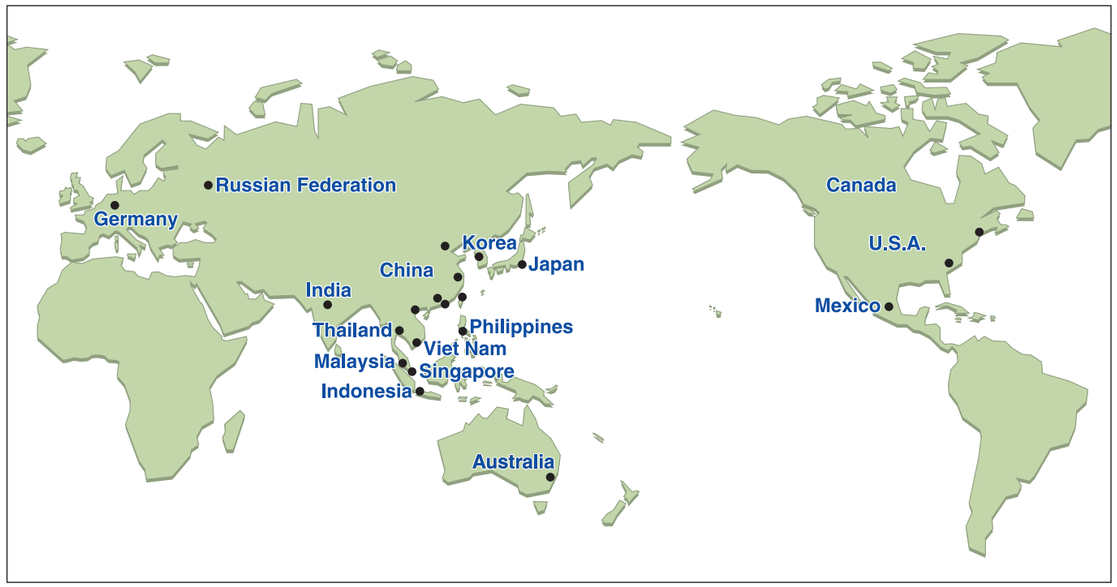


Asia & Oceania

China

Hitachi Industrial Equipment Systems (China) Co., Ltd.
(Shanghai Branch)
Room2201, Rui Jin Building, No.205
Maoming Road(S) Shanghai 200020
TEL : +86 (21) 5489-2378
FAX : +86 (21) 3356-5070

(Beijing Branch)
Room1420, Beijing Fortune Building,
No.5 Dong San Huan Bei Road,
Chao Yang District, Beijing 100004
TEL : +86 (10) 6590-8180
FAX : +86 (10) 6590-8189

(Guangzhou Branch)
Room3003, HNA Tower,
8# Linhezhong Road, Tianhe District,
Guangzhou 510610
TEL : +86 (20) 3877-3819
FAX : +86 (20) 2735-3820

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

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

India

Hitachi India Pvt. Ltd.
Units 304-306, 3rd Floor, ABW Elegance
Tower, Jasola District Centre, New Delhi
110 025, India
TEL : +91 (11) 4060-5252
FAX : +91 (11) 4060-5253

Indonesia

PT Hitachi Asia Indonesia
Menara BCA 38th Floor Suite #3804 &
3805 Jl. M. H Thamrin No.1, Jakarta
10310, Indonesia
TEL : +62 (21) 2358-6757
FAX : +62 (21) 2358-6755

Malaysia

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

Philippines

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

Singapore

Hitachi Asia Ltd.
(Industrial Components & Equipment Group)
No.30, Pioneer Crescent
#10-15, West Park Bizcentral
Singapore 628560
TEL : +65-6305-7400
FAX : +65-6305-7401

Thailand

Hitachi Asia (Thailand) Co., Ltd.
18th Floor, Ramaland Building, 952
Rama IV Road Bangrak, Bangkok 10500
TEL : +66 (2) 632-9292
FAX : +66 (2) 632-9299

Viet Nam

Hitachi Asia Ltd.
(Ho Chi Minh City Office)
4th Floor, The Landmark, 5B Ton Duc
Thang Street District 1, Ho Chi Minh City
TEL : +84 (8) 3829-9725
FAX : +84 (8) 3829-9729
(Ha Noi Office)
Sun Red River Bldg., 5th Floor,
23 Phan Chu Trinh Street
Hoan Kiem District, Hanoi
TEL : +84 (4) 3933-3123
FAX : +84 (4) 3933-3125

