OLOFSTRÖM

UNIFEEDER

EP patent 1210214, other patents pending

PRESS AUTOMATION

UNIFEEDER LW

- **Unique algorithms for path planning give fast and smooth movements, this means higher speed of motion, increased production rate and less need for maintenance.**
- **No moving motor cables due to fixed mounted motors.**
- **Simple and solid construction.**
- **All bearings are permanent lubricated.**
- **Optimisation during running.**
- **Safe running in low speed also with open gates.**
- **One standard UniFeeder for Interpress handling, Destacking and End of Line handling.**
- **Many year's experience from industrial controllers and press automation contributes to user friendliness and high productivity.**

PDS

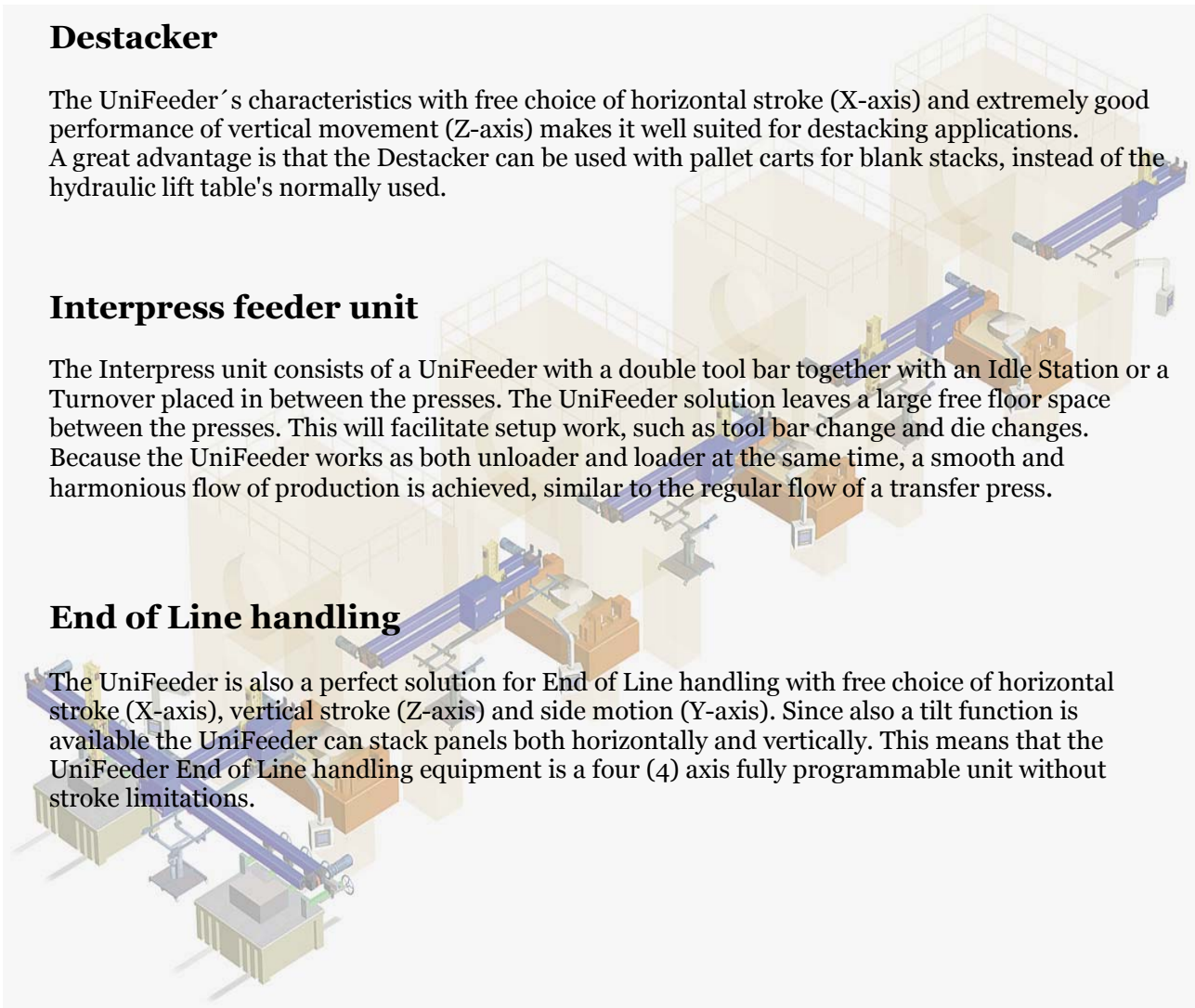
UniFeeder

UniFeeder is a two-axis freely programmable press automation equipment. It is characterised by fast and smooth movements, qualities necessary for keeping a high and steady production rate. The rapid motion originates in light moving weight due to the stationary servomotors. The smoothness of the movements comes from the unique operation control, developed especially for the handling of oil-coated sheet metal.

One standard UniFeeder for all press line handling, such as Destacking, Interpress handling and End of Line handling. The possibility of using the same type of equipment throughout the line gives obvious advantage when it comes to spare parts, maintenance, training and user friendliness.

Destacker

The UniFeeder´s characteristics with free choice of horizontal stroke (X-axis) and extremely good performance of vertical movement (Z-axis) makes it well suited for destacking applications.
A great advantage is that the Destacker can be used with pallet carts for blank stacks, instead of the hydraulic lift table's normally used.



Interpress feeder unit

