

mCHILLER

FUGU

standard water-cooled ammonia chillers

mΔΥΕΚΑΩΛ
MYCOM

Story Of MAYEKAWA

MAYEKAWA is a family owned business founded by Kisaku Maekawa in 1924.

Since 1924, **MAYEKAWA** has grown to become a world-leading company within industrial refrigeration and employs more than 4,500 people world-wide. Since the release of our first reciprocating compressor in 1934, **MAYEKAWA** has continued to develop and improve the **MYCOM** compressor technology to become the strongest brand within industrial refrigeration.

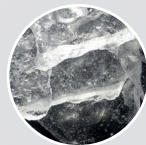
The focus of **MAYEKAWA** has always been natural refrigerant-based solutions driven by sustainable action towards protection of our environment.

Today, **MAYEKAWA's** core business is still industrial refrigeration but **MAYEKAWA** also covers other business areas such as meat processing equipment and robotics.



Kisaku Maekawa

1924: **MAYEKAWA** was founded by Kisaku Maekawa



1930: **MAYEKAWA** started ice making and cold storage business

1934: **MAYEKAWA** developed industrial vertical low-speed reciprocating compressors



1958: **MAYEKAWA** developed a high-speed multi cylinder single-stage reciprocating compressor



1964: **MAYEKAWA** started the production of a screw type refrigeration compressor



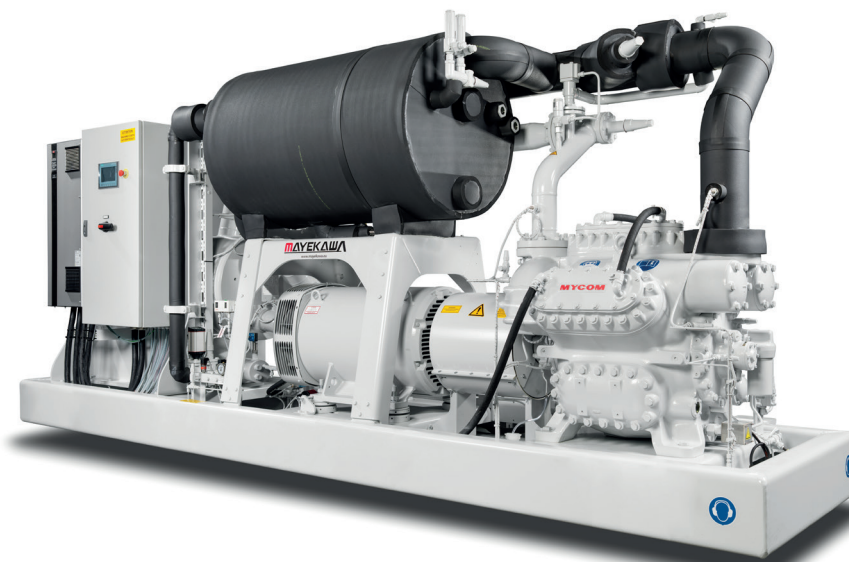
1966: **MAYEKAWA** developed a high-speed multi cylinder two-stage reciprocating compressor



mCHILLER SERIES – Sustainable Innovation

The mCHILLER series is a MAYEKAWA plug-and-play compact standard solution with a strong focus on energy consumption and the perfect balance between durability and simplicity. The mCHILLER series is designed with ammonia as natural refrigerant, which gives the highest energy efficiency and the best sustainable solution. The mCHILLER series provides a high level of safety with a low ammonia charge. It has been designed for easy and simple installation and a long lifespan.

The MAYEKAWA mCHILLER series includes the water-cooled standard ammonia chillers mCHILLER FUGU, and the air-cooled standard ammonia chillers mCHILLER TAKA.



mCHILLER FUGU 960R

mCHILLER FUGU

standard water-cooled ammonia chillers

mCHILLER TAKA

standard air-cooled ammonia chillers

1985: MAYEKAWA developed STM screw compressors for vapor recover systems in the brewery industry



2002: MAYEKAWA developed a large-sized compound two-stage screw compressor



2008: MAYEKAWA developed an energy saving reciprocating compressor 'M series'



