CLAIMS

1. A f~~F~~riction assembly (1) for a braking system for railway rolling stock, said friction assembly (1) comprising:

~~on the one hand~~ a brake head (3) comprising a lower face (31), an upper face (32), and at least one secondary channel (38) of central axis A which connects said lower face (31) and an upper face (32);

~~on the other hand~~ at least one friction plate (2) made of friction material comprising a first face (21) which is the friction face, a second face (22) which is adapted to be assembled to said lower face (31) by an assembly mechanism (4, 5), and at least one primary channel (28) which connects said first face (21) and said second face (22);

~~said friction assembly (1) further comprising~~ at least one connecting ring (8) which is inserted into said at least one secondary channel (38) and which establishes a connection with said at least one primary channel (28) ~~when~~ as said at least one primary channel (28) is aligned with said at least one secondary channel (38); ~~said friction assembly (1) further comprising~~

a connector block (50) which is connected to a suction device and which is fixed to said brake head (3) at said upper face (32), ~~said friction assembly (1) being characterized in that~~ said block (50) ~~has~~ having a cavity (55) which is connected by a circuit (51) to the suction device and which comprises at least one hole (58) which connects said cavity (55) and said upper face (32) and which is aligned with said at least one secondary channel (38), and ~~in that~~ wherein said at least one connecting ring (8) is removably mounted on a connecting plate (40), ~~the entity formed by~~ said connecting plate (40) and said at least one connecting ring (8) being removably secured to said brake head (3).

2. The f~~F~~riction assembly (1) according to claim 1, wherein said connecting plate (40) is housed between said block (50) and said brake head (3), and wherein said block (50) is removably fixed to said brake head (3) so as to hold said connecting plate (40) between said block (50) and said brake head (3).

3. The f~~F~~riction assembly (1) according to claim 1, wherein said lower face (31) has a housing (314), said connecting plate (40) being housed in said housing (314) without protruding from the rest of said lower face (31) ~~when~~ as said at least one connecting ring (8) is inserted in said at least one secondary channel (38), and wherein said friction plate (2) covers said connecting plate (40) ~~when~~ as the friction plate (2) is assembled to said brake head (3) by said mechanism assembly (4, 5).

4. The f~~F~~riction assembly (1) according to claim 3, wherein said block (50) is an integral part of said brake head (3).

5. The f~~F~~riction assembly (1) according to claim 3 ~~or 4~~, wherein the connecting plate (40) is mechanically secured to at least one of: said brake head (3) ~~or~~ and~~to~~ said block (50), by means of a securing mechanism (70).

6. The f~~F~~riction assembly (1) according to claim 5, wherein said housing (314) comprises a tapped hole (75) and said connecting plate (40) is pierced with a screw hole (47) which is in line with said tapped hole (75) when said connecting plate (40) is housed in said housing (314), and said securing mechanism (70) consists of said tapped hole (75) and a screw (V) adapted to screw into said tapped hole (75) through said connecting plate (40) via the screw hole (47).

7. The f~~F~~riction assembly (1) according to ~~any one of~~ claim~~s~~ 1 ~~to 6~~, further comprising a return mechanism (90) which is adapted to press said rings (8) against said second face (22).

8. The f~~F~~riction assembly (1) according to ~~any one of~~ claim~~s~~ 1 ~~to 7~~, wherein said assembly mechanism (4, 5) comprises a receiving slide (5) which is formed on said lower face (31), and a dovetail section (4) which is formed on said second face (22) and which is configured to engage with said receiving slide (5).

9. A m~~M~~ethod for mounting at least one connecting ring (8) on a brake head (3) with a connector block (50) connected to a suction device, said brake head (3) comprising a lower face (31), an upper face (32), and at least one secondary channel (38) of central axis A, said brake head (3) and said connecting ring (8) forming part of a friction assembly (1) for a braking system for railway rolling stock, said friction assembly (1) further comprising a friction plate (2) made of friction

material comprising a first face (21) which is the friction face, a second face (22) which is adapted to be assembled to said lower face (31) by an assembly mechanism (4, 5), and at least one primary channel (28) which connects said first face (21) and said second face (22), said at least one connecting ring (8) being adapted to be inserted in said at least one secondary channel (38) and to establish a connection with said at least one primary channel (28) ~~when~~ as said at least one primary channel (28) is aligned with one of said at least one secondary channel(s) (38), said method ~~being characterized in that it comprises~~ comprising the following steps:

