



# COMPANY PROFILE 2026

OUR QUALITY OF SERVICE &  
EQUIPMENT  
ARE CUSTOMER SATISFACTION



INDUSTRIAL ENGINEERING SDN. BHD.



SURUHANJAYA SYARIKAT MALAYSIA  
COMPANIES COMMISSION OF MALAYSIA



BORANG 9  
AKTA SYARIKAT 1965

[Seksyen 16(4)]

No. Syarikat - MyCoID

1097187

D

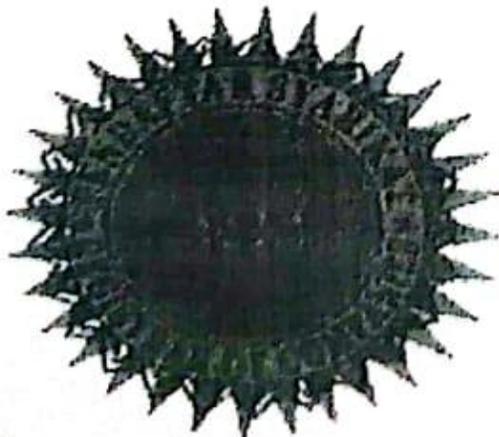
## PERAKUAN PEMERBADANAN SYARIKAT SENDIRIAN

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

1<sup>st</sup> April 2025

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

Attention: Mr. Sooria / Mr Sara

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, Malaysia 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 31<sup>st</sup> March 2026.

Thank you.

Yours faithfully,



Edwin Koh  
Deputy General Manager – Air Power Dept.  
Industrial Components & Equipment Group  
Hitachi Asia Ltd.

**Hitachi Asia Ltd.**

Registered Address: 20 Pasir Panjang Road, #05-21, Mapletree Business City Singapore 117439 Tel: +65 6535 2100 Fax: +65 6535 1533  
Industrial Components & Equipment Sales Office: 30 Pioneer Crescent #10-15 West Park Bizcentral, Singapore 628560 Tel: +65 6305 7400 Fax: +65 6305 7401 |  
Company No.: 198900416G | <https://www.hitachi.asia/>



**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

A handwritten signature in black ink, appearing to read 'Shindo, Manabu', is written over a horizontal line.

**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.

A handwritten signature in black ink, appearing to read 'Shindo, Manabu', is written over a horizontal line.

**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)

**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

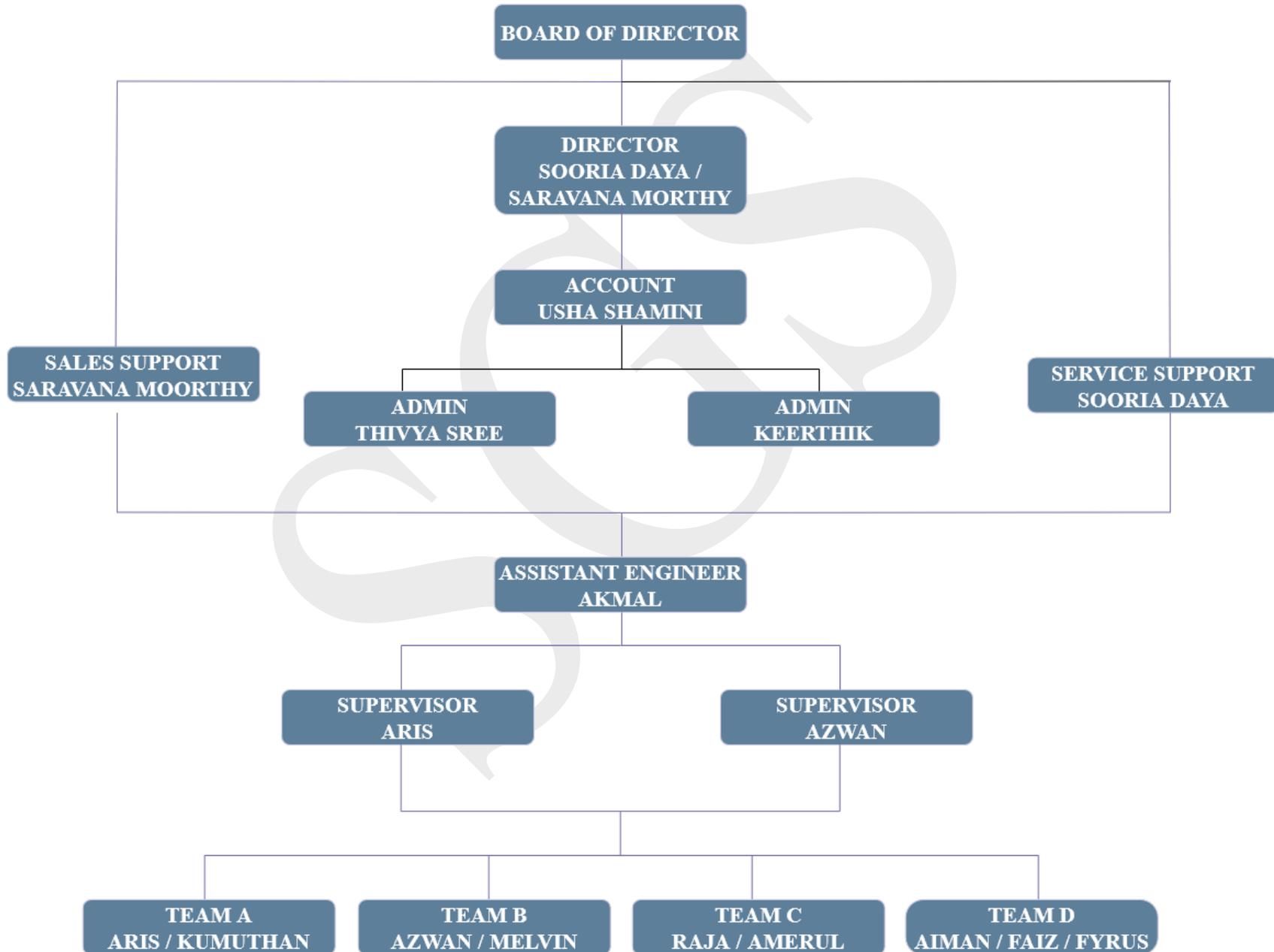
Service Team : Mr Raja / En Aiman / En Amerul / En Faiz / Mr Melvin  
Mr. Kumuthan

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.

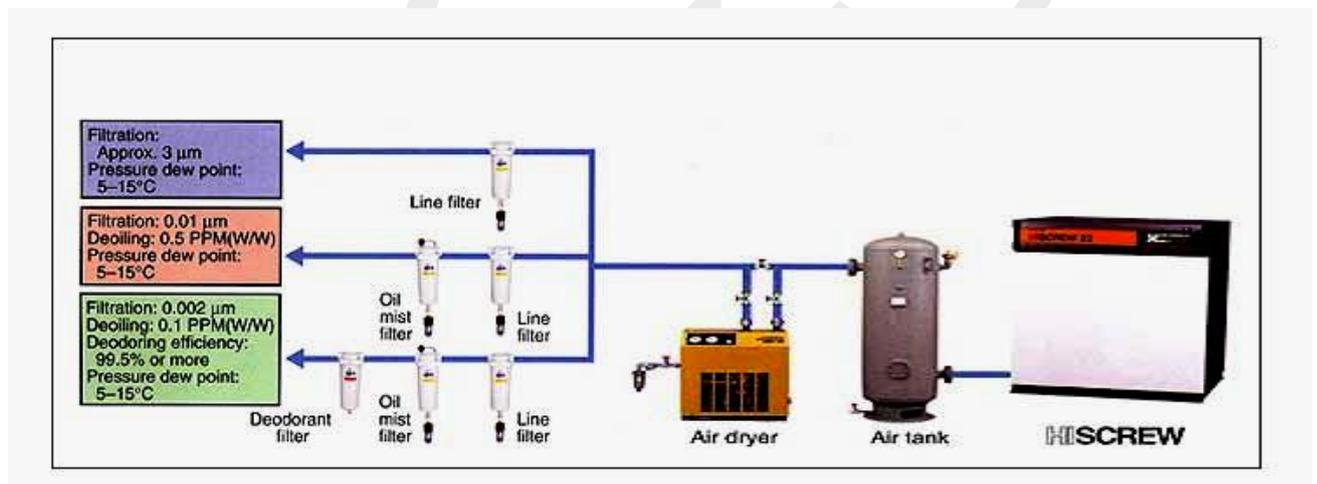
### CHEMISTRY

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 remove 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:**

**11<sup>th</sup> 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*

# Certificate

No. HAS260103

This is to certify that

**Mr. MOHD AKMAL BIN BAKIR**

**SGS Industrial Engineering Sdn Bhd**

Has successfully undergone following course in  
Hitachi Global Air Power (Changshu) Co., Ltd.

**Course: 1st SDS Auxiliary Training for HAS**

Date: From January 12 to January 16, 2026

日立压缩机（常熟）有限公司

日立压缩机（苏州）有限公司

(株)日立产机系统

空压机技术学校

校长



今泉太郎



\*This certificate serves only as confirmation of training completion and does not certify skill proficiency

\*This 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.

# Certificate

No. HAS260104

This is to certify that

**Mr. MOHAMAD ARIS BIN TUKIRAN**

**SGS Industrial Engineering Sdn Bhd**

Has successfully undergone following course in  
Hitachi Global Air Power (Changshu) Co., Ltd.

**Course: 1st SDS Auxiliary Training for HAS**

Date: From January 12 to January 16, 2026

日立压缩机（常熟）有限公司

日立压缩机（苏州）有限公司

(株)日立产机系统

空压机技术学校

校长

今泉太郎

\*This certificate serves only as confirmation of training completion and does not certify skill proficiency

\*This 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.

# 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., Ltd.





# CERTIFICATE

**HITACHI**  
Inspire the Next

**MR. MOHAMAD ARIS BIN TUKIRAN**  
**SGS INDUSTRIAL ENGINEERING SDN BHD**

CERT. NO. DS001

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

This is to certify that

No.DS020

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.,





**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**





**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  
8<sup>th</sup> 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



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



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*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*

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.

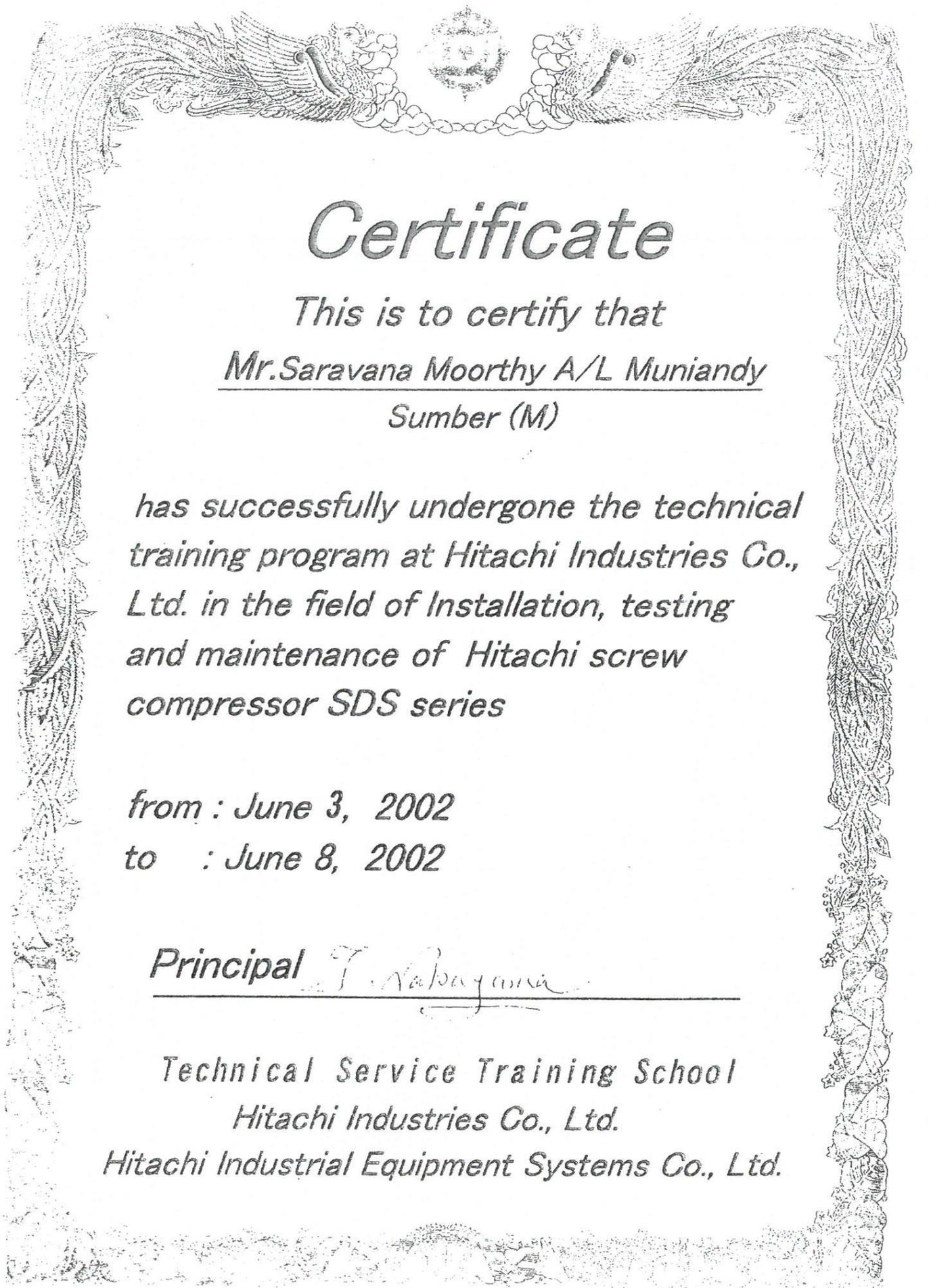
from : Dec. 03 2012

to : Dec. 07 2012

Principal : Rynichi Kimura

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





# *Certificate*

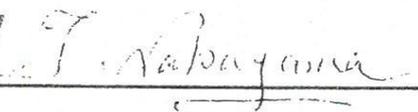
*This is to certify that*

*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*   
\_\_\_\_\_

*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**

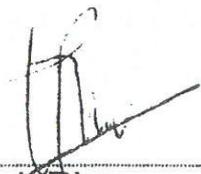
on

**10<sup>th</sup> April, 2003**



---

ONG Hai Ching  
Course Trainer



---

TIN Cheek Ping  
Course Manager

Certificate No.: EPT/0356/03



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 1<sup>st</sup> 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

*Saravasa 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 Wona Sember*

*[Signature]*

DIRECTOR

*[Signature]*

SENIOR SERVICE ENGINEER

**BROCHUER**

*BРОШЮР*

Hitachi Rotary Screw Compressors

**HITACHI**  
Inspire the Next<sup>1</sup>

# HISCREW

**NEXT II** series (18-75kW)





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

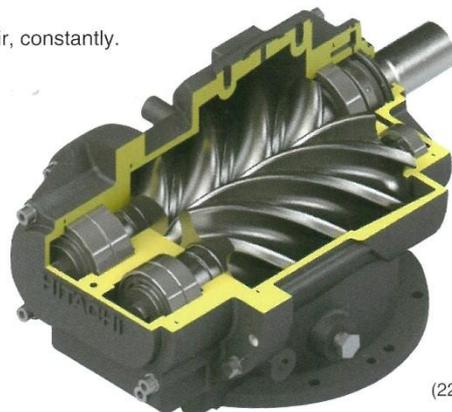
## NEXT II series

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)

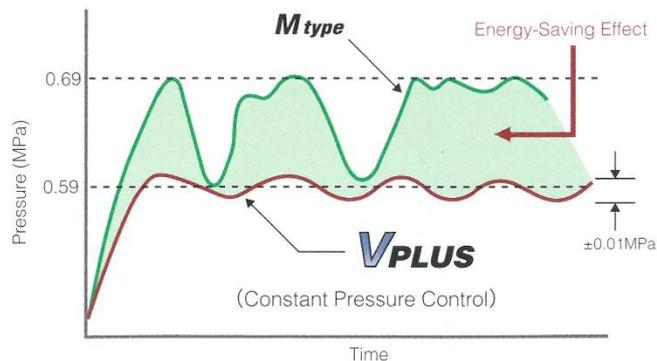
### High Efficiency Capacity Control

## VPLUS

Since Constant Pressure Control allows highly precise pressure control within range of  $\pm 0.01\text{MPa}$ , 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)

VPLUS Mtype

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

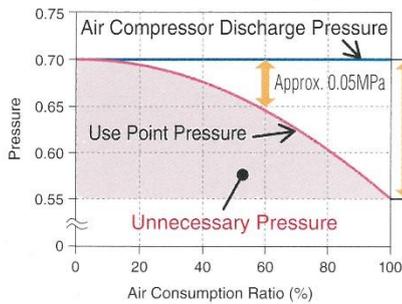
## Example of effect by IPC

- 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)

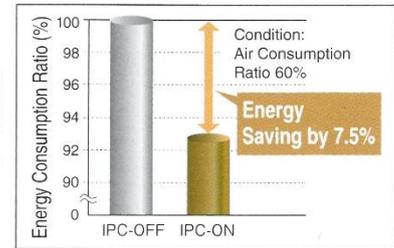
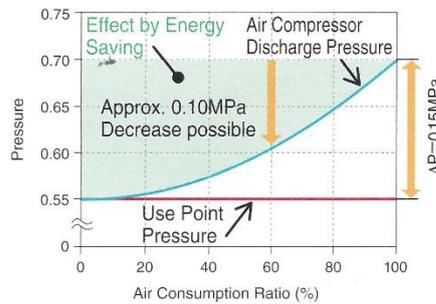
### ① IPC-OFF (Conventional inverter control model)

• 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\*

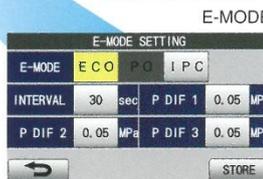
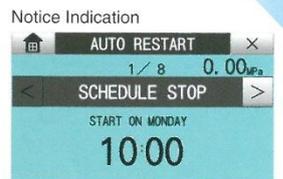
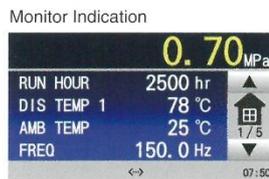
### Significant Improvement of User-friendly

### Various Functions Available

### Operation Data Logging



\*The image described above has been modified.