1998: MAYEKAWA delivered 377 ammonia refrigeration units for the Nagano Olympic Games



2007: MAYEKAWA developed a semi-hermetic screw compressor containing IPM motor for ammonia refrigerant



2021: MAYEKAWA launched the sustainable, standard mCHILLER series

mCHILLER

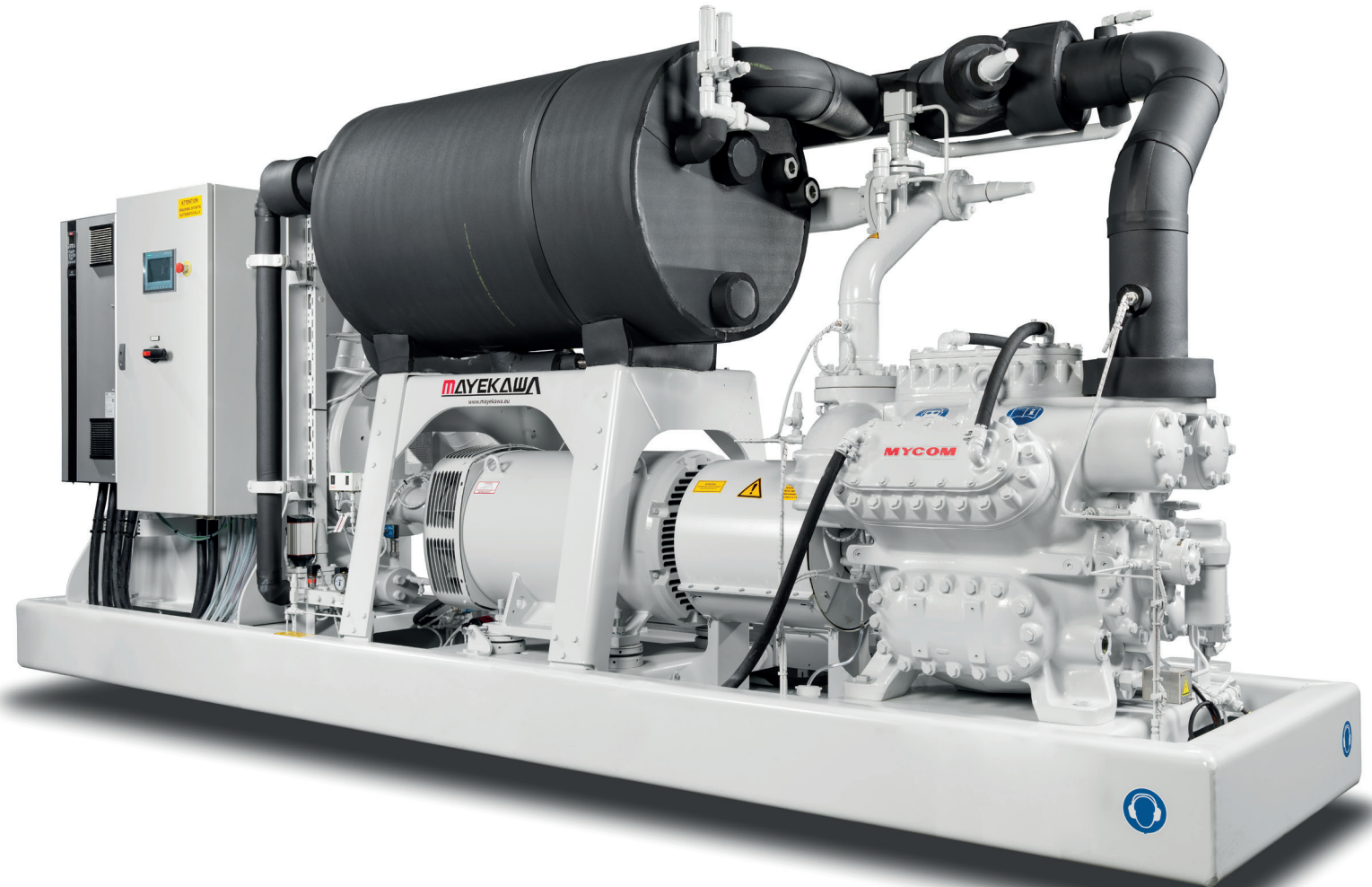
FUGU

standard water-cooled ammonia chillers

mCHILLER FUGU 1280R, 960R, 640R

mCHILLER FUGU in the versions 1280R, 960R, and 640R is designed to meet the needs of industrial and semi-industrial markets such as breweries, industrial processes, server farms, building facilities etc.

mCHILLER FUGU 1280R, 960R and 640R has a strong industrial design, long lifespan – and can be used in a wide variety of applications.





