CLAIMS:

1. A die block for die cutting, the die block comprising:

a top surface;

an opposite bottom surface;

a main body extending between the opposite top and bottom surfaces;

at least one kerf extending down within the main body and being provided about the top surface via a corresponding top groove, the at least one kerf and corresponding top groove being positioned, shaped and sized for receiving a corresponding die cutting rule; and

at least one magnetic element having an elongated body with a given cross-sectional profile and a corresponding length, the length of the elongated body being greater than a maximal span within the cross-sectional profile of the at least one magnetic element, and the at least one magnetic element being positioned, shaped and sized about the main body of the die block and in proximity of the at least one kerf for providing a magnetic field intended to retain the corresponding die cutting rule when placed into the at least one kerf.

2. A die block according to claim 1, wherein the cross-sectional profile of the at least one magnetic element is symmetrical along a first imaginary median plane of the cross-sectional profile, and wherein the cross-sectional profile of the at least one magnetic element is further asymmetrical along a second imaginary median plane of the cross-sectional profile.

3. A die block according to claim 1 or 2, wherein the cross-sectional profile of the at least one magnetic element comprises first and second angled sides.

4. A die block according to any one of claims 1-3, wherein the cross-sectional profile of the at least one magnetic element comprises front and rear parallel sides, with the front parallel side of the at least one magnetic element being shorter than the rear parallel side thereof.

5. A die block according to any one of claims 1-4, wherein the cross-sectional profile of the at least one magnetic element is substantially trapezoidal.

6. A die block according to any one of claims 1-5, wherein the cross-sectional profile of the at least one magnetic element is provided with rounded corners between adjacent sides.

7. A die block according to any one of claims 1-6, wherein the at least one kerf is further positioned, shaped and sized so as to extend further down into the main body, and so as to be accessible about the bottom surface of the die block via a corresponding bottom groove.

8. A die block according to any one of claims 1-7, wherein the at least one kerf is further positioned, shaped and sized with respect to the corresponding die cutting rule so that a bottom edge of said corresponding die cutting rule is substantially flush with the bottom surface of the die block when the corresponding die cutting rule is inserted into the at least one kerf.

9. A die block according to any one of claims 1-8, wherein the die block comprises at least one plate extending between the at least one magnetic element and the corresponding die cutting rule.

10. A die block according to claim 9, wherein the at least one plate is magnetized.

11. A die block according to any one of claims 1-10, wherein the opposite top and bottom surfaces of the die block are substantially horizontal top and bottom surfaces.

12. A die block according to any one of claims 1-11, wherein the at least one magnetic element includes at least one operative surface facing the at least one kerf.

13. A die block according to claim 12, wherein the at least one operative surface of the at least one magnetic element is a substantially flat surface.

14. A die block according to claim 13, wherein the at least one operative surface of the at least one magnetic element is substantially parallel to the at least one kerf.

15. A die block according to claim 14, wherein the at least one operative surface of the at least one magnetic element is substantially aligned with the at least one kerf.

16. A die block according to any one of claims 12-15, wherein a gap distance is provided between the at least one operative surface of the at least one magnetic element and a side surface of the corresponding die cutting rule when placed into the at least one kerf.

17. A die block according to any one of claims 12-16, wherein a gap distance is provided between the at least one operative surface of the at least one magnetic element and a corresponding wall of the at least one kerf.

18. A die block according to claim 16 or 17, wherein the gap distance is between about 0.1 mm and about 0.20 mm.

19. A die block according to claim 16 or 17, wherein the gap distance is about 0.5 mm.

20. A die block according to any one of claims 1-19, wherein the at least one magnetic element includes a pair of magnetic elements at opposites ends of the at least one kerf.

21. A die block according to any one of claims 1-20, wherein the at least one magnetic element includes a plurality of magnetic elements provided along a length of the at least one kerf.

22. A die block according to any one of claims 1-21, wherein the at least one magnetic element includes at least one magnet.

23. A die block according to claim 22, wherein the at least one magnet has a magnetic force selected from the group consisting of N35, N38, N40, N42, N45, N48, N50, N52 and N55.

