



Unique Precision Pte Ltd

TECHNOLOGY AND PEOPLE

About Our Company

Founded in 2010



We are committed to provide custom made machine parts, striving for both accuracy and precision with an uncompromising emphasis on quality and service. We aim to provide value-added services and incorporate innovative ideas into our processing, manufacturing and assembling.



With the constant upgrade of our processes and efficiency in cost-effective processing, we can promise exceptional quality in our products for our customers. Our dedication, together with our knowledge and experience, has allowed us to excel in what we do.



Unique Precision Pte Ltd is ISO 9001:2008 and AS9100D certified.

Capability Gallery



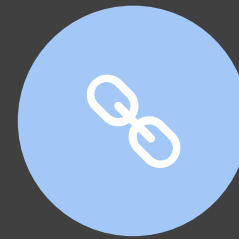
QUALITY
ASSURANCE



MACHINING



ASSEMBLY
SERVICE



SUPPLY CHAIN
MANAGEMENT



CORE
COMPETENCY

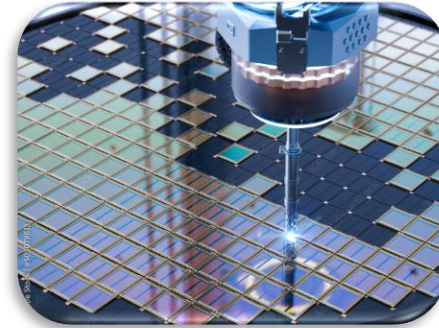
Industries



Aerospace



Medical



Semiconductor



Energy



Industrial Equipment

Our Capabilities

Our continual investment in new manufacturing technologies enables us to produce high precision machined products to meet customer specifications.



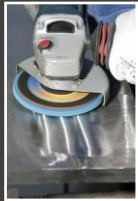
CNC/Conventional Milling



CNC/Conventional Turning



Precision Grinder



Surface Polishing Plating



Wire Cut and EDM



Tool management



Engineering Design



Quality Inspection



Equipment Assembly



Engraving (Laser Welding)

Our Machine Gallery

- 6-axis industrial robot arm --- YASKAWA GP12 Robot
- Storage --- +GF+ System 3R WorkPartner 1+
- 5-axis vertical machining – NFX 400A, MiKRon MILL E500U
- 5-axis vertical machining --- +GF+ AgieCharmilles Mikron HSM 400U
- 3+2 axis vertical machining --- DMG ECO MIL-800V
- 3-axis vertical machining --- LIZE MV1400A
- 3-axis CNC machining --- YCM NSV 66Ai
- 3-axis vertical machining -- MAKINO F3 Vertical Machining Centers
- CNC turning & milling machining – Mazak INTEGREX j-200
- CNC turning & milling machining – TSUGAMI M08SY-II
- CNC turning machining ---Takisawa NEX110
- CNC turning machining --- Focaseiki DM1100
- CNC milling machining --- Litz Hitech CV–800
- CNC milling machining --- Litz Hitech DV-800
- CNC milling machining --- Litz Hitech CV-1200A
- CNC milling machining --- Litz Hitech MV-1400A
- Milling machine --- MYTECH SZ-1820V/VS
- Surface grinding machining --- OKAMOTO PSG450CN
- Surface grinding machining --- PERFECT PFG-3060AH
- Coordinate measuring machine (CMM) --- Mitutoyo CRYSTA-Apex S574
- Coordinate measuring machine (CMM) --- Mitutoyo CRYSTA-Apex V9166
- Image dimension measurement system --- Keyence IM-7000
- CNC surface roughness measuring machine --- Mitutoyo Surftest Extreme SV-3000CNC
- High-End CNC Rockwell hardness testing machine --- Mitutoyo HR-600B
- Height measuring instrument --- MAHR Digimar 816 CL
- Slant Bed 2-Axis CNC Lathe --- Takisawa NEX-110
- Wirecut EDM --- NOVICK AR 40-MA
- Wirecut EDM --- N-SPARK AR 45
- CNC cutting linear automatic tool --- BJD-Z5
- Industrial Chiller System --- S&A CW-6000
- EDM die sinking --- Charmilles ROBOFORM 35P
- EDM die sinking --- SKM T50
- Cylindrical grinder --- Supertec Universal Model G20P-50NC
- Laser welding machine --- Fly Laser YW400DM 1889
- Tool Presetter --- HAIMER UNO 20I40 Microset
- Engraving machine --- SKM T50
- Sandblasting ---

Machine Type Process	Brand & Model	Unit
CNC Milling	NFX 400A	1
CNC Milling	DMG ECOMILL-800V	2
CNC Milling	YCM NSV 66Ai	1
CNC Milling	+GF+ AgieCharmilles Mikron MILL E 500U	2
CNC Milling	+GF+ AgieCharmilles Mikron HSM 400U	1
CNC Milling	MAKINO F3 Vertical Machining Centers	2
CNC Milling	Litz Hitech CV-800	3
CNC Milling	Litz Hitech DV-800	4
CNC Milling	Litz Hitech CV-1200A	1
CNC Milling	Litz Hitech MV-1400A	1
CNC Turn-Mill	Mazak INTEGREX j-200	1
CNC Turn-Mill	TSUGAMI M08SY-II	1
Milling	MYTECH SZ-1820V/VS	2
CNC Turning	Takisawa NEX110	3
CNC Turning	Focaseiki DM1100	2
CNC Cutting	BJD-Z5	2
Multipurpose Robot	YASKAWA GP12	1
EDM	Charmilles ROBOFORM 35P	2
EDM	SKM T50	1
Wirecut EDM	NOVICK AR 40-MA	1
Wirecut EDM	N-SPARK AR 45	1
Laser Welding	Fly Laser YW400DM 1889	1
Surface Grinding	OKAMOTO PSG450CN	1
Surface Grinding	PERFECT PFG-3060AH	1
Cylindrical Grinder	Supertec Universal Model G20P-50NC	1
Storage	+GF+ System 3R WorkPartner 1+	1
Tool Presetter	HAIMER UNO 20I40 Microset	1
CMM	Mitutoyo CRYSTA-Apex S 574	1
CMM	Mitutoyo CRYSTA-Apex V9166	1
Video Measure	Keyence IM-7000	1
QA	MAHR Digimar 816 CL	1
QA	Mitutoyo HR-600B	1
QA	Mitutoyo Surftest Extreme SV-3000CNC	1