Key Features

- Strong industrial design
- Low charge ammonia
- High efficiency
- Plug-and-play solution

Benefits

- Reliable performance
- Safe solution
- Low operation cost
- Easy and convenient installation

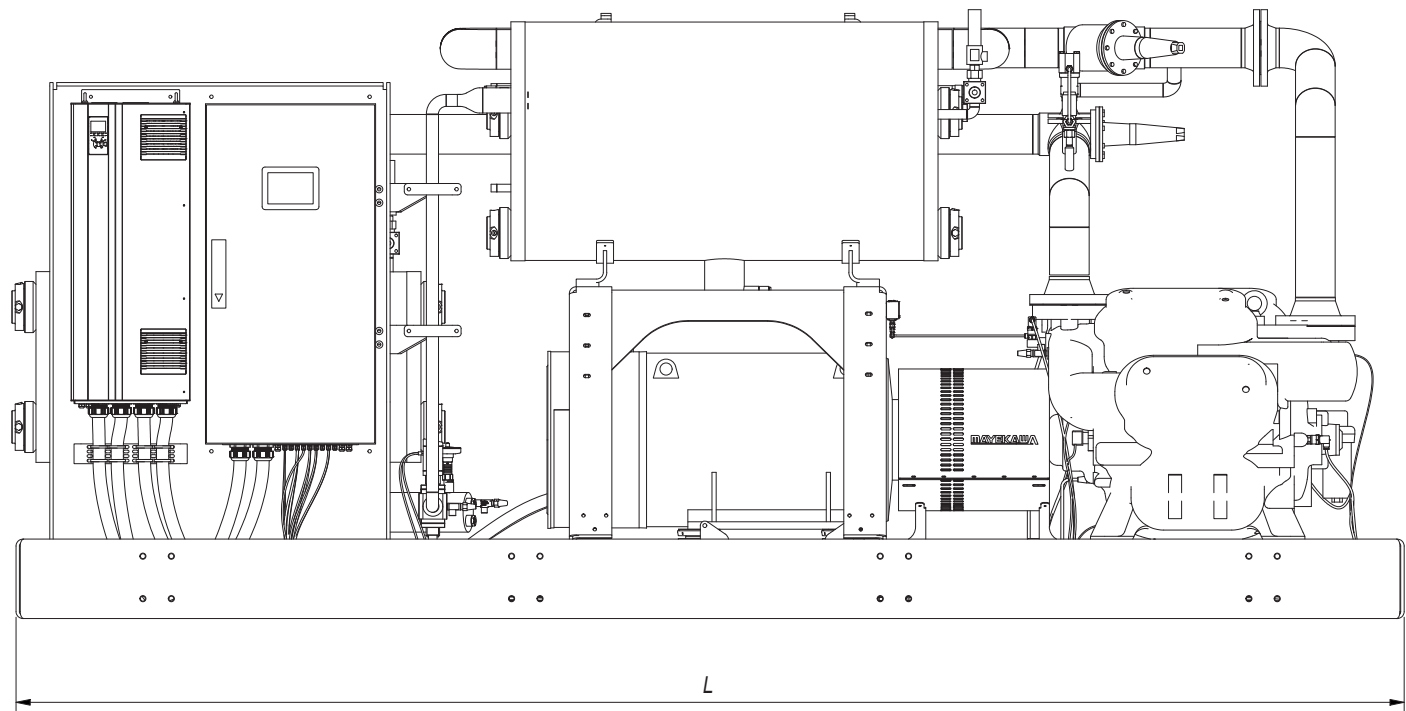
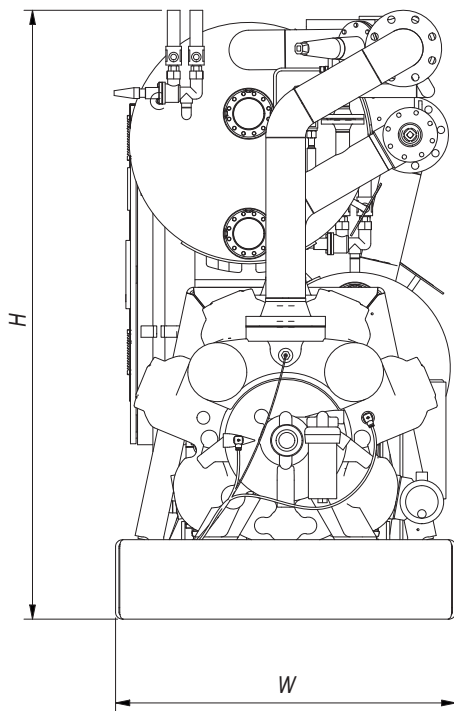
mCHILLER