24. A die block according to claim 22, wherein the at least one magnet has a magnetic force of about N55.

25. A die block according to any one of claims 22-24, wherein the at least one magnet has a longitudinal length with a transversal cross-sectional shape being substantially trapezoidal.

26. A die block according to any one of claims 22-25, wherein the at least one magnet is lodged into a corresponding recess of the main body of the die block.

27. A die block according to any one of claims 22-26, wherein the corresponding recess has a geometrical profile complementary to that of the at least one magnet, including a corresponding complementary cross-sectional shape.

28. A die block according to claim 27, wherein the cross-sectional shape of the corresponding recess is symmetrical along a first imaginary median plane of the cross-sectional shape, and wherein the cross-sectional shape of the corresponding recess is further asymmetrical along a second imaginary median plane of the cross-sectional shape.

29. A die block according to claim 27 or 28, wherein the cross-sectional shape of the corresponding recess comprises first and second angled sides.

30. A die block according to any one of claims 27-29, wherein the cross-sectional shape of the corresponding recess comprises front and rear parallel sides, with the front parallel side of the corresponding recess being shorter than the rear parallel side thereof.

31. A die block according to any one of claims 27-30, wherein the cross-sectional shape of the corresponding recess is positioned, shaped and sized to prevent frontward egress of the at least one magnet, out from the corresponding recess, via an abutment of angled sides of the at least one magnet cooperating with corresponding sides of the corresponding recess.

32. A die block according to any one of claims 27-31, wherein the cross-sectional shape of the corresponding recess is substantially trapezoidal.

33. A die block according to any one of claims 27-32, wherein the cross-sectional shape of the corresponding recess is provided with rounded corners between adjacent sides.

34. A die block according to any one of claims 26-33, wherein a length of the corresponding recess corresponds substantially to a corresponding length of the at least one magnet.

35. A die block according to any one of claims 26-34, wherein the corresponding recess has opposite first and second faces, with the first face being smaller than the second face, and with the first face being positioned, shaped and sized for being adjacent to the at least one kerf.

36. A die block according to any one of claims 1-35, wherein the die block comprises top and bottom plates providing respectively the opposite top and bottom surfaces of the die block, and wherein the main body of the die block, as well as the at least one magnetic element, extend between said top and bottom plates.

37. A die block according to claim 36, wherein the top and bottom plates are resin-based laminates.

38. A die block according to claim 36, wherein the top and bottom plates are fiberglass laminates.

39. A die block according to any one of claims 36-38, wherein the top plate has a plurality of top grooves, each top groove being each associated to a corresponding kerf.

40. A die block according to any one of claims 36-39, wherein the bottom plate has a plurality of bottom grooves, each bottom groove being each associated to a corresponding top groove.

41. A die block according to any one of claims 1-40, wherein the main body of the die block is made of foam.

42. A die block according to any one of claims 1-41, wherein the die block comprises at least one abutment body provided about the main body, and being positioned, shaped and sized for abutting against a corresponding side surface of the at least one magnetic element.

43. A die block according to claim 42, wherein the die block comprises at least one supporting body provided about the main body, and being positioned, shaped and sized for supporting a corresponding bottom surface of the at least one magnetic element.

44. A die block according to claim 42 or 43, wherein the at least one abutment body associated to the main body is made of foam.

45. A die block according to claim 43, wherein the at least one supporting body associated to the main body is made of foam.

46. A die block according to any one of claims 41-45, wherein the foam is polyurethane.

47. A die block according to claim 45, wherein the main body, as well as the at least one abutment body and the least one supporting body, constitute one single common body.

48. A die block according to claim 47, wherein the one single common body is continuous along a length at least one kerf, from one magnetic element to another.

49. A die block according to any one of claims 1-48, wherein the at least one kerf is laser-cut.

50. A die block according to any one of claims 1-49, wherein the corresponding die cutting rule is a steel-rule.

51. A die block according to any one of claims 1-50, wherein the corresponding die cutting rule is provided with a corresponding distal edge acting as a knife.

52. A kit with components for assembling a die block according to any one of claims 1-51.

53. A die cutting assembly for die cutting, the die cutting assembly comprising:

a die block according to any one of claims 1-51; and

at least one die cutting rule inserted into a corresponding at least one kerf of the main body of the die block, and being retained therein via the at least one magnetic of the die block.