Australia

Hitachi Australia Pty Ltd.
Level 8, 123 Epping Road, North Ryde,
NSW 2113
TEL : +61 (2) 9888-4100
FAX : +61 (2) 9888-4188

Europe

Germany

Hitachi Europe GmbH
(Industrial Components & Equipment Group)
Am Seestern 18 (Euro Center)
D-40547 Düsseldorf
TEL : +49 (211) 5283 0
FAX : +49 (211) 5283 649

Russian Federation

Hitachi, Ltd. (Moscow Office)
Millenium House, 12, Trubnaya, Moscow
107045
TEL : +7 (495) 787-4020
FAX : +7 (495) 787-4021

Latin America

Mexico

Hitachi Industrial Equipment Mexico S.A. de C.V.
Avenida Rio Seguro 161, Parque Tecno
Industrial Castro del Rio Tramo
Irapuato-Silao km125, Carretera
Panamericaa C.P.36810, Irapuato, Gto.,
Mexico
TEL : +52 (462) 693-7088, -7089, -7090
FAX : +52 (462) 693-7091

North America

U.S.A.

Hitachi America, Ltd.
(Industrial Components & Equipment Division)
50 Prospect Avenue, Tarrytown,
New York, 10591-4625
TEL : +1(914) 332-5800
FAX : +1(914) 332-5555
(Charlotte Office)
(Industrial Components & Equipment Division)
6901 Northpark Blvd., Suite A, Charlotte,
NC 28216
TEL : +1 (704) 494-3008
FAX : +1 (704) 599-4108

Hitachi Industrial Equipment Systems Co., Ltd.

For further information, please contact your nearest sales representative.

ISO14001
EC97J1107

ISO9001
JQA-QM3443

Hitachi Screw Compressor is manufactured at a factory approved by Environmental Standard (ISO 14001) and Quality Standard (ISO9001) of International Organization for Standardization.

Printed in Japan(H) **HC- E102X** 0118

HITACHI OIL-FREE SCREW COMPRESSOR

HITACHI
Inspire the Next

OIL FREE SCREW

SINGLE STAGE / TWO STAGE

Hitachi Social Innovation
- Environment Friendly, High Standard Oil-Free Rotary Screw Compressor (DSP)

Since the first Hitachi air compressor (1911),
Hitachi has become one of the global leading manufacturers in air compressor.
With the concept 'Toward the next 100 years, Contribute to Environment and Energy-Saving',
Hitachi commit ourselves to unstoppable effort in technology innovation.
With high standard reliability, excellent Energy-Saving and various air solutions,
Hitachi will contribute to the industrial growth and development.

Premium Air Quality

True Oil-Free Air at Class 0 Level

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

Class Zero ISO 8573-1

■ ISO 8573-1 : 2010 [–: –: 0]

Industry Standard in Energy-Saving, Environment Friendly and High Quality
- From small to large, Full Line-Up (15-240kW)

15–55kW Single-Stage

NEXTII series

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

MPa: 0.30/0.40/0.70
m³/min: 2.0 - 8.5

22–120kW Two-Stage

NEXTII series

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

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

132–240kW Two-Stage

NEXTII series

VSD
Fixed Speed
Air-Cooled
Water-Cooled
Without Dryer

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

■OIL FREE SCREW (DSP) Model List

● Fixed Speed Type

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

● V-type (VSD)

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

● : NEXTII Series

High Performance Air-End

Stainless Steel Rotor

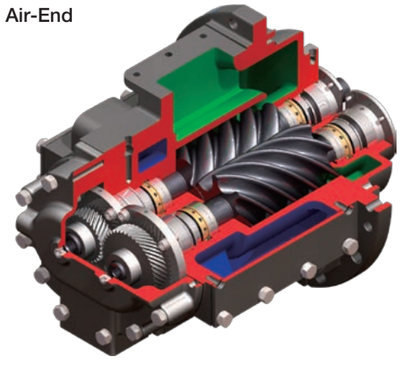
Particular stainless steel, which is superior in corrosion resistance and durability, is applied for rotor with highly accurate grinding. Furthermore, compensated profile, which is optimized for thermal expansion during operation, enables to keep optimal clearance.

