FMS Flexible Manufacturing System, a modular approach!

for low volume - high mix manufacturing

Flexible Manufacturing Platform:

From a totally new perspective on flexible manufacturing Grauel has developed a multifunctional modular printing and assembly platform, for low volume - high mix manufacturing.

The FMS modules, with integrated linear magnetic transportation carriers, can be connected fast and seamlessly into a manufacturing line for completely different kind of products.

Each stand-alone-module is equipped with its own main-controller, and can have multiple functions by loading processes like, feeding, welding, assembly, testing, printing etc. The different processes themselves are also modular, have their own controls and can be (re)-used on any module! The FMS platform can be configured by the end user from 2 up to 10 modules (approx. 18 manufacturing steps, approx. 2-10 meters of length).

Specifications:

Carrier process track: Linear magnetic transportation
Carrier identification: RFID - chip
Positioning accuracy: +/- 0.02 mm
Indexing time: 0.5 s
Module dimensions: 1000*1200*2250 [mm]
Process dimensions: 395*720*900 [mm]
Max. product dimensions: 225*150*250 [mm]
Max. carrier load: 2.7 Kg
Processes / Module: 1-2
Max no. of modules: 10
Examples of processes: assembly, force testing, leakage testing, ultra sonic welding, printing, robot handling, part feeding etc.