COMPANY PROFILE 2025

OUR QUALITY OF SERVICE & EQUIPMENT
ARE CUSTOMER SATISFACTION

SGS

INDUSTRIAL ENGINEERING SDN. BHD.

SURUHANJAYA SYARIKAT MALAYSIA
COMPANIES COMMISSION OF MALAYSIA

BORANG 9
AKTA SYARIKAT 1965 [Seksyen 16(4)]

No. Syarikat - MyCoID

1097187	D

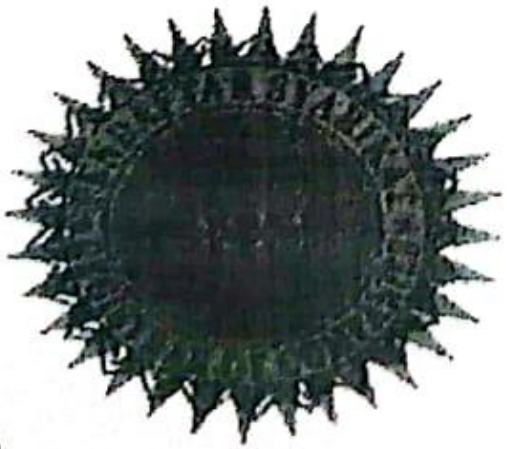
PERAKUAN PEMERBADANAN SYARIKAT SENDIRIAN

Dengan ini diperakui bahawa

SGS INDUSTRIAL ENGINEERING SDN. BHD.

telah diperbadankan di bawah Akta Syarikat 1965, pada dan mulai dari 11 haribulan Jun 2014, dan bahawa syarikat ini adalah sebuah syarikat berhad menurut syer dan bahawa syarikat ini adalah sebuah syarikat sendirian.

Dibuat di bawah tandatangan dan meterai saya di Kuala Lumpur pada 11 haribulan Jun 2014.



DATO' MOHD NAIM DARUWISH
PENDAFTAR SYARIKAT
MALAYSIA

User : rahmawati yusof Date : 11/06/2014 8:56:55 AM

HITACHI
Inspire the Next

1st April 2024

SGS INDUSTRIAL ENGINEERING SDN. BHD.
No.25, JALAN SERUNAI 16,
TAMAN KLANG JAYA,
41200 KLANG,
SELANGOR DARUL EHSAN,
MALAYSIA

Attention: Mr. Soorla / Mr Sara

Dear Sirs,

Re: Letter of Authorization

This is to certify that SGS Industrial Engineering Sdn. Bhd. with address at No.25, Jalan Serunai 16, Taman Klang Jaya, 41200 Klang, Selangor Darul Ehsan is authorized dealer by Hitachi Asia Ltd, Singapore to market in Malaysia of the following products:

1) Hitachi Bebicon Compressors (Tank Mounted and Package Type)
2) Hitachi Scroll Compressors (Package Type)
3) Hitachi Screw Compressors (Oil Flooded and Oil-Free Type)
4) Hitachi Air Compressors Accessories (Dryers & Filters)
5) All related spare parts for the above-mentioned products.
6) Third Party Products, Air Dryers, Filters and Parts.

SGS Industrial Engineering Sdn. Bhd. shall be fully responsible for the marketing, sales, and logistics as well as technical and service support to all Hitachi Air Compressor customers.

This letter shall remain valid until 31st March 2025.

Thank you

Yours Faithfully,

Johnny Poh
Deputy General Manager – Compressor Dept
Industrial Components & Equipment Group
Hitachi Asia Ltd

HITACHI
Inspire the Next

Authorised Dealer

This is to certify that

SGS Industrial Engineering Sdn Bhd

having its office at No: 25, Jalan Serunai 16, Taman Klang Jaya, 41200 Klang Selangor.

is our Dealer for Hitachi Air Compressor in Peninsular Malaysia

This certificate is valid until 31-03-2020

Shindo, Manabu
Managing Director
Hitachi Industrial Equipment (Malaysia) Sdn Bhd

HITACHI
Inspire the Next

FY2018 TOP 3 DEALER IN SALES

This is to recognise that

SGS INDUSTRIAL ENGINEERING SDN BHD

having its office at No: No:25 Jalan Serunai 16, Taman Klang Jaya, Klang Selangor 41200 Malaysia

is our Top 3 Dealer for Hitachi Air Compressor in Malaysia for the financial year 2018.

Shindo, Manabu
Managing Director
Hitachi Industrial Equipment (Malaysia) Sdn Bhd

KEMENTERIAN KEWANGAN MALAYSIA

SIJIL AKUAN PENDAFTARAN SYARIKAT

NO. SIJIL	:	K66488045973739387
NO. RUJUKAN PENDAFTARAN	:	357-02273117
TEMPOH SAH LAKU	:	26/01/2024 - 25/01/2027

Bahawa dengan ini diperakui syarikat :

SGS INDUSTRIAL ENGINEERING SDN. BHD. (1097187-D)
NO. 25, JALAN SERUNAI 16
TAMAN KLANG JAYA
KLANG
41200 KLANG
SELANGOR, MALAYSIA

Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang bekalan/perkhidmatan di bawah sektor, bidang dan sub-bidang seperti di Lampiran A. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di Lampiran B. Individu yang diberi kuasa oleh syarikat bagi urusan perolehan Kerajaan adalah seperti berikut :

SARAVANA MOORTHY A/L MUNIANDY	760301105845	DIRECTOR
ENCIK SOORIA DAYA A/L SOORA NARAYANA	770928086245	DIRECTOR

t.t

DATO' INDERA AB RAHIM BIN AB RAHMAN
Bahagian Perolehan Kerajaan
***b.p.* Ketua Setiausaha Perbendaharaan**
Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 26/01/2024

(Sijil ini adalah cetakan komputer dan tidak memerlukan tandatangan)

LAMPIRAN A

NO SIJIL : K66488045973739387

NO RUJUKAN PENDAFTARAN : 357-02273117

TEMPOH SAH LAKU : 26/01/2024 - 25/01/2027

BIL	TARIKH DAFTAR BIDANG	KOD BIDANG	KETERANGAN	STATUS
1	25/01/2024	130101	PERALATAN KEJURUTERAAN DAN MESIN PENGELUARAN/ MESIN, KELENGKAPAN BENGKEL DAN MESIN PENGELUARAN/ MESIN DAN KELENGKAPAN BENGKEL	Aktif
2	25/01/2024	130102	PERALATAN KEJURUTERAAN DAN MESIN PENGELUARAN/ MESIN, KELENGKAPAN BENGKEL DAN MESIN PENGELUARAN/ MESIN DAN KELENGKAPAN KHUSUS	Aktif
3	25/01/2024	130201	PERALATAN KEJURUTERAAN DAN MESIN PENGELUARAN/ JANAKUASA ELEKTRIK DAN PERALATAN GENERATOR/ALAT GANTI DAN BATERI/ JANAKUASA,PERALATAN/ALAT GANTI/AKSESORI(SECONDARY)	Aktif
4	25/01/2024	130202	PERALATAN KEJURUTERAAN DAN MESIN PENGELUARAN/ JANAKUASA ELEKTRIK DAN PERALATAN GENERATOR/ALAT GANTI DAN BATERI/ MESIN DAN KELENGKAPAN KHUSUS	Aktif
5	25/01/2024	220301	PERKHIDMATAN/ PENYELENGGARAAN/PEMBAIKAN ALAT HAWA DINGIN/ ALAT HAWA DINGIN (WINDOW/SPLIT/BERPUSAT)	Aktif

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 26/01/2024

ABOUT THE COMPANY

SGS AIR ENGINEERING, formed in June 2006. However, in 2014 known as SGS INDUSTRIAL ENGINEERING SDN BHD. Currently the equipment serviced by our company are the HITACHI Screw Compressor, Air Dryer, Chain Hoist and all type of screw and piston compressor.

The service team is staffed by technicians and engineers with years of experience. You can be assured of quality workmanship carried out in a timely manner. For over years, **SGS Industrial Engineering Sdn Bhd** has been a reliable partner in providing services for Hitachi industrial products. We are committed to provide best services to our clients.

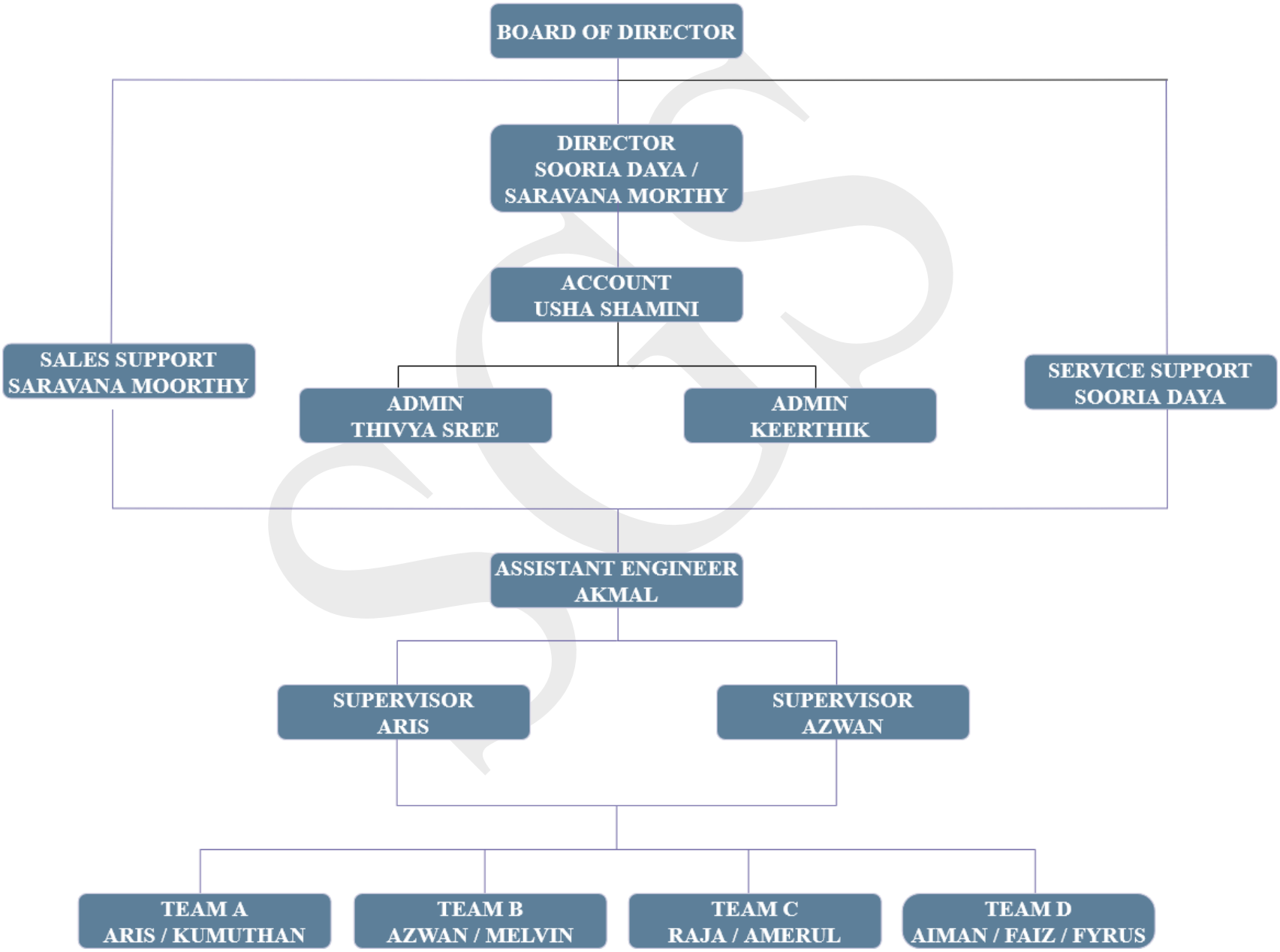
Industrial equipment's are large, complex pieces of machinery that are vital to the smooth operation of services and factories. To ensure optimal performance and minimise downtime from these equipment's, proper maintenance is required. SGS INDUSTRIAL ENGINEERING SDN BHD has a team of technicians proficient in the service of Hitachi Industrial Equipment's. We specialise in the maintenance and repair of Industrial Air Compressors from 5Hp to 200Hp, as well as the sales of Air Purification Systems and spare parts.

COMPANY PROFILE

Name of Company	: SGS INDUSTRIAL ENGINEERING SDN BHD
Head Office	: No.25, Jalan Serunai 16, Taman Klang Jaya, 41200 Klang, Selangor Darul Ehsan.
Penang Branch	: No 39, Lrg Binajaya 1, Taman Perindustrian Ringan Usahajaya 14100 Bukit Mertajam Pulau Pinang
Telephone	: 03-3318 4420
Fax	: 03-3322 1348
Handphone	: 012-3320 461 / 012-3633 455
Directors	: Mr. Sooria Daya A/L Soora Narayana
	: Mr. Saravana Moorthy A/L Muniandy
Nature of Company	: Private Limited
Type of Business	: Engineering, Trading and Service
Sales Manager	: Mr.Sara
Service Manager	: Mr. Sooria Daya @ Roy
Service Engineers	: En. Akmal / En. Aris / En. Azwan
Service Team	: Mr Raja / En Aiman / En Amerul / En Faiz / Mr Melvin Mr. Kumuthan
Admin	: Mrs. Thivya Sree / Ms.Tanushah
Accounts	: Mrs. Usha Shamini

SGS INDUSTRIAL ENGINEERING SDN BHD

ORGANIZATION CHART 2025



For over years, **SGS Industrial Engineering SDN BHD** has been a reliable partner in providing services for Hitachi industrial products. We are committed to provide best services to our clients.

Vision

We, SGS Industrial Engineering Sdn Bhd aim to become a best Trusted partner in the field of servicing and industrial equipment

Mission

- To support our customer by providing best services and valuable product among competitive
- To provide high quality services that exceed our customer's expectation.
- To emphasising utmost innovation, sincerity, customer satisfaction and safety in every aspect of our services.

Core Values:

- **Support Each Other:** We are committed to building an encouraging, caring, and supportive environment. We share a responsibility to support our team members and enrich their lives.
- **Act with Integrity:** We are honest and forthright in our dealings. Building trust builds a better company.
- **Service.** We do whatever it takes to delight our customers. We support and share responsibility with the members of our team.
- **Innovative:** We are a perceptual work in progress always striving to be better.
- **Customer Centric:** We strive to understand our customers and give them the best

Skills and Fields Expertise in

- **Team work**

The service team is staffed by technicians and engineers with years of experience. You can be assured of quality workmanship carried out in a timely manner

Placement of new main motor

Use water jet to clean inside the tank

Placement of new Compressor

SERVICES

Industrial equipment are large, complex pieces of machinery that are vital to the smooth operation of services and factories. To ensure optimal performance and minimize downtime from these equipment, proper maintenance is required. SGS INDUSTRIAL ENGINEERING SDN BHD has a team of technicians proficient in the service of Hitachi Industrial Equipment's. We specialize in the maintenance and repair of Industrial Air Compressors from 5Hp to 200Hp, as well as the sales of Air Purification Systems and spare parts.

TYPES OF SERVICES

After Sales Services - Periodical services, normally every 2 months, to change compressor oil, inspection of compressor unit and provide technical report on the condition of the unit.

Compressor Unit Overhaul- To be done according to the operation manual.

Emergency breakdown - Our service team will be at customer site anywhere in the country on the same day.

Troubleshooting - To investigate various problems with the system; for example, low air output, High temperature & Etc.

If your Industrial Air Equipment is in need of service, call the professionals at SGS INDUSTRIAL ENGINEERING SDN BHD. We are the best choice for the servicing needs of your Hitachi Industrial Equipment at a competitive cost.

AIR PURIFICATION SYSTEM

Purified, compressed air is widely used in the various industries, from the medical field to mechanical industries. Some examples of the uses of compressed air are :

FOOD PROCESSING

For manufacturing containers, drying noodles, putting products into bags, transporting products with pressurized air.

AUTOMOBILES

For applying coatings, filling tires, sandblasting.

ELECTRONICS

For process controls, nitrogen sealing.

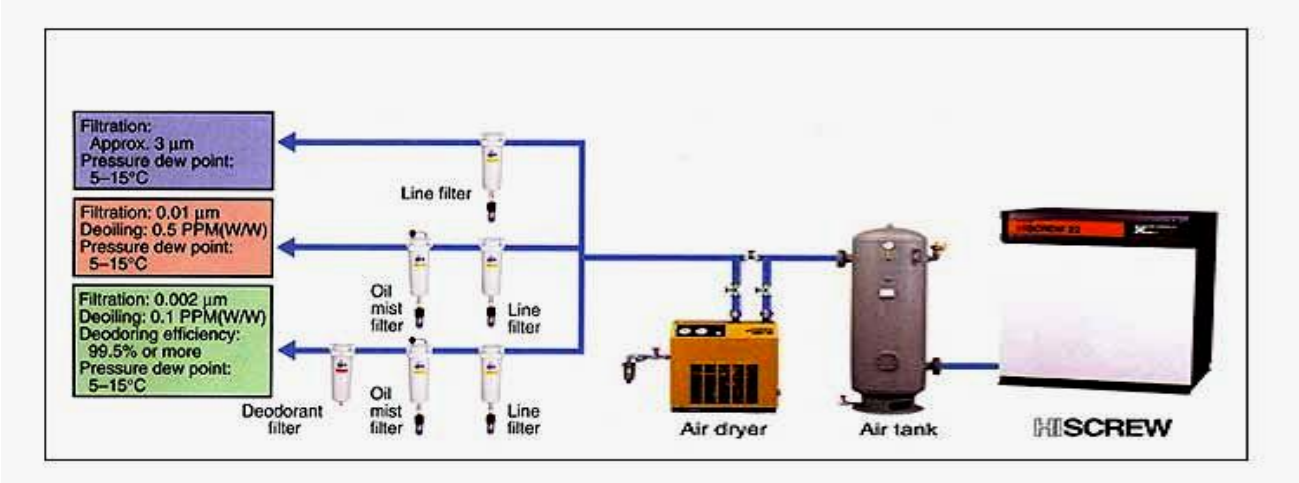
CHEMISTRY

For processing, Oxidizing, Aerating, Culturing. Film-Drying. Plastic Moulding. Hot-Air Welding of vinyl / nylon, nitrogen-based force-feeding, spot cooling.

ELECTRIC POWER

For oxidizing, furnace combustion. To produce purified air, compressors, air dryers and air filters are needed. Air is passed through a compressor to produce high pressure, high temperature air with high levels of condensation. This air is then passed through an air dryer to remove the condensed water in the air. Finally, an air filter will remover dirt particles in the air.

There are various types of compressors in the Hitachi range to suit all requirements. The screw compressors are for large industrial needs and range from 10Hp to 250Hp. For smaller capacities, 1Hp to 20Hp, the Bebicon compressor is perfect. Air Dryers serviced by SGS are Hitachi air dryers and ORION S.M.C Dryers.



AIR PURIFICATION SYSTEM

CORPORATE INFORMATION

DIRECTORS:

MR. SOORIA DAYA

MR. SARAVANA MOORTHY

DATE OF INCORPORATION:

11th JUNE 2014

AUTHORIZED CAPITAL:

RM 150, 000.00

PAID-UP CAPITAL:

RM 320, 002.00

PRINCIPAL BANKERS:

PUBLIC BANK BERHAD

SERVICE WORKS BY STAFF

WE CARRY OUT SERVICE FOR THE RECEIVER TANK WITH CLEANING OUTSIDE OF TANK, POUR CHEMICAL & WASH INSIDE TANK.

WE CARRY OUT PLACEMENT NEW MAIN MOTOR, CLEAN, DISMANTLE OUT BELT AND MAIN MOTOR, CHECK & TEST RUN

CERTIFICATE

Certificate

HITACHI
Inspire the Next

No.AD017

This is to certify that

Mr. Mohd Akmal Bin Bakir

Has successfully undergone following course in Hitachi Industrial Equipment Systems.

【Course : Air Compressor Advanced Training for Hitachi Asia】

Date : From February 10 to February 14, 2025

Air Compressor Technical School

Principal : Taro Imaizumi

Hitachi Industrial Equipment Systems Co., L

CERTIFICATE

HITACHI
Inspire the Next

MR. MOHAMAD ARIS BIN TUKIRAN

CERT. NO. DS001

SGS INDUSTRIAL ENGINEERING SDN BHD

You are congratulated on the occasion of completing the Training Course regarding DSP Next2 Service Training in Singapore

Air Compressor Technical School
Hitachi Industrial Equipment Systems Co., Ltd.

Wong Han Meng
Senior Service Manager
ICE Group/ Hitachi Asia Ltd

***Rules & regulations at the back**

Taro Imaizumi

Taro Imaizumi
Principal
Air Compressor Technical School

Certificate

HITACHI

No.DS020

This is to certify that

Mr. Mohd Azwan Bin Bakir

SGS Industrial Engineering Sdn. Bhd.

Has successfully undergone following course in Hitachi Industrial Equipment Systems.

【Course : DSP Service Training】

Date : From June 16 to June 20, 2025

* This certificate serves only as confirmation of training completion and does not certify skill proficiency.
* The certificate of registration shall be non-transferable.
* In the event of change of ownership or management, the establishment shall be surrendered to the authority and the establishment shall apply afresh for grant of certificate of registration.

Air Compressor Technical School

Principal : Taro Imaizumi

Hitachi Industrial Equipment Systems Co.,

SSSB-OSHC(HQ)2025:04191

SKILL SOLUTIONS SDN BHD
The Best Company for The Best Organisation

Certificate of Attendance

this is to certify that

MOHD AKMAL BIN BAKIR
900402-10-6013

has successfully completed the following training course

OCCUPATIONAL SAFETY & HEALTH COORDINATOR

(JKKP IKS/SBK127/491/2-1 (27))

at

SKILL SOLUTIONS ACADEMY, PUTRA HEIGHTS, SUBANG JAYA, SELANGOR DARUL EHSAN

on

13, 14 & 15 MAY 2025

Ahmad Safwan Badri Ahmad Nazri
Managing Director
Skill Solutions Sdn Bhd

SSSB-OSHC(HQ)2025:04192

SKILL SOLUTIONS SDN BHD
The Best Company for The Best Organisation

Certificate of Attendance

this is to certify that

MOHAMAD ARIS BIN TUKIRAN
960412-10-6353

has successfully completed the following training course

OCCUPATIONAL SAFETY & HEALTH COORDINATOR

(JKKP IKS/SBK127/491/2-1 (27))

at

SKILL SOLUTIONS ACADEMY, PUTRA HEIGHTS, SUBANG JAYA, SELANGOR DARUL EHSAN

on

13, 14 & 15 MAY 2025

Ahmad Safwan Badri Ahmad Nazri
Managing Director
Skill Solutions Sdn Bhd

HITACHI
Inspire the Next

CERTIFICATE OF APPRECIATION

Malaysia's Air Compressor Dealers Sales Meeting 2022
8th November 2022
Sunway Resort, Kuala Lumpur

Presented to

SGS INDUSTRIAL ENGINEERING SDN. BHD.

In appreciation for your continued support
and dedicated contribution to our success.

Anthony Ng
General Manager
Industrial Components & Equipment Group

Hitachi Asia Ltd.

CERTIFICATE

Mr. Mohd Akmal Bin Bakir

SGS Air Engineering

You are congratulated on the occasion of completing the Training Course regarding the oil-flooded rotary screw air compressors and the reciprocating type Compressors in Malaysia.

Air Compressor Technical School
Hitachi Industrial Equipment Systems Co., Ltd.

14, June, 2013

Masayuki Hayashida
Managing Director
Hitachi Industrial Equipment (MALAYSIA)SDN.BHD.

Masanobu Satou

Masanobu Satou
Principal
Air Compressor Technical School

CERTIFICATE

CC079

SUMBER DYNAMIC TEAMWORK SDN BHD.

Mr. Sooria Daya Sooria Narayana

You are congratulated on the occasion of completing the Training Course regarding the oil-free and oil-flooded rotary screw air compressors, comprising five days.

Shimizu Air Compressor Technical School
Hitachi Industrial Equipment Systems Co., Ltd.

27, MAY., 2005

Koutarou Naya
Principal
Shimizu Air Compressor Technical School

CERTIFICATE

CC001

Mr. Saravana Moorthy

You are congratulated on the occasion of completing the International Course regarding the oil-free rotary screw air compressors and the oil-flooded rotary screw air compressors, comprising five days.

Shimizu Air Compressor Technical School
Hitachi, Ltd., Japan

MAY 21, 1999

Kenji Nakagawa

Kenji Nakagawa
Principal
Shimizu Air Compressor Technical School

No. H2403

Certificate

This is to certify that

Mr. SOORIA DAYA A/L SOORA NARAYANA

SGS Air Engineering

has successfully undergone the technical training program at Hitachi Plant Technologies, Ltd. in the field of Installation, testing and Auxiliary unit maintenance of Hitachi screw compressor SDS series.

from : Dec. 03 2012
to : Dec. 07 2012

Principal : Ryuichi Kimura

Technical Service Training School
Tsuchiura Works
Hitachi Plant Technologies, Ltd.

Certificate

This is to certify that

Mr.Saravana Moorthy A/L Muniandy

Sumber (M)

has successfully undergone the technical training program at Hitachi Industries Co., Ltd. in the field of Installation, testing and maintenance of Hitachi screw compressor SDS series

from : June 3, 2002

to : June 8, 2002

Principal T. Nakayama

Technical Service Training School

Hitachi Industries Co., Ltd.

Hitachi Industrial Equipment Systems Co., Ltd.

SGS

Certificate of Attendance

This is to Certify that

Saravana Moorthy

has successfully completed a 1/2 day Seminar on

Environmental Protection Testing

at

Hotel Armada, Petaling Jaya

on

10th April, 2003

ONG Hai Ching
Course Trainer

TIN Cheek Ping
Course Manager

Certificate No.: EPT/0356/03

SDT

SUMMER DYNAMIC TEAMWORK SDN BHD

Testimonial

This is to certify that

Sooria Daya A/L Soora Narayana
I/C No.: 770928-08-6245

Has completed the Technical and Maintenance Training

for *HITACHI OIL FREE AIR COMPRESSOR*

in the field of

SYSTEM OF HISCREW COMPRESSOR

OPEARTION OF HISCREW COMPRESSOR

MAINTENANCE OF COMPRESSOR

PRACTICAL TRAINING ON THE COMPRESSOR

On 1st April 2010 at Toyota Auto Body (M) Sdn Bhd

TECHNICAL ADVISOR

HITACHI
Inspire the Next

TOYOTA AUTO BODY MALAYSIA SDN BHD

Certificate of Attendance

This is certify that

SOORIA DAYA A/L SOORA NARAYAMA

Company : SGS Industrial Engineering Sdn Bhd

Has successfully completed

Anzen Leader Training

深田正樹

Mr. Masaki Fukada
Managing Director

SUMBER ENGINEERING (M) SDN BHD

Testimonial

This is to certify that

Saravana Moorthy

Has Completed the Technical and Maintenance Training

for ***HITACHI ROTARY SCREW AIR COMPRESSOR***

in the field of

SYSTEM OF HISCREW COMPRESSOR

OPERATION OF HISCREW COMPRESSOR

MAINTENANCE OF COMPRESSOR

PRACTICAL TRAINING ON THE COMPRESSOR

on July '98 at Wisma Sumber

DIRECTOR

SENIOR SERVICE ENGINEER

BROCHUER

Hitachi Rotary Screw Compressors

HITACHI
Inspire the Next

HISCREW

NEXT II series (18-75kW)

More Efficiency
Fit to Improve Productivity
Higher Level of User-friendly

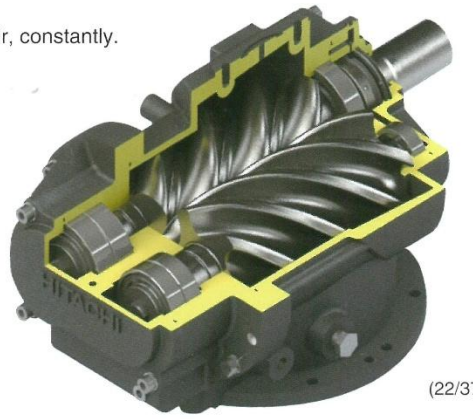
NEXT II series

Full Range Loaded with High Efficiency Motor

New Developed Air-End

Hitachi Latest Innovation of Air-End Technology

- High efficiency Air-End with low-noise and low-vibration supplies compressed air, constantly.



