

MILDEF CRETE

Corporate Newsletter



Introduction

By Mechanical Manager | rOGER

Dear partners:

After 26 years at Mildef Crete, I am profoundly aware of the values our company upholds, the pursuit of quality and innovation. In this highly competitive market, MilDef Crete has always been dedicated to high-quality, reliable, and durable products, and has won many trusts from customers in the military and industrial control markets.

In the evolving geopolitical environment today, we recognize the importance of regional integration, and must respond quickly to market challenges. It brings us new opportunities and challenges to innovate our products. We believe that MilDef Crete pays attention to market demand changes, looks for broader development space and markets, and

Introduction

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Employee Activities

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implements innovation and improvement to further enhance our products' competitiveness and market share.

Along our journey, MilDef Crete always keeps the core values and remains open-minded and flexible to respond to market changes and customer requests. Our goal is to expand market share, improve brand value, and customer satisfaction through sustainable company development.

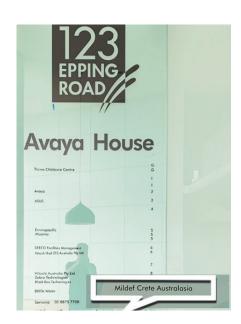
It is such an honor to work at Mildef Crete, I hope we all work together to achieve the company's ambitious vision and goals in the future.

Thank you.

MilDef Crete Australia Company officially established

By Kevin Wang

Under the leadership of VP - Nelson Chou, we have worked hard with local Australian colleagues Chevy Chen & Damp; James Huang for 3 years, and we finally established local company in Sydney and the website of MilDef Crete Australasia http://www.mildefcrete.com.au in 2022. Working with Australia largest Mining and defense equipment supplier-Blackwood, a qualified registered supplier of the Ministry of Defense, officially opened the market door of the Australian mining and military industry, which is worth celebrating and looking forward to. In view of maintaining the original distributor: Opentec's local cooperation relationship, we continue to provide necessary resources through the Australian branch, which greatly encourages Opentec and other SI & VAR to achieve better results in a fair competition and cooperation relationship with each other, stable and continuous creation of a win win situation. With the results of our efforts in Australia looking at other global markets, we hope that all partners will continue to improve their management and operation models in their respective distribution areas and markets, and seize the opportunity of increasing national defense budgets in recent years to win more orders. MilDef Crete will do its best to bring you more competitive products with high quality standard.





Land Forces 2022

By Kidd Cheng

MilDef Crete team and the Australian team participated in the Australian Defense Exhibition-Land Forces exhibition for the first time. This is a joint participation of representatives of arms companies from all over the world, Australian domestic military delegations and advanced defense-related industries. Through this exhibition, we can gain an in-depth understanding of military product applications and observe future trends. At the exhibition, we displayed various rugged products of MilDef Crete, showing highly customized variability. Our products are compact and powerful! It is used in professional fields and various military equipment in various countries around the world, which makes the team feel honored and proud.

It is hoped that this new market in Australia will bring endless opportunities and challenges to MilDef Crete. We will work together to bring MilDef Crete to new heights one after another.

















New Launching of the Powerful Handheld, DH8 in Q1 of 2023

By Annabelle Wu

We, MilDef Crete, are always in good cooperation with all global partners and customers. The best part is when you come up with a concept, we offer more solutions. Today, everything can be delivered quickly and first-hand information can increase one's competency in the market. That's why we've introduced DH8 to meet all your needs.



All in One Hand

Weighing only 905g, DH8 is designed in an ergonomic dimension (201mm x 99mm x 44.5mm). With the high-precision Computer Numerical Controls (CNC) machining technology, the unibody aluminum chassis reinforces the mechanical strength. Meanwhile, it complies with IP65 and MIL-STD-810H standards, that demonstrates great resistance under harsh conditions. This device is also waterproof and dustproof which works well even in high altitudes or high salinity environments. In short, the DH8 is the prior choice of your one-handed rugged yet convenient device.

