

Latham 6" Ram Pump Sidebar Filter Press



Stock No	TF371
Manufacturer	Latham
Model	1000 Sidebar Semi-Mechanical
Year of Manufacture	2000
Serial	C1304
Condition	From a working environment, Good Condition
Work Envelope (WxDxH mm)	1000 x 1000 x 25mm x 55 Chambers
Process Stages	3 Stage, Closing, Opening, Discharging
Other Info	Working Hydraulic pressure 345 Bar
Location	Our Central Warehouse, Aldridge, UK
Weight (kgs)	3500
External Dimensions (WxDxH mm)	5317 x 1570 x 1840mm

Description

'Latham International Ltd are specialists operating at the forefront of today's pressure filtration technology. Their filter presses achieve a more efficient level of solid/liquid separation than alternative methods. The success is founded on world class standards of service and know-how: developing tailor-made systems which drive down costs for our customers and deliver clearer filtrates from more compact, easy-to-manage cakes'

New set of Filter cloths and re-painted

Typical applications include

- Metal hydroxide sludge.
- Brine sludge.
- Secondary biological sludge.
- Water treatment alum sludge.
- Oily sludge.
- Food and Beverage.
- Chemical.
- Micro Electronics.

How the filter press works

- The Filter press consists of a head and follower that contain in between a pack of vertical rectangular plates.
- Each plate is dressed with filter cloth on both sides and, once pressed together, they form a series of chambers that depend on the number of plates. The entire pack of plates is supported by side or overhead beams. The head serves as a fixed end to which the feed and filtrate pipes are connected, and the follower moves along the beams and presses the plates together during the filtration cycle by a hydraulic or mechanical mechanism.
- The plates have generally a centred feed port that passes through the entire length of the filter press so that all the chambers of the plate pack are connected together. Likewise, four corner ports connect all the plates and collect the mother and wash filtrates in a “closed discharge” towards outlets that are located on the same side as the feed inlet. Some filter presses have plates that are fitted with cocks at their lower side so that the filtrate flows in an “open discharge” to a trough and serve as “tell tales” on the condition of the filter cloth by the clarity of the filtrate that passes through each chamber. The disadvantage of this arrangement is that it cannot be used with filtrates that are toxic, flammable or volatile.
- The side bar suspension design incorporates plates each fitted with two handles, one on each side located near their mid section, which rest on side bars. The side bars connect to fixed end plates to form a press framework; one of these end plates, the cross head or tightening head, carries the closing gear which bears on the follower plate, itself freely supported on the side bars, causing the follower plate and the plates and frames to close against the second fixed end plate, the head. The closing mechanism may be provided by a number of alternatives, including simple capstan gears for small filters, ratchet capstan gears, motorised screws and hydraulically actuated rams; the latter two alternatives are generally used for larger sized filters.
- The side bar suspension press can be fully mechanised and provides automatic means of closing the plates together. Sealing the press at a pre-determined pressure, moving each plate individually to afford cake discharge. Controlling the movement to minimise filter cloth wear due to impact and providing a safety system whereby electric power is cut off if an operator approaches the filter while the plate transfer mechanism or the closing mechanism is in operation.

Hydraulic pump (Refurbished 2022)

- The hydraulic cylinder driving the sludge ram is built to off shore specifications and is of a hardwearing design featuring a chrome piston rod. The hydraulic cylinder also features extensive internal guidance and support for the piston rod thereby eliminating lateral forces upon the hydraulic seals, which can promote oil leaks. The top of the



hydraulic cylinder features internal, hydraulic cushioning to facilitate absolute control over the sludge ram at the top of the stroke where the ram changes direction from up to down. This contributes to the quiet operation of the pump.

Control Panel

- The control panel has control buttons and indicator lights,
- Press open / close switch,
- Start push button,
- Press open light,
- Press close light,

Semi Automatic Plate Shifter

- The filter cake is discharged by separating the plates around it and allowing it to fall beneath the press into some form of container. Plate separation is achieved using the semiautomatic plate shifter supplied with the press.
- Roll the shifter towards the hydraulic end of the press until the jaws are between the first pair of plate handles and press the operating button. The jaws will raise into the gap between the handles and, when fully raised, will separate the plates to a distance of approximately 500mm. Releasing the operating button will allow the jaws to lower and retract.

Press Operating and Maintenance manual is included.

Hydraulic pump manual is included

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.