(22/37kW)

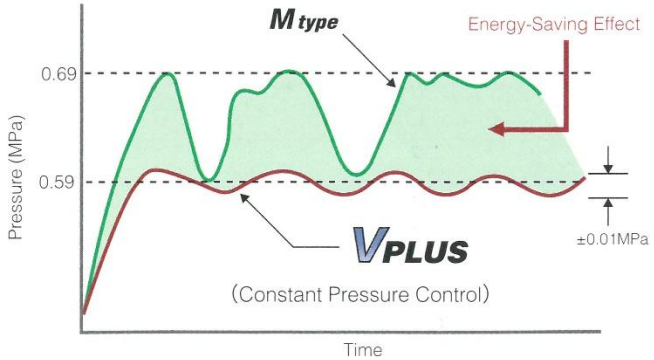
High Efficiency Capacity Control

VPLUS

Since Constant Pressure Control allows highly precise pressure control within range of ±0.01MPa, supply of compressed air at necessary pressure is possible with high efficiency.

M type

On M type models, I+P control (purge + motor auto START/STOP) is applicable during partial load operation.



IPC Control (Intelligent Pressure Control)

V-PLUS M type

By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

Patent JP4425768 and others

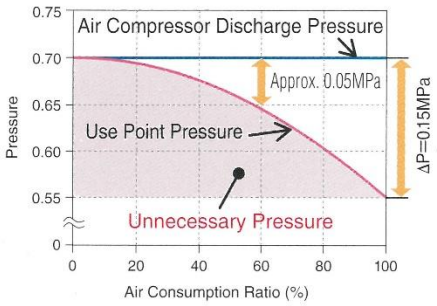
Example of effect by IPC

Conditions ● Air compressor: OSP-37VAN2 ● Control pressure setting: 0.70MPa ● Use point pressure during full load: 0.55MPa ● Piping pressure loss during full load: 0.15MPa

Graph of pressure change (Theoretical values)

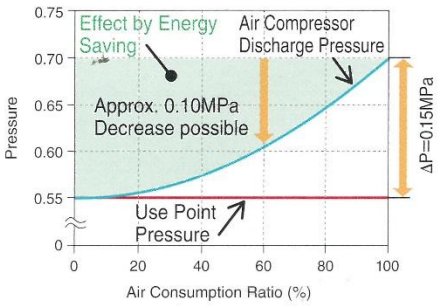
① IPC-OFF (Conventional inverter control model)

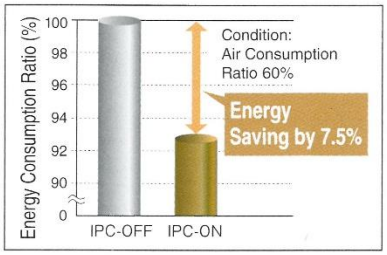
・Control the air compressor discharge pressure at 0.70MPa



② IPC-ON (NEXT II series)

・Control the use point pressure at 0.55MPa





*Due to estimation control, use point pressure varies in accordance with use conditions.
*IPC control range of the constant speed unit is air consumption ratio of 50% or more.

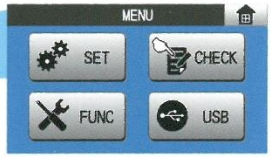
Multi-Function Touch Panel*

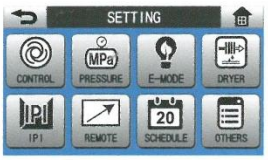
Significant Improvement of User-friendly

*The image described above has been modified.

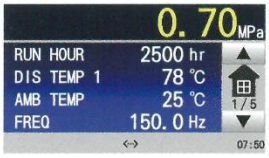
Various Functions Available

Menu

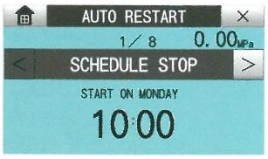




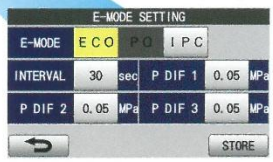
Monitor Indication



Notice Indication



E-MODE



Operation Data Logging

Main Functions

① Schedule Operation (Weekly Timer)
② Instantaneous Power Interruption (IPI) Restart Function
③ Alternate Operation (Option)
④ Multi-unit Control (Option)
⑤ AUTO Operation
⑥ Communication Function
⑦ Web Server Function
⑧ Display/Store of Operation Data
⑨ Store/Load of Settings
⑩ Maintenance Time Notification
⑪ Operation Data Memory, Display in Graph
⑫ Display of Shutdown and Alarm History

*Touch panel less option does NOT have these functions. (Touch panel less option is available only for 18/22/30/37MAN2.)

IT Communication Functions*

USB Flash Memory Possible for Data Logging

*Necessary to prepare a USB flash memory device (5.5 cm or smaller) on user's side.
*Operation data for one day is approximately 400kB. (For reference)

Web Server Function via Bluetooth®

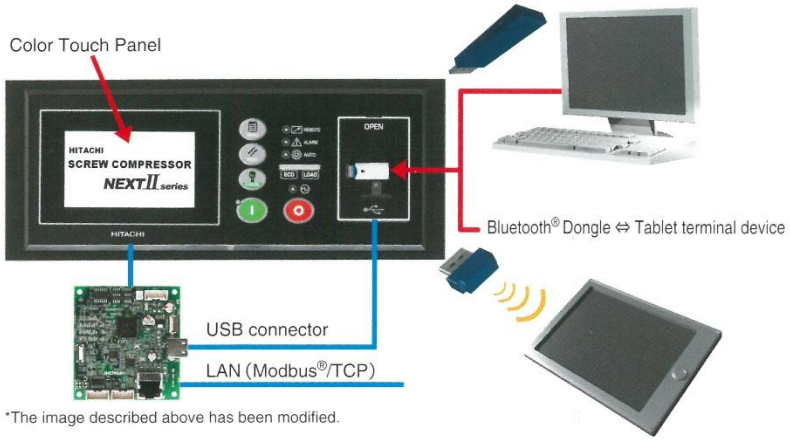
*Necessary to prepare a Bluetooth® USB dongle on your side.
*For setting changes, part of the items are applicable.

Modbus® Communication

Open network serial communication Modbus®/RTU is supported as standard

*Modbus®/TCP support is optional.

USB flash memory (data retrieving)
(Standard) pressure/temperature/current/history/time



*The image described above has been modified.

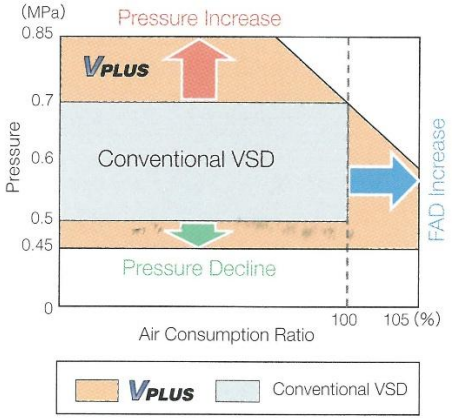
*Touch panel less option does NOT have these functions.
(Touch panel less option is available only for 18/22/30/37MAN2.)

・Bluetooth is the registered trademark of Bluetooth SIG, Inc (US).
・Modbus is the registered trademark of Schneider Automation Inc.

Versatility in Hitachi Original Technology

PQ WIDE MODE

PQ WIDE MODE, by automatically adjusting the maximum rotation speed of the compressor, enables to increase the discharge FAD in case that the pressure declines. Compared to conventional VSD, compressor is possible to operate at a wider range of pressure (P) and FAD (Q).



FAD at PQ WIDE MODE

Unit: m³/min.

Model \ Discharge Pressure MPa	0.45	0.50	0.60	0.70	0.85
22kW	4.3	4.3	4.3	4.1	3.6
37kW	7.1	7.1	7.1	6.8	6.2
55kW	10.6	10.6	10.6	10.1	9.1
75kW	14.0	14.0	14.0	13.3	12.0

Various System Combinations with VPLUS

To respond to the change of air use, Hitachi provides various system combinations with VSD for further Energy-Saving.

V-M Combination System

If 2 or 3 compressors are necessary, Hitachi V-M combination system is your excellent choice. There is great merit on Hitachi V-M combination system which divides 1 compressor into 2.

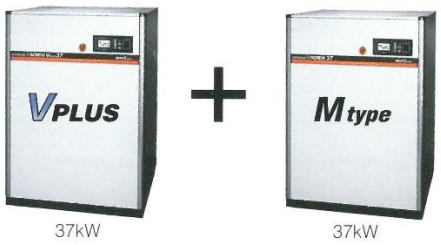
Single-V System/Multi-V System

Besides V-M Combination System, Energy-Saving is also possible with any combination such as Single-V multi-unit control system, or Multi-V multi-unit control system etc.

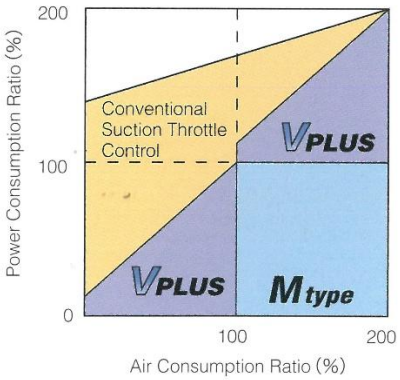
Example Effect of V-M Combination System

1. Energy consumption is similar to the one of 75kW V plus.
2. Power consumption is saved by **39**% or **164**MWh/year, when the air consumption ratio is 60% at pressure of 0.6MPa.

* Calculation condition: 6,000h/year running



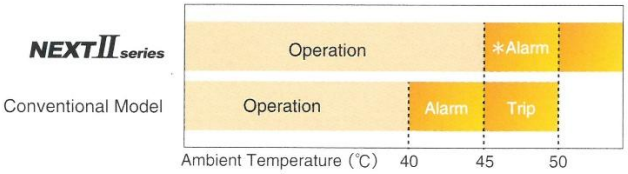
37kW 37kW



High Reliability

Up to 50℃

- Standard up to 45℃
- Operation is possible under 50℃



* Ambient temperature alarm will be indicated when ambient temperature is over 45℃. Continuous operation at higher than 45℃ may shorten lifetime of lubricating oil and electric parts.

AC Reactor*

- Protect Fan Inverter against voltage surge due to unstable power supply.

*For 22/37kW and 55/75kW only

NEW HISCREW OIL NEXT

- Designed for screw air compressor.
- Oil change cycle is every 2 years or 12,000hr which comes first.

Package Filter as Standard

- Easy maintenance
- Maintenance information is indicated on the touch panel periodically.

Standard Specification (18–75kW)

VPLUS

Item · Unit		Model	OSP-22VAN2		OSP-37VAN2		OSP-55VAN2		OSP-75VAN2	
Cooling Method		–	Air-Cooled							
Nominal Output		kW	22		37		55		75	
		HP	30		50		75		100	
Rated	Discharge Pressure	MPa	0.7							
		PSI	102							
	Discharge Capacity	m³/min	4.1		6.8		10.1		13.3	
		CFM	145		240		357		470	
PQ WIDE MODE	Discharge Pressure	MPa	0.6	0.85	0.6	0.85	0.6	0.85	0.6	0.85
		PSI	87	123	87	123	87	123	87	123
	Discharge Capacity	m³/min	4.3	3.6	7.1	6.2	10.6	9.1	14.0	12.0
		CFM	152	127	251	219	374	321	494	424
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0 to 45℃							
Discharge Temperature		℃	Atmospheric Temperature + 15 or below							
Driving Method		–	DCBL Motor Direct Drive				DCBL Motor with Coupling			
Starting Type		–	Soft Start							
Lubricating Oil		–	HITACHI NEW HISCREW OIL NEXT							
Lubricating Oil Quantity		L	10		15		28		39	
Nominal Output of Cooling Fan		kW	1.5 (with Inverter Control)						2.2 (with Inverter Control)	
Discharge Pipe Diameter		–	Rc 1·1/2				Rc 2			
Dimension (W×D×H)		mm	1,000×1,050×1,550		1,200×1,150×1,650		2,000×1,200×1,800			
Weight		kg	450		670		1,230		1,405	
Sound Level		dB [A]	58		60		64		66	

M type

Item · Unit		Model	OSP-18M5AN2	OSP-22M5AN2	OSP-30M5AN2	OSP-37M5AN2
Cooling Method		–	Air-Cooled			
Nominal Output		kW	18	22	30	37
		HP	24	30	40	50
Rated	Discharge Pressure	MPa	0.7 <0.85>	0.7 <0.85> [1.0]	0.7 <0.85>	0.7 <0.85> [1.0]
		PSI	102 <123>	102 <123> [145]	102 <123>	102 <123> [145]
	Discharge Capacity	m³/min	3.4 <3.0>	4.0 <3.7> [3.3]	6.0 <5.4>	7.2 <6.6> [5.8]
		CFM	120 <106>	141 <131> [117]	212 <191>	254 <233> [205]
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0 to 45℃			
Discharge Temperature		℃	Atmospheric Temperature + 15 or below			
Driving Method		–	4-Pole TEFC Motor with V-Belt Drive			
Starting Type		–	Star-Delta			
Lubricating Oil		–	HITACHI NEW HISCREW OIL NEXT			
Lubricating Oil Quantity		L	10		15	
Nominal Output of Cooling Fan		kW	1.5	1.5 (with Inverter Control)	1.5	1.5 (with Inverter Control)
Discharge Pipe Diameter		–	Rc 1·1/2			
Dimension (W×D×H)		mm	1,000×1,050×1,550		1,200×1,150×1,650	
Weight		kg	670		930	
Sound Level		dB [A]	59		65	

Item · Unit		Model	OSP-55M5AN2	OSP-75M5AN2
Cooling Method		–	Air-Cooled	
Nominal Output		kW	55	75
		HP	75	100
Rated	Discharge Pressure	MPa	0.7 <0.85> [1.0]	
		PSI	102 <123> [145]	
	Discharge Capacity	m³/min	10.0 <9.0> [8.3]	13.2 <11.9> [10.9]
		CFM	353 <318> [293]	466 <420> [385]
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0 to 45℃	
Discharge Temperature		℃	Atmospheric Temperature + 15 or below	
Driving Method		–	2-Pole TEFC Motor with Gear Driving	
Starting Type		–	Star-Delta	
Lubricating Oil		–	HITACHI NEW HISCREW OIL NEXT	
Lubricating Oil Quantity		L	29	40
Nominal Output of Cooling Fan		kW	1.5 (with Inverter Control)	2.2 (with Inverter Control)
Discharge Pipe Diameter		–	Rc 2	
Dimension (W×D×H)		mm	2,000×1,200×1,800	
Weight		kg	1,400	1,690
Sound Level		dB [A]	65	67

Notes:

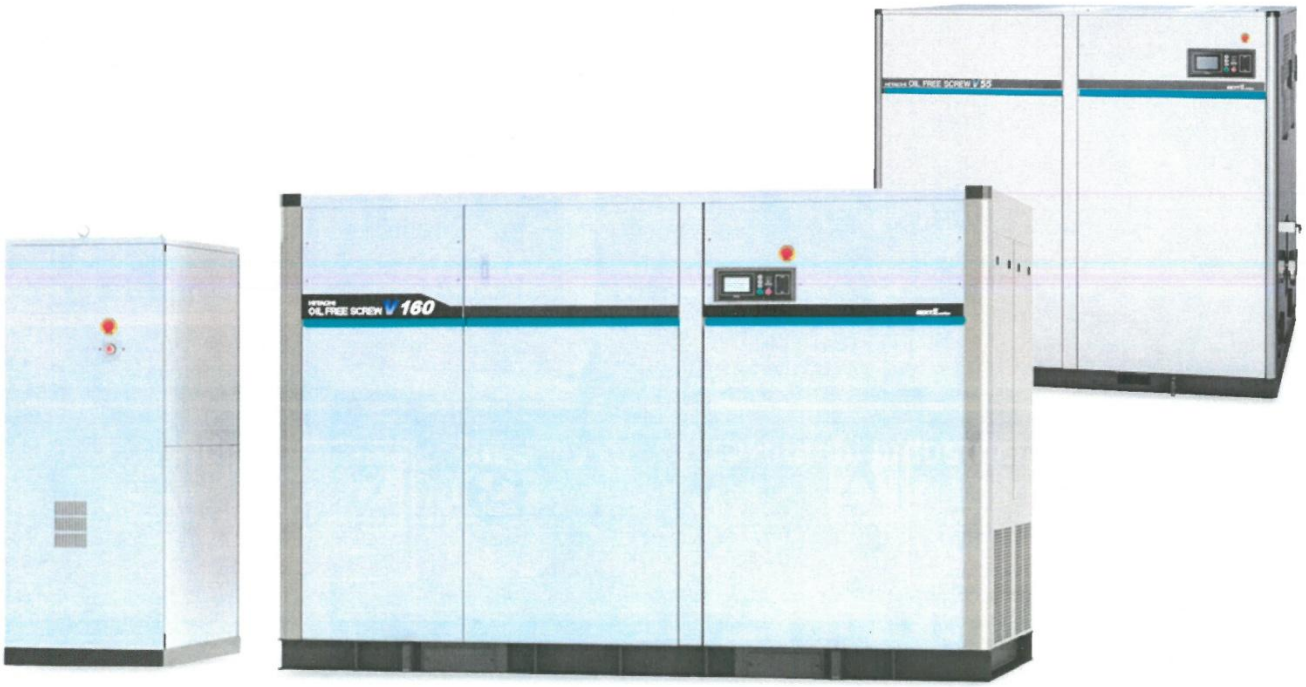
1. Capacity is measured according to ISO 1217, Third Edition, Annex C.
2. Pressures are indicated as the gauge pressure.
3. Sound Level is the converted value under the condition of 1.5m in front and 1m height in an anechoic room.
   It may vary in different operating conditions and/or different environment with echo of actual field installations.
   Sound Level may be increased by 3dB at PQ WIDEMODE ON.
4. Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
5. Do NOT use any oil other than "HITACHI NEW HISCREW OIL NEXT".
6. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
8. < > [ ] show values of capacity under different discharge pressures.
9. 1.0 MPa model is ONLY available on 22/37/55/75kW M type.
   For details, contact your nearest dealer of Hitachi local representative office.
10. Digital instrument panel can be chosen only for M type (18/22/30/37kW) as Touch Panel less option.

HITACHI OIL-FREE SCREW COMPRESSOR

HITACHI
Inspire the Next

OIL FREE SCREW

SINGLE STAGE / TWO STAGE



Oil-Free Rotary Screw Air Compressor, DSP Series

15–55kW Single-Stage

NEXT II series

MPa: 0.30/0.40/0.70
m³/min: 2.0 - 8.5

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | With Built-in Dryer | Without Dryer

22–120kW Two-Stage

NEXT II series

MPa: 0.70/0.88/0.93/1.0
m³/min: 3.2 - 21.0

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | With Built-in Dryer | Without Dryer

132–240kW Two-Stage

NEXT II series

MPa: 0.75/0.93/1.0
m³/min: 19.0 - 40.5

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | Without Dryer

■OIL FREE SCREW (DSP) Model List

● Fixed Speed Type

Model			Nominal Output (kW) 15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
Single-Stage	Air-Cooled	Built-in Dryer	●	●		●		●									
		Without Dryer	●	●		●		●									
	Water-Cooled	Without Dryer	●	●		●		●									
Two-Stage	Air-Cooled	Built-in Dryer		●	●	●	●	●	●								
		Without Dryer		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Water-Cooled	Built-in Dryer					●	●	●								
		Without Dryer					●	●	●	●	●	●	●	●	●	●	●

● Vtype

Model			Nominal Output (kW) 15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
Single-Stage	Air-Cooled	Built-in Dryer		●		●		●									
		Without Dryer		●		●		●									
	Water-Cooled	Without Dryer				●		●									
Two-Stage	Air-Cooled	Built-in Dryer				●		●	●								
		Without Dryer				●		●	●		●				●		●
	Water-Cooled	Built-in Dryer						●	●								
		Without Dryer						●	●		●				●		●

Structure of High Performance Airend

Stainless Steel Rotor

The rotor material, machined by high-precision grinding, is a special stainless steel that excels in corrosion resistance and durability. In addition, to minimize internal leakage, the rotor is mirror finished to ensure proper clearance, taking thermal expansion during operation into consideration.

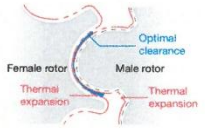
High Performance Rotor Profile

Rotors exposed to discharge temperatures of 300°C or more in single-stage machines and 200°C or more in two-stage machines undergo significant thermal expansion.
Hitachi's own 3D compensation technology is applied to ensure that appropriate clearance is maintained during operation with thermal expansion.

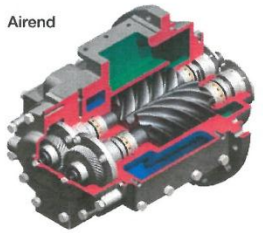
High Performance Coating

Patent JP05416072

The rotor is coated with a solid lubricant to further reduce gaps between rotors and improve performance. This solid lubricant coating has sufficient performance even in harsh environments of over 300°C. Hitachi's unique technology is applied to this coating.



Airend



Shaft Seal To Prevent Oil Leakage

The visco-type seal, designed by Hitachi for oil-free screw compressors, actively repels oil with its internal spiral grooves. The combination of the air seal and visco-type seal prevents oil from entering the compression chamber.

Bearing & Timing Gear

Special ball and roller bearings are used, and jet lubrication is adopted.
In addition, precision-finished timing gears ensure proper clearance between rotors.

DSP NEXT II series Common Features

Premium Air Quality

True Oil-Free Air at Class 0 Level

Test and analysis of condensation of oil in the discharge air of Hitachi Oil-free Screw Compressor (DSP) are implemented by third party (TÜV) based on ISO8573-1 standard. By the test result, oil contained in the discharge air of Hitachi DSP is proved and certified as the highest level of quality air "Class 0".

Class Zero ISO 8573-1

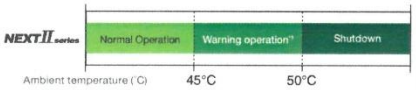
■ ISO 8573-1:2010 [-:-:0]

45°C Reliability at high temperature operation

Vtype Fixed Speed

Stable continuous operation in ambient temperature of 45°C (Running up to 50°C)

A new unit structure that minimizes temperature rise inside the compressor enables both continuous operation at an ambient temperature of 45°C and a long maintenance cycle, with no abnormal shutdown even at 50°C.



*1:The alarm is displayed when the ambient temperature is over 45°C.
In addition, the life of lubricating oil and electrical devices will be shortened in the case of long operation over 45°C.

IPC IPC control (Intelligent Pressure Control)

Vtype Fixed Speed

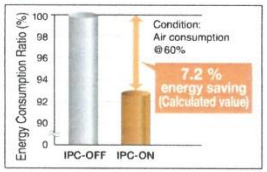
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables energy-saving.

JP patent No.4425768 and others

Example of effect by IPC

Conditions

- Model:DSP-37VATN2
- Control pressure: 0.70MPa
- Use point pressure at full load: 0.55MPa
- Piping pressure loss at full load: 0.15MPa

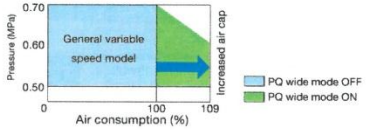


*Use point pressure is changed according to working condition because of predicted control.

PQ PQ wide mode

Vtype

Compared to general variable speed machines, a wider range of operation is possible for both pressure (P) and air volume (Q). Automatic adjustment of the maximum speed allows the amount of air discharged to be increased when the working pressure is reduced.

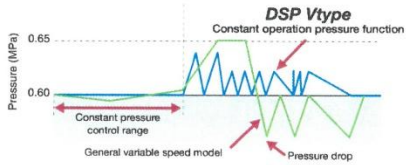


*The above figure is example of 37kW, 0.7MPa model.
Please refer to the specification sheet for the discharge air capacity in each model.

Constant operation pressure function

Vtype

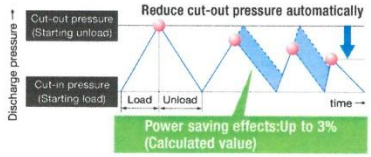
In general, a variable speed compressor requires a higher pressure setting because pressure drops occur during low-load operation or automatic start/stop. Our unique control maintains the set pressure.



ECO-MODE (Energy-saving operation control)

Fixed Speed

Automatically reduces the cut-out pressure according to the load ratio. This eliminates wasteful pressure boosting and realizes energy-saving operation.



User-friendly operation interface

Vtype Fixed Speed

USB Flash Memory Possible for Data Logging

*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user's side.
*Operation data for one day is approximately 400kB. (For reference)

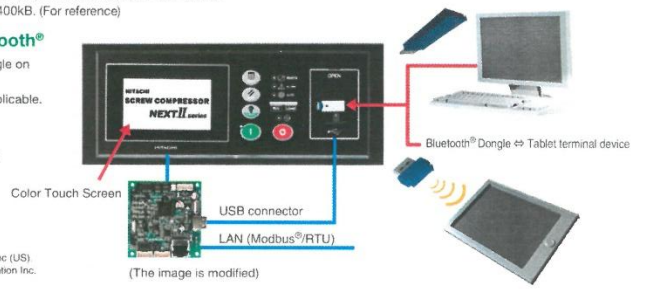
Web Server Function via Bluetooth®

*Necessary to prepare a Bluetooth® USB dongle on your side.
*For setting changes, part of the items are applicable.

Modbus® Communication

Open network serial communication Modbus®/RTU is supported as standard
*Modbus®/TCP support is optional.

·Bluetooth is the registered trademark of Bluetooth SIG, Inc (US)
·Modbus is the registered trademark of Schneider Automation Inc.



Long cycle and simple maintenance

Hitachi provides global after-sales service with our high quality spare parts and strong engineering experience.

HITACHI FOOD GRADE ROTARY COMPRESSOR OIL (Option)

Hitachi genuine lubricant used in food industry with high demand for "Food safety", fully complied with "HACCP".

NSF Nonfood Compounds Program Listed H1 NSF-Reg.No. 150658

HITACHI ROTARY COMPRESSOR OIL

Hitachi dedicated mineral oil with high performance and reliability.

Standarded Oil Mist Remover (OMR)

99.99% recovery of oil mist occurred from gear case

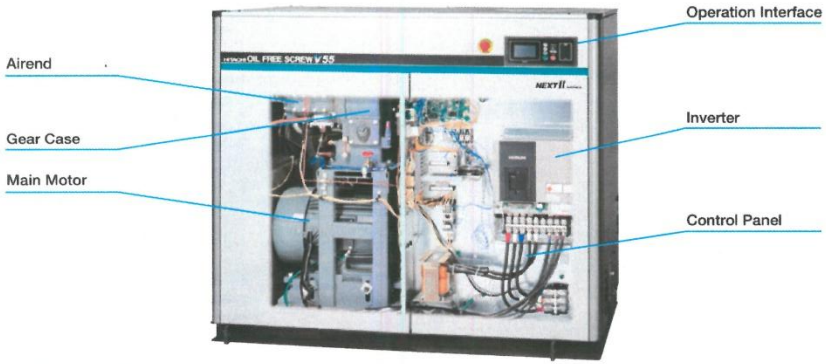
Simple package filter (Option)

Cleaning period is shown on touch panel per setting time.

High withstand load type bearing

6 years long overhaul period

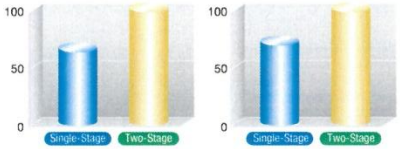
Single-Stage (15-55kW)



*The above picture shows the internal structure of 55kW Air-Cooled model (Vtype).

Cut Down Overhaul and Initial Cost

DSP single-stage has only one airend inside. It makes its initial cost much lower than two-stage model.
The overhaul cost, which covers the most of maintenance cost, is about 60% of Two-Stage for the same reason.



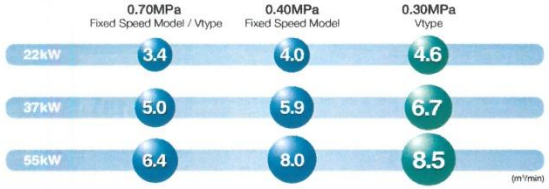
*Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer model (Calculated value)

Low Pressure with Higher Air Capacity

0.30MPa model is newly added

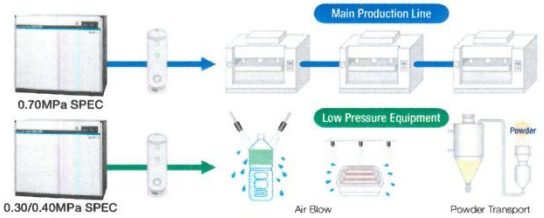
Vtype 0.30MPa and Fixed Speed Model 0.40MPa models are available for low pressure application to save the energy.

Capacity Comparison



Applications

In case that the pressure requirement is higher than blower but lower than standard compressor SPEC, low pressure SPEC DSP can be your solution.



Specifications

Air-Cooled, Fixed Speed Model (15–55kW)

[ ] : Indicates model with Dryer integrated.