The Interpress unit consists of a UniFeeder with a double tool bar together with an Idle Station or a Turnover placed in between the presses. The UniFeeder solution leaves a large free floor space between the presses. This will facilitate setup work, such as tool bar change and die changes. Because the UniFeeder works as both unloader and loader at the same time, a smooth and harmonious flow of production is achieved, similar to the regular flow of a transfer press.

End of Line handling

The UniFeeder is also a perfect solution for End of Line handling with free choice of horizontal stroke (X-axis), vertical stroke (Z-axis) and side motion (Y-axis). Since also a tilt function is available the UniFeeder can stack panels both horizontally and vertically. This means that the UniFeeder End of Line handling equipment is a four (4) axis fully programmable unit without stroke limitations.

Technical Data and Capacity UniFeeder LW

Technical data

Load (including tooling)	max	90 kg	200 lbs
Stroke length horizontal (x-axis)	max	12 m	40 ft
Stroke speed horizontal (x-axis)	max	6 m/s	20 ft/s
Stroke length vertical (z-axis)	max	2 m	80 inches
Stroke speed vertical (z-axis)	max	5 m/s	16 ft/s

Capacity examples:

Number of strokes/minute continuous.

Horizontal Stroke millimeters (inches)	Vertical Stroke millimeters (inches)	Load kg (lbs)	Expected Output (Strokes per minute)
3000 (118)	100 (4)	30 (70)	26,8
3000 (118)	250 (10)	30 (70)	25,5
3000 (118)	500 (8)	30 (70)	24,0
3000 (118)	300 (12)	85 (190)	22,1
5000 (197)	150 (6)	45 (100)	17,5

Additional capacity examples will be made on request.

Expected output:

The expected output is based on the press running in non continuous mode. If the press is running in continuous mode the output will increase.

Press Stroke continuous (Stroke per minute)	Expected Output* (Parts per minute)	Expected Output (Parts per hour)
20	14	840
18	12,5	750
16	11,5	690
14	10,5	630
12	9,5	570
10	8,5	510
8	6,5	390

Continous run:

