

AUTOMATIC SKIP STACKER IMPROVES PRODUCTIVITY

In many extrusion plants all over the world the following situation will be found between profile saw and ageing furnace:

The profiles, coming from the profile saw, will be stacked into empty skips (here with an automatic stacker). The worker, with a crane, will stack the skips manually onto the entrance platform of the ageing furnace(s). Usually 3 skips have to be stacked, one over the other.

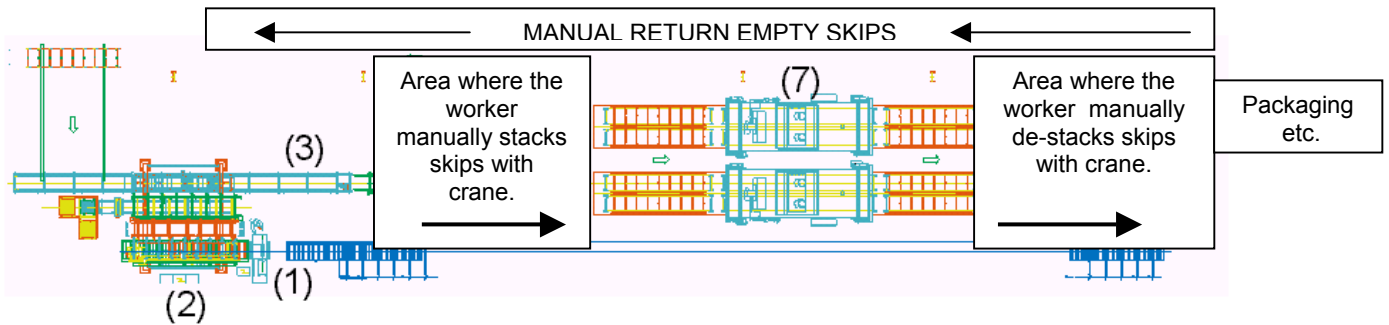


Fig. 1: Standard Layout between profile saw and ageing furnace in an extrusion plant.

(1) Saw (2) Profile Stacker (3) Full skip on rail (7) Ageing furnace

When ageing is finished the worker will have to de-stack the skips. These manual crane operations are sometimes dangerous for the worker and profiles can be damaged when the skips hit accidentally against each other.

TECALEX has developed a skip handling system (see fig. 3) which **works automatically (no-man-operation) and moves the skips in a smooth way, so no accidents or damage of the profile will occur:**



Fig. 4: TECALEX Skip (De-)Stacker

The heart of the system is the skip stacker (see fig. 3 - pos. 4) stacking automatically 3 skips one over the other. A lateral platform (pos. 6) distributes the skips to the furnaces. After ageing, another platform (pos. 8) moves the skips to the de-stacker (pos. 9) where it will be de-stacked.

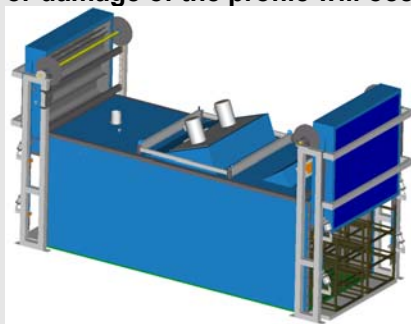


Fig. 2: TECALEX ageing furnace for 2 x 3 skips.

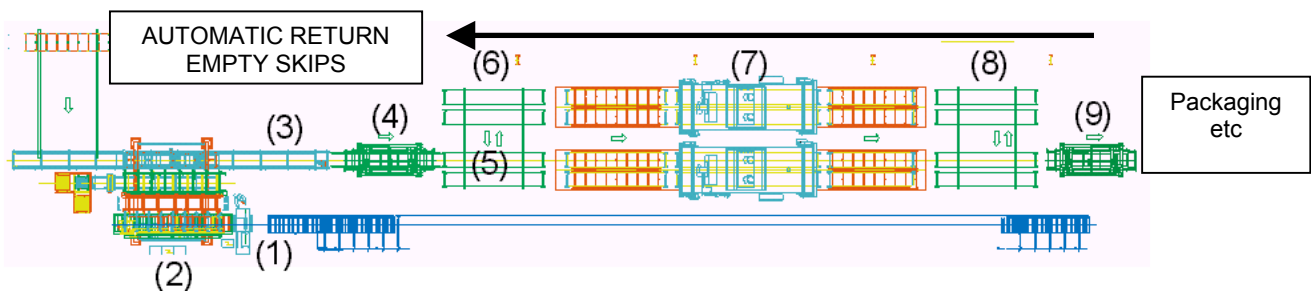


Fig. 3: Modern skip handling system in the extrusion plant:

