



# LET'S DIGITALIZE YOUR SUSTAINABLE FUTURE WITH AXILE MACHINE

www.axileamerica.com







# CONTENTS

- 02 AXILE Introduction
- 03 AXILE Sustainability
- 04 Comprehensive Service
- 05 **AXILE Digitalization**
- 06 Machines Technical Data
- 15 Digital Intelligent Automation

## **AXILE INTRODUCTION**

AXILE designs and builds agile smart 5-axis VMCs with leading digitalized automation solutions for manufacturers of complex parts and components to embrace industry 4.0 while creating a sustainable operating business model.

AXILE is actively integrating sustainability principles into its business model and keeps investing in R&D, focusing on supplying flexible & sustainable manufacturing solutions to boost productivity and profitability.

We believe that only by embracing digitalization, our customers will achieve a pledge of sustainable development respectful of people and the environment with the necessary competitiveness to ensure the survival of their business.

AXILE digitalization was launched for an optimized machine monitoring and a better energy-saving management compliant with ISO 14955. We aim to help our customers to be prepared for the challenges of the power consumption reduction and to mitigate the carbon emission taxes generated by the manufacturing process.

Agile Smart Machining is a promise from AXILE to manufacturers to make industry 4.0 a reality. We developed this all-new approach to bring manufacturers significantly shorter processing times, flexible and optimized production, zero unscheduled downtime, and most importantly, a way to operate without wasting resources.



#### DIGITALIZED INTELLIGENT AUTOMATION

ARI

Reduction of Energy Consumption & Carbon Emissions Machine Failure Prediction Zero Unplanned Downtime



# **AXILE SUSTAINABILITY**

At AXILE, we are dedicated to revolutionizing the manufacturing industry through the integration of digital management, sustainable Environmental, Social, and Governance (ESG) practices, compliance with ISO14955, and driving the energy transition.

#### Digital Management Powering Manufacturing Excellence

With a focus on powering manufacturing excellence, we leverage cutting-edge technologies to optimize operations, enhance productivity, and enable data-driven decision-making. Our digital management solutions empower businesses with real-time data monitoring, predictive maintenance, and remote-control capabilities. By embracing digitalization, manufacturers can achieve operational efficiency, adapt to market demands, and unlock new avenues for growth.

#### Sustainable ESG Practices Shaping a Better Future

Sustainability is at the core of our operations. We prioritize energy efficiency, waste reduction, and eco-

friendly manufacturing practices to minimize our environmental impact. We actively support the energy transition by promoting renewable energy sources, reducing carbon emissions, and embracing sustainable solutions throughout our value chain.

AXILE is proud to be ISO14955 compliant, adhering to international standards for sustainability, environmental management, and social responsibility. We strive to exceed these standards, constantly seeking innovative ways to improve our practices and contribute to a greener and more sustainable future.

#### Join us in Our Vision

Join us on a transformative journey where digitalization, sustainability, ISO14955 compliance, and energy transition converge. Together, we can drive manufacturing excellence, promote environmental stewardship, achieve social responsibility, and accelerate the energy transition. Experience the power of digital innovation and sustainable practices with AXILE as we shape a brighter and more sustainable future for the manufacturing industry.



## **COMPREHENSIVE SERVICE**

Quality and service build our business !

Here at AXILE, we are always ready to assist you in optimizing your machining applications, offering the expertise to improve the quality and speed of your simultaneous 5-axis machine process.

Here at AXILE, we're always ready to assist you in optimizing your machining applications, offering the expertise to augment your command of simultaneous 5-axis machining.

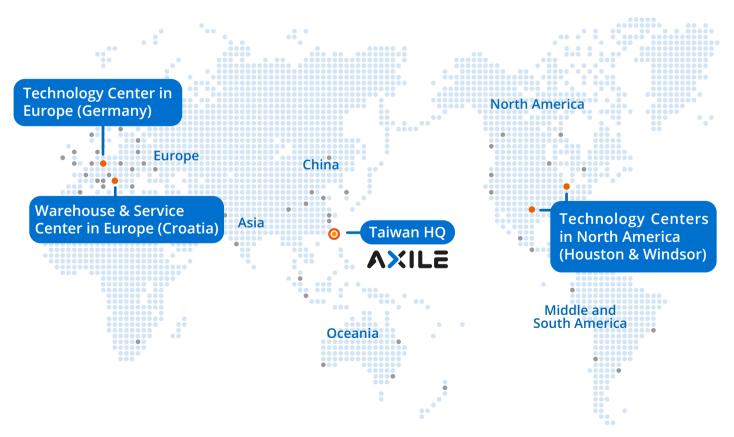
Our team of experienced and technically savvy distributors is the first line of support for your technical queries.