High Performance Coating

Patent JP05416072

Hitachi original coating, which can withstand the high temperature of over 300°C, protects the rotors from a decrease in performance (efficiency, air purity, etc.).

Air-End



Single-Stage, Air-Cooled (15/22/37/55kW)
Single-Stage, Water-Cooled (15/22/37/55kW)

∗The above picture shows the internal structure of 55kW Air-Cooled model (V-type).

Cut Down Overhaul and Initial Cost

Comparison of cost with the same air capacity level

Because there is only one air-end for DSP Single-Stage model, the initial cost is 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.

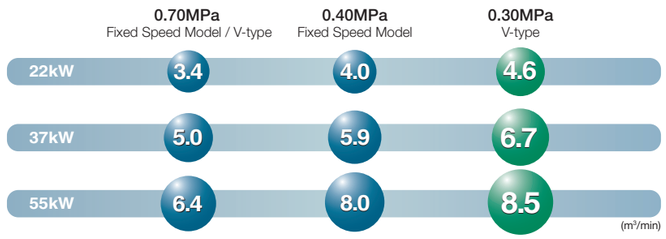
∗Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer model

Expanded Line-Up (Low Pressure)

0.30MPa model is newly added

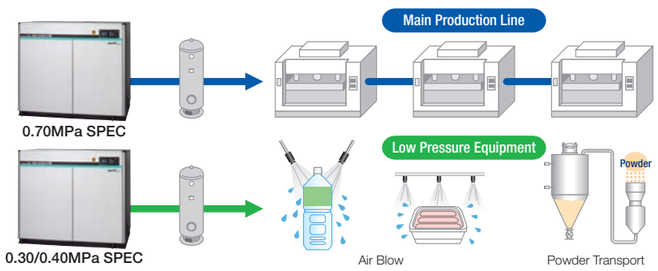
V-type 0.30MPa and Fixed Speed Model 0.40MPa models are abailable for low pressure application to save the energy.

Capacity Comparison



Applications

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



Specifications

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

[ ]: Indicates model with Dryer integrated.

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

■ Air-Cooled / Water-Cooled, V-type Model (22–55kW)

[ ]: Indicates model with Dryer integrated.

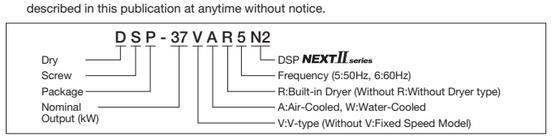
Item・Unit		Model	DSP-22VA[R]5N2 DSP-22VA[R]6N2		DSP-37VA[R]5N2 DSP-37VA[R]6N2		DSP-55VA[R]5N2 DSP-55VA[R]6N2		DSP-37VWN2		DSP-55VWN2	
Cooling Method		—	Air-Cooled						Water-Cooled			
Discharge Pressure		MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge Air Capacity		m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
PQ WIDEMODE	Discharge Pressure	MPa	0.60	–	0.60	–	0.60	–	0.60	–	0.60	–
PQ WIDEMODE	Discharge Air Capacity	m³/min	3.7	–	5.5	–	7.0	–	5.5	–	7.0	–
PQ WIDEMODE	Discharge Pressure	MPa	0.40 [0.50]	–	0.40 [0.50]	–	0.40 [0.50]	–	0.40	–	0.40	–
PQ WIDEMODE	Discharge Air Capacity	m³/min	4.3 [4.0]	–	6.4 [6.0]	–	8.2 [7.6]	–	6.4	–	8.2	–
PQ WIDEMODE Range		MPa	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70	–	0.40 – 0.70	–
Nominal Motor Output		kW	22		37		55		37		55	
Motor Type		—	4-Pole TEFC Motor						4-Pole TEFC Motor			
Intake Air Pressure / Temperature		℃	Atmospheric Pressure / 0 – 45 [2 – 45]						Atmospheric Pressure / 0 – 45			
Discharge Temperature		℃	Ambient Temperature +15 or below						Cooling Water Temperature +13 or below			
Discharge Air Pipe Connection		B	Rc1-1/2						Rc1-1/2			
Starting Method		—	Inverter						Inverter			
Driving Method		—	V-Belt+Gear-Driven						V-Belt+Gear-Driven			
Oil Quantity		L	12 (Not filled)		18 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output		kW	0.75				0.9		0.2			
Cooling Water Flow Rate		L/min	–						80			
Cooling Water Temperature		℃	–						32 or below			
Cooling Water Pipe Connection		B	–						Rc1			
Coolant Pump Motor Output (50/60Hz)		kW	0.2/0.3						–			
[Dryer]	P.D.P	℃	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	–			
[Dryer]	Refrigerator Nominal Output	kW	[1.2]	–	[1.45]	–	[1.45]	–	–			
[Dryer]	Refrigerant	—	[R410A]	–	[R410A]	–	[R410A]	–	–			
Weight		kg	900 [960]		1,140 [1,290]		1,270 [1,420]		1,110		1,240	
Dimensions (W×D×H)		mm	1,650×970×1,400		1,830×980×1,580 [2,230×980×1,580]				1,830×980×1,580			
Sound Level (1.5m from front)		dB(A)	63	64	66	68	68	70	64	66	64	66

