CLAIMS

1. A deflector unit for use with a printing blade in printing a print medium through a printing screen, the deflector unit comprising:
a body which is disposable adjacent a respective one of the ends of a printing blade;
a deflector which is movably disposed to the body for a range of travel along a first axis and acts to contain print medium within a lateral extent of the printing blade; and
a biasing element which acts to bias the deflector from the body along the first axis;
wherein the biasing element is wholly enclosed within the body throughout the range of travel of the deflector;
wherein the deflector includes a guide member having a cross-sectional shape and dimension, and the body includes a guide recess in which the guide member is slidingly disposed, such that the deflector is constrained to move along the first axis in relation to the body, the guide recess having a cross-sectional shape and dimension which conforms to that of the guide member to prevent contamination of the biasing element by printing medium in use.

2. The deflector unit of claim 1, wherein the guide member comprises an elongate shaft and the guide recess comprises an elongate bore.

3. The deflector unit of claim 1, wherein the biasing element engages a distal end of the guide member.

4. The deflector unit of claim 1, wherein the biasing element comprises a compression spring.

5. The deflector unit of claim 1, wherein the guide member includes a recess which defines first and second limit stops, and the body includes a detent which is located captively within the recess, whereby the limit stops define a limit of travel of the deflector along the first axis.

6. The deflector unit of claim 5, wherein the recess comprises an elongate slot extending axially along the guide member.

7. The deflector unit of claim 5, wherein the guide member includes a groove which extends axially along the guide member from the recess to a distal end thereof, wherein the groove allows the deflector to be fitted to and removed from the body without requiring any tools, with the groove being shaped and/or sized to allow an operator manually to overcome frictional resistance with the detent.

8. The deflector unit of claim 1, wherein the deflector includes a deflector member, which engages a surface of the printing screen in a printing operation.

9. The deflector unit of claim 1, wherein the deflector includes a deflector member, which has a first, engagement surface which engages a surface of the printing screen, a second, inwardly-facing surface which extends from the engagement surface and flares or tapers laterally outwardly in a first direction of printing, and a third, downwardly-facing surface which joins the second surface at a junction which is spaced at a distance from the first surface.

10. The deflector unit of claim 9, wherein the second and third surfaces act to develop a subsidiary roll of the print medium during the printing operation, which subsidiary roll has an effective diameter which is smaller than an effective diameter of the print medium of a main roll of the print medium at the printing blade.

11. The deflector unit of claim 9, wherein the first surface extends over a flat plane.

12. The deflector unit of claim 9, wherein the first surface is profiled or textured, to promote the transfer of any print medium at the first surface laterally inwardly towards the printing blade.

13. The deflector unit of claim 9, wherein the second surface extends over a flat plane.

14. The deflector unit of claim 9, wherein the second surface is a curved or arcuate surface.

15. The deflector unit of claim 9, wherein the second surface extends parallel to the first axis, or in a vertical direction in use.

16. The deflector unit of claim 9, wherein the third surface extends over a flat plane.

17. The deflector unit of claim 9, wherein the third surface is an arcuate or curved surface.

18. The deflector unit of claim 9, wherein the deflector includes an inwardly-projecting member at a rear, trailing edge in the first direction of printing, which is located rearwardly of the printing blade and includes a surface which acts to transfer any print medium which remains on the printing screen laterally inwardly into a printing region of the printing screen in use.

19. The deflector unit of claim 1, wherein the deflector includes a deflector member which includes an elongate projection, which is inclined in parallel relation to the lateral edge of the printing blade and acts to reduce a pressure of the print medium at the junction of the deflector member and the printing blade in use.

20. The deflector unit of claim 19, wherein the projection has the form of a ridge or bead.

21. A printing head, comprising:
a support to which a printing blade is attachable; and
first and second deflector units of any of claims 1 to 20 which are disposed adjacent respective ones of the lateral ends of the printing blade.

22. The printing head of claim 21, wherein the deflector units are separable from the support.

23. The printing head of claim 21, wherein the support and the deflector units are integrally formed.