AXILE has comprehensive online, technical documentation ready for machine owners and will reply to any queries about documented specifications, functions, and parameters within 24 hours.

Our 5axis machining center range is supported by local and quickly available storage of spare parts which will help enhance your machine shop with improved machine availability.

Data sharing and cyber security are important. The ART adapts OPC UA, a data exchange communication standard developed for Industry 4.0 applications, to secure the framework of industrial interoperability. The sensitive information (based on machine sensor data feedback) is stored and protected in our ART<sup>™</sup> Cloud system. By Connecting your ART cloud with the AXILE technical support team, customers will obtain the various benefits and speed up the maintenance service they expect.

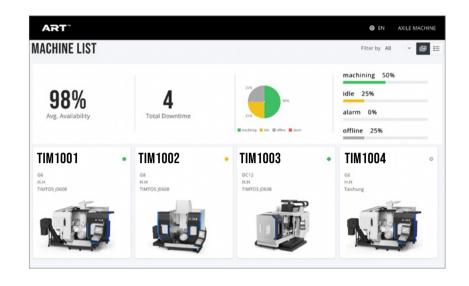
We are proud of our experienced local service and support required to achieve smooth and reliable operations for the long haul - helping you to reach your production goals!



# **AXILE DIGITALIZATION**

To deliver agile smart machining and that all-important competitive edge, we have created an ART<sup>™</sup> system that enables 24/7 automated production and allows operators to manage digitally, enabling them to plan and strategize through data analysis.

ART<sup>™</sup> monitors all the wearing components, energy consumption, and fluids such as lubricant and coolant to supply real-time status updates on the machine and its components and to pre-empt future issues. AXILE's ART<sup>™</sup> empowers manufacturers to make informed decisions, optimizing operations and greatly improving production efficiency. Now, that's how AXILE sees smart manufacturing in meeting the needs of sustainable business operations.



#### 1. Reliability Maintenance

Unexpected downtime is the enemy of profitability. ART<sup>™</sup> delivers machine components diagnosis, machine lifetime estimation, and consumable supplies monitoring to prevent machine failure and eliminate unplanned downtime.

#### 2. Manufacturing Process

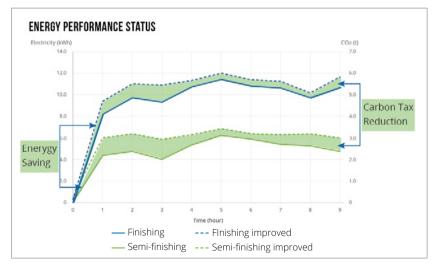
Knowledge is power. ART<sup>™</sup> achieves superior data collection and analytics on machine status and utilization rate, to deliver real-time information for optimized production strategies.

#### 3. Energy Management

Every penny counts. ART<sup>™</sup> enables manufacturers to monitor their power consumption, to identify ways to maximize energy efficiency and reduce expenditure.

#### 4. Intelligent Management

ART<sup>™</sup> provides analytic information for managers to understand the machine performance and take immediate actions to optimize the machine capability.



The above graph shows the power consumption (left) and its equivalent carbon emissions (right) during finishing and semi-finishing tasks. The task curve lines show improved energy performance after adjusting the machine's daily operation.

### V5X/V5Xi<sup>\*</sup> (STANDARD VERSION)

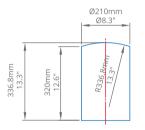


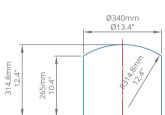
Table size

Max. table load

A range (swiveling) C (rotary) Max. sviwelling (A) speed Max. rotary (C) speed X travel Y travel Z travel

Workpiece size





Spindle speed Spindle taper Magazine positions Control unit

Max feedrate X/Y/7

Ø170 mm | Ø6.7 in Ø200 mm | Ø7.87 in 30 kg | 66.14 lbs 50 kg | 110.23 lbs ±120 deg 360 deg 100 rpm 200 rpm 600 mm | 23.6 in 500 mm | 19.7 in 465 mm | 18.3 in 440 mm | 17.3 in 40 m/min | 1575 in/min 12000 rpm (std.) ISO40 (std.) 32T/40T · Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE · Fanuc 31i-B5 plus iHMI pro

Table size 170 mm | 6.7 in

Table size 200 mm | 7.87 in

### V5X/V5Xi<sup>\*</sup> (GRAPHITE VERSION)



Table size

Max. table load

A range (swiveling) C (rotary) Max. sviwelling (A) speed Max. rotary (C) speed X travel Y travel Z travel