Payoff from the Early Access Program – Intel® Elkhart Lake Platform

In 2020, MilDef Crete took another big step forward. To keep pace with the Intel Platform evolution, MilDef Crete participated in the Elkhart Lake Early Access Program (EHL). DH8 is the first device that was developed concurrently with support from Intel®. Configured with Intel Atom® x6211, with 1.5MB Cache and turbo frequency up to 3GHz, everything becomes faster and the processing efficiency has greatly enhanced. Supporting Windows 10, DH8 is said to be a mini-computer in one hand, allowing users to perform any tasks as they would normally use a laptop or desktop computer.

User-Friendly Interface Design

DH8 is designed with a touch screen and keypads. Users can easily navigate the interface with their fingers. Considering that some users may wear gloves, a magnetic-attaching stylus is designed on the rear side of the device. Besides, DH8 also reserves two programmable keypads in which the users can set their preferable functions through the System Manager.



Significant Breakthrough in Dual Battery Features

The dual-battery design greatly ensures the durability of operating time. In addition, the hot-swappable feature enables the users to replace the battery without turning off the device. Another remarkable feature is the



implementation of the Molicel batteries in the DH8. These batteries support the system boot-up in temperatures as low as -20°C (optional down to -30°C), even without the AC adapter connected. And now, users do not need to carry extra accessories, such as the adapter or the power cords, when operating outdoors.

The New Generation

DH8 is an entirely new device that introduced to replace the long-serviced handheld, DB7. From mechanical structure to core performances, DH8 has big evolutions compared with DB7.

	DB7	DH8
Platform	Intel® Bay Trail-I Platform	Intel® Elkhart Lake Platform
Processor	Intel® Atom Duo Core ProcessorE38251MB L2 Cache, up to 1.33 GHz	Intel Atom® Duo Core Processorx6211E1.5MB L2 Cache, up to 3 GHz
Display	 5" (800 x 480) LCD Optical Bonding Resistive Single-Touch Type Brightness (min.~typ.): 280~336 nits Night Vision: By CDP 	 - 5.7" (1280 x720) LCD - Optical Bonding - Resistive Multi-Touch Type - Brightness (min.~typ.): 560~640 nits - Optional Invisible mode on/off - Night Vision: By CDP
Memory	- DDR3 SO-DIMM x 1 - 4GB/8GB DDR3L-1067, up to 8GB	- DDR4 SO-DIMM x 1 -8GB/16GB/328GB/16GB/32GB
Storage	- mSATAII SSD 64GB/ 128GB/ 256GB	- M.2 2242 SATAIII SSD TLC 256GB/ 512GB/ 1TB
Environmental Specifications	 Operating Temperature: 1: 0°C~ 40°C M: -20°C ~ 55°C Optional -30°C ~ +55°C Storage Temperature: -40°C ~ + 70°C 	8- Operating Temperature: Std.: -20°C ~ +60°C* Optional: -30°C~ +60°C - Storage Temperature: -40°C~ +70°C

A passage is not enough to describe this powerful device. For more information, please access to our website: mildefcrete.com.



Production and Equipment - Introduction of Equipment: Laboratory Rain Tester Facility

By Benson Chang

The test method standard, Environmental Engineering Considerations and Laboratory Tests (MIL-STD-810H) is developed by the U.S. Department of Defense (DoD). This standard mainly tests on the reliability of military equipment by considering the influences that environmental stresses have on that equipment throughout all phases of its life cycle. Today, this standard is widely recognized globally. It is not only applied in military-relevant products but also commonly seen in industrial products.

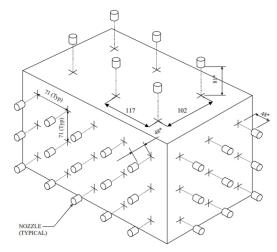
We, MilDef Crete, always emphasize the ruggedness features, which the water resistance is one of our major highlights. To ensure a high-water resistance level, R&D Team is strictly handling every step throughout the development and production, including unit design, materials sourcing, manufacturing process, assembling technology, device maintenance, and issue debugging. Indeed, we have implemented a complete procedure complying with the standard MIL-STD-810H (Method 506.4). With the facilitating of the Rain Tester and professional knowledge, we are capable to conduct the standard test.

