

## Company Profile



# We are part of Nidec Corporation



Founded in 1973



HQ: Kyoto,  
Japan



**340+**  
Companies



Mergers & Acquisitions (M&A) are the  
driving power behind growth  
*So far, there have been over 70 M&As*



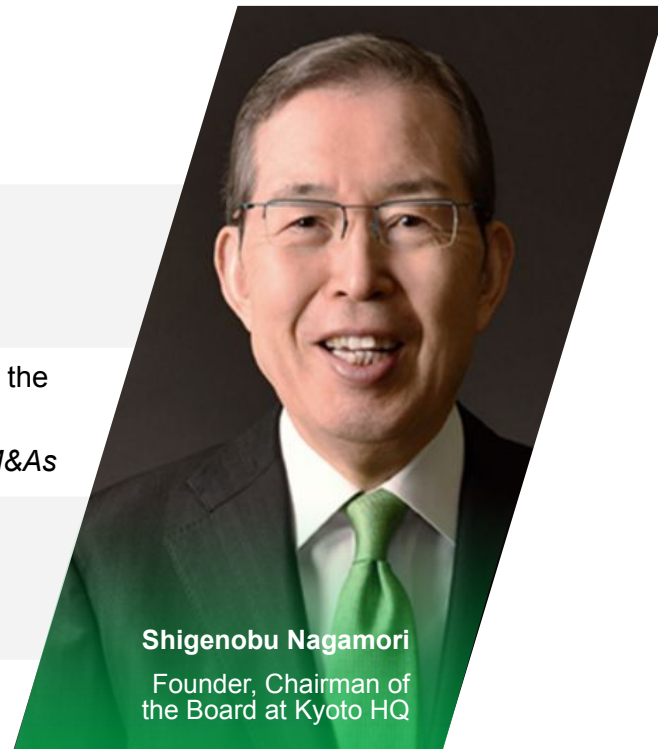
**40+**  
Countries



**\$16B**  
Net Sales (FY 22)

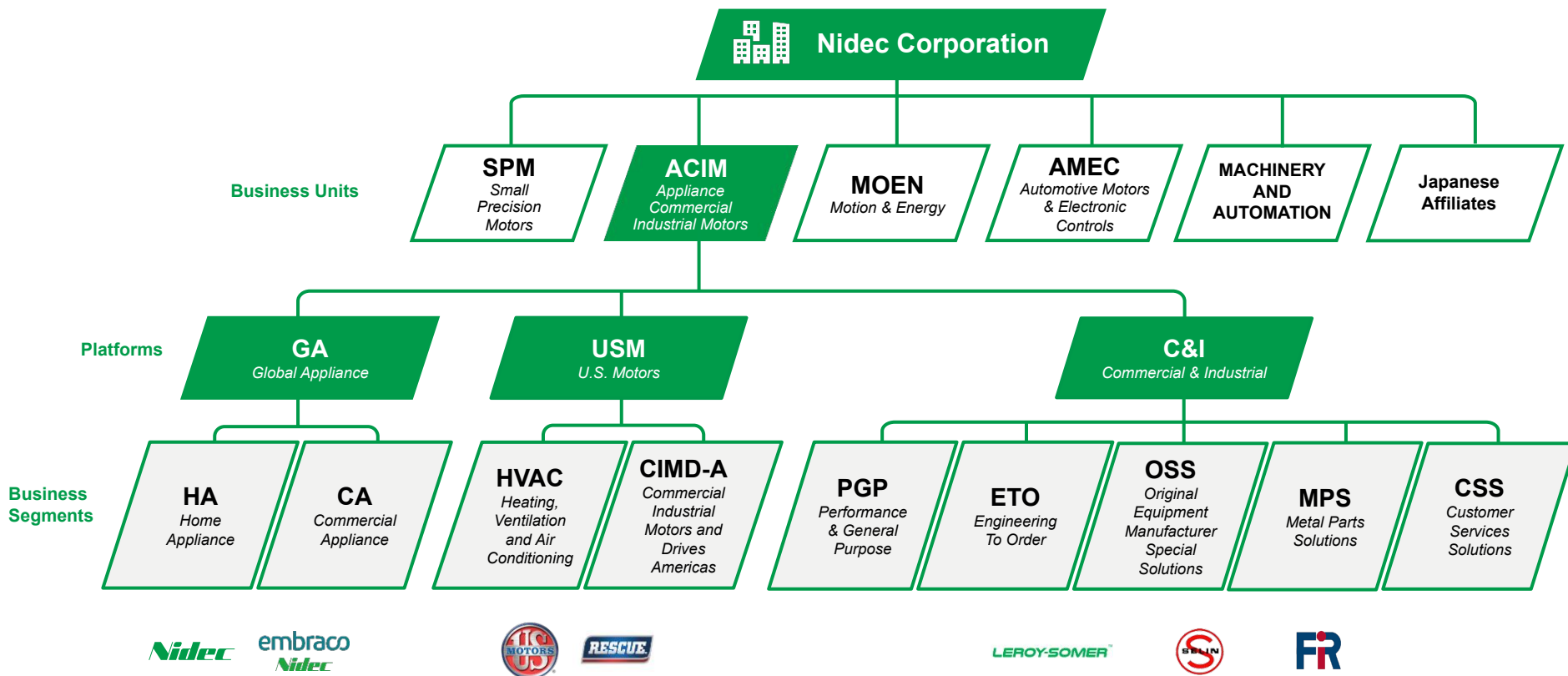


**110,000+**  
Employees Worldwide



**Shigenobu Nagamori**  
Founder, Chairman of  
the Board at Kyoto HQ

# NIDEC CORPORATION STRUCTURE



# ACIM AT A GLANCE

## We develop high-efficient solutions

that empower people and industries to move towards a more sustainable world



**37**  
manufacturing sites



