

# OIL FREE SCREW

SINGLE STAGE / TWO STAGE



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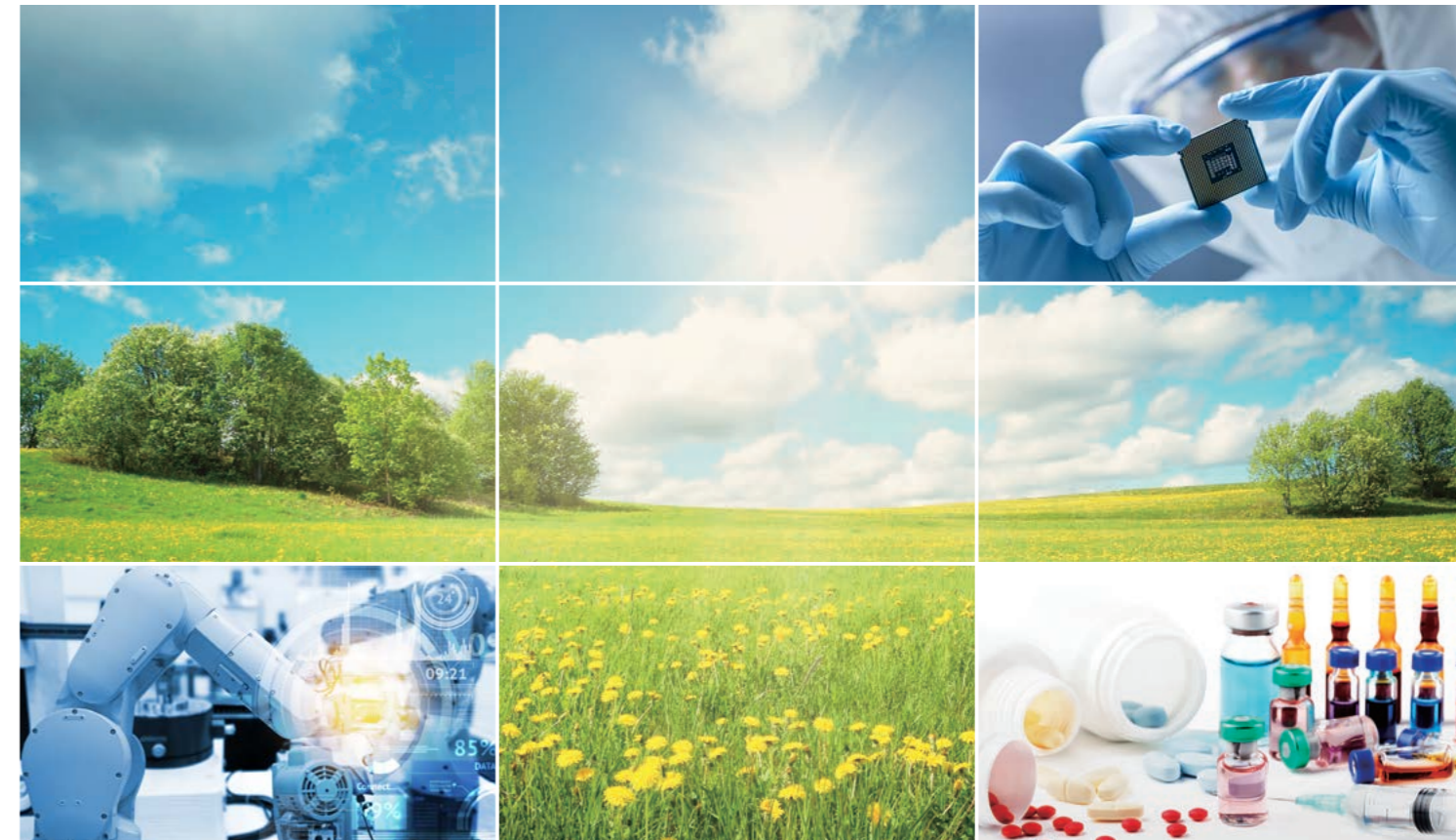
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**Hitachi Industrial Equipment Systems Co., Ltd.**

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**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.

