

OIL FREE SCREW

SINGLE STAGE / TWO STAGE



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Hitachi Industrial Equipment Systems Co., Ltd.

For further information, please contact your nearest sales representative.



ISO14001
EC97J1107



ISO14001
EC97J1107



ISO9001
JQA-QM3443



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".



ISO8573-1:2010 CLASS 0 TÜV Certification

TÜV (The Technische Überwachungs Verein), a Germany based international test service provision third-party on aspects of technical safety and quality evaluation, is globally well-reputed on its neutrality and expertise as well as its strictness in testing.



Industry Standard in Energy-Saving, Environment Friendly and High Quality

- From small to large, Full Line-Up (15-240kW)

15-55kW Single-Stage

NEXT series

MPa: 0.30/0.40/0.70
m³/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
m³/min: 3.2 - 21.0

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



132-240kW Two-Stage

NEXT series

MPa: 0.75/0.93
m³/min: 20.7 - 40.5

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



NEW DSP series

- Fixed Speed
- Air-Cooled
- Without Dryer

MPa: 0.75/1.0
m³/min: 19.0 - 40.0



Oil Free Screw (DSP) Model List

● Fixed Speed Type

			Nominal Output (kW)															
Model			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)

			Nominal Output (kW)															
Model			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						●	●		●					●	●	

● : NEXT Series ● : NEXT II Series ● : NEW