**~30**  
business offices



**+25**  
countries



**+20,000**  
people



**Headquarters**  
in Pordenone  
(Italy) and  
Joinville (Brazil)



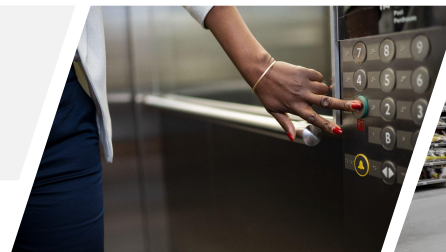
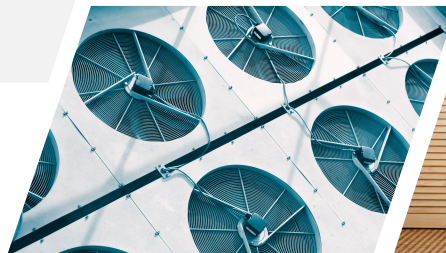
**\$3.2B**  
sales/year



**70,000,000**  
products sold/year



**+4,000**  
customers worldwide



ABOUT GA

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# NIDEC GLOBAL APPLIANCE

We are a global partner for **home and commercial** appliances industries

Portfolio of motors, compressors and condensing units designed to deliver the best-in-class performance, differentiated by **low noise, reliability and high energy efficiency** levels.