Item \ Unit		Model	DSP-15A[R]5N2 DSP-15A[R]6N2		DSP-22A[R]5N2 DSP-22A[R]6N2		DSP-37A[R]5N2 DSP-37A[R]6N2		DSP-55A[R]5N2 DSP-55A[R]6N2	
Discharge Pressure		MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40
Discharge Air Capacity		m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0
Nominal Output		kW	15		22		37		55	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45°C [2 – 45°C]							
Discharge Air Temperature		°C	Ambient Temperature +15 or below							
Discharge Pipe Diameter		—	Rc1		Rc1-1/2					
Starting Method		—	Direct On-Line		Star-Delta (3 contactors)					
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving							
Lubricating Oil Capacity		L	12 (Not filled)				18 (Not filled)			
Cooling Fan Motor Output		kW	0.4		0.65				0.9	
Coolant Pump Motor Output (50/60Hz)		kW	0.2/0.3							
[Dryer]	P.D.P	°C	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–
[Dryer]	Refrigerator Nominal Output	kW	[0.5]	–	[1.2]	–	[1.45]	–	[1.45]	–
[Dryer]	Refrigerant	—	[R407C]	–	[R410A]	–	[R410A]	–	[R410A]	–
Weight		kg	770 [800]		850 [910]		1,080 [1,230]		1,330 [1,480]	
Dimensions (W×D×H)		mm	1,400×970×1,400				1,830×980×1,580 [2,230×980×1,580]			
Noise Level (1.5m from front side)		dB(A)	62	63	63	64	66	68	68	70

Air-Cooled / Water-Cooled, Vtype Model (22–55kW)

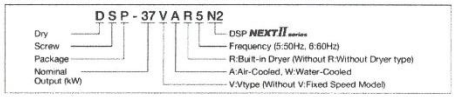
[ ] : Indicates model with Dryer integrated.

Item \ Unit		Model	DSP-22VA[R]5N2 DSP-22VA[R]6N2		DSP-37VA[R]5N2 DSP-37VA[R]6N2		DSP-55VA[R]5N2 DSP-55VA[R]6N2		DSP-37VWN2		DSP-55VWN2	
Cooling Method		—	Air-Cooled						Water-Cooled			
Discharge Pressure		MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge Air Capacity		m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
PQ WIDEMODE	Discharge Pressure	MPa	0.60	–	0.60	–	0.60	–	0.60	–	0.60	–
PQ WIDEMODE	Discharge Air Capacity	m³/min	3.7	–	5.5	–	7.0	–	5.5	–	7.0	–
PQ WIDEMODE	Discharge Pressure	MPa	0.40 [0.50]	–	0.40 [0.50]	–	0.40 [0.50]	–	0.40	–	0.40	–
PQ WIDEMODE	Discharge Air Capacity	m³/min	4.3 [4.0]	–	6.4 [6.0]	–	8.2 [7.6]	–	6.4	–	8.2	–
PQ WIDEMODE Range		MPa	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70	–	0.40 – 0.70	–
Nominal Output		kW	22		37		55		37		55	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45°C [2 – 45°C]						Atmospheric Pressure / 0 – 45°C			
Discharge Air Temperature		°C	Ambient Temperature +15 or below						Cooling Water Temperature +13 or below			
Discharge Pipe Diameter		—	Rc1-1/2						Rc1-1/2			
Starting Method		—	Inverter						Inverter			
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving						4-Pole TEFC Motor with V-Belt + Gear Driving			
Lubricating Oil Capacity		L	12 (Not filled)		18 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output		kW	0.65				0.9		0.2			
Cooling Water Flow Rate		L/min	–						80			
Cooling Water Temperature		°C	–						32 or below			
Cooling Water Pipe Diameter		—	–						Rc1			
Coolant Pump Motor Output (50/60Hz)		kW	0.2/0.3						–			
[Dryer]	P.D.P	°C	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	–			
[Dryer]	Refrigerator Nominal Output	kW	[1.2]	–	[1.45]	–	[1.45]	–	–			
[Dryer]	Refrigerant	—	[R410A]	–	[R410A]	–	[R410A]	–	–			
Weight		kg	900 [960]		1,140 [1,290]		1,270 [1,420]		1,110		1,240	
Dimensions (W×D×H)		mm	1,650×970×1,400		1,830×980×1,580 [2,230×980×1,580]				1,830×980×1,580			
Noise Level (1.5m from front side)		dB(A)	63	64	66	68	68	70	64	66	64	66

Water-Cooled, Fixed Speed Model (15-55kW)

Item \ Unit	Model	DSP-15W5N2 DSP-15W6N2		DSP-22W5N2 DSP-22W6N2		DSP-37W5N2 DSP-37W6N2		DSP-55W5N2 DSP-55W6N2	
Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40
Discharge Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0
Nominal Output	kW	15		22		37		55	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 – 45°C							
Discharge Air Temperature	°C	Cooling Water Temperature+13 or below							
Discharge Pipe Diameter	—	Rc1		Rc1-1/2					
Cooling Water Flow Rate	L/min	50				80			
Cooling Water Temperature	°C	35 or below							
Cooling Water Pipe Diameter	—	Rc3/4				Rc1			
Starting Method	—	Direct On-Line		Star-Delta (3 contactors)					
Driving Method	—	4-Pole TEFC Motor with V-Belt + Gear Driving							
Lubricating Oil Quantity	L	10 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output	kW	0.05				0.1			
Weight	kg	770		830		1,030		1,280	
Dimensions (W×D×H)	mm	1,400×970×1,400				1,830×980×1,580			
Noise Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 °C, inlet temperature 45 °C, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Built-in dryer 0.30MPa model is NOT available.
6. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
7. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Do not use the respiratory equipment to suck the compressed air directly.
10. Discharge pressure is gauge pressure.
11. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
12. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
13. Appearance and specifications are subject to change without notice.



Two-Stage (22–120kW)

Specifications

■ Water-Cooled, Fixed Speed / Vtype Model (45-75kW)

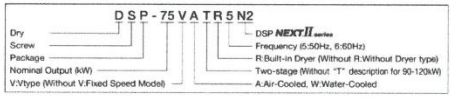
[ ] : Indicates model with Dryer integrated.

Item-Unit		Model	Fixed Speed Model									Vtype Model			
			DSP-45WT[R]5N2 DSP-45WT[R]6N2		DSP-55WT[R]5N2 DSP-55WT[R]6N2			DSP-75WT[R]5N2 DSP-75WT[R]6N2				DSP-55VWT[R]N2		DSP-75VWT[R]N2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0		0.70	0.93	0.70	0.93
Discharge Air Capacity (50Hz/60Hz)		m³/min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	6.4/6.6	13.2	10.7/11.3	9.6/9.7		9.5	8.0	12.9	11.4
Discharge Air Capacity at PQ wide ON of 0.6MPa			–									9.8	9.5	13.4	13.0
Nominal Output		kW	45		55			75				55		75	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45°C [5 – 45°C]					Atmospheric Pressure / 0 – 45°C [2 – 45°C]				Atmospheric Pressure / 0 – 45°C [3 – 45°C]		Atmospheric Pressure / 0 – 45°C [2 – 45°C]	
Discharge Air Temperature		°C	Cooling Water Temperature +13 or below									Cooling Water Temperature +13 or below			
Discharge Pipe Diameter		—	2 in (Flange)									2 in (Flange)			
Starting Method		—	Star-Delta (3 contactors)									Soft Start			
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving									6-Pole DCBL Direct Connection + Gear Driving			
Lubricating Oil Capacity		L	15 (Not filled)									15 (Not filled)			
Cooling Fan Motor Output		kW	0.05×2									0.05×2			
Cooling Water Flow Rate		L/min	90					120				90		120	
Cooling Water Temperature		°C	35 or below									35 or below			
Cooling Water Pipe Diameter		—	Rc 1-1/4									Rc 1-1/4			
[Dryer]	P.D.P	°C	[10 (Under Pressure)]				Built-in dryer model is NOT available.	[10 (Under Pressure)]			Built-in dryer model is NOT available.	[10 (Under Pressure)]			
[Dryer]	Refrigerator Nominal Output	kW	[2.2]					[3.0]				[2.2]		[3.0]	
[Dryer]	Refrigerant	—	[R407C]					[R410A]				[R407C]		[R410A]	
Weight		kg	1,580 [1,730]			1,580		1,710 [1,880]		1,710		1,320 [1,470]		1,410 [1,580]	
Dimensions (W×D×H)		mm	2,000×1,300×1,800									2,000×1,300×1,800			
Noise Level (1.5m from front side)		dB(A)	63		63			65		66		63		65	66

■ Water-Cooled, Fixed Speed / Vtype Model (90-120kW)

Item-Unit	Model	Fixed Speed Model						Vtype Model	
		DSP-90W5[L]MN2 DSP-90W6[L]MN2		DSP-100W5[L]MN2 DSP-100W6[L]MN2		DSP-120W5MN2 DSP-120W6MN2		DSP-100VW5MN2 DSP-100VW6MN2	
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity	m³/min	16.8	14.0	18.3	15.6	21.0	17.6	18.3	15.6
Nominal Output	kW	90		100		120		100	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 – 45°C						Atmospheric Pressure / 0 – 45°C	
Discharge Air Temperature	°C	Cooling Water Temperature +13 or below						Cooling Water Temperature +13 or below	
Discharge Pipe Diameter	—	2 in (Flange)						2 in (Flange)	
Starting Method	—	Star-Delta (3 contactors)						Inverter	
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving						2-Pole TEFC motor with Direct Connection + Gear Driving	
Lubricating Oil Capacity	L	16 (Not filled)						16 (Not filled)	
Cooling Fan Motor Output	kW	0.05×3 [0.2×2]				0.05×3		0.2×2	
Cooling Water Flow Rate	L/min	160				180		160	
Cooling Water Temperature	°C	35 or below						35 or below	
Cooling Water Pipe Diameter	—	Rc 1-1/2						Rc 1-1/2	
Weight	kg	2,050				2,230		2,200	
Dimensions (W×D×H)	mm	2,150×1,520×1,825						2,150×1,520×1,825	
Noise Level (1.5m from front side)	dB(A)	66	68	67	69	69	70	67	69

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 °C, inlet temperature 45 °C, and under the rated preasure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.
7. Earth leakage breaker is not built in the compressor. Prepare by customer.
8. Do not use the respiratory equipment to suck the compressed air directly.
9. Discharge pressure is gauge pressure.
10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
11. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
12. Appearance and specifications are subject to change without notice.



Specifications

■ Air-Cooled, Fixed Speed / Vtype Model (22-37kW)

[ ] : Indicates model with Dryer integrated.

Item-Unit		Model	Fixed Speed Model						Vtype Model	
			DSP-22AT[R]5N2 DSP-22AT[R]6N2		DSP-30AT[R]5N2 DSP-30AT[R]6N2		DSP-37AT[R]5N2 DSP-37AT[R]6N2		DSP-37VAT[R]N2	
Discharge Pressure		MPa	0.70	0.88	0.70	0.88	0.70	0.88	0.70	0.88
Discharge Air Capacity		m³/min	3.7	3.2	4.7	4.0	5.6	4.7	5.5	4.6
Discharge Air Capacity at PQ wide ON of 0.6MPa			–						6.0	5.6
Nominal Output		kW	22		30		37		37	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45°C [2 – 45°C]						Atmospheric Pressure / 0 – 45°C [2 – 45°C]	
Discharge Air Temperature		°C	Ambient Temperature +15 or below						Ambient Temperature +15 or below	
Discharge Pipe Diameter		—	Rc1-1/2						Rc1-1/2	
Starting Method		—	Star-Delta (3 contactors)						Soft Start	
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving						DCBL Direct Connection + Gear Driving	
Lubricating Oil Capacity		L	15 (Not filled)						15 (Not filled)	
Cooling Fan Motor Output		kW	1.1 (Inverter)						1.1 (Inverter)	
[Dryer]	P.D.P	°C	[10 (Under Pressure)]						[10 (Under Pressure)]	
[Dryer]	Refrigerator Nominal Output	kW	[1.45]						[1.45]	
[Dryer]	Refrigerant	—	[R410A]						[R410A]	
Weight		kg	1,120 [1,180]		1,230 [1,290]				950 [1,010]	
Dimensions (W×D×H)		mm	1,530×1,150×1,650						1,530×1,150×1,650	
Noise Level (1.5m from front side)		dB(A)	63	64	65	66	66	67	66	67

■ Air-Cooled, Fixed Speed / Vtype Model (45-75kW)

[ ] : Indicates model with Dryer integrated.

Item-Unit		Model	Fixed Speed Model								Vtype Model			
			DSP-45AT[R]5N2 DSP-45AT[R]6N2		DSP-55AT[R]5N2 DSP-55AT[R]6N2			DSP-75AT[R]5N2 DSP-75AT[R]6N2			DSP-55VAT[R]N2		DSP-75VAT[R]N2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0	0.70	0.93	0.70	0.93
Discharge Air Capacity		m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	5.9/6.2	13.0	10.5/11.1	9.1	9.3	7.7	12.6	10.9
Discharge Air Capacity at PQ wide ON of 0.6MPa			–								9.6	9.3	13.0	12.6
Nominal Output		kW	45		55			75			55		75	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45°C [5 – 45°C]					Atmospheric Pressure / 0 – 45°C [2 – 45°C]			Atmospheric Pressure / 0 – 45°C [3 – 45°C]		Atmospheric Pressure / 0 – 45°C [2 – 45°C]	
Discharge Air Temperature		°C	Ambient Temperature +15 or below								Ambient Temperature +15 or below			
Discharge Pipe Diameter		—	2 in (Flange)								2 in (Flange)			
Starting Method		—	Star-Delta (3 contactors)								Soft Start			
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving								DCBL Direct Connection + Gear Driving			
Lubricating Oil Capacity		L	25 (Not filled)								25 (Not filled)			
Cooling Fan Motor Output		kW	1.5 (Inverter)					2.2 (Inverter)			1.5 (Inverter)		2.2 (Inverter)	
[Dryer]	P.D.P	°C	[10 (Under Pressure)]				Built-in dryer model is NOT available.	[10 (Under Pressure)]		Built-in dryer model is NOT available.	[10 (Under Pressure)]			
[Dryer]	Refrigerator Nominal Output	kW	[2.2]					[3.0]			[2.2]		[3.0]	
[Dryer]	Refrigerant	—	[R407C]					[R410A]			[R407C]		[R410A]	
Weight		kg	1,600 [1,750]			1,600		1,860 [2,030]		1,860	1,340 [1,490]		1,560 [1,730]	
Dimensions (W×D×H)		mm	2,000×1,300×1,800					2,250×1,300×1,800			2,000×1,300×1,800		2,250×1,300×1,800	
Noise Level (1.5m from front side)		dB(A)	63	65	63	65		68			63	65	67	68

■ Air-Cooled, Fixed Speed / Vtype Model (90-120kW)

Item-Unit	Model	Fixed Speed Model						Vtype Model	
		DSP-90A5[L]MN2 DSP-90A6[L]MN2		DSP-100A5[L]MN2 DSP-100A6[L]MN2		DSP-120A5MN2 DSP-120A6MN2		DSP-100VA5MN2 DSP-100VA6MN2	
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity	m³/min	16.6	13.9	18.0	15.4	20.5	17.3	18.0	15.4
Nominal Output	kW	90		100		120		100	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 – 45°C						Atmospheric Pressure / 0 – 45°C	
Discharge Air Temperature	°C	Ambient Temperature +15 or below						Ambient Temperature +15 or below	
Discharge Pipe Diameter	—	2 in (Flange)						Inverter	
Starting Method	—	Star-Delta (3 contactors)						2-Pole TEFC motor with Direct Connection + Gear Driving	
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving						26 (Not filled)	
Lubricating Oil Capacity	L	26 (Not filled)						1.5×2	
Cooling Fan Motor Output	kW	1.5×2						2,300	
Weight	kg	2,200				2,380		2,150×1,520×1,975	
Dimensions (W×D×H)	mm	2,150×1,520×1,975						69	71
Noise Level (1.5m from front side)	dB(A)	68	70	69	71	72	73		

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 °C, inlet temperature 45 °C, and under the rated preasure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.
7. Earth leakage breaker is not built in the compressor. Prepare by customer.
8. Do not use the respiratory equipment to suck the compressed air directly.
9. Discharge pressure is gauge pressure.
10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
11. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
12. Appearance and specifications are subject to change without notice.

Two-Stage (132-240kW)

*The above picture shows the internal structure of 240kW Water-Cooled model (Vtype).

High Capacity by Equipping New NEXTII series Airend

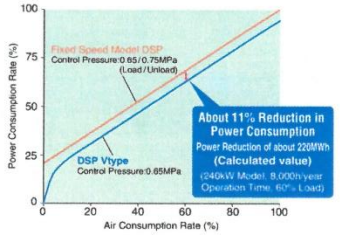
Low Noise Low Vibration

Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

Energy-Saving (Vtype)

Further Energy-Saving is achieved by DSP NEXTII series with Built-in Inverter.



*Compared to conventional Load/Unload Control Type, lower pressure setting is possible due to the stable pressure control. (Calculated value)

High Reliability and Easy Maintenance

Totally enclosed flange motor is standard

New totally enclosed flange motor is applied to improve reliability.
Motor shaft in direct connection without coupling enables easy maintenance work.

Hi-precooler system (Air-Cooled models)

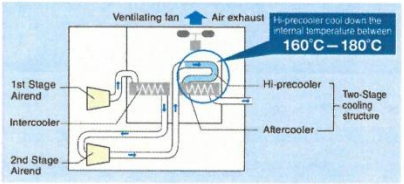
Hi-precooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.

High Discharge Pressure Available

1.0MPa is available with high reliability.

Maintenance Friendly

DSP series provides easy accessibility for inspection and maintenance.



Specifications

Air-Cooled, Fixed Speed Model (132-240kW)

Item-Unit	Model	DSP-132A5N2 / DSP-132A6N2			DSP-145A5N2 / DSP-145A6N2			DSP-160A5N2 / DSP-160A6N2			DSP-200A5N2 / DSP-200A6N2			DSP-240A5N2 / DSP-240A6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	22.5	20.0	19.0	25.0	21.4	20.0	27.5	23.9	22.5	37.0	32.2	30.0	40.0	35.0	32.5
Nominal Output	kW	132			145			160			200			240		
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C														
Discharge Air Temperature	°C	Ambient Temperature+15 or below														
Discharge Air Pipe Diameter	—	2-1/2 in (Flange)									3 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)														
Driving Method	—	4-Pole TEFC motor with Direct Connection + Gear Driving														
Lubricating Oil Capacity	L	50 (Not filled)									60 (Not filled)					
Cooling Fan Motor Output	kW	4.4 (1.1×4)									6.0 (1.5×4)					
Weight	kg	3,860						3,960			5,000					
Dimensions (W×D×H)	mm	2,900×1,700×1,925									3,200×1,890×1,950					
Noise Level (1.5m from front side)	dB(A)	73	74		74	75		74	75		76	77		77	78	

Water-Cooled, Fixed Speed Model (132-240kW)

Item-Unit	Model	DSP-132W5N2 / DSP-132W6N2			DSP-145W5N2 / DSP-145W6N2			DSP-160W5N2 / DSP-160W6N2			DSP-200W5N2 / DSP-200W6N2			DSP-240W5N2 / DSP-240W6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	23.4	20.7	19.6	26.0	22.2	20.6	28.5	24.8	23.2	37.0	32.2	30.0	40.5	35.0	32.5
Nominal Output	kW	132			145			160			200			240		
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C														
Discharge Air Temperature	°C	Cooling Water Temperature+13 or below														
Discharge Air Pipe Diameter	—	2-1/2 in (Flange)									3 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)														
Driving Method	—	4-Pole TEFC motor with Direct Connection + Gear Driving														
Cooling Water Flow Rate	L/min	200			210			240			300			330		
Cooling Water Temperature	°C	35 or below									35 or below					
Cooling Water Pipe Diameter	—	Rp2														
Lubricating Oil Capacity	L	40 (Not filled)									50 (Not filled)					
Cooling Fan Motor Output	kW	0.4														
Weight	kg	3,760									4,600					
Dimensions (W×D×H)	mm	2,500×1,600×1,925									2,800×1,800×1,950					
Noise Level (1.5m from front side)	dB(A)	68	69		69	70		69	70		69	70		70	71	

Air-Cooled / Water-Cooled, Vtype Model (160-240kW)

Item-Unit		Model	DSP-160VA5N2 / DSP-160VA6N2			DSP-240VA5N2 / DSP-240VA6N2			DSP-160VW5N2 / DSP-160VW6N2			DSP-240VW5N2 / DSP-240VW6N2		
Discharge Pressure		MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity		m³/min	27.5	24.8	22.5	40.0	35.0	32.5	28.5	24.8	23.2	40.5	35.0	32.5
Nominal Output		kW	160			240			160			240		
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 - 45°C											
Discharge Air Temperature		°C	Ambient temperature+15 or below						Cooling Water Temperature+13 or below					
Discharge Air Pipe Diameter		—	2-1/2 in (Flange)			3 in (Flange)			2-1/2 in (Flange)			3 in (Flange)		
Starting Method		—	Inverter											
Driving Method		—	4-Pole TEFC motor with Direct Connection + Gear Driving											
Cooling Water Flow Rate		L/min	—			—			240			330		
Cooling Water Temperature		°C	—						35 or below					
Cooling Water Pipe Diameter		—	—						Rp2					
Lubricating Oil Capacity		L	50 (Not filled)			60 (Not filled)			40 (Not filled)			50 (Not filled)		
Cooling Fan Motor Output		kW	4.4 (1.1 × 4)			6.0 (1.5 × 4)			0.4					
Weight	Compressor	kg	3,960			5,000			3,960			4,900		
	Inverter Panel	kg	400			540			—			—		
Dimensions (W×D×H)	Compressor	mm	2,900×1,700×1,925			3,200×1,880×1,950			2,500×1,600×1,925			2,800×1,800×1,950		
	Inverter Panel	mm	690×1,175×1,760			810×1,360×1,760			—			—		
Noise Level (1.5m from front side)		dB(A)	74	75		77	78		70			71		

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value.
4. Earth leakage breaker is not built in the compressor. Prepare by customer.
5. Do not use the respiratory equipment to suck the compressed air directly.
6. Discharge pressure is gauge pressure.
7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
8. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
9. Appearance and specifications are subject to change without notice.
10. The inverter panel for air-cooled Vtype is placed separately.

Auxiliary Equipment

Air Dryer

HDR series

HFC Refrigerant R407C·R410A

HDR-22AG1

HFC Refrigerant R407C

HDR-150AX

Specifications

Item·Unit	Model	HDR-7.5AX2	HDR-15AG1	HDR-22AG1	HDR-37AG1	HDR-55AX	HDR-75AX	HDR-100AX
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	3.0/3.4	4.9/5.4	7.9/8.4	10.8/11.3	15.0/15.7	19.0/20.0
Max. Inlet Pressure of Compressed Air	MPa	0.3 – 0.97		0.3 – 1.0		0.4 – 0.97		
Max. Inlet Temperature of Compressed Air	℃	80						
Ambient Temperature	℃	5 – 40		2 – 45		5 – 40		
Dew Point of Outlet Air	℃	10 Under Pressure						
Cooling Method of Condenser	—	Air-Cooled						
Refrigerant Control Device	—	Capillary Tube		Ejector				
Capacity Control Device	—	Hot Gas Bypass Valve						
Refrigerant Used	—	R407C		R410A		R407C		
Charged Quantity	g	250	450	680	1,000	1,650	2,000	
Finish Color	—	Ivory		Gray		Ivory		
Pipe Diameter	—	Rc 1		Rc 1-1/2		Rc 2	Rc 2-1/2	
Dimensions (W×D×H)	mm	303×603×720	303×633×840	356×543×1,067	356×543×1,274	356×903×1,274	356×903×1,489	406×1,400×1,380
Weight	kg	43	60	84	107	135	170	280
Accessories	—	Auto Drain Trap, Drain Valve, Foundation Bolts						

NOTE:
1. The capacity values above are measured at an ambient temperature of 30℃, inlet temperature of 45℃, inlet pressure of 0.70MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Item·Unit	Model	HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Max. Inlet Pressure of Compressed Air	MPa	0.30 – 0.97				0.30 – 0.93		0.30 – 0.97				0.30 – 0.93	
Max. Inlet Temperature of Compressed Air	℃	60											
Ambient Temperature	℃	2 – 40											
Dew Point of Outlet Air	℃	10 Under Pressure											
Cooling Method of Condenser	—	Water-Cooled						Air-Cooled					
Refrigerant Control Device	—	Capillary Tube											
Capacity Control Device	—	Hot Gas Bypass Valve											
Refrigerant Used	—	R407C											
Charged Quantity	g	1,900	2,000	2,700	3,400	4,000	4,000	2,200	3,600	3,500	4,400	5,000	6,000
Finish Color	—	Ivory											
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0	–					
Cooling Water Pipe Diameter	—	Rp 3/4			Rp 1	Rc 1-1/2		–					
Pipe Diameter	—	2-1/2 in (Flange)	3 in (Flange)		4 in (Flange)	5 in (Flange)		2-1/2 in (Flange)	3 in (Flange)		4 in (Flange)	5 in (Flange)	
Dimensions (W×D×H)	mm	672×1,260 ×1,276	950×1,290×1,332		1,969×905 ×1,583	2,020×1,100×1,650		672×1,260 ×1,276	950×1,290×1,332		1,969×905 ×1,583	2,020×1,100×1,650	
Weight	kg	238	346	344	534	792	872	258	372	370	557	792	872
Accessories	—	Auto Drain Trap, Drain Valve											

NOTE:
1. The capacity values above are measured at an ambient temperature of 32℃, inlet temperature of 40℃, inlet pressure of 0.69MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Multi Unit Controller

MULTI ROLLER *G series*

- Efficient Control of Multiple Units
- Energy-Saving
- Various Functions Available

Standard Specification

Item		Model	MRG-4E	MRG-5E	MRG-NE
Ambient	Usage place		Indoor (Dust-proof wall-mounted type)		
	Temperature		0-40 deg-C		
Power supply			1-ph. AC85 to 240V 50/60Hz		
Controllable compressors	Max. connectable Units		12 compressors		
	Connectable contacts (internal of above)		4	8	0 (comm. only)
Touch panel			7" wide color LCD		
Control function			Initial air charge, Selection of preceding machine, Rotary operation, Turn-back operation (only for fixed speed machine), PID control, Pressure prediction contrlr, 2nd-pressure, Weekly operation, Forced changeover, Restart at power off, Interlock/Individual operation changeover, Central operation, Forced start Long stop, Operation control of auxiliary machine (dryer, pump)(excl. MRG-N), Lead-lag operation		
Input	Discharge pressure		0–1MPa (digital display)		
	Control		Operation answer, Fault		–
	Remote		Remote operation, Remote stop, Forced start, (Flow volume (option *1))		
Output	Control		Run, Stop, Load command, PID command		–
	Remote		In operation, Remote selection, Low pressure, Fault sum-up		
Communication specification			RS485 (2-wire) half-duplex asynchronous, 9600bps multi-drop		
Communication contents			Run, Stop, Load, Operation answer, Fault, etc.		
Set width of control discharge press.			Min. ±0.001 MPa settable		
Power supply capacity			40W or less	50W or less	30W or less
Dimensions W×D×H (mm)			400×250×600	500×250×900	400×250×400
Weight			25kg	37kg	13kg
Painted color			Cream		

NOTE:
*1) Use flow volume sensor, which is commercially available
2) Dimensions excludes joint portion and protrude portion
3) Appearance, display design and/or specification may change without notice

Line Filter

Air Filter*1

Micron Mist Filter*2

Activated Carbon Filter*3

Specifications

	Item		Model	7.5BX	11BX	15G1	22G1	37G1	55B	75B	100B	125C	160C	200C	240B
Common	Air Condition	Capacity (converted to the atmospheric pressure)	m³/min	1.2	1.8	2.7	5.2	8.6	10.6	13.8	20	27.6	32	40	50
		Inlet Air Temperature	℃	32											
		Inlet Air Pressure	MPa	0.69			0.7		0.69						
	Use	Applicable Fluid	—	Compressed Air											
	Condition	Max. Pressure	MPa	1.57			1.0		0.97						
	Connecting Pipe Diameter		—	Rc3/4	Rc1		Rc1-1/2		Rc2			2-1/2 in FF (Flange)	3 in FF (Flange)		4 in FF (Flange)
	Item		Model	HAF-7.5BX	HAF-11BX	HAF-15G1	HAF-22G1	HAF-37G1	HAF-55B	HAF-75B	HAF-100B	HAF-125C	HAF-160C	HAF-200C	HAF-240B
Air Filter	Use	Inlet Air Temperature Range	℃	5 – 60											
	Condition	Ambient Temperature Range	℃	2 – 60											
	Filtration	Rating	μm	1*1											
	Filtration	Efficiency	%	99.999											
	Pressure Drop (Loss)	Initial	MPa	0.005 or below											
		Element Exchange	MPa	0.07											
	Dimension (Max. Diameter×Length)		mm	92×237	130×290.5		170×586	170×673	170×718	173x811	173x968	590×1,511	590×1,511	590×1,511	640x1,735
	Drain Outlet Diameter		—	Rc1/4			Hose nipple for Φ5.7 ~ 6.0 inner diameter tube*4								
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
	Item		Model	HMF-7.5BX	HMF-11BX	HMF-15G1	HMF-22G1	HMF-37G1	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B
Micron Mist Filter	Use	Inlet Air Temperature Range	℃	5 – 60											
	Condition	Ambient Temperature Range	℃	2 – 60											
	Density of Oil in the Discharge Air		wtppm	0.01*2											
	Pressure Drop (Loss)	Initial	MPa	0.01											
		Element Exchange	MPa	0.07											
	Dimension (Max. Diameter×Length)		mm	92×237	130×364		170×660	170×745	170×791	173x884	173x1,041	590×1,511	590×1,511	590×1,511	640x1,735
	Drain Outlet Diameter		—	Rc1/4			Hose nipple for Φ5.7 ~ 6.0 inner diameter tube*4								
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
	Item		Model	HKF-7.5BX	HKF-11BX	HKF-15G1	HKF-22G1	HKF-37G1	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B
Activated Carbon Filter	Use	Inlet Air Temperature Range	℃	5 – 60											
	Condition	Ambient Temperature Range	℃	2 – 60											
	Density of Oil in the Discharge Air		wtppm	0.003*3											
	Pressure Drop (Loss)		MPa	0.009											
	Dimension (Max. Diameter×Length)		mm	92×232	130×281.5		160×362	170×447	170×498	173×591	173×748	590×1,511	590×1,511	590×1,511	640×1,735
	Weight		kg	1	2		3.2	3.5	3.7	4.3	6	41	43	43	73

●Make sure to install an air dryer before the filter.
*1 The density of oil in the inlet air is 3wtppm.
*2 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 3wtppm.
*3 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 0.01wtppm.
*4 Can be replaced with Rc1/4 using optional DT adapter(Parts number:59047640).

