

CLAIMS:

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1. A substrate holding and locking system (10) for chemical and/or electrolytic surface treatment of a substrate (30) in a process fluid, comprising:
- a first element (A),
 - a second element (B),
 - 10 - a magnetic locking unit (50), and
 - a reduced pressure holding unit,
- wherein the first element (A) and the second element (B) are configured to hold the substrate (30) between each other,
- wherein the magnetic locking unit (50) is configured to lock the first element (A) and
- 15 the second element (B) with each other,
- wherein the magnetic locking unit (50) comprises a magnet control and at least a magnet (51),
- wherein the magnet (51) is arranged at one of the first element (A) and the second element (B),
- 20 wherein the magnet control is configured to control a magnetic force between the first element (A) and the second element (B), and
- wherein the reduced pressure holding unit comprises a pump (80) to reduce an interior pressure inside the substrate holding and locking system below atmospheric pressure.
- 25 2. System (10) according to claim 1, wherein the pump (80) is arranged at the first element (A) and/or the second element (B) to control the interior pressure in case the substrate holding and locking system is surrounded by the process fluid.
3. System (10) according to one of the preceding claims, wherein the reduced pressure
- 30 holding unit further comprises an energy supply (60) for the pump (80), wherein the energy supply (60) is arranged at the first element (A) and/or the second element (B).

4. System (10) according to one of the preceding claims, wherein the reduced pressure holding unit further comprises a data transmitter (70) to supply data to control the interior pressure, wherein the data transmitter (70) is arranged at the first element (A) and/or the second element (B).
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5. System (10) according to the preceding claim, wherein the reduced pressure holding unit further comprises a sensor unit to provide data for the data transmitter (70), wherein the sensor unit is arranged at the first element (A) and/or the second element (B).
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6. System (10) according to the preceding claim, wherein the reduced pressure holding unit further comprises a valve unit to implement a control of the interior pressure in the substrate holding and locking system, wherein the valve unit is arranged at the first element (A) and/or the second element (B).
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7. System (10) according to one of the preceding claims, wherein the first element (A) is a first contact ring (46) and the second element (B) is a second contact ring (46), both configured to hold one substrate (30) between each other.
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8. System (10) according to one of the claims 1 to 6, wherein the first element (A) is a substrate holder (20) and the second element (B) is a contact loop (40), both configured to hold one substrate (30) between each other.
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9. System (10) according to the preceding claim, further comprising an additional contact loop (41) configured to hold an additional substrate (30) between a reverse side of the substrate holder and the additional contact loop (41).
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10. System (10) according to one of the preceding claims, wherein the magnetic locking unit (50) comprises several permanent magnets (51) distributed at the first element (A) along the substrate (30) to be held, and wherein the second element (B) at least partially comprises a magnetic material.

11. System (10) according to one of the preceding claims, wherein the magnet control is configured to at least reduce the magnetic force of the permanent magnet to allow a release of the second element (B) from the first element (A).
- 5 12. System (10) according to one of the preceding claims, wherein the magnet control is configured to control the magnetic force between the first element (A) and the second element (B) by applying a voltage.
- 10 13. System (10) according to one of the preceding claims, further comprising a sealing unit (44, 45) arranged between the first element (A) and the second element (B) and configured to ensure a liquid-tight connection between the substrate (30), the first element (A) and the second element (B), wherein the sealing unit (44, 45) comprises an inner sealing (45) configured to ensure a liquid-tight connection between the substrate (30) and the contact loop (40) and an outer sealing (44) configured to ensure
15 a liquid-tight connection between the substrate holder (20) and the contact loop (40).
14. System (10) according to one of the preceding claims, wherein the magnetic locking unit (50) is configured to simultaneously lock both contact loops (40, 41) and the substrate holder (20) with each other or to independently lock each contact loop (40,
20 41) and the substrate holder (20) with each other.
15. A substrate holding and locking method for chemical and/or electrolytic surface treatment of a substrate (30) in a process fluid, comprising the following steps:
- 25 - arranging a substrate (30) between a first element (A) and a second element (B), and
- locking the first element (A) and the second element (B) with each other by means of a magnetic locking unit (50), and
- reducing an interior pressure inside the substrate holding and locking system below atmospheric pressure by means of a pump (80) of a reduced pressure
30 holding unit,
- wherein the magnetic locking unit (50) comprises a magnet control and at least a magnet (51),

wherein the magnet (51) is arranged at one of the first element (A) and the second element (B), and

wherein the magnet control is configured to control a magnetic force between the first element (A) and the second element (B).

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