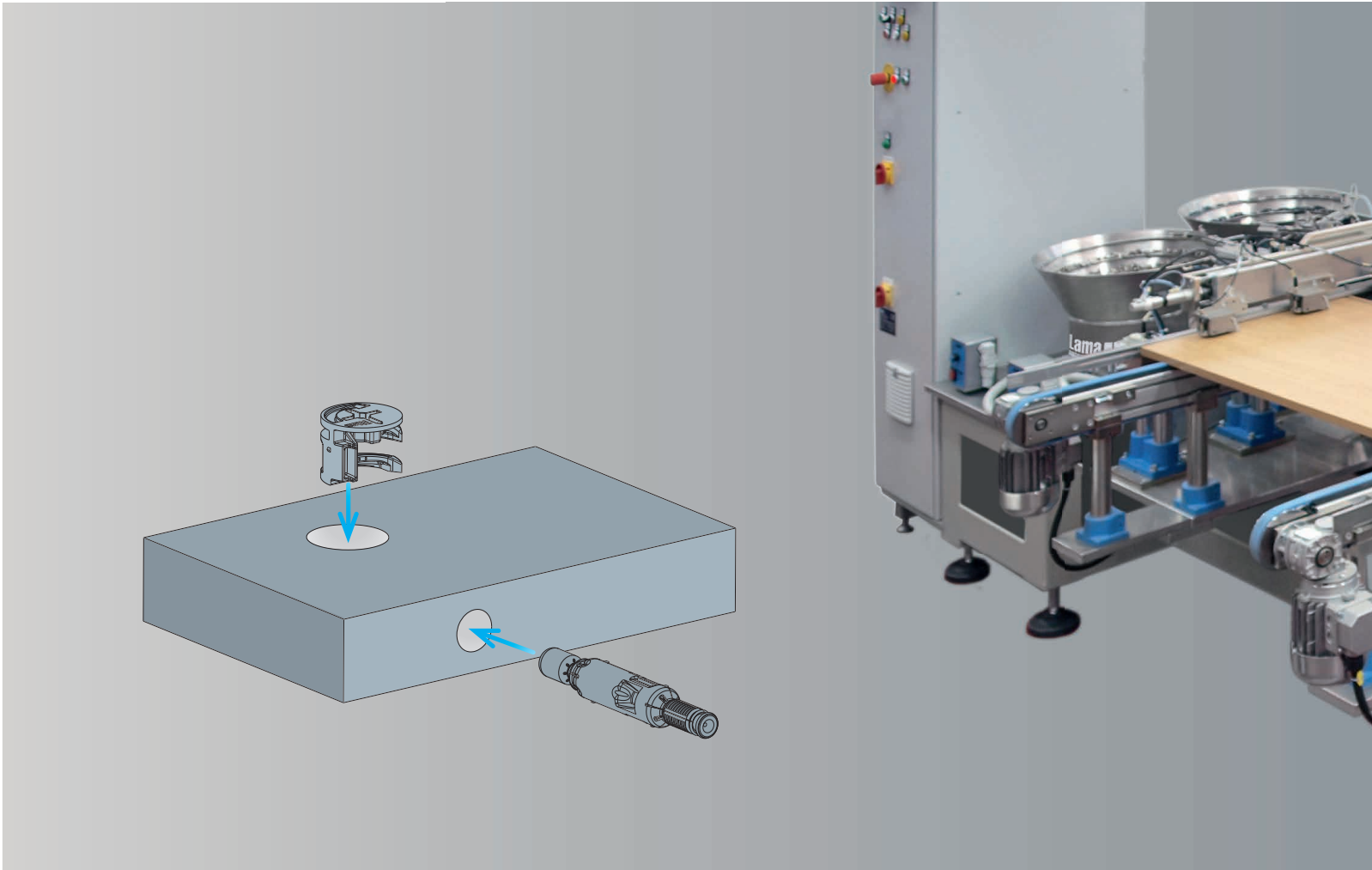




**Titus
FastFit**

2019

Titus FastFit Technology



Totally integrated engineering solution that reduces cabinet assembly time by 50%

- Increased furniture user satisfaction
- Quick and easy home furniture assembly
- Lower risk of customer claims

