



> The next assembly dimension

Strength and reliability
Speed and accuracy
Multiple combination



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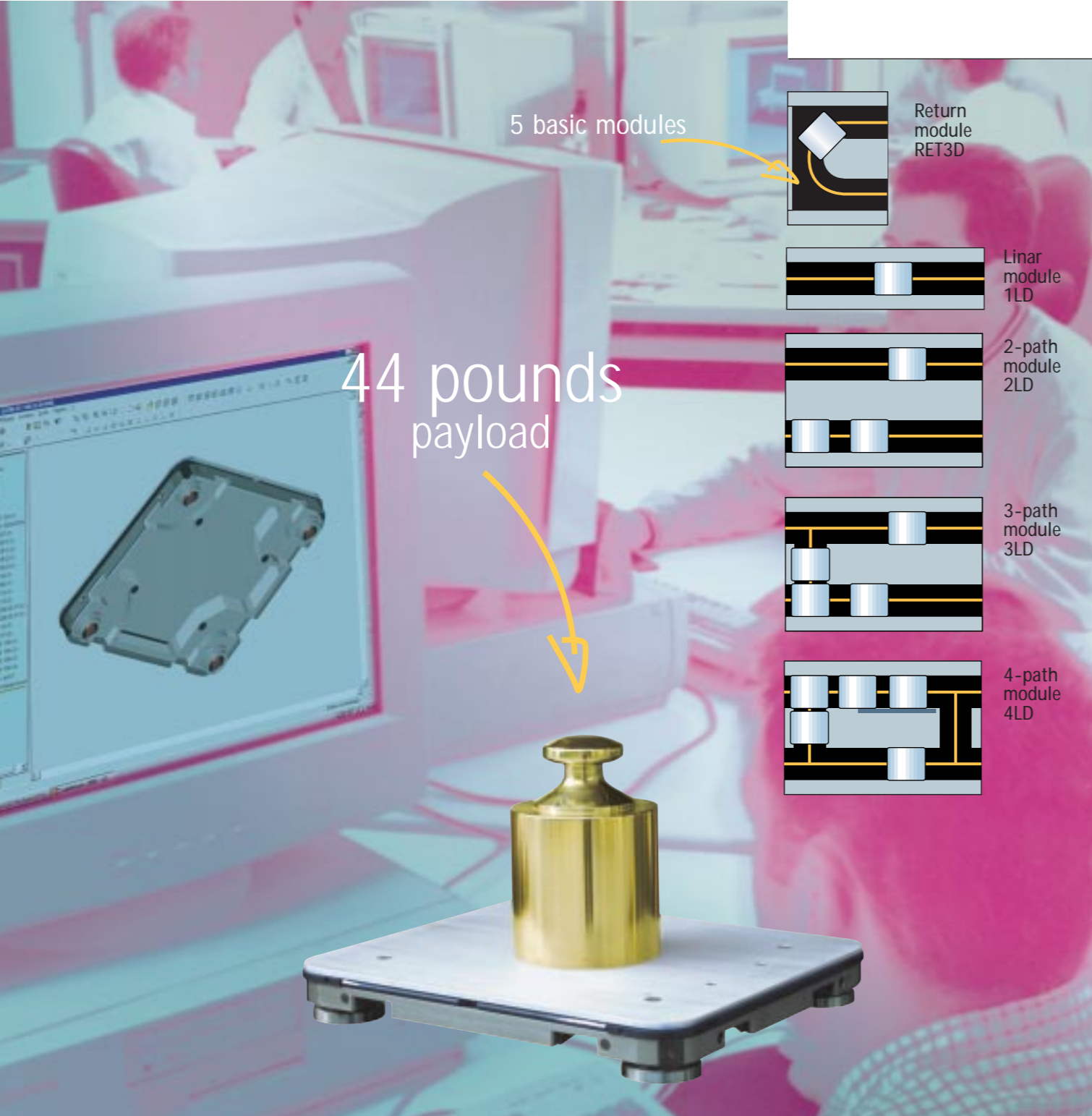
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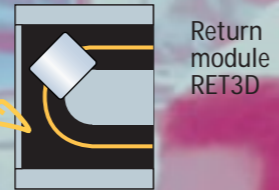
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An Era of new concepts



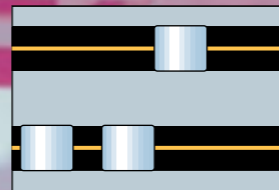
5 basic modules



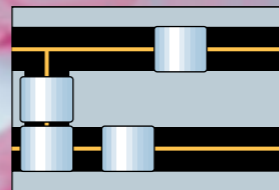
Return module RET3D



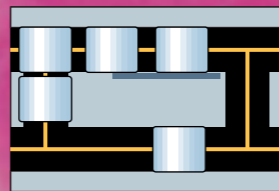
Linear module 1LD



2-path module 2LD



3-path module 3LD



4-path module 4LD

44 pounds payload



5 modules compose the A3D system: the return module, the linear module containing one pallet path, and the modules with 2, 3 or 4 paths.

