

# Introducing **R410A GHP SCROLL COMPRESSORS**

Sanden's R410A Gas Heat Pump (GHP) Scroll Compressors are both efficient and powerful. The R410A refrigerant does not contribute to ozone depletion and due to its lower demand for power can help reduced greenhouse gas emissions from power plants. Good news for your compressor needs and good news for our planet.

TGSE05  
FIXED DISPLACEMENT



TGVE08  
2-STAGE VARIABLE



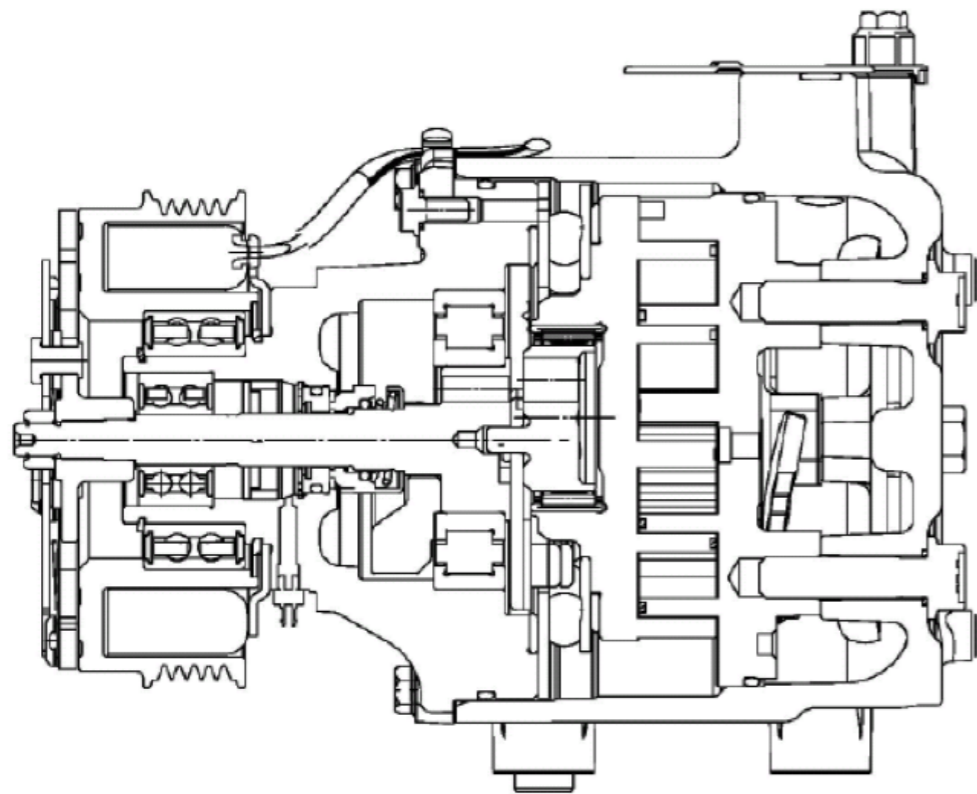
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Delivering Excellence

# TGSE05 Specifications

# R410A GHP SCROLL COMPRESSORS

## FIXED DISPLACEMENT



## COMPRESSOR

Type	Fixed displacement
Displacement	52.0 cc/rev
Maximum speed	5,000 rpm
Lubricant	NL10 / FVC68D
Oil circulation ratio	Min. 5 %
Refrigerant	R410A
Weight	18 lbs

## CLUTCH

Rated voltage	DC 12 V
Static friction torque	22.6 N-m
Power consumption	50 W (68 DegF)
Belt type	Poly V 5G
Pulley diameter	115
Weight	5.3 lbs



