

CLAIMS

1. A cartridge for an additive manufacturing system, comprising
a sealable chamber having a bed and a laser transparent window;
a powder hopper positioned within the sealable chamber; and
a powder spreader positioned within the sealable chamber for distributing powder from
the powder hopper onto the bed.
2. The cartridge for the additive manufacturing system of claim 1, wherein the laser
transparent window is positioned to allow an external camera to focus on the bed within
the sealable chamber.
3. The cartridge for the additive manufacturing system of claim 1, wherein the sealable
chamber supports a camera to focus on the bed within the sealable chamber.
4. The cartridge for the additive manufacturing system of claim 1, further comprising a
wipe blade mounted within the sealable chamber to clean the laser transparent window.
5. The cartridge for the additive manufacturing system of claim 1, further comprising a
bellows attached to the sealable chamber to hold the laser transparent window.
6. The cartridge for the additive manufacturing system of claim 1, wherein an electronic
memory attached to the cartridge to hold electronic information to identify the cartridge
and control operation of a print station.
7. A cartridge for an additive manufacturing system, comprising
a sealable chamber having a bed and a laser transparent window;
a powder hopper positioned within the sealable chamber;
a powder spreader for distributing powder from the powder hopper onto the bed; and
a bellows attached to the sealable chamber to hold the laser transparent window.

8. The cartridge for the additive manufacturing system of claim 7, wherein the laser transparent window is positioned to allow an external camera to focus on the bed within the sealable chamber.
9. The cartridge for the additive manufacturing system of claim 7, wherein the sealable chamber supports a camera to focus on the bed within the sealable chamber.
10. The cartridge for the additive manufacturing system of claim 7, further comprising a wipe blade mounted within the sealable chamber to clean the laser transparent window.
11. A cartridge for an additive manufacturing system, comprising
a sealable chamber having a bed and a laser transparent window;
a powder hopper positioned within the sealable chamber;
a powder spreader positioned within the sealable chamber for distributing powder from the powder hopper onto the bed; and
a wiper mechanism configured to clean an inside of the laser transparent window.
12. The cartridge for the additive manufacturing system of claim 11, wherein the laser transparent window is positioned to allow an external camera to focus on the bed within the sealable chamber.
13. The cartridge for the additive manufacturing system of claim 11, wherein the sealable chamber supports a camera to focus on the bed within the sealable chamber.
14. The cartridge for the additive manufacturing system of claim 11, further comprising a bellows attached to the sealable chamber to hold the laser transparent window.