(1) Saw (2) Profile Stacker (3) Rail for full skips (4) Skip Stacker (5) Exit: 3 stacked skips (6) Lateral Transport Platform (7) Ageing furnaces (8) Lateral Transport Platform (9) Skip Destacker

STACKING OPERATION

The automatic skip stacker works through the following steps:

- (A) The first skip enters the stacker.
- (B) The stacker moves down and the pneumatic fingers catch the skip 1 by the base. The skip is lifted up. The second skip enters the stacker.
- (C) Skip 1 is placed onto skip 2. Skip 3 is waiting on the entry module.
- (D) The stacker moves down and the pneumatic fingers catch the skip 2 by the base. Skip 1 and 2 are lifted up. The third skip enters the stacker.
- (E) The stacker moves down and places skip 1 and 2 onto skip 3. The pneumatic fingers open and the stacker move up again, without skips.
- (F) The three skips are moved out of the stacker, to the ageing furnace.

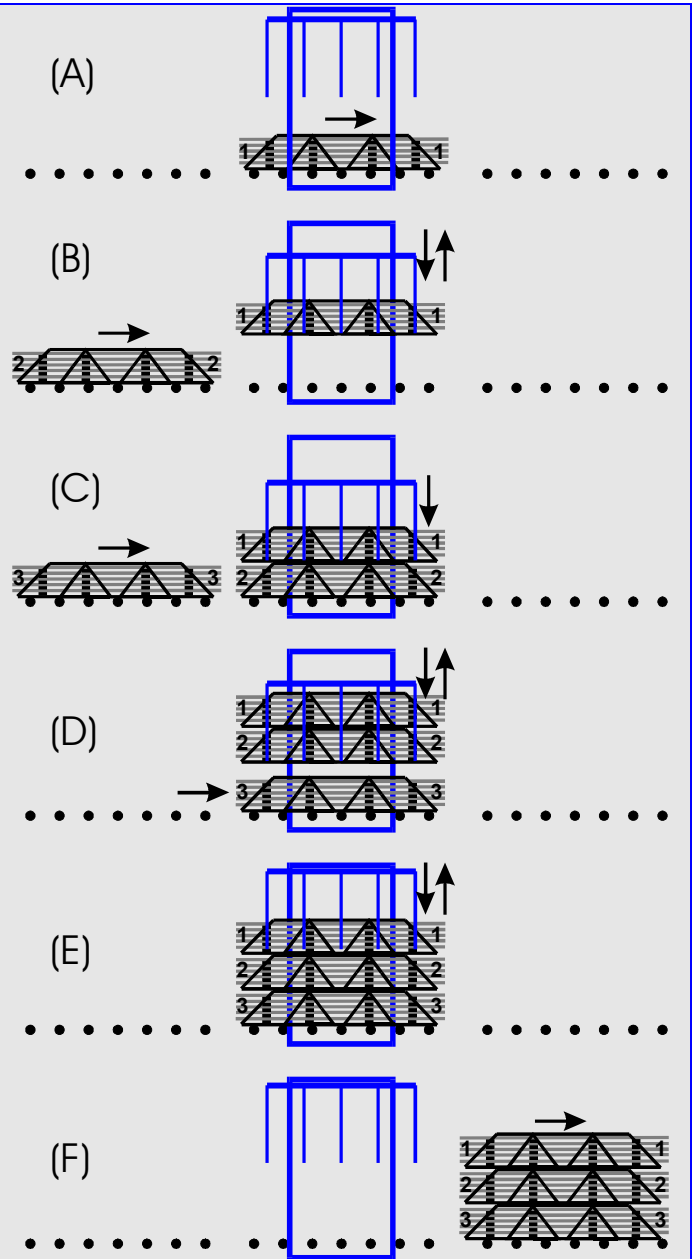


Fig. 5: Stacking Process

SKIP DE-STACKING



The destacking process works like the stacking process but in the opposite direction:

- **Accident free,**
- **With no-man operation and**
- **Without damaging the profile.**

Fig. 6:
Stacker with full skips

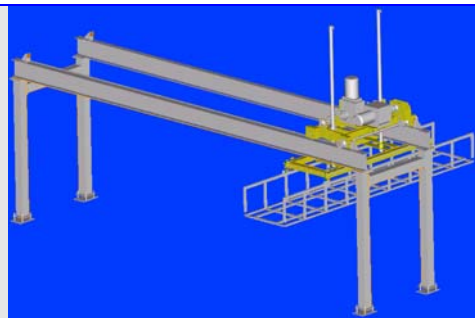


Fig. 7: Automatic skip crane

In addition to the above-mentioned skip stacker TECALEX produces all kind of automatic skip cranes, adapted perfectly to the customers requirements and any existing plant layout.

Please contact your Area Manager:

Jürgen Sturm, +34 670 34 86 79 if you need further information about the automatic stacking systems or if you want a layout for the special situation in your extrusion plant. Thanks for your call!