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

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

NOTE:

1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.40MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
4. Built-in dryer 0.30MPa model is NOT available.
5. Capacity after built-in dryer is decreased by 3%.
6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
7. Earth leakage circuit breaker is out of supply scope from Hitachi.
8. These air compressors are not designed, intended or approved for breathing air applications.
9. Pressures are indicated as the gauge pressure.
10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
11. Protruding objects such as discharge pipe are not included in Dimension.
12. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.



Two-Stage, Air-Cooled (22/37/45/55/75/90/100/120kW)

*The above picture shows 75kW Air-Cooled model (V-type).

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.

Patent JP4425768 and others

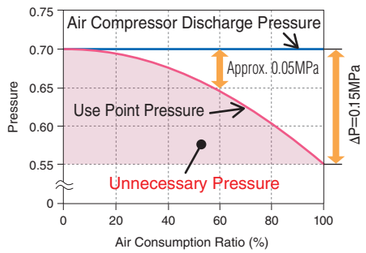
Example of effect by IPC

Conditions ● Air compressor: DSP-37VATN2 ● 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)

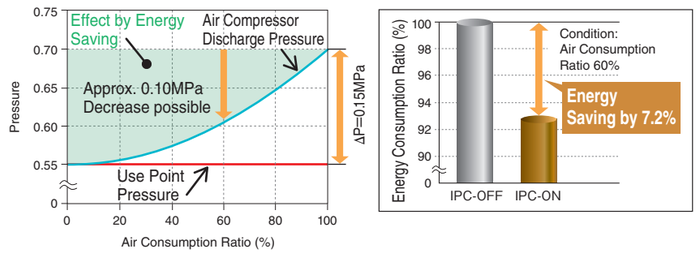
① IPC-OFF

・Control the air compressor discharge pressure at 0.70MPa



② IPC-ON

・Control the use point pressure at 0.55MPa



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

IT Communication Functions

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)

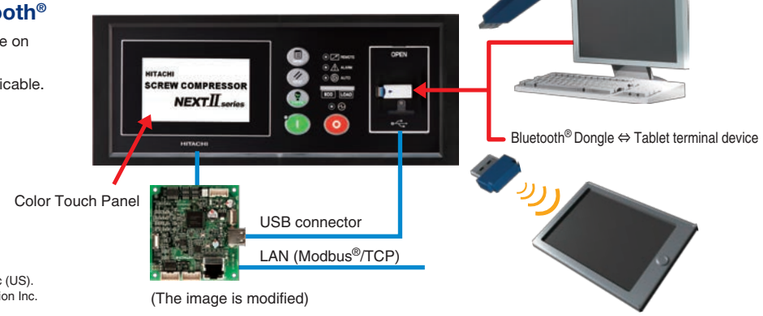
USB flash memory (data retrieving)
(Standard) pressure/temperature/current/history/time

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 is modified)

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

Specifications

■ Air-Cooled 22/37kW

[ ] : Indicates model with Dryer integrated.

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

■ Air-Cooled 45/55/75kW

[ ] : Indicates model with Dryer integrated.