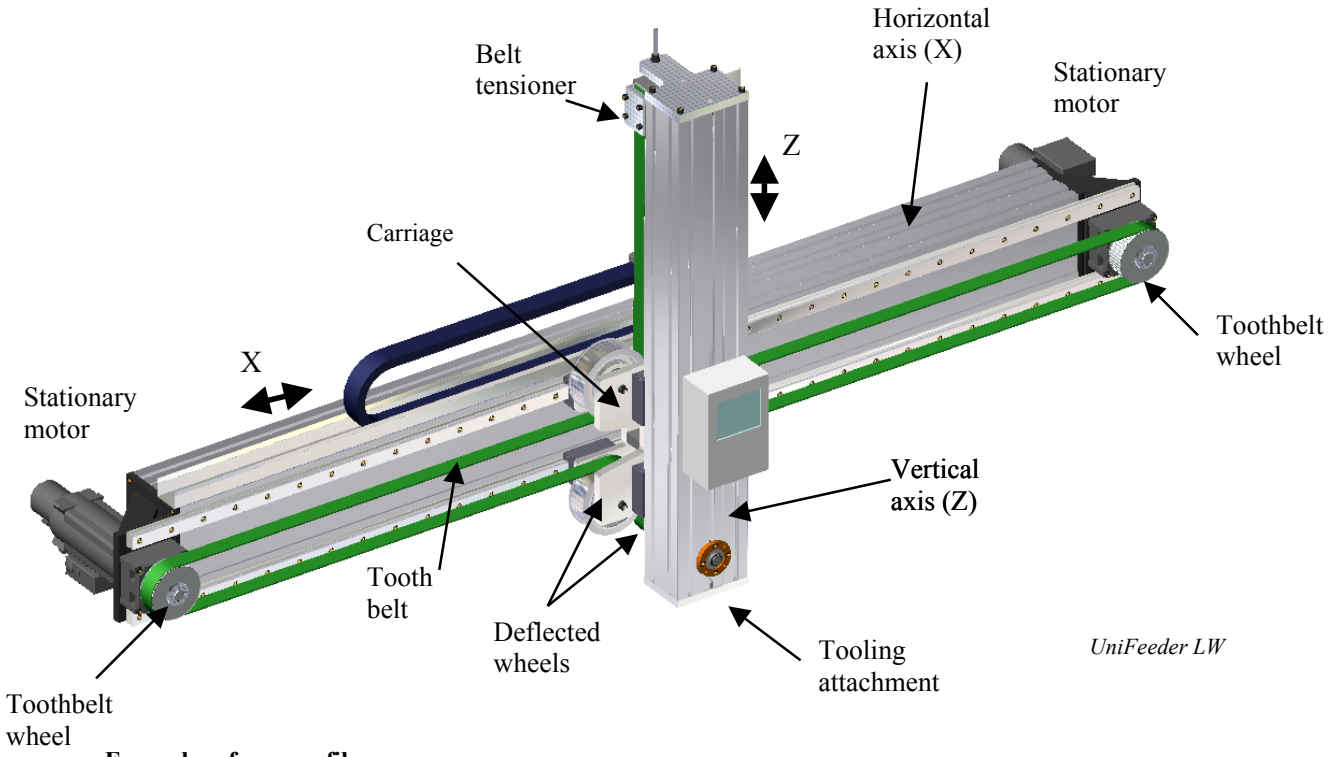
*If running the first press in continuous mode, we can estimate the output to increase up to 17 parts per minute.

Functional Principle

The UniFeeder is intended to transport loads from one point to another. The transport movements take place in two directions, the horizontal movement (X-axis) and the vertical movement (Z-axis).

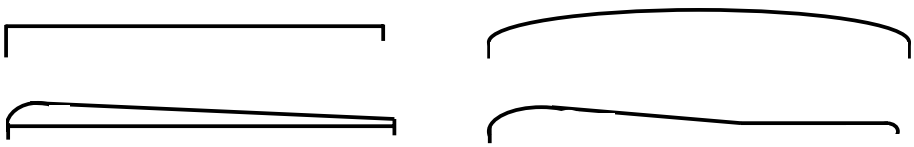
In each end of the horizontal beams there is a stationary mounted servomotor. Together the both motors run the tooth belt. By controlling the motor speed it is possible to achieve different movement paths of the carriage and the z-axis.

If both motors rotate at the same speed the resulting movement will be horizontal (X) only. If the motors rotate at different speeds the difference in speed will cause both a vertical movement (Z) as well as a horizontal one (x).



UniFeeder LW

Examples of run profiles



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