- #### 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)

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.)

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

## Versatility in Hitachi Original Technology

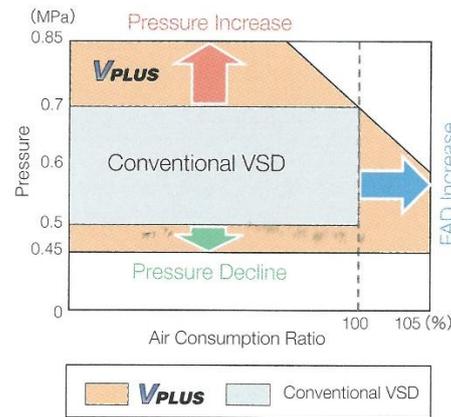
### PQ WIDE MODE

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: m<sup>3</sup>/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.

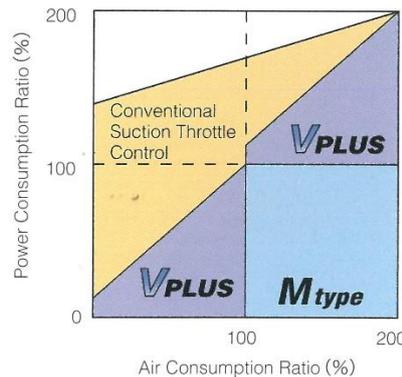
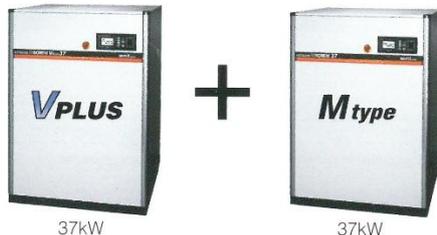
### Single-V System/Multi-V System

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

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

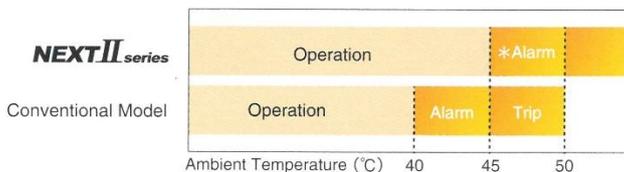
\* Calculation condition: 6,000h/year running



## High Reliability

### Up to 50°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.

### 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	m <sup>3</sup> /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	m <sup>3</sup> /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°C							
Discharge Temperature		°C	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)							
Discharge Pipe Diameter		-	Rc 1-1/2				Rc 2			
Dimension (WxDxH)		mm	1,000x1,050x1,550		1,200x1,150x1,650		2,000x1,200x1,800			
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	m <sup>3</sup> /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°C							
Discharge Temperature		°C	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 (WxDxH)		mm	1,000x1,050x1,550				1,200x1,150x1,650			
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	m <sup>3</sup> /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°C							
Discharge Temperature		°C	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 (WxDxH)		mm	2,000x1,200x1,800							
Weight		kg	1,400				1,690			
Sound Level		dB [A]	65				67			

### Notes:

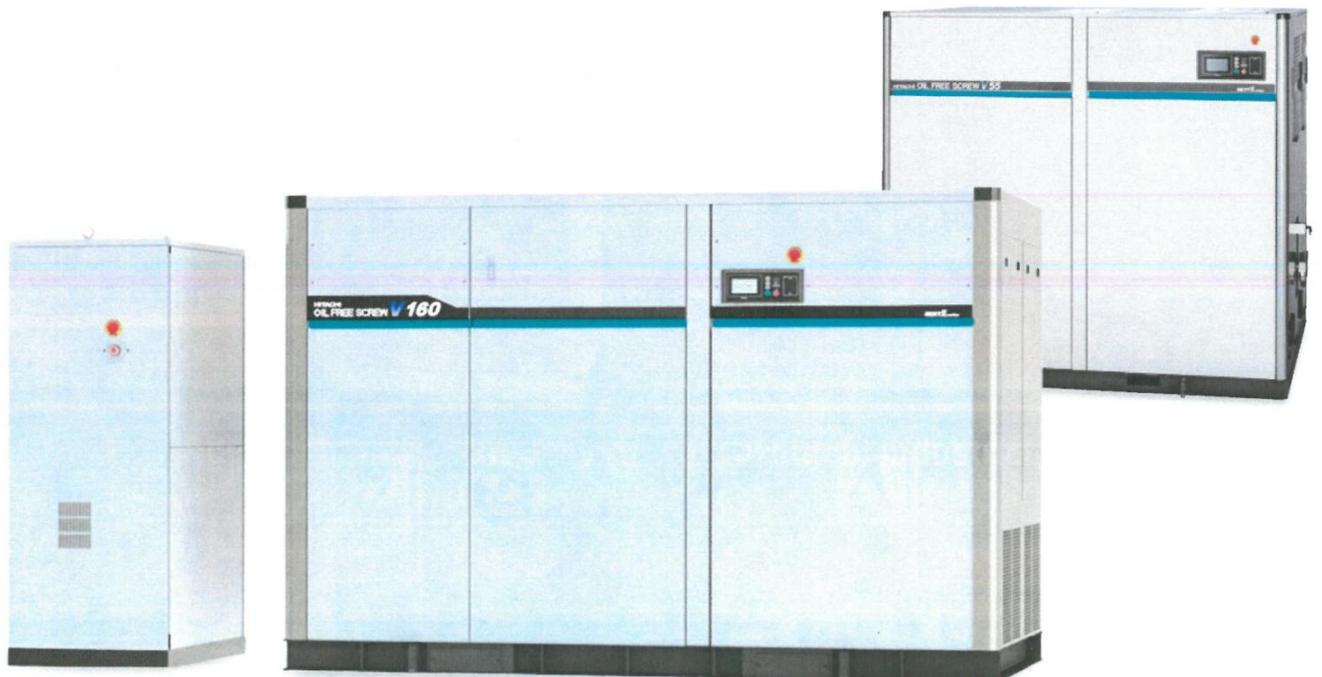
- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Pressures are indicated as the gauge pressure.
- Sound Level is the converted value under the condition of 1.5m in front and 1m height in an anechoic room.  
It may vary in different operating conditions and/or different environment with echo of actual field installations.  
Sound Level may be increased by 3dB at PQ WIDEMODE ON.
- Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
- Do NOT use any oil other than "HITACHI NEW HISCREW OIL NEXT".
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- < > [ ] show values of capacity under different discharge pressures.
- 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.
- 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  
m<sup>3</sup>/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  
m<sup>3</sup>/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  
m<sup>3</sup>/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																
	Water-Cooled																
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															
	Water-Cooled															
Two-Stage	Air-Cooled	Built-in Dryer														
		Without Dryer														
	Water-Cooled	Built-in Dryer														
		Without Dryer														

### Structure of High Performance Aired

#### 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

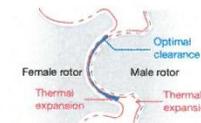
Rotors exposed to discharge temperatures of 300°C or more in single-stage machines and 200°C or more in two-stage machines undergo significant thermal expansion.

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.



#### Aired



#### 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 (TUV) 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".



ISO 8573-1:2010 [-:-:0]

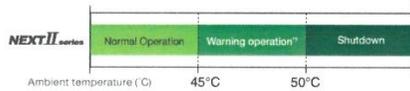


## 45°C Reliability at high temperature operation

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

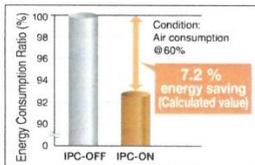
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables energy-saving.

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

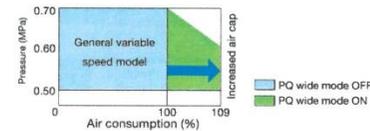


\*Use point pressure is changed according to working condition because of predicted control.

## 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.

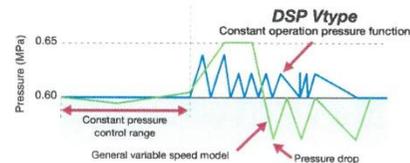


\*The above figure is example of 37kW, 0.7MPa model. Please refer to the specification sheet for the discharge air capacity in each model.

## Constant operation pressure function

Vtype

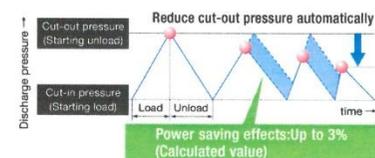
In general, a variable speed compressor requires a higher pressure setting because pressure drops occur during low-load operation or automatic start/stop. Our unique control maintains the set pressure.



## 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)

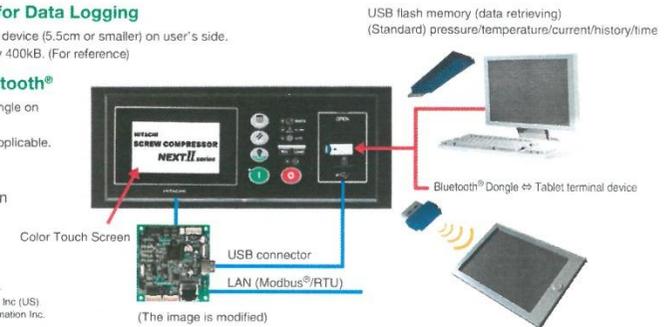
### Web Server Function via Bluetooth®

\*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.



(The image is modified)

## 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".

**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

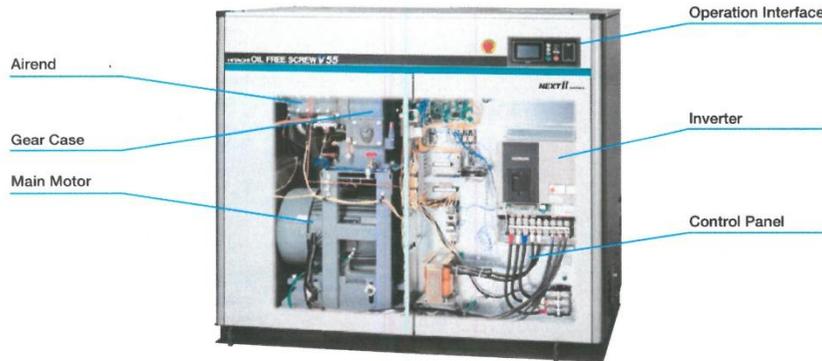
**Simple package filter (Option)**

Cleaning period is shown on touch panel per setting time.

**High withstand load type bearing**

6 years long overhaul period

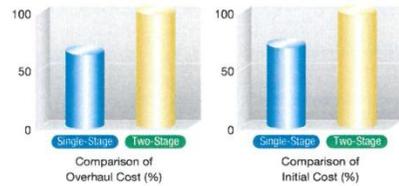
# Single-Stage (15-55kW)



\*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 air end 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.

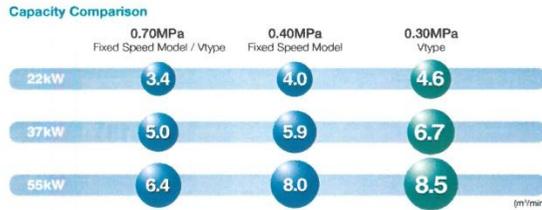


\*Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer Model (Calculated value)

## Low Pressure with Higher Air Capacity

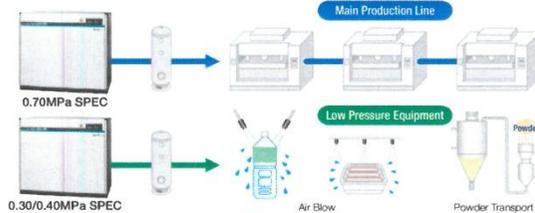
0.30MPa model is newly added

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



## 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)

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
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				18 (Not filled)			
Lubricating Oil Capacity	L	12 (Not filled)				0.65		0.9	
Cooling Fan Motor Output	kW	0.4		—		—		—	
Coolant Pump Motor Output (50/60Hz)	kW	—		—		0.2/0.3		—	
P.D.P. [Dryer]	°C	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—
Refrigerator Nominal Output	kW	[0.5]	—	[1.2]	—	[1.45]	—	[1.45]	—
Refrigerant	—	[R407C]	—	[R410A]	—	[R410A]	—	[R410A]	—
Weight	kg	770 [800]		850 [910]		1,080 [1,230]		1,330 [1,480]	
Dimensions (WxDxH)	mm	1,400x970x1,400		—		1,830x980x1,580		2,230x980x1,580	
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)

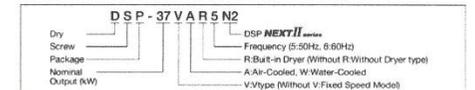
Item+Unit	Model	DSP-22VA [R] 5N2 DSP-22VA [R] 6N2		DSP-37VA [R] 5N2 DSP-37VA [R] 6N2		DSP-55VA [R] 5N2 DSP-55VA [R] 6N2		DSP-37VWN2		DSP-55VWN2	
		Cooling Method	—	Air-Cooled				Water-Cooled			
Discharge Pressure	MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge Air Capacity	m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
WIDEMODE	Discharge Pressure	MPa	0.60	—	0.60	—	0.60	—	0.60	—	0.60
	Discharge Air Capacity	m³/min	3.7	—	5.5	—	7.0	—	5.5	—	7.0
PQ WIDEMODE Range	Discharge Pressure	MPa	0.40 [0.50]	—	0.40 [0.50]	—	0.40 [0.50]	—	0.40	—	0.40
	Discharge Air Capacity	m³/min	4.3 [4.0]	—	6.4 [6.0]	—	8.2 [7.6]	—	6.4	—	8.2
Nominal Output	kW	22		37		55		37		55	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C [2 - 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)		0.65		0.9		14 (Not filled)		0.2	
Cooling Fan Motor Output	kW	—		—		—		—		80	
Cooling Water Flow Rate	L/min	—		—		—		—		32 or below	
Cooling Water Temperature	°C	—		—		—		—		Rc1	
Cooling Water Pipe Diameter	—	—		—		—		—		—	
Coolant Pump Motor Output (50/60Hz)	kW	—		0.2/0.3		—		—		—	
P.D.P. [Dryer]	°C	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—	[10 (Under Pressure)]	—
Refrigerator Nominal Output	kW	[1.2]	—	[1.45]	—	[1.45]	—	[1.45]	—	[1.45]	—
Refrigerant	—	[R410A]	—	[R410A]	—	[R410A]	—	[R410A]	—	[R410A]	—
Weight	kg	800 [960]		1,140 [1,290]		1,270 [1,420]		1,110		1,240	
Dimensions (WxDxH)	mm	1,650x970x1,400		1,830x980x1,580		2,230x980x1,580		1,830x980x1,580		1,830x980x1,580	
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
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				35 or below			
Cooling Water Temperature	°C	—				—			
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				14 (Not filled)			
Lubricating Oil Quantity	L	10 (Not filled)		—		—		0.1	
Cooling Fan Motor Output	kW	0.05		—		—		—	
Weight	kg	770		830		1,030		1,280	
Dimensions (WxDxH)	mm	1,400x970x1,400		—		1,830x980x1,580		1,830x980x1,580	
Noise Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66

#### NOTE:

- Capacity is measured according to ISO 1217, Annex C.
- 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.
- 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.
- 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.
- Built-in dryer 0.30MPa model is NOT available.
- Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
- In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.
- Earth leakage breaker is not built in the compressor. Prepare by customer.
- Do not use the respiratory equipment to suck the compressed air directly.
- Discharge pressure is gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
- Appearance and specifications are subject to change without notice.