FUGU

standard water-cooled ammonia chillers

mCHILLER model	FUGU 1280R	FUGU 960R	FUGU 640R
Cooling side connections	2/4x DN100	2/4x DN100	2/4x DN80
Heat rejection side connections	2/4x DN100	2/4x DN100	2/4x DN80
Length (L)	4895 mm	4895 mm	4895 mm
Width (W)	1200 mm	1200 mm	1200 mm
Height (H)	2150 mm	2150 mm	1970 mm
Dry weight	8500 kg	8050 kg	6400 kg

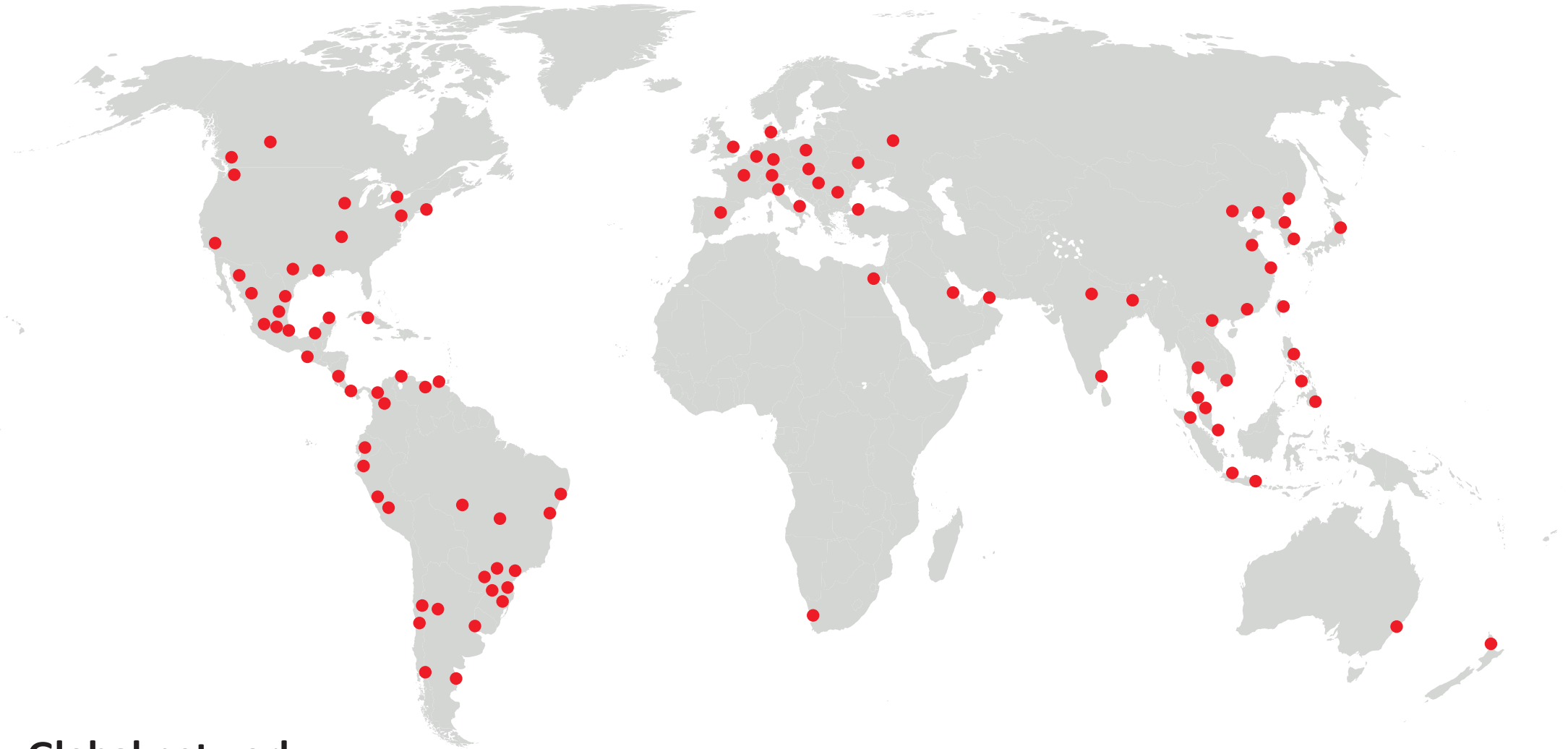
Values are to be considered as guidance and will be finally confirmed in the quotation process