HITACHI ROTARY COMPRESSOR OIL

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Density @15℃	kg/L	0.86
Viscosity @40℃	mm²/s	32.6
Viscosity Index	—	102
Flash Point	℃	> 200
Content	L	20
Package	—	Plastic Container Tank
Weight	kg	About 18
Exchange Cycle	—	Every half year

NOTE: Do NOT use this oil on the compressor which requires synthetic lubricating oil.

HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Color Phase	—	Colorless and Transparent
Density @15℃	kg/L	0.84
Viscosity @40℃	mm²/s	32.8
Flash Point	℃	200 or higher
Pour Point	℃	-50 or lower
Content	L	20
Exchange Cycle	—	8,000 operating hours or 1 year which comes earlier
Retrofit	—	Flushing running operation with the exclusive flushing use oil (new oil 20L can) for 30 minutes × twice then refill with new oil
Package	—	Plastic Container Tank
Weight	kg	About 18

NOTE:
1. Compliance Standard / Law: NSF H1 registration No. 150658 and FDA21 CFR178.3570
2. For retrofitting from conventional mineral oil to HITACHI FOOD GRADE DSP OIL, contact your nearest Hitachi sales representative.

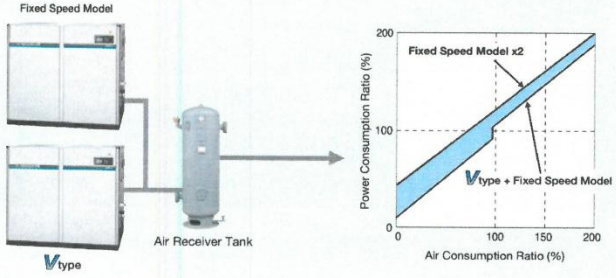
Systems and Options

Energy-saving Combinations

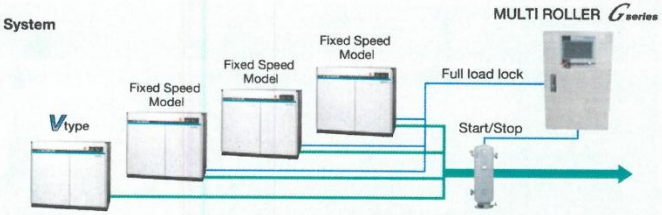
3 ways to maximize energy-saving effect

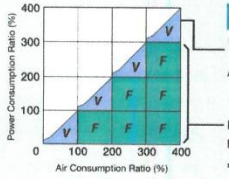
Energy saving operation without external controller	Energy saving operation with external controller	Energy saving operation with multiple Vtype model and external controller
V-M Combination System	**Single-V System**	**Multi-V System**
Energy saving operation by one Vtype and maximum two Fixed Speed Model	Energy saving operation by one Vtype and multiple Fixed Speed Model with multi-unit controller.	Energy saving operation by multiple Vtype to average Vtype operation hour

■ Basic Example of V-M Combination System



■ **Single-V / Multi-V**
Example of Multi-Unit Control System
MULTI ROLLER *G series*
DSP Vtype +
DSP Fixed Speed Models





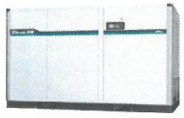
Explanation

Vtype
Always running, follow the fluctuation of air consumption

Fixed speed type or Vtype
Full load or stop

*F indicates Fixed Speed Model.

Options

	DSP NEXT II series					
	Single-Stage		Two-Stage		Two-Stage	
	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model
Nominal Output (kW)	22 – 55	15 – 55	37 – 100	22 – 120	160/240	132 – 240
						
Oil Mist Remover (OMR)	Standard	Standard	Standard	Standard	Standard	Standard
Instantaneous Power Interruption (IPI) Restart	Standard	Standard	Standard	Standard	Standard	Standard
Multi-unit Control (with MULTI ROLLER *G series*)	●	●	●	●	●	●
Alternate Operation (with MULTI ROLLER *G series*)	●	●	●	●	●	●
Alternate Operation*1	●	●	●	●	●	●
AUTO Operation	Standard	Standard	Standard	Standard	Standard	Standard
V-M Combination	●	—*2	●	—*2	●	—*2
Modbus®/TCP	●	●	●	●	●	●
Package Filter	●	●	●	●	●	●
Dust Filter	●	●	●	●	—	—
Specified Color of Sound-Proof Cover	●	●	●	●	●	●
Food Grade Oil	●	●	●	●	●	●

NOTE:
*1 Alternate Operation is possible between same models or models of the same series.
In case of alternate operation between models of different series, connection and control by MULTI ROLLER *G series* is necessary.
*2 In case of V-M Combination, modification on the Fixed Speed Model is not necessary.
· For other options, contact your nearest dealer or Hitachi local representative office.

⚠ Safety Precautions

■**What compressors are used for**
- The compressors listed in this catalog can only compress air. Never use them to compress gases other than air. Doing so may cause fire, damage, etc.
- The compressors cannot be used for respiratory equipment for breathing compressed air.

■**Installation location**
- Install the compressors indoors. Do not use the compressors in a place where it is exposed to moisture such as rain or steam. Doing so may cause fire, electric shock, rusting, or decrease in product life.
- Use the products in a location where there are no explosive or flammable gases (acetylene, propane gas, etc.), organic solvents, explosive dust, or fire nearby. Failure to do so may result in fire or accident.
- Do not use the products in locations where corrosive gases such as ammonia, acid, iron, sulfurous acid gas, etc. are present. It may cause rusting, decrease in product life, or damage.

■**Terms of use**
- Please read the "Instruction Manual" carefully before use and use the products correctly.
- Never modify the products or its parts. Doing so may cause damage or malfunction.

Hitachi Rotary Screw Compressors

HITACHI
Inspire the Next

HISCREW

NEXT II series (11-75kW)

More Efficiency
Fit to Improve Productivity
Higher Level of User-friendly

NEXT II series

Full Range Loaded with High Efficiency Motor

New Developed Air-End

Hitachi Latest Innovation of Air-End Technology

- High efficiency Air-End with low-noise and low-vibration supplies compressed air, constantly.

(22/37kW)

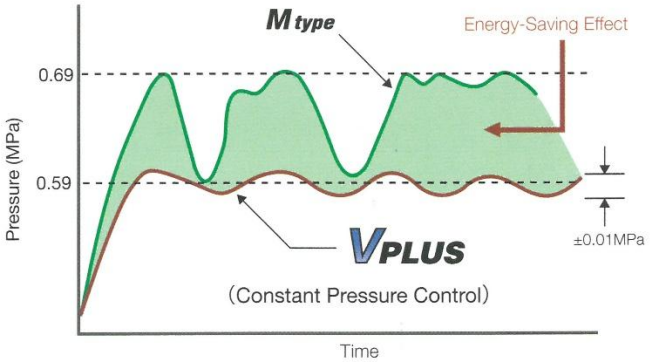
High Efficiency Capacity Control

VPLUS

Since Constant Pressure Control allows highly precise pressure control within range of ±0.01MPa, supply of compressed air at necessary pressure is possible with high efficiency.

M type

On M type models, I+P control (purge + motor auto START/STOP) is applicable during partial load operation.



IPC Control (Intelligent Pressure Control)

V-PLUS M-type

By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

Patent JP4425768 and others

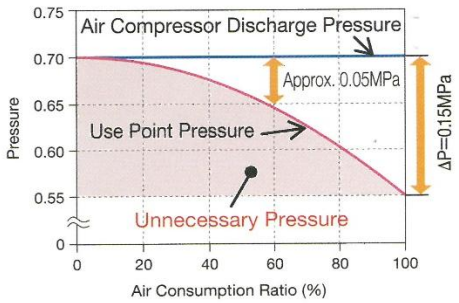
Example of effect by IPC

Conditions ● Air compressor: OSP-37VAN2 ● Control pressure setting: 0.70MPa ● Use point pressure during full load: 0.55MPa ● Piping pressure loss during full load: 0.15MPa

Graph of pressure change (Theoretical values)

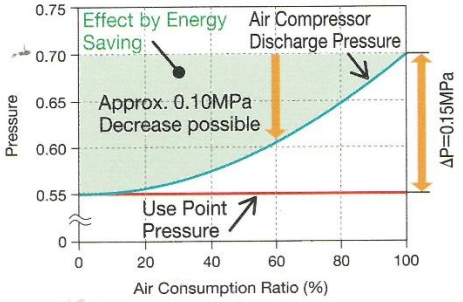
① IPC-OFF (Conventional inverter control model)

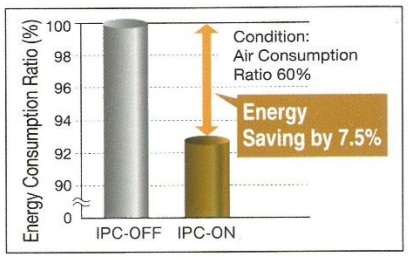
・Control the air compressor discharge pressure at 0.70MPa



② IPC-ON (NEXT II series)

・Control the use point pressure at 0.55MPa





*Due to estimation control, use point pressure varies in accordance with use conditions.

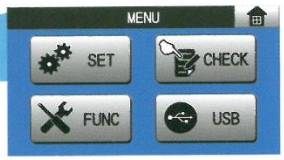
Multi-Function Touch Panel*

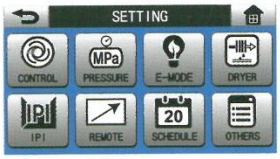
Significant Improvement of User-friendly

*The image described above has been modified.

Various Functions Available

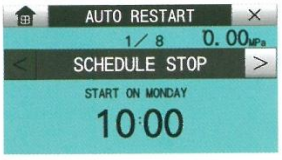
Menu



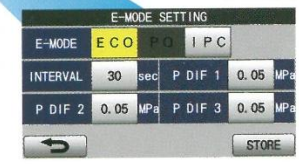


Monitor Indication

Notice Indication



E-MODE



*Touch panel less option does NOT have these functions. (Touch panel less option is available only for 18/22/30/37MAN2.)
Touch Panel is NOT available for 11/15kW.

Operation Data Logging

Main Functions

① Schedule Operation (Weekly Timer)
② Instantaneous Power Interruption (IPI) Restart Function
③ Alternate Operation (Option)
④ Multi-unit Control (Option)
⑤ AUTO Operation
⑥ Communication Function
⑦ Web Server Function
⑧ Display/Store of Operation Data
⑨ Store/Load of Settings
⑩ Maintenance Time Notification
⑪ Operation Data Memory, Display in Graph
⑫ Display of Shutdown and Alarm History

IT Communication Functions*

USB Flash Memory Possible for Data Logging

*Necessary to prepare a USB flash memory device (5.5 cm or smaller) on user's side.
*Operation data for one day is approximately 400kB. (For reference)

USB flash memory (data retrieving)
(Standard) pressure/temperature/current/history/time

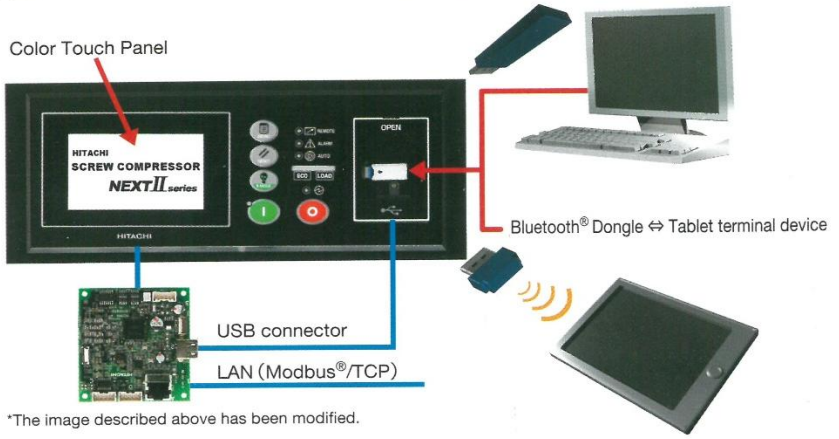
Web Server Function via Bluetooth®

*Necessary to prepare a Bluetooth® USB dongle on your side.
*For setting changes, part of the items are applicable.

Modbus® Communication

Open network serial communication Modbus®/RTU is supported as standard

*Modbus®/TCP support is optional.



*The image described above has been modified.

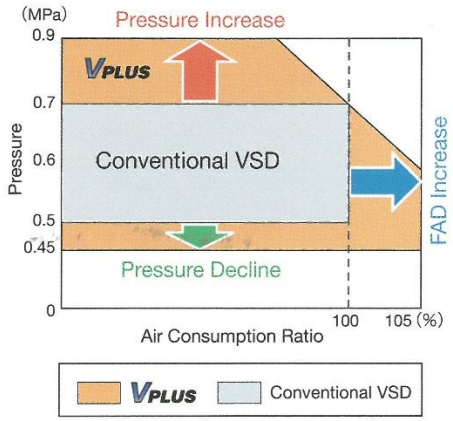
*Touch panel less option does NOT have these functions.
(Touch panel less option is available only for 18/22/30/37MAN2.)
Touch Panel is NOT available for 11/15kW.

・Bluetooth is the registered trademark of Bluetooth SIG, Inc (US).
・Modbus is the registered trademark of Schneider Automation Inc.

Versatility in Hitachi Original Technology

PQ WIDE MODE

PQ WIDE MODE, by automatically adjusting the maximum rotation speed of the compressor, enables to increase the discharge FAD in case that the pressure declines. Compared to conventional VSD, compressor is possible to operate at a wider range of pressure (P) and FAD (Q).



FAD at PQ WIDE MODE

Unit: m³/min.

Model \ Discharge Pressure MPa	0.45	0.50	0.60	0.70	0.85	0.90
11kW	-	1.79	1.79	1.79	1.63	1.53
15kW	-	2.4	2.4	2.4	2.15	2.04
22kW	4.3	4.3	4.3	4.1	3.6	-
37kW	7.1	7.1	7.1	6.8	6.2	-
55kW	10.6	10.6	10.6	10.1	9.1	-
75kW	14.0	14.0	14.0	13.3	12.0	-

Various System Combinations with VPLUS

To respond to the change of air use, Hitachi provides various system combinations with VSD for further Energy-Saving.

V-M Combination System

If 2 or 3 compressors are necessary, Hitachi V-M combination system is your excellent choice. There is great merit on Hitachi V-M combination system which divides 1 compressor into 2.

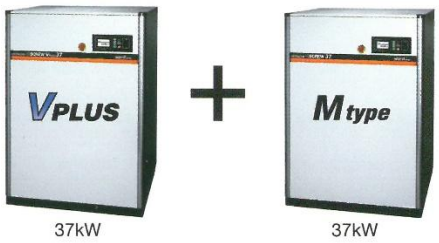
Single-V System/Multi-V System

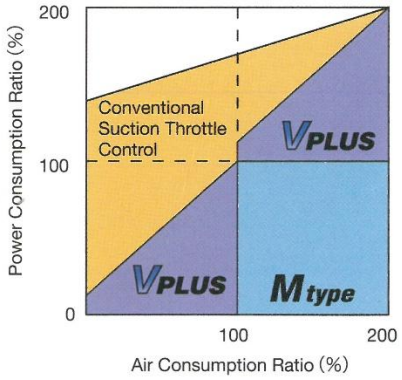
Besides V-M Combination System, Energy-Saving is also possible with any combination such as Single-V multi-unit control system, or Multi-V multi-unit control system etc.

Example Effect of V-M Combination System

1. Energy consumption is similar to the one of 75kW Vplus.
2. Power consumption is saved by 39% or 164MWh/year, when the air consumption ratio is 60% at pressure of 0.6MPa.

＊ Calculation condition: 6,000h/year running

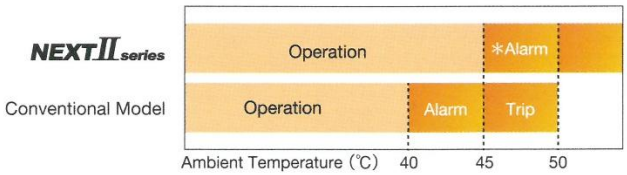




High Reliability

Up to 50℃

- Standard up to 45℃
- Operation is possible under 50℃



* Ambient temperature alarm will be indicated when ambient temperature is over 45℃. Continuous operation at higher than 45℃ may shorten lifetime of lubricating oil and electric parts.

AC Reactor*

- Protect Fan Inverter against voltage surge due to unstable power supply.

＊For 22/37kW and 55/75kW only

NEW HISCREW OIL NEXT

- Designed for screw air compressor.
- Oil change cycle is every 2 years or 12,000hr which comes first.

Package Filter as Standard

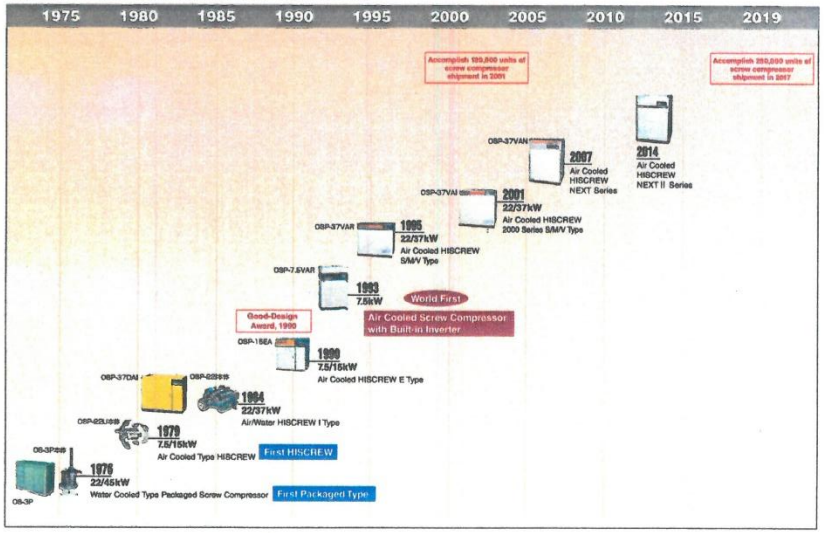
- Easy maintenance
- Maintenance information is indicated on the touch panel periodically.

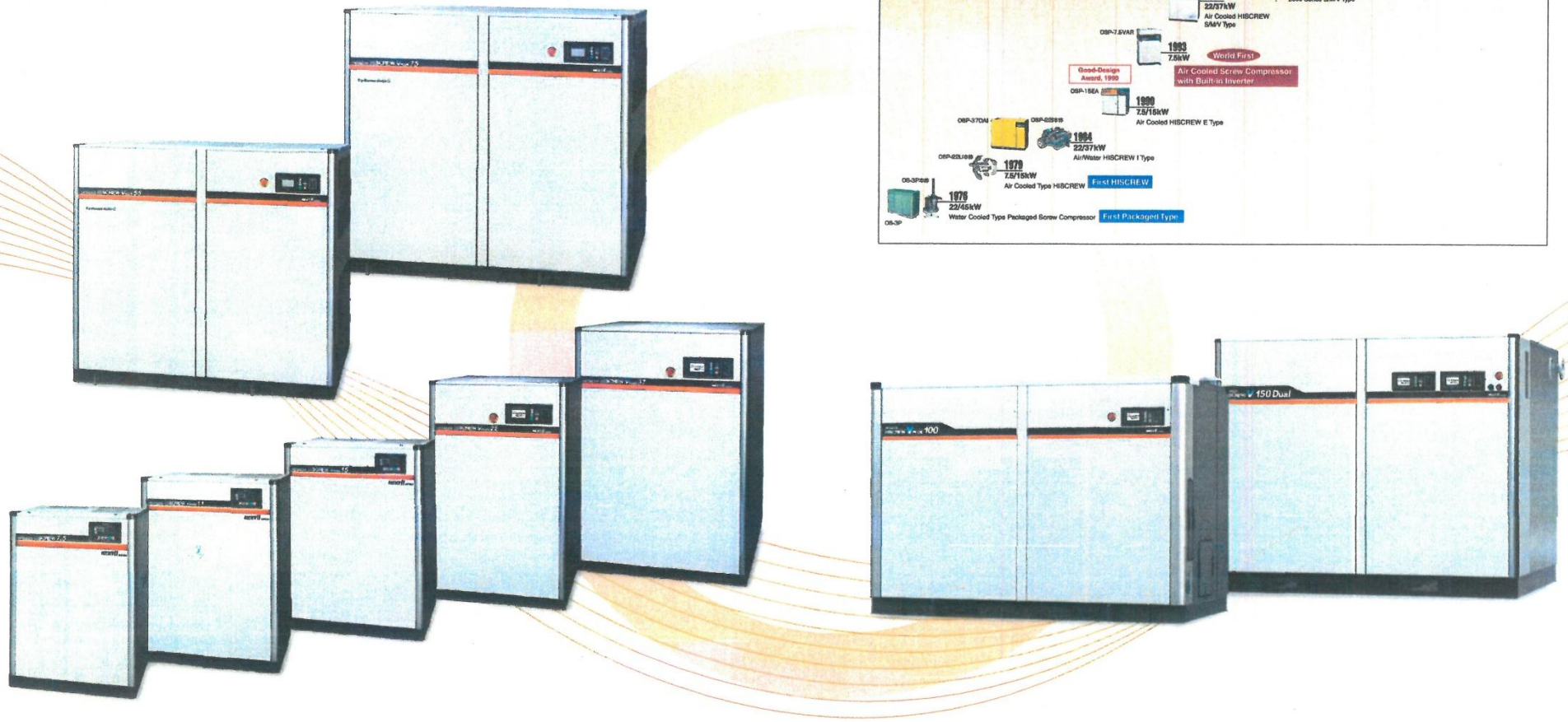
Evolution of Air Compressor

- Economic Efficient, High Standard Oil-Flooded Ro tary Screw Compresser HISCREW series

How to realize higher economic efficiency and reduction of environmental burden has become a great CHALLENGE for the air compressor industry in the 21st century.
Hitachi, with long-year-accumulated technology, offers a perfect answer to this challenge.
Hitachi, to pursue the ultimate goal of higher Energy-Saving performance together with less environmental burdens, adds NEXT II series to the highly-reputed HISCREW as a new line-up.
Hitachi, aiming to further development, provides solutions for different industries.
Hitachi, by developing new core technology, will continue providing highly-advanced screw air compressors to satisfy the needs of every customer.

Evolution of Hitachi COMPRESSOR





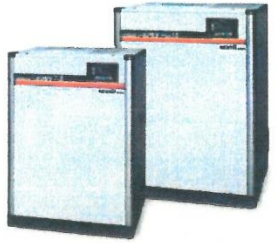
From Small to Large, Extensive Line-Up of Hig h Economic Efficiency and Environmental Performance, Solution for Diversified High-Le vel Demands

7.5–15kW Class

NEXTII series VPLUS, M type

Pursuit of Energy-Saving and Easy-to-use, Economic Small Class

VSD
Fixed Speed Type
Air-Cooled
Built-in Dryer
Without Dryer



22/37kW Class

NEXTII series VPLUS, M type

Highly Improved Energy-Saving, Widely-Used Class with great variation

VSD
Water-Cooled
Fixed Speed Type
Built-in Dryer
Air-Cooled
Without Dryer

55/75kW Class

NEXTII series VPLUS, M type

Pursuit of Energy-Saving and Environmental Performance, Middle Class

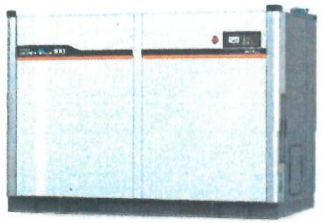
VSD
Water-Cooled
Fixed Speed Type
Built-in Dryer
Air-Cooled
Without Dryer

100kW Class

NEXTII series VPLUS, M type

High Reliability and Maintenance Friendly

VSD
Water-Cooled
Fixed Speed Type
Air-Cooled
Without Dryer

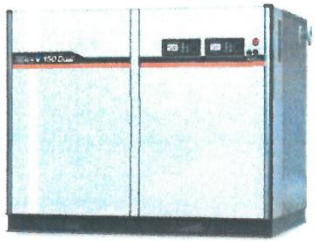


150kW Class

NEXTII series Dual type

2 Units of 75kW Compressor in 1 Package

VSD
Water-Cooled
Fixed Speed Type
Air-Cooled
Without Dryer



List of Model NEXTII series

Model / Motor Output (kW)	VSD				Fixed Speed Type			
	VPLUS (Vtype)				M type			
	Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled	
	Built-in Dryer	Without Dryer	Built-in Dryer	Without Dryer	Built-in Dryer	Without Dryer	Built-in Dryer	Without Dryer
7.5	○	○			○	○		
11	○	○			○	○		
15	○	○			○	○		
22	○	○			○	○	○	○
37	○	○			○	○	○	○
55	○	○	○	○	○	○	○	○
75	○	○	○	○	○	○	○	○
100		○		○		○		○
150(75×2)		○		○		○		

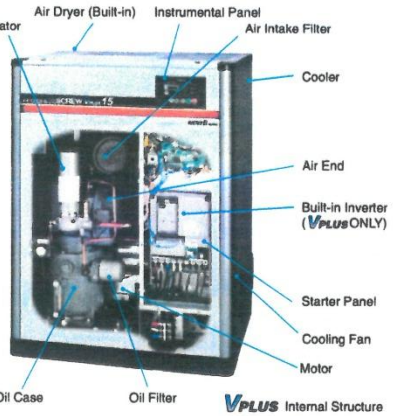
HISCREW NEXT II series (7.5-15kW)

VPLUS, M type

Compact type with inherited NEXT series technology
Pursuit of Excellent Economic Efficiency,
Environmental Performance, Easy Maintenance

M type Outside View

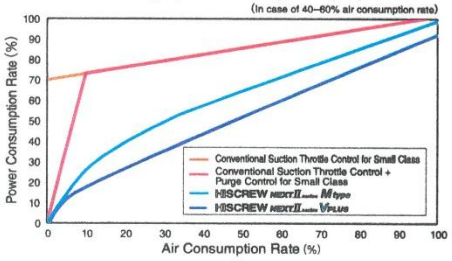
VPLUS Outside View



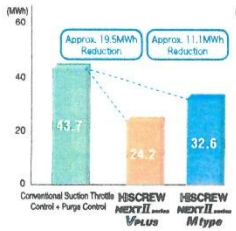
VPLUS Internal Structure

Energy-Saving

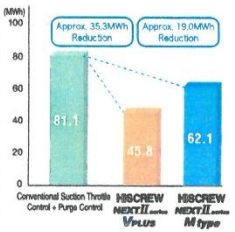
In addition to high performance of the compressor itself, overall energy-saving can be achieved. Compared with the common suction throttle valve type, 30–40% energy-saving is possible.