HA



CA



**OUR BRANDS**

**Nidec**

**embraco**  
**Nidec**

**embraco**  
**Nidec**

# GA PLATFORM DETAILS



**HQ:** Joinville (Brazil)



**11,000** employees



**12** manufacturing plants and **4** business offices across 9 countries



Annual production capacity of **80 million** motors and compressors



**8 R&D Centers** worldwide and **500+** engineers



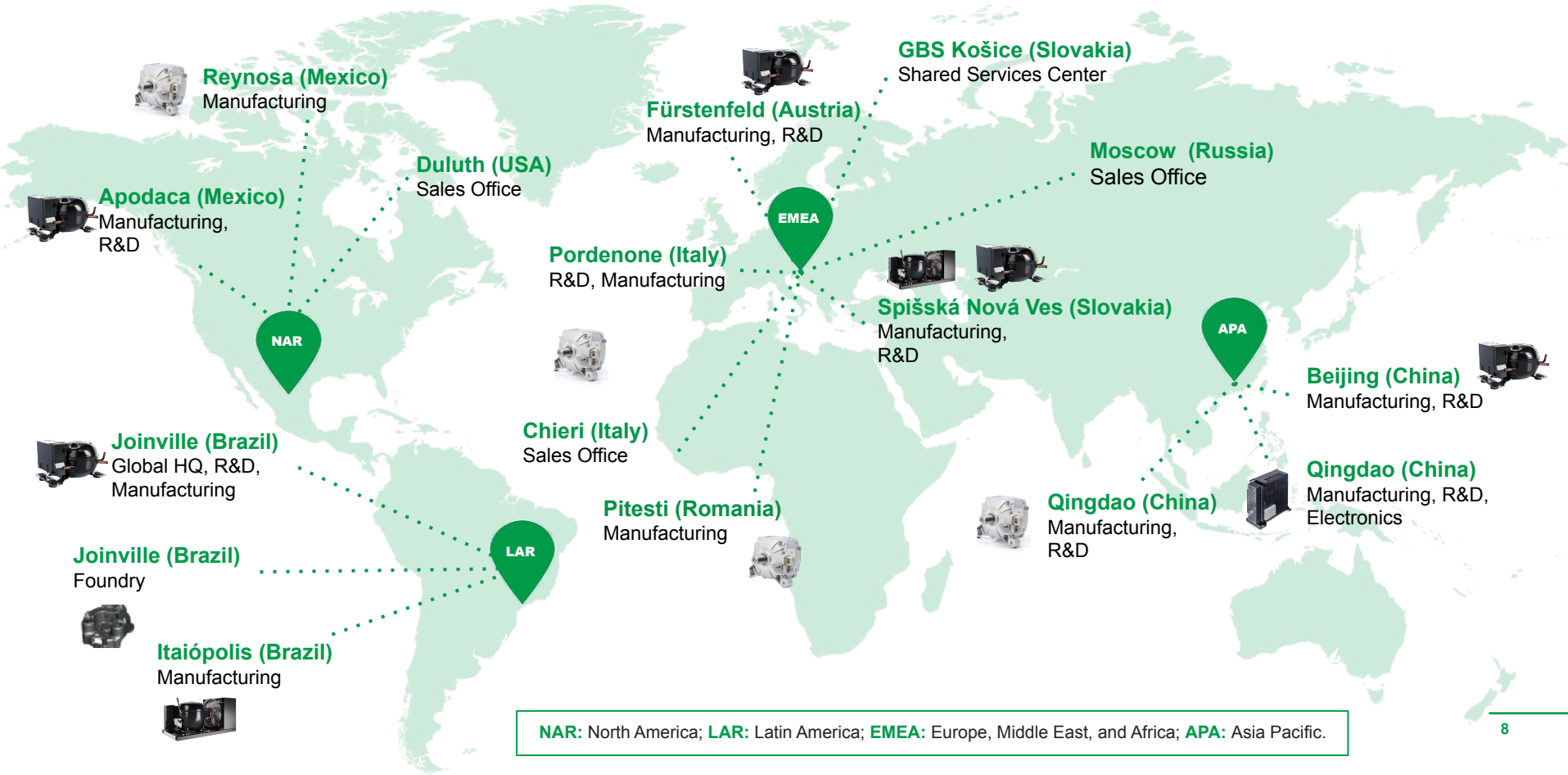
**90 countries** served by our products



**\$1.5B**  
sales/year



# GA GLOBAL PRESENCE





Energy  
efficiency

Technology that enables **reduction of energy** consumption.



Natural  
Refrigerants

Portfolio designed to deliver the **best in class performance**, under the safest conditions with Natural Refrigerants.