Machine Capabilities List

CNC MILLING	TURNING & GRINDING	WIRECUT & EDM	QUALITY ASSURANCE
Machine Type Process	Brand & Model		Unit
CNC Milling	NFX 400A		1
CNC Milling	DMG ECOMILL-800A		2
CNC Milling	YCM NSV 66Ai		1
CNC Milling	+GF+ AgieCharmilles Mikron MILL E 500U		2
CNC Milling	+GF+ AgieCharmilles Mikron HSM 400U		1
CNC Milling	MAKINO F3 Vertical Machining Centers		2
CNC Milling	Litz Hitech CV-800		3
CNC Milling	Litz Hitech DV-800		4
CNC Milling	Litz Hitech CV-1200A		1
CNC Milling	Litz Hitech MV-1400A		1
Milling	MYTECH SZ-1820V/VS		2
Tool Presetter	HAIMER UNO 20140 Mircoset		1

Machine Capabilities List

CNC MILLING	TURNING & GRINDING	WIRECUT & EDM	QUALITY ASSURANCE
Machine Type Process	Brand & Model		Unit
CNC Turn-Mill	Mazak INTEGREX j-200		1
CNC Turn-Mill	TSUGAMI M08SY-II		1
CNC Turning	Takisawa NEX110		3
CNC Turning	Focaseiki DM1100		2
Surface Grinding	OKAMOTO PSG450CN		1
Surface Grinding	PERFECT PFG-3060AH		1
Cylindrical Grinder	Supertec Universal Model G20P-50NC		1
CNC Cutting	BJD-Z5		2
Multipurpose Robot	YASKAWA GP12		1

Machine Capabilities List

CNC MILLING	TURNING & GRINDING	WIRECUT & EDM	QUALITY ASSURANCE
Machine Type Process	Brand & Model		Unit
Wirecut EDM	NOVICK AR 40-MA		1
Wirecut EDM	N-SPARK AR 45		1
EDM	Charmilles ROBOFORM 35P		2
EDM	SKM T50		1
Laser Welding	Fly Laser YW400DM 1889		1

Machine Capabilities List

CNC MILLING	TURNING & GRINDING	WIRECUT & EDM	QUALITY ASSURANCE
Machine Type Process	Brand & Model		Unit
CMM	Mitutoyo CRYSTA-Apex S574		1
CMM	Mitutoyo CRYSTA-Apex V9166		1
Video Measure	Keyence IM-7000		1
QA	MAHR Digimar 816 CL		1
QA	Mitutoyo HR-600B		1
QA	Mitutoyo SurfTest Extreme SV-3000CNC		1

+GF+

AgieCharmilles Mikron HSM 400U

CAPABILITIES:

GF AgieCharmilles unveils the latest models of their reference machines, available in both 3-axis and 5-axis versions, designed to cater to high-speed milling. This machine has been meticulously crafted to deliver unparalleled precision and exceptional surface quality.