# Two-Stage (22-120kW)



## Specifications

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

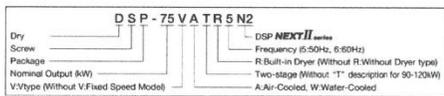
Item-Unit	Model	Fixed Speed Model						Vtype Model	
		DSP-45WT [R] 6N2		DSP-55WT [R] 6N2		DSP-75WT [R] 6N2		DSP-55VWT [R] N2	DSP-75VWT [R] N2
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0
Discharge Air Capacity (50Hz/60Hz)	m <sup>3</sup> /min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	6.4/6.6	13.2	10.7/11.3	9.6/9.7
Discharge Air Capacity at PQ wide ON of 0.6MPa	m <sup>3</sup> /min	-							
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]	
Discharge Air Temperature	°C	Cooling Water Temperature +13 or below							
Discharge Pipe Diameter	—	2 in (Flange)							
Starting Method	—	Star-Delta (3 contactors)							
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving							
Lubricating Oil Capacity	L	15 (Not filled)		15 (Not filled)		15 (Not filled)		15 (Not filled)	
Cooling Fan Motor Output	kW	0.05x2							
Cooling Water Flow Rate	L/min	90		90		120		90	120
Cooling Water Temperature	°C	35 or below							
Cooling Water Pipe Diameter	—	Rc 1-1/4							
P.D.P.	°C	[10 (Under Pressure)]		Built-in dryer model is NOT available		[10 (Under Pressure)]		Built-in dryer model is NOT available	
[Dryer] Refrigerator Nominal Output	kW	[2.2]		[3.0]		[2.2]		[3.0]	
Refrigerant	—	[R407C]		[R410A]		[R407C]		[R410A]	
Weight	kg	1,580 [1,730]		1,580		1,710 [1,880]		1,710	
Dimensions (WxDxH)	mm	2,000x1,300x1,800		2,000x1,300x1,800		2,000x1,300x1,800		2,000x1,300x1,800	
Noise Level (1.5m from front side)	dB(A)	63		63		65		66	

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

Item-Unit	Model	Fixed Speed Model				Vtype Model	
		DSP-90W5 [L] MN2		DSP-100W5 [L] MN2		DSP-100V5WMN2	DSP-120V5WMN2
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity	m <sup>3</sup> /min	16.8	14.0	18.3	15.6	21.0	17.6
Nominal Output	kW	90		100		100	120
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C					
Discharge Air Temperature	°C	Cooling Water Temperature +13 or below					
Discharge Pipe Diameter	—	2 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)					
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving					
Lubricating Oil Capacity	L	16 (Not filled)		16 (Not filled)		16 (Not filled)	
Cooling Fan Motor Output	kW	0.05x3 [0.2x2]		0.05x3		0.2x2	
Cooling Water Flow Rate	L/min	160		160		160	
Cooling Water Temperature	°C	35 or below					
Cooling Water Pipe Diameter	—	Rc 1-1/2					
Weight	kg	2,050		2,230		2,230	
Dimensions (WxDxH)	mm	2,150x1,520x1,825		2,150x1,520x1,825		2,150x1,520x1,825	
Noise Level (1.5m from front side)	dB(A)	66		67		69	

- NOTE:
- Capacity is measured according to ISO 1217, Annex C.
  - 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.
  - 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.
  - 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.
  - Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condensates.
  - In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.

- Earth leakage breaker is not built in the compressor. Prepare by customer.
- Do not use the respiratory equipment to suck the compressed air directly.
- Discharge pressure is gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
- Appearance and specifications are subject to change without notice.



## Specifications

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

Item-Unit	Model	Fixed Speed Model						Vtype Model	
		DSP-22AT [R] 5N2		DSP-30AT [R] 5N2		DSP-37AT [R] 5N2		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	m <sup>3</sup> /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	m <sup>3</sup> /min	-							
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							
Discharge Pipe Diameter	—	Rc 1-1/2							
Starting Method	—	Star-Delta (3 contactors)							
Driving Method	—	4-Pole TEFC Motor with V-Belt + Gear Driving							
Lubricating Oil Capacity	L	15 (Not filled)							
Cooling Fan Motor Output	kW	1.1 (Inverter)							
P.D.P.	°C	[10 (Under Pressure)]							
[Dryer] Refrigerator Nominal Output	kW	[1.45]							
Refrigerant	—	[R410A]							
Weight	kg	1,120 [1,180]		1,230 [1,290]		1,230 [1,290]		950 [1,010]	
Dimensions (WxDxH)	mm	1,530x1,150x1,650		1,530x1,150x1,650		1,530x1,150x1,650		1,530x1,150x1,650	
Noise Level (1.5m from front side)	dB(A)	63		64		65		66	

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

Item-Unit	Model	Fixed Speed Model						Vtype Model	
		DSP-45AT [R] 5N2		DSP-55AT [R] 5N2		DSP-75AT [R] 5N2		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
Discharge Air Capacity	m <sup>3</sup> /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
Discharge Air Capacity at PQ wide ON of 0.6MPa	m <sup>3</sup> /min	-							
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]	
Discharge Air Temperature	°C	Ambient Temperature +15 or below							
Discharge Pipe Diameter	—	2 in (Flange)							
Starting Method	—	Star-Delta (3 contactors)							
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving							
Lubricating Oil Capacity	L	15 (Inverter)		25 (Not filled)		2.2 (Inverter)		1.5 (Inverter)	
Cooling Fan Motor Output	kW	1.5 (Inverter)		2.2 (Inverter)		2.2 (Inverter)		1.5 (Inverter)	
P.D.P.	°C	[10 (Under Pressure)]		Built-in dryer model is NOT available		[10 (Under Pressure)]		Built-in dryer model is NOT available	
[Dryer] Refrigerator Nominal Output	kW	[2.2]		[3.0]		[3.0]		[2.2]	
Refrigerant	—	[R407C]		[R410A]		[R410A]		[R410A]	
Weight	kg	1,600 [1,750]		1,600		1,860 [2,030]		1,340 [1,490]	
Dimensions (WxDxH)	mm	2,000x1,300x1,800		2,000x1,300x1,800		2,250x1,300x1,800		2,000x1,300x1,800	
Noise Level (1.5m from front side)	dB(A)	63		63		65		68	

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

Item-Unit	Model	Fixed Speed Model				Vtype Model	
		DSP-90A5 [L] MN2		DSP-100A5 [L] MN2		DSP-120A5MN2	DSP-100V5AMN2
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity	m <sup>3</sup> /min	16.6	13.9	18.0	15.4	20.5	17.3
Nominal Output	kW	90		100		120	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C					
Discharge Air Temperature	°C	Ambient Temperature +15 or below					
Discharge Pipe Diameter	—	2 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)					
Driving Method	—	2-Pole TEFC motor with Direct Connection + Gear Driving					
Lubricating Oil Capacity	L	26 (Not filled)					
Cooling Fan Motor Output	kW	1.5x2					
Weight	kg	2,200		2,380		2,300	
Dimensions (WxDxH)	mm	2,150x1,520x1,975		2,150x1,520x1,975		2,150x1,520x1,975	
Noise Level (1.5m from front side)	dB(A)	68		70		71	

- NOTE:
- Capacity is measured according to ISO 1217, Annex C.
  - 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.
  - 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.
  - 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.
  - Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condensates.
  - In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40°C.
  - Earth leakage breaker is not built in the compressor. Prepare by customer.
  - Do not use the respiratory equipment to suck the compressed air directly.
  - Discharge pressure is gauge pressure.
  - Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
  - Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
  - 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 **NEXT II series Airend**
- Low Noise Low Vibration
- Compact Design by Optimized Layout of Components
- High Discharge Pressure Available (up to 1.0MPa)

## 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.

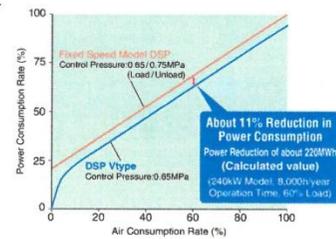
**Hi-pre-cooler system (Air-Cooled models)**  
Hi-pre-cooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.

**High Discharge Pressure Available**  
1.0MPa is available with high reliability.

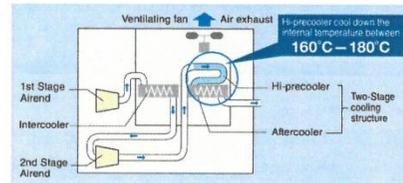
**Maintenance Friendly**  
DSP series provides easy accessibility for inspection and maintenance.

## Energy-Saving (Vtype)

Further Energy-Saving is achieved by DSP **NEXT II 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)



## Specifications

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

Item/Unit	Model	DSP-132ASN2			DSP-145ASN2			DSP-160ASN2			DSP-200ASN2			DSP-240ASN2		
		DSP-132ASN2	DSP-132ASN2	DSP-132ASN2	DSP-145ASN2	DSP-145ASN2	DSP-145ASN2	DSP-160ASN2	DSP-160ASN2	DSP-160ASN2	DSP-200ASN2	DSP-200ASN2	DSP-200ASN2	DSP-240ASN2	DSP-240ASN2	DSP-240ASN2
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	m <sup>3</sup> /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 (1.1x4)						6.0 (1.5x4)								
Weight	kg	3,860						3,960			5,000					
Dimensions (WxDxH)	mm	2,900x1,700x1,925						3,200x1,880x1,950			3,200x1,890x1,950					
Noise Level (1.5m from front side)	dB(A)	73	74	74	75	74	75	76	77	77	77	77	77	77	77	78

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

Item/Unit	Model	DSP-132WSN2			DSP-145WSN2			DSP-160WSN2			DSP-200WSN2			DSP-240WSN2		
		DSP-132WSN2	DSP-132WSN2	DSP-132WSN2	DSP-145WSN2	DSP-145WSN2	DSP-145WSN2	DSP-160WSN2	DSP-160WSN2	DSP-160WSN2	DSP-200WSN2	DSP-200WSN2	DSP-200WSN2	DSP-240WSN2	DSP-240WSN2	DSP-240WSN2
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	m <sup>3</sup> /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														
Cooling Water Pipe Diameter	—	Rp2						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 (WxDxH)	mm	2,500x1,600x1,925						—			2,800x1,800x1,950					
Noise Level (1.5m from front side)	dB(A)	68	69	69	70	69	70	69	70	69	70	70	70	70	70	71

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

Item/Unit	Model	DSP-160VA5N2			DSP-240VA5N2			DSP-160VW5N2			DSP-240VW5N2					
		DSP-160VA5N2	DSP-160VA5N2	DSP-160VA5N2	DSP-240VA5N2	DSP-240VA5N2	DSP-240VA5N2	DSP-160VW5N2	DSP-160VW5N2	DSP-160VW5N2	DSP-240VW5N2	DSP-240VW5N2	DSP-240VW5N2			
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	m <sup>3</sup> /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 x 4)			6.0 (1.5 x 4)			—			0.4					
Weight	Compressor	3,960			5,000			3,960			4,900					
	Inverter Panel	400			540			—			—					
Dimensions	Compressor	2,900x1,700x1,925			3,200x1,880x1,950			2,500x1,600x1,925			2,800x1,800x1,950					
	Inverter Panel	690x1,175x1,760			810x1,360x1,760			—			—					
Noise Level (1.5m from front side)	dB(A)	74	75	77	78	77	78	70	70	70	71	71	71			

- NOTE:
- Capacity is measured according to ISO 1217, Annex C.
  - 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.
  - 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.
  - Earth leakage breaker is not built in the compressor. Prepare by customer.
  - Do not use the respiratory equipment to suck the compressed air directly.
  - Discharge pressure is gauge pressure.
  - Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
  - Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
  - Appearance and specifications are subject to change without notice.
  - 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	m <sup>3</sup> /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	°C			80				
Ambient Temperature	°C	5 - 40		2 - 45			5 - 40	
Dew Point of Outlet Air	°C			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	303×803×720	303×633×840	356×543×1,067	356×543×1,274	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°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. 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	m <sup>3</sup> /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 - 0.97		0.30 - 0.97		0.30 - 0.97		0.30 - 0.97		0.30 - 0.97	
Max. Inlet Temperature of Compressed Air	°C			60									
Ambient Temperature	°C			2 - 40									
Dew Point of Outlet Air	°C			10 Under Pressure									
Cooling Method of Condenser		Water-Cooled		10 Under Pressure		Air-Cooled							
Refrigerant Control Device		Capillary Tube		Hot Gas Bypass Valve									
Capacity Control Device				R407C									
Refrigerant Used				Ivory									
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	m <sup>3</sup> /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	Rp 1	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°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. 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 *C* series

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



### Standard Specification

Item	Model	MRQ-4E	MRQ-8E	MRQ-NE
Ambient Temperature	Usage place	Indoor (Dust-proof wall-mounted type)		
Power supply	Temperature	0-40 deg. C		
Controlable compressor	Max. connectable Units	1-ph. AC85 to 240V 50/60Hz		
Touch panel	Connectable contacts (internal of above)	4	12 compressors	0 (comm. only)
Control function	7" wide color LCD	Inlet air charge, Selection of preceding machine, Rotary operation, Fan-back operation (only for fixed speed machine), PID control, Pressure prediction control, 2nd-pressure, Weekly operation, Forced chiller, Restart at power off, Interlock/Individual operation changeover, Central operation, Forced start/Long stop, Operation control of auxiliary machine (dryer, purifier), MRQ-N, Last-gas operation		
Input	Discharge pressure Control	Operation answer, Fault		
Output	Remote Control	Remote operation, Remote stop, Forced start, (Flow volume (option *1))		
Communication specification	Remote Control	Run, Stop, Load command, PID command		
Communication contents	Remote Control	In operation, Remote selection, Low pressure, Fault sum-up		
Set width of control discharge press.	RS485 (2-wire) half-duplex asynchronous, 9600bps multi-drop	Run, Stop, Load, Operation answer, Fault, etc.		
Power supply capacity	Min. ±0.001 MPa setpoint	40W or less	50W or less	30W or less
Dimensions (W×D×H) (mm)		400×250×60	500×250×60	400×250×60
Weight		25kg	37kg	18kg
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 Capacity (converted to the atmospheric pressure)	m <sup>3</sup> /min	1.2	1.8	2.7	5.2	8.6	10.6	13.8	20	27.6	32	40	50
	Condition		0.69		0.7		32		0.69					
	Use	Applicable Fluid	Compressed Air											
	Condition	Max. Pressure	MPa	1.57		1.0		0.97						
Air Filter	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
	Use	Inlet Air Temperature Range	5 - 60											
	Condition	Ambient Temperature Range	2 - 60											
	Filtration Rating	µm	1**											
	Filtration Efficiency	%	99.999											
	Pressure	Initial	0.005 or below											
	Drop (Loss)	Element Exchange	MPa	0.07										
	Dimension (Max. Diameter×Length)	mm	92×237	130×290.5	170×588	170×673	170×718	173×811	173×968	590×1,511	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter		Rc1/4											
	Weight	kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
Micron Mist Filter	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
	Use	Inlet Air Temperature Range	5 - 60											
	Condition	Ambient Temperature Range	2 - 60											
	Density of Oil in the Discharge Air	wtppm	0.01**											
	Pressure	Initial	0.01											
	Drop (Loss)	Element Exchange	MPa	0.07										
	Dimension (Max. Diameter×Length)	mm	92×237	130×364	170×680	170×745	170×791	173×884	173×1,041	590×1,511	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter		Rc1/4											
	Weight	kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
	Activated Carbon Filter	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
Use		Inlet Air Temperature Range	5 - 60											
Condition		Ambient Temperature Range	2 - 60											
Density of Oil in the Discharge Air		wtppm	0.003**											
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	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°C	kg/L	0.88
Viscosity @40°C	mm <sup>2</sup> /s	32.6
Viscosity Index		102
Flash Point	°C	> 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°C	kg/L	0.84
Viscosity @40°C	mm <sup>2</sup> /s	32.8
Flash Point	°C	200 or higher
Pour Point	°C	-50 or lower
Content	L	20
Exchange Cycle		8,000 operating hours or 1 year which comes earlier
Refill		Flushing running operator with the exclusive flushing use of (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 FDA 21 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

Energy saving operation by one Vtype and maximum two Fixed Speed Model

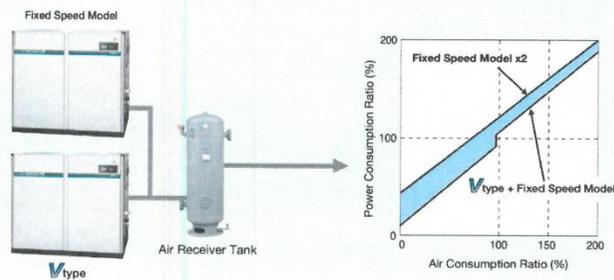
### Single-V System

Energy saving operation by one Vtype and multiple Fixed Speed Model with multi-unit controller.