Except the return module, **all others contain pallet locating stations** intended for automated operations: 4 stations for example in a linear module and up to 6 in a 4-path module.

On each module, **the circulation flow can be forward or reversed** to authorize closed loop functioning or pallet recycling.

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A concept that stands forces, loads and acceleration with complete stability



> All terrain driving

With its innovative drive system, the A3D transports heavy payloads (up to 44 pounds) smoothly. **Insensitive to oil**, it performs flawlessly in clean or polluted environments.

> Reduced maintenance

With a large contact area, the A3D driving system is designed to resist wear and **heavy usage**. Regulated with step motors, it prevents pallet accumulations and limits wear caused by friction.

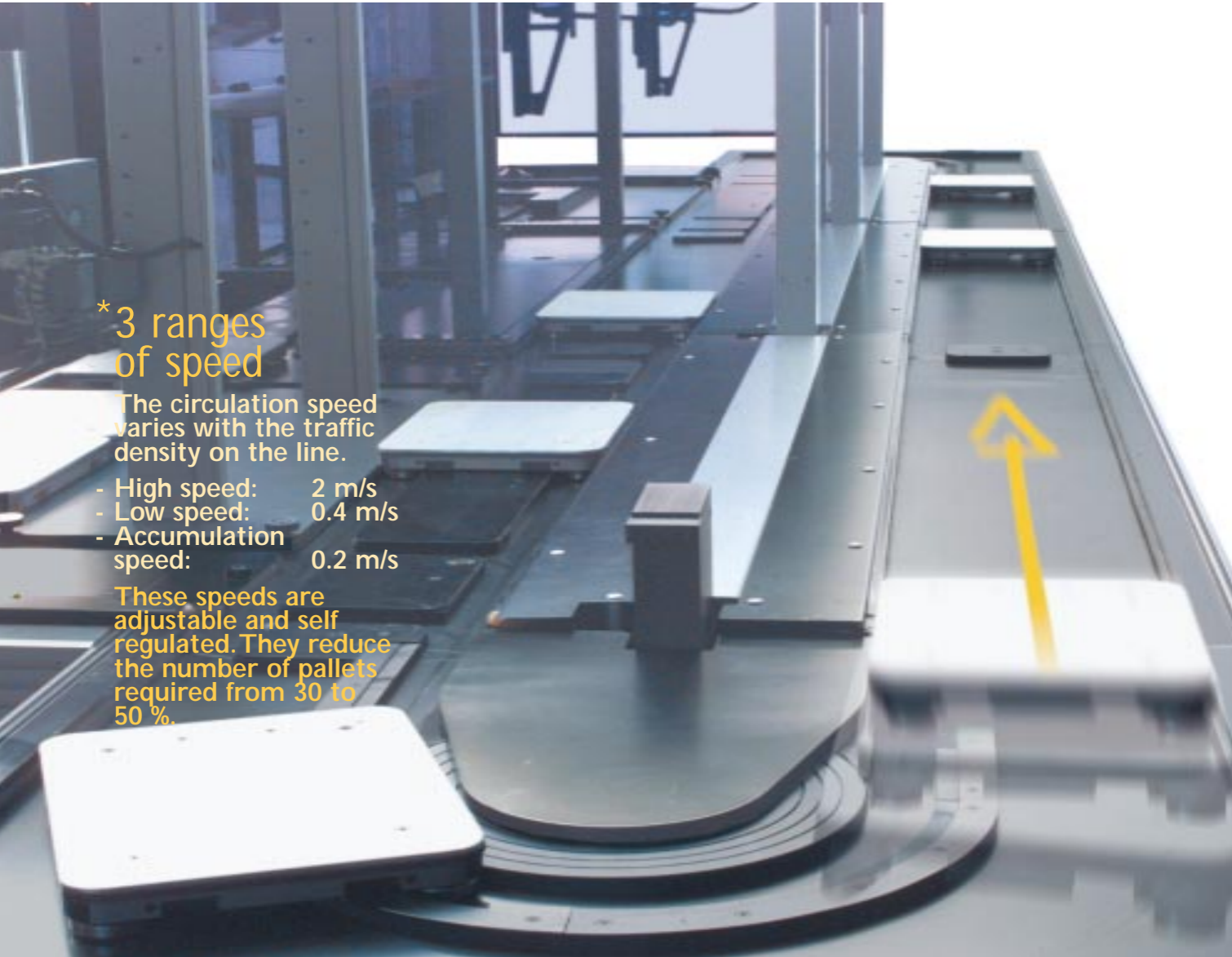


> Reinforced structure

An evolutionary structure of steel alloys constitutes a rigid basement ready to receive **high power operations**: pressing or riveting hydraulic machines, bolting with high torque range. The pallet is accessible from both top and bottom. Without the addition of a pressing anvil, the pallet alone can withstand repeated vertical forces of 120 pounds.



100% velocity *

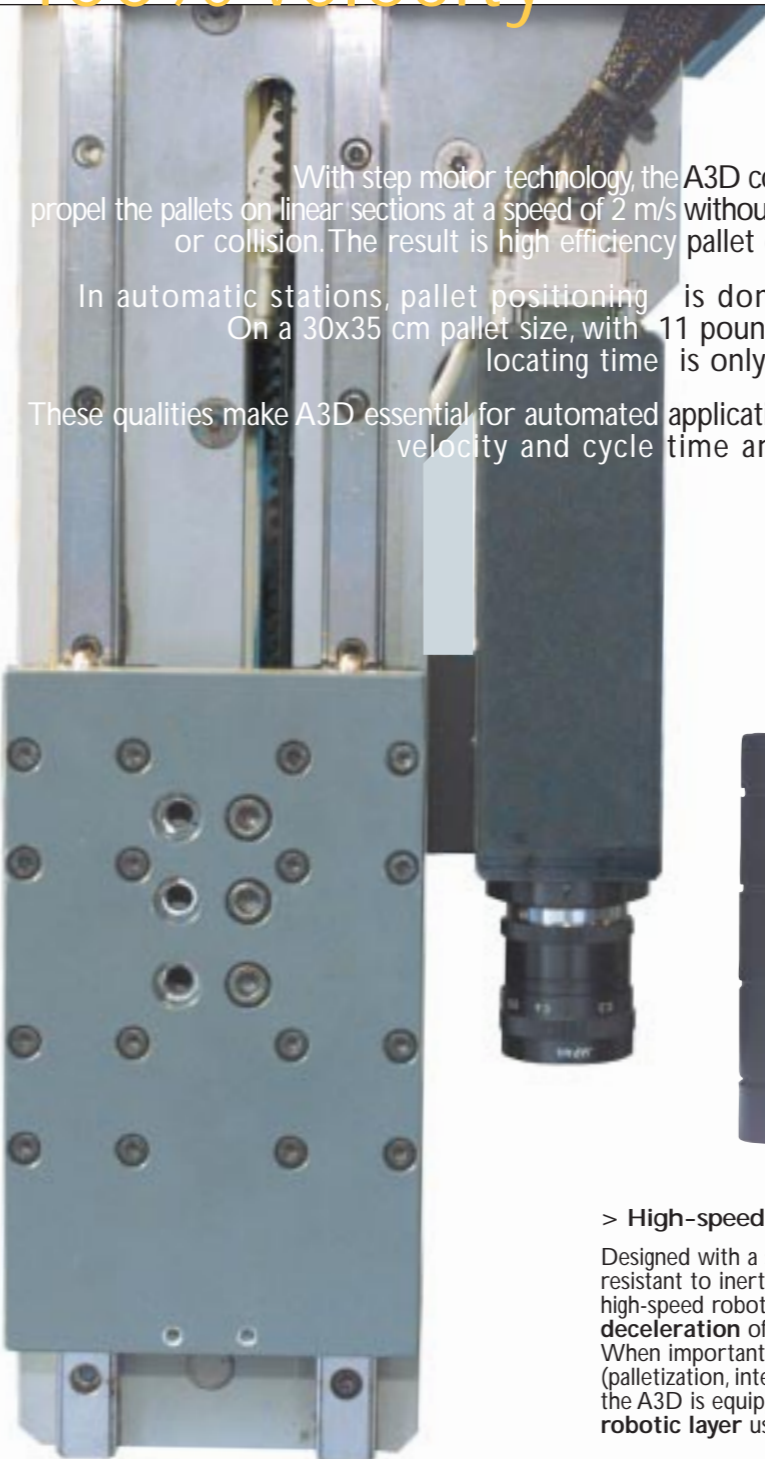


* 3 ranges of speed

The circulation speed varies with the traffic density on the line.