# 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".



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

**NEXT II series**

MPa: 0.30/0.40/0.70  
m<sup>3</sup>/min: 2.0 - 8.5

- VSD
- 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  
m<sup>3</sup>/min: 3.2 - 21.0

- VSD
- 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

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



#### Oil Free Screw (DSP) Model List

● Fixed Speed Type

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

● : NEXT II Series

#### High Performance Air-End

##### Stainless Steel Rotor

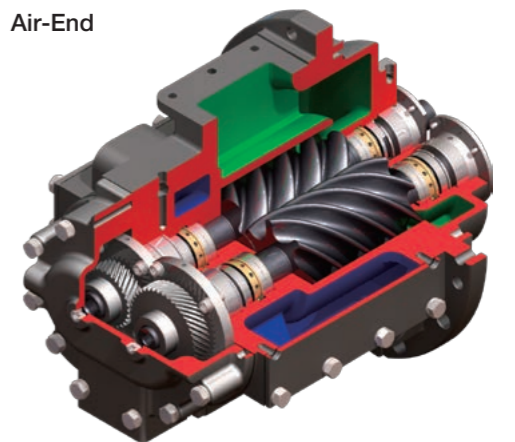
Particular stainless steel, which is superior in corrosion resistance and durability, is applied for rotor with highly accurate grinding. Furthermore, compensated profile, which is optimized for thermal expansion during operation, enables to keep optimal clearance.

##### High Performance Coating

Patent JP05416072

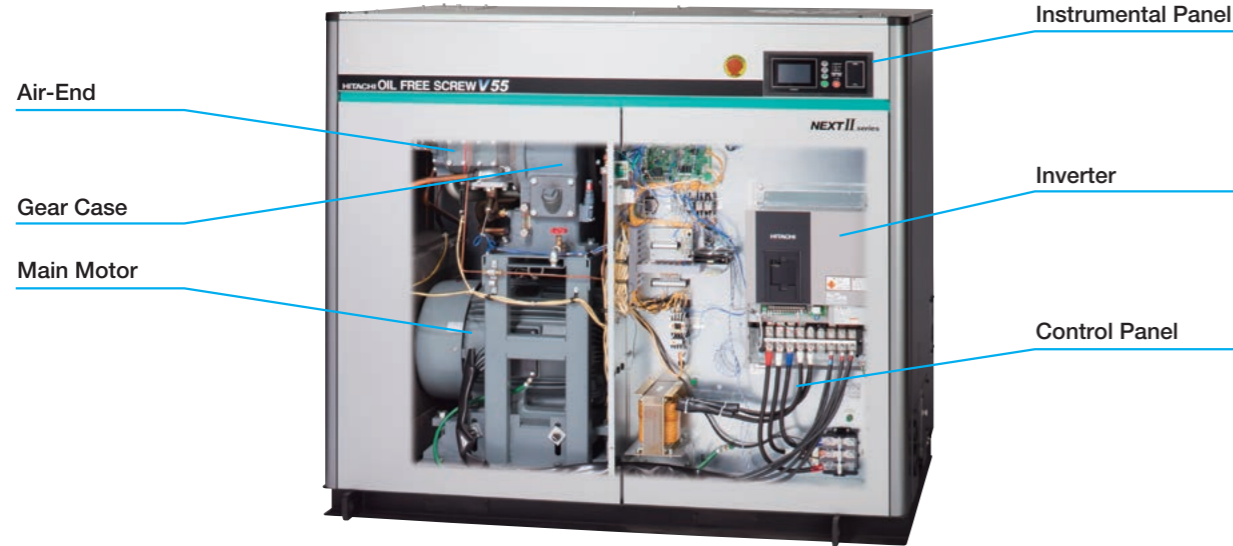
Hitachi original coating, which can withstand the high temperature of over 300°C, protects the rotors from a decrease in performance (efficiency, air purity, etc.).

Air-End



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

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

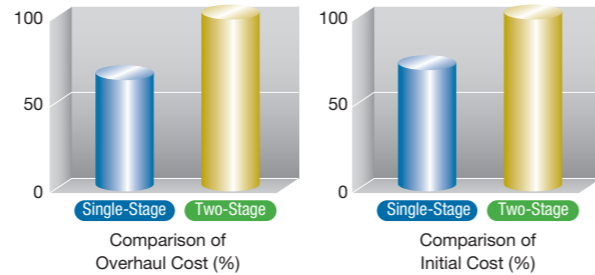


\*The above picture shows the internal structure of 55kW Air-Cooled model (V-type).