# TGVE08 Specifications

# R410A GHP SCROLL COMPRESSORS

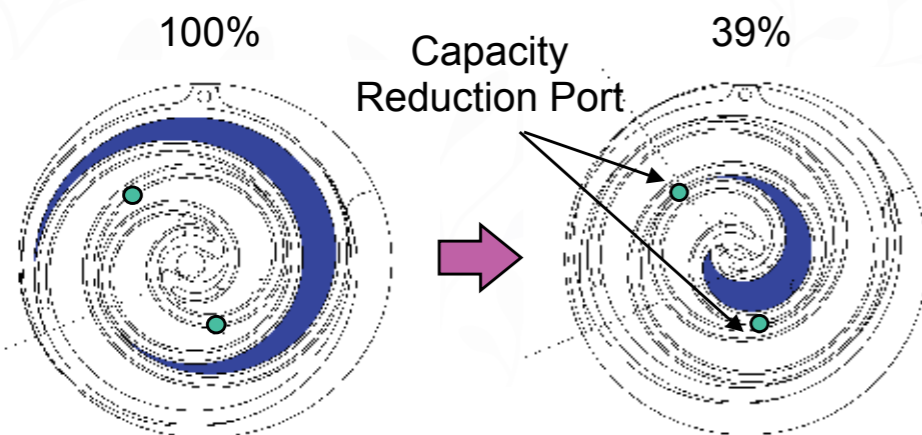
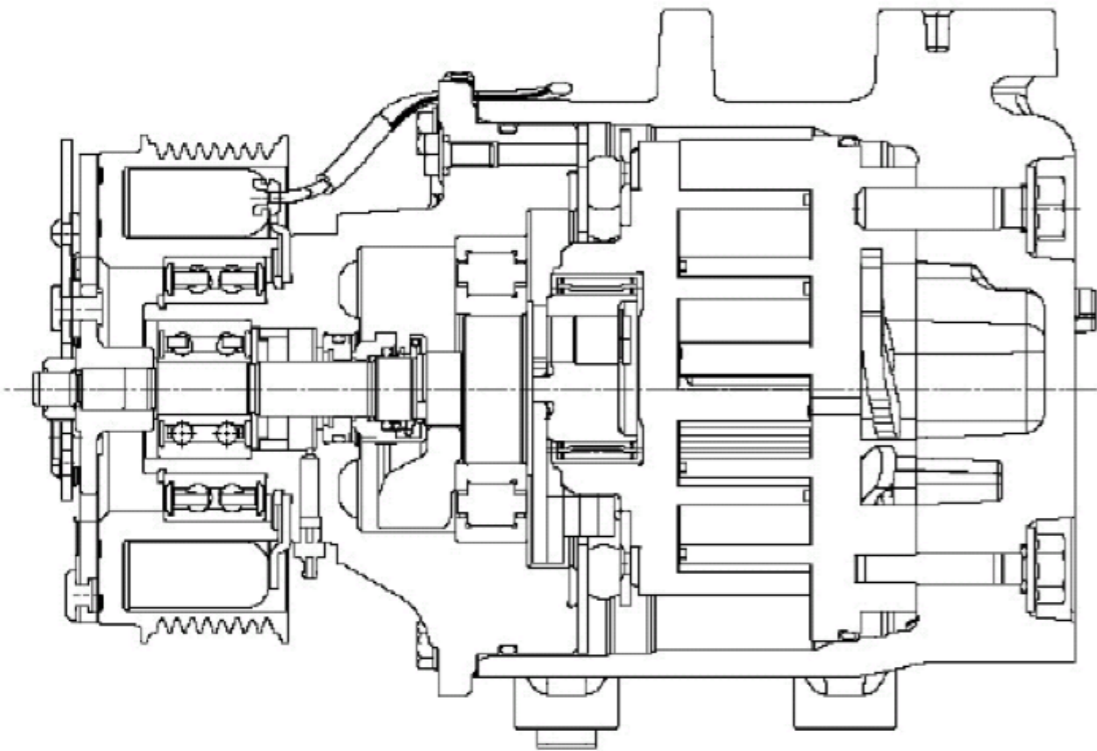
2-STAGE VARIABLE

## COMPRESSOR

Type	2 stage variable	
Displacement	100%	86.2 cc/rev
	39%	33.6 cc/rev
Maximum speed	6,000 rpm	
Lubricant	NL10	
Oil circulation ratio	Min. 5 %	
Refrigerant	R410A	
Weight	22.2 lbs	