- High speed: 2 m/s
- Low speed: 0.4 m/s
- Accumulation speed: 0.2 m/s

These speeds are adjustable and self regulated. They reduce the number of pallets required from 30 to 50 %.



With step motor technology, the A3D conveyor can propel the pallets on linear sections at a speed of 2 m/s without any shock or collision. The result is high efficiency pallet circulation.

In automatic stations, pallet positioning is done rapidly: On a 30x35 cm pallet size, with 11 pounds, payload locating time is only 1 second.

These qualities make A3D essential for automated applications where velocity and cycle time are critical.



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> High-speed robotics

Designed with a strong base, A3D is resistant to inertial forces generated by high-speed robotics acceleration and deceleration of transported payloads. When important strokes are involved (palletization, inter-equipment links), the A3D is equipped with a cartesian robotic layer using linear or step motors.



From the autonomous cell

Turbo command
PC/NT tactile



The closed loop **autonomous cell** is the first stage of automation. Composed from a unique 4-path module, with turn table similarity it hosts all peripheral automatic and manual operations.

The second stage of automation contains a succession of modules placed in-line. This type of **compact line** layout suits most highly automated applications.

The A3D is equipped with the Turbo Controller, which organizes pallet identification and circulation, management of robotics, integrated automation, and networked communication.

The user interface consists of one or several PC/NT with tactile screens spaced strategically on the assembly line. They serve as information and message hubs.

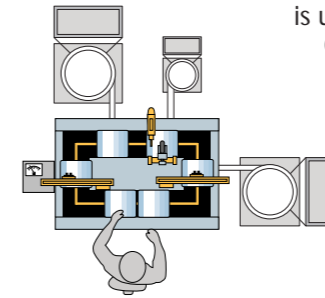
The last stage – **the mixed line** – consists of placing modules on each side of the line and mixing off-line sections working in parallel and in-line sections grouping sequential operations.

With 5 basic modules, the A3D architecture gives the opportunity to configure a wide range of layouts.

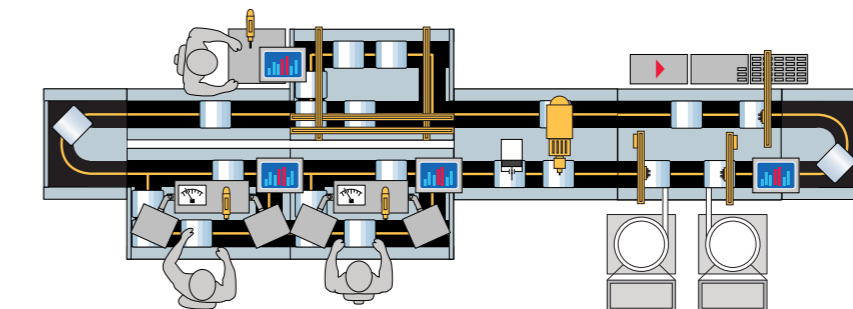
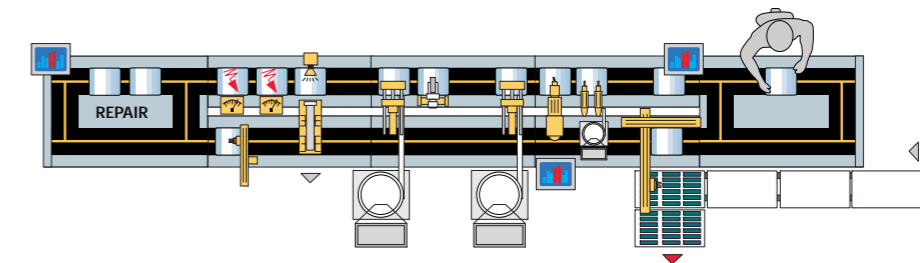
> With the ability to **reverse pallet flow**, a (4 path module) 4LD may work alone in an autonomous way or linked with other modules. It can host 6 automatic stations.

> The linear module 1LD contains from 1 to 4 automatic stations. The (2 path module) 2LD with its 2 side working area and 4 stations per side optimizes space by compressing sequential automatic operations.

> At each extremity on an installation, the return module is used when it is necessary for the pallet to keep its orientation from one side of the line to the other.



to the automated line



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