Example of Annual Power Consumption (7.5kW, air consumption rate 50%)



Example of Annual Power Consumption (15kW, air consumption rate 50%)



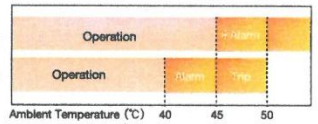
Calculation Condition: (1)Pressure Setting: NEXT-Vplus 0.73MPa Others 0.83MPa
(2)6,000hr/year Operation

New Developed Air-End

Hitachi Latest Innovation of Air-End Technology.

Up to 50℃

- Standard up to 45℃
- Operation is possible under 50℃



* Ambient temperature alarm will be indicated when ambient temperature is over 45℃. Continuous operation at higher than 45℃ may shorten lifetime of lubricating oil and electric parts.

Long Cycle, Easy Maintenance

- **Overhaul Cycle – 8 years**

The overhaul cycle of Air-End is every 8 years, since the combination of high-performance bearing and high-precision oil filtration system is adopted.

*Condition: 6,000hr or less Operation Time.

- **Possible of Oil Change Every 2 years**

Designed for Hitachi Oil-injected Screw Air Compressor Oil change cycle is every 2 years or 12,000hr which comes first.*

*Condition: 6,000hr or less Operation Time.

- **Package Filter as Standard**
- Easy maintenance
- Maintenance information is indicated on the touch panel periodically.

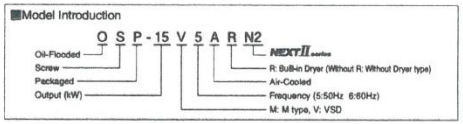
Standard Specification

7.5-15kW (VPLUS, M type)

Item / Unit		Model	OSP-7.5VA(R)N2		OSP-11VA(R)N2		OSP-15VA(R)N2		OSP-7.5M5A(R)N2 OSP-7.5M6A(R)N2	OSP-11M5A(R)N2 OSP-11M6A(R)N2	OSP-15M5A(R)N2 OSP-15M6A(R)N2
Cooling Method		–	Air-Cooled								
Nominal Output		kW	7.5		11		15		7.5	11	15
Rated	Discharge Pressure	MPa	0.83								
	Discharge Capacity	m³/min	1.05		1.63		2.15		1.05	1.63	2.15
PQ WIDE MODE	Discharge Pressure	MPa	0.7	0.9	0.7	0.9	0.7	0.9	–		
	Discharge Capacity	m³/min	1.17	0.98	1.79	1.53	2.4	2.04	–		
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0–45℃ (2–45℃)								
Discharge Temperature		℃	Ambient Temperature/ +15 or below								
Driving Method		–	Inverter + 4-Pole TEFC Motor with V-Belt Drive						4-Pole TEFC Motor with V-Belt Drive		
Starting Type		–	Soft Start						Direct-on-line		
Lubricating Oil		–	NEW HISCREW OIL NEXT								
Lubricating Oil Quantity		L	5		6		7		5	6	7
[Dryer]	P.D.P	℃	[10 (Under Pressure)]								
	Refrigerator Nominal Output	kW	[0.3]		[0.5]				[0.3]	[0.5]	
	Refrigerant	–	[R407C]								
Discharge Pipe Diameter		–	Rc 3/4		Rc 1				Rc 3/4	Rc 1	
Dimension (W×D×H)		mm	860×770×1,175		950×780×1,250				860×770×1,175	950×780×1,250	
Weight		kg	300 (320)		360 (385)		390 (415)		295 [315]	355 [380]	375 [400]
Sound Level		dB [A]	53		55		56		53	55	56

Notes:
1. Capacity is measured according to ISO 1217, Third Edition, Annex C.
   Capacity after the built-in dryer is decreased by 3%.
2. Pressures are indicated as the gauge pressure.
3. Sound Level is the converted value under the condition of 1.5m in front and 1m height in an anechoic room.
   It may vary in different operating conditions and/or different environments with echo of actual field installations.
   Sound level may be increased by 3dB at PQ WIDEMODE ON.
4. P.D.P is measured at 30 degree C of the ambient temperature, 45 degree C of the dryer inlet temperature and rated discharge pressure.
   P.D.P may be 13 degree C at PQ WIDEMODE ON and 0.7MPa of discharge pressure.
   P.D.P may be worth at the lower discharge pressure than above conditions at PQ WIDEMODE ON.
5. Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
6. The transformer installation space is required for the built-in dryer for the model other than 200V/50Hz, 200-220V/60Hz.
7. Do NOT use any oil other than "NEW HISCREW OIL NEXT".
8. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
9. Install the air compressor indoors and avoid flammable and corroeive environment, moisture and dust.

■Model Introduction

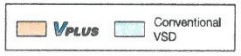


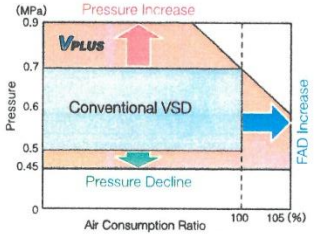
HISCREW NEXT II series (22–75kW)

Versatility in Hitachi Original Technology

PQ WIDE MODE

PQ WIDE MODE, by automatically adjusting the maximum rotation speed of the compressor, enables to increase the discharge FAD in case that the pressure declines. Compared to conventional VSD, compressor is possible to operate at a wider range of pressure (P) and FAD (Q).





FAD at PQ WIDE MODE

22/37kW

Model \ Unit	0.45	0.50	0.60	0.70	0.85
22kW	4.3	4.3	4.3	4.1	3.6
37kW	7.1	7.1	7.1	6.8	6.2

55/75kW

Model \ Unit	0.45	0.50	0.60	0.70	0.85
55kW	10.6	10.6	10.6	10.1	9.1
75kW	14.0	14.0	14.0	13.3	12.0

Unit: m³/min.

Various System Combinations with V-PLUS

To respond to the change of air use, Hitachi provides various system combinations with VSD for further Energy-Saving.

V-M Combination System

If 2 or 3 compressors are necessary, Hitachi V-M combination system is your excellent choice. There is great merit on Hitachi V-M combination system which divides 1 compressor into 2.

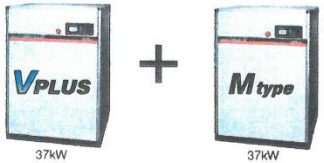
Single-V System/Multi-V System

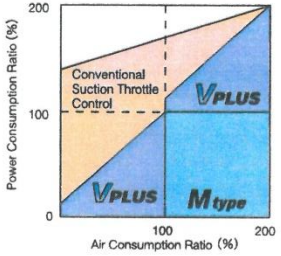
Besides V-M Combination System, Energy-Saving is also possible with any combination such as Single-V multi-unit control system, or Multi-V multi-unit control system etc.

Example Effect of V-M Combination System

1. Energy consumption is similar to the one of 75kW V plus.
2. Power consumption is saved by **39%** or **164**MWh/year, when the air consumption ratio is **60%** at pressure of **0.6MPa.**

* Calculation condition: 6,000h/year running

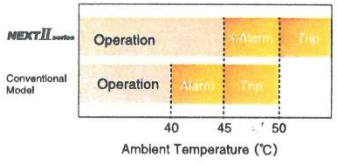




High Reliability

Up to 50℃

- Standard up to 45℃
- Operation is possible under 50℃



* Ambient temperature alarm will be indicated when ambient temperature is over 45℃.
Continuous operation at higher than 45℃ may shorten lifetime of lubricating oil and electric parts.

Package Filter as Standard

- Easy maintenance
- Maintenanse information is indicated on the touch panel periodically.

NEW HISCREW OIL NEXT

- Designed for screw air compressor.
- Oil change cycle is every 2 years or 12,000hr which comes first.

Standard Specification

22/37kW (V-PLUS, M type)

Item \ Model			OSP-22VA(R)N2		OSP-37VA(R)N2		OSP-22M5A(R)N2 OSP-22M6A(R)N2		OSP-37M5A(R)N2 OSP-37M6A(R)N2	
Cooling Method		–	Air-Cooled							
Nominal Output		kW	22		37		22		37	
Rated	Discharge Pressure	MPa	0.7				0.7 <0.85> [1.0]			
	Discharge Capacity	m³/min	4.1		6.8		4.0 <3.5> [3.2]		6.7 <6.0> [5.4]	
PQ WIDE MODE	Discharge Pressure	MPa	0.6	0.85	0.6	0.85	–			
	Discharge Capacity	m³/min	4.3	3.6	7.1	6.2	–			
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0–45˚C (2–45˚C)							
Discharge Temperature		˚C	Ambient Temperature/ +15 or below							
Driving Method		–	DCBL Direct Drive				4-Pole TEFC Motor with V-Belt Drive			
Starting Type		–	Soft Start				Star-Delta			
Lubricating Oil		–	NEW HISCREW OIL NEXT							
Lubricating Oil Quantity		L	10		15		10		15	
[Dryer]	P.D.P	˚C	[10 (Under Pressure)]							
	Refrigerator Nominal Output	kW	[1.2]		[1.45]		[1.2]		[1.45]	
	Refrigerant	–	[R410A]							
Discharge Pipe Diameter		–	Rc 1-1/2							
Dimension (W×D×H)		mm	1,000×1,050×1,550		1,200×1,150×1,650		1,000×1,050×1,550		1,200×1,150×1,650	
Weight		kg	450 (510)		670 (740)		670 [730]		970 [1,040]	
Sound Level		dB [A]	56		60		57		60	

55/75kW (V-PLUS)

Item \ Model			OSP-55VA(R)N2		OSP-75VA(R)N2		OSP-55VW(R)N2		OSP-75VW(R)N2	
Cooling Method		–	Air-Cooled				Water-Cooled			
Nominal Output		kW	55		75		55		75	
Rated	Discharge Pressure	MPa	0.7							
	Discharge Capacity	m³/min	10.1		13.3		10.1		13.3	
PQ WIDE MODE	Discharge Pressure	MPa	0.6	0.85	0.6	0.85	0.6	0.85	0.6	0.85
	Discharge Capacity	m³/min	10.6	9.1	14.0	12.0	10.6	9.1	14.0	12.0
Intake Air Pressure/Temperature		–	Atmospheric Pressure / 0–45˚C (2–45˚C)							
Discharge Temperature		˚C	Ambient Temperature +15 or below				Water Temperature +13 or lower			
Driving Method		–	DCBL Direct Drive							
Starting Type		–	Soft Start							
Lubricating Oil		–	NEW HISCREW OIL NEXT							
Lubricating Oil Quantity		L	28 (Not filled)		39 (Not filled)		17 (Not filled)		26 (Not filled)	
[Dryer]	P.D.P	˚C	[10 (Under Pressure)]							
	Refrigerator Nominal Output	kW	[2.2]		[1.9]		[2.2]		[1.9]	
	Refrigerant	–	[R407C]		[R410A]		[R407C]		[R410A]	
Cooling Water	Temperature	˚C	–				35 or below			
	Quantity	L/min	–				100		125	
	Discharge Pipe Diameter	B	–				Rc 2			
Discharge Pipe Diameter		B	Rc 2							
Dimension (W×D×H)		mm	2,000×1,200×1,800							
Weight		kg	1,230 (1,350)		1,405 (1,555)		1,070 (1,190)		1,240 (1,390)	
Sound Level		dB [A]	64		66		63		65	

55/75kW (M type)

Item \ Model			OSP-55M5A(R)N2 OSP-55M6A(R)N2		OSP-75M5A(R)N2 OSP-75M6A(R)N2		OSP-55M5W(R)N2 OSP-55M6W(R)N2		OSP-75M5W(R)N2 OSP-75M6W(R)N2	
Cooling Method		–	Air-Cooled				Water-Cooled			
Nominal Output		kW	55		75		55		75	
Rated	Discharge Pressure	MPa	0.7<0.85>[1.0]							
	Discharge Capacity	m³/min	10.0<9.0>[8.3]		13.2<11.9>[10.9]		10.0<9.0>[8.3]		13.2<11.9>[10.9]	
Intake Air Pressure/Temperature		MPa	Atmospheric Pressure / 0–45˚C (2–45˚C)							
Discharge Temperature		˚C	Ambient Temperature +15 or below				Water Temperature +13 or lower			
Driving Method		–	2-Pole TEFC Motor with Gear Driving							
Starting Type		–	Star-Delta							
Lubricating Oil		–	NEW HISCREW OIL NEXT							
Lubricating Oil Quantity		L	29 (Not filled)		40 (Not filled)		17 (Not filled)		26 (Not filled)	
[Dryer]	P.D.P	˚C	[10 (Under Pressure)]							
	Refrigerator Nominal Output	kW	[2.2]		[1.9]		[2.2]		[1.9]	
	Refrigerant	–	[R407C]		[R410A]		[R407C]		[R410A]	
Cooling Water	Temperature	˚C	–				35 or below			
	Quantity	L/min	–				100		125	
	Discharge Pipe Diameter	B	–				Rc 2			
Discharge Pipe Diameter		B	Rc 2							
Dimension (W×D×H)		mm	2,000×1,200×1,800							
Weight		kg	1,500 (1,620)		1,755 (1,905)		1,340 (1,460)		1,590 (1,740)	
Sound Level		dB [A]	65		67		64		66	

Notes:

1. Capacity is measured according to ISO 1217, Third Edition, Annex C. Capacity after the built-in dryer is decreased by 3%.
2. Pressures are indicated as the gauge pressure.
3. Sound Level is the converted value under the condition of 1.5m in front and 1m height in an anechoic room. It may vary in different operating conditions and/or different environments with echo of actual field installations. Sound level may be increased by 3dB at PQ WIDEMODE ON.
4. P.D.P is measured at 30 degree C of the ambient temperature, 45 degree C of the dryer inlet temperature and rated discharge pressure. P.D.P may be 13 degree C at PQ WIDEMODE ON and 0.6MPa of discharge pressure. P.D.P may be worth at the lower discharge pressure than above conditions at PQ WIDEMODE ON.
5. Contact the supplier for the dryer and filters selection at PQ wide mode ON.
6. The transformer installation space is required for the built-in dryer for the model other than 200V/50Hz, 200-220V/60Hz.
7. Do NOT use any oil other than "NEW HISCREW OIL NEXT".
8. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.

Model Introduction

O S P - 75 V 5 A R N2

- Oil-Flooded
- Screw
- Packaged
- Output (kW)
- M: M Type, V: VSD
- Frequency (5:50Hz 6:60Hz)
- A:Air-Cooled, W:Water-Cooled
- Built-in Dryer (No R indication for without dryer type)
- NEXT II series

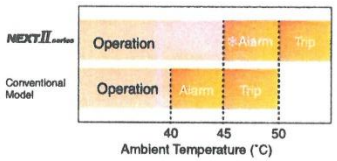
HISCREW NEXT II series (100kW)

VSD | Fixed Speed Type | Air-Cooled | Water-Cooled | Without Dryer

High Reliability & Maintenance Friendly

Up to 50˚C

- Standard up to 45˚C
- Operation is possible under 50˚C



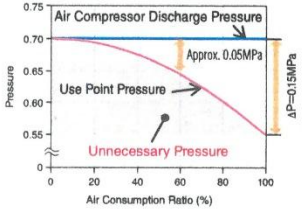
* Ambient temperature alarm will be indicated when ambient temperature is over 45˚C.
Continuous operation at higher than 45˚C may shorten lifetime of lubricating oil and electric parts.

IPC Control (Intelligent Pressure Control)

By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

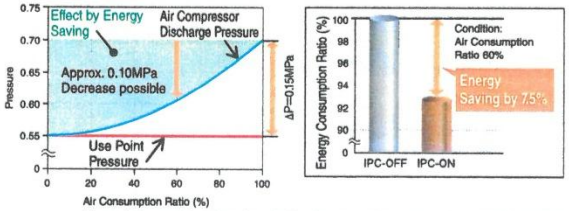
① IPC-OFF

・Control the air compressor discharge pressure at 0.70MPa



② IPC-ON

・Control the use point pressure at 0.55MPa



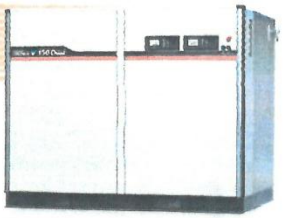
*The graph of pressure change above shows the theoretical values with piping pressure loss of 0.15MPa at full load.
*Due to estimation control, use point pressure varies in accordance with use conditions.

Standard Specification

Item \ Model		Unit	OSP-100VAN2	OSP-100M5AN2 OSP-100M6AN2	OSP-100VWN2	OSP-100M5WN2 OSP-100M6WN2
Cooling Method		–	Air-cooled		Water-Cooled	
Nominal Output		kW	100			
Rated	Discharge Pressure	MPa	0.7	0.7 <0.85>	0.7	0.7 <0.85>
	Discharge Capacity	m³/min	18.9	19.6 <17.6>	18.9	19.6 <17.6>
PQ WIDE Mode	Discharge Pressure	MPa	0.6–0.85	–	0.6–0.85	–
	Discharge Capacity	m³/min	19.6–16.8	–	19.6–16.8	–
Intake Air Pressure/Temperature		–	Atmospheric pressure / 0–45°C			
Discharge Temperature		°C	Atmospheric Temperature + 15 or below		Temperature of Cooling Water +13 or below	
Driving Method		–	Gear Drive			
Starting Type		–	Inverter	Star-delta	Inverter	Star-delta
Lubricating Oil		–	NEW HISCREW OIL NEXT			
Lubricating Oil Quantity		L	50 (Not filled)		37 (Not filled)	
Nominal Output of Cooling Fan		kW	1.1×2 (with Inverter Control)		0.05×3	
Discharge Pipe Diameter		B	2-1/2			
Cooling Water	Temperature	°C	–		35 or below	
	Quantity	L/min			150	
Dimension (W×D×H)		mm	2,550×1,500×1,800			
Weight		kg	3,000	2,900	2,900	2,800

Note:
1. Capacity is measured according to ISO 1217, Third Edition, Annex C.
2. Pressure is indicated as the gauge pressure.
3. Temperature of discharge air may vary from different environments.
4. Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
5. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
6. Earth leakage circuit breaker need to be installed separately for each unit.
7. Do NOT use any oil other than "NEW HISCREW OIL NEXT".
8. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
9. < > show values of capacity under different discharge pressures.

HISCREW NEXT II series (150kW)



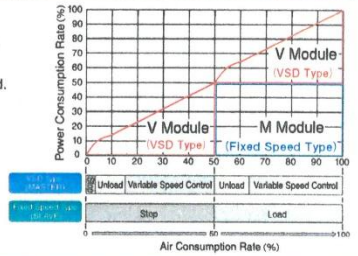
NEXT II series 150kW Dual Type include 2 units of 75kW compressor within one package.

VSD | Fixed Speed Type | Air-Cooled | Water-Cooled | Without Dryer

Improvement of Energy-Saving Performance

Evolved Energy-Saving feature is possible by loading 2 units of 75kW inside together with V-M combination control in V type.

VSD type with inverter as MASTER is preferred during operation.
In case of increase in used air, the operation of Fixed Speed Type will be triggered.
The change of load can be balanced by the revolution control of VSD type.



New Developed Air-End

Large capacity and high efficiency thanks to the improvement of rotor profile and optimization of oil lubricating method.

Automatic Switch-Over of Operation in case of Trouble

In case that operation of one compressor stops due to trouble, the total operation continues by automatically switching over to the other.

Maintenance Friendly

- Overhaul cycle is every 8 years. (2 years longer than the conventional model)
- Package filter on the suction port is standard.

High Reliability

- Standard up to 45˚C
- Operation is possible under 50˚C

Standard Specification

Item \ Model		Unit	OSP-150V5ADN2 OSP-150V6ADN2	OSP-150M5ADN2 OSP-150M6ADN2	OSP-150V5WDN2 OSP-150V6WDN2	OSP-150M5WDN2 OSP-150M6WDN2
Cooling Method		–	Air-cooled		Water-Cooled	
Nominal Output		kW	150 (75×2)			
Rated	Discharge Pressure	MPa	0.7 <0.85>			
	Discharge Capacity	m³/min	26.5 <23.9>	26.4 <23.8>	26.5 <23.9>	26.4 <23.8>
Intake Air Pressure/Temperature		–	Atmospheric pressure / 0–45°C			
Discharge Temperature		°C	Atmospheric Temperature + 15 or below		Temperature of Cooling Water +13 or below	
Driving Method		–	V module: coupling M module: Gear Drive	Gear Drive	V module: coupling M module: Gear Drive	Gear Drive
Starting Type		–	V module: Inverter soft start M module: Star-delta	Star-delta	V module: Inverter soft start M module: Star-delta	Star-delta
Lubricating Oil		–	NEW HISCREW OIL NEXT			
Lubricating Oil Quantity		L	79 (Not filled)	80 (Not filled)	52 (Not filled)	52 (Not filled)
Nominal Output of Cooling Fan		kW	2.2×2 (with Inverter Control)		0.05×4	
Discharge Pipe Diameter		B	3			
Cooling Water	Temperature	°C	–		35 or below	
	Quantity	L/min			250	
Dimension (W×D×H)		mm	2,350×1,850×1,900			
Weight		kg	3,300	3,850	2,970	3,320

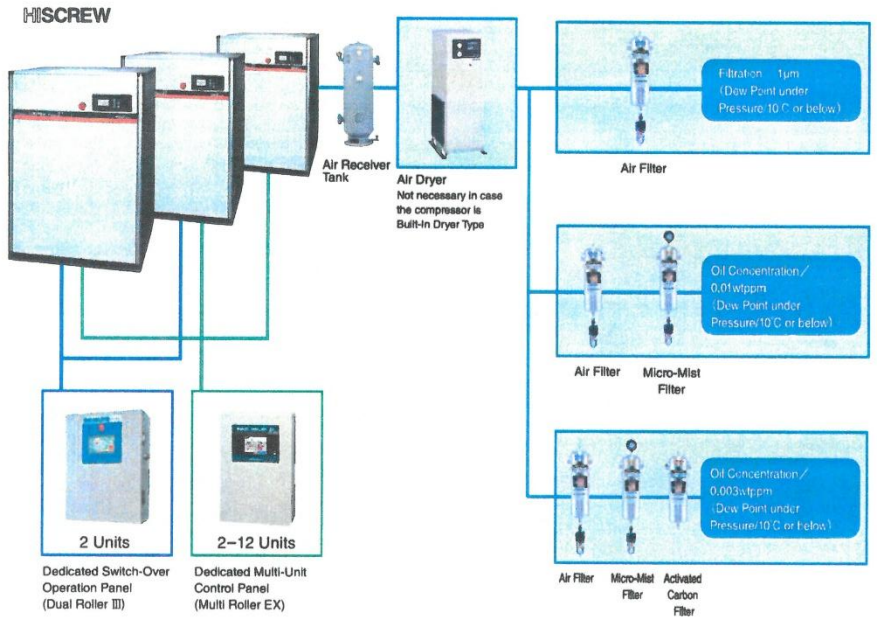
Note:
1. Capacity is measured according to ISO 1217, Third Edition, Annex C.
2. Pressure is indicated as the gauge pressure.
3. Temperature of discharge air may vary from different environments.
4. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
5. Earth leakage circuit breaker need to be installed separately for each unit.
6. Do NOT use any oil other than "NEW HISCREW OIL NEXT".
7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
8. < > show values of capacity under different discharge pressures.

Environment Protection, Energy-Saving, Labor-Saving
A Wide Variety of Auxiliary Equipment for Improving the Quality of Air

We recommend using the following auxiliary equipment with your compressors for effective and systematic use of your facilities.

Example of Oil-Flooded Screw Compressed Air System

For Hitachi Oil-Flooded Screw Compressor, V plus of Variable Speed Control and M type (possible to response to significant pressure change) are provided as various HISCREW series.
As solutions for higher demand of diversity, optional specifications and a wide variety of auxiliary equipment are provided.



Control Panel

Multi Unit Controller (MULTI ROLLER EX)

- Designed for Hitachi Air Compressor
- Efficient Control of Multiple Units
- Energy-Saving
- Various Functions Available

Alternate Operation Controller (Dual Roller III)

- Designed for Hitachi Air Compressor
- Efficient Control of 2 Units
- Energy-Saving

Standard Specification

Item		Model / Unit	MR 26-4	MR 26-8	MR 26-12
Power Supply		–	Single-phase AC100/200V (Common)		
Frequency		–	50/60Hz (Common)		
Controlled Unit		–	4	8	12
Input	Discharge Pressure	MPa	0 – 1 (Digital Indication)		
Input	Control	–	Answer (Operation), Failure		
Input	External	–	Start, Stop, Forced Start-up, Remote		
Output	Control	–	Run, Stop, Load, PID Command		
Output	External	–	Start, Shutdown, Auto		
Controlled Discharge Pressure		–	Minimum ±0.001MPa setting		
Dimensions (W×D×H)		mm	400×200×600	500×200×900	500×200×1,200
Weight		kg	19	32	37

Standard Specification

Item		Model / Unit	SDR-3	
Power Supply		–	AC100V (−10%+10%) [Possible for AC200V by switching connector]	
Power Supply Frequency		–	AC100 to 240V±10% 50/60Hz [Single-phase]	
Controllable Number of Units		–	2	
Input	Frequency ×2	mA	4 – 20 (250Ω)	
Input	Remote-Set [Remote] ×2	–	Connection using the contacts to which no voltage is applied [Power supply DC24V]	
Input	Run [Operation] ×2	–		
Input	Failure [Shut down] ×2	–		
Input	ElectricPulse・Extra ×2	–	Optional terminals	
Output	Run ×2	–	1500ms w/out voltage	"a"contact
Output	Stop ×2	–	Pulse AC250V0.3A	"b"contact
Output	Load/Unload Command ×2	–	Dry contact	"c"contact
Output	Status ×2	–	AC250V0.3A	"a"contact
Pressure Detection		–	Built-in pressure sensor [0 – 1 MPa]	
Operation Method		–	Following control [pressure/failure], Switching time [LAP/GAP], Schedule	
Standard Function		–	Initial pump-up operation, Err. history, IPS restart, Remote operation	
Dimensions (W×D×H)		mm	300×160×400	
Weight		kg	10	

⚠ Safety Precautions

■ Regarding compressor application
- The compressor described in this catalog utilizes only air as a gas. Absolutely avoid using it for compression of a gas other than air — this could result in a fire hazard or damage to the equipment.
- Never use compressed air for human breathing.

■ Regarding installation site
- Install this compressor indoors. Avoid using it at a place susceptible to moisture such as precipitation or vapors — this could result in a fire hazard, electric shock, rusting or shortened life of parts.
- There should be no explosive or flammable gas (acetylene, propane, etc.), organic solvent, explosive powder or flame used near the compressor — otherwise there is a fire hazard.
- Avoid using the compressor at a palace where there is corrosive gas such as ammonia, acid, salt sulfurous acid gas, etc. — this could result in rusting, shortened life, or damage to the equipment.

■ Regarding usage
- Before use, be sure to read the instruction manual thoroughly for correct use of the compressor.
- Absolutely avoid modifying the compressor or its components—this could result in damage or malfunction.