Easy to adopt

- Works with standard furniture boards
- Stand alone or integrated into existing production processes
- Works with various panel sizes and fittings

Secure choice

- Based on proven Titus cam and Quickfit TL dowel solution
- Cabinet structural strenght as with standard connectors
- Years of experience in machine building from Lama Automation



Quality

- Integrated quality checks for consistent product quality
- Robust machine construction assures life-long reliable function
- Cams and dowels stay securely in place due to integral design features on the part

Unique in the market

- Proprietary connectors and insertion machine
- Decades of experience and competence in development, machine building and product manufacturing

Design support

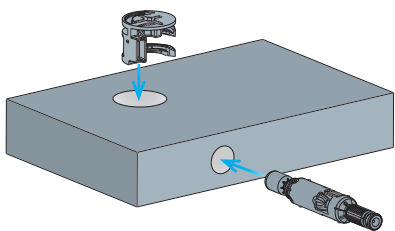
- Engineering support
- Modular machine design allows for easy integration into existing panel processing lines

Titus FastFit Technology

Introduction

Titus FastFit auto insertion solution adds value to furniture and to furniture manufacturing

With Lama FastFit insertion machine the standard Titus cam and Quickfit TL dowel can be inserted into furniture in the factory.



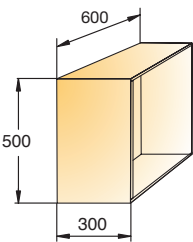
50% less time to assemble the cabinet carcass at home

Titus FastFit system is a unique solution that reduces the time needed to assemble the cabinet carcass at home by 50%.

- Less parts
- Less types of parts
- Less actions to assemble
- Easy assembly instructions
- Lower risk of mistakes



Cabinet assembly time comparison



Assembly with 8 pairs of cams and dowels

Perfect for the RTA market

Cam and dowel combination			
Type of packaging			
Assembly time	150 seconds	100 seconds	50seconds

Speed time based on in-house tests with medium experienced user.

Perfect for the RTA market

CAF Quick & Easy
Consumer Assembly Friendliness

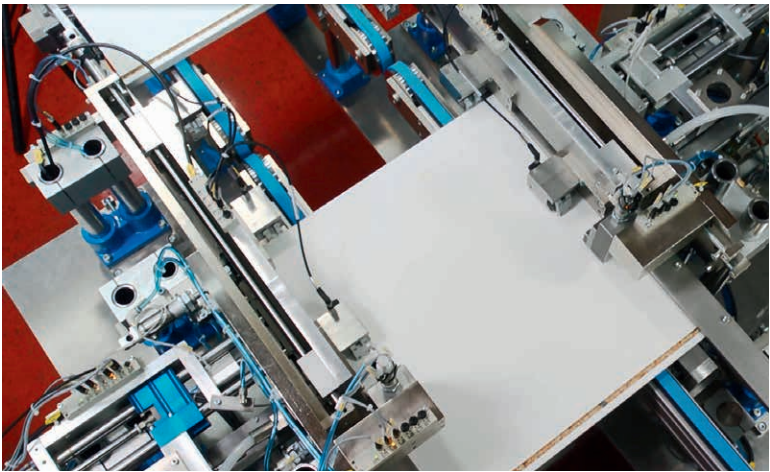
Titus FastFit Technology Product Guide

Page

Lama FastFit Machine

Equipment for auto
insertion of cams and dowels

6



- Can be integrated into the existing panel processing lines or used on a stand alone basis
- Precise auto insertion of cams and dowels
- Works with standard furniture boards of different dimensions
- Modular design