FOR
AEROSPACE
PARTS

+GF+

AgieCharmilles

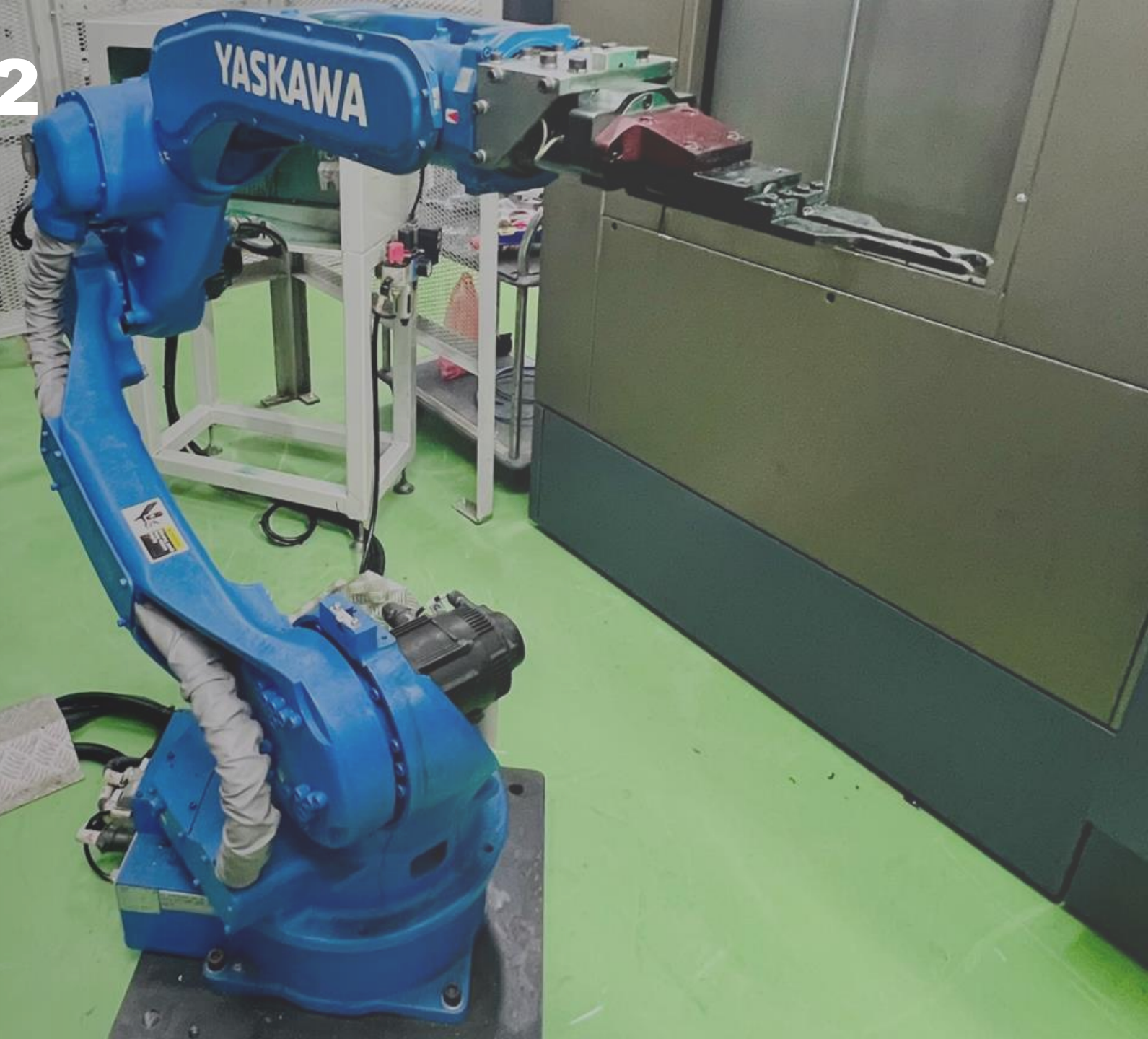


M KRON HSM 400U LP

YASKAWA GP12 Robot

CAPABILITIES:

Attain exceptional transfer capability using the incredibly swift and efficient GP12 robot. Boasting the highest payload, speed, and wrist allowable moment in its category, this robotic system can be programmed and managed using the IEC61131-3 and PLCopen programming standards.



Charmilles ROBOFORM 35P

CAPABILITIES:

The CHARMILLES ROBOFORM 35P Die Sinking EDM machine is equipped with a table size measuring 500 x 400 mm. It includes an EROWA ITS50 electrode clamping system along with a 20-position electrode magazine.

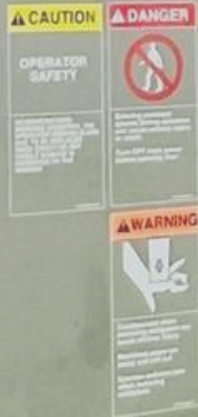
MAKINO F3 Vertical Machining Centers

CAPABILITIES:

The F3 vertical machining center is meticulously crafted to provide robustness and rigidity, ensuring a cutting experience free from vibrations. It demonstrates agility in high-speed, demanding tasks such as hard milling, while also delivering precise results for intricate tolerances and seamless matches.



F3
MAKINO



Mazak

SMOOTH
TECHNOLOGY

Mazak INTEGREX

j-200

CAPABILITIES:

Crafted to deliver optimal value, the INTEGREX j-200 presents an opportunity to enhance processing versatility, serving as a cost-efficient choice for individuals seeking precise turning and angular milling capabilities.

INTEGREX
j-200



A photograph of a large industrial machine, the DMG Mori ecoMill 800 V. The machine is primarily black with yellow and white accents. The name "ecoMill 800 V" is printed in white on the top black panel. Below the name, there are two yellow rectangular components. The machine is situated in a factory or workshop environment, with a white wall and other equipment visible in the background. A blue control panel is partially visible in the lower-left corner.

ecoMill 800 V

DMG MORI

MO3

DMG Mori ECOMILL 800V

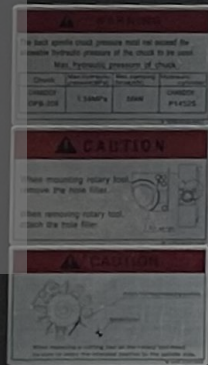
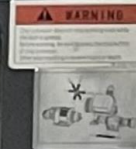
CAPABILITIES:

The DMG Mori ECOMILL 800V employs a rigid C-frame concept to achieve the utmost stability and perfect ergonomics. Precision is evident in every component and detail. New features include the inlineMASTER spindle, and now it comes standard with IoTconnector and a direct measuring system.

TSUGAMI M08SY-II

CAPABILITIES:

The M08SY-II represents a turning machine of exceptional rigidity and productivity, capable of operations like turning, drilling, boring, cross-drilling, and CNC milling. Its design is focused on achieving remarkable precision and facilitating high-production machining processes.