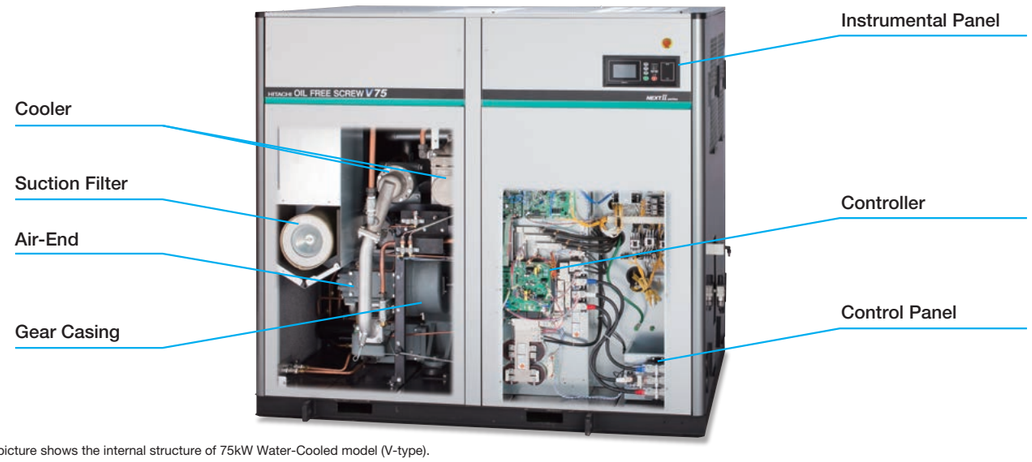
Item・Unit		Model	Fixed Speed Model						V-type Model			
			DSP-45AT [R] 5N2 DSP-45AT [R] 6N2		DSP-55AT [R] 5N2 DSP-55AT [R] 6N2		DSP-75AT [R] 5N2 DSP-75AT [R] 6N2		DSP-55VAT [R] N2		DSP-75VAT [R] N2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity		m³/min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

■ Air-Cooled 90/100/120kW

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

NOTE:
1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.60MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
4. Capacity after built-in dryer is decreased by 3%.
5. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
6. Earth leakage circuit breaker is out of supply scope from Hitachi.
7. These air compressors are not designed, intended or approved for breathing air applications.
8. Pressures are indicated as the gauge pressure.
9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
10. Protruding objects such as discharge pipe are not included in Dimension.
11. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

Two-Stage, Water-Cooled (45/55/75/90/100/120kW)



*The above picture shows the internal structure of 75kW Water-Cooled model (V-type).

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.

Patent JP4425768 and others

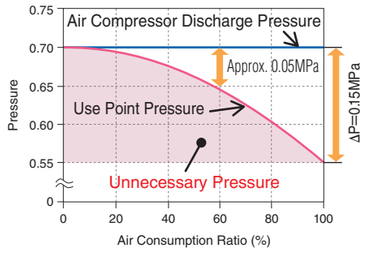
Example of effect by IPC

Conditions ● Air compressor: DSP-37VATN2 ● 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)

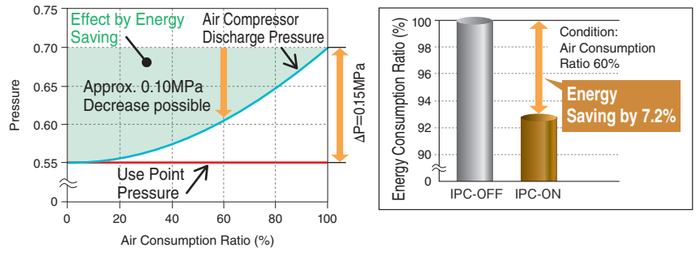
① IPC-OFF

・Control the air compressor discharge pressure at 0.70MPa



② IPC-ON

・Control the use point pressure at 0.55MPa



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

IT Communication Functions

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)

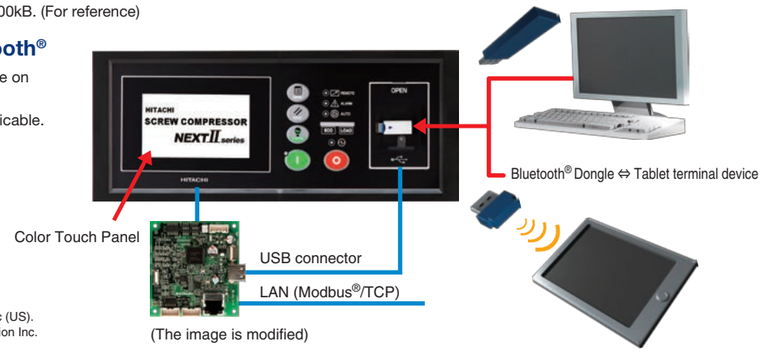
USB flash memory (data retrieving)
(Standard) pressure/temperature/current/history/time

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 is modified)

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

Specifications

Water-Cooled 45/55/75kW

[ ] : Indicates model with Dryer integrated.

