CLAIMS

1. A method for manufacturing flexible rolling of metal strips (1), in which a metal strip (1) with a predefinable material thickness is guided through a mill stand (2) containing several rolls, **characterized** in the method being based on a program loop of two operating steps, where thickness and flatness data values are achieved from the first step (learning phase), which is based on controlling and storing said values during rolling, whereafter follows a step to achieve a defined profile (3) with different thicknesses over a length of the metal strip.

2. The method according to claim 1, **characterized in that** the profile (3) comprises at least two thicknesses over the length of the metal strip.

3. The method according to claim 1 or 2, **characterized** in wherein at least the rolls that effectively interact with the metal strip (1) are formed.

4. The method according to any one of the preceding claims, **characterized** in that a width range of the metal strip is 400 to 1600 mm.

5. The method according to any one of the preceding claims, **characterized** in controlling a thickness profile (4) in order to renew the gap setting.

6. The method according to any one of the preceding claims, **characterized** in use of a part of an edge for evaluation of a plateau (5).

7. The method according to any one of the preceding claims, **characterized** in the work roll bending in dependence to the rolling force to influence the flatness.

8. The method according to any one of the preceding claims, **characterized** in that three existing systems are set to measure the flatness of the metal strip.

9. The method according to claim 8, **characterized** in that one of the three systems is a contactless SI-Flat System, which is based on evaluation of a local amplitude of oscillation.

10. A device for manufacturing flexible rolling of metal strips (1), in which a metal strip (1) with a predefinable material thickness is guided through a mill stand (2) containing several rolls based on a program loop of two operating steps, where thickness and flatness data values are achieved from the first step (learning phase), which is based on controlling and storing said values during rolling, whereafter follows a step to achieve a defined profile (3) and wherein at least the rolls that effectively interact with the metal strip (1) are formed with a width range of 400 to 1600 mm.

11. The device according to claim 10, **characterized** in that the achieved profile (3) is of different thicknesses over a length of the metal strip.

12. The device according to claim 11, **characterized in that** the achieved profile (3) comprises at least two thicknesses over the length of the metal strip.

13. The device according to any one of claims 10 to 12, **characterized** in controlling a thickness profile (4) in order to renew the gap setting.

14. The device according to any one of claims 10 to 13, **characterized** in use of a part of an edge for evaluation of a plateau (5).

15. The device according to any one of claims 10 to 14, **characterized** in that at work roll bending in dependence to rolling force to influence the flatness.

16. The device according to any one of claims 10 to 15, **characterized** in that three existing systems are set to measure the flatness of the metal strip.

17. The device according to claim 16, **characterized** in that one of the three systems is a contactless SI-Flat System, which is based on evaluation of a local amplitude of oscillation.

18. The device according to any one of claims 10 to 17, **characterized** in that a width range of the metal strip is 400 to 1600 mm.