### Multi-V System

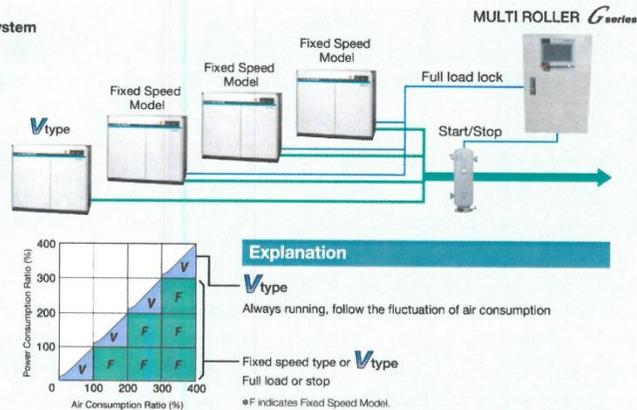
Energy saving operation by multiple Vtype to average Vtype operation hour

#### Basic Example of V-M Combination System



#### Single-V / Multi-V Example of Multi-Unit Control System

MULTI ROLLER *Gseries*  
DSP Vtype +  
DSP Fixed Speed Models



## Options

Nominal Output (kW)	DSP NEXT II <i>series</i>					
	Single-Stage		Two-Stage		Two-Stage	
	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model
22 - 55	15 - 55	37 - 100	22 - 120	180/240	132 - 240	
Oil Mist Remover (CMR)	Standard	Standard	Standard	Standard	Standard	Standard
Instantaneous Power Interruption (IPI) Restart	Standard	Standard	Standard	Standard	Standard	Standard
Multi-unit Control (with MULTI ROLLER <i>Gseries</i> )	●	●	●	●	●	●
Alternate Operation (with MULTI ROLLER <i>Gseries</i> )	●	●	●	●	●	●
Alternate Operation <sup>*1</sup>	●	●	●	●	●	●
AUTO Operation	Standard	Standard	Standard	Standard	Standard	Standard
V-M Combination	●	—*2	●	—*2	●	—*2
Modbus <sup>®</sup> /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 *Gseries* 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, sulfuric 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)

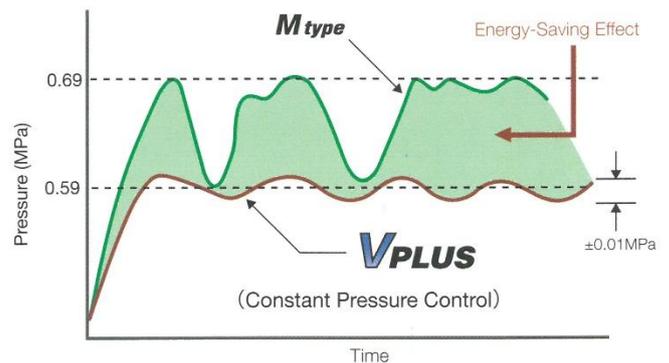
### High Efficiency Capacity Control

## VPLUS

Since Constant Pressure Control allows highly precise pressure control within range of  $\pm 0.01$ MPa, 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)

VPLUS Mtype

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

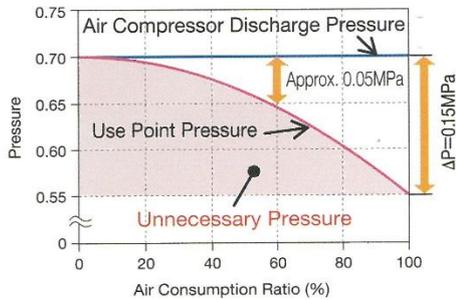
### Example of effect by IPC

**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)

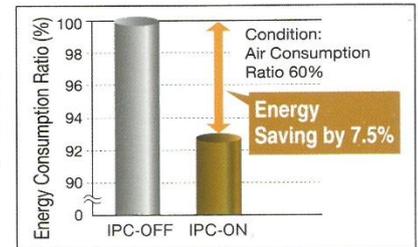
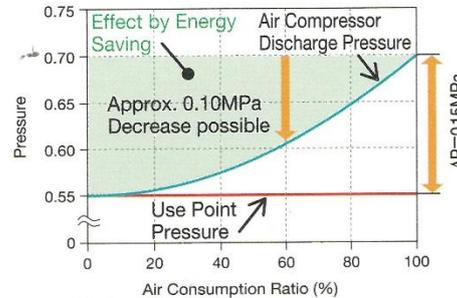
#### ① IPC-OFF (Conventional inverter control model)

• 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

### Various Functions Available

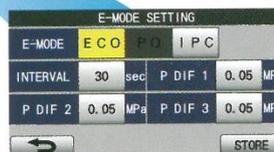
### Operation Data Logging



Menu



E-MODE

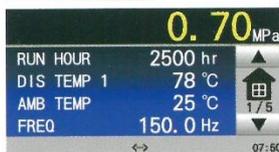


#### Main Functions

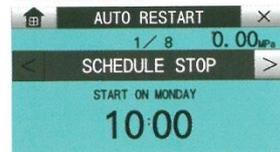
- ① Schedule Operation (Weekly Timer)
- ② Instantaneous Power Interruption (IPI) Restart Function
- ③ Alternate Operation (Option)
- ④ Multi-unit Control (Option)
- ⑤ AUTO Operation
- ⑥ Communication Function
- ⑦ Web Server Function
- ⑧ Display/Store of Operation Data
- ⑨ Store/Load of Settings
- ⑩ Maintenance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

\*The image described above has been modified.

Monitor Indication



Notice Indication



\*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.

## 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.

Color Touch Panel



USB connector

LAN (Modbus®/TCP)



Bluetooth® Dongle ↔ Tablet terminal device



\*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

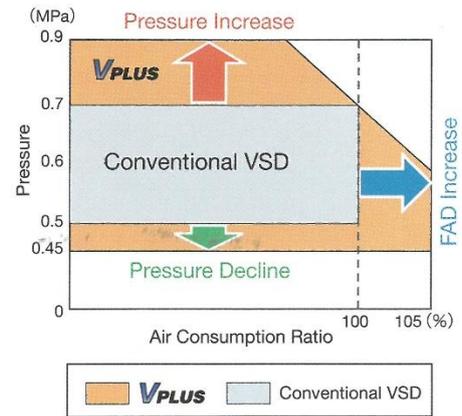
### PQ WIDE MODE

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: m<sup>3</sup>/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.

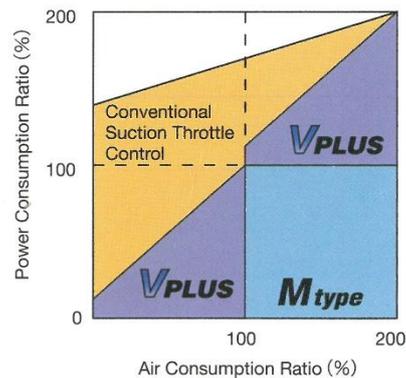
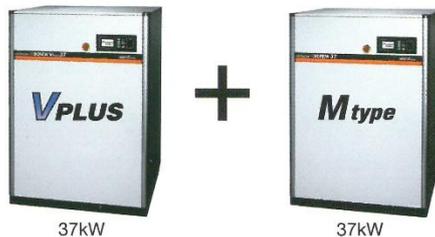
### Single-V System/Multi-V System

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.

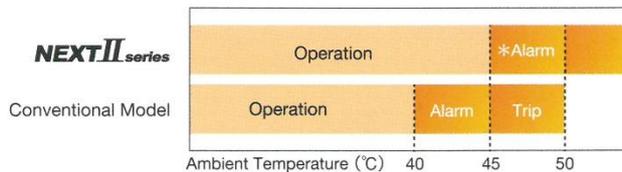
\* Calculation condition: 6,000h/year running



## High Reliability

### Up to 50°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.

### 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 Rotary Screw Compressor HISCREW series

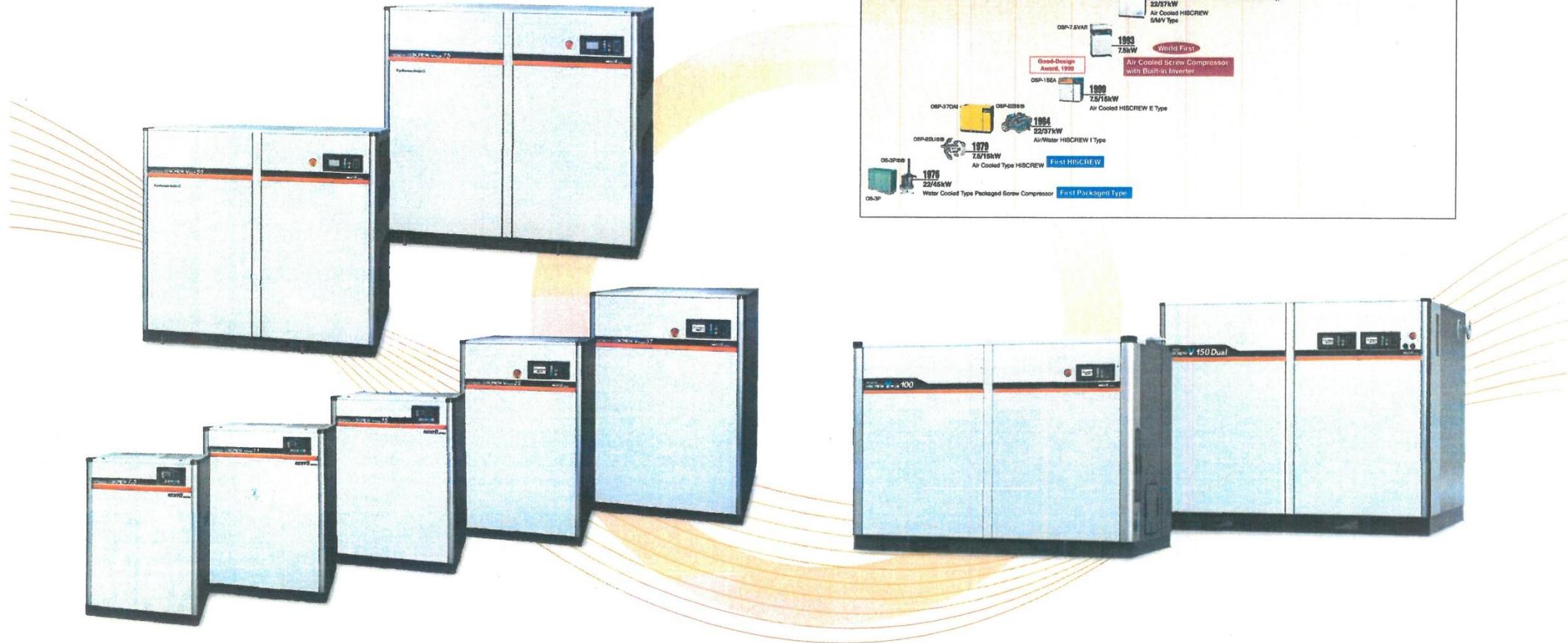
How to realize higher economic efficiency and reduction of environmental burden has become a great CHALLENGE for the air compressor industry in the 21st century.

Hitachi, with long-year-accumulated technology, offers a perfect answer to this challenge.

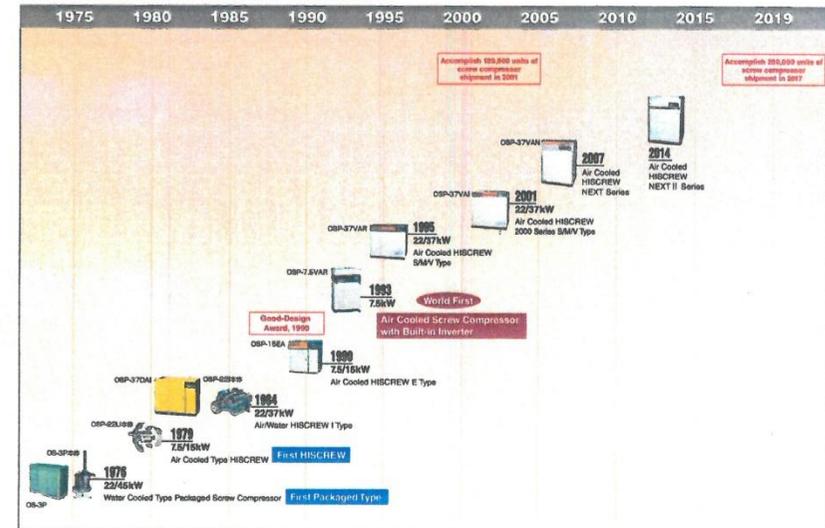
Hitachi, to pursue the ultimate goal of higher Energy-Saving performance together with less environmental burdens, adds **NEXT II series** to the highly-reputed **HISCREW** as a new line-up.

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 High Economic Efficiency and Environmental Performance, Solution for Diversified High-Level Demands

## 7.5-15kW Class

### NEXT II series VPLUS, M type

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

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

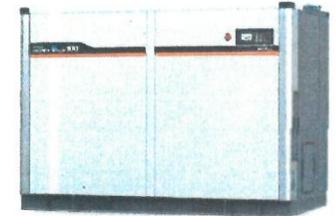


## 100kW Class

### NEXT II series VPLUS, M type

High Reliability and Maintenance Friendly

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



## 22/37kW Class

### NEXT II series VPLUS, M type

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

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

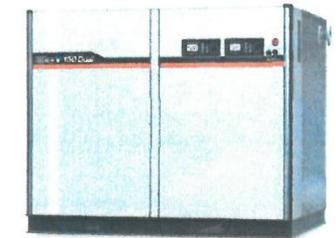


## 150kW Class

### NEXT II series Dual type

2 Units of 75kW Compressor in 1 Package

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



## 55/75kW Class

### NEXT II series VPLUS, M type

Pursuit of Energy-Saving and Environmental Performance, Middle Class

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



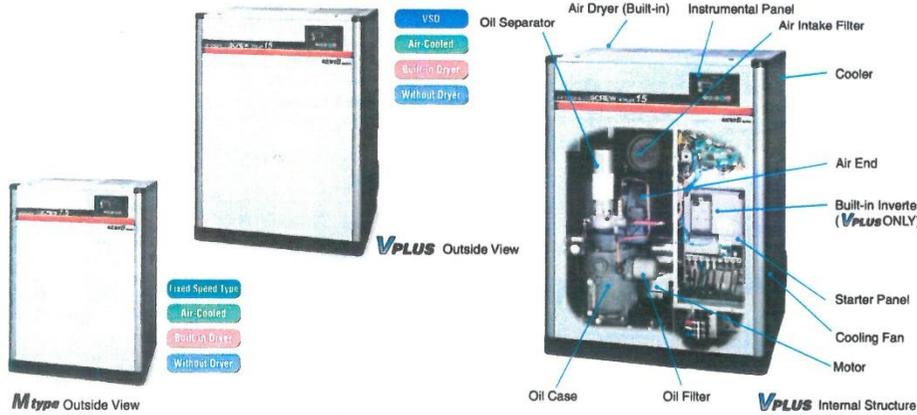
#### List of Model NEXT II series

Model	VSD				Fixed Speed Type			
	Vplus (Vtype)				Mtype			
	Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled	
Motor Output (kW)	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)

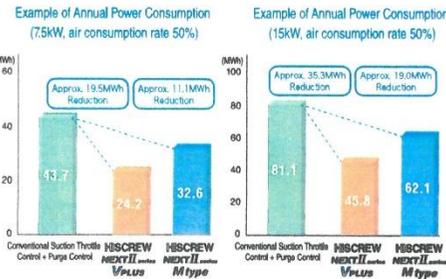
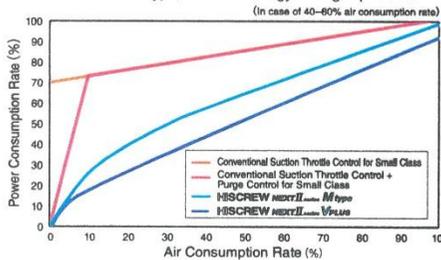
## VPLUS, M type

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



### Energy-Saving

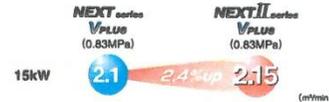
In addition to high performance of the compressor itself, overall energy-saving can be achieved. Compared with the common suction throttle valve type, 30-40% energy-saving is possible.



Calculation Condition: (1) Pressure Setting: NEXT-Vplus 0.73MPa Others 0.83MPa  
(2) 8,000hr/year Operation

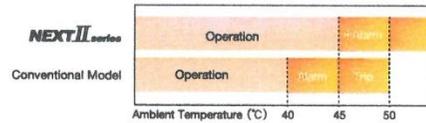
### New Developed Air-End

Hitachi Latest Innovation of Air-End Technology.