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

Water-Cooled 90/100/120kW

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

NOTE:
1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.60MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
4. Capacity after built-in dryer is decreased by 3%.
5. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C.
6. Earth leakage circuit breaker is out of supply scope from Hitachi.
7. These air compressors are not designed, intended or approved for breathing air applications.
8. Pressures are indicated as the gauge pressure.
9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
10. Protruding objects such as discharge pipe are not included in Dimension.
11. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

Two-Stage, Water-Cooled (132/145/160/200/240kW)
Two-Stage, Air-Cooled (132/145/160/200/240kW)

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

High Capacity by Equipping New NEXTII series Air-End

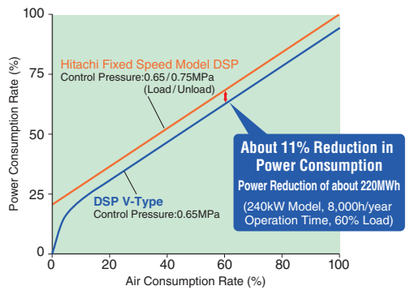
Low Noise Low Vibration

Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

Energy-Saving (V-type)

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



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

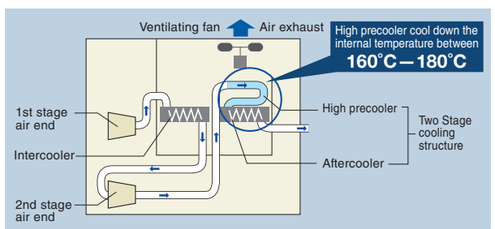
High Reliability and Easy Maintenance

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.

High precooler system (Air-Cooled models)

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



High Discharge Pressure Available

1.0MPa is available with high reliability.

Maintenance Friendly

DSP series provides easy accessibility for inspection and maintenance.

Specifications

Water-Cooled, V-type Model (160/240kW)

Item・Unit	Model	DSP-160VW5N2 / DSP-160VW6N2			DSP-240VW5N2 / DSP-240VW6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	28.5	24.8	23.2	40.5	35.0	32.5
Nominal Motor Output	kW	160			240		
Motor Type	—	4-Pole TEFC Flange Motor					
Intake Air Pressure / Temperature	℃	Atmospheric Pressure / 0 - 45					
Discharge Air Temperature	℃	Cooling Water Temperature+13 or below					
Discharge Air Pipe Diameter	B	2-1/2 (Flange)			3 (Flange)		
Starting Method	—	Inverter					
Driving Method	—	Direct Connection With Motor+Gear-Driven					
Cooling Water Flow Rate	L/min	240			330		
Cooling Water Temperature	℃	35 or below					
Coolant Water Pipe Diameter	B	Rc2					
Lubricating Oil Quantity	L	40 (Not filled)			50 (Not filled)		
Cooling Fan Motor Output	kW	0.4					
Weight	kg	3,960			4,900		
Dimensions (W×D×H)	mm	2,500×1,600×1,925			2,800×1,800×1,950		
Sound Level (1.5m from front side)	dB(A)	70			71		

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

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

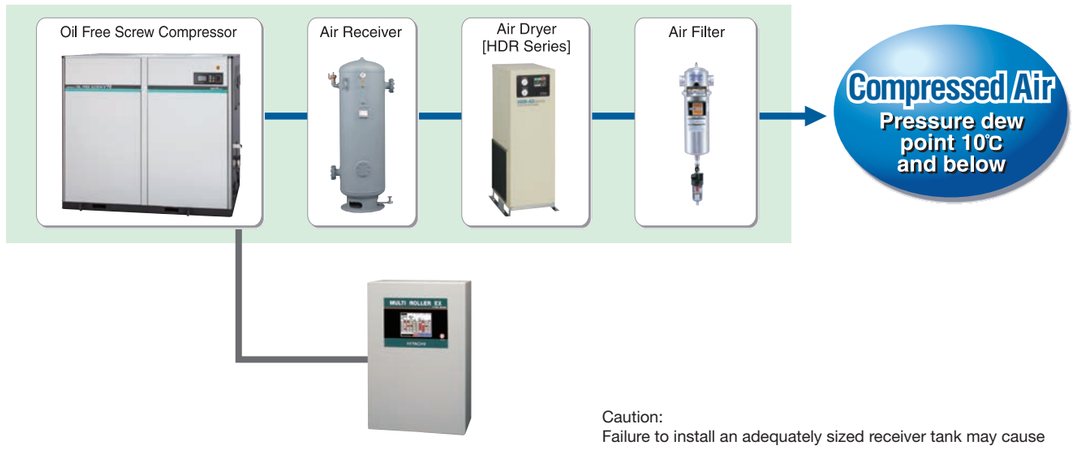
Water-Cooled, Fixed Speed Model (132-240kW)

