

Patent claims:

1. Filter press with press frame containing side beams (2) to support filter plates (17) movably along the longitudinal axis of the side beams (2), where the filter plates (17) are oriented at right angles to the longitudinal axis of the side beams (2) and connected to one another, and where a pressure plate (4) is provided that can be moved along the longitudinal axis of the side beams (2) by means of a pushing or pulling device, and which presses the filter plates (17) against one another during the filtration process, where the pushing or pulling device is mounted on a sliding carriage (3), **characterised by** the sliding carriage (3) being moveable on the side beams (2) between an outer position that is farthest away from the header (5) and an inner position that is close to the header (5), by means of a drive unit mounted on the sliding carriage (3), along the longitudinal axis of the side beams (2), which have a header (5) in their final section, wherein the pushing or pulling device has a hydraulic drive (13) with a hydraulic cylinder (11), where both the hydraulic drive (13) and the hydraulic cylinder (11) are mounted on the sliding carriage (3).
2. Filter press according to Claim 1, **characterised by** the drive unit comprising at least one gear wheel (9) that meshes with at least one toothed rack (7) mounted on the side beams (2).
3. Filter press according to Claim 2, **characterised by** the teeth of the toothed rack (7) facing downward.
4. ~~Filter press according to one of Claims 1 to 3, **characterised by** the pushing or pulling device having a hydraulic drive (13) with a hydraulic cylinder (11), where both the hydraulic drive (13) and the hydraulic cylinder (11) are mounted on the sliding carriage (3).~~

- | 54. Filter press according to one of Claims 1 to 43, **characterised by** the sliding carriage (3) having at least one interlocking cylinder (12) that interacts with a recess (6) in the side beams (2) in the vicinity of the closed filter plate assembly (18).
- | 65. Filter press according to Claim 54, **characterised by** a limit stop being provided in the vicinity of the closed filter plate assembly (18).
- | 76. Filter press according to Claim 54 or 56, **characterised by** the sliding carriage (3) having lateral press rolls that roll along the side of the side beams (2) facing away from the sliding carriage (3).
- | 87. Filter press according to one of Claims 1 to 76, **characterised by** proximity switches being mounted in a starting position of the sliding carriage (3) when the filter plate assembly is open and in a final position of the sliding carriage (3) in the vicinity of the closed filter plate assembly (18).

Patent claims:

1. Filter press with press frame containing side beams (2) to support filter plates (17) movably along the longitudinal axis of the side beams (2), where the filter plates (17) are oriented at right angles to the longitudinal axis of the side beams (2) and connected to one another, and where a pressure plate (4) is provided that can be moved along the longitudinal axis of the side beams (2) by means of a pushing or pulling device, and which presses the filter plates (17) against one another during the filtration process, where the pushing or pulling device is mounted on a sliding carriage (3), **characterised by** the sliding carriage (3) being moveable on the side beams (2) between an outer position that is farthest away from the header (5) and an inner position that is close to the header (5), by means of a drive unit mounted on the sliding carriage (3), along the longitudinal axis of the side beams (2), which have a header (5) in their final section, wherein the pushing or pulling device has a hydraulic drive (13) with a hydraulic cylinder (11), where both the hydraulic drive (13) and the hydraulic cylinder (11) are mounted on the sliding carriage (3).
2. Filter press according to Claim 1, **characterised by** the drive unit comprising at least one gear wheel (9) that meshes with at least one toothed rack (7) mounted on the side beams (2).
3. Filter press according to Claim 2, **characterised by** the teeth of the toothed rack (7) facing downward.

4. Filter press according to one of Claims 1 to 3, **characterised by** the sliding carriage (3) having at least one interlocking cylinder (12) that interacts with a recess (6) in the side beams (2) in the vicinity of the closed filter plate assembly (18).
5. Filter press according to Claim 4, **characterised by** a limit stop being provided in the vicinity of the closed filter plate assembly (18).
6. Filter press according to Claim 4 or 5, **characterised by** the sliding carriage (3) having lateral press rolls that roll along the side of the side beams (2) facing away from the sliding carriage (3).
7. Filter press according to one of Claims 1 to 6, **characterised by** proximity switches being mounted in a starting position of the sliding carriage (3) when the filter plate assembly is open and in a final position of the sliding carriage (3) in the vicinity of the closed filter plate assembly (18).