## Spirits53

## Pursuit of our own way



#### Certified for Nadcap "Welding" and for JIS Q9100 Quality management for the aerospace industry

## We always fulfill our promises.

Our organization and processes under the strict quality control system being in incompliant with applicable standards and being certified to the applicable standards endorse our absolute capability of satisfying your demands, not to mention the high-precision, high-quality processing with high-level requirements for aircraft and marine onboard components.

## **Total Quality Assurance**

#### From our philosophy of reliability and quality assurance, we strive to improve the quality of our business to the highest extent.

This high reliability is the result of our extensive knowledge and numerous advanced technologies accumulated over more than 65 years of continuous business, which has led to unqualified praise from our many customers. Total Quality Assurance is a source of pride for us.

We will continue our unceasing pursuit of Total Quality Assurance for all time.

#### Leading-edge Welding

**MIL** Standards

Compliant

Processes

MELT: MIL-STD-1595A other

SPOT: MIL-W-6858D

On top of MIL and AMS standards, being certified for Nadcap (welding) an international process certification program for the aerospace and defense industries; we practice welding in highest quality meeting the standards applied to aerospace and defense industries.



TIG, Arc, Argon, YAG, Co2

Spot Electron beam Fiber laser

Standards

Compliant

Processes

MELT: AMS-STD-1595A other

See page 6 for Welding

SPOT: AMS-W-6858A

#### Unceasing pursuit of Total Quality Assurance

Niko Manufactory responds to high-level quality requirements in the aviation, space and defense fields through JIS Q 9100 quality management for the aerospace industry.

More than 60% of all our personnel diligently pursuit excellence and are certified for QC KENTEI.



#### See page 8 for Quality Assurance

For other products, including general civilian products, we have established management systems in accordance with the JIS Q 9100 quality standard, ISO 14001 environmental standard, and ISO 27001 information security standard.





### Niko Manufactory's Combined Processing

Niko Manufactory's strength lies in its combined processing capabilities, including welding together sheet metal and machined metal products, beyond separated processes such as sheet metal punching, bending, and pressing, or machining processes such as cutting metal blocks. We offer an integrated metal processing service from design through to assembly.

#### **Technological Strengths**

In-house integrated machining is possible of a wide range of products from small to large and including product housings.

We can address a wide range of market needs regardless of quantity.

Services offered extend from design to machining and assembly, and we can also perform special processing such as surface treatment and handle general civilian products as well.

We are active in various defense-related industries including aircraft, marine, and land based equipment and can perform electronic warfare and aviation equipment assembly. Based on more than 60 years' experience, we can respond to needs for sheet metal machining, high-precision machining operations, and reliable quality assurance.

#### **Combined Processing**

#### Design

Design relating to sheet metal, machining, pressing, and assembly

2D/3D CAD: CATIA V5, solid works, sheet works, PTC Creo, other

#### Precision sheet metal machining

Punching	NC turret punch press (up to 3,050×1,525 mm) and laser machining tool (up to 3,070×1,550×100 mm), SUS 304: up to 20 mm				
Pressing	Pressure (up to 300 t) and ram (1,800×1,200 mm)				
Bending	Pressure (up to 300 t), length (up to 4,300 mm) and depth (up to 700 mm)				

#### **Precision machining**

Machining	5-axis machining center (650 dia. ×500 mm, 550×1,000×500 mm,
Operations	main axis 50–14,000 rpm) Machining center (1,500×780×750 mm)

#### Welding

Special machining (certification for welding aircraft parts has been obtained from a number of certifying bodies)

<b>Spot welding</b> MIL-W-6858D, AMS-W-6858A, AWS-D17.2/D17.2M:2013					
Melt welding	MIL-STD-1595, AMS-STD-1595A ,other				

#### Surface treatment Heat treatment Coating Coat and Plating Spec

Coating (baking, powder, electrodeposition, and others) Special Processing (MIL-C-55 41,

AMS-QQ-P-35, and others)

#### Assembly



#### **Products Handled**

#### For Airplanes

- Airplane onboard parts
  - •MIL-STD-1595A certification acquired (melt welding)
  - •MIL-W-6858D certification acquired (spot welding)

#### For Ships

- Radar consoles for ships
- Machined sheet metal parts for ship radar
- Antennas (7 feet to 14 feet) for ships
- Machined sheet metal parts for ship BS antennas
- Equipment parts for naval vessel deployment
- VTS (radar) cases and mechanism parts

#### Other

- Control boxes, parts, and assemblies of construction vehicles
- Cases, assemblies, and mechanism parts of equipment for bank paperwork
- Cases, parts, and assemblies of controllers for machine tools
- Cases, parts, and assemblies of OA equipment
- Cases and mechanism parts of industrial measuring instruments
- Parts of communication equipment
- Various other cases
- POS
- Deep drawing (maximum press of 300 tons)
  A variety of precision sheet metal machining
- Precision manufacturing by machine tool

#### Precision sheet metal machining

#### Wide range of machines feasible long size material even of 4,000 mm

**Sheet Metal Machining Equipment** 

- Integrated NC turret punch
- press and fiber laser machine
- Integrated NC turret punch Fiber laser processing apparatuses
- Press
- Robot bender
- Bender