The Rain Tester simulates the environmental conditions (Method 506.4) to determine the resistance ability of the device under test (DUT) towards rainfall. A Rain Tester can provide valuable and important information about each DUT's water resistance. This allows the R&D Team to verify the impacts of blowing rain and water splashing in the DUT in order to apply relevant strategies for improvement when necessary. We believe that the addition of the Rain Tester can help us to achieve products with high resistance towards rain, water spray, and droplets, which ultimately maintains the production quality. Possessing a combination of equipment and engineering know-how, MilDef Crete, will always ensure the products perform at a more powerful and robust level.



Rain Fall Tester

Water testing video link: https://mildefcrete.com/manufacturing/inhouse-testequipment/



* Adjust as necessary to get spray overlap

NOTE: Dimensions are in cm. Ensure nozzles are perpendicular to the surface(s) and situated such that each surface

Typical nozzle setup for watertightness test (Procedure II) with nozzle pressure of approx. 275kpa and position between each nozzle of approx. 71 cm



FlexBasis factory environment improvement plan

By Dora Lan

Water-based cutting oil must be used in the CNC machining process. The selection and quality management of cutting oil have an important impact on the processing efficiency and the rust of the machine tool. However, because water-based cutting oil contains grease and water, it is a breeding ground for bacteria to easily breed, resulting in adverse phenomena such as cutting oil odor.

Through the management of oil quality, revise the operation process specification, add cutting fluid purification and regeneration equipment and test other brand oil products to improve the quality of cutting oil and ensure the life, so as to improve the air quality in the factory area.



Suggestions for cutting oil selection:

- 1. Since the anti-emulsification and oil-water separation are better, it can prolong the life of cutting oil, so it is recommended to match it with better quality slideway oil.
- 2. According to different processing materials, adjust the correct processing concentration of cutting oil. (Please check with a concentration meter, it must be kept above 5%)

Aluminum alloy: 6%~7%

Carbon steel: 6%

Stainless steel: 7%~10%

Titanium alloy: 10%

Engineering plastics: 7%



The suggested concentration above needs to be adjusted according to the actual processing conditions.





Before cutting fluid purification and filtration



After the cutting fluid is purified and filtered

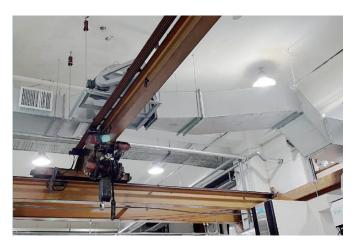


Plan to purchase cutting fluid purification regeneration equipment

Indoor air purification and circulation in the FlexBasis factory area



Set up CNC machine system oil mist recovery and filtration equipment



Set up plant-wide air circulation equipment



Supplier management process optimization

By Rita Hsu

In 2022, the supply chain underwent major changes again due to the influence of the general environment: the Ukrainian-Russian war triggered an energy crisis, the US printing of money over the past two years caused severe global inflation, a long-term shortage of manpower, and an imbalance between the supply and demand of raw materials, forcing the cost of manpower and raw materials rise. With the gradual unblocking of the global epidemic, it is reasonable to return to normal supply and demand. However, China's high degree of



lockdown has caused endless shutdowns in the supply chain. The delivery of raw materials has continued since the epidemic in 2020. Compared with the supply of some raw materials There has been a slight slowdown, but it is still a long way from the "normal" before the epidemic. Under the butterfly effect of various external environmental factors, we are faced with the production of important components - keyboards and the financial crisis of battery suppliers. In this regard, the procurement department of the company, which bears the brunt, immediately entered a state of high alert, and the coping strategies are as follows:

- 1. Formulate a long-term delivery material preparation plan for all machine casings.
- 2. Integrate the keyboard supply chain plan to solve the long-term unstable state of supply.
- 3. Integrate the battery supply chain plan to resolve the financial crisis of a single supplier.
- 4. Find a second or more source of supply for IC components that are allocated and supplied with a long delivery period, and at the same time look for alternative materials to stabilize the material preparation.
- 5. Check the supplier's delivery status with the quality assurance quarterly, and cooperate with the counseling to improve the quality stability.
- 6. Regularly hold production and sales meetings, continue to communicate with business and production management, and immediately improve product material forecasts and optimize order placement models.
- 7. Invite suppliers to Moxun from time to time for raw material education and training and industry information exchange.
- 8. Integrate CNC materials and parts to be uniformly issued by the subsidiary to maintain the consistency of product quality.
- 9. Establish a good communication channel with suppliers, grasp the market pulse to ensure the long-term availability of materials.
- 10. Actively develop new supply chain links.