Titus Cam and Quickfit TL Dowel

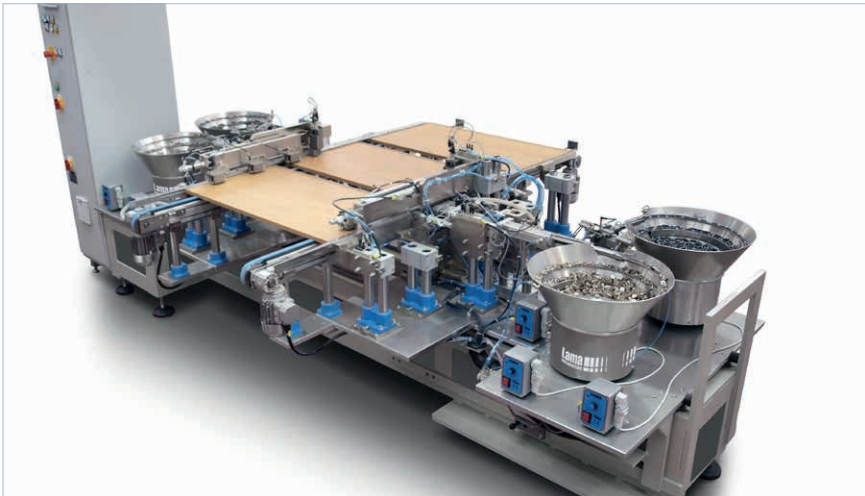
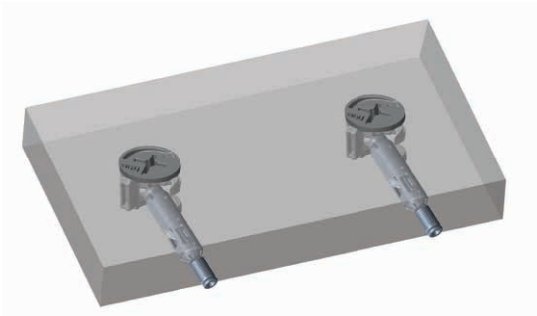


- Quickfit TL dowel is the only dowel on the market allowing for factory insertion
- Proven and worldwide accessible solution
- Securely positioned in holes

8

Lama FastFit Machine

For factory insertion
of cams and dowels



Technical data

- | | |
|-------------------------|-------------------------------------|
| · Footprint | 3840 x 2816, height 2300/1500 |
| · Electricity supply | 400V 3 phase, 25A, rated power 10kW |
| · Compressed air supply | 1/2", 6 bar, cca 30m3/h |

Modular construction

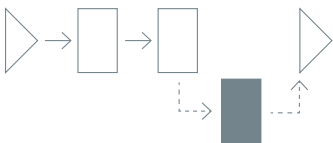
Lama FastFit machine for automatic insertion of components into furniture boards is of standard modular construction.	It is flexible and can be tailored to specific customer needs in terms of type and number of connectors to be inserted, panel sizes and throughput rates.
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Flexibility of throughput rates

The equipment can be used on a stand alone basis or fully integrated into the production process

Stand alone machine works as a single unit independent of the main panel process line. This module can insert varying number of fittings in the same panel.

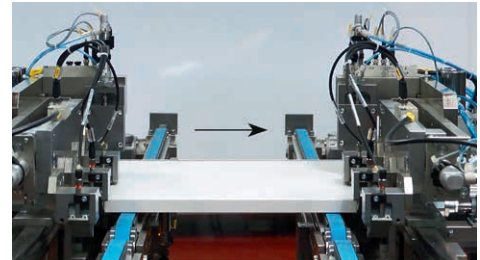
Integrated module works in multiple machine groups, each module inserting a single pair of fittings, and as a consequence achieves higher panel throughput speeds.



- Adapts to the manufacturers required speeds
- Uses standard furniture boards
- Uses standard Titus cam and Quickfit TL dowel
- Flexible in terms of number of connectors to be inserted
- Decades of experience in automated assembly machine building

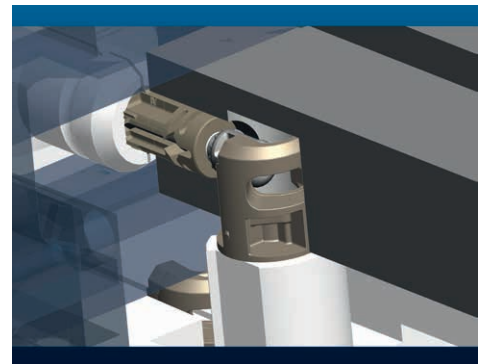
Works on various panel sizes

Horizontally sliding table allows for quick and easy adjustment to different panel sizes approx. from 260mm to 1000mm