Item・Unit	Model	DSP-132W5N2 / DSP-132W6N2			DSP-145W5N2 / DSP-145W6N2			DSP-160W5N2 / DSP-160W6N2			DSP-200W5N2 / DSP-200W6N2			DSP-240W5N2 / DSP-240W6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	23.4	20.7	19.6	26.0	22.2	20.6	28.5	24.8	23.2	37.0	32.2	30.0	40.5	35.0	32.5
Nominal Motor Output	kW	132			145			160			200			240		
Motor Type	—	4-Pole TEFC Flange Motor														
Intake Air Pressure / Temperature	℃	Atmospheric Pressure / 0 - 45														
Discharge Air Temperature	℃	Cooling Water Temperature+13 or below														
Discharge Air Pipe Diameter	B	2-1/2 (Flange)									3 (Flange)					
Starting Method	—	Star-Delta (3-contact)														
Driving Method	—	Direct Connection With Motor+Gear-Driven														
Cooling Water Flow Rate	L/min	200			210			240			300			330		
Cooling Water Temperature	℃	35 or below									35 or below					
Coolant Water Pipe Diameter	B	Rc2									Rc2					
Lubricating Oil Quantity	L	40 (Not filled)									50 (Not filled)					
Cooling Fan Motor Output	kW	0.4														
Weight	kg	3,760									4,600					
Dimensions (W×D×H)	mm	2,500×1,600×1,925									2,800×1,800×1,950					
Sound Level (1.5m from front side)	dB(A)	68	69		69	70		69	70		69	70		70	71	

NOTE:
1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments
3. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
4. Earth leakage circuit breaker is out of supply scope from Hitachi.
5. These air compressors are not designed, intended or approved for breathing air applications.
6. Pressures are indicated as the gauge pressure.
7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
8. Rear duct (200mm depth) and other protruding objects such as a discharge pipe are not included in dimension.
9. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

Auxiliary Equipment & Options

Oil Free Screw Compressed Air System



Caution:
Failure to install an adequately sized receiver tank may cause the DSP compressor to frequently load / unload. This may shorten the mechanical life of the compressor.

Control Panel

Multi Unit Controller (MULTI ROLLER EX)

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

Standard Specification

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

Alternate Operation Controller (Dual Roller III)

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

Standard Specification

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

HITACHI ROTARY COMPRESSOR OIL

HITACHI Genuine Lubricating Oil designed for Hitachi Rotary Screw Compressor

Features

- Originally Designed for Hitachi Rotary Screw Compressor
- High Performance
- High Reliability

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Density @15℃	kg/L	0.86
Viscosity @40℃	mm²/s	32.6
Viscosity Index	—	102
Flash Point	℃	＞200
Content	L	20
Package	—	Plastic Container Tank
Weight	kg	About 18
Exchange Cycle	—	HISCREW: 3,000 operating hours or 1 year which comes earlier DSP: Every half year

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

HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

HITACHI Genuine Lubricating Oil for Hitachi Air Compressor Used in Food Industry

NSF
Nonfood Compoun
Program Listed Hds
NSF-Reg.No. 150661
-58

Features

- Comply with the international hygiene control method for food safety, HACCP*1
- Consist of ONLY prescript substances specified by the US FDA*2
- Approved and registered as H1 grade*4 by the US NSF International*3
- Applicable for both HITACHI Rotary Screw Compressor (HISCREW/DSP)

*1 Hazard Analysis Critical Control Point
*2 Food and Drug Administration
*3 National Sanitation Foundation International
*4 The OIL can be used in places where it can make occasional contact with foods.
The materials must be prescript substances regulated in the US Food and Drug Law: FDA21 CFR178.3570.