Miniaturization

**Size reduction** combined with **embedded technology**.



Low noise

**Low noise** in motors and compressors is key to **keep the consumer experience positive**.

We are differentiated by a **deep expertise in Research & Development**, capable of **delivering technology and innovation** that anticipates trends.



## **Robust structure for innovation**

with 8 Research & Development Centers



## **Partnerships with Universities**

in different regions in the world



## **Local engineering support teams**

with labs and application engineers available worldwide



## **+500 valid patents and +4,500 in the history**

Innovation is a continuous process

ABOUT GA

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# BUSINESS SEGMENTS AND BRANDS

## Home Appliances

Solutions for Refrigerators,  
Washing Machines,  
Dishwashers and Dryers

**Nidec**

**embraco**  
**Nidec**



## Commercial Appliances

Compressors and  
Condensing Units for  
Refrigerators and Cooling  
Systems.

**embraco**  
**Nidec**



GA BUSINESS SEGMENT

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# HOME APPLIANCES

## Two steps ahead of the trends to drive appliances to a more sustainable future



**Nidec**

**Motors** for washing machines, dryers and dishwashers.



**embraco**  
**Nidec**

**Compressors** for refrigerators.



We offer innovation through a complete portfolio of **motors for Washing machines, Dryers and Dishwashers**

Excelling in technologies for **low noise, compact and energy efficient** solutions



# PORTFOLIO FOR WASHING MACHINES, DRYERS AND DISHWASHERS

- ✓ Experts in the **OEM process**
- ✓ Deep understanding of the **market regulations worldwide**
- ✓ Highly advanced R&D
- ✓ **Tailored solutions**

## Washing Machines

## Dryer

## Dishwasher

### Traditional Motors



### BPM Motors



We are differentiated by our **co-development** methodology with customers, which means:

- **Cost savings and improvements** in the customer's production line.
- **Working closely with customers** in the product development process to **provide proposals** with high added value.
- Formulate the **best solution** for each of our customers' products.



## Washing Machine motors in all types of technologies

Our range of motors for washers covers the requirements for all regions and types of appliances.

Available also as IMAC  
(Integrated Motor and Control).



**HAWM**  
Horizontal  
axis washing  
machine



**VAWM**  
Vertical axis  
washing  
machine



Universal



CIM



CIM - IMAC



BPM



BPM -  
IMAC



DD



DDM



DDM gear  
drive



PS  
C

## Dryers motors: from classic solutions to second generation BPM models



**DRY**  
Tumble  
dryer



PSC



Split-Phase



BPM



BPM -  
IMAC

**Complete  
portfolio of  
motors for  
dishwashers,**  
also available with  
electronic board  
and integrated  
heater

DW  
Dishwashers



PSC  
pump



PSC & integrated  
heater



BPM  
with integrated heater and  
electronics

## Count on our competence in electronic drives



### WM drives



- Client dedicated communication HW/SW
- Proprietary unbalance control algorithm
- Integrated or modular

### Dryer motor drives



- Modular version

### Dishwasher drives



- Integrated on pump



## Solutions for Residential Refrigeration



**High-quality and high-performance**



**Efficiency through constant innovation**



**Low noise**



**More internal cabinet space**



**Cost Competitive**



# EMBRACO PORTFOLIO FOR HOME APPLIANCE

An **innovative** and  
**efficient** portfolio



## FIXED SPEED

**Reliability:** Product life extension



EL



ES



EM



EG

## VARIABLE SPEED

**Highest efficiency standards** and world class **low noise**



FMS



FMX



VES



VEM



VEG

## FUTURE:

High performance with simplification

**Standardization** to cover all applications' range



FMS



FMX



VES

# Renowned fixed speed

Portfolio differentiated by low noise, reliability and high efficiency levels



EM3: wide performance range

## EM FAMILY

### Best Seller

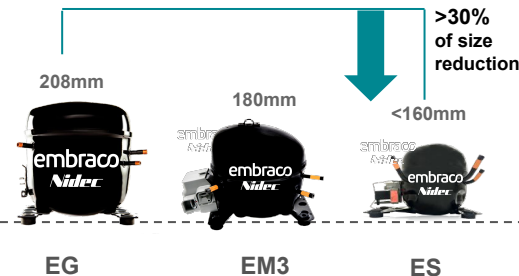
Years of expertise and non-stop evolution in more than

