

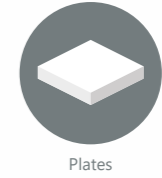


MSLoop

Productivity multiplier

Plasma

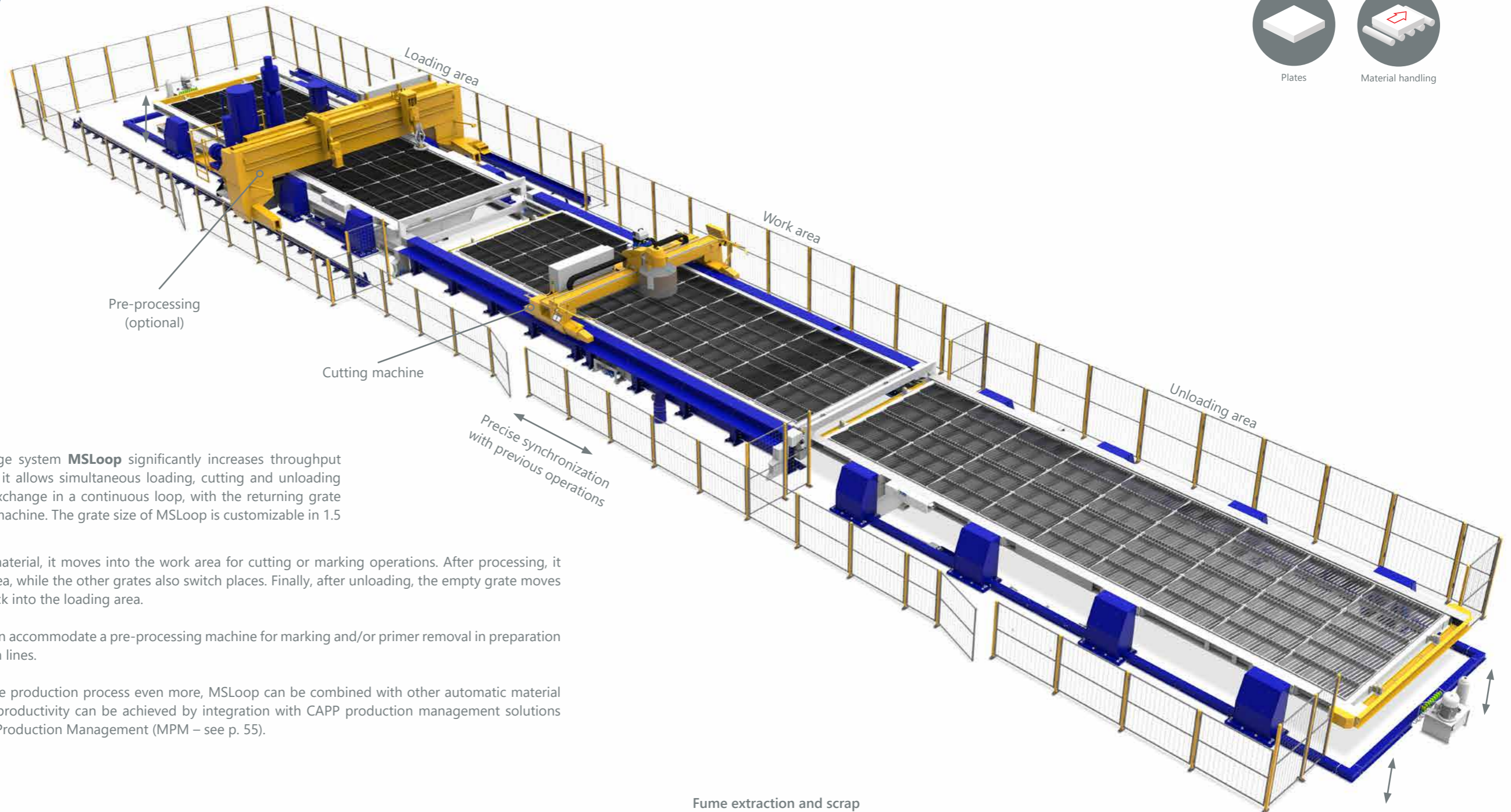
Laser



Plates



Material handling



The automated table exchange system **MSLoop** significantly increases throughput of a CNC cutting machine as it allows simultaneous loading, cutting and unloading of material. Its three grates exchange in a continuous loop, with the returning grate moving underneath the CNC machine. The grate size of MSLoop is customizable in 1.5 m length modules.

After a grate is loaded with material, it moves into the work area for cutting or marking operations. After processing, it continues to the unloading area, while the other grates also switch places. Finally, after unloading, the empty grate moves underneath the work zone back into the loading area.

Optionally, the loading area can accommodate a pre-processing machine for marking and/or primer removal in preparation for marking of synchronization lines.

To automate and speed up the production process even more, MSLoop can be combined with other automatic material handling systems. Maximum productivity can be achieved by integration with CAPP production management solutions such as MicroStep's Machine Production Management (MPM – see p. 55).

Universal and versatile



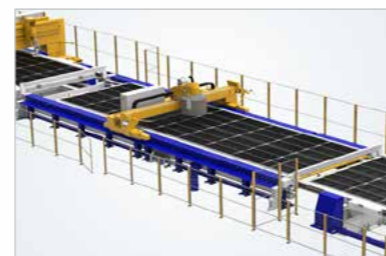
MSLoop can be combined with any freestanding MicroStep machine equipped with plasma or laser cutting technologies. Loading and unloading can be automated via in-house or third-party loading and sorting solutions – the vast customization possibilities make MSLoop a perfect solution for boosting of production efficiency.

Reduce idle times



The system consists of 3 separate working zones that allow simultaneous operations of loading/unloading and work-piece machining, e.g. cutting, marking, primer removal... Table exchange between zones is synchronized to enable highest possible efficiency of production.

Optimized safety



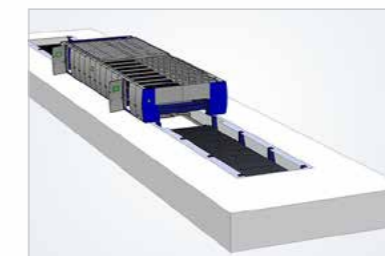
Each zone has its own entrance into the fenced-off area that unlocks from the outside only after all the machinery in the zone finishes its movement and is switched to a manual slow-moving mode. The other, locked, zones continue working but cannot send a table to the unlocked zone. From the inside the doors are always unlocked to provide free escape routes.

Fume extraction and scrap collection



A fume extraction and scrap collection wagon moves under the gantry between the upper and the lower bed to collect remains from cutting and provide sectional fume extraction via sideways channels. Furthermore, each bed is equipped with a pair of sweeping collectors on the front and the rear side that push the residual scrap into waste containers under the floor level.

Convenient material handling



To fit seamlessly into any production facility, MSLoop does not have to stand on the floor. The embedded version with tables returning underground brings considerable benefits, especially loading and unloading at the floor level, and a more efficient fume extraction and scrap removal.