## 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.

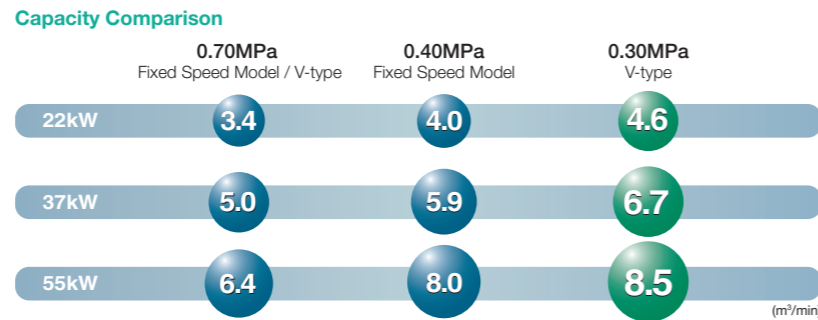


\*Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer model

## Expanded Line-Up (Low Pressure)

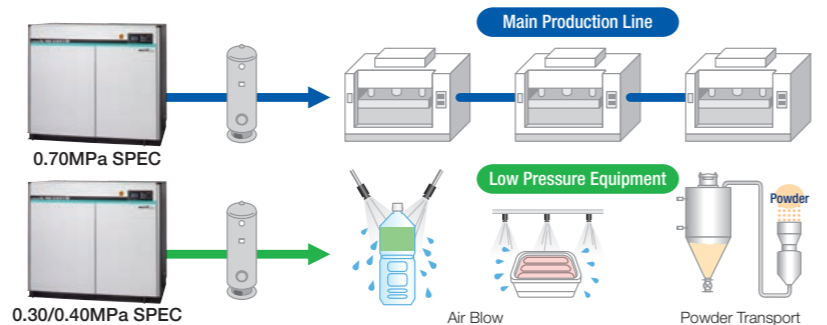
### 0.30MPa model is newly added

V-type 0.30MPa and Fixed Speed Model 0.40MPa models are 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)

[ ] : 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	
		MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa
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	°C	Atmospheric Pressure / 0 - 45 [2 - 45]							
Discharge Temperature	°C	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			
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)]	
	Refrigerator Nominal Output	[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							
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			
		MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa		
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	Discharge Pressure	0.60		0.60		0.60		0.60		0.60			
	Discharge Air Capacity	3.7		5.5		7.0		5.5		7.0			
WIDEMODE	Discharge Pressure	0.40 [0.50]		0.40 [0.50]		0.40 [0.50]		0.40		0.40			
	Discharge Air Capacity	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	°C	Atmospheric Pressure / 0 - 45 [2 - 45]						Atmospheric Pressure / 0 - 45					
Discharge Temperature	°C	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	°C	—						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)]		—		—			
	Refrigerator Nominal Output	[1.2]		[1.45]		[1.45]		—		—			
Refrigerant	[R410A]		[R410A]		[R410A]		—		—				
Weight	kg	900 [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		1,830x980x1,580			
Sound Level (1.5m from front)	dB(A)	63	64	66	68	68	70	64	66	64	66		

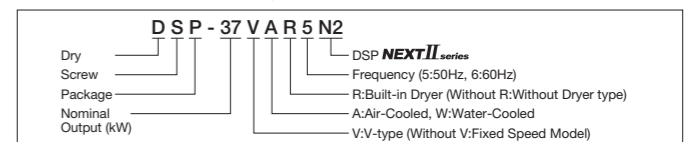
#### Water-Cooled, Fixed Speed Model (15-55kW)

Item·Unit	Model	DSP-15W5N2 DSP-15W6N2		DSP-22W5N2 DSP-22W6N2		DSP-37W5N2 DSP-37W6N2		DSP-55W5N2 DSP-55W6N2	
		MPa	MPa	MPa	MPa	MPa	MPa	MPa	MPa
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	°C	Atmospheric Pressure / 0 - 45							
Discharge Air Temperature	°C	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	°C	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 (WxDxH)	mm	1,400x970x1,400							
Sound Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66

#### NOTE:

- Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 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.
- 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.
- Built-in dryer 0.30MPa model is NOT available.
- Capacity after built-in dryer is decreased by 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.
- Earth leakage circuit breaker is out of supply scope from Hitachi.
- These air compressors are not designed, intended or approved for breathing air applications.

- Pressures are indicated as the gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Protruding objects such as discharge pipe are not included in Dimension.
- 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)