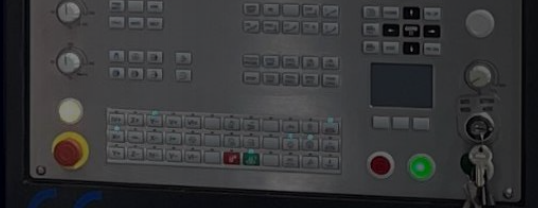
TSUGAMI
M08SY-II

NFX 400A

YCM NFX 400A

CAPABILITIES:

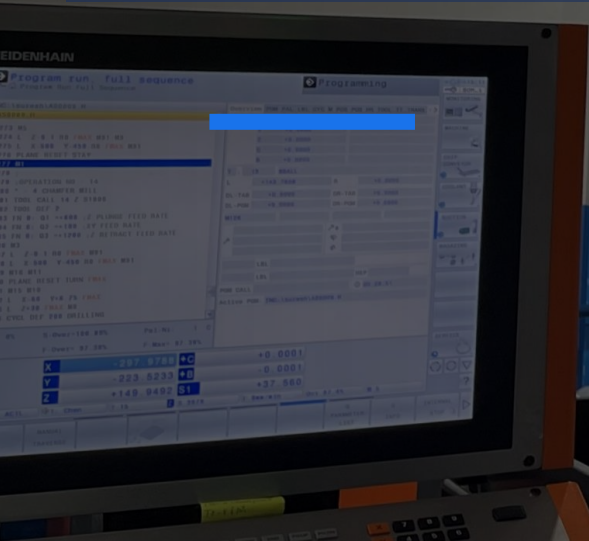
Engineered with precision, the YCM NFX 400A 5-axis vertical machining center stands as a pinnacle of high performance. Its specialized design caters specifically to the production of intricate, high-quality components, primarily serving industries such as aerospace, automotive, medical, job shops, and die & mold applications.



+GF+ Mikron MILL E 500 U

CAPABILITIES:

The Mikron MILL E 500/700 U introduces enhanced machining capacity and improved performance to a sturdier machine foundation. It is capable of handling substantial workpieces weighing up to 450 kg on its tilting and swiveling table. It could produce an extended variety of parts and tools.



YCM NSV 66A i

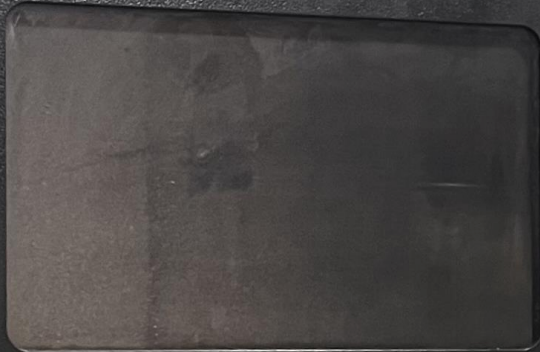
CAPABILITIES:

The NSV series ultra high-performance vertical machining centre is specially designed for high speed and high efficiency machining applications. The NSV series is built with a large delta machine column and wide base to ensure the highest stability during high-speed movement.

NSV 66A i



NEX-110

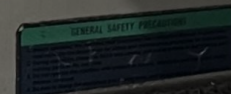


TAKISAWA NEX-110

CAPABILITIES:

The NEX-110 is a horizontal lathe machine that mainly uses a turning tool to turn a rotating work piece.

TAKISAWA





LASER WELDING MACHINE

CAPABILITIES:

Mitutoyo CRYSTA-Apex V9166

CAPABILITIES:

The CRYSTA-Apex V Series, the most recent iteration of coordinate measuring machines, is equipped with cutting-edge technology essential for conducting highly precise measurements at elevated speeds. Its SMS capability facilitates status and service monitoring, making it suitable for integration into Smart Factory setups.



Mitutoyo CRYSTA-Apex S 574

CAPABILITIES:

Utilizing the 3D measuring machine CMM Mitutoyo Crysta-Apex S 574, we have the capability to measure components with maximum dimensions of 500x700x400 mm. This versatile and practical equipment enables us to perform accurate dimensional assessments of machining outcomes.



Keyence IM-7000

CAPABILITIES:

The IM-7000 Series is a low distortion lens that's purpose-built to reduce distortion not only at the center but also at the periphery of the field of view. With its user-friendly interface, the system can be operated effortlessly with a simple button press, ensuring precise and consistent measurement outcomes.



Mitutoyo Surftest Extreme SV-3000CNC

CAPABILITIES:

The Mitutoyo precision instrument enables CNC-based measurement of both surface roughness and contour with exceptional accuracy. With a maximum drive speed of 200mm/s on each axis, it allows for rapid positioning, thereby enhancing the efficiency of measuring multiple profiles and workpieces in tasks requiring such evaluations.



Mitutoyo HR-600B

CAPABILITIES:

Within the HR-600 Series, there are machines that provide considerable value by conducting examinations of micro-Brinell hardness as well as hardness evaluations for plastics. Moreover, the series includes a range of models featuring Y-axis stage mobility, which facilitates comprehensive automated multi-point Rockwell hardness testing.



MAHR Digimar 816 CL

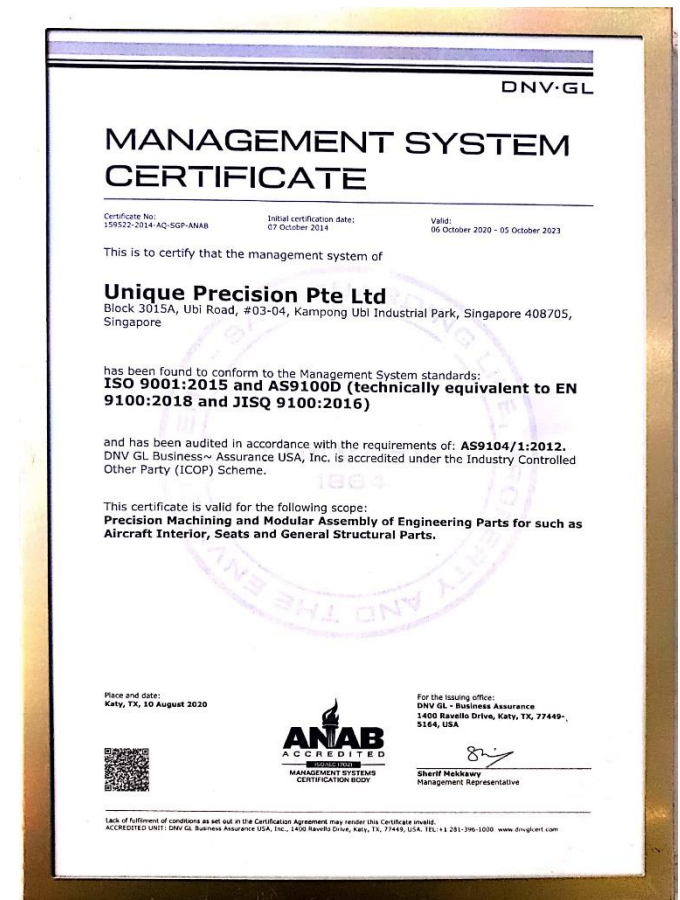
CAPABILITIES:

The Digimar 816 CL Height Gage is a dependable device equipped with a dual reader head and an optical incremental measuring system. Its backlit LCD display guarantees clear visibility of measurements even in low-light conditions.



Our Quality Assurance & Control (QA/QC)

- Quality is the foundation of our success. Our exceptional quality and expedited turnaround times have enabled us to sustain long term partnerships with industry-leading companies in a diverse range of markets.



Sub-Assembly and Integration

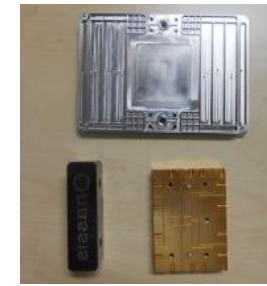
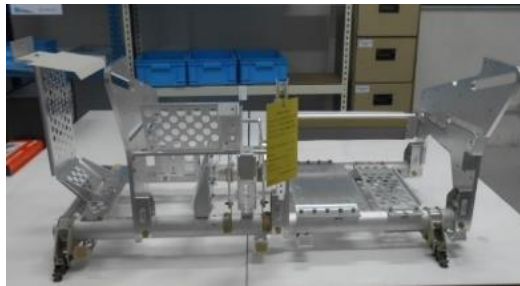
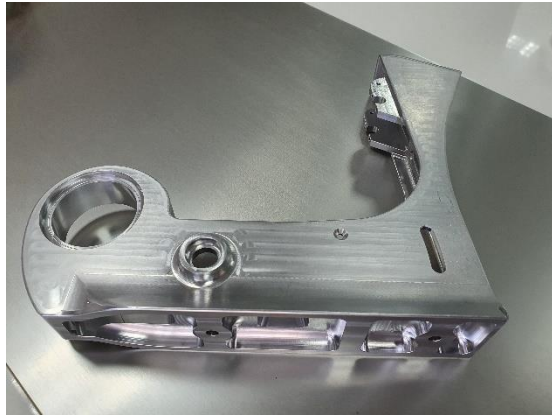
Component
Fabrication: Supply
Chain Management,
Process Routing, In-
process QC

QA/QC: GD&T
Inspection, Non-
conformance report,
QA procedures

Assembly and FAT:
Assembly Procedures,
Test Procedures, Best
Practice Guideline

Final Inspection,
Package and Delivery

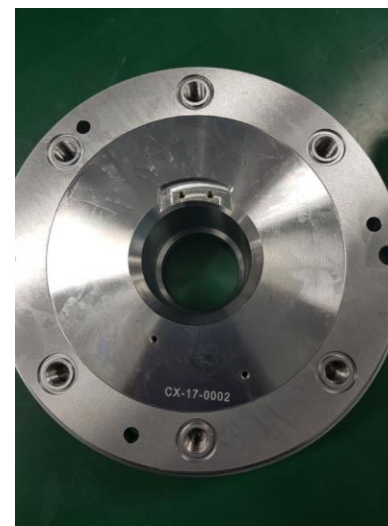
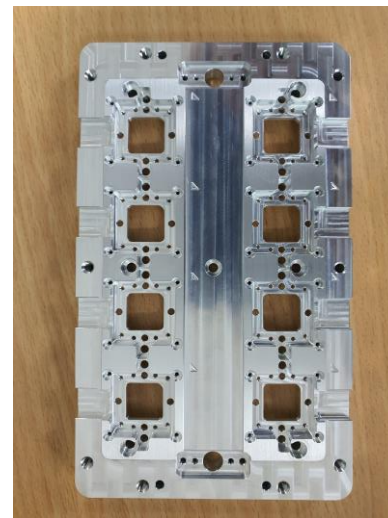
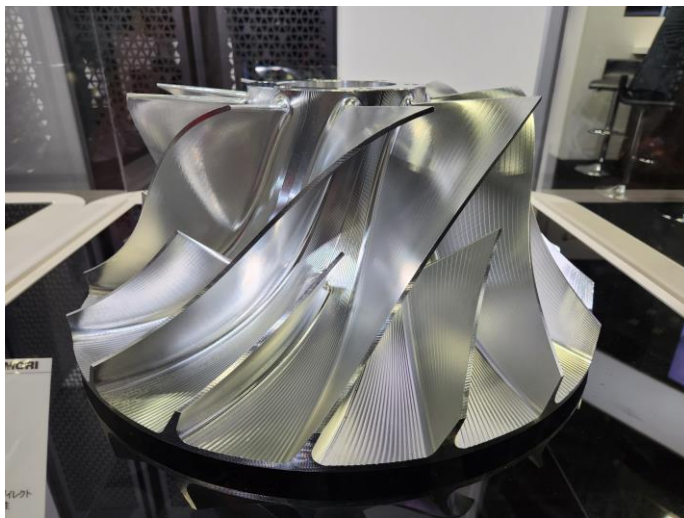
Products - Typical Parts



Products - Seat Parts



Our Precision Parts



Gallery Parts Repair



Our Airworthiness Approvals

ISO 9001: 2015 Quality Management System

AS 9100D Quality Management System

Certificate of Approval by SIA Engineering Company (SIAEC), ST Engineering Defence Aviation Services, ST Engineering Aerospace



Our Ref: QD/2023/M13

20 April 2023

Mr Ni Jian Huang
Managing Director
Unique Precision Pte Ltd
Blk 3015A Ubi Road 1 #03-04
Singapore 408705


Dear Mr Ni,

Please find enclosed summary of the audit conducted at your premises on 15 February 2023 for your reference / retention.