Facing the brand-new challenge of promoting new products to new markets in 2023, the Purchasing Department maintains a close relationship with the supply chain, and at the same time seeks new supply chains and second or more resources to strengthen overall efficiency and procurement Organizational ability, active cross-departmental communication, raising risk awareness, reducing the risk of purchasing raw materials; doing a good job in risk management, and establishing a procurement strategy team and establishing a safety inventory mechanism for long-delivery materials. In this way, we will integrate the company's internal and external resources, do our best to effectively reduce costs and save costs, and strive for the company's greatest advantage in the procurement market.



Equipment added - Solder paste printing machine

By Wolf Lin

In the era of increasingly sophisticated parts packaging specifications, the previous printing machines used in our factory are no longer sufficient to meet the printing requirements of some new products. Therefore, the new equipment "DEK EBD" was introduced in Q4 of 2022.

The calibration rate of equipment technical specifications can reach $\pm 12.5 \mu m$, and the printing repeatability is 25 μm . Within this condition, we are able to meet the production requirements of 0.25mm chip placement. Based on this goal, we are capable to produce our new generation hand-held products – DF10, which has currently entered the C3 stage of trial production. We believe that it will be available and delivered to clients all over the world in the near future.

The implement of this equipment to production lines has significantly improved the printing consistency and repeatability on fine-pitch components, which enhance the overall process stability, in order to increase our products reliability. When tested on the same sample, it showed that the old equipment on the left side has almost no consistency in the five repetitions on the same product printed. Under the same allowable error test condition, the new machine on the right has delivered considerable degree of stability, and even controlled within the tolerance of $\pm 5\%$, which can also stabilize the level of Cpk > 1.67.

PCB 名稱: G264190100-V00-B-18100817

錫點總數:4020

偏移: AVG. X:0mm

AVG. Y:0.001mm

Range: -0.2mm ~ 0.2mm

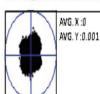
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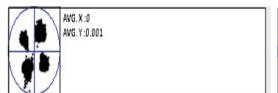
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AVG. X:0 AVG. Y:0.001



AVG.X:0 AVG.Y:0



CRM Customer Relationship Management

By Vincent Jian

Aiming for higher achievement, MilDef Crete keeps moving towards internationalization and industrial standardization.

The strategies such as implementing the sMES (Smart Site Execution System) for manufacturing and OpenPLM (Product Lifecycle Management Solution) for R&D were planned in the blueprint. This strategy not only reinforces the company's ability but also improves the process and management systematically.

Furthermore, MilDef Crete has imported CRM (customer relationship management) into the Sales Department



to enhance the team's systematic ability such as facing customers, management, and interaction.

With the CRM system, we can increase efficiency in work records control, customer relationship maintenance, and sample delivery or quotation. Besides, supervisors can better understand the sales process, and service



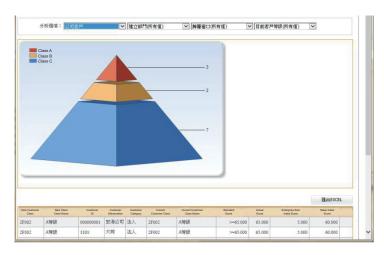
status. From the information analysis reports, we can adjust the sales plans accordingly, as well as reallocate the service proportion to key accounts.

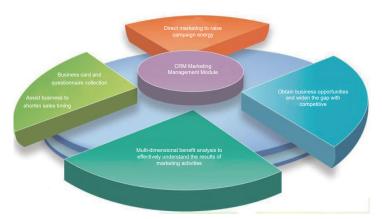
The CRM system has a few specially functions that can be used in companies.