Workpiece size



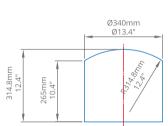


Table size 200 mm | 7.87 in

Max feedrate X/Y/Z Spindle speed Spindle taper Magazine positions Control unit

Ø170 mm | Ø6.7 in Ø200 mm | Ø7.87 in 30 kg | 66.14 lbs 50 kg | 110.23 lbs ±120 deg 360 deg 100 rpm 200 rpm 600 mm | 23.6 in 500 mm | 19.7 in 435 mm | 17.1 in 410 mm | 16.1 in 40 m/min | 1575 in/min 25000 rpm (std.) HSK E50 (std.) 32T/40T · Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE · Fanuc 31i-B5 plus iHMI pro

#### DC4/DC4i\*



Workpiece size

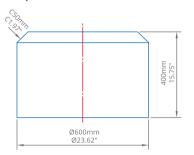
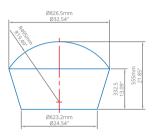


Table size Max. table load A range (Swiveling) C (Rotary) X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Magazine positions Control unit Ø400 mm | 15.75in 300 kg | 661.38 lbs ±180 deg 360 deg 685 mm | 26.97 in 670 mm | 26.38 in 400 mm | 15.75 in 36 m/min | 1417.3 in/min 20000 rpm (std.) HSK A63 (std.) 80T • Heidenhain TNC640 • Heidenhain TNC7 • Siemens SINUMERIK ONE • Fanuc 31i-B5 plus iHMI pro

## G6/G6i\*



Workpiece size

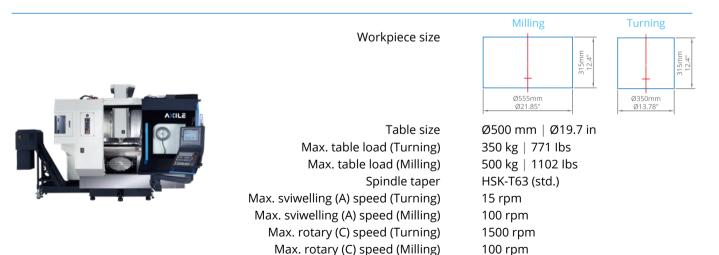


### G6 MT/G6i\* MT

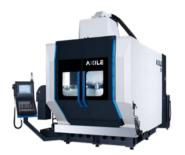
Table size Max. table load A range (swiveling) C (rotary) Max. sviwelling (A) speed Max. rotary (C) speed X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Magazine positions Control unit

Ø600 mm | Ø23.6 in 600 kg | 1323 lbs ±120 deg 360 deg 100 rpm 200 rpm 650 mm | 25.6 in 850 mm | 33.5 in 500 mm | 19.7 in 36 m/min | 1417 in/min 20000 rpm (std.) HSK-A63 (std.) 80T/120T · Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE

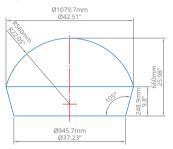
· Fanuc 31i-B5 plus iHMI pro



## G8/G8i\*



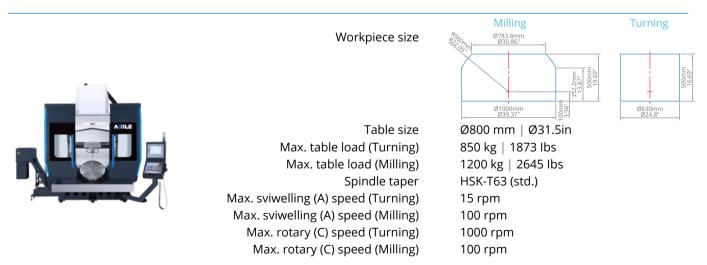
Workpiece size



### **G8 MT/G8i<sup>\*</sup> MT**

Table size Max. table load A range (swiveling) C (rotary) Max. sviwelling (A) speed Max. rotary (C) speed X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Magazine positions Control unit Ø800 mm | Ø31.5 in 1300 kg | 2866lbs ±120 deg 360 deg 80 rpm 100 rpm 670 mm | 26.4 in 820 mm | 32.3 in 600 mm | 23.6 in 60 m/min | 2362 in/min 20000 rpm (std.) HSK-A63 (std.) 32T/64T,48T/96T,60T/120T Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE

· Fanuc 31i-B5 plus iHMI pro



### G10/G10i<sup>\*</sup>



Workpiece size

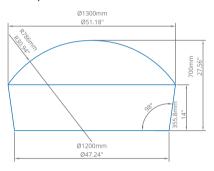


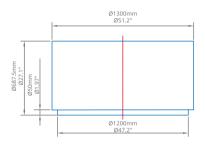
Table size Max. table load A range (swiveling) C (rotary) Max. sviwelling (A) speed Max. rotary (C) speed X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Magazine positions Control unit

Ø1000 mm | Ø39.4 in 2000 kg | 4409 lbs ±120 deg 360 deg 80 rpm 100 rpm 1000 mm | 39.4 in 1100 mm | 43.3 in 750 mm | 29.5 in 36 m/min | 1417 in/min 20000 rpm (std.) HSK-A63 (std.) 32T/64T,48T/96T,60T/120T · Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE · Fanuc 31i-B5 plus iHMI pro

### DC12/DC12i\*



Workpiece size



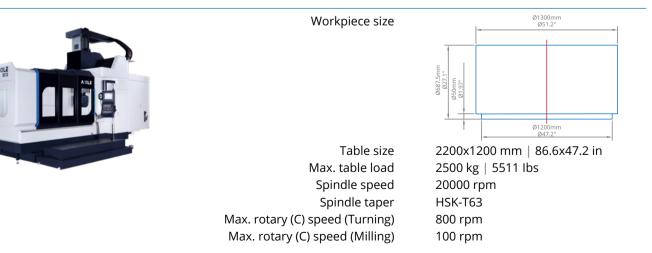
## DC12 MT/DC12i<sup>\*</sup> MT

Table size Max. table load Rotary table top B range (Swiveling) C (Rotary) X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper

Magazine positions Control unit

2200x1200 mm | 86.6x47.2 in 2500 kg | 5511 lbs Ø1200 mm | Ø47.2 in ±110 deg 360 deg 2200 mm | 86.6 in 1400 mm | 55.1 in 1000 mm | 39.4 in 36 m/min | 1417 in/min 20000 rpm (std.) HSK-A63 HSK-A100 90T/120 · Heidenhain TNC640 · Heidenhain TNC7 · Siemens SINUMERIK ONE

· Fanuc 31i-B5 plus iHMI pro



#### MC1



Workpiece size Table size Max. table load X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Linear guideways type Magazine positions Control unit 760x440x460 mm | 29.9x17.3x18.1 in 900x410 mm | 35.43x16.14 in 350 kg | 771.6 lb 760 mm | 29.9 in 440 mm | 17.3 in 460 mm | 18.1 in 30 m/min | 1181 in/min 10000 rpm (std.) ISO40 (std.) Ball type 24T/30T • Heidenhain TNC620 • Siemens 828D • Fanuc 0iMF plus • Fagor 8065

#### MC2



Workpiece size Table size Max. table load X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Linear guideways type Magazine positions Control unit

1050x600x600 mm | 41.34x23.62x23.62 in 1200x600 mm | 47.24x23.62 in 800 kg | 1763.68 lb 1050 mm | 41.34 in 600 mm | 23.62 in 600 mm | 23.62 in 30 m/min | 1181 in/min 10000 rpm (std.) ISO40 (std.) Roller type 24T/30T • Heidenhain TNC620 • Siemens 828D • Fanuc 0iMF plus • Fagor 8065

#### MC3



Workpiece size Table size Max. table load X travel Y travel Z travel Max feedrate X/Y/Z Spindle speed Spindle taper Linear guideways type Magazine positions Control unit 1600x730x700 mm | 62.99x28.74x27.56 in 1700x700 mm | 66.93x27.56 in 1500 kg | 3306.9 lb 1600 mm | 62.99 in 730 mm | 28.74 in 700 mm | 27.56 in 30 m/min | 1181 in/min 10000 rpm (std.) ISO40 (std.) Roller type 24T/30T • Heidenhain TNC620 • Siemens 828D • Fanuc 0iMF plus

· Fagor 8065

# **DIGITAL INTELLIGENT AUTOMATION**

AXILE digitalized intelligent automation consists of our range of innovative automatic pallet changing solutions and flexible manufacturing systems, supported by our proprietary SMT<sup>™</sup> and ART<sup>™</sup> technologies.

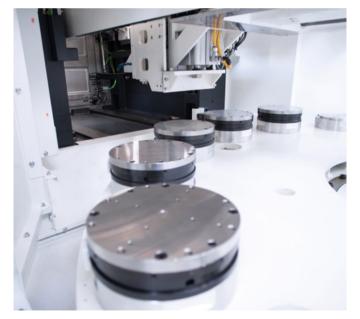
These cutting-edge technologies not only optimize performance with efficient management in time, but also contemplate the use of analytics and intelligent tools to make automated and intelligent decisions.