### 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.

### 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

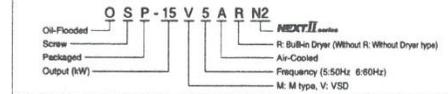
#### 7.5-15kW (VPLUS, M type)

Item/Type	Model	OSP-7.5VA(R/N2)	OSP-11VA(R/N2)	OSP-15VA(R/N2)	OSP-7.5MA(R/N2) OSP-7.5MA(R/N2)	OSP-11MA(R/N2) OSP-11MA(R/N2)	OSP-15MA(R/N2) OSP-15MA(R/N2)	
Cooling Method		Air-Cooled						
Nominal Output	kW	7.5	11	15	7.5	11	15	
Rated	Discharge Pressure	1.05		1.63	2.15	0.83	1.05	
	Discharge Capacity	0.7		0.9	1.29	1.53	2.04	
PQ WIDE MODE	Discharge Pressure	0.7		0.9	1.29	1.53	2.04	
	Discharge Capacity	1.17		0.88	1.79	1.53	2.04	
Intake Air Pressure/Temperature		Atmospheric Pressure / 0-45°C (2-45°C)						
Discharge Temperature	°C	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]	[0.5]	
Refrigerant		[R407C]						
Discharge Pipe Diameter		Rc 3/4		Rc 1	Rc 3/4		Rc 1	
Dimension (WxDxH)	mm	860x770x1,175		950x780x1,250		860x770x1,175		
Weight	kg	300 (320)		360 (385)		390 (415)		
Sound Level	dB [A]	53		55		56		

Notes:

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Capacity after the built-in dryer is decreased by 3%.
- Pressures are indicated as the gauge pressure.
- 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.
- 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.
- Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
- The transformer installation space is required for the built-in dryer for the model other than 200V/50Hz, 200-220V/60Hz.
- Do NOT use any oil other than "NEW HISCREW OIL NEXT".
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.

#### Model Introduction

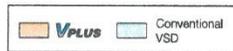
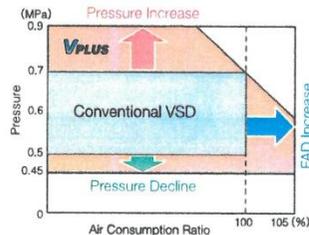


# HISCREW NEXT II series (22-75kW)

## 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

Model	0.45	0.50	0.60	0.70	0.80
<b>22/37kW</b>					
22kW	4.3	4.3	4.3	4.1	3.6
37kW	7.1	7.1	7.1	6.8	6.2
<b>55/75kW</b>					
55kW	10.6	10.6	10.6	10.1	9.1
75kW	14.0	14.0	14.0	13.3	12.0

Unit: m<sup>3</sup>/min.

## 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.

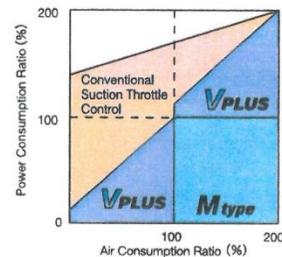
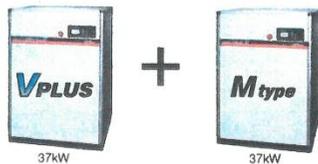
### Single-V System/Multi-V System

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

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

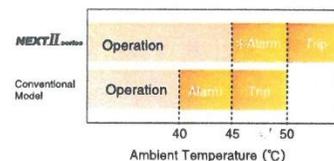
\* Calculation condition: 6,000h/year running



## High Reliability

### Up to 50°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.

### Package Filter as Standard

- Easy maintenance
- Maintenance 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 (VPLUS, Mtype)

Item/Unit	Model	OSP-22VA(R)N2	OSP-37VA(R)N2	OSP-22MSA(R)N2 OSP-22MSA(R)N2	OSP-37MSA(R)N2 OSP-37MSA(R)N2
Cooling Method	-	Air-Cooled			
Nominal Output	kW	22	37	22	37
Rated Discharge Pressure	MPa	0.7	0.7	0.7	0.7 <0.85> [1.0]
Rated Discharge Capacity	m <sup>3</sup> /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
PQ WIDE MODE Discharge Capacity	m <sup>3</sup> /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
P.D.P.	°C	10 (Under Pressure)			
(Dryer) Refrigerator Nominal Output	kW	[1.2]	[1.45]	[1.2]	[1.45]
Refrigerant	-	[R410A]			
Discharge Pipe Diameter	mm	1,000x1,050x1,550	1,200x1,150x1,650	1,000x1,050x1,550	1,200x1,150x1,650
Dimension (WxDxH)	mm	450 [510]	670 [740]	670 [730]	970 [1,040]
Weight	kg	56	80	57	80
Sound Level	dB [A]	56	60	57	60

### 55/75kW (VPLUS)

Item/Unit	Model	OSP-55VA(R)N2	OSP-75VA(R)N2	OSP-55W(R)N2	OSP-75W(R)N2
Cooling Method	-	Air-Cooled		Water-Cooled	
Nominal Output	kW	55	75	55	75
Rated Discharge Pressure	MPa	0.7	0.7	0.7	0.7
Rated Discharge Capacity	m <sup>3</sup> /min	10.1	13.3	10.1	13.3
PQ WIDE MODE Discharge Pressure	MPa	0.6	0.85	0.6	0.85
PQ WIDE MODE Discharge Capacity	m <sup>3</sup> /min	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)
P.D.P.	°C	10 (Under Pressure)			
(Dryer) Refrigerator Nominal Output	kW	[2.2]	[1.9]	[2.2]	[1.9]
Refrigerant	-	[R407C]	[R410A]	[R407C]	[R410A]
Temperature	°C	-		35 or below	
Cooling Water Quantity	L/min	-		100	125
Discharge Pipe Diameter	B	-		Rc 2	Rc 2
Discharge Pipe Diameter	B	Rc 2			
Dimension (WxDxH)	mm	2,000x1,200x1,800			
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 (Mtype)

Item/Unit	Model	OSP-55MSA(R)N2 OSP-55MSA(R)N2	OSP-75MSA(R)N2 OSP-75MSA(R)N2	OSP-55MSW(R)N2 OSP-55MSW(R)N2	OSP-75MSW(R)N2 OSP-75MSW(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]	0.7 <0.85> [1.0]	0.7 <0.85> [1.0]	0.7 <0.85> [1.0]
Rated Discharge Capacity	m <sup>3</sup> /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)
P.D.P.	°C	10 (Under Pressure)			
(Dryer) Refrigerator Nominal Output	kW	[2.2]	[1.9]	[2.2]	[1.9]
Refrigerant	-	[R407C]	[R410A]	[R407C]	[R410A]
Temperature	°C	-		35 or below	
Cooling Water Quantity	L/min	-		100	125
Discharge Pipe Diameter	B	-		Rc 2	Rc 2
Discharge Pipe Diameter	B	Rc 2			
Dimension (WxDxH)	mm	2,000x1,200x1,800			
Weight	kg	1,500 (1,620)	1,755 (1,905)	1,340 (1,460)	1,580 (1,740)
Sound Level	dB [A]	65	67	64	66

### Notes:

- Capacity is measured according to ISO 1217, Third Edition, Annex C. Capacity after the built-in dryer is decreased by 3%.
- Pressures are indicated as the gauge pressure.
- 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.
- 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.
- Contact the supplier for the dryer and filters selection at PQ wide mode ON.
- The transformer installation space is required for the built-in dryer for the model other than 200V/50Hz, 200-220V/60Hz.

- Do NOT use any oil other than "NEW HISCREW OIL NEXT".
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.



# HISCREW NEXT II series (100kW)

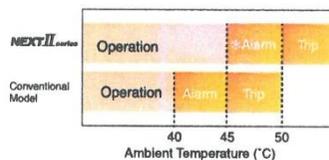


VSD Fixed Speed Type Air-Cooled Water-Cooled Without Dryer

## High Reliability & Maintenance Friendly

### Up to 50°C

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



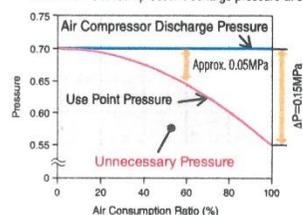
\* Ambient temperature alarm will be indicated when ambient temperature is over 45°C. Continuous operation at higher than 45°C may shorten lifetime of lubricating oil and electric parts.

## 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.

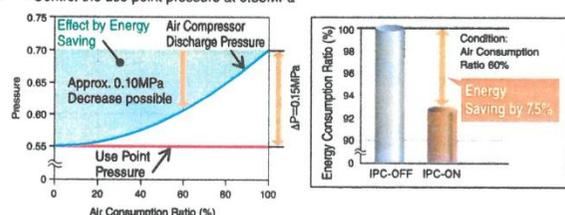
### 1 IPC-OFF

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.

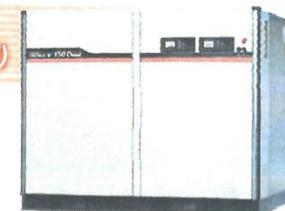
## Standard Specification

Item/Unit	Model	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	0.7	0.7 <0.85>	0.7	0.7 <0.85>
	Discharge Capacity	18.9	19.6 <17.6>	18.9	19.6 <17.6>
PQ WIDE Mode	Discharge Pressure	0.6-0.85	-	0.6-0.85	-
	Discharge Capacity	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	1.1x2 (with Inverter Control)		0.05x3	
Discharge Pipe Diameter	B	-		2-1/2	
Cooling Temperature	°C	-		35 or below	
Water Quantity	L/min	-		150	
Dimension (WxDxH)	mm	2,550x1,500x1,800			
Weight	kg	3,000	2,900	2,900	2,800

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Pressure is indicated as the gauge pressure.
- Temperature of discharge air may vary from different environments.
- Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.

- Earth leakage circuit breaker need to be installed separately for each unit.
- Do NOT use any oil other than "NEW HISCREW OIL NEXT".
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- <> show values of capacity under different discharge pressures.

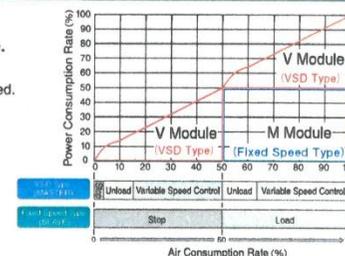
# HISCREW NEXT II series (150kW)



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/Unit	Model	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 (75x2)			
Rated	Discharge Pressure	0.7 <0.85>			
	Discharge Capacity	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	2.2x2 (with Inverter Control)		0.05x4	
Discharge Pipe Diameter	B	-		3	
Cooling Temperature	°C	-		35 or below	
Water Quantity	L/min	-		250	
Dimension (WxDxH)	mm	2,350x1,850x1,900			
Weight	kg	3,300	3,650	2,970	3,320

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Pressure is indicated as the gauge pressure.
- Temperature of discharge air may vary from different environments.
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.

- Earth leakage circuit breaker need to be installed separately for each unit.
- Do NOT use any oil other than "NEW HISCREW OIL NEXT".
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- <> show values of capacity under different discharge pressures.

# Auxiliary Equipment

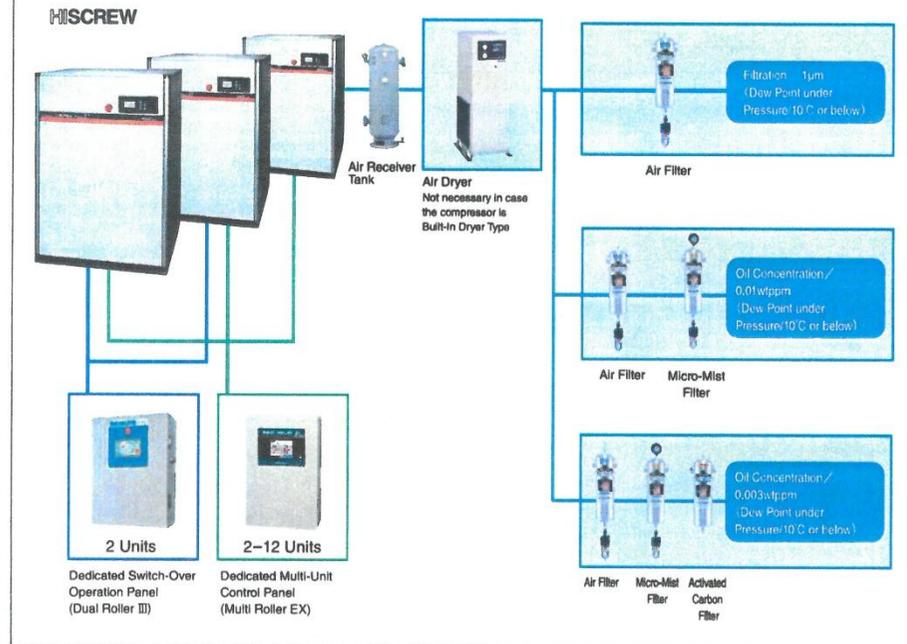
## Environment Protection, Energy-Saving, Labor-Saving A Wide Variety of Auxiliary Equipment for Improving the Quality of Air

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
Discharge Pressure	MPa	-	0 - 1 (Digital Indication)		
Control	-	-	Answer (Operation), Failure		
External	-	-	Start, Stop, Forced Start-up, Remote		
Control	-	-	Run, Stop, Load, PID Command		
External	-	-	Start, Shutdown, Auto		
Controlled Discharge Pressure	-	-	Minimum ±0.001MPa setting		
Dimensions (WxDxH)	mm	-	400x200x600	500x200x900	500x200x1,200
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
Frequency x2	-	mA	4 - 20 (2500)
Remote-Set [Remote] x2	-	-	Connection using the contacts to which no voltage is applied [Power supply DC24V]
Run [Operation] x2	-	-	Connection using the contacts to which no voltage is applied [Power supply DC24V]
Failure [Shut down] x2	-	-	Optional terminals
ElectricPulse - Extra x2	-	-	Optional terminals
Run x2	-	1500ms w/out voltage	"a"contact
Stop x2	-	Pulse AC250V0.3A	"b"contact
Load/Unload Command x2	-	Dry contact	"c"contact
Status x2	-	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 (WxDxH)	mm	-	300x180x400
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 place 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.

# Auxiliary Equipment

## 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-27AXI	HDR-37AXI	HDR-55AX	HDR-75AX	HDR-100AX
Capacity (Note 1) 50/60Hz	m <sup>3</sup> /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	°C	80						
Ambient Temperature	°C	5 - 40						
Dew Point of Outlet Air	°C	10 Under Pressure						
Cooling Method of Condenser	-	Water-Cooled			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 (WxDxH) (200V Model)	mm	303x603x720		356x513x1,067		356x603x1,274		406x1,400x1,380
Dimensions (WxDxH) (400V Model)	mm	303x833x720		356x826x1,067		356x903x1,274		406x1,400x1,385
Weight (200V Model)	kg	44	48	74	87	135	170	280
Weight (400V Model)	kg	59	75	128	139	140	176	286
Accessories	-	Auto Drain Trap, Drain Valve						

#### NOTE:

- The capacity values above are measured at an ambient temperature of 30°C, inlet temperature of 45°C, inlet pressure of 0.70MPa.
- Dew point gets worse if operated at pressure below the range of operation pressure.
- The dimensions do NOT include protruding objects.
- 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-420AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m <sup>3</sup> /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 - 0.97		0.30 - 0.93			
Max. Inlet Temperature of Compressed Air	°C	60											
Ambient Temperature	°C	2 - 40											
Dew Point of Outlet Air	°C	10 Under Pressure											
Cooling Method of Condenser	-	Water-Cooled						Air-Cooled					
Refrigerant Control Device	-	Capillary Tube						Hot Gas Bypass Valve					
Capacity Control Device	-	R407C											
Refrigerant Used	-	R407C											
Charged Quantity	g	1,900	2,000	2,700	3,400	2,000x2	2,000x2	2,200	3,600	3,500	4,400	2,500x2	3,000x2
Finish Color	-	Ivory (Munsell No. 5Y8.5/1)											
Cooling Water Quantity	m <sup>3</sup> /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"	5"	5"	2-1/2"	3"	4"	5"	5"	5"
Dimensions (WxDxH)	mm	672x1,260x1,276	950x1,290x1,332	1,060x905x1,583	2,020x1,100x1,650	872x1,260x1,276	950x1,290x1,332	1,960x905x1,583	2,020x1,100x1,650				
Weight (200V Model)	kg	238	346	344	634	792	872	258	372	370	557	792	872
Weight (400V Model)	kg	268	383	381	671	840	930	288	409	395	608	840	930
Accessories	-	Auto Drain Trap, Drain Valve											

#### ※ JIS 10K Flange

#### NOTE:

- The capacity values above are measured at an ambient temperature of 32°C, inlet temperature of 40°C, inlet pressure of 0.69MPa.
- Dew point gets worse if operated at pressure below the range of operation pressure.
- The dimensions do NOT include protruding objects.
- 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	Capacity (converted to the ambient pressure)	m <sup>3</sup> /min	1.2	1.8	2.4	3.9	6.6	10.6	13.8	20	27.6	32	40	50
	Inlet Air Temperature	°C	30											
	Inlet Air Pressure	MPa	0.69											
	Applicable Fluid	-	Compressed Air											
Air Filter	Max. Pressure	MPa	1.57		Rc1 (25)		Rc1 1/2 (40)	Rc2 (50)	2 1/2" (65)	3" (80)	3" (80)	4" (100)		
	Connecting Pipe Diameter	B (A)	Rc3/4 (20)	Rc1 (25)	Rc1 (25)	Rc1 1/2 (40)	Rc2 (50)	Rc2 (50)	2 1/2" (65)	3" (80)	3" (80)	4" (100)		
	Inlet Air Temperature Range	°C	5 - 60											
	Ambient Temperature Range	°C	2 - 60											
Micron Mist Filter	Filtration Rating	µm	1"											
	Filtration Efficiency	%	99.999											
	Pressure Drop (Loss)	MPa	0.005 or below											
	Element Exchange	MPa	0.07											
Activated Carbon Filter	Dimension (Max. Diameter x Length)	mm	92x237	130x290.5	160x509	170x591	170x699	173x792	173x949	590x1,511	590x1,511	590x1,511	640x1,735	
	Drain Outlet Diameter	B (A)	Rc1/4 (6)											
	Weight	kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73
	Inlet Air Temperature Range	°C	5 - 60											
Activated Carbon Filter	Ambient Temperature Range	°C	2 - 60											
	Density of Oil in the Discharge Air	wtppm	0.01**											
	Pressure Drop (Loss)	MPa	0.01											
	Element Exchange	MPa	0.07											
Activated Carbon Filter	Dimension (Max. Diameter x Length)	mm	92x237	130x364	160x582	170x664	170x772	173x865	173x1,022	590x1,511	590x1,511	590x1,511	640x1,735	
	Drain Outlet Diameter	B (A)	Rc1/4 (6)											
	Weight	kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73
	Inlet Air Temperature Range	°C	5 - 60											
Activated Carbon Filter	Ambient Temperature Range	°C	2 - 60											
	Density of Oil in the Discharge Air	wtppm	0.003**											
	Pressure Drop (Loss)	MPa	0.007	0.009					0.007					
	Dimension (Max. Diameter x Length)	mm	92x232	130x281.5	160x308	170x390	170x498	173x591	173x748	590x1,511	590x1,511	590x1,511	640x1,735	
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.