Hitachi Air Dryer

Hitachi Air Dryer HDR (Medium Size) series

HFC Refrigerant R407C

HDR-7.5AXI

Specifications

Item \ Unit	Model	HDR-7.5AXI	HDR-15AXI	HDR-22AXI	HDR-37AXI	HDR-55AX	HDR-75AX	HDR-100AX
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	2.5/2.9	4.0/4.3	6.8/7.4	10.8/11.3	15.0/15.7	19.0/20.0
Inlet Pressure of Compressed Air	MPa	0.30 – 0.97				0.40 – 0.97		
Max. Inlet Temperature of Compressed Air	℃	80						
Ambient Temperature	℃	5 – 40						
Dew Point of Outlet Air	℃	10 Under Pressure						
Cooling Method of Condenser	–	Air-Cooled						
Refrigerant Control Device	–	Capillary Tube		Ejector				
Capacity Control Device	–	Hot Gas Bypass Valve						
Refrigerant Used	–	R407C						
Charged Quantity	g	250	380	600	1,000		1,650	2,000
Finish Color	–	Ivory (Munsell No. 5Y8.5/1)						
Pipe Diameter	B	Rc 1		Rc 1-1/2			Rc 2	Rc 2-1/2
Dimensions (W×D×H) (200V Model)	mm	303×603×720		356×513×1,067	356×513×1,274	356×903×1,274	356×903×1,489	406×1,400×1,380
Dimensions (W×D×H) (400V Model)	mm	303×833×720	303×884×720	356×826×1,067	356×826×1,274	356×903×1,274	356×903×1,489	406×1,400×1,385
Weight (200V Model)	kg	44	46	74	87	135	170	280
Weight (400V Model)	kg	59	75	126	139	140	176	286
Accessories	–	Auto Drain Trap, Drain Valve						

NOTE:
1. The capacity values above are measured at an ambient temperature of 30°C, inlet temperature of 45°C, inlet pressure of 0.70MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. The dimensions do NOT include protruding objects.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Hitachi Air Dryer HDR (Large Size) series

HFC Refrigerant R407C

HDR-150AX

Specifications

Item \ Unit	Model	HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Inlet Pressure of Compressed Air	MPa	0.30 – 0.97				0.30 – 0.93		0.30 – 0.97				0.30 – 0.93	
Max. Inlet Temperature of Compressed Air	℃	60											
Ambient Temperature	℃	2 – 40											
Dew Point of Outlet Air	℃	10 Under Pressure											
Cooling Method of Condenser	–	Water-Cooled						Air-Cooled					
Refrigerant Control Device	–	Capillary Tube											
Capacity Control Device	–	Hot Gas Bypass Valve											
Refrigerant Used	–	R407C											
Charged Quantity	g	1,900	2,000	2,700	3,400	2,000×2	2,000×2	2,200	3,600	3,500	4,400	2,500×2	3,000×2
Finish Color	–	Ivory (Munsell No. 5Y8.5/1)											
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0	–					
Pipe Diameter	B	2-1/2*	3*		4*	5*		2-1/2*	3*		4*	5*	
Dimensions (W×D×H)	mm	672×1,260 ×1,276	950×1,290×1,332		1,989×905 ×1,583	2,020×1,100×1,650		672×1,260 ×1,276	950×1,290×1,332		1,969×905 ×1,583	2,020×1,100×1,650	
Weight (200V Model)	kg	238	346	344	534	792	872	258	372	370	557	792	872
Weight (400V Model)	kg	288	383	381	571	840	930	288	409	395	608	840	930
Accessories	–	Auto Drain Trap, Drain Valve											

* JIS 10K Flange

NOTE:
1. The capacity values above are measured at an ambient temperature of 32°C, inlet temperature of 40°C, inlet pressure of 0.69MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. The dimensions do NOT include protruding objects.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Line Filter

Air Filter*1 | Micron Mist Filter*2 | Activated Carbon Filter*3

Specifications

	Item	Model	7.5BX	11BX	15BX	22B	37B	55B	75B	100B	125C	160C	200C	240B
Common	Air Condition	Capacity (converted to theambient pressure) m³/min	1.2	1.8	2.4	3.9	6.6	10.6	13.8	20	27.6	32	40	50
		Inlet Air Temperature ℃	30											
		Inlet Air Pressure MPa	0.69											
	Use Condition	Applicable Fluid –	Compressed Air											
		Max. Pressure MPa	1.57			0.97								
	Connecting Pipe Diameter	B (A)	Rc3/4 (20)	Rc1 (25)		Rc1 (25)	Rc1⅛ (40)	Rc1⅛ (40)	Rc2 (50)	Rc2 (50)	2 1/2" (65)	3" (80)	3" (80)	4" (100)
Air Filter	Item	Model	HAF-7.5BX	HAF-11BX	HAF-15BX	HAF-22B	HAF-37B	HAF-55B	HAF-75B	HAF-100B	HAF-125C	HAF-160C	HAF-200C	HAF-240B
	Use Condition	Inlet Air Temperature Range ℃	5 – 60											
		Ambient Temperature Range ℃	2 – 60											
	Filtration Rating	μm	1*1											
	Filtration Efficiency	%	99.999											
	Pressure Drop (Loss)	Initial MPa	0.005 or below											
		Element Exchenge MPa	0.07											
	Dimension (Max. Diameter×Length)	mm	92×237	130×290.5		160×509	170×591	170×699	173×792	173×949	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter	B (A)	Rc1/4 (8)											
	Weight	kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73
Micron Mist Filter	Item	Model	HMF-7.5BX	HMF-11BX	HMF-15BX	HMF-22B	HMF-37B	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B
	Use Condition	Inlet Air Temperature Range ℃	5 – 60											
		Ambient Temperature Range ℃	2 – 60											
	Density of Oil in the Discharge Air	wtppm	0.01*2											
	Pressure Drop (Loss)	Initial MPa	0.01											
		Element Exchenge MPa	0.07											
	Dimension (Max. Diameter×Length)	mm	92×237	130×364		160×582	170×664	170×772	173×865	173×1,022	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter	B (A)	Rc1/4 (8)											
	Weight	kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73
Activated Carbon Filter	Item	Model	HKF-7.5BX	HKF-11BX	HKF-15BX	HKF-22B	HKF-37B	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B
	Use Condition	Inlet Air Temperature Range ℃	5 – 60											
		Ambient Temperature Range ℃	2 – 60											
	Density of Oil in the Discharge Air	wtppm	0.003*3											
	Pressure Drop (Loss)	MPa	0.007	0.009		0.007								
	Dimension (Max. Diameter×Length)	mm	92×232	130×281.5		160×308	170×390	170×498	173×591	173×748	590×1,511	590×1,511	590×1,511	640×1,735
	Weight	kg	1	2		3	3.3	3.7	4.3	6	41	43	43	73

* JIS 10K Flange

●Make sure to install an air dryer before the filter.
*1 The density of oil in the inlet air is 3wtppm.
*2 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 3wtppm.
*3 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 0.01wtppm.

VPLUS

Maximized Effect of Energy-Saving by Combination with V plus centered

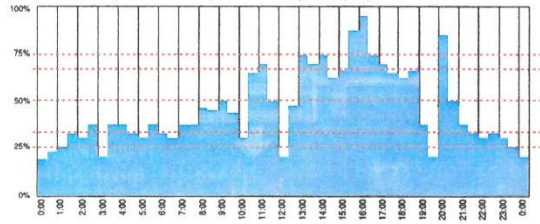
Method of Energy-Saving in case of multiple compressors setting

To respond to the change of used air, 3 patterns of optimal capacity control for air compressor are provided.

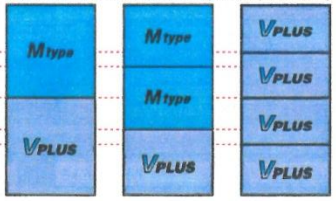
In case of setting multiple air compressors, install at least 1 unit of V plus is the key-point to achieve Energy-Saving.

In case of installing 1 unit of V plus with variable speed control, it is possible to adjust the capacity with the V plus. And part of the load operation on the fixed speed type is significantly reduced so as to achieve efficient operation.

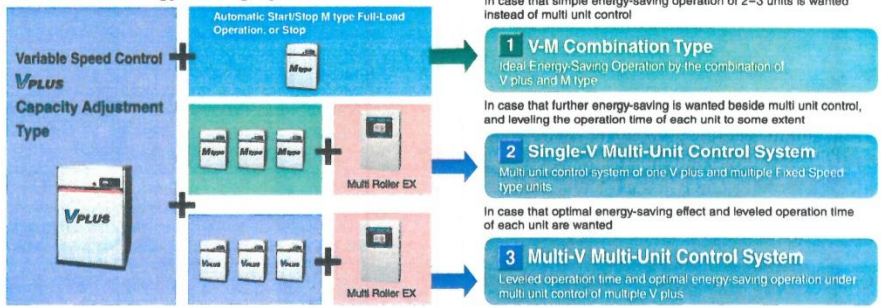
Daily Consumption of Compressed Air(Example)



Structure of Compressor System (Example)



3 Patterns of Energy-Saving System



In case that simple energy-saving operation of 2–3 units is wanted instead of multi unit control

1 V-M Combination Type

Ideal Energy-Saving Operation by the combination of V plus and M type

In case that further energy-saving is wanted beside multi unit control, and leveling the operation time of each unit to some extent

2 Single-V Multi-Unit Control System

Multi unit control system of one V plus and multiple Fixed Speed type units

In case that optimal energy-saving effect and leveled operation time of each unit are wanted

3 Multi-V Multi-Unit Control System

Leveled operation time and optimal energy-saving operation under multi unit control of multiple V plus

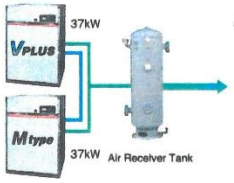
1 V-M Combination Type (JP 3547314) (2-3 units)

Conventional System

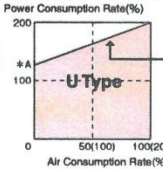
Conventional Compressor of Suction Throttle Type 1 unit

V-M Combination Type

HISCREW VPLUS + HISCREW M type



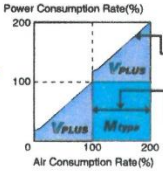
Air capacity and power consumption of 1 unit of 37kW is displayed as 100%.



Explanation

U Type

Air Capacity Adjustment under U Type Control
Energy-Saving effect is not much
*A: Discharge Air Capacity→0%
Power Consumption→140%



Explanation

VPLUS

All-time operation, all-time capacity adjustment, responding to the air consumption at all area for power reduction

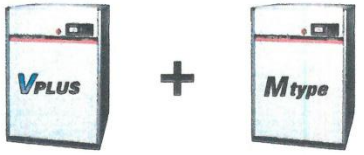
M type

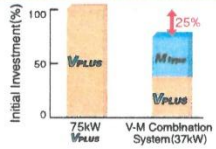
Full load or automatic stop

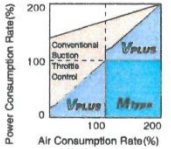
Example of Energy-Saving Effect

1. Power consumption is same featured as 75kW V plus.
2. Reduction of **25%** in initial investment is possible.
3. Reduction of power consumption up to **39%**, or about **165**MWh/year when the air consumption rate is 60%.

* Calculation condition: operation time is 6,000h/year, discharge pressure is 0.6MPa



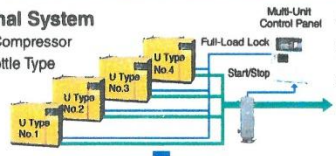


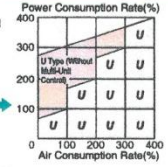


2 Single-V 3 Multi-V Multi-unit Control Type (3-12 units)

Conventional System

Conventional Compressor of Suction Throttle Type (U Type)



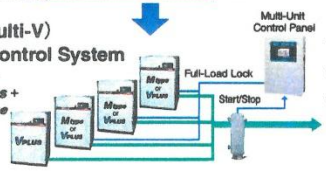


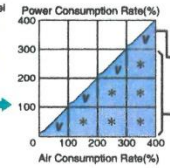
Explanation

Air Capacity Adjustment under U Type Control
Power reduction is possible, but can NOT reach the same level as Single-V.

Single-V (Multi-V) Multi-Unit Control System

Multi Roller EX + HISCREW VPLUS + HISCREW M type multi unit control or VPLUS





Explanation

VPLUS

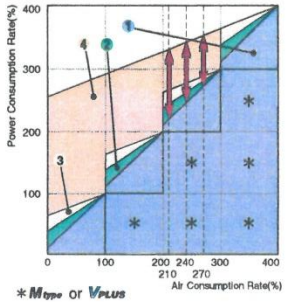
All-time operation, all-time capacity adjustment, responding to air consumption at all area for power reduction

M type or VPLUS

Full load or automatic stop

* M type or VPLUS

Example of Effect under Single-V Multi Unit Control



* M type or VPLUS

1. **Multi-Unit Control of Single-V / Multi-V**
2. **Fixed Speed Type (M type) under Multi-Unit Control**
3. **Suction Throttle Type under Multi-Unit Control**
4. **Suction Throttle Type under Parallel Control (without Multi-Unit Control)**

Unit : MWh

Air Consumption Rate	Energy-Saving Effect	
	4 — 1	4 — 2
270%	164	147
240%	205	171
210%	243	195

* Calculation Condition: 37kW air compressor without built-in air dryer ×4 units (Same in efficiency and performance)
Operation time is 6,000h/year

Asia & Oceania

China
Hitachi Industrial Equipment Systems (China) Co., Ltd.
(Shanghai Branch)
Room2201, Rui Jin Building, No.205 Maoming Road(S) Shanghai 200020
TEL : +86 (21) 5489-2378
FAX : +86 (21) 3356-5070
(Beijing Branch)
Room1420, Beijing Fortune Building, No.5 Dong San Huan Bei Road, Chao Yang District, Beijing 100004
TEL : +86 (10) 6590-8180
FAX: +86 (10) 6590-8189
(Guangzhou Branch)
Room3003, HNA Tower, 8# Linhezhong Road, Tianhe District, Guangzhou 510610
TEL : +86 (20) 3877-0438
FAX: +86 (20) 2735-3820

Hitachi Industrial Equipment Systems (Hong Kong) Co., Ltd.
8/F, Building 20E, Phase 3, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong
TEL: +852 2735-9218
FAX: +852 2735-6793

Taiwan Hitachi Asia Pacific Co., Ltd
3rd Floor, No. 167, Tun Hwa N. Road, Hung-Kuo Building, Taipei 10512, Taiwan
TEL : +886 (2) 2718-3666
FAX: +886 (2) 2514-7664

Indonesia
PT Hitachi Asia Indonesia
International Financial Centre Tower 2 39th floor Suite #03-04, Jl. Jenderal Sudirman Kav 22-23, Jakarta Selatan, 12920, Indonesia
TEL : +62 (21) 2528470
FAX : +62 (21) 2358 6755

Malaysia
Hitachi Asia (Malaysia) Sdn. Bhd.
Suite 17.3, Level 17, Menara IMC (Letter Box No.5) No. 8 Jalan Sultan Ismail, 50250, Kuala Lumpur
TEL : +60 (3) 2031-8751
FAX: 160 (3) 2031-8758

Philippines
Hitachi Asia Ltd. Philippine Branch
Unit 8, 11th Floor Zuellig Bldg., Makati Avenue corner Paseo de Roxas, Makati City, Philippines 1225
TEL: +632 886-9018
FAX: +632 887-3794

Singapore
Hitachi Asia Ltd.
(Industrial Components & Equipment Group)
7 Tampines Grande, #08-01 Hitachi Square, Singapore 528736
TEL: +65-6305-2100
FAX: +65-6305-2100

Thailand
Hitachi Asia (Thailand) Co., Ltd.
12th Floor, Ramaland Bldg., No.952, Rama IV Road, Suriyawongse, Bangrak, Bangkok 10500, Thailand
TEL : +66 (2) 632-9292
FAX: +66 (2) 632-9299

Viet Nam
Hitachi Asia Ltd.
(Ho Chi Minh City Office)
Room 8-9-10A 4th Floor, The Landmark, 5B Ton Duc Thang Street, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
TEL: +84 (8) 3829-9725
FAX: +84 (8) 3829-9729
(Ha Noi Office)
Room 2302, 23th West, Lotte Center, 54 Lieu Giai street, Cong Vi Ward, Ba Dinh District, Hanoi, Vietnam
TEL: +84 (4) 3933-3123
FAX: +84 (4) 3933-3125

Hitachi Global Air Power (Changshu) Co., Ltd.

For more information, please consult Hitachi dealer nearest to you.

Due to product improvements, the specifications, appearance, etc. of the samples described in the manual are subject to change without notice.
The samples are presented in printed form and sometimes slightly different from actual products in color.

Printed in China(H) **HCS-E001A 2023.11**

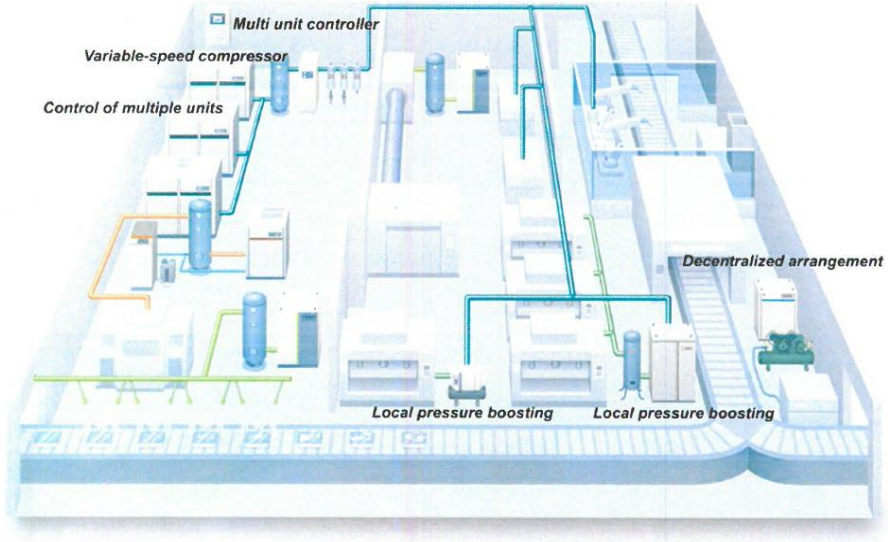
Hitachi Two-Stage Oil Flooded Rotary Screw Compressor

HITACHI
Inspire the Next

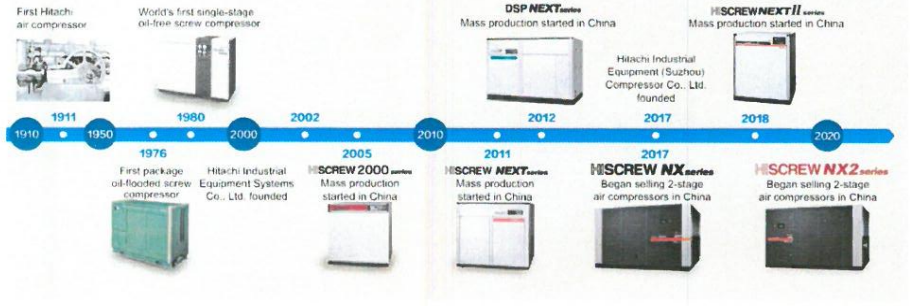
OIL-FLOODED SCREW NX2 series 90-250kW

Hitachi – A Trusted Expert in Air Compressors

With a history of more than a century, Hitachi Compressor has always treated 100% customer satisfaction as the source of enterprise development.
As the leading compressor manufacturer in Japan, we are committed to continuous technological innovation and development of air compressors to meet each customer's requirements. Our products are available in power from 0.2kW to 770kW and types of piston, scroll, screw, etc.
Hitachi can provide customers with the most suitable compressed air systems in both oil-flooded and oil-free applications.
We believe, with our high-quality and efficient air compressor products, multiple compressed air solutions and perfect pre-sales and after-sales services, Hitachi will become your most trusted compressed air expert.



History of Hitachi Air Compressor



The latest interpretation of Hitachi air compressor's energy-saving technology

OSP NX2 series two-stage compressor

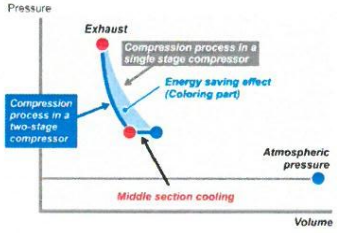
Features of two-stage compressor

Take the 0.8MPa specification machine as an example

- Single-stage compressor compresses the air from 0MPa (atmospheric pressure) to about 0.8MPa .
- Two-stage compressor compresses the air from 0MPa (atmospheric pressure) to 0.2MPa at the first stage airend, subsequently, the air is compressed from 0.2MPa to 0.8MPa at the second stage airend.

Compared with the single-stage compressor, the leakage between the rotors caused by the pressure difference in the respective airends is small because the two-stage compressor compresses the air in two-stages, thereby achieving the effect of energy saving.

*Pressure is gauge pressure.



In terms of cooling, the two-stage compressor cools the compressed air at the outlet of first stage airend.
After reducing the volume, it is sent to the second stage airend for second compression.
By reducing the volume, the load on the second stage airend is smaller than that of the uncooled load.

Compared with the one-time compressed air of the single-stage compressor,
the two-stage compressor cools the compressed air in the middle section.
It makes the volume smaller, reduces the load of the second stage airend, and also achieves the effect of high efficiency and energy saving.

Model list

Model			Nominal Output (kW) 90	110	132	160	185	200	220	250
Variable speed type	V_{type}	Air-cooled	○	○	○	○	○	○	○	○
		Water-cooled	○	○	○	○	○	○	○	○
Fixed speed type	M_{type}	Air-cooled	○	○	○	○	○	○	○	○
		Water-cooled	○	○	○	○	○	○	○	○

OSP NX2 series

Variable speed type has been added to Hitachi's lineup of high performance, high efficiency two-stage compressor.

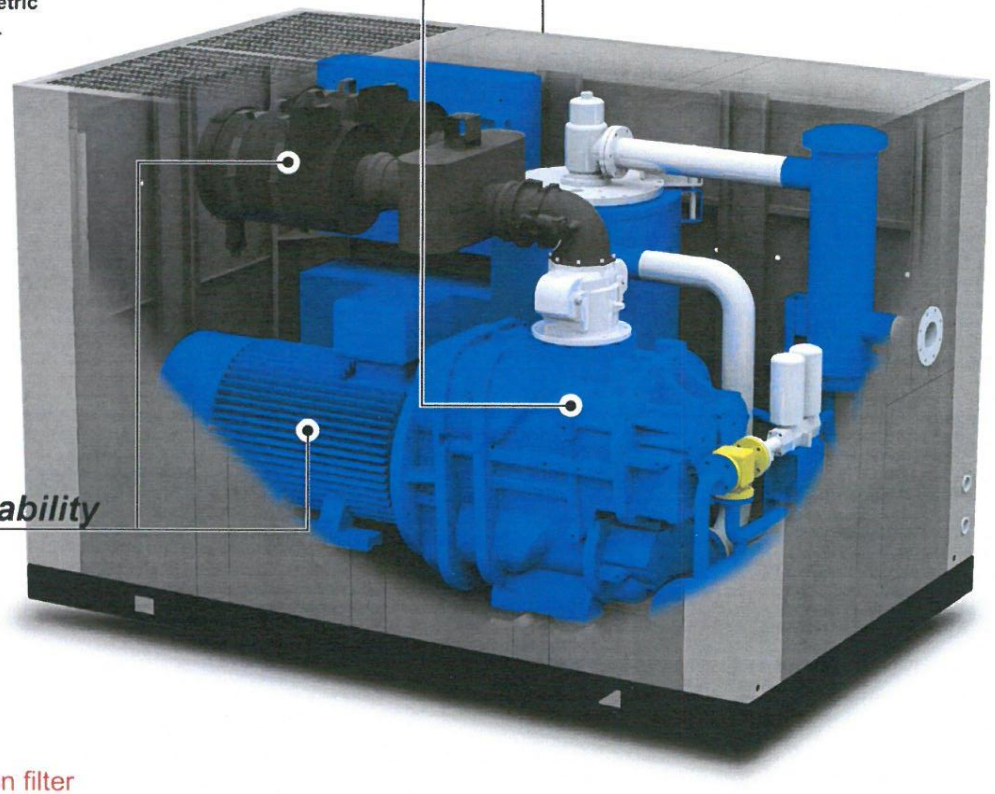
OSP *NX2* series (90-250kW)

High-efficiency and Energy-saving Screw Airend

Optimal design of rotor profile can maximize volumetric efficiency and improve Energy-Saving performance. Reliability of compressor is guaranteed by high level of processing and assembly precision in addition to large, high-precision, heavy-duty bearings

New Intelligent Control System

- Equipped with new LCD touch screen
- Easier operation
- Higher expandability



OSP-250M5WTX2

Industry-leading High Reliability

Equipped with high-quality motor

IP55 Protection Grade

- Effectively protect motor from dust and moisture.
- Enhance the reliability of motor and compressor.

Equipped with standard dust-proof suction filter

Efficient gear drive for high reliability

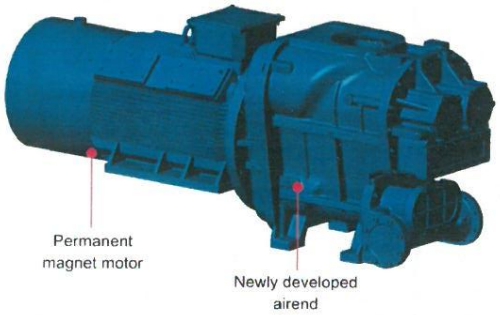
Dedicated Synthetic Oil

NEW HISCREW OIL NEXT

Dedicated synthetic oil developed for Hitachi screw compressors

- High-quality dedicated lubricating oil ensures stable operation of air compressors and improves the overall efficiency and reliability.
- Replacement cycle up to 2 years or 12,000 hours (subject to first reach) reduces operating costs.

Efficient motor and airend



Airend

- Equipped with newly developed airend(*)
- High efficiency and high performance

(*)Excluding some models.

Main motor

- Permanent magnet motor for all models of inverter compressor
- Efficiency class: Equivalent to IE4
- Protection class: IP55

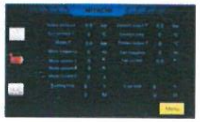
Multi-function touch screen

The new color touch screen comes standard and is easy to operate, allowing you to see the contents at a glance.

Simple operation of the touch screen allows you to obtain a wide range of information such as compressor operation information(discharge air pressure/discharge air temperature/current value), remaining time for maintenance, and fault history, as well as to set and change operating parameters.

Default interface after power on

Main interface



Operating conditions (Pressure, temperature, current value)

Remaining time for maintenance

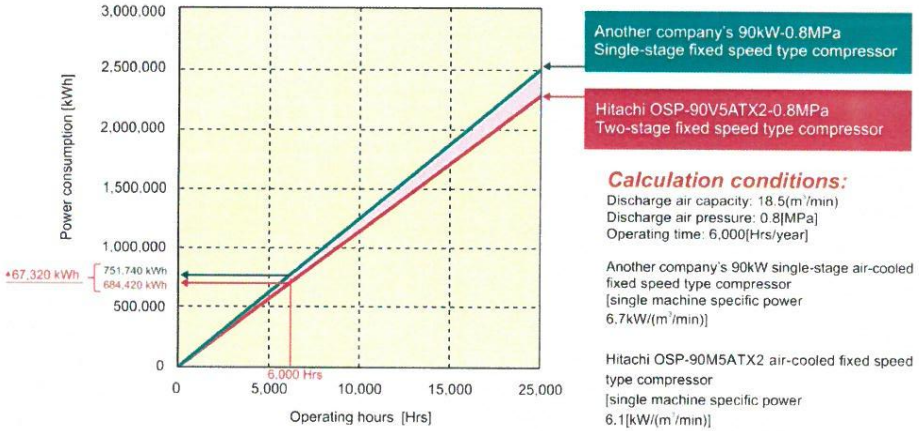
Parameter setting

Fault history

Energy saving effect

Two-stage compressor vs Single-stage compressor

Replace the existing single-stage compressor with an efficient two-stage compressor, which reduces the cost of electricity.
For example, in the case of a 90kW compressor as shown in the figure below,
the maximum annual energy saving effect of **67,320kWh(Calculated value)**.



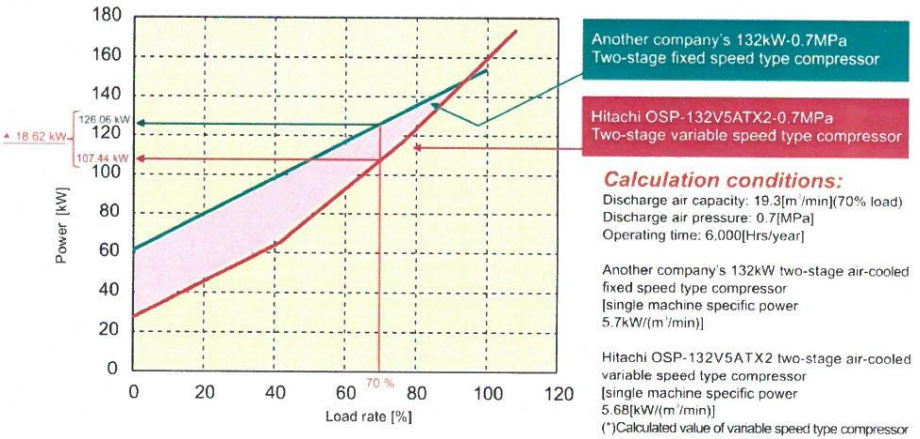
Calculation conditions:
Discharge air capacity: 18.5(m³/min)
Discharge air pressure: 0.8[MPa]
Operating time: 6,000[Hrs/year]

Another company's 90kW single-stage air-cooled fixed speed type compressor
[single machine specific power 6.7kW/(m³/min)]

Hitachi OSP-90M5ATX2 air-cooled fixed speed type compressor
[single machine specific power 6.1[kW/(m³/min)]

Variable speed type compressor vs Fixed speed type compressor

Taking Hitachi 132kW two-stage variable speed type compressor to replace other brands' 132kW two-stage fixed speed type compressor.
As an example, the maximum power saving effect is **111,714kWh per year(Calculated value)**.



