Claims:

1. A drilling system, comprising a generally cylindrical body member, a cutting head at the front end of the body member having at least one cutting edge formed in association therewith, the body member forming a hollow shaft adjacent the cutting head with at least one opening in the body member adjacent the cutting head, at least one sealed channel in the body member exterior to the hollow shaft, the at least one sealed channel formed by a coolant containment system mated to the exterior of the body member to create the at least one sealed channel, the at least one sealed channel providing a controlled flow of coolant fluid to the area of the at least one cutting edge, the containment system further providing one or more air intake channels, and a vacuum connected to the hollow shaft to apply vacuum pressure through the at least one opening and hollow shaft.

2. The drilling system of claim 1 wherein the coolant containment system includes a coolant containment sleeve mated to the body member and coolant inducer to supply coolant to the coolant containment sleeve.

3. The drilling system of claim 2 further comprising a rotary coolant adapter assembled to the outside diameter (OD) of the drilling system through which an external coolant supply is plumbed to provide coolant to the at least one sealed channel.

4. The drilling system of claim 1 wherein the at least one cutting edge is provided by at least one replaceable cutting insert mounted in association with the cutting head.

5. The drilling system of claim 4 wherein the at least one cutting insert includes two cutting edges extending from a position along the rotational axis of the drilling system.

6. The drilling system of claim 1 wherein a plurality of openings are provided on the body member to provide an entrance for chips into the hollow shaft.

7. The drilling system of claim 5 wherein at least one opening is provided for each of the cutting edges on the cutting insert.

8. The drilling system of claim 1 wherein the at least one cutting edge is provided on a replaceable insert and the cutting head has a slotted insert connection for securing the insert in the cutting head.

9. The drilling system of claim 1 wherein the at least one cutting edge has a cutting geometry that creates small segmented chips.

10. The drilling system of claim 1 wherein the coolant containment system includes a wear resistant area, and bushing is mountable on the wear resistant area.

11. A method of performing a drilling operation comprising providing a drilling tool having a cutting head at a front end of the tool having at least one cutting edge associated therewith, and a hollow shaft with at least one opening adjacent the at least one cutting edge, a coolant containment system and at least one sealed channel in the drilling tool exterior to the hollow shaft and sealed by the coolant containment system, and coupling a vacuum source to the hollow tube to extract cuttings formed at the cutting head through the at least one opening.

12. The method of claim 11, wherein the at least one sealed channel is formed by a coolant containment sleeve mated to the hollow shaft.

13. The method of claim 11 the at least one cutting edge is provided by at least one replaceable cutting insert mounted at the cutting head.

14. The method of claim 13 wherein the at least one cutting insert includes two cutting edges extending from a position along the rotational axis of the drilling system.

15. The method of claim 14 wherein an opening is provided for each cutting edge to provide an entrance for chips into the hollow shaft.

16. The method of claim 11 further comprising providing for air intake into the drilling tool by one or more air intake channels.

17. The method of claim 11 wherein the at least one cutting edge has a cutting geometry that creates small segmented chips in conjunction with a positive feed and peck drilling operation.

18. The method of claim 11 further comprising connecting an external coolant supply to the coolant containment system by a coolant inducer.

19. The method of claim 11 further comprising guiding the drilling system using a bushing.

20. The drilling system of claim 1, wherein a plurality of sealed channels are provided.

21. The drilling system of claim 1, wherein the one or more air intake channels are formed in association with the coolant containment system.

22. The drilling system of claim 1, further comprising one or more coolant ports to provide a direct route for coolant flow into the at least one sealed channel.

23. The drilling system of claim 1 further comprising a bushing to guide the drilling system.

24. The drilling system of claim 1 wherein the at least one sealed channel is formed on the exterior of the hollow shaft.

25. The drilling system of claim 1 wherein the diameter of the interior chamber of the hollow shaft and at least one opening are sized to accommodate the largest expected chips formed during a drilling operation.