## CLUTCH

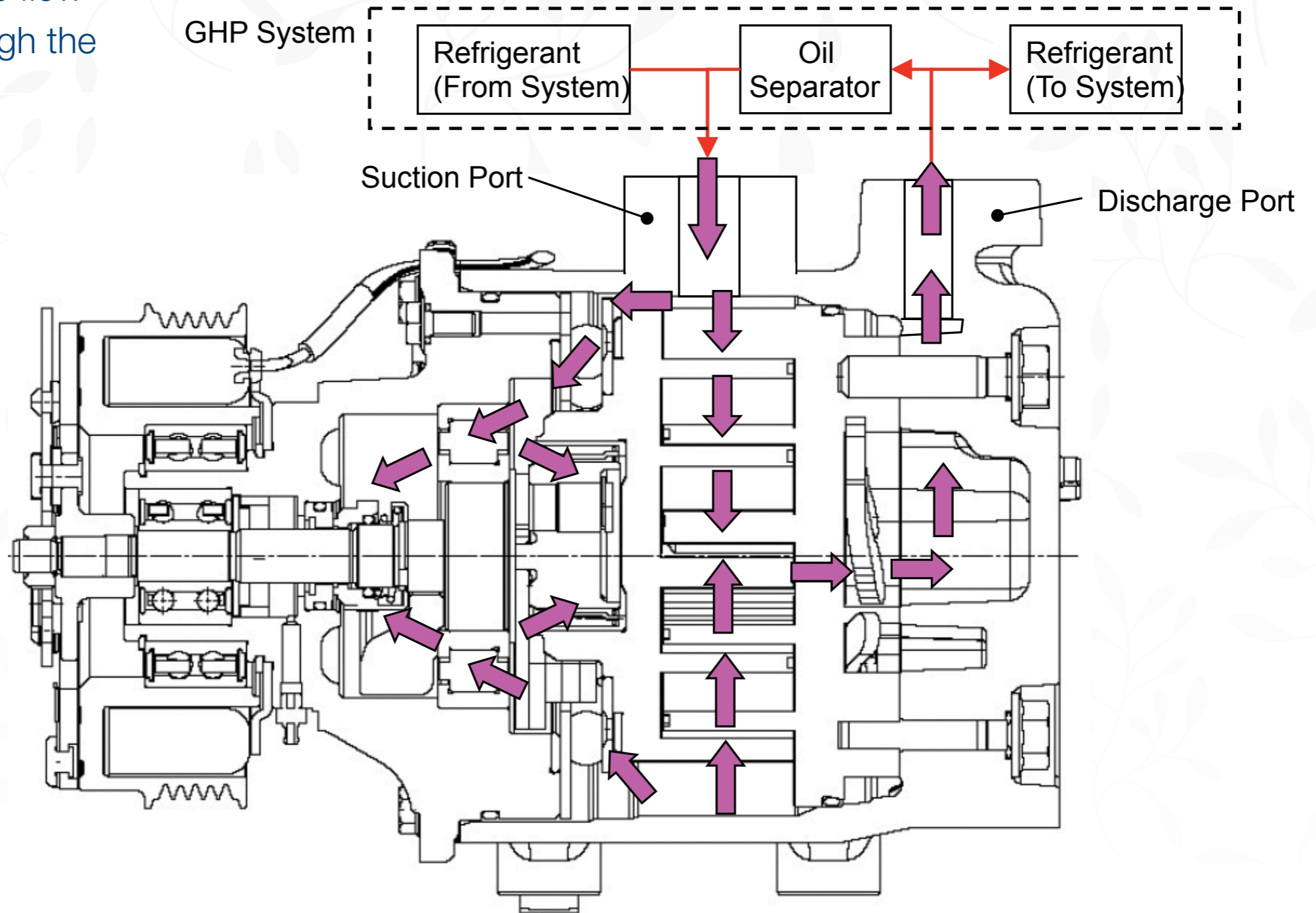
Rated voltage	DC 12 V
Static friction torque	36.2 N-m
Power consumption	50 W (68 DegF)
Belt type	Poly V 8G
Pulley diameter	115
Weight	5.3 lbs



# Refrigerant & Oil Flow

## R410A GHP SCROLL COMPRESSORS

Arrows indicate the flow of refrigerant through the compressor.