**100M** compressors  
sold in natural refrigerants

### ENERGY EFFICIENCY

30 – 40%\* increase over recent years

### Size reduction journey with fixed speed compressors



**LOW GWP SOLUTIONS:**  
SINCE 1994, THE PIONEER  
IN ANTICIPATING FUTURE  
CHALLENGES

# Extra efficiency and temperature stability for refrigeration



**Lowest energy consumption:** up to 50%\* lower energy consumption



**Miniaturization:** small on size, but large on its application range



**Fast Cooling:** target temperature reached faster, ensuring better food preservation



**Low noise**

Ready to attend the most restrictive regulations

208mm



VEG

123mm



FMS

>40%  
of size  
reduction

Designed to deliver high cooling capacity with small size

*\*in comparison to the conventional compressor.  
Efficiency indexes based on internal tests.*



## Delivering market trends with breakthrough technology



### Key Drivers



Optimized performance



More internal  
cabinet space



Temperature control



Cost Competitive



High energy efficiency



Low noise



GA BUSINESS SEGMENT

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# COMMERCIAL APPLIANCES

# SOLUTIONS FOR COMMERCIAL APPLIANCES



**Naturally Efficient:** solutions ultra low GWP



**Energy efficiency:** robust portfolio with low energy consumption



**Innovation:** tailor-made solutions for the system needs.



**Reliability:** product life extension



**High-quality and high performance**



# WIDE APPLICATION RANGE FOR COMMERCIAL REFRIGERATION

LBP

HBP



Naturally  
Efficient



Energy  
Efficiency



Reliability

## FIXED SPEED

Extended cooling  
capacity



EL



EM



EH



F



NE



NT



NJ



SCROLL

## VARIABLE SPEED

Excellence in  
energy efficiency



FMX



VEM



VES



FMF



VEH



VNE



VNEX



SCROLL

## CONDENSING UNITS

Optimized design  
for better  
performance



Standard portfolio



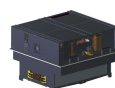
Plug n' Cool



Sliding



BIOMA



Monoblock

## The most efficient compressor for the commercial segment



*Ideal for supermarkets and special applications*



Reduces energy consumption by up to 40 % in comparison to fixed (on-off) compressor



Extended cooling capacity allows reducing the quantity of SKUs



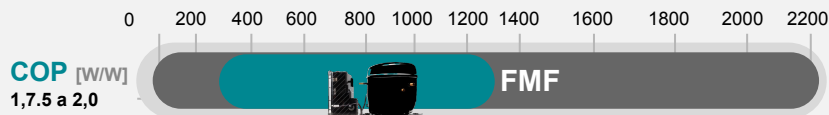
SDI, Dual Voltage and PFC ready



Low noise



High temperature stability



Available in

Made in Brazil



# CONDENSING UNITS: ease of installation and maintenance services

## Reliable portfolio of cooling solutions



*Covering multiple applications*



Cold room



Display cases

**LESS COMPLEXITY:** complete pre-assembled high pressure side solution simplifies production process and maintenance.



Customization capabilities: standard portfolio covering a wide range of applications.



Optimized condenser-compressor design leading to improved performance and reliability.



Approved for natural refrigerants use

*All components rely on Embraco quality.*

## BIOMA: Products customized to the market's needs

**Easy maintenance, fast installation and easy cleaning** for refrigeration professionals.



Designed for cold rooms and outdoor applications



Urban areas of the European market require a product that is.



**Silent**



**Stackable**

Smart design with **three access doors**



Up to **50% of noise reduction** versus next best alternative

**For an in-depth look about  
our company and solutions,  
follow our pages:**



***Nidec***

**Global Appliance**