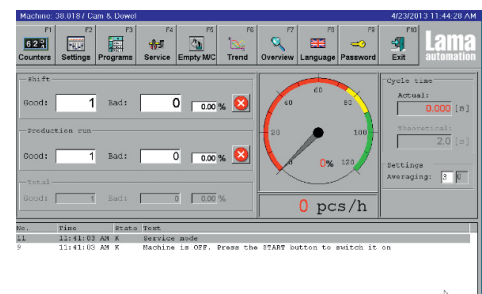
Precise auto-insertion of cam and dowel

- Correct and precise cam and dowel alignment with holes
- Precise insertion with the possibility to overcome drilling inconsistencies in the range of $-0.5/+0.5$ mm out of tolerances
- Easy feeding and delivery of components



Process programming and monitoring

- Highly intuitive and user friendly
- Error history
- Display of alarm messages
- Interface language can be adapted to customer's request
- Online service enables remote maintenance, diagnostic and program errors' solving



Designed and built by Lama Automation

Decades of experience in automated assembly machine building.

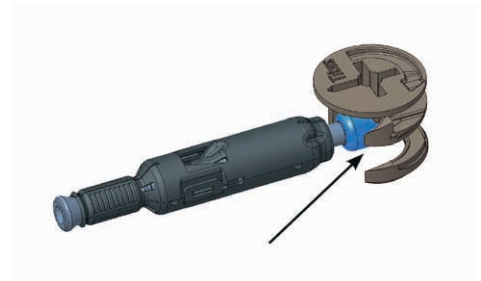
Our team of engineers provide support during all stages of process development and manufacturing in order to ensure that products are

engineered to maximize productivity, lower the manufacturing costs and shorten the time to market.

Titus Cam and Quickfit TL Dowel

Dowel head form

Dowel head form acts as a positive stop and ensures correct insertion depth. It provides tolerances of $-1/+1\text{mm}$ on drilling operation ensuring the final result is a perfectly precise and aligned joint.



Expanding body

Titus Quickfit TL5 steel body enables stability and fixed dowel position in the hole during transport and manipulation.



Rocket fins on dowel

Rocket fins on Titus Quickfit TL2 dowel assures precise insertion depth and allow the dowel to stay securely in place prior to assembly.



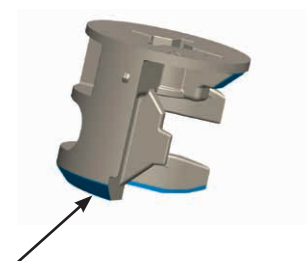
Cam retaining pips

Cam retaining pips facilitate factory insertion and ensure that cam is held in panel position prior to assembly.



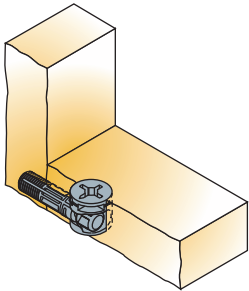
Chamfer on cam

- Allows the cam to be guided into the hole during machine insertion
- Provides $-0.5/+0.5\text{mm}$ tolerances on drilling operation
- Ensures cam positioning
- Smooth insertion preserves the chipboard quality from damages



For more information see catalogue Furniture Fittings System, chapter Connectors

- Proven connector solution
- Quickfit TL dowel is the only dowel on the market allowing for factory insertion
- Worldwide accessibility

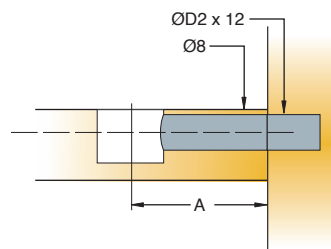


Technical and mounting details

Quickfit TL2



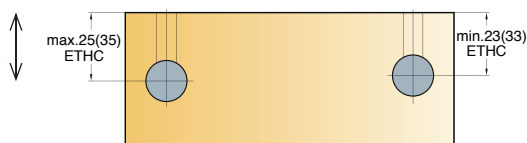
Made of zinc, plastic



Quickfit TL5



Edge to h
tolerance



Tolerance range



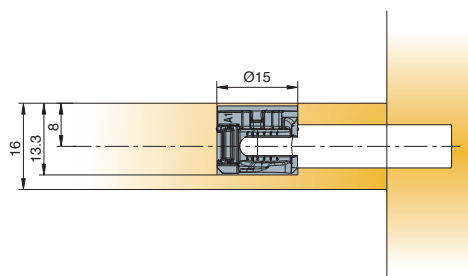
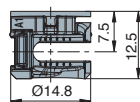
2000 Pcs (05366)