The overall result of the audit was satisfactory. Two (2) findings were raised and subsequently closed. Please be informed that your company is recommended to remain in our Non-Certified Organisation (NCO) Listings (CAAS, FAA & CASA) and approval for the maintenance function of Machining remains unchanged.

We would like to take this opportunity to thank you for your cooperation to our auditor during the on-site audit visit.

Yours Faithfully


Hu Shigang Yan
Quality Manager
ST Engineering Defence Aviation Services Pte. Ltd.

Page 1

ST Engineering Defence Aviation Services Pte. Ltd.
307 Airport Road, Singapore 439834
T: (65) 6350 4200 F: (65) 6354 4373
Pages No. 007000000

www.stengg.com



Our Ref: M/1261

Date: 27 March 2020

UNIQUE PRECISION PTE LTD
BLK 3015A UBI ROAD 1, #03-04 KAMPUNG UBI INDUSTRIAL ESTATE, SINGAPORE 408705

Dear Sir/Mdm,

ORGANISATION'S APPROVED VENDOR APPLICATION

We are pleased to inform you that your application has been successful and will be listed in ST Engineering Aerospace Aircraft Maintenance Pte. Ltd.'s (herein after referred to as "Organisation") Approved Vendor Listing, Reference No. M/1261.

Please refer to attached Company Approved Vendor / Supplier (FORM-MIL-QD-403F) for the scope of your approval and the validity period of the certificate.

The validity and renewal of this approval is subject to continuing satisfactory performance and audit reviews.

Please be informed that it is our Organisation's policy to accord our customers/NAAs the right to visit your premises, if necessary, so as to verify the supplied parts and/or services conform to their requirements.

Yours Faithfully,



Director Quality

ST Engineering Aerospace Aircraft Maintenance Pte. Ltd.
600 West Camp Road, Singapore 707054
T: (65) 6248 3060 F: (65) 6248 3099
Pages No. 0070010000

www.stengg.com

SIA ENGINEERING COMPANY



Date: 14/Sep/2022
To: Unique Precision Pte Ltd
Blk 3015A, Ubi Road 1 #03-02/04/05/07
Kampung Ubi Industrial Estate
Singapore 408705

Subject: POA Vendor Approval Letter

Approval Reference Number: SIAEC/POA/VA/006

We are pleased to appoint Unique Precision Pte Ltd
as our Service Provider for CAAS & EASA POA work
under SIAEC POA Exposition Part 3.8.

Scope of Approval: Machining of parts

With effect from: 14/Sep/2022 to 13/Sep/2023
(The period of validity shall remain valid unless earlier suspended or revoked)

- The approval is granted with subjective to the following conditions:
1. This approval require compliance with the certification approval and quality system accreditations held by Company. Any changes of the approval / accreditation must notify SIAEC POA Quality Section.
 2. The approval holder shall provide facility access to the aviation authorities having jurisdiction over SIAEC when needed.
 3. The approval holder must perform work in accordance with the process documents / written instructions and at the location approved by SIAEC.
 4. The approval holder shall ensure that there is complete segregation of SIAEC work from other work orders and only SIAEC supplied parts/raw materials are used. The approval holder shall permit personnel from SIAEC to be on-site as supervisor for the duration of the sub-contracted work.

Thank you.