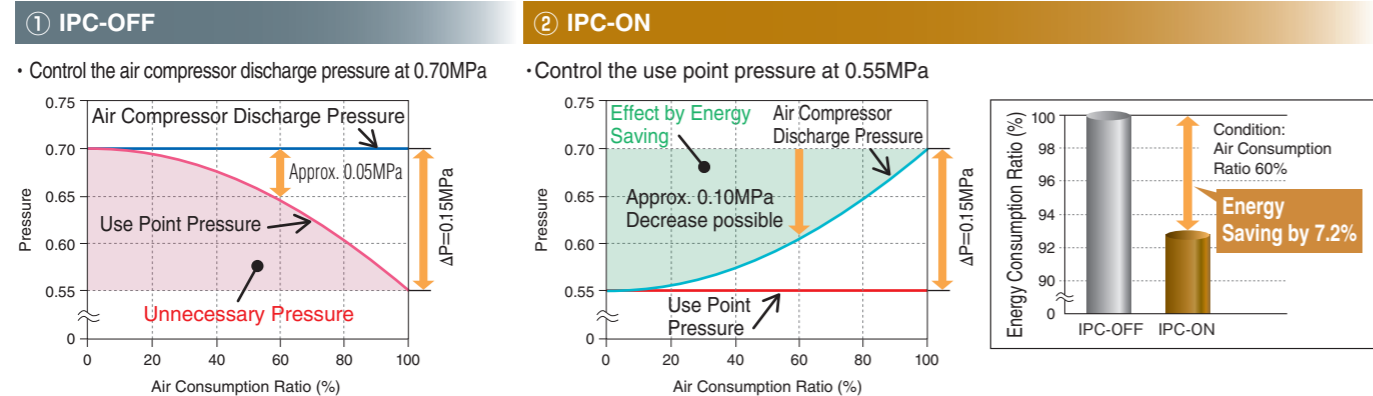
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

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)



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

## IT Communication Functions

### USB Flash Memory Possible for Data Logging

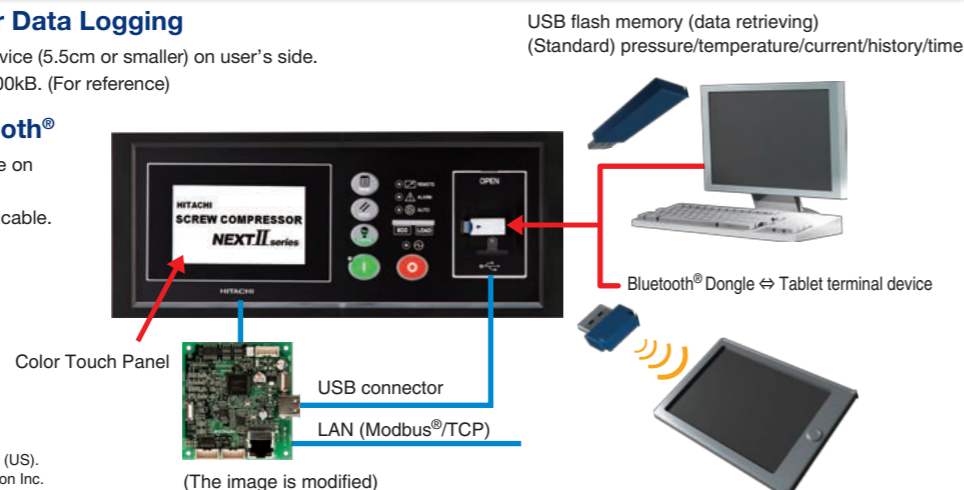
- \*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user's side.
- \*Operation data for one day is approximately 400kB. (For reference)

### 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.

## 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
Discharge Air Capacity	m <sup>3</sup> /min	3.7	3.2	4.7	4.0	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	
Motor Type	—	4-Pole TEFC				6-Pole DCBL	
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 – 45 [2 – 45]				Atmospheric Pressure / 0 – 45 [2 – 45]	
Discharge Temperature	°C	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)	
P.D.P	°C	[10 (Under Pressure)]				[10 (Under Pressure)]	
[Dryer] Refrigerator Nominal Output	kW	[1.45]				[1.45]	
[Dryer] Refrigerant	—	[R410A]				[R410A]	
Weight	kg	1,120 [1,180]		1,230 [1,290]		950 [1,010]	
Dimensions (W×D×H)	mm	1,530×1,150×1,650				1,530×1,150×1,650	
Noise Level (1.5m from front side)	dB(A)	63	64	65	66	66	67

### 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
Discharge Air Capacity	m <sup>3</sup> /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
Discharge Air Capacity at PQ wide ON of 0.6MPa								12.6	10.9
Nominal Motor Output	kW	45		55		75		75	
Motor Type	—	2-Pole TEFC Flange				6-Pole DCBL			
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 – 45 [2 – 45]				Atmospheric Pressure / 0 – 45 [2 – 45]			
Discharge Temperature	°C	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)	
P.D.P	°C	[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	1,600 [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

### 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
Discharge Air Capacity	m <sup>3</sup> /min	16.6	13.9	18.0	15.4	18.0	15.4
Nominal Motor Output	kW	90		100		120	
Motor Type	—	2-Pole TEFC Flange				2-Pole TEFC Flange	
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 – 45				Atmospheric Pressure / 0 – 45	
Discharge Temperature	°C	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

NOTE:

- Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 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.
- 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.
- Capacity after built-in dryer is decreased by 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.