#### **Machining Materials Handled**

- Hot rolled steel sheet SPHC、SPHD、SPHE
- Cold rolled steel sheet SPCC、SPCE、SPCD
- Galvanized sheet iron SPG
- Colored galvanized sheet iron SCG Electro galvanized steel sheet
- SECC、SEHC、SEHD Lightweight shaped sheet for general
- construction SSC
- Stainless steel sheet SUS
- Cold rolled silicon steel sheet S
- Tough pitch steel sheet TCuP
- Brass sheet BsP
- Nickel silver sheet NSP
- Aluminum AxxxxP
- Permalloy PC、PB
- Titanium Ti-6Al-4V, Other











## Precision machining

#### State-of-the-art machining for any metal

#### **Precision machining Equipment**

- 5-axis vertical machining center
- Turning center
- Machining center
- 5-axis machining center
- Wire cutting machine

#### Machining not limited by material

- Aluminum alloysStainless steel
- Titanium alloys
- Magnesium alloys, Other





Gate type machining center [FJV 5 Face-60/80] (Mazak)





Welding

#### Sophisticated technology satisfying the requirements for aircraft welding

#### **Welding Equipment**

- Electron beam machining tool (Vacuum furnace welding)
- Fiber laser welding machine (6-axis poly-articulated robot)
- YAG laser welding machine
- Co2 welding machine
- TIG laser welding machine
- Arc welding machine
- Argon welding machine, other

#### Approved standards

Spot welding machine
 MIL-W-6858D
 AMS-W-6858A
 AWS-D17.2/D17.2M:2013
 MIL-STD-1595A
 AMS-STD-1595A, Other

# Tig, Arc, Argon, YAG, Co2



ACCREDITED

Welding: HIRATA Plant

#### Processes compliant with AMS and MIL Standards

Spec	ialty Process	Applicable Standards	Categories (Type, Class)	Number of Certified Workers
Melt	Aluminum alloy melt welding	MIL-STD-1595A AMS-STD-1595A	TIG welding Group IV, Class B Sheet thickness: 0.67 - 8.0 mm	Number of certified workers : 9
workers	Stainless steel melt welding	MIL-STD-1595A AMS-STD-1595A	TIG welding Group IIa, Class B Sheet thickness: 0.67 - 8.0 mm	Number of certified workers : 6



#### Processes compliant with AMS and MIL Standards

Specialty Process		Applicable Standards	Categories (Type, Class)	Number of Certified Devices
	Aluminum alloy spot welding	MIL-W-6858D AMS-W-6858A AWS-D17.2/D17.2M:2013	Group 1, Class B Sheet thickness: 0.8 - 3.2 mm	Number of certified devices : 4
Spot welding equipment & processing	Iron spot welding	MIL-W-6858D AMS-W-6858A	Group 2, Class B Sheet thickness: 0.8 - 3.2 mm	Number of certified devices : 2
	Stainless steel spot welding	MIL-W-6858D AMS-W-6858A	Group 2, Class B Sheet thickness: 0.8 - 3.2 mm	Number of certified devices : 3





JQA-AS0028 Iwatsuki Plant/Hirata Plant







#### Quality Assurance

#### Practical and matured inspection system for Total Quality Assurance

#### **Inspection Equipment**

- Coordinate measuring machine
- X-ray fluorescence spectrometer (Component analysis)
- Roundness measuring instrument
- Compression tester

- Blank measuring instrument (infrared red ray)
- X-ray inspection system
- Surface contact resistance measuring instrument
- Digital pressure gauge for leak testing, Other





High-sensitivity 3D CNC coordinate measuring machines fitted with non-contact sensors, suitable for use with computer aided verification













#### Assembly

#### Content of assembly

- Extensive experience with general civilian components
- Electronic warfare equipment
  Aviation equipment assembly
- (Machine parts, Electronic components)



#### **Company Overview**

Trade name: NIKO Manufactory Co., Ltd.

Company established: November 20,1953

Established: July 19, 1955

**Business operations:** 

[Precision sheet metal machining, Press machining, Machining operations, Design, Assembly] Aerospace Equipment, Defense equipment, Communications equipment,Currency changing machine, Various types of OA equipment, Vending machines, Medical equipment, Precision sheet metal machining such as for ship radar

Locations: 【Headquarters, Iwatsuki Plant】 3-1-1 Funai, Iwatsuki-ku, Saitama City, Saitama Prefecture, Japan, 339-0042 TEL: 048-797-2000 / FAX: 048-791-7715 E-mail: info.n@nikoss.co.jp

#### 【Hirata Plant】

74-3 Okashiwagi Yomogida Shinden, Hirata Village, Ishikawa-gun, Fukushima Prefecture, Japan, 963-8201 TEL: 0247-55-3266 ∕ FAX: 0247-55-3267 E-mail: hirata@nikoss.co.jp

#### URL: http://www.nikoss.co.jp

#### Founding principle







#### Meeting the market needs with undaunted aggressiveness and modesty



#### Organizational Diagram





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