WHAT IS CLAIMED IS:

1. A screen assembly for separating materials, comprising:

a support member including:

a flow through area surrounded by front and rear edges and first and second side edges, wherein a plurality of flow through apertures are provided in the flow through area, each flow through aperture extending through the support member from a top surface to a bottom surface of the flow through area;

a first plurality of mounting apertures located on the first side edge of the support member, each of the first plurality of mounting apertures including at least one compression surface configured to receive a compression force used to secure the screen assembly to a screening machine; and

a screening surface attached to the top surface of the flow through area.

2. The screen assembly of claim 1, wherein the at least one compression surface of each of the first plurality of mounting apertures is located inward from the first side edge.

3. The screen assembly of claim 1, wherein the at least one compression surface of each of the first plurality of mounting apertures comprises first and second compression surfaces located on opposite sides of an alignment slot, the alignment slot extending from the first and second compression surfaces inward toward a centerline of the support member.

4. The screen assembly of claim 1, wherein the support member further includes a first upwardly extending flange located on the first side edge of the support member, wherein a first plurality of access apertures are provided in the first upwardly extending flange.

5. The screen assembly of claim 4, wherein each of the first plurality of access apertures comprises an extension of a corresponding one of the first plurality of mounting apertures.

6. The screen assembly of claim 4, wherein the support member further includes a second upwardly extending flange located on the second side edge of the support member.

7. The screen assembly of claim 6, wherein the first and second upwardly extending flanges extend in a direction that is substantially perpendicular to the top surface of the flow through area.

8. The screen assembly of claim 6, further comprising a second plurality of mounting apertures located on the second side edge of the support member, each of the second plurality of mounting apertures including at least one compression surface configured to receive a compression force used to secure the screen assembly to a screening machine, wherein a second plurality of access apertures are provided in the second upwardly extending flange, and wherein the at least one compression surface of each of the second plurality of mounting apertures comprises a lower edge portion of one of the second plurality of access apertures.

9. The screen assembly of claim 1, wherein the support member further comprises at least one compression surface located on the second side edge of the support member.

10. The screen assembly of claim 1, wherein a second plurality of mounting apertures are provided on the second side edge of the support member, each of the second plurality of mounting apertures including at least one compression surface configured to receive a compression force used to secure the screen assembly to a screening machine.

11. The screen assembly of claim 10, wherein the at least one compression surface of each of the first plurality of mounting apertures is located inward from the first side edge and wherein the at least one compression surface of each of the second plurality of mounting apertures is located inward from the second side edge.

12. The screen assembly of claim 10, wherein each of the first plurality of mounting apertures and the second plurality of mounting apertures further comprises an alignment slot that extends from a compression surface of the mounting aperture inward towards a centerline of the support member.

13. The screen assembly of claim 12, wherein each of the first plurality and the second plurality of mounting apertures comprises first and second compression surfaces located on opposite sides of the alignment slot.

14. The screen assembly of claim 1, wherein the support member is configured to preferentially flex into a concave shape in which a center of the support member is lower than the first and second side edges of the support member when compression forces having a component directed toward a centerline of the support member are applied to the at least one compression surfaces of the first plurality of mounting apertures.

15. The screen assembly of claim 9, wherein the support member further comprises an upwardly extending flange located along the second side edge.

16. The screen assembly of claim 15, wherein the at least one compression surface located on the second side edge of the support member is located on the upwardly extending flange located on the second side edge.