- Earth leakage circuit breaker is out of supply scope from Hitachi.
- These air compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Protruding objects such as discharge pipe are not included in Dimension.
- 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).

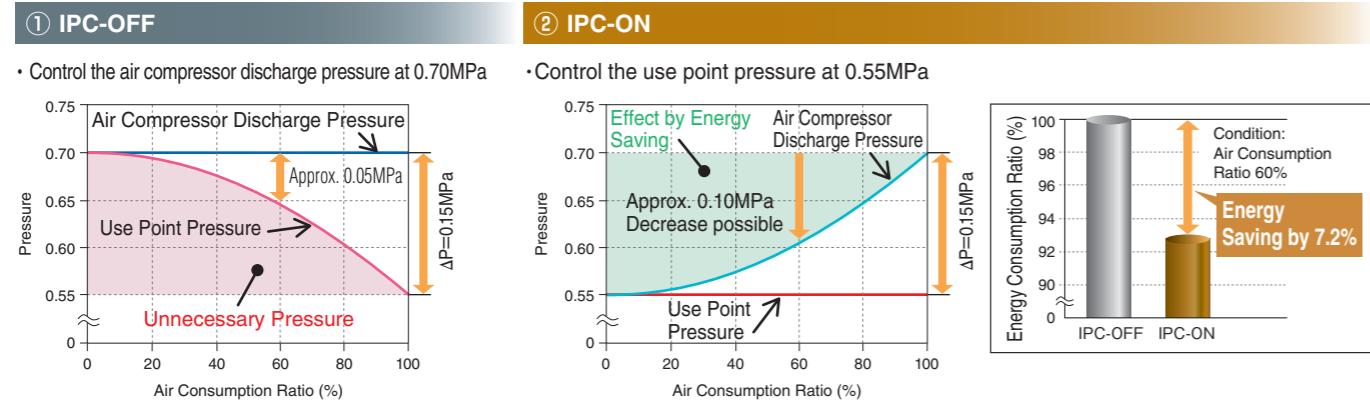
## IPC Control (Intelligent Pressure Control)

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)



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

## IT Communication Functions

### USB Flash Memory Possible for Data Logging

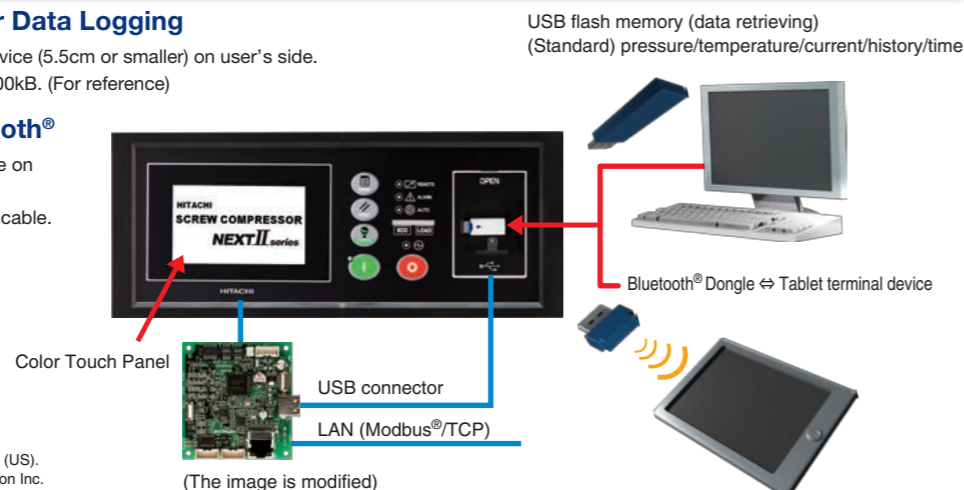
- \*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user's side.
- \*Operation data for one day is approximately 400kB. (For reference)

### 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.

## Specifications

### Water-Cooled 45/55/75kW

[ ] : Indicates model with Dryer integrated.

