeling apparatus of claim 1, wherein the attachment member further includes a sealing member that circumscribes a surface portion of the attachment member.

8. The peeling apparatus of claim 1, further comprising a support platform configured to support the second substrate.

9. The peeling apparatus of claim 8, wherein the support platform comprises an attachment portion configured to releasably mount the second substrate to the support platform.

10. The peeling apparatus of claim 8, further comprising a locking device configured to releasably lock a movement of the support platform.

11. The peeling apparatus of claim 8, wherein the support platform is configured to translate while the peeling member rotates about the support axis.

12. A method for peeling a first substrate from a second substrate comprising the steps of:

(I) releasably mounting the first substrate with respect to an arcuate surface of a peeling member;

(II) releasably mounting the second substrate relative to a support location; and

(III) translating a support axis of the peeling member relative to the second substrate to move the peeling member away from the second substrate, wherein the first substrate peels from the second substrate as the peeling member rotates about the support axis.

13. The method of claim 12, wherein step (III) comprises lifting a weight of the peeling member to move the peeling member away from the second substrate.

14. The method of claim 12, wherein step (I) further comprises the step of positioning the peeling member to produce a moment about the axis during step (III).

15. The method of claim 14, wherein the moment of step (III) drives the rotation of the peeling member about the support axis during step (III).

16. The method of claim 14, wherein the moment is produced by a weight of the peeling member.

17. The method of claim 12, wherein step (II) includes releasably mounting the second substrate relative to a support platform comprising the support location, and step (III) further includes translating the support platform as the peeling member rotates about the support axis.

18. The method of claim 12, wherein step (II) includes releasably mounting the second substrate relative to a support platform comprising the support location, and step (III) further includes unlocking the support platform to move while the peeling member rotates about the support axis.

19. The method of claim 12, wherein step (I) includes applying a vacuum.

20. The method of claim 12, wherein step (I) includes aligning an edge of a vacuum sealing member with an edge of the first substrate such that an edge portion of the first substrate is releasably vacuum mounted with respect to the arcuate surface of the peeling member.

CLAIMS

1. A peeling apparatus for peeling a first substrate from a second substrate comprising:

a peeling member configured to rotate about a support axis, wherein the peeling member comprises an attachment member including an arcuate surface and configured to releasably mount the first substrate with respect to the arcuate surface; and

a translation mechanism configured to translate the support axis relative to the second substrate to move the peeling member away from the second substrate while the peeling member rotates about the support axis.

2. The peeling apparatus of claim 1, wherein the translation mechanism is configured to lift a weight of the peeling member to move the peeling member away from the second substrate.

3. The peeling apparatus of claim 1 or claim 2, wherein the peeling member is configured to rotate freely about the support axis while the translation mechanism translates the support axis.

4. The peeling apparatus of any one of claims 1-3, wherein the arcuate surface comprises a radius of curvature that varies along an outer radial profile of the arcuate surface.

5. The peeling apparatus of any one of claims 1-4, wherein the attachment member comprises one or more vacuum ports.

6. A method for peeling a first substrate from a second substrate comprising the steps of:

(I) releasably mounting the first substrate with respect to an arcuate surface of a peeling member;

(II) releasably mounting the second substrate relative to a support location; and

(III) translating a support axis of the peeling member relative to the second substrate to move the peeling member away from the second substrate, wherein the first substrate peels from the second substrate as the peeling member rotates about the support axis.

7. The method of claim 6, wherein step (III) comprises lifting a weight of the peeling member to move the peeling member away from the second substrate.

8. The method of claim 6 or claim 7, wherein step (I) further comprises the step of positioning the peeling member to produce a moment about the axis during step (III).

9. The method of claim 8, wherein the moment of step (III) drives the rotation of the peeling member about the support axis during step (III).

10. The method of any one of claims 6-9, wherein step (II) includes releasably mounting the second substrate relative to a support platform comprising the support location, and step (III) further includes translating the support platform as the peeling member rotates about the support axis.