1. Customer information management

Centralized management of customer information to reduce the risks caused by personnel turnover.

Through index management, abnormal trends can be control and real-time monitoring can be achieved and pyramid management can also be used to monitor the synergy of customer management.





2. Marketing automation

Marketing campaign projects, merchandise and budget planning management

3. Sales automation

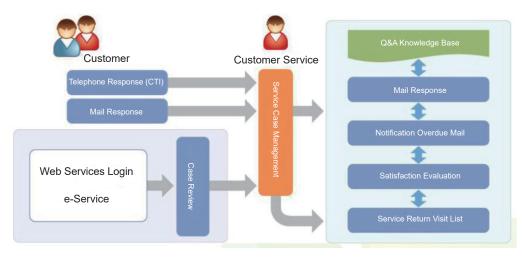




Sales projects and forecast status tracking, customer contacts, quick links to job records and to-do list.

4. Service automation

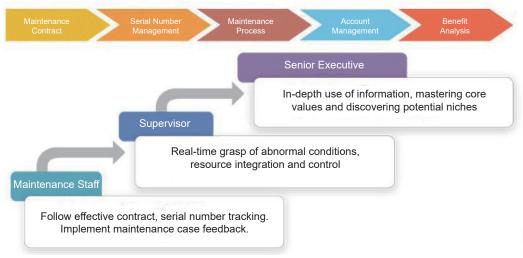
An exclusive integrated homepage can automatically inform personnel to handle the problem according to



problem classifications.

5. Maintenance management module

Establish customers maintenance history, provide complete Inquire process about production, shipment, maintenance, etc. Integrate serial number management, warranty information, document tracking, and inquiries.



The above sales characteristics have evolved from order receiving, quoting, and shipping to a more intelligent and automatic sales model, which become a powerful tool for sales department.



MilDef Crete Website setup

By Vincent Jian

In August 2022, MilDef Crete has launched the reorganization and establishment program of the new official website. Which, the previous website (mildef.com.tw) replaced the reconstructed official website mildefcrete.com.

The new website was designed based on the MilDef Crete Australian official website, with a combination of Taiwan's localization requirements.



Using the new domain name mildefcrete.com as the starting point, MilDef Crete plans to design and customize a specific website for all covered locations to promote unique designs and specialized products of those areas.



Product page:



MilDef Crete RS13 (13.3")

Rugged and slim 13.3" FHD LCD display laptop with a powerful intel® Core™ i7 CPU. Supports removable 2.5" SATAIII SSD and a wide range of interfaces. The MilDef Crete RS13 packs all the performance required in a highly rugged package that weighs only 3.2 kg including battery.



MilDef Crete RW14 (15.6")

Rugged 15.6" laptop with a powerful Intel® Xeon® processor, NVIDIA GPU card and RAID support. Supports removable 2.5" SATAIII SSD and a wide range of interfaces.

Customer support Page





ECR/ECN Info

	Vice & Support	ıfo	
* Customer	r ID		
* Customer (Case Sen			
* Customer (Case Sen			
Login			

PO Service



As the business expands, the website upgrade will focus on enhancing marketing information and maintaining relationship with partners.

The future is in our hands!

Looking forward to the business flourishing of MilDef Crete.



Adjust office space to upgrade the best working environment

By Andy Shi

To provide a better working environment, MilDef Crete has upgraded the office facilities in order to increase the productivity and comfortability of employees.



Recently, the reconstruction project was started from the Management Department. First, we re-layout the positions from 18 seats to 32 seats, which accommodates more employees as well as enlarges the company scale. The open space design not only provides a comfortable seat but also easy communication of the team, eventually leading to stronger teamwork. Furthermore, we changed the original vertical blinds into single roller blinds, making the workplace looks more organized and providing a comfortable light source.



