CLAIMS

1. A demolding device (3) for use in an imprint machine, in which machine a foil (31) is intermittently passed in a feed direction over a press region (7) where a surface of the foil is pressed against a cooperating surface for imprinting a pattern, the demolding device comprising:

a carrier (12),

a pressing roller (9) mounted in the carrier,

a demolding roller (8) mounted parallel to the pressing roller in the carrier,

wherein the carrier is configured to slide over the press region against the feed direction while rolling the foil under the pressing roller and over the demolding roller for detaching the foil from the cooperating surface after imprinting of the pattern, characterized in that the demolding roller has axially outer portions (28) of a first diameter, configured to engage with the foil, and a central groove (18) of a second diameter which is smaller than the first diameter, so as to avoid contact between a face of the groove and the imprinted pattern on the foil.

2. The demolding device of claim 1, wherein said groove has an axial width configured to exceed the width of the imprint pattern.

3. The demolding device of any of the preceding claims, wherein said carrier is configured to slide forward over the press region in the feed direction, for application of the foil over the cooperating surface at the press region.

4. The demolding device of any of the preceding claims, wherein the carrier comprises fittings slidably connected to two parallel trailers (2) extending in the feed direction on opposite sides of the press region.

5. The demolding device of claim 4, comprising a motor configured to drive the carrier along the trailers.

6. The demolding device of any of the preceding claims, comprising a contact roller (10) suspended in the carrier over the demolding roller, wherein the foil runs between the contact roller and the demolding roller.

7. The demolding device of claim 6, wherein said contact roller (10) is configured to clamp the foil against the axially outer portions (28) of the demolding roller.

8. The demolding device of any of the preceding claims, wherein the carrier is slidable between a first tension press (5, 6) prior to the press region (7), and a second tension press (13, 11) after the press region, said first and second tension presses being configured to maintain a predetermined tension in the polymer foil constant while sliding the carrier.

9. The demolding device of claim 8, wherein the foil (31) passes between a first tension roller (5) and a first tension block (6) in the first tension press, and between a second tension roller (13) and a second tension block (11) in the second tension press.

10. The demolding device of any of the preceding claims, wherein the pressing roller (9) is biased downwards with force corresponding to 0.2-4.0 kg.

11. The demolding device of any of the preceding claims, wherein the demolding roller (8) is biased towards the pressing roller (9) with force corresponding to 0-2.0 kg.

12. The demolding device of claim 6 and any of the other claims, wherein the contact roller (10) is biased towards the demolding roller (8) with force corresponding to 0.2-2.0 kg.

13. The demolding device of any of the preceding claims, wherein said cooperating surface is a template surface having a pattern, which is imprinted onto the foil surface.

14. The demolding device of any of the preceding claims 1-12, wherein said foil surface has a succession of stamp surfaces having a pattern, and said cooperating surface is a substrate, whereby said pattern is transferred to said substrate at the press region.