Item·Unit	Model	Fixed Speed Model				V-type 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
Discharge Air Capacity (50Hz/60Hz)	m <sup>3</sup> /min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	13.2	10.7/11.3
Discharge Air Capacity at PQ wide ON of 0.6MPa	m <sup>3</sup> /min	-					
Nominal Motor Output	kW	45		55		75	
Motor Type	-	2-Pole TEFC Flange				6-Pole DCBL	
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0 - 45 [2 - 45]					
Discharge Temperature	°C	Cooling Water Temperature +13 or below					
Discharge Pipe Diameter	B	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	0.05x2				0.05x2	
Cooling Water Capacity	L/min	90		120		90	
Cooling Water Temperature	°C	35 or below					
Cooling Water Pipe Diame	B	Rc 1-1/4					
[Dryer] P.D.P	°C	[10 (Under Pressure)]					
[Dryer] Refrigerator Nominal Output	kW	[2.2]		[3.0]		[2.2]	
[Dryer] Refrigerant	-	[R410A]		[R407C]		[R410A]	
Weight	kg	1,580 [1,730]		1,710 [1,880]		1,320 [1,470]	
Dimensions (WxDxH)	mm	2,000x1,300x1,800					
Noise Level (1.5m from front side)	dB(A)	63		63		65	

### 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	DSP-100VW5MN2 DSP-100VW6MN2	
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 Motor Output	kW	90		100		120	
Motor Type	-	2-Pole TEFC Flange				2-Pole TEFC Flange	
Intake Air Pressure / Temperature	-	Atmospheric Pressure / 0 - 45					
Discharge Temperature	°C	Cooling Water Temperature +13 or below					
Discharge Pipe Diameter	B	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	°C	35 or below					
Cooling Water Pipe Diame	B	Rc 1-1/2					
Weight	kg	2,050		2,230		2,200	
Dimensions (WxDxH)	mm	2,150x1,520x1,825					
Noise Level (1.5m from front side)	dB(A)	66	68	67	69	69	70

NOTE:

- Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 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.
- 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 0.6MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.6MPa of discharge pressure PQ WIDEMODE ON.
- Capacity after built-in dryer is decreased by 3%.
- In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C.
- Earth leakage circuit breaker is out of supply scope from Hitachi.
- These air compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Protruding objects such as discharge pipe are not included in Dimension.
- 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 NEXT II series Air-End**

**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.

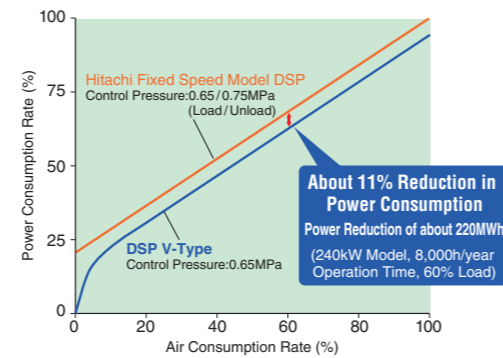
**High precooler system (Air-Cooled models)**  
High precooler system reduces temperature of extremely hot air after aftercooler and Two-Stage cooling structure improves reliability.

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

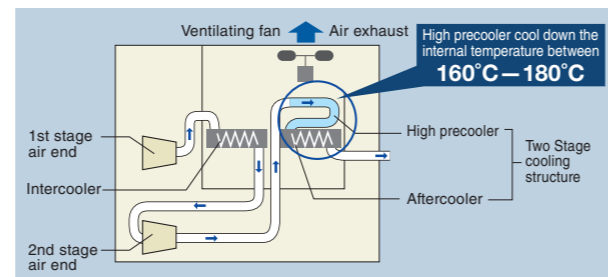
**Maintenance Friendly**  
DSP series provides easy accessibility for inspection and maintenance.

**Energy-Saving (V-type)**

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.



## Specifications

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

Item·Unit	Model	DSP-160VW5N2 DSP-160VW6N2			DSP-240VW5N2 DSP-240VW6N2		
		0.75	0.93	1.0	0.75	0.93	1.0
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m <sup>3</sup> /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	°C	Atmospheric Pressure / 0 - 45					
Discharge Air Temperature	°C	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	°C	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 (WxDxH)	mm	2,500x1,600x1,925			2,800x1,800x1,950		
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		
		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 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 Motor Output	kW	132			145			160			200			240		
Motor Type	—	4-Pole TEFC Flange Motor														
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 - 45														
Discharge Air Temperature	°C	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)			4.4 (1.1x4)			60 (Not filled)			6.0 (1.5x4)					
Cooling Fan Motor Output	kW	—			—			—			—					
Weight	kg	3,860			3,960			5,000			—					
Dimensions (WxDxH)	mm	2,900x1,700x1,925			3,200x1,890x1,950			—								
Sound Level (1.5m from front side)	dB(A)	73	74	74	75	74	75	76	77	77	77	78	78	78	78	78