Specifications

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

NOTE:
1. Compliance Standard / Law: NSF H1 approval No. 138329 and FDA21 CFR178.3570
2. For retrofitting from conventional mineral oil to HITACHI FOOD GRADE DSP OIL, contact your nearest Hitachi authorized distributor / dealer.

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

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

Hitachi Air Dryer HDR (Large Size) series

HFC Refrigerant
R407C

HDR-150AX

Specifications

Item・Unit \ Model		HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Max. Inlet Pressure of Compressed Air	MPa	0.30 – 0.97				0.30 – 0.93		0.30 – 0.97				0.30 – 0.93	
Max. Inlet Temperature of Compressed Air	℃	60											
Ambient Temperature	℃	2 – 40											
Dew Point of Outlet Air	℃	10 Under Pressure											
Cooling Method of Condenser	—	Water-Cooled						Air-Cooled					
Refrigerant Control Device	—	Capillary Tube											
Capacity Control Device	—	Hot Gas Bypass Valve											
Refrigerant Used	—	R407C											
Charged Quantity	g	1,900	2,000	2,700	3,400	4,000	4,000	2,200	3,600	3,500	4,400	5,000	6,000
Finish Color	—	Ivory (Munsell No. 5Y8.5/1)											
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0	—					
Pipe Diameter	B	2-1/2*	3*		4*	5*		2-1/2*	3*		4*	5*	
Dimensions (W×D×H)	mm	672×1,260 ×1,276	950×1,290×1,332		1,969×905 ×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											

∗ JIS 10K Flange

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

Line Filter

Air Filter*1

Micron Mist Filter*2

Activated Carbon Filter*3

Specifications

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

∗ JIS 10K Flange

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

Energy Saving from Various Combinations V-type based Systems

Proposal for Energy-Saving

Three proposal systems responding to various requirements
Combination V-type with Fixed Speed Model achieves

Energy saving operation without external controller

V-M Combination System

Energy saving operation by one V-type and maximum two Fixed Speed Model

Energy saving operation with external controller

Single-V System

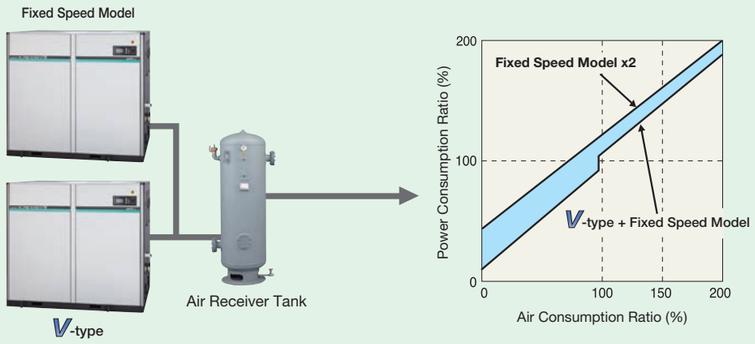
Energy saving operation by one V-type and more than one Fixed Speed Model with multi-unit controller.

Energy saving operation by more than one V-type with multi-unit controller

Multi-V System

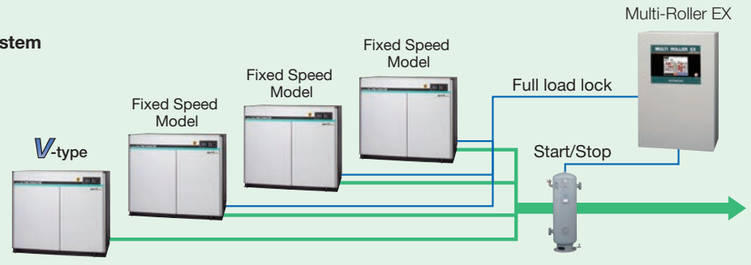
Energy saving operation and averaging V-type operating hour

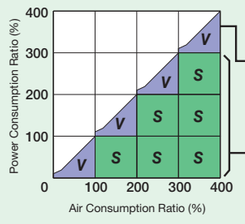
■ Basic Example of V-M Combination System



■ **Single-V (Multi-V)**
Example of Multi-Unit Control System

Multi-Roller EX +
DSP V-type+
DSP Fixed Speed Models





Explanation

V-type
Always running, follow the fluctuation of air consumption

Fixed speed type or V-type
Full load or stop

*S indicates Fixed Speed Model.

Options

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

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

⚠ Safety Precautions

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

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

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