Original 18 seats in the office area



32 seats after the rearrangement



Original old curtain appearance in the office area



Neat and beautiful after replacing with new curtains





Original old curtain appearance in the superior officer's office



After replacing with new curtains, the light in the superior officer's office becomes soft and comfortable

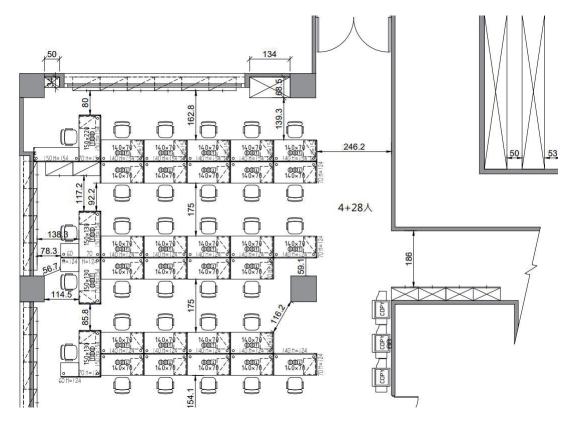


Original old curtain appearance in the entrance area



Neat and beautiful after replacing with new curtains

MilDef Crete has always been concerned about the work culture and ensures a comfortable working atmosphere. The improvements to the office environment make it more comfortable and enhance working efficiency. The keys in this project are adjusting seats, blinds, and open space design. Through this project, employees can feel the valuation from our company, thus leading the company to a more dynamic and creative atmosphere.





MilDef Crete year-end-party

By Welfare Committee

MilDef Crete's year-end party is one of the most anticipated events of the year. It is not only to celebrate the achievement of the year but also a chance for the employees to gather around and relax.















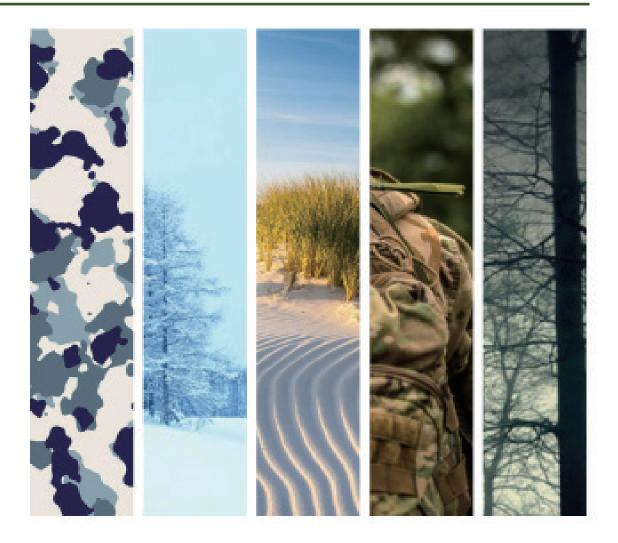




The party was held at the Fullon Hotel this year. The Welfare Committee arranged a series of wonderful performances. Everyone was enjoyed this meaningful moment and the whole event was full of laughter. On this special occasion, MilDef Crete genuinely acknowledged the dedication and effort of the employees. Besides, the support from partners and suppliers over the past year was highlighted as well. At the event, everyone enjoyed delicious food and various wines, and the banquet hall was filled with a joyful atmosphere.

It was a very successful event, everyone left in a happy mood and a satisfying smile on their faces. Looking forward to the next year-end party!





COMPANY INTRODUCTION

MilDef Crete was founded at 1990, we fulfill ISO 9001 and ISO14001. MilDef Crete focus on rugged computer market. We have complete product line including rugged laptop, tablet, mobile device and these products could be use in fields including military, public safety, public utility, on-site service, petroleum and natural gas, telecommunications, transportation, manufacturing, mobile commerce, etc.

MilDef Crete's products sold to the whole world by the brand MilDef. We have transnational team and several sites at Euro, North America and China. We provide our customer quicker and better service by co-work with our distributors and dealers. We keep focus on innovation and product development to provide best products for professional usage. We also have best R&D team for any customized demand. Our products pass various standards including MIL-STD-810 and International Protection Marking (IP54, IP65, IP67) and could fufill special request such like MIL-STD-461, ANSI or ATEX directive.

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