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

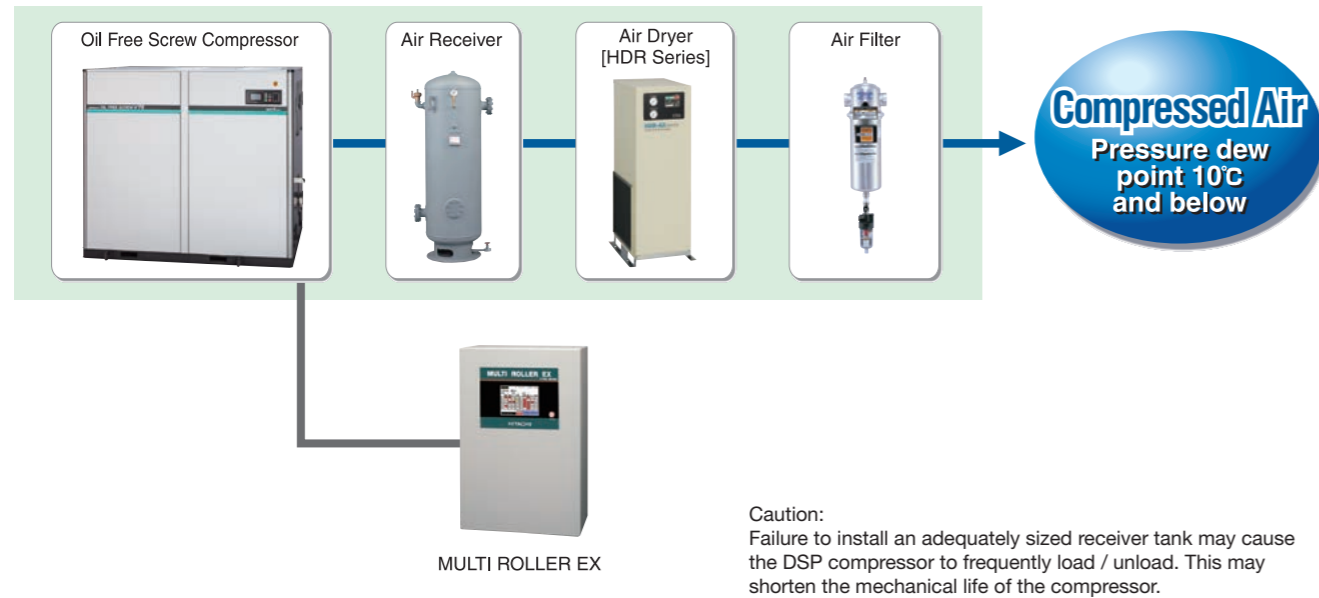
Item·Unit	Model	DSP-132W5N2 DSP-132W6N2			DSP-145W5N2 DSP-145W6N2			DSP-160W5N2 DSP-160W6N2			DSP-200W5N2 DSP-200W6N2			DSP-240W5N2 DSP-240W6N2		
		0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	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 Motor Output	kW	132			145			160			200			240		
Motor Type	—	4-Pole TEFC Flange Motor														
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 - 45														
Discharge Air Temperature	°C	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	°C	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 (WxDxH)	mm	2,500x1,600x1,925			2,800x1,800x1,950						—					
Sound Level (1.5m from front side)	dB(A)	68	69	69	70	69	70	69	70	70	70	70	71	71	71	71

#### NOTE:

- Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 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.
- 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.
- Earth leakage circuit breaker is out of supply scope from Hitachi.
- These air compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- Rear duct (200mm depth) and other protruding objects such as a discharge pipe are not included in dimension.
- 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



## Control Panel

### Multi Unit Controller (MULTI ROLLER EX)

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



### Alternate Operation Controller (Dual Roller III)

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



### Standard Specification

Item	Model	Unit	MR 26-4	MR 26-8	MR 26-12
Power Supply	—		Single-phase AC100/200V (Common)		
Frequency	—		50/60Hz (Common)		
Controlled Unit	—		4	8	12
Input	Discharge Pressure	MPa	0 – 1 (Digital Indication)		
	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 (WxDxH)	mm	400×200×600	500×200×900	500×200×1,200	
Weight	kg	19	32	37	

### Standard Specification

Item	Model	Unit	SDR-3
Power Supply	—		AC100V (−10%+10%)
Power Supply Frequency	—		[Possible for AC200V by switching connector] 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
	Stop × 2	—	Pulse AC250V0.3A
	Load/Unload Command × 2	—	Dry contact
	Status × 2	—	AC250V0.3A
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		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°C	kg/L	0.86
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	—	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

#### 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°C	kg/L	0.84
Viscosity @40°C	mm <sup>2</sup> /s	32.8
Flash Point	°C	200
Pour Point	°C	-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.