Kevin Goh
POA Quality Manager

CC: Accountable Manager
Production Manager

EPOA/0208

Who to Contact, Where to get more information



Steven, Ni Jianhuang
Executive Director



unique@uppl.com.sg jianhuang@uppl.com.sg; sales@uppl.com.sg



Phone: +65 6899 8832
Fax: +65 6899 8949

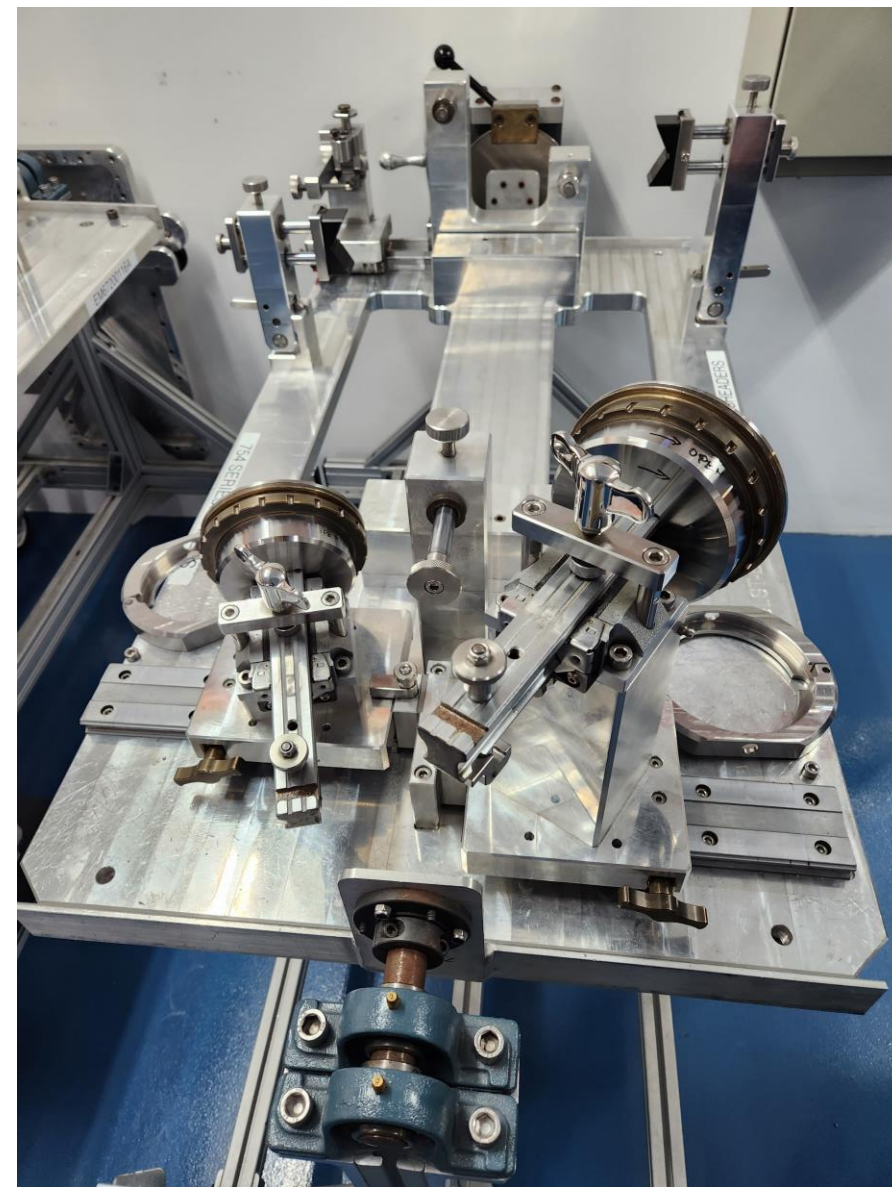
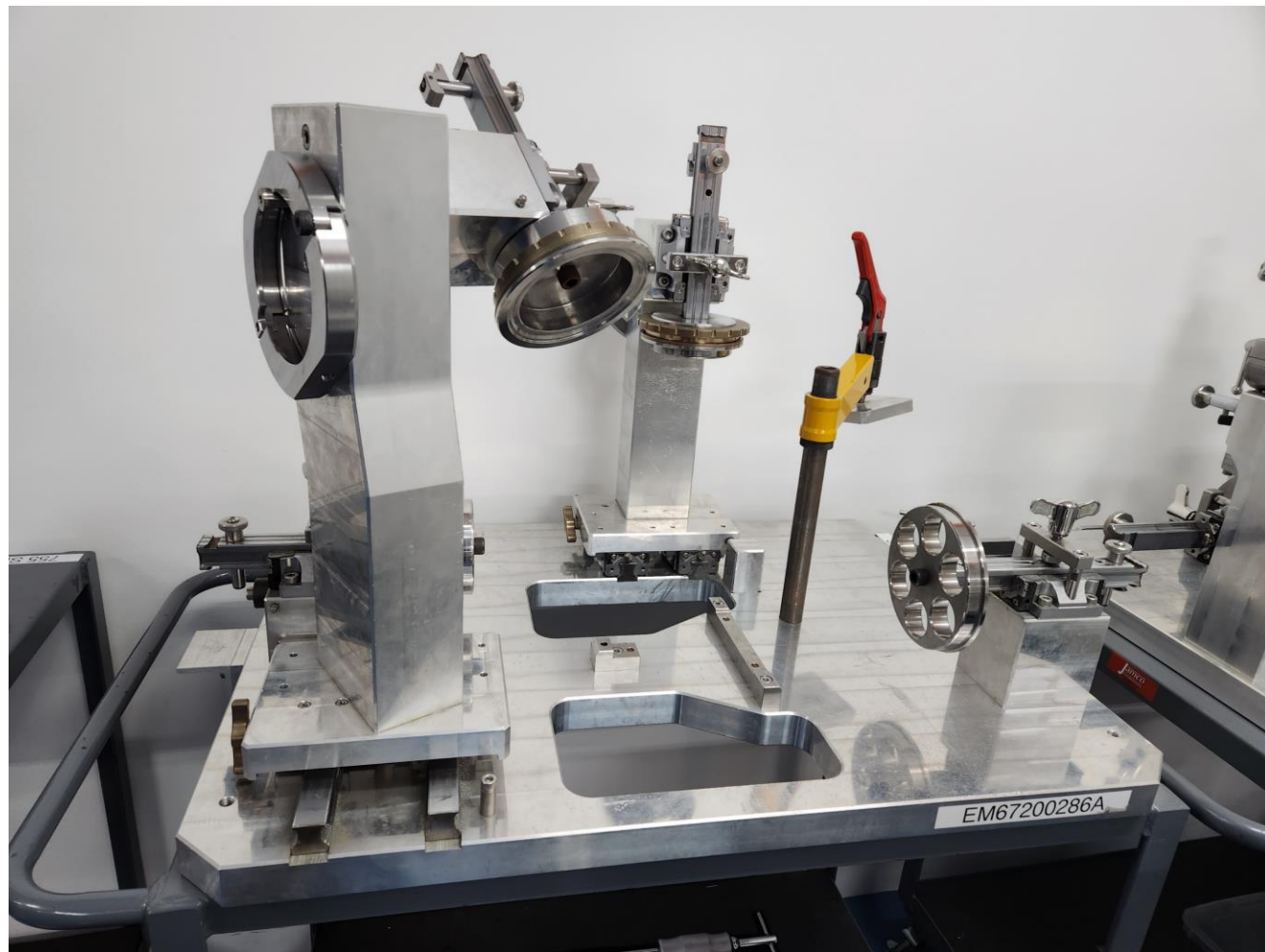