1000 Pcs (05474, 09652)

Made of steel

Cam5000

PZ2 drive

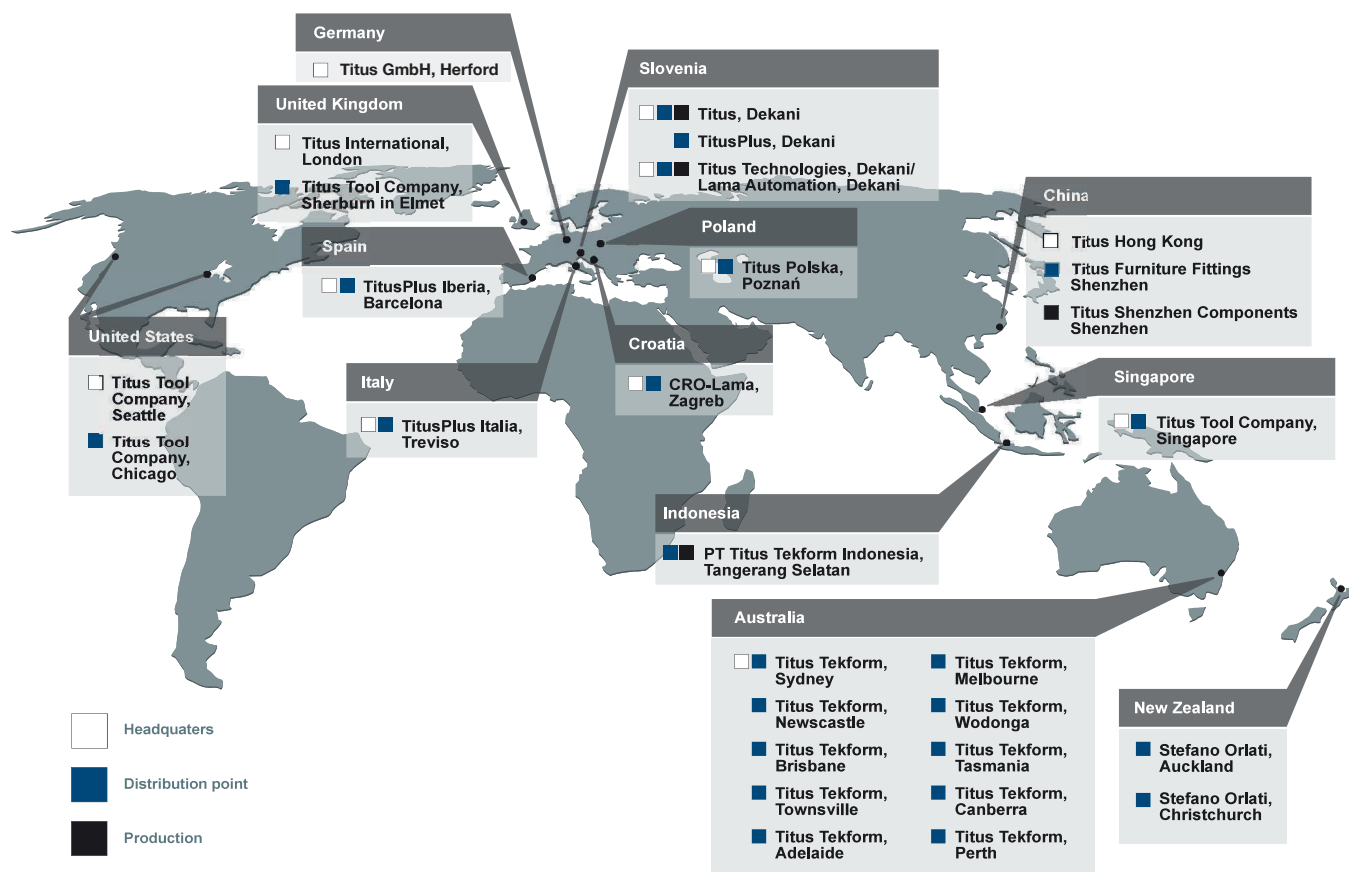


1000 Pcs

Made of zamak

Global player

Worldwide design, manufacturing and distribution capabilities



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