STORAGE AND HANDLING OF MAINTENANCE PARTS

AIRCRAFT MAINTENANCE INDUSTRY - AIRBUS DEFENCE AND SPACE S.A. (SPAIN)









# **CUSTOMER REQUIREMENTS**

Our **team of consultants** addressed the problems of the current processes at **AIRBUS**, a global leader in the aeronautical industry: **These involved considerable inefficient handling**, **storage and management of aircraft parts and tools during the maintenance operations.** 

Furthermore, the company's internal audits warned that this inefficient management put both **equipment and personnel at considerable risk of accident.** 

# **SOLUTION TARGETS:**

## **OPTIMIZE THE INVENTORY MANAGEMENT**

Also **improve** safety, while **freeing up time** currently wasted on internal logistics to dedicate it rather to specific and worthwhile tasks.

# **STOP STORING ITEMS ON THE FLOOR**

The customer was not allowed to use forklifts in the hangars due to the **risk** of damaging spare parts and components stored in the maintenance area, so only the floor space was occupied.

#### **LOCATIONS MONITORING**

Once the engineers had retrieved and stored the airplane parts, they had **no system to record** their locations in the hangar, which would **speed up their recovery** when working on their reassembly.

#### **STORAGE VERSATILITY**

It was difficult to find two identical parts in the hangar, which meant that every one of them needed a **special handling adaptation**.

## **EASE OF USE**

Each engineer is responsible for using the warehouse equipment and so must be **capable of learning** to use the system quickly, without specific certificates or skills for the purpose.

# **SOFTWARE INTEGRATION WITH EXISTING SYSTEMS**

**Integration with the proprietary PELICANO maintenance, repair and overhaul (MRO) software and PANASONIC tablets.** It was necessary a **warehouse management** software (WMS) which included a communication interface which was able to operate with the current customer's data capture tablets and MRO Software.

## **IMPROVED SAFETY**

The goal must be to protect the **retrieved aircraft parts** and **personnel** at all times.









#### 2 HUBMASTER® STORAGE AND HANDLING SYSTEMS

These are designed for the handling of a variety of loads.

This is used with **cantilever** racking for **storing loads of up to 6 m** in length with aisles of 2.7 m widths.

## 2nd SYSTEM

This is used to handle **super deep loads of 1.9 m and 2.7 m wide**, stored on specially configured racking and 3 m wide aisles.

## **TOTAL CAPACITY**

The total height of the systems is **7 m** and the maximum load capacity is 1.000 kg.

## **MANAGEMENT OF SPECIAL OVERSIZED SUPPORTS**

Special oversized supports for **airplane panels** carrying several parts **simultaneously** can also be handled by the **HUBMASTER**<sup>®</sup>.

## **NARROW AISLE STORAGE**

The systems will be positioned **between** the aircrafts which are being maintained in the hangar.

## WMS SOFTWARE BY HUBMASTER®

The **WMS system** is integrated with the **Customer's MRO Software** and will recommend positions for each part based on their features and the available storage space in the racks.



#### INTERFACE AND CONTROL

Operation via tablets and their shared use with the MRO software will simplify the operator's tasks.

## "HANGAR DESIGN" MODULE

It will give Airbus the independence to create **new storage spaces** in order to **map out any object anywhere** in any of the existing hangars.

# **ACHIEVED BENEFITS**

#### TIME OPTIMIZATION

We optimized and simplified all the operations so that the technicians were able to concentrate on the priorities of Airbus.

#### **STORED UNITS**

Access to stored units without "LIFO" restrictions or double handling. Now the operator will have access to any position without having to previously move other units.

## **SOFTWARE AND HARDWARE INTERFACE**

The engineers will use the HUBMASTER® WMS application by giving orders through the MRO software, using the same devices they currently use for maintenance tasks, meaning a perfect data exchange and **no loss of time.** 

#### **TOTAL CONTROL**

Control about the position of each item, without any loss of time by verifying visually where the unit was stored.

#### **MITIGATED RISKS OF DAMAGES**

Quick return on investment thanks to a reduction in the number of units damaged during their temporary storage.

The **HUBMASTER®** is equipped with **sensors** that transmit its position to the PLC, blocking any incorrect command by the operator which could cause a collision.

## **EASE OF USE**

**15 minutes of training** is all that it is needed to explain the basic functioning of the system. Any low skilled personnel can use the system.

# THE HUBMASTER® ADVANTAGE

The **HUBMASTER**® is available in a range of configurations that meet the strictest requirements for optimizing storage space and safety, also available in a fully automatic operation mode. We also provide tailored solutions for special applications.

The specifically developed hangar management software SGA **HUBMASTER®** enables an efficient integration with other operations and maintenance management software through data exchange protocols. The **HUBMASTER®** focuses especially on optimizing the configuration of the operations associated with dismantling, assembly and management of parts, multi-part containers and positions in the hangar.

It is available in the following configurations:









Single sided system Side access system

**Dual aisle with** 

**Cantilever front** 

Other TAILORED CONFIGURATIONS for special load capacities, heights and handling accessories, as well as integration with other client- specific software, are available **UPON REQUEST.** 

Contact us today to speak to one of our agents for a non-binding initial estimate.