Technical Data

General	FUGU 1280R		FUGU 960R		FUGU 640R	
Package type:	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller
Refrigerant/charge:	R717 / 80 kg	R717 / 80 kg	R717 / 80 kg	R717 / 80 kg	R717 / 55 kg	R717 / 55 kg
Total part load:	11.0-100 %	11.0-100 %	14.5-100 %	14.,5-100 %	21.5-100 %	21.5-100 %
Cooling capacity:	1329.2 kW	793.5 kW	1037.0 kW	614.0 kW	674.4 kW	425.4 kW
Condenser capacity:	1557.7 kW	995.0 kW	1207.9 kW	766.6 kW	790.4 kW	425.8 kW
Shaft power:	228.5 kW	201.50 kW	170.7 kW	152.6 kW	116.1 kW	101.2 kW
EER comp:	5.82 (-)	3.94 (-)	6.07 (-)	4.02 (-)	6.20 (-)	4.30 (-)
EER Total:	5.47 (-)	3.70 (-)	5.71 (-)	3.79 (-)	5.90 (-)	4.00 (-)
COP:	6.82 (-)	4.94 (-)	7.07 (-)	5.02 (-)	7.20 (-)	5.30 (-)
Evaporator						
Secondary medie:	WATER	MEG-30.0 %	WATER	MEG-30.0 %	WATER	MEG-30.0 %
Secondary inlet:	12.0 °C	0.0 °C	12.0 °C	0.0 °C	12.0 °C	0.0 °C
Secondary outlet:	7.0 °C	-5.0 °C	7.0 °C	-5.0 °C	7.0 °C	-5.0 °C
Flow:	228 m3/h	150 m3/h	178 m3/h	116 m3/h	116 m3/h	80 m3/h
Condenser						
Secondary medie:	WATER	WATER	WATER	WATER	WATER	WATER
Secondary inlet:	30.0 °C	30.0 °C	30.0 °C	30.0 °C	30.0 °C	30.0 °C
Secondary outlet:	35.0 °C	35.0 °C	35.0 °C	35.0 °C	35.0 °C	35.0 °C
Flow:	269 m3/h	172 m3/h	209 m3/h	133 m3/h	137 m3/h	92 m3/h
Electrical						
System earthing:	TN-S	TN-S	TN-S	TN-S	TN-S	TN-S
Input voltage:	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE
Rated package current:	603A	495A	406A	406A	325A	325A
IK Max.:	20kA	20kA	20kA	20kA	20kA	20kA
Maximum fuse:	800A	630A	500A	500A	400A	400A
Slave communication type:	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET

Capacity according to EN12900



Global network

Headquartered in Tokyo Japan, Mayekawa provides products and services world-wide through an extensive network of local offices and plants.

www.mayekawa.com. For more information, please contact your local sales office.

All the information may be subject to change without notice.