# System Optimization

## VPLUS

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

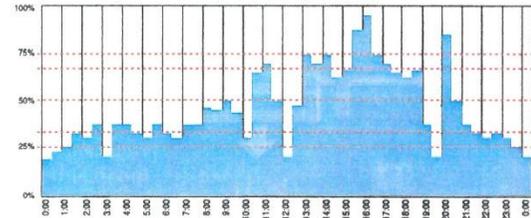
#### Method of Energy-Saving in case of multiple compressors setting

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

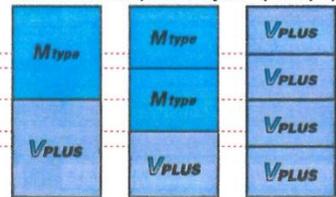
In case of setting multiple air compressors, install at least 1 unit of V plus is the key-point to achieve Energy-Saving.

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.

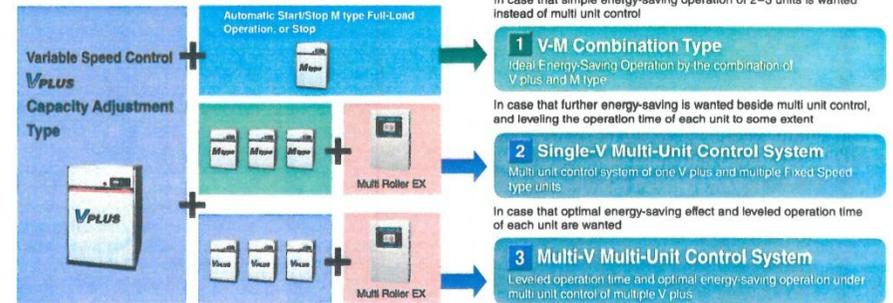
Daily Consumption of Compressed Air(Example)



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

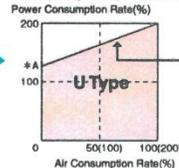
#### 1 V-M Combination Type (JP 3547314) (2-3 units)

##### Conventional System

Conventional Compressor of Suction Throttle Type 1 unit



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

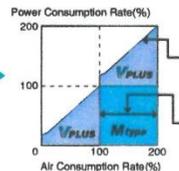
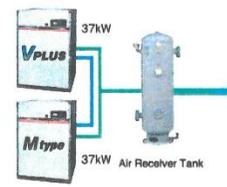


##### Explanation

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

##### V-M Combination Type

HISCREW VPLUS + HISCREW M type



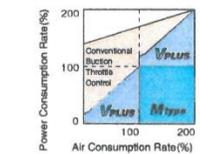
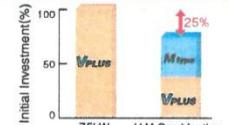
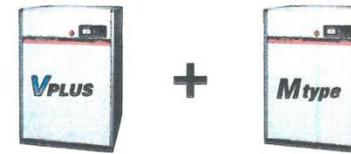
##### Explanation

**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

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

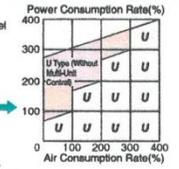
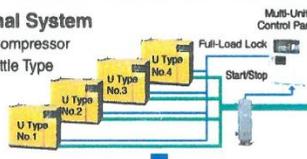
\* Calculation condition: operation time is 6,000h/year, discharge pressure is 0.6MPa



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

##### Conventional System

Conventional Compressor of Suction Throttle Type (U Type)

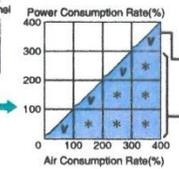
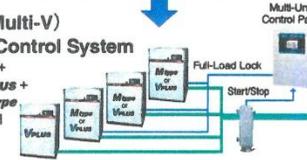


##### Explanation

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

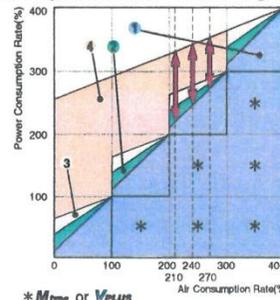
Multi Roller EX + HISCREW VPLUS + HISCREW M type multi unit control or VPLUS



##### Explanation

**VPLUS**  
All-time operation, all-time capacity adjustment, responding to air consumption at all area for power reduction  
**M type OF VPLUS**  
Full load or automatic stop  
\* M type OF VPLUS

#### Example of Effect under Single-V Multi Unit Control



\* M type OF VPLUS

- Multi-Unit Control of Single-V / Multi-V
- Fixed Speed Type (M type) under Multi-Unit Control
- Suction Throttle Type under Multi-Unit Control
- Suction Throttle Type under Parallel Control (without Multi-Unit Control)

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 x4 units (Same in efficiency and performance)  
Operation time is 6,000h/year



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**Hitachi Two-Stage Oil Flooded  
Rotary Screw Compressor**

**HITACHI**  
Inspire the Next

**OIL-FLOODED SCREW NX2series 90-250kW**



**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.

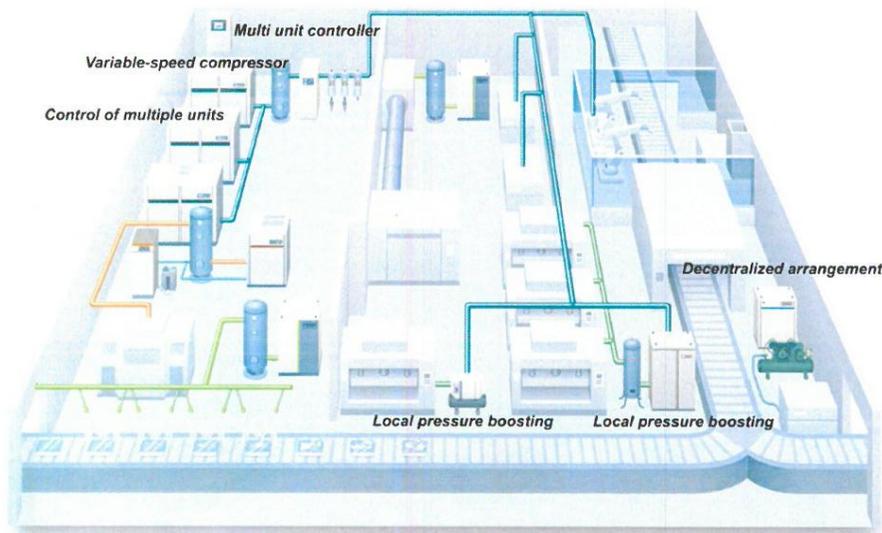
## Hitachi - A Trusted Expert in Air Compressors

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.



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

### OSP **NX2** series two-stage compressor

#### Features of two-stage compressor

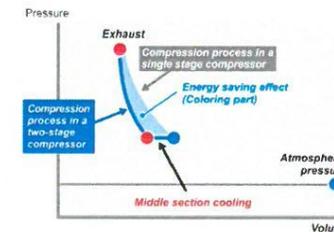


Take the 0.8MPa specification machine as an example

- 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.

#### History of Hitachi Air Compressor



#### 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 Aired

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



## Industry-leading High Reliability

Equipped with high-quality motor

### IP55 Protection Grade

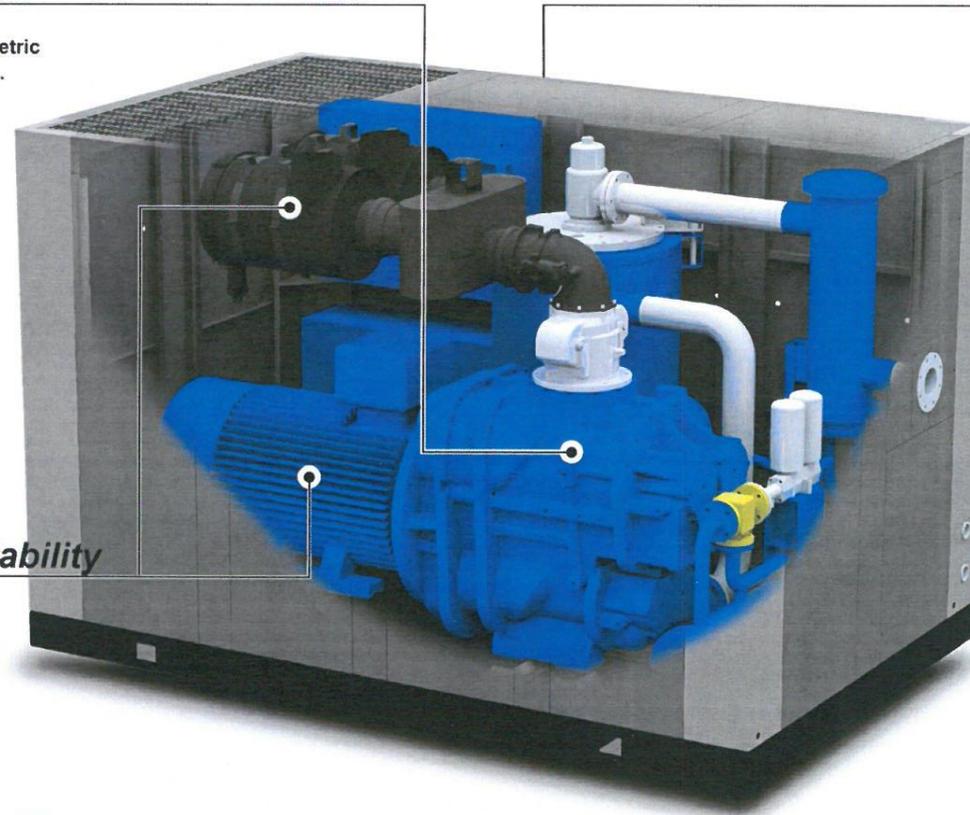
- Effectively protect motor from dust and moisture.
- Enhance the reliability of motor and compressor.

Equipped with standard dust-proof suction filter

Efficient gear drive for high reliability

## New Intelligent Control System

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



## Dedicated Synthetic Oil

### NEW HISCREW OIL NEXT

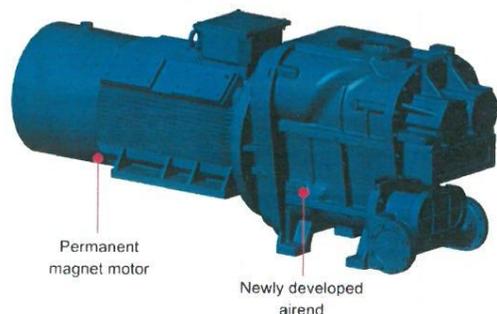
Dedicated synthetic oil developed for Hitachi screw compressors

- 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.



OSP-250M5WTX2

## 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

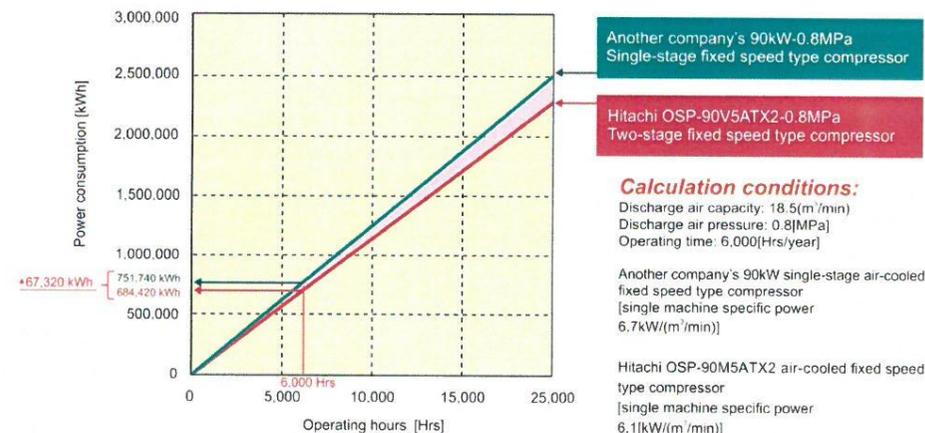


Fault history

## Energy saving effect

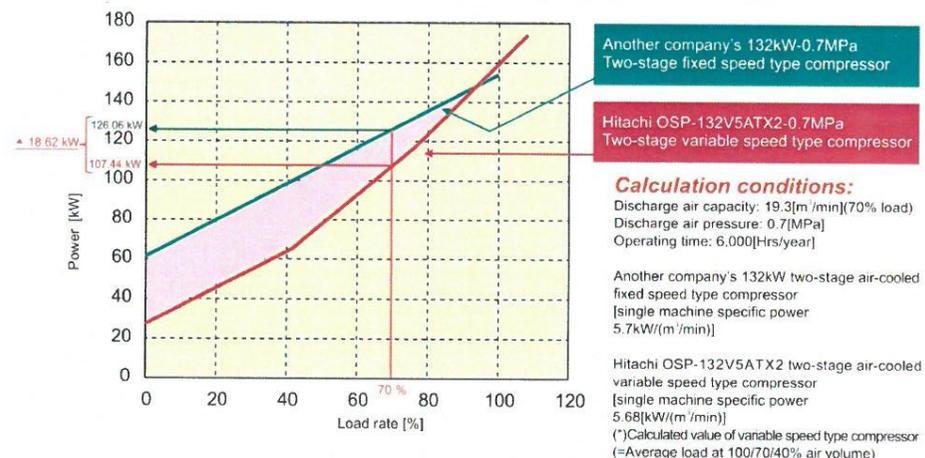
### Two-stage compressor vs Single-stage compressor

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)**.