Calculation conditions:
Discharge air capacity: 19.3[m³/min](70% load)
Discharge air pressure: 0.7[MPa]
Operating time: 6,000[Hrs/year]

Another company's 132kW two-stage air-cooled fixed speed type compressor
[single machine specific power 5.7kW/(m³/min)]

Hitachi OSP-132V5ATX2 two-stage air-cooled variable speed type compressor
[single machine specific power 5.68[kW/(m³/min)]
(*)Calculated value of variable speed type compressor
(=Average load at 100/70/40% air volume)

Table of Standard Specifications

90-132 kW M type

Item	Model	OSP-90M5ATX2	OSP-90M5WTX2	OSP-110M5ATX2	OSP-110M5WTX2	OSP-132M5ATX2	OSP-132M5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380		380	
Nominal Output	kW	90※1		110※1		132※1	
Rated Discharge Pressure	MPa	0.7 / 0.8 / -	0.7 / 0.8 / -	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	20.0 / 18.7 / -	20.0 / 18.7 / -	23.4 / 22.1 / 18.9	23.4 / 22.1 / 18.9	29.0 / 26.8 / 22.0	29.0 / 26.8 / 22.0
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Ambient Temperature +15 or below	Cooling Water Temperature +13 or below	Ambient Temperature +15 or below	Cooling Water Temperature +13 or below	Ambient Temperature +15 or below	Cooling Water Temperature +13 or below
Starting Method	-	Star-Delta		Star-Delta		Star-Delta	
Driving Method	-	Gear drive		Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity	L	105		105		105	
Cooling Water Temperature	℃	-	32 or below	-	32 or below	-	32 or below
Cooling Water Flow Rate	L/min	-	167	-	200	-	234
Discharge Pipe Diameter	-	DN80		DN80		DN80	
Dimensions (Width x Depth x Height)	mm	3,050 X 1,850 X 2,120	2,850 X 1,850 X 2,120	3,050 X 1,850 X 2,120	2,850 X 1,850 X 2,120	3,050 X 1,850 X 2,120	2,850 X 1,850 X 2,120
Weight	kg	3,700	3,500	4,100	3,900	4,200	4,000
Recommended Air Receiver Volume	m³	3.0 or bigger		3.0 or bigger		4.0 or bigger	

160-185 kW M type

Item	Model	OSP-160M5ATX2	OSP-160M5WTX2	OSP-185M5ATX2	OSP-185M5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380	
Nominal Output	kW	160※1		185※1	
Rated Discharge Pressure	MPa	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	33.5 / 32.7 / 26.4	33.5 / 32.7 / 26.4	38.5 / 37.5 / 32.5	38.5 / 37.5 / 32.5
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Ambient Temperature +15 or below	Cooling Water Temperature +13 or below	Ambient Temperature +15 or below	Cooling Water Temperature +13 or below
Starting Method	-	Star-Delta		Star-Delta	
Driving Method	-	Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity	L	150 / 105	150 / 105	150	
Cooling Water Temperature	℃	-	32 or below	-	32 or below
Cooling Water Flow Rate	L/min	-	300	-	334
Discharge Pipe Diameter	-	DN100 / DN80	DN100 / DN80	DN100	DN100
Dimensions (Width x Depth x Height) 0.7/0.8MPa	mm	3,600 X 1,850 X 2,150	3,050 X 1,850 X 2,150	3,600 X 1,850 X 2,150	3,050 X 1,850 X 2,150
Dimensions (Width x Depth x Height) 1.0MPa	mm	3,050 X 1,850 X 2,120	2,850 X 1,850 X 2,120		
Weight 0.7/0.8MPa	kg	5,300	5,000	5,600	5,300
Weight 1.0MPa	kg	4,400	4,200	5,600	5,300
Recommended Air Receiver Volume	m³	4.0 or bigger		5.0 or bigger	

Note:

1. Capacity is measured according to ISO 1217, Annex C.
2. For guaranteed capacity values, please contact your nearest sales representative.
3. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
4. Discharge pressure is gauge pressure.
5. Temperature of discharge air may vary from different environments.
6. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
7. Be sure to install an air tank with more than the recommended capacity.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
10. Appearance and specifications are subject to change without notice.

200-250 kW M type

Item	Model	OSP-200M5ATX2	OSP-200M5WTX2	OSP-220M5ATX2	OSP-220M5WTX2	OSP-250M5ATX2	OSP-250M5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380		380	
Nominal Output	kW	200※1		220※1		250※1	
Rated Discharge Pressure	MPa	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	44.0 / 41.5 / 35.5	44.0 / 41.5 / 35.5	50.5 / 46.0 / 40.7	50.5 / 46.0 / 40.7	53.5 / 49.0 / 46.0	53.5 / 49.0 / 46.0
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Intake Air Temp +15 or less	Cooling water temperature +13 or less	Intake Air Temp +15 or less	Cooling water temperature +13 or less	Intake Air Temp +15 or less	Cooling water temperature +13 or less
Starting Method	-	Star-Delta		Star-Delta		Star-Delta	
Driving Method	-	Gear drive		Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity	L	170 / 150	170 / 150	170		170	
Cooling Water Temperature	℃	-	32 or less	-	32 or less	-	32 or less
Cooling Water Flow Rate	L/min	-	334 / 383	-	383	-	416
Discharge Pipe Diameter	-	DN125 / DN100	DN125 / DN100	DN125		DN125	
Dimensions (Width x Depth x Height) 0.7/0.8MPa	mm	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250
Dimensions (Width x Depth x Height) 1.0MPa	mm	3,600 X 1,850 X 2,150	3,050 X 1,850 X 2,150				
Weight 0.7/0.8MPa	kg	7,600	7,250	7,850	7,450	8,000	7,600
Weight 1.0MPa	kg	5,600	5,000	7,850	7,450	8,000	7,600
Recommended Air Receiver Volume	m³	5.0 or bigger		6.0 or bigger		6.0 or bigger	

Note:

1. Capacity is measured according to ISO 1217, Annex C.
2. For guaranteed capacity values, please contact your nearest sales representative.
3. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
4. Discharge pressure is gauge pressure.
5. Temperature of discharge air may vary from different environments.
6. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
7. Be sure to install an air tank with more than the recommended capacity.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
10. Appearance and specifications are subject to change without notice.

Model Implication

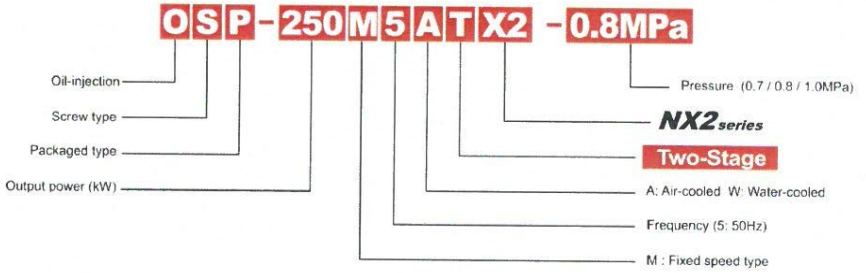


Table of Standard Specifications

90-132 kW Vtype

Item	Model	OSP-90V5ATX2	OSP-90V5WTX2	OSP-110V5ATX2	OSP-110V5WTX2	OSP-132V5ATX2	OSP-132V5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380		380	
Nominal Output	kW	90※1		110※1		132※1	
Rated Discharge Pressure	MPa	0.7 / 0.8	-	0.7 / 0.8	-	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	20.0 / 18.7	-	23.4 / 22.1 / 18.9	23.4 / 22.1 / 18.9	29.0 / 26.8 / 22.0	29.0 / 26.8 / 22.0
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Intake temperature +15 or less	Cooling water temperature +13 or less	Intake temperature +15 or less	Cooling water temperature +13 or less	Intake temperature +15 or less	Cooling water temperature +13 or less
Starting Method	-	Frequency conversion		Frequency conversion		Frequency conversion	
Driving Method	-	Gear drive		Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity	L	105		105		105	
Cooling Water Temperature	℃	-	32 or less	-	32 or less	-	32 or less
Cooling Water Flow Rate	L/min	-	167	-	200	-	234
Discharge Pipe Diameter	-	DN80		DN80		DN80	
Dimensions (Width x Depth x Height)	mm	3,200 X 1,850 X 2,120	3,000 X 1,850 X 2,120	3,200 X 1,850 X 2,120	3,000 X 1,850 X 2,120	3,200 X 1,850 X 2,120	3,000 X 1,850 X 2,120
Weight	kg	3,750	3,550	4,180	3,980	4,280	4,080
Recommended Air Receiver Volume	m³	3.0 or bigger		3.0 or bigger		4.0 or bigger	

160-185 kW Vtype

Item	Model	OSP-160V5ATX2	OSP-160V5WTX2	OSP-185V5ATX2	OSP-185V5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380	
Nominal Output	kW	160※1		185※1	
Rated Discharge Pressure	MPa	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	33.5 / 32.7 / 26.4	33.5 / 32.7 / 26.4	38.5 / 37.5 / 32.5	38.5 / 37.5 / 32.5
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Intake temperature +15 or less	Cooling water temperature +13 or less	Intake temperature +15 or less	Cooling water temperature +13 or less
Starting Method	-	Frequency conversion		Frequency conversion	
Driving Method	-	Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity	L	150 / 105	150 / 105	150	
Cooling Water Temperature	℃	-	32 or less	-	32 or less
Cooling Water Flow Rate	L/min	-	300	-	334
Discharge Pipe Diameter	-	DN100 / DN80	DN100 / DN80	DN100	DN100
Dimensions (Width x Depth x Height) 0.7/0.8MPa	mm	3,900 X 1,850 X 2,150	3,350 X 1,850 X 2,150	3,900 X 1,850 X 2,150	3,350 X 1,850 X 2,150
Dimensions (Width x Depth x Height) 1.0MPa	mm	3,200 X 1,850 X 2,120	3,000 X 1,850 X 2,120		
Weight 0.7/0.8MPa	kg	5,560	5,260	5,600	5,260
Weight 1.0MPa	kg	4,400	4,200		
Recommended Air Receiver Volume	m³	4.0 or bigger		5.0 or bigger	

Note:

1. Capacity is measured according to ISO 1217, Annex C.
2. For guaranteed capacity values, please contact your nearest sales representative.
3. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
4. Discharge pressure is gauge pressure.
5. Temperature of discharge air may vary from different environments.
6. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
7. Be sure to install an air tank with more than the recommended capacity.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
10. Appearance and specifications are subject to change without notice.

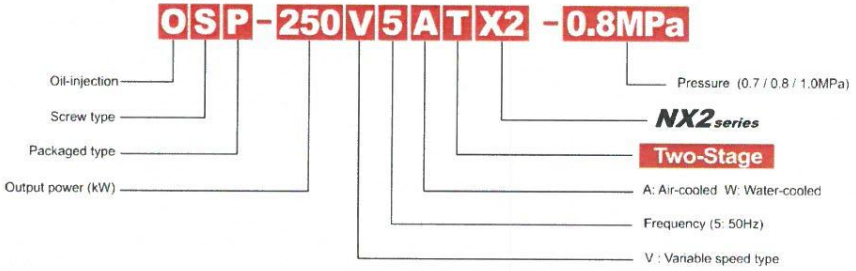
200-250 kW Vtype

Item	Model	OSP-200V5ATX2	OSP-200V5WTX2	OSP-220V5ATX2	OSP-220V5WTX2	OSP-250V5ATX2	OSP-250V5WTX2
Cooling Method	-	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled	Air-Cooled	Water-Cooled
Voltage(50Hz)	V	380		380		380	
Nominal Output	kW	200※1		220※1		250※1	
Rated Discharge Pressure	MPa	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0	0.7 / 0.8 / 1.0
Rated Discharge Air Capacity	m³/min	44.0 / 41.5 / 35.5	44.0 / 41.5 / 35.5	50.5 / 46.0 / 40.7	50.5 / 46.0 / 40.7	53.5 / 49.0 / 46.0	53.5 / 49.0 / 46.0
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃		Atmospheric Pressure / 0~45℃	
Discharge Air Temperature	℃	Intake Air Temp. +15 or less	Cooling water temperature +13 or less	Intake Air Temp. +15 or less	Cooling water temperature +13 or less	Intake Air Temp. +15 or less	Cooling water temperature +13 or less
Starting Method	-	Frequency conversion		Frequency conversion		Frequency conversion	
Driving Method	-	Gear drive		Gear drive		Gear drive	
Lubricating Oil	-	NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT		NEW HISCREW OIL NEXT	
Lubricating Oil Capacity 0.7/0.8MPa	L	170		170		170	
Lubricating Oil Capacity 1.0MPa	L	150					
Cooling Water Temperature	℃	-	32 or less	-	32 or less	-	32 or less
Cooling Water Flow Rate	L/min	-	334 / 383	-	383	-	416
Discharge Pipe Diameter	-	DN125 / DN100	DN125 / DN100	DN125		DN125	
Dimensions (Width x Depth x Height) 0.7/0.8MPa	mm	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250	4,200 X 2,150 X 2,250	3,400 X 2,150 X 2,250
Dimensions (Width x Depth x Height) 1.0MPa	mm	3,900 X 1,850 X 2,150	3,350 X 1,850 X 2,150				
Weight 0.7/0.8MPa	kg	8,000	7,600	8,100	7,700	8,200	7,800
Weight 1.0MPa	kg	6,100	5,800				
Recommended Air Receiver Volume	m³	5.0 or bigger		6.0 or bigger		6.0 or bigger	

Note:

1. Capacity is measured according to ISO 1217, Annex C.
2. For guaranteed capacity values, please contact your nearest sales representative.
3. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
4. Discharge pressure is gauge pressure.
5. Temperature of discharge air may vary from different environments.
6. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
7. Be sure to install an air tank with more than the recommended capacity.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
10. Appearance and specifications are subject to change without notice.

Model Implication



HITACHI
Inspire the Next

OIL-FREE BEBICON AIR COMPRESSORS

(0.45~11kW)

HIGH PERFORMANCE | DURABLE DESIGN | LONG OVERHAUL CYCLE | OIL LESS STRUCTURE

3.7OP - 9.5G5A

- 3.7 — Power (3.7kW)
- O — Oil Free
- P — Pressure Switch
- 9.5 — Pressure (0.93MPa [9.5kgf/cm²])
- G — GREEN Series
- 5 — Frequency (50Hz)
- A — ASIA

Specifications (HORIZONTAL TANK MOUNT TYPE)

Operation Systems	Motor Output kW	Model	Maximum Pressure MPa	Cylinder Diameter mm X Stroke mm X Number of Cylinders	Compressor Speed min⁻¹	Displacement L/min	Capacity at Maximum Pressure L/min	Air tank Capacity L	Power Source PH	Standard Accessories	External Dimensions Width X Depth X Height mm	Weight Kg	Noise Level dB[A]
Automatic unloader type	1.5	1.5OU-9.5GS5/6A	0.93	82X60X1	880	278	165	80	1PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover Silencer Stop valve	1,155X393X909	105	71
		1.5OU-9.5G5/6A							3PH			93	
	2.2	2.2OU-9.5GS5/6A		82X60X2	650	412	240	90	1PH		1,283X403X841	139	71
		2.2OU-9.5G5/6A							3PH			122	
	3.7	3.7OU-9.5G5/6A		82X72X2	850	646	405	125	3PH		1,477X424X909	163	74
	5.5	5.5OU-9.5G5/6A		82X72X3	860	981	605	150	3PH		1,518X502X1,009	208	75
	7.5	7.5OU-8.5GA5/6A	0.83	105X85X2	915	1,347	880	235	3PH		1,674X550X1,076	278	80
	11	11OU-8.5GA5/6A		105X85X3	900	1,987	1,285	290	3PH		2,014X665X1,153	385	82
Pressure-switch type	0.75	0.75OP-9.5GS5/6A	0.93	60X50X1	980	139	75	80	1PH	Air out let 1/4BX1 for 0.75, 1.5 & 2.2kW, 3/8BX1 for 3.7 & 5.5kW, 3/4BX1 for 7.5 & 11kW	1,155X380X850	84	69
		0.75OP-9.5G5/6A							3PH			77	
	1.5	1.5OP-9.5GS5/6A		82X60X1	880	278	165	80	1PH		1,155X393X897	105	71
		1.5OP-9.5G5/6A							3PH			93	
	2.2	2.2OP-9.5GS5/6A		82X60X2	650	412	240	90	1PH		1,283X403X824	139	71
		2.2OP-9.5G5/6A							3PH			122	
	3.7	3.7OP-9.5G5/6A		82X72X2	850	646	405	125	3PH		1,477X424X880	163	74
	5.5	5.5OP-9.5G5/6A		82X72X3	860	981	605	150	3PH		1,518X502X995	208	75
	7.5	7.5OP-8.5GA5/6A	0.83	105X85X2	915	1,347	880	235	3PH		1,674X550X1,076	278	80
	11	11OP-8.5GA5/6A		105X85X3	900	1,987	1,285	290	3PH		2,014X665X1,153	385	82

Note: 1. Use the compressor at a place where ambient temperature is 0 to 40 degrees C.
2. The noise level shown are those obtained at a distance of 1.5m from the front of the compressor operating under full load in a reverberation-free room.
3. The capacity of compressed air is the amount of air discharged under the maximum pressure converted in terms air suction (under the atmospheric pressure).
4. These compressor series is not available for direct use of breathing air.

SUPER OIL-FREE BEBICON LE Series

Specifications

Motor Output (kW) (50Hz/60Hz)	Model	Compressor					Air tank Capacity (L)	Dimensions Width X Depth X Height (mm)	Motor	Weight (kg)	Noise Level dB[A] (50Hz)
		Max. Pressure (MPa)	Control Pressure ON-OFF (MPa)	Cylinder diameter (mm) X Stroke (mm)	Rotating Speed (min⁻¹)	Capacity (L/min)					
0.4LE-8S5A	0.4LE-8S5A	0.8	0.6-0.8	Ø63X20X1	50 Hz	42	20	600X322X608	220V~230V 1PH	30	60
					1,360						

Note: 1. Use the compressor at a place where ambient temperature is 0 to 40 degrees C.
2. The noise level shown are those obtained at a distance of 1.5m from the front of the compressor operating under full load in a reverberation-free room.
3. The capacity of compressed air is the amount of air discharged under the maximum pressure converted in terms air suction (under the atmospheric pressure).
4. This compressor is not available for direct use of breathing air.

HITACHI BEBICON
AIR COMPRESSORS
(0.75~15kW)

HIGH PERFORMANCE | HIGH RELIABILITY | COMPACT & LIGHT | EASY TO MAINTAIN

HORIZONTAL

VERTICAL

2.2P - 9.5VSL 5A

- Asia
- Frequency (50Hz)
- Large Tank
- Single Phase
- New V Series
- Pressure (0.93MPa [9.5kgf/cm²])
- Pressure Switch Type
- Power (2.2kW)

Specifications (HORIZONTAL & VERTICAL TANK MOUNT TYPE)

Tank Type	Operation Systems	Motor Output kW	Model	Maximum Pressure MPa	Cylinder Diameter mm X Stroke mm X Number of Cylinders	Compressor Speed min⁻¹	Displacement L/min	Capacity at Maximum Pressure L/min	Air tank Capacity L	Power Source PH	Standard Accessories	External Dimensions Width X Depth X Height mm	Weight Kg	Noise Level dB[A]
Horizontal	Automatic unloader type	0.75	0.75U-9.5VS5/6A	0.93	50X65X1	990	126	80	62	1PH	Pressure gauge, Safety value, Hose joint, V-belt, Belt cover, Silencer Stop valve Air out let 1/4BX1 for 0.75 & 1.5 kW, 1/4BX2 for 2.2 kW, 1/4BX1 & 3/8BX1 for 3.7 & 5.5 kW 1/4BX1 & 3/4BX1 for 7.5 & 11 kW 1BX 1 for 15 kW	931X376X816	79	70
			0.75U-9.5V5/6A							3PH			72	
		1.5	1.5U-9.5VS5/6A		72X65X1	970	257	165	80	1PH		1,173X380X867	102	72
			1.5U-9.5V5/6A							3PH			90	
		2.2	2.2U-9.5VS5/6A		72X65X2	730	386	265	90	1PH		1,283X403X808	134	72
			2.2U-9.5V5/6A							3PH			117	
		3.7	3.7U-9.5V5/6A		L) 90X85X1 H) 50X85X1	1,000	541	440	125	3PH		1,345X428X948	158	74
		5.5	5.5U-9.5V5/6A		L) 105X85X1 H) 60X85X1	1,080	795	630	150	3PH		1,470X482X979	203	76
		7.5	7.5U-9.5V5/6A		L) 90X85X2 H) 72X85X1	950	1,027	840	235	3PH		1,643X547X1,103	280	79
		11	11U-9.5V5/6A		L) 105X85X2 H) 82X85X1	1,050	1,546	1,200	260	3PH		1,793X611X1,103	340	83
		15	15U-9.5V5/6A		L) 110X110X2 H) 82X110X1	1,000	2,091	1,650	290	3PH		1,983X794X1,221	462	84
	Pressure-switch type	0.75	0.75P-9.5VS(L)5/6A		50X65X1	990	126	80	62 (92)	1PH		931X376X804 (1,296X376X804)	79 (82)	70
			0.75P-9.5V(L)5/6A							3PH			72 (75)	
		1.5	1.5P-9.5VS(L)5/6A		72X65X1	970	257	165	80 (150)	1PH		1,173X380X855 (1,470X380X855)	102 (109)	72
			1.5P-9.5V(L)5/6A							3PH			90 (97)	
		2.2	2.2P-9.5VS(L)5/6A		72X65X2	730	386	265	90 (170)	1PH		1,283X403X808 (1,775X403X808)	134 (150)	72
			2.2P-9.5V(L)5/6A							3PH			117 (133)	
		3.7	3.7P-9.5V(L)5/6A		L) 90X85X1 H) 50X85X1	1,000	541	440	125 (170)	3PH		1,345X428X923 (1,775X428X923)	158 (174)	74
		5.5	5.5P-9.5V5/6A		L) 105X85X1 H) 60X85X1	1,080	795	630	150	3PH		1,470X482X932	203	76
		7.5	7.5P-9.5V5/6A		L) 90X85X2 H) 72X85X1	950	1,027	840	235	3PH		1,643X556X1,094	280	79
		11	11P-9.5V5/6A		L) 105X85X2 H) 82X85X1	1,050	1,546	1,200	260	3PH		1,793X611X1,098	340	83
Horizontal		3.7	3.7P-14VH5/6A	1.37	L) 90X85X1 H) 50X85X1	900	487	400	230	3PH	Pressure gauge, Safety value, Hose joint, V-belt, Belt cover, Silencer Stop valve 3/8BX1 for 3.7 & 5.5 kW 3/4BX1 for 7.5 kW	1,690X525X799	187	74
		5.5	5.5P-14VH5/6A		L) 105X85X1 H) 60X85X1	970	714	550	230	3PH		1,690X573X1,000	244	76
		7.5	7.5P-14VH5/6A		L) 90X85X2 H) 72X85X1	900	973	760	230	3PH		1,690X853X1,084	290	79
Vertical		3.7	3.7P-12.5(14)V5A	1.23/ 1.37	L) 90X85X1 H) 50X85X1	900	487	400	300	3PH		957X590X1,732	260	75
		5.5	5.5P-12.5(14)V5A		L) 105X85X1 H) 60X85X1	970	714	550	300	3PH		1,025X611X1,734	317	76
		7.5	7.5P-12.5(14)V5A		L) 90X85X2 H) 72X85X1	900	973	760	300	3PH		1,102X634X1,814	363	80

Note: 1. Use the compressor at a place where ambient temperature is 0 to 40 degrees C.
2. The noise level shown are those obtained at a distance of 1.5m from the front of the compressor operating under full load in a reverberation-free room.
3. The capacity of compressed air is the amount of air discharged under the maximum pressure converted in terms air suction (under the atmospheric pressure).
4. These compressor series is not available for direct use of breathing air.

For further information, Please contact your nearest sales representative

Hitachi Industrial Equipment (Malaysia) Sdn. Bhd.

For the latest information visit Hitachi website on
http://www.hiem.hitachi.com.my

SMC

Refrigerated Air Dryer

Series IDU(A)■E

Air Flow Capacity

Increased up to the

max 40%

(SMC comparison)

Power Consumption

Decreased up to the

max 40%

(SMC comparison)

Refrigerant

R134a (HFC)
R407C (HFC)

(Coefficient of destruction for ozone is zero)

High temperature air inlet type
(Rated inlet air temperature: 55°C)

Improved corrosion resistance with the use of stainless steel, plate type heat exchanger

SMC PNEUMATICS (SEA) SDN BHD
Lot 36, Jalan Delima 1/1, Subang Hi-Tech Industrial Park,
Batu Tiga, 40000 Shah Alam, Selangor.
Tel: 03-56350590 Fax: 03-56350601
Email: sales@smcmy.com.my
http://www.smcmy.com.my

Distributor name / address:

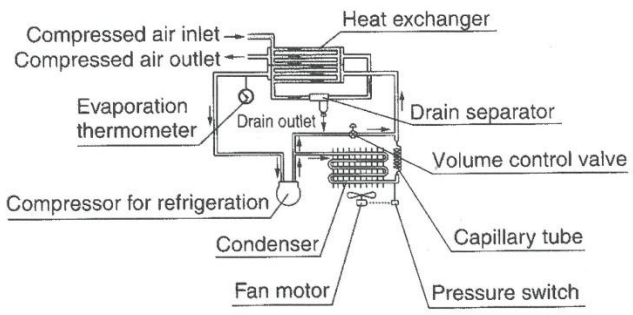
Standard Specifications

Specification / Model			IDUA3E -23	IDUA4E -23	IDUA6E -23	IDU8E -23	IDU11E -23	IDU15E -23	IDU22E -23	IDU37E -23	IDU55E -23	IDU75E -23
Rated Condition	Air Flow Capacity ℓ/min	Standard condition (ANR) (50Hz) Note1)	320	520	750	1100	1500	2600	3900	5700	8400	11000
	Inlet air pressure (Mpa)		0.7									
	Inlet Air Temperature (°C)		55									
	Ambient Temperature (°C)		32									
	Outlet air pressure dew point (°C)		10									
Operating Range	Working Fluid		Compressed Air									
	Inlet Air Temperature (°C)		5 to 80									
	Inlet Air Pressure (MPa)		0.15 to 1.0									
	Ambient Temperature (humidity) (°C)		2 to 40 (Relative Humidity of 85% or less)									
Electric Specificati	Power supply voltage frequency) Note 4)		Single -phase 230VAC ±10% 50Hz									
	Operating Current (A) 50Hz		1.5	1.6	2.9	1.7	3.0	3.4	4.3	7.5		10.7
	Power Consumption (W) 50Hz		210	220	400	260	425	550	960	1600		2300
Circuit Breaker (Note 2) (A)			5					10				20
Refrigerant			R134a (HFC)						R407C (HFC)			
Auto drain			Float type (normally open)									
Port size			Rc 3/8	Rc 1/2	Rc 3/4			Rc 1	R1	R 1.½	R 2	
Weight (kg)			23	27	28	44	47	71	90	130	160	166
Coating color			Body panel: Urban white 1, Base : Urban gray 2									
Applicable Compressor kW (Standard)			2.2	3.7	5.5	7.5	11	15	22	37	55	75

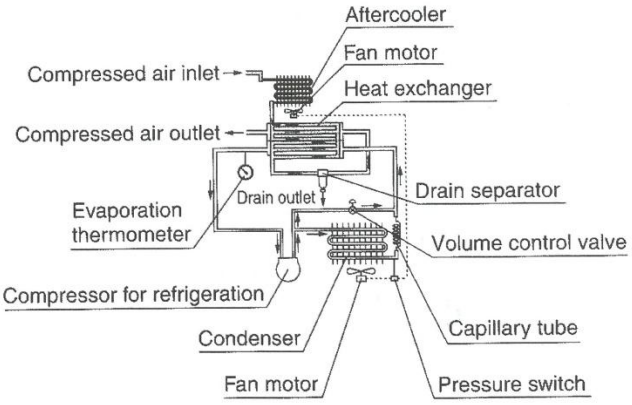
Note 1: The data for ℓ/min (ANR) is referring to the conditions of 20°C, 1atm. Pressure & relative humidity of 65%.
Note 2: Install circuit breaker that comes with sensivity of 30mA.