~~(a)~~Providing s~~S~~aid block (50) ~~is provided~~ with a cavity (55) which is connected by a circuit (51) to the suction device, and with at least one hole (58) which connects said cavity (55) and said upper face (32) and which is aligned with said at least one secondary channel (38);

Providing a ~~(b) A~~ connecting plate (40) ~~is provided~~, wherein ~~and~~ said at least one connecting ring (8) is removably mounted on said connecting plate (40);

~~(c)~~Positioning s~~S~~aid connecting plate (40) ~~is then placed~~ against the upper face (32) of said brake head (3), and simultaneously inserting said at least one connecting ring (8) ~~is inserted~~ in said at least one secondary channel (38) by sliding along central axis A from said upper face (32), then placing said block (50) ~~is placed~~ on said connecting plate (40) such that ~~the entity formed by~~ said connecting plate (40) and said at least one connecting ring (8) ~~is~~ are together sandwiched between said brake head (3) and said block (50);

~~(d)~~Removably securing s~~S~~aid block (50) ~~is removably secured~~ to said brake head (3);

~~(e)~~Assembling s~~S~~aid friction plate (2) ~~is assembled~~ to said brake head (3) by said assembly mechanism (4, 5) until said friction plate (2) ~~is covering~~covers said secondary channels (38).

10. A m~~M~~ethod for mounting at least one connecting ring (8) on a brake head (3) comprising a lower face (31) and an upper face (32), and having a connector block (50) located at the upper face (32) side and connected to a suction device, said brake head (3) comprising at least one secondary channel (38) of central axis A, said brake head (3) and said connecting ring (8) forming part of a friction

assembly (1) for a brake system for railway rolling stock, said friction assembly (1) further comprising a friction plate (2) made of friction material comprising a first face (21) which is the friction face, a second face (22) which is adapted to be assembled to said lower face (31) by an assembly mechanism (4, 5), and at least one primary channel (28) which connects said first face (21) and said second face (22), said at least one connecting ring (8) being adapted to be inserted in said at least one secondary channel (38) and to establish a connection with said at least one primary channel (28) ~~when~~ as said at least one primary channel (28) is aligned with one of said at least one secondary channel(s) (38), said method being ~~characterized in that it comprises~~comprising the following steps:

~~(a)~~Providing s~~S~~aid block (50) ~~is provided~~ with a cavity (55) which is connected by a circuit (51) to the suction device, and with at least one hole (58) which connects said cavity (55) and said upper face (32) and which is aligned with said at least one secondary channel (38), and said lower face (31) is provided with a housing (314);

Providing ~~(b) A~~ a connecting plate (40) ~~is provided~~ and removably mounting said at least one connecting ring (8) ~~is removably mounted~~ on said connecting plate (40);

~~(c)~~Housing ~~Said~~ said connecting plate (40) ~~is then housed~~ in said housing (314) such that said connecting plate (40) does not protrude from the ~~rest of said~~ lower face (31), and simultaneously inserting said at least one connecting ring (8) ~~is inserted~~ in said at least one secondary channel (38) by sliding along central axis A from said lower face (31), ~~the entity formed by~~ said connecting plate (40) and said at least one connecting ring (8) being removably secured to said brake head (3);

~~(d)~~Assembling s~~S~~aid friction plate (2) ~~is assembled~~ to said brake head (3) by said assembly mechanism (4, 5) until said friction plate (2) ~~is covering~~covers said secondary channels (28) and said connecting plate (40).

11. The m~~M~~ethod according to claim 10, such that said block (50) is an integral part of said brake head (3) at said upper face (32).

12. The m~~M~~ethod according to claim 10, such that, during step ~~(a)~~ "Providing said block (50)", said block (50) is removably fixed to said brake head (3) at its upper face (32).

13. The mMethod according to ~~any one of~~ claim~~s~~ 10 ~~to 12~~, comprising ~~the following step (c2)~~, after step ~~(c)~~ "Housing" and before step ~~(d)~~"Assembling":

~~(c2)~~Mechanically securing s~~S~~aid connecting plate (40) ~~is mechanically secured~~ to said brake head (3) or to said block (50) by means of a securing mechanism (70).