### 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)**.



## Table of Standard Specifications

### 90-132 kW M type

Item	Model	OSP-90M5ATX2		OSP-90M5WTX2		OSP-110M5ATX2		OSP-110M5WTX2		OSP-132M5ATX2		OSP-132M5WTX2					
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled					
Cooling Method	-	Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled					
Voltage(50Hz)	V	380															
Nominal Output	kW	90 ± 1				110 ± 1				132 ± 1							
Rated	Discharge Pressure	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			
	Discharge Air Capacity	m <sup>3</sup> /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
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45°C				Atmospheric Pressure / 0~45°C				Atmospheric Pressure / 0~45°C							
Discharge Air Temperature	°C	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															
Lubricating Oil	-	NEW HISCREW OIL NEXT				NEW HISCREW OIL NEXT				NEW HISCREW OIL NEXT							
Lubricating Oil Capacity	L	105															
Cooling Water Temperature	°C	-		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	m <sup>3</sup>	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				
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled				
Cooling Method	-	Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled				
Voltage(50Hz)	V	380										
Nominal Output	kW	160 ± 1				185 ± 1						
Rated	Discharge Pressure	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0		
	Discharge Air Capacity	m <sup>3</sup> /min	33.5	32.7	26.4	33.5	32.7	26.4	38.5	37.5	38.5	37.5
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45°C				Atmospheric Pressure / 0~45°C						
Discharge Air Temperature	°C	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										
Lubricating Oil	-	NEW HISCREW OIL NEXT				NEW HISCREW OIL NEXT						
Lubricating Oil Capacity	L	150	105	150	105	150						
Cooling Water Temperature	°C	-		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	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				
	1.0MPa	3,050 X 1,850 X 2,120		2,850 X 1,850 X 2,120		3,600 X 1,850 X 2,150		3,050 X 1,850 X 2,150				
Weight	0.7/0.8MPa	5,300		5,000		5,600		5,300				
	1.0MPa	4,400		4,200		5,600		5,300				
Recommended Air Receiver Volume	m <sup>3</sup>	4.0 or bigger				5.0 or bigger						

Note:

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

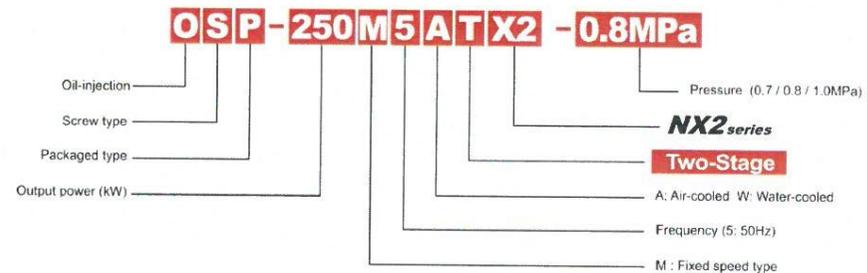
### 200-250 kW M type

Item	Model	OSP-200M5ATX2		OSP-200M5WTX2		OSP-220M5ATX2		OSP-220M5WTX2		OSP-250M5ATX2		OSP-250M5WTX2						
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled						
Cooling Method	-	Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled						
Voltage(50Hz)	V	380																
Nominal Output	kW	200 ± 1				220 ± 1				250 ± 1								
Rated	Discharge Pressure	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0					
	Discharge Air Capacity	m <sup>3</sup> /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	53.5	49.0
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0~45°C				Atmospheric Pressure / 0~45°C				Atmospheric Pressure / 0~45°C								
Discharge Air Temperature	°C	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																
Lubricating Oil	-	NEW HISCREW OIL NEXT				NEW HISCREW OIL NEXT				NEW HISCREW OIL NEXT								
Lubricating Oil Capacity	L	170	150	170	150	170												
Cooling Water Temperature	°C	-		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		DN125		DN125						
Dimensions (Width x Depth x Height)	0.7/0.8MPa	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						
	1.0MPa	3,600 X 1,850 X 2,150		3,050 X 1,850 X 2,150		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						
Weight	0.7/0.8MPa	7,600		7,250		7,850		7,450		8,000		7,600						
	1.0MPa	5,600		5,000		7,850		7,450		8,000		7,600						
Recommended Air Receiver Volume	m <sup>3</sup>	5.0 or bigger				6.0 or bigger				8.0 or bigger								

Note:

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

## Model Implication



## Table of Standard Specifications

### 90-132 kW V type

Item	Model	OSP-90V5ATX2		OSP-90V5WTX2		OSP-110V5ATX2		OSP-110V5WTX2		OSP-132V5ATX2		OSP-132V5WTX2		
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		
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	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
	Discharge Air Capacity	m <sup>3</sup> /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
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	m <sup>3</sup>	3.0 or bigger				3.0 or bigger				4.0 or bigger				

### 160-185 kW V type

Item	Model	OSP-160V5ATX2		OSP-160V5WTX2		OSP-185V5ATX2		OSP-185V5WTX2					
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled					
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	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0			
	Discharge Air Capacity	m <sup>3</sup> /min	33.5	32.7	26.4	33.5	32.7	26.4	38.5	37.5	32.5	38.5	37.5
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	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					
	1.0MPa	3,200 X 1,850 X 2,120		3,000 X 1,850 X 2,120		3,900 X 1,850 X 2,150		3,350 X 1,850 X 2,150					
Weight	0.7/0.8MPa	5,560		5,260		5,600		5,260					
	1.0MPa	4,400		4,200		5,600		5,260					
Recommended Air Receiver Volume	m <sup>3</sup>	4.0 or bigger				5.0 or bigger							

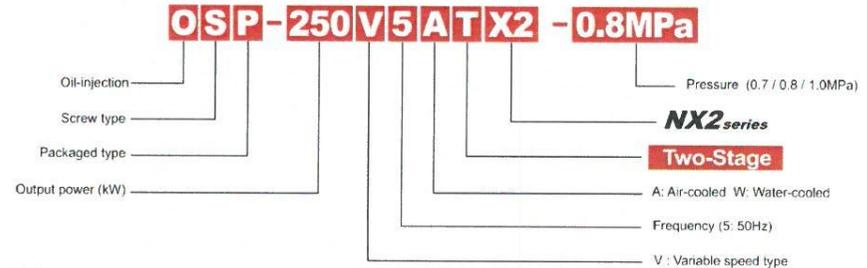
- Note:**
- Capacity is measured according to ISO 1217, Annex C.
  - For guaranteed capacity values, please contact your nearest sales representative.
  - Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed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

### 200-250 kW V type

Item	Model	OSP-200V5ATX2		OSP-200V5WTX2		OSP-220V5ATX2		OSP-220V5WTX2		OSP-250V5ATX2		OSP-250V5WTX2	
		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled		Air-Cooled		Water-Cooled	
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	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0	0.7	0.8	1.0
	Discharge Air Capacity	m <sup>3</sup> /min	44.0	41.5	35.5	44.0	41.5	35.5	50.5	46.0	40.7	50.5	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	170				170				170			
	1.0MPa	150				170				170			
Cooling Water Temperature	℃	-		32 or less		-		32 or less		-		32 or less	
Cooling Water Flow Rate	L/min	-		334		-		383		-		416	
Discharge Pipe Diameter	-	DN125	DN100	DN125	DN100	DN125		DN125		DN125		DN125	
Dimensions (Width x Depth x Height)	0.7/0.8MPa	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	
	1.0MPa	3,900 X 1,850 X 2,150		3,350 X 1,850 X 2,150		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	
Weight	0.7/0.8MPa	8,000		7,600		8,100		7,700		8,200		7,800	
	1.0MPa	6,100		5,800		8,100		7,700		8,200		7,800	
Recommended Air Receiver Volume	m <sup>3</sup>	5.0 or bigger				6.0 or bigger				6.0 or bigger			

- Note:**
- Capacity is measured according to ISO 1217, Annex C.
  - For guaranteed capacity values, please contact your nearest sales representative.
  - 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.
  - Discharge pressure is gauge pressure.
  - Temperature of discharge air may vary from different environments.
  - Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
  - Be sure to install an air tank with more than the recommended capacity.
  - Earth leakage breaker is not built in the compressor. Prepare by customer.
  - Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
  - 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



3.70P - 9.5G5A

- ASIA
- Frequency (50Hz)
- GREEN Series
- Pressure (0.93MPa [9.5kgf/cm<sup>2</sup>])
- Pressure Switch
- Oil Free
- Power (3.7kW)

### 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 <sup>-1</sup>	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	1.50U-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
		3PH							93				
	2.2	2.20U-9.5GS5/6A		82X60X2	650	412	240	90	1PH		1,283X403X841	139	71
		3PH							122				
	3.7	3.70U-9.5G5/6A		82X72X2	850	646	405	125	3PH		1,477X424X909	163	74
	5.5	5.50U-9.5G5/6A		82X72X3	860	981	605	150	3PH		1,518X502X1,009	208	75
7.5	7.50U-8.5GA5/6A	105X85X2	915	1,347	880	235	3PH	1,674X550X1,076	278	80			
11	110U-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
		3PH							77				
	1.5	1.50P-9.5GS5/6A		82X60X1	880	278	165	80	1PH		1,155X393X897	105	71
		3PH							93				
	2.2	2.20P-9.5GS5/6A		82X60X2	650	412	240	90	1PH		1,283X403X824	139	71
		3PH							122				
	3.7	3.70P-9.5G5/6A		82X72X2	850	646	405	125	3PH		1,477X424X880	163	74
	5.5	5.50P-9.5G5/6A		82X72X3	860	981	605	150	3PH		1,518X502X995	208	75
	7.5	7.50P-8.5GA5/6A		105X85X2	915	1,347	880	235	3PH		1,674X550X1,076	278	80
	11	110P-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 <sup>-1</sup> )	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



2.2P - 9.5VSL 5A



HORIZONTAL



VERTICAL

- Asia
- Frequency (50Hz)
- Large Tank
- Single Phase
- New V Series
- Pressure (0.93MPa [9.5kgf/cm<sup>2</sup>])
- 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 <sup>-1</sup>	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 0.75U-9.5V5/6A	0.93	50X65X1	990	126	80	62	1PH 3PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve	931X376X816	79 72	70	
		1.5	1.5U-9.5VS5/6A 1.5U-9.5V5/6A		72X65X1	970	257	165	80	1PH 3PH		1,173X380X867	102 90	72	
		2.2	2.2U-9.5VS5/6A 2.2U-9.5V5/6A		72X65X2	730	386	265	90	1PH 3PH		1,283X403X808	134 117	72	
		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 0.75P-9.5V(L)5/6A	50X65X1	990	126	80	62 (92)		1PH 3PH	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 1BX1 for 15 kW	931X376X804 (1,296X376X804)	79 (82) 72 (75)
	1.5		1.5P-9.5VS(L)5/6A 1.5P-9.5V(L)5/6A		72X65X1	970	257	165	80 (150)	1PH 3PH		1,173X380X855 (1,470X380X855)		102 (109) 90 (97)	72
	2.2		2.2P-9.5VS(L)5/6A 2.2P-9.5V(L)5/6A		72X65X2	730	386	265	90 (170)	1PH 3PH		1,283X403X808 (1,775X403X808)		134 (150) 117 (133)	72
	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
	Horizontal	Pressure-switch type	3.7		3.7P-14VH5/6A	1.37	L) 90X85X1 H) 50X85X1	900	487	400		230	3PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve	1,690X525X799
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	Pressure-switch type	3.7	3.7P-12.5(14)V5A	1.23/ 1.37	L) 90X85X1 H) 50X85X1	900	487	400	300	3PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve for 3.7 & 5.5 kW 3/4BX1 for 7.5 kW	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.

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<http://www.hiem.hitachi.com.my>



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:

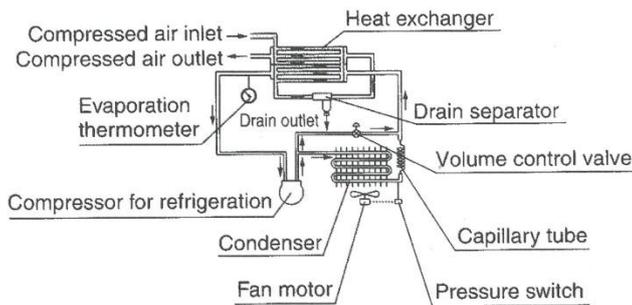
Specification		Model	IDUA3E	IDUA4E	IDUA6E	IDU8E	IDU11E	IDU15E	IDU22E	IDU37E	IDU55E	IDU75E
			-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
Rated Condition	Air Flow Capacity $\ell$ /min	Standard <sup>Note 1)</sup> condition (ANR) (50Hz)	320	520	750	1100	1500	2600	3900	5700	8400	11000
	Inlet air pressure (Mpa)		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 Specification	Power supply voltage frequency <sup>Note 4)</sup>		Single -phase 230VAC $\pm$ 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  $\ell$ /min (ANR) is referring to the conditions of 20°C, 1atm. Pressure & relative humidity of 65%.

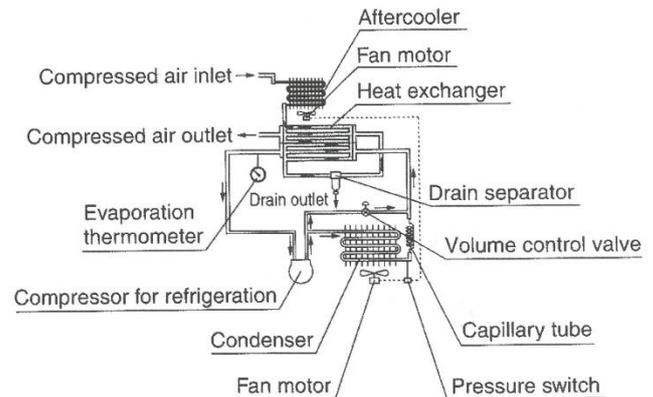
Note 2: Install circuit breaker that comes with sensivity of 30mA.

### Construction Principle (Circuit for Air / Refrigerant)

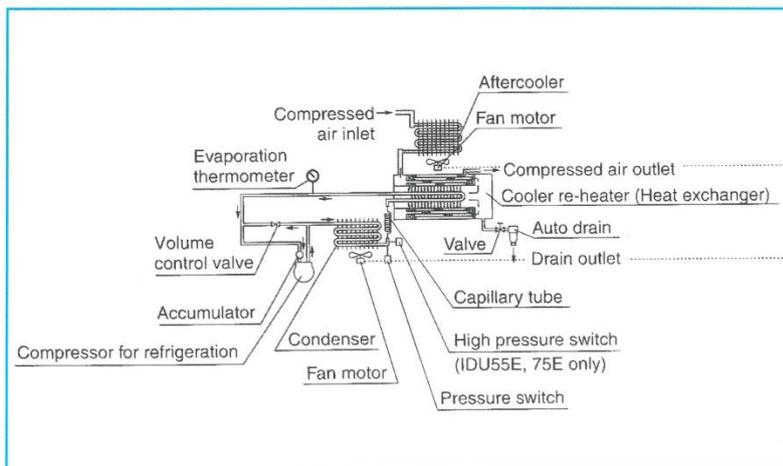
#### IDUA3E TO 6E



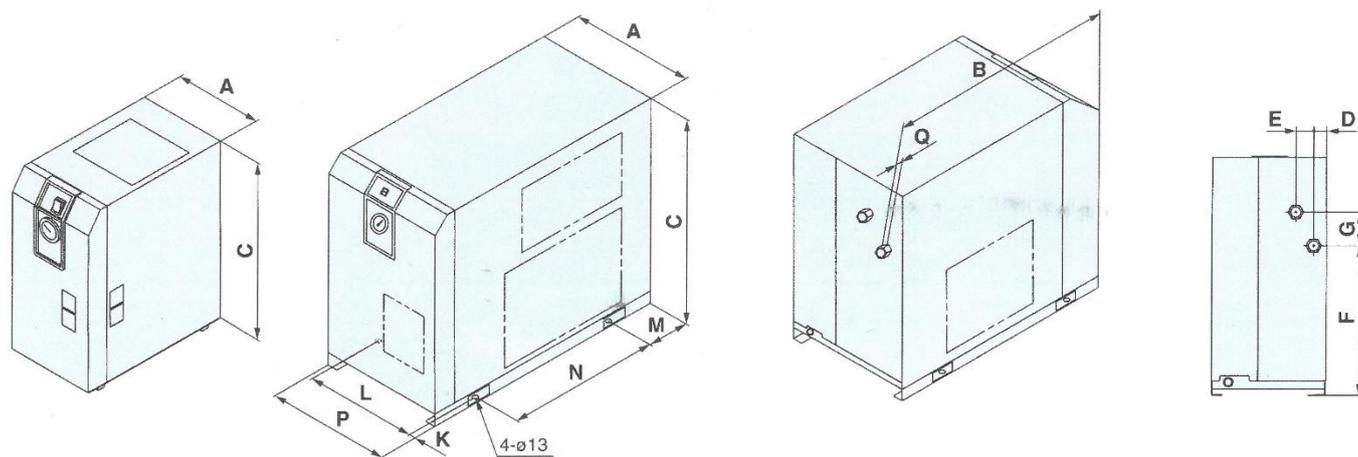
#### IDU8E to 15E



#### IDU22E TO 75E



IDUA3E to 6E

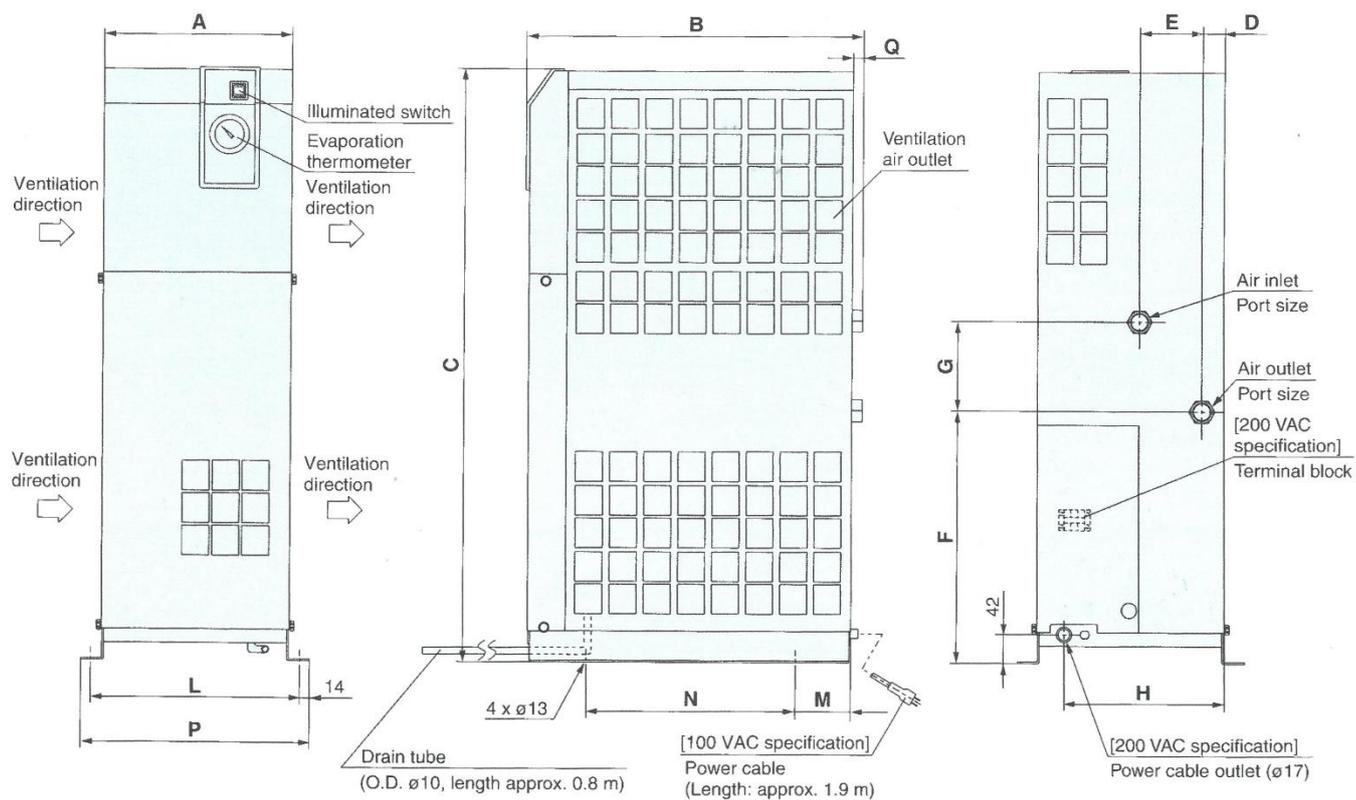


Dimensions

(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	300	-	15
IDUA4E	Rc 1/2		485	568			355							
IDUA6E	Rc 3/4		485				355							