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Singapore 408705

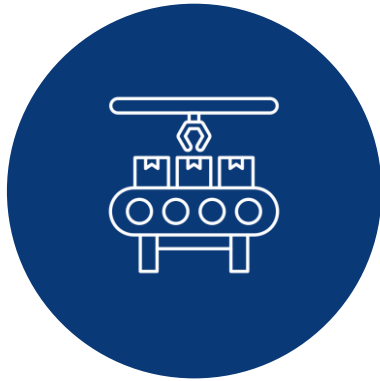
Equipment Assembly



Automation

- FULLY-CONNECTED PRODUCTION LINE
- CYBER-PHYSICAL PRODUCTION SYSTEM (CPPS) ENVIRONMENT
- DIGITAL TRANSFORMATION JOURNEY

Automation



FULLY-CONNECTED
PRODUCTION LINE



CYBER-PHYSICAL PRODUCTION
SYSTEM (CPPS) ENVIRONMENT



DIGITAL TRANSFORMATION
JOURNEY

ERP System



- An approach emphasizing system integration in manufacturing processes
- Encompassing thorough raw material tracking
- A fully integrated business research system
- Barcoding for shop floor data collection
- The optimization of production processes

Production Technologies



CONTROL TOWER

MATERIAL STORAGE
SRC

AUTONOMOUS
MOBILE ROBOT
(AMR)

TURNING TRC

MILLING MRC
MILLING MRTC

QUALITY CONTROL
CRC



Company Milestones

2010	Unique Precision Pte Ltd was established
	Expanded workshop space to a total of sq. ft.
2012	Obtained AS9104/1:2012 certification
2015	Obtained ISO 9002:2015 certification
2015	Expanded workshop space to a total of sq. ft.
2016	Obtained AS9100D certification (technically equivalent to EN9100:2018 and JISQ 9100:2016) Airworthiness Approvals
2023(Jan)	Expanded workshop space to a total of sq. ft.
2023(Feb)	Machine capability increased with more CNC Milling machines and robotic automation.

Footnotes

1. The information was extracted from the internet website of Yaskawa at <https://www.yaskawa.com/products/robotics/robots-with-iec/articulated-robots/gp12>
2. The information was extracted from the internet website of Gindumac at https://www.gindumac.in/product/charmilles-roboform-35p_CZ-EDM-CHA-2001-00001
3. The information was extracted from the internet website of Marcus Machinery at <https://www.marcusmachinery.com/products/documents/34/download>
4. The information was extracted from the internet website GF Machining Solutions at <https://www.gfms.com/en-gb/machines/milling/5-axis/mikron-mill-e-500-700-u.html>
5. The information was extracted from the internet website Makino at <https://www.makino.com.sg/en-us/machine-technology/machines/vertical-machining-centers-3-axis-4-axis/f-series-f3>
6. The information was extracted from the internet website DMG MORI at <https://en.dmgmori.com/products/machines/milling/vertical-milling/cmx-v/cmx-800-v>
7. The information was extracted from the internet website Mazak at <https://www.mazak.com.sg/machines/integrex-j-200/>
8. The information was extracted from the internet website Tsugami at <https://www.tsugamiamerica.com/machine/tsugami-m08syii-turning-center/>
9. The information was extracted from the internet website Mitutoyo at [https://shop.mitutoyo.eu/web/mitutoyo/en/mitutoyo/CRYSTA-APEX%20S900%20Series/CRYSTA-Apex%20V9166%20CNC%20CMM/\\$catalogue/mitutoyoData/PR/191-575/index.xhtml?jsessionId=3E0CCEE3A9AA49D28DCE7D237380A634](https://shop.mitutoyo.eu/web/mitutoyo/en/mitutoyo/CRYSTA-APEX%20S900%20Series/CRYSTA-Apex%20V9166%20CNC%20CMM/$catalogue/mitutoyoData/PR/191-575/index.xhtml?jsessionId=3E0CCEE3A9AA49D28DCE7D237380A634)
10. The information was extracted from the internet website Mimec at <https://www.meccanicamimec.it/en/cmm-mitutoyo-crysta-apex-s-574-3d/>
11. The information was extracted from the internet website Mitutoyo at https://shop.mitutoyo.eu/media/mitutoyoData/DO/base/pre_1514_-_hr-600_series_web.pdf
12. The information was extracted from the internet website Industry Plaza at <https://www.industry-plaza.com/surftest-sv-3000-cnc-ultra-high-precisi-p133371100.html>
13. The information was extracted from the internet website Berg Engineering and Sales Company Inc. at <https://www.bergeng.com/product/DIGIMAR-816-CL.html>
14. The information was extracted from the internet website Atecorp at https://www.atecorp.com/atecorp/media/pdfs/data-sheets/keyence-im-7000-datasheet_1.pdf?ext=.pdf
15. The information was extracted from the internet website YCM at https://www.ycmcnc.com/upload/files/NSV_E_2020.pdf
16. The information was extracted from the internet website T W Ward CNC at <https://www.wardcnc.com/machines/takisawa-taiwan-nex-110/>
17. The information was extracted from the internet website Singapore Institute of Manufacturing Technology at <https://www.a-star.edu.sg/simtech/model-factory@simtech/overview>
18. The image was extracted from the internet website Synergix Technologies at <https://www.synergixtech.com/news-event/business-blog/partnered-erp/>
19. The image was extracted from the internet website 123RF at https://www.123rf.com/profile_phonlamaiphoto