Claims

1. A device for casting a ring-shaped plastic frame (32) in a recess (16) of a rotor disk (14) of a double-sided machining machine, wherein the recess (16) serves to hold a workpiece in the double-sided machining machine during double-sided machining, comprising two mold parts (10, 12) that accommodate the rotor disk (14) between themselves, and a mold core (18) that partially fills in the recess (16) when the rotor disk (14) is accommodated between the mold parts (10, 12), wherein the mold core (18) has at least one casting channel (22, 24), one end of which terminates in a mold volume provided for the plastic frame (32), and the other end of which is connectable to a supply for plastified plastic (30), characterized in that at least one of the mold parts (10, 12) has at least one ring-shaped seat in which at least one ring-shaped mold insert (26, 26', 28) is releasably inserted such that the at least one ring-shaped mold insert (26, 26', 28), together with the mold core (18) and the edge of the recess (16), delimits the mold volume provided for the plastic frame (32).

2. The device according to claim 1, characterized in that the mold parts (10, 12) each have at least one ring-shaped seat in which at least one ring-shaped mold insert (26, 26', 28) is releasably inserted such that the ring-shaped mold inserts (26, 26', 28) together with the mold core (18) and the edge of the recess (16) delimit the mold volume provided for the plastic frame (32).

3. The device according to claim 1 or 2, characterized in that the device can comprise a plurality of differently dimensioned ring-shaped mold inserts (26, 26', 28) that optionally are releasably insertable into the at least one ring-shaped seat such that differently dimensioned mold volumes for plastic frames (32) can be generated by inserting differently dimensioned ring-shaped mold inserts (26, 26', 28).

4. The device according to claim 1 or 2, characterized in that the mold volume that is delimited by the at least one ring-shaped mold insert (26, 26', 28) together with the mold core (18) and the edge of the recess (16) and is provided for the plastic frame (32) can possess a longer extension than the rotor disk (14) in the axial direction of the recess (16).

5. The device according to claim 1 or 2, characterized in that the mold volume provided for the plastic frame (32) has one or more cavities for feeders (36, 38).

6. The device according to claim 1 or 2, characterized in that a heating device is provided, by means of which the at least one casting channel (22, 24) is heated.

7. A method for casting a ring-shaped plastic frame (32) in a recess (16) of a rotor disk (14) of a double-sided machining machine, wherein the recess (16) serves to hold a workpiece during double-sided machining in the double-sided machining machine, characterized by the steps:
   - A rotor disk (14) is accommodated between two mold parts (10, 12), and the recess (16) is partially filled with a mold core (18) while the rotor disk (14) is accommodated between the mold parts (10, 12), wherein the mold core (18) has a least one casting channel (22, 24), one end of which terminates in a mold volume provided for the plastic frame (32), and the other end of which is connectable to a supply for plastified plastic (30),
   - at least one ring-shaped mold insert (26, 26', 28) is releasably inserted into at least one ring-shaped seat of at least one of the mold parts (10, 12) such that the at least one ring-shaped mold insert (26, 26', 28), together with the mold core (18) and the edge of the recess (16), delimits the mold volume provided for the plastic frame (32),
   - then plastified plastic (30) from the supply is cast in the mold volume provided for the plastic frame (32) through the at least one casting channel (22, 24) of the mold core (18),
   - after sufficient stability of the shape of the cast plastic (30) is achieved, the rotor disk (14) is removed with the plastic frame (32) cast in the recess (16).

8. The method according to claim 7, characterized in that at least one ring-shaped mold insert (26, 26', 28) is releasably inserted in at least one ring-shaped seat of the cast parts (10, 12) such that the ring-shaped mold inserts (26, 26', 28) together with the mold core (18) and the edge of the recess (16) delimit the mold volume provided for the plastic frame (32).

9. The method according to one of claims 7 or 8, characterized in that differently dimensioned ring-shaped mold inserts (26, 26', 28) are insertable into the at least one ring-shaped seat for casting differently dimensioned plastic frames (32) in different rotor disks (14).

10. The method according to claim 7 or 8, characterized in that the mold volume that is delimited by the at least one ring-shaped mold insert (26, 26', 28) together with the mold core (18) and the edge of the recess (16) and is provided for the plastic frame (32) can possess a longer extension than the rotor disk (14) in the axial direction of the recess (16).

11. The method according to claim 7 or 8, characterized in that one or more feeders (36, 38) is formed on the plastic frame (32).

12. The method according to claim 7 or 8, characterized in that the at least one casting channel (22, 24) is heated at least while casting the plastified plastic (30).

13. A rotor disk (14) of a double-sided machining machine having at least one recess (16) and at least one ring-shaped plastic frame (32) cast in the at least one recess (16) by means of the method according to claim 7 or 8.