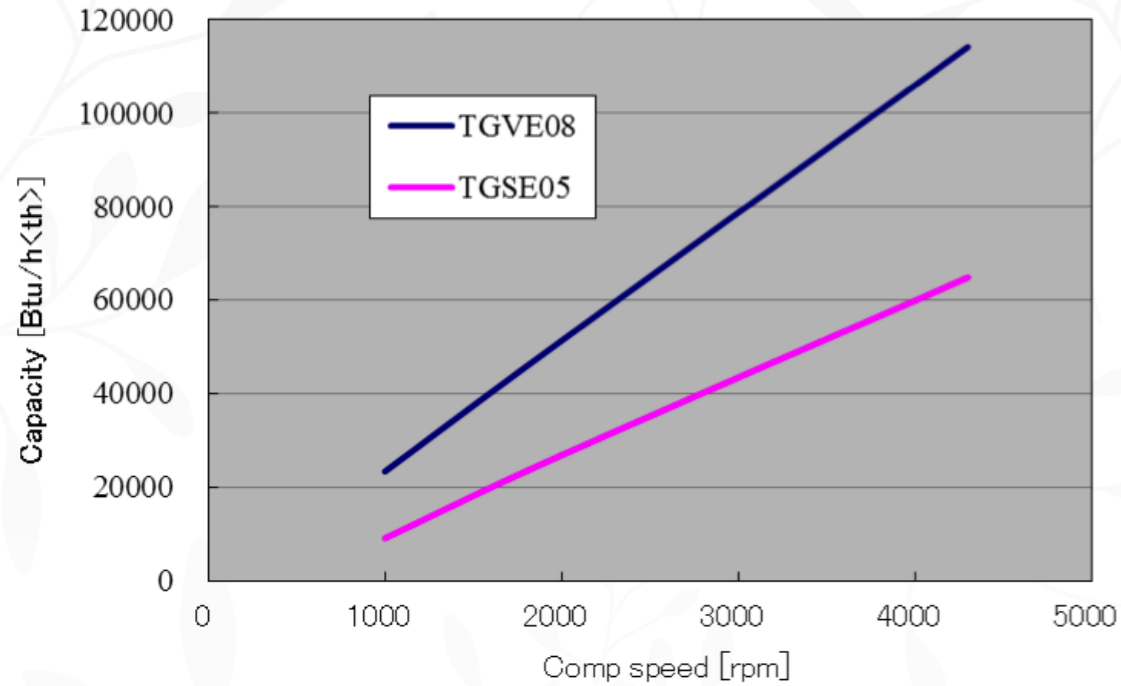




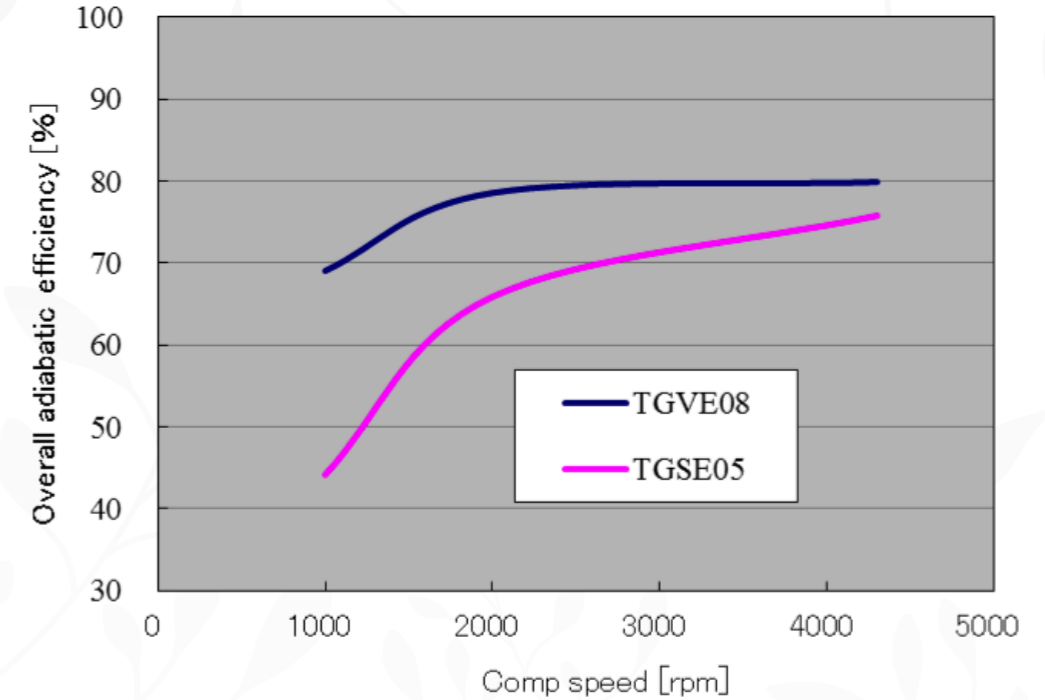
# Performance Test Data

# R410A GHP SCROLL COMPRESSORS

### CAPACITY



### OVERALL ADIABATIC EFFICIENCY



### Conditions

Discharge Pressure Pd: 413 Psig

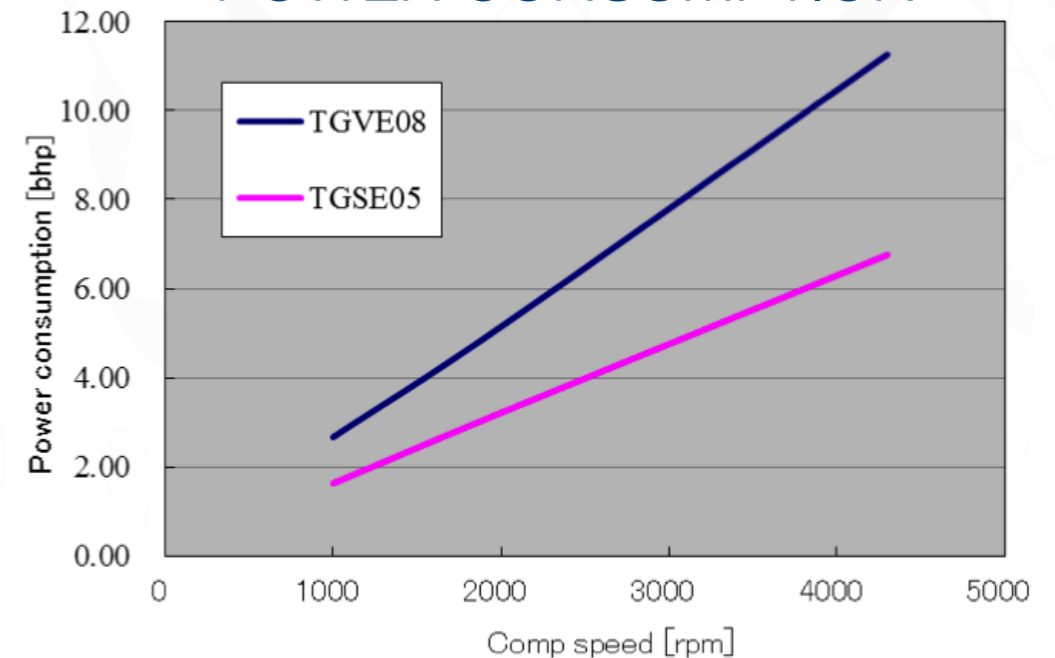
Suction Pressure Ps: 125 Psig

Super Heat: 50°F

Sub Cool: 41°F

Oil Ratio: 5%

### POWER CONSUMPTION



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Sanden is a world-wide manufacturer of living and environmental systems, including HVAC components, such as GHP compressors, CO<sub>2</sub> compressors, microchannel coils, CO<sub>2</sub> heat pump water heaters, and other technologies.

At Sanden, our goal is to maximize energy efficiency and minimize environmental impact both in our products and in our manufacturing processes and facilities while creating value for our stakeholders.



Sanden's Akagi plant lies at the base of Mount Akagi in central Japan, surrounded by woodlands with abundant oaks and evergreens, ponds and wildlife. This innovative manufacturing facility is designated as an award-winning model for the coexistence of manufacturing and the environment.





# Global Distribution Network

FOR CO<sub>2</sub> COMPRESSORS

Global R&D Center



GUNMA

•Sanden International Europe

•SandenVendo America

Sanden International • Australia



SHANGHAI

Production Facility



TOKYO

Business Headquarters



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In partnership with Nature