# 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-22AXII	HDR-37AXII	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
Max. Inlet Pressure of Compressed Air	MPa	0.30 - 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	—	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 (WxDxH)	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:

- 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-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 - 0.93					
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												
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	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*		2-1/2*	3*		4*	5*		
Dimensions (WxDxH)	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:

- 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	Air	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											
	Use	Inlet Air Pressure	MPa	0.69											
		Applicable Fluid	—	Compressed Air											
Air Filter	Condition	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)
	Use	Inlet Air Temperature Range	°C	5 - 60											
		Ambient Temperature Range	°C	2 - 60											
Micron Mist Filter	Filtration Rating	µm	1*1												
	Filtration Efficiency	%	99.999												
	Pressure	Initial	MPa	0.005 or below											
		Drop (Loss) 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	590×1,511	640×1,735	
	Drain Outlet Diameter	B (A)	Rc1/4 (8)												
Weight	kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73		
Activated Carbon Filter	Use	Inlet Air Temperature Range	°C	5 - 60											
		Ambient Temperature Range	°C	2 - 60											
	Density of Oil in the Discharge Air	w/ppm	0.01*2												
	Pressure	Initial	MPa	0.01											
		Drop (Loss) 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	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		

\* 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.

# Systems and Options

## 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

Energy saving operation with external controller

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

#### V-M Combination System

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

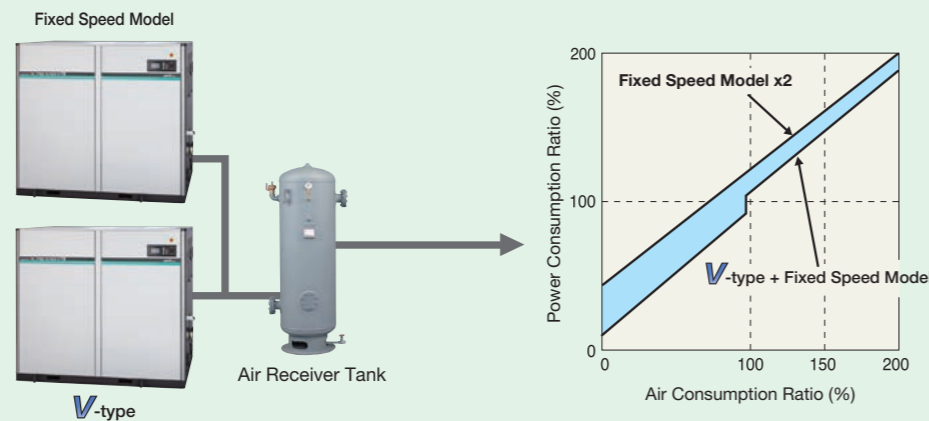
#### Single-V System

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

#### Multi-V System

Energy saving operation and averaging V-type operating hour

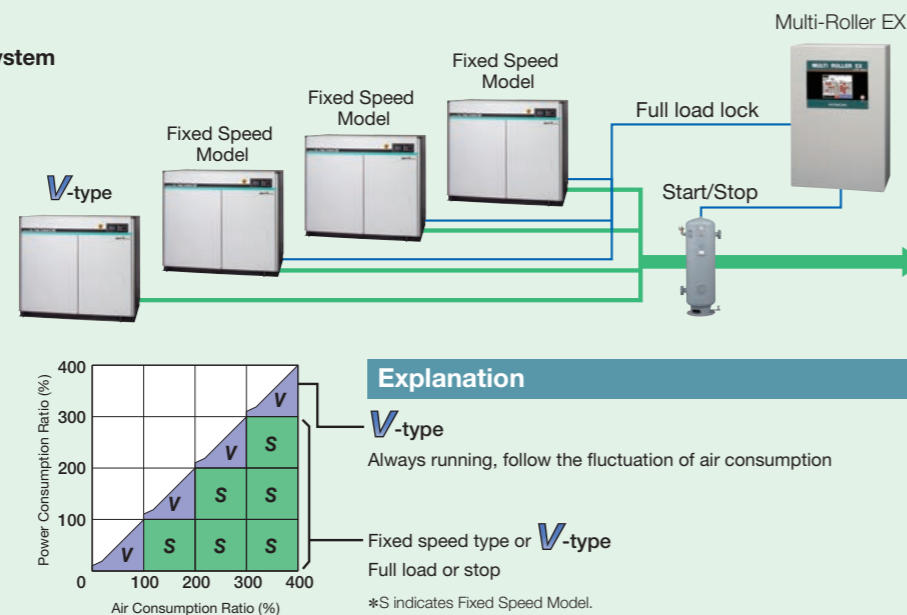
#### Basic Example of V-M Combination System



#### Single-V (Multi-V)

##### Example of Multi-Unit Control System

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



### 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 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.