Construction Principle (Circuit for Air / Refrigerant)

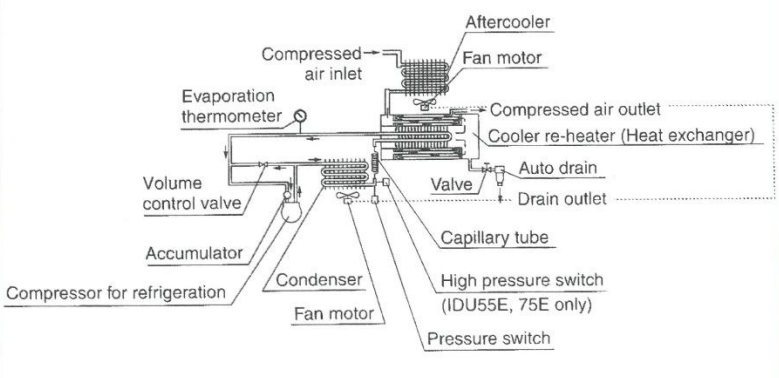
IDUA3E TO 6E



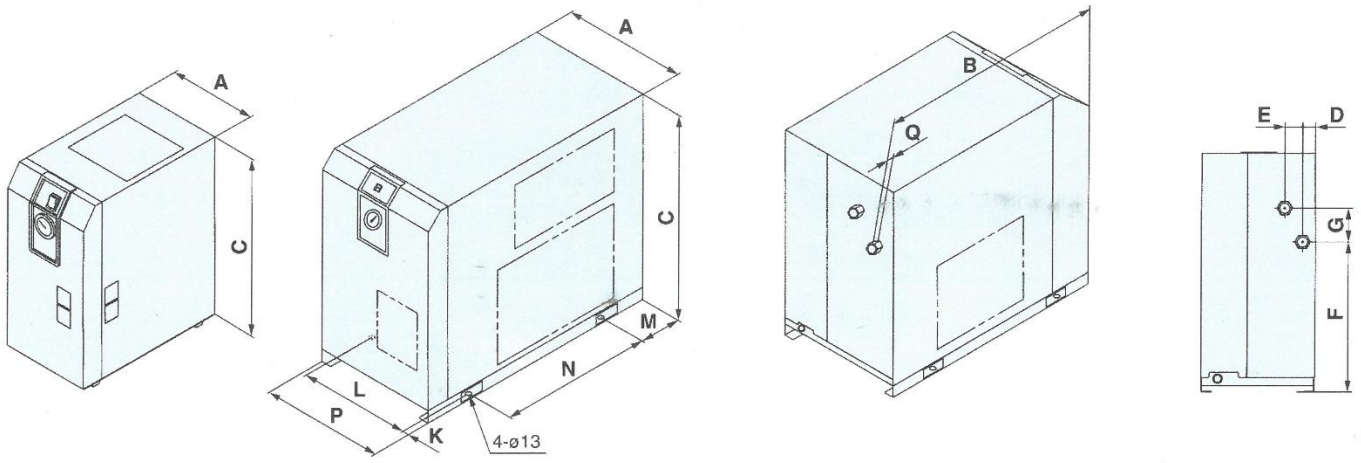
IDU8E to 15E



IDU22E TO 75E



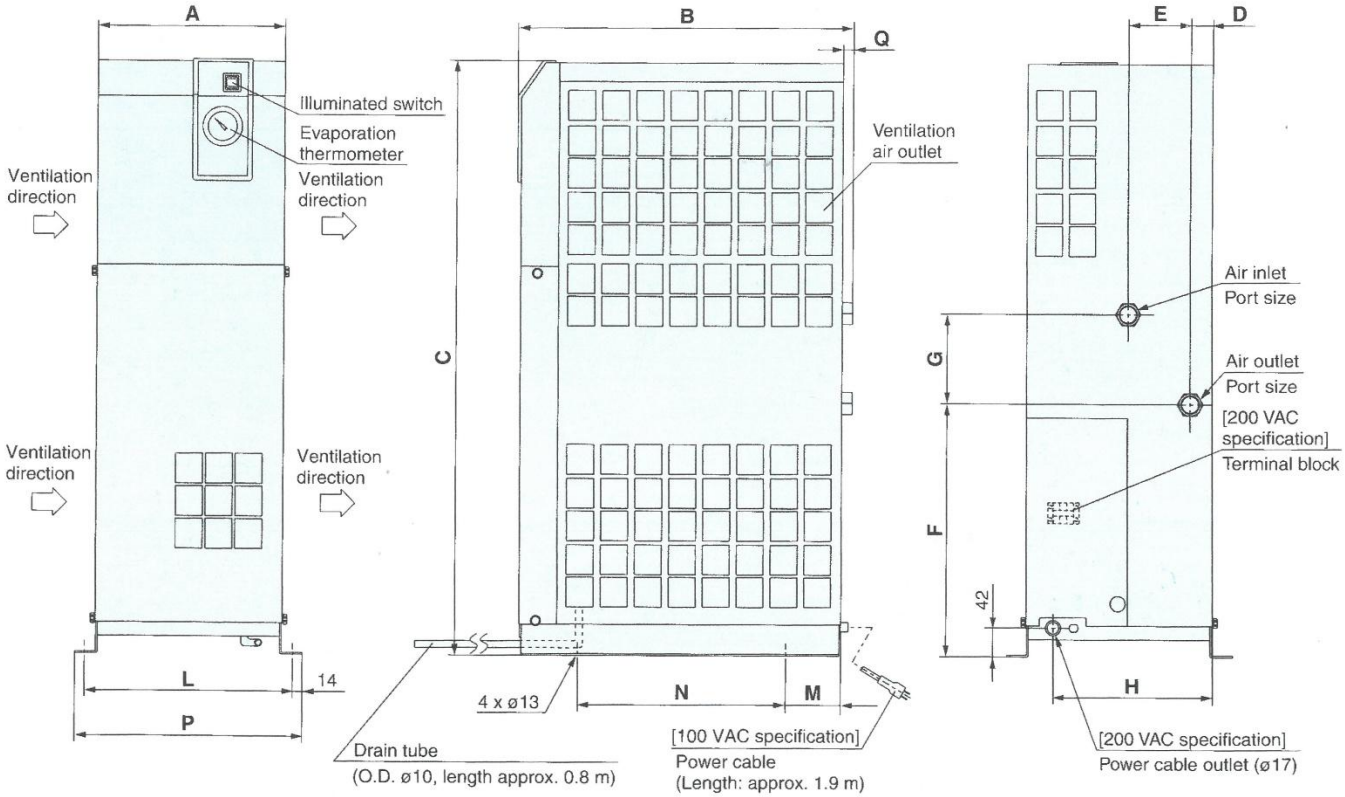
IDUA3E to 6E



Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	K	L	M	N	P	Q
IDUA3E	Rc 3/8	270	455	498	31	42	283	80	15	240	80	275	-	15
IDUA4E	Rc 1/2		485	568			355					300		
IDUA6E	Rc 3/4		485											

IDU8E to 15E

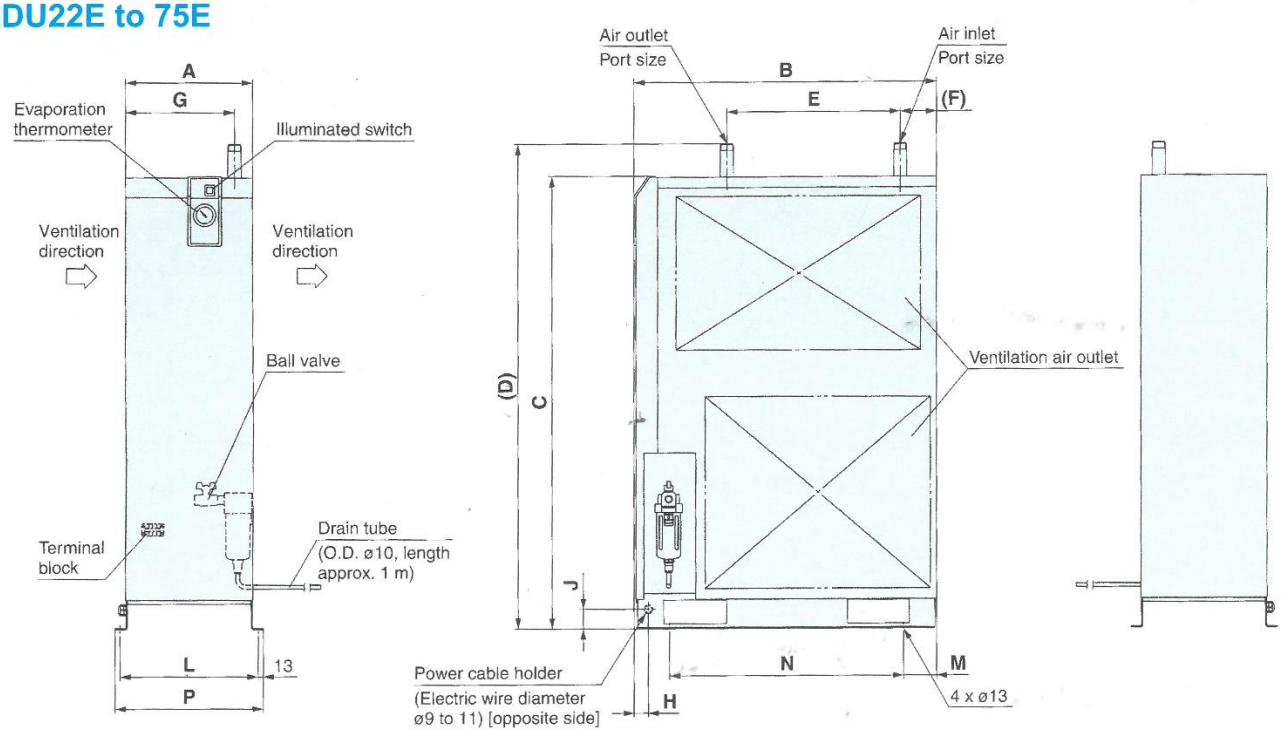


Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	H	L	M	N	P	Q
IDU8E	Rc 3/4	270	485	859	31	90	365	130	230	300	80	300	328	15
IDU11E				909										
IDU15E	Rc 1	300	620	960	79	54	425	93	258	330	66	470	358	16

Dimensions

IDU22E to 75E



Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	H	J	L	M	N	P
IDU22E	R 1	325	775	1153	1235	445	93	279	46	50	353	85	600	379
IDU37E	R1 1/ 2	360	855	1258	1350	550	64	290			388		680	414
IDU55E	R 2	470		1345	1440	530	53	360	30		500	75	700	526
IDU75E				1480	1575					70				

Model Selection Guide

The corrected air flow capacity, which considers the user's operating conditions, is required for selecting the air dryer. Please select using the following procedures.

1. **Read the correction factor.**
   Obtain the correction factor A to D suitable for your operating condition from the table below.
2. **Calculate the corrected air flow capacity.**
   Obtain the corrected air flow capacity from the following formula.
   Corrected air flow capacity = Operating air flow capacity ÷ (Correction factor A x B x C x D).
3. **Select the model**
   Select the model which corrected air flow capacity exceeds the air flow capacity from the specification table. (For the air flow capacity, refer to the data E).

Data A: Inlet Air Temperature

Inlet air temperature (°C)	Correction factor	
	IDUA3E~37E	IDU55E,75E
5 to 45	1.15	1.21
50	1.07	1.10
55	1	1
60	0.95	0.87
65	0.9	0.76
70	0.86	0.74
75	0.82	0.72
80	0.79	0.70

Data B: Ambient Temperature

Ambient temperature (°C)	Correction factor	
	IDUA3E~37E	IDU55E,75E
2 to 25	1.2	1.25
30	1.04	1.11
32	1	1
35	0.93	0.90
40	0.84	0.63

Data C: Outlet Air Pressure

Outlet air pressure dew point (°C)	Correction factor	
	IDUA3E~37E	IDU55E,75E
3	0.55	0.53
5	0.7	0.67
10	1	1
15	1.3	1.30

Data D: Inlet Air Pressure

Inlet air pressure (MPa)	Correction factor	
	IDUA3E~37E	IDU55E,75E
0.2	0.62	0.62
0.3	0.72	0.69
0.4	0.81	0.77
0.5	0.88	0.85
0.6	0.95	0.93
0.7	1	1
0.8	1.06	1.08
0.9	1.11	1.16
1 to 1.6	1.16	1.23

Data E Air Flow Capacity

Model		IDUA3E	IDUA4E	IDUA6E	IDU8E	IDU11E	IDU15E	IDU22E	IDU37E	IDU55E	IDU75E
Air flow capacity (ℓ/min) (ANR)	50 Hz	320	520	750	1100	1500	2600	3900	5700	8400	11000

SMC

Refrigerated Air Dryer

Series IDFA■E

NEW Series IDFA

Air flow capacity

Increased up to the

max 40%

(SMC comparison)

Power consumption

Decreased up to the

max 40%

(SMC comparison)

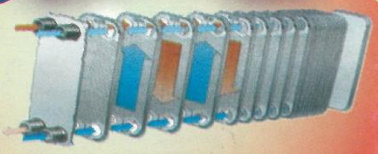
Refrigerant

R134a (HFC)

R407C (HFC)

Coefficient of destruction for ozone is zero

Heat exchanger



Improved corrosion resistance with the use of stainless steel, plate type heat exchanger (IDFA4E to 75E)

Built-in auto drain

Previous IDF

External mounting auto drain

New IDFA

Built-in auto drain

For more information and details, please contact SMC :

Singapore
Email : sales@smcsing.com.sg
Tel: (65) 6861 0888
Fax: (65) 6861 5815

Malaysia
Email : sales@smcmy.com.my
Tel: (603) 5635 0590
Fax: (603) 5635 0601

Indonesia Distributor
PT. SINAR MUTIARA CEMERLANG
Email : sales@smcindonesia.com
Tel: (+62-21) 612 2888 / 649 8786
Fax: (+62-21) 649 8765

Standard Specifications

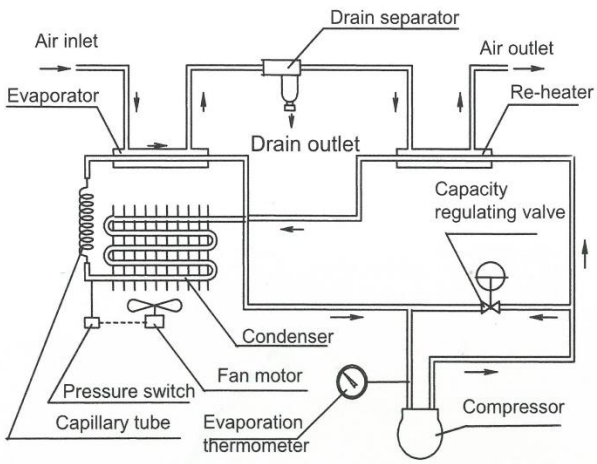
Series IDFA□E

Specification	Model	IDFA3E -23	IDFA4E -23	IDFA6E -23	IDFA8E -23	IDFA11E -23	IDFA15E -23	IDFA22E -23	IDFA37E -23	IDFA55E -23	IDFA75E -23
Rated Condition	Air Flow Rate (ANR) (Note 1) ℓ/min At Outlet Pressure Dew Point of 10°C	283	566	833	1516	1866	2800	4233	6366	8500	13700
	Operating Pressure (Mpa)	0.7									
	Inlet Air Temperature (°C)	35									
	Ambient Temperature (°C)	25									
Operating Range	Working Fluid	Compressed Air									
	Inlet Air Temperature (°C)	5 to 50									
	Inlet Air Pressure (MPa)	0.15 to 1.0									
	Ambient Temperature (°C)	2 to 40 (Relative Humidity of 85% or less)									
Electric Specification	Power supply voltage	Single -phase 230VAC ±10% 50Hz									
	Operating Current (Note 2) (A)	1.2	1.2	1.2	1.4	2.7	3.0	4.3		5.4	7.9
	Power Consumption (Note 2) (W)	180	180	180	208	385	470	760		1130	1700
	Circuit Breaker (Note 3) (A)	5						10			20
Condenser		Air-cooled type									
Refrigerant		R134A (HFC)						R407C (HFC)			
Auto drain (Float type)		AD38 (normally closed)		AD48 (normally open)							
Port size		Rc 3/8	Rc ½	Rc 3/4			Rc 1	R 1	R 1½	R 2	
Accessory (kg)		Hexagon nipple						-			
Weight (kg)		18	22	23	27	28	46	54	62	100	116
Coating color		Body panel: White 1 Base : Gray 2									
Compliant standards		EU directive compliant (with CE marking)									
Applicable Compressor kW (Standard)		2.2	3.7	5.5	7.5	11	15	22	37	55	75

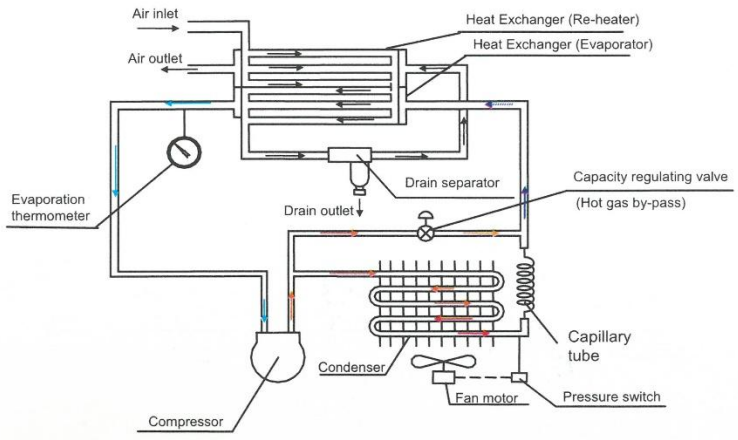
Note 1: The data for ℓ/min (ANR) is referring to the conditions of 20°C, 1atm. Pressure & relative humidity of 65%.
Note 2: the value is that of under specified condition.
Note 3: Install GFCI breaker that comes with sensivity of 30mA
Note 4: When short period power shortage (including instantly recovered shortage) is recovered.
It may take a longer starting period the un-usual starting or may not start due to the protective devices.

Construction Principle (Circuit for Air / Refrigerant)

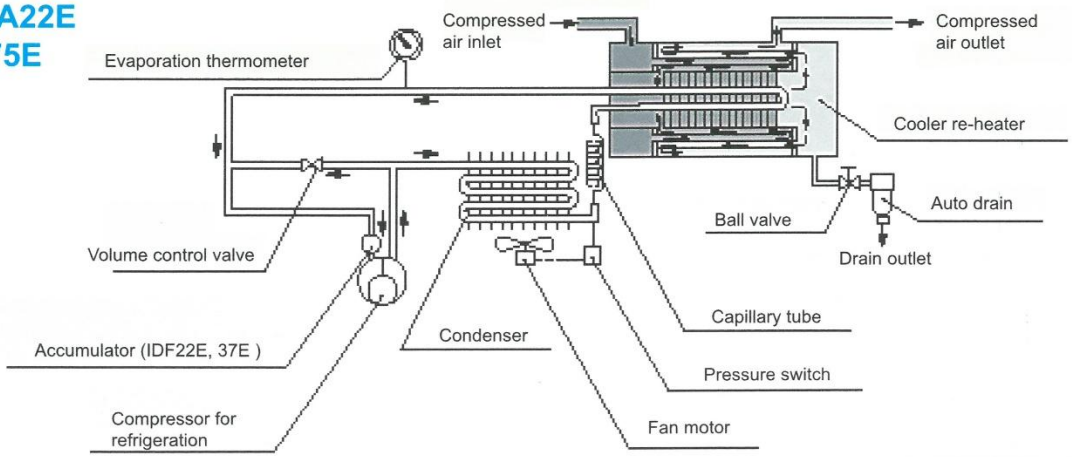
IDFA3E



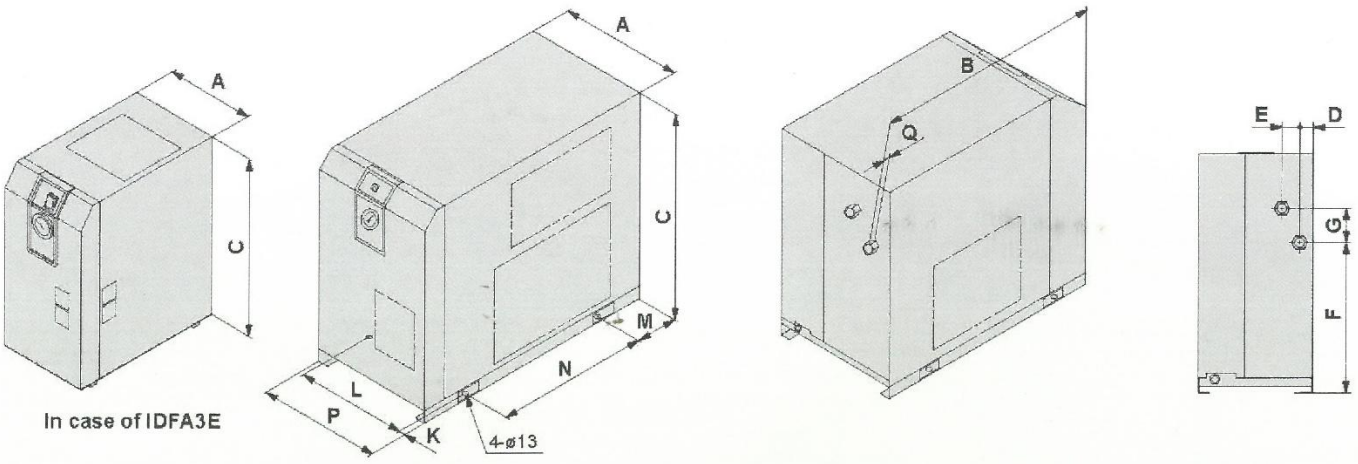
IDFA4E to 15E



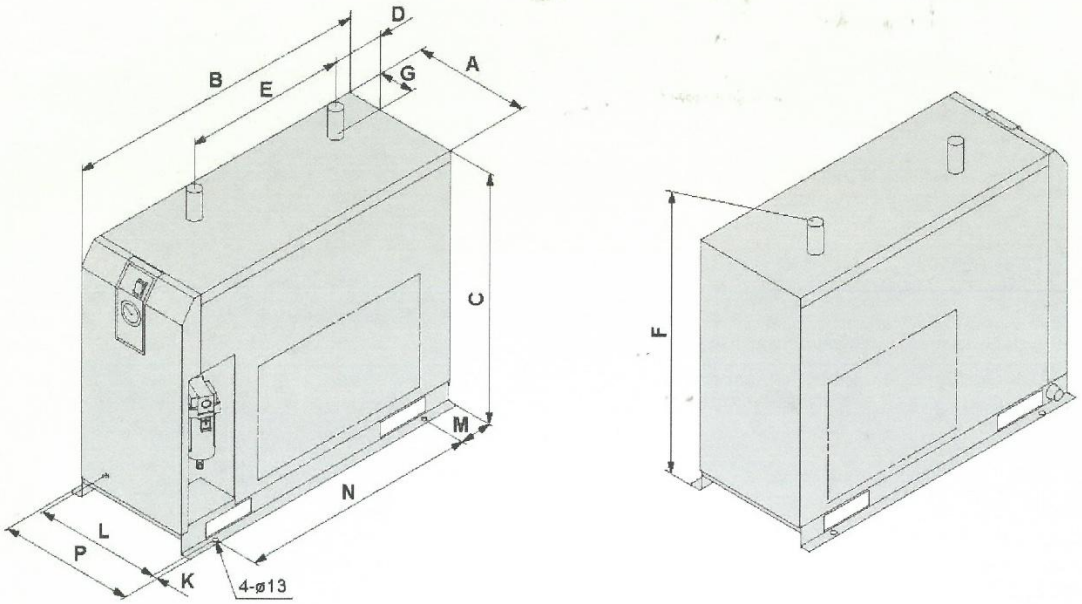
IDFA22E to 75E



IDFA3E to 15E



IDFA22E to 37E

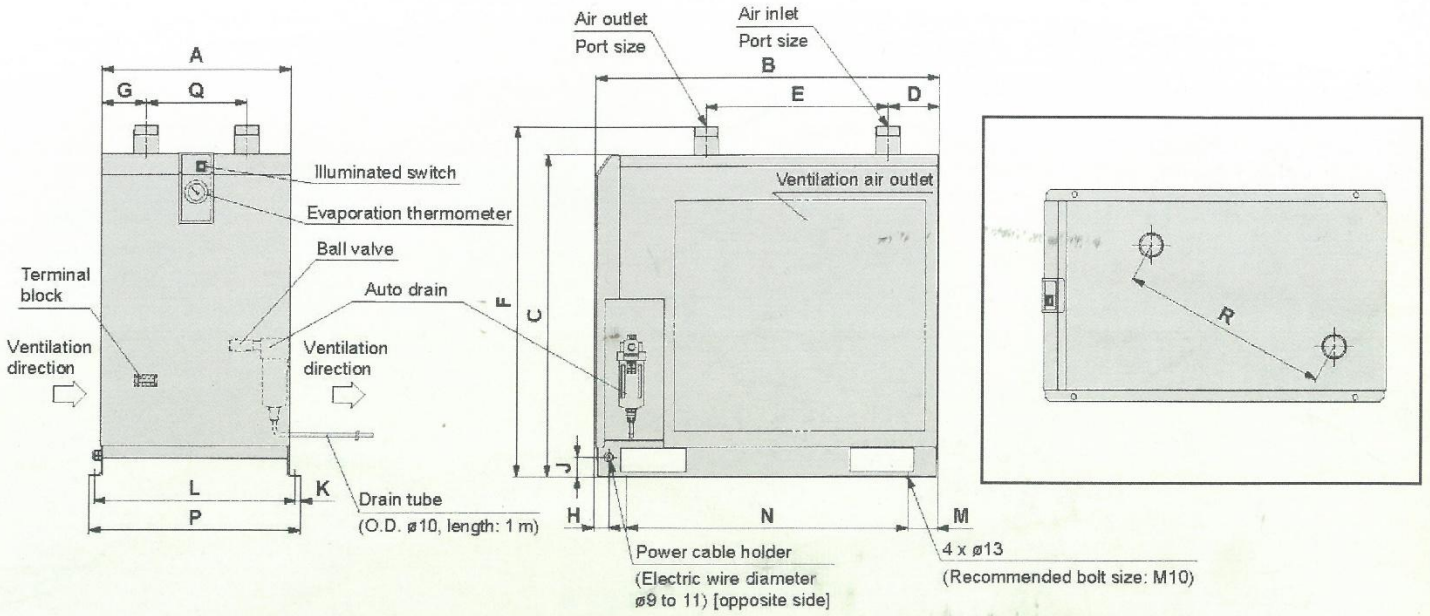


Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	K*	L*	M*	N*	P	Q
IDFA3E	Rc 3/8	226	410	473	67	125	304	33	36	154	21	330		15
IDFA4E	Rc 1/2		453	498			283					275		13
IDFA6E		270	455		31	42		80	15	240	80		-	
IDFA8E	Rc 3/4													15
IDFA11E			485	568			355					300		
IDFA15E	Rc 1	300	603	578	41	54	396	87		270	101	380	314	16
IDFA22E	R 1	290	775	623	134	405	698	93	13	314	85	600	340	-
IDFA37E	R 1½		855									680		

* Meaning the foot dimensions for the IDFA3.

IDFA55E to 75E



Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
IDFA55E	R 2	470	855	800	128	455	868	110	36	50	13	500	75	700	526	250	519
IDFA75E				900			968										

Model Selection Guide

The corrected air flow capacity, which considers the user's operating conditions, is required for selecting the air dryer. Please select using the following procedures.

1. **Read the correction factor.**
   Obtain the correction factor A to D suitable for your operating condition from the table below.
2. **Calculate the corrected air flow capacity.**
   Obtain the corrected air flow capacity from the following formula.
   Corrected air flow capacity = Air consumption ÷ (Correction factor A x B x C)
3. **Select the model**
   Select the model which air flow capacity exceeds the corrected air flow capacity using the specification table. For air flow capacity, refer to the data D below)

Data A: Inlet Air Temperature

Inlet air temperature (°C)	Correction factor
5 to 25	1.30
30	1.25
35	1
40	0.83
45	0.7
50	0.6

Data B: Ambient Temperature

Ambient temperature (°C)	Correction factor	
	IDFA3E~11E	IDFA15E~75E
20	1.1	1.1
25	1	1
30	0.91	0.97
35	0.83	0.89
40	0.79	0.77

Data C: Inlet Air Pressure

Inlet air pressure (MPa)	Correction factor	
	IDFA3E~11E	IDFA15E~75E
0.3	0.8	0.72
0.4	0.87	0.81
0.5	0.92	0.88
0.6	0.96	0.95
0.7	1.00	1.00
0.8	1.04	1.06
0.9	1.07	1.11
1.0	1.1	1.16
1.2	1.16	1.21
1.4	1.21	1.25
1.6	1.25	1.27

Data D: Air Flow Capacity

Model		Air flow capacity (ℓ/min) [ANR]									
		IDFA3E	IDFA4E	IDFA6E	IDFA8E	IDFA11E	IDFA15E	IDFA22E	IDFA37E	IDFA55E	IDFA75E
Outlet air pressure dew point	3°C	200	400	600	1083	1333	2000	3033	4550	6500	11000
	7°C	250	516	766	1383	1683	2533	3850	5783	7200	12000
	10°C	283	566	833	1516	1866	2800	4233	6366	8500	13700