Digitalized intelligent automation solutions enable machinists to embrace smart manufacturing to increase operational efficiency and productivity, optimize energy and staffing costs, and achieve 24/7 unmanned production, thereby significantly boosting ROI. It provides with flexibility for end-to-end case management success.

Meanwhile, our proprietary technologies provide realtime and remote updates for manufacturers to embrace automation with no unexpected down-time. Besides, it can support manufacturers to diminish non-productive time and enhance productivity. Using the OPC UA protocol and compatible with the UMATI (universal machine technology interface) platform, AXILE digitalized intelligent automation solutions can be integrated into a whole ecosystem of third-party products, solutions and systems.

AXILE Digitalized Intelligent Automation is able to support manufacturers as they work through some of the most difficult challenges and where we can develop smart manufacturing processes in collaboration with.

It also redefines the workface, empowering human talent and digital workers in the future.







	Motorized Pallet Changer				Robotic Pallet Changer 💧			
	MPC2	MPC2 + FMS	MPC FLEX	MPC6	RPC8	RPC10	RPC16	RPC20
Loader type	a la cal				a state the			
Magazine	LI See	÷						
Pallet size	⊠ 500 mm ⊠ 19.7 in				⊠ 398 mm ⊠ 15.7 in	⊠ 320 mm ⊠ 12.6 in	Ø210 mm Ø8.3 in	Ø148 mm Ø5.8 in
Max. workpiece size			x420 mm (*Ø500x480 mm) 7x16.5 in (*Ø19.7x18.9 in)		Ø500x305 mm Ø19.7x12 in	Ø400x305 mm Ø15.7x12 in	Ø230x305 mm Ø9.1x12 in	Ø160x250 mm Ø6.3x9.8 in
	Ø533.2 Ø500	061 061	Ø553.3 Ø500 81.5L(60sec)	420	0398 42.7L	0400 0323 29L	230 12.6L	<u>9160</u> 5L
Max. weighet	400 kg 881.8 lbs				220 kg 485 lbs	220 kg 485 lbs	98 kg 261.1 lbs	30 kg 66.1 lbs

## LOADER RPC COMPACT

Max Workpiece Capacity Dimension Max Workpiece Loading 84 positions for workpieces Ø100x100 mm 8 kg

Max Workpiece Capacity Dimension Max Workpiece Loading 32 positions for workpieces Ø150x170 mm 25 kg

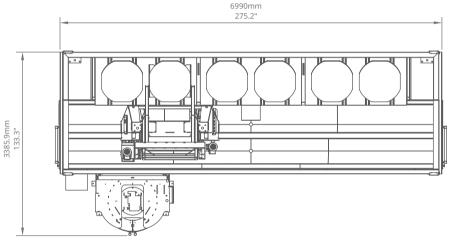


### FMS

Machine can be integrated in a 12-pallet FMS system.

Dimension is 500x500mm per machine.

It is expandable to 24, 36 or more per customer's need.





## **MPC HEAVY DUTY**

Available for large size (up to 1200 mm diameter) and heavy loads (up to 2.5 tons capacity). Possible customization of the number of pallets available

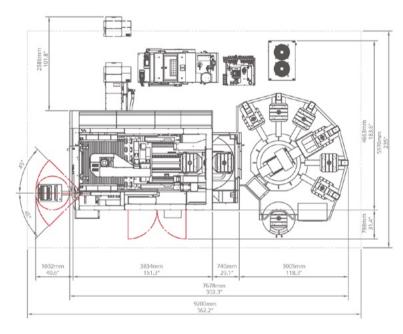


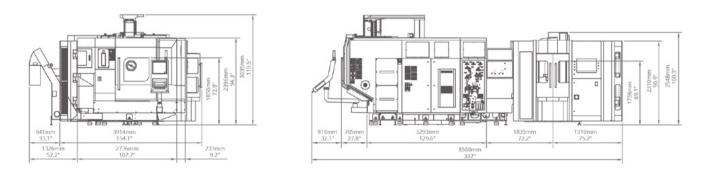
## **MPC FLEX**

Our optimized storage capacity within a reduced footprint!

With G6 MPC FLEX our customers can store up to 24 pallets dimension 500x500 mm while keeping operator access to machining area completely free to perform any type of settings.







\* All Specifications are subject to change without notice.

#### AXILE MACHINE



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