IDU8E to 15E

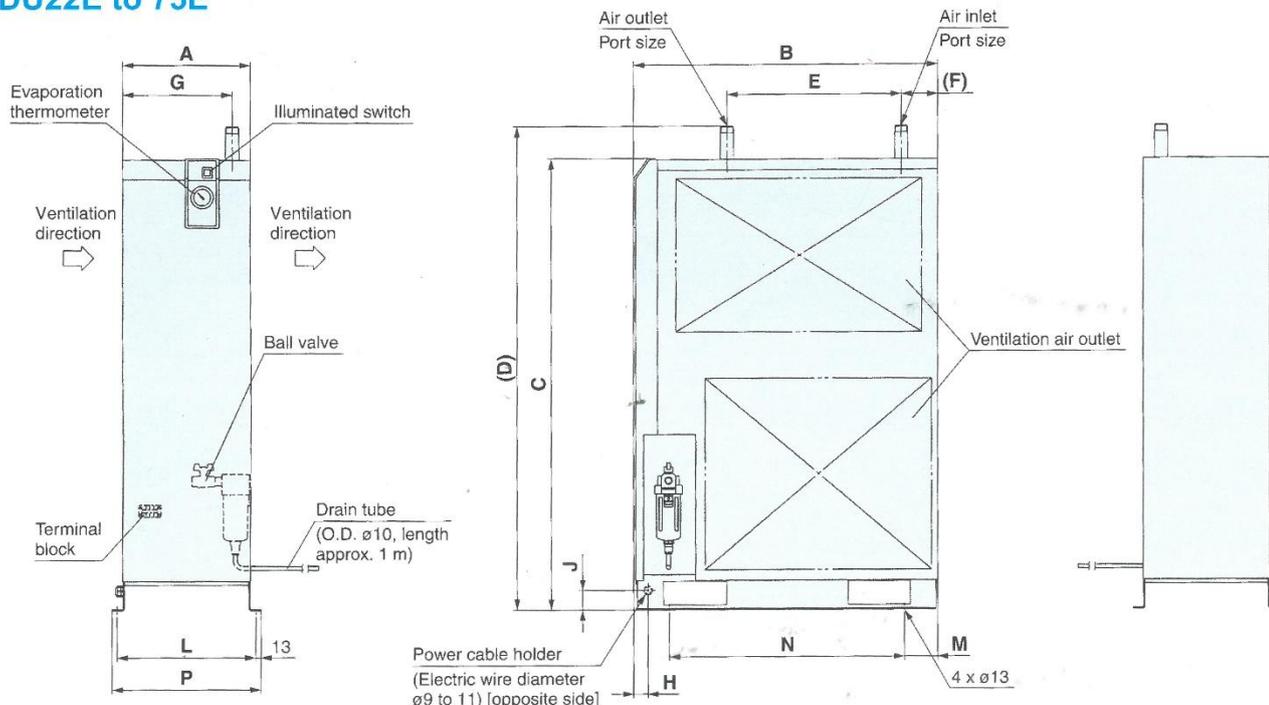


Dimensions

(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

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	70	500	75	700	526
IDU75E			1480	1575	700						526			

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



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

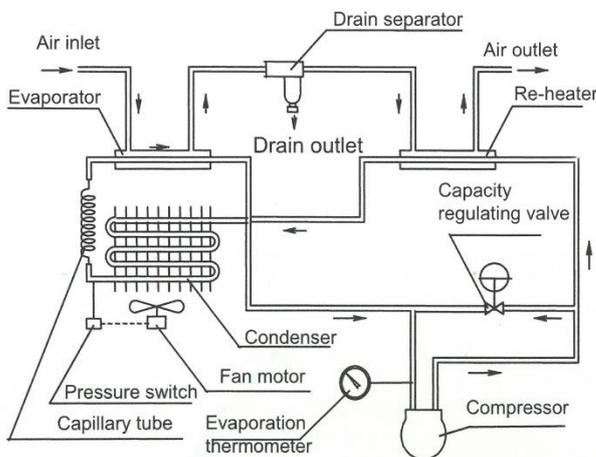
**Indonesia Distributor**  
**PT. SINAR MUTIARA CEMERLANG**  
Email : sales@smcindonesia.com  
Tel: (+62-21) 612 2888 / 649 8786  
Fax: (+62-21) 649 8765

Model		IDFA3E	IDFA4E	IDFA6E	IDFA8E	IDFA11E	IDFA15E	IDFA22E	IDFA37E	IDFA55E	IDFA75E
Specification		-23	-23	-23	-23	-23	-23	-23	-23	-23	-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 Range	Operating Pressure (Mpa)	0.7									
	Inlet Air Temperature (°C)	35									
	Ambient Temperature (°C)	25									
	Working Fluid	Compressed Air									
Electric Specification	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)									
Condenser	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
Refrigerant	R134A (HFC)						R407C (HFC)				
Auto drain (Float type)	AD38 (normally closed)			AD48 (normally open)							
Port size	Rc 3/8	Rc 1/2	Rc 3/4			Rc 1	R 1	R 1 1/2	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	

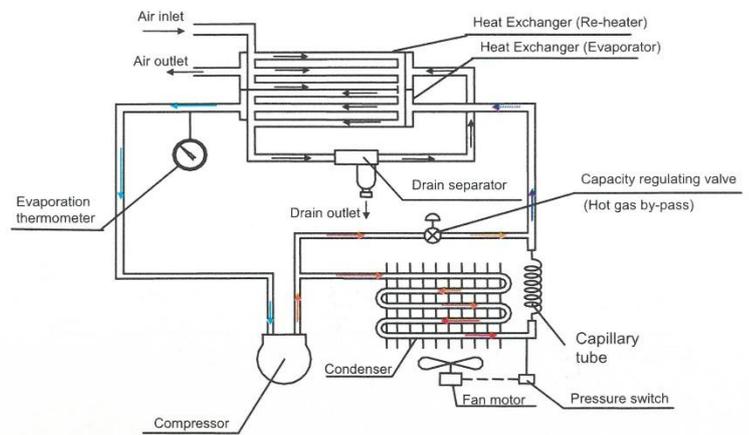
Note 1: The data for l/min is referring to the conditions of 20°C, 1atm. Pressure & relative humidity of 65%.  
 Note 2: the value is that of under specified condition.  
 Note 3: Install GFCI breaker that comes with sensitivity of 30mA  
 Note 4: When short period power shortage (including instantly 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)

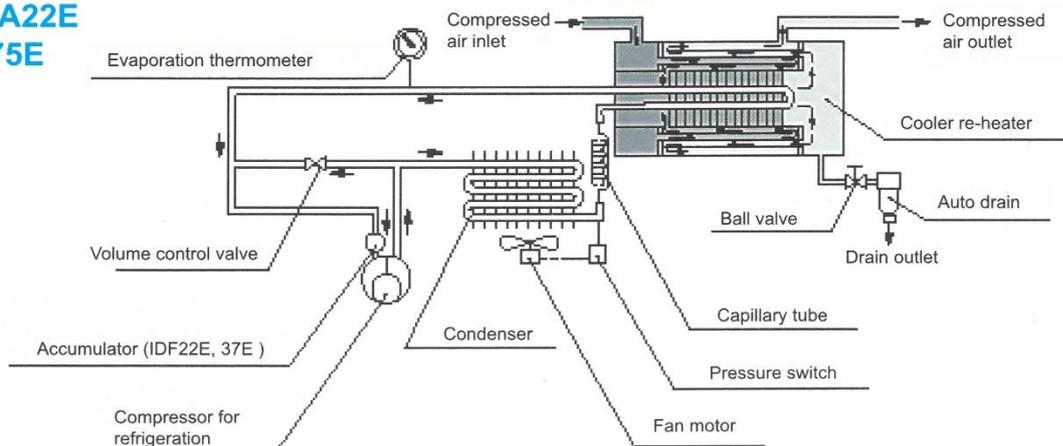
IDFA3E



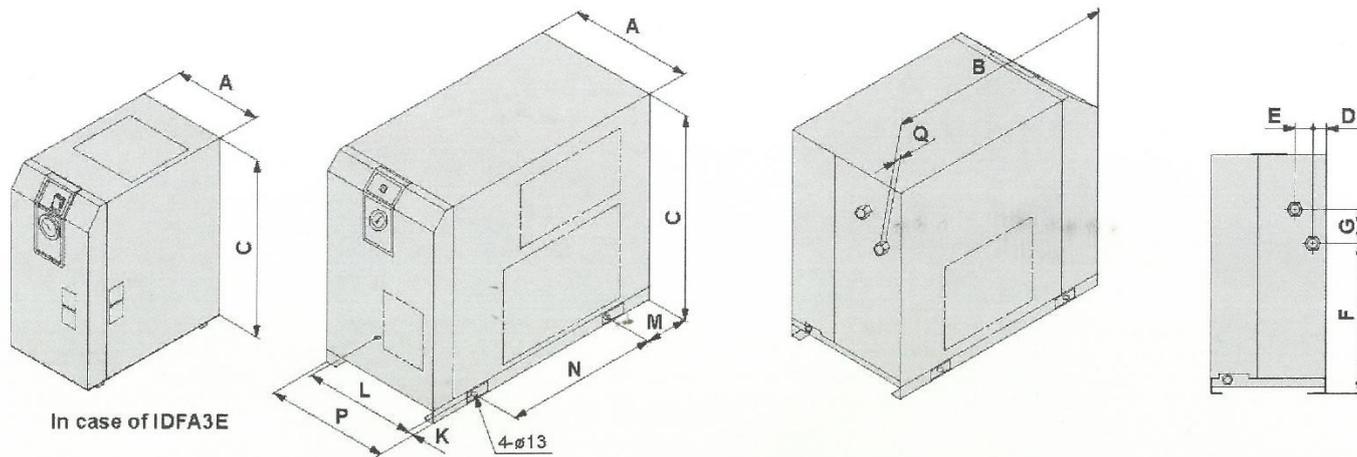
IDFA4E to 15E



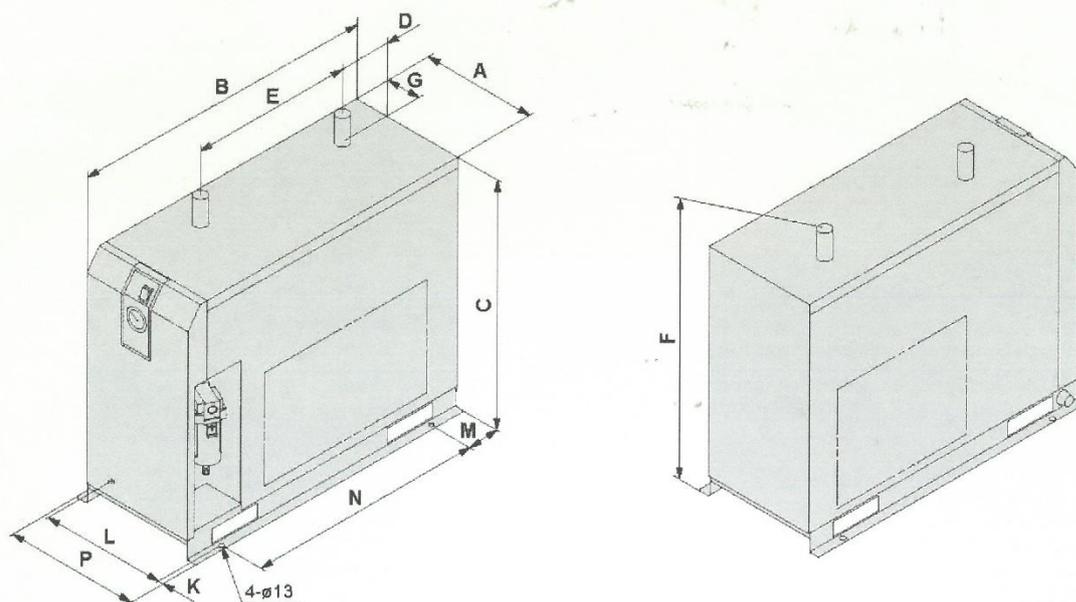
IDFA22E to 75E



IDFA3E to 15E



IDFA22E to 37E



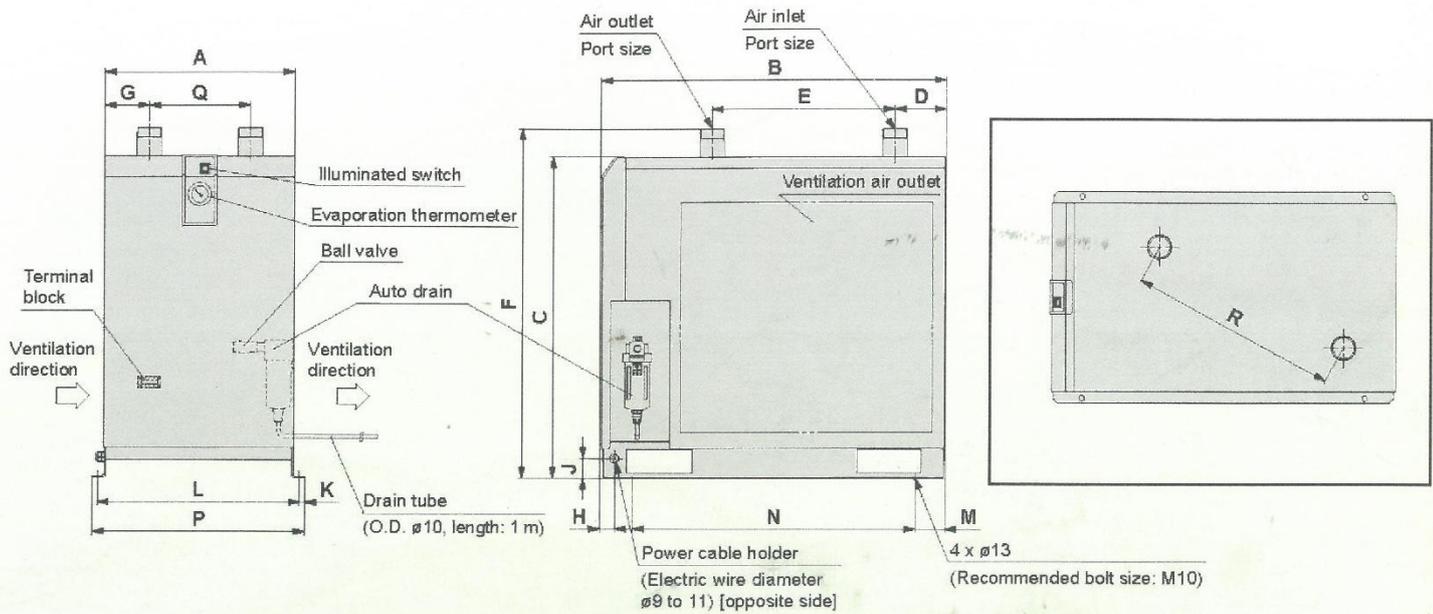
Dimensions

(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	270	453	498	31	42	283	80	15	240	80	275		13			
IDFA6E	Rc 3/4		455	568			355					300		15			
IDFA8E			485				380					15					
IDFA11E	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	680	340	-									

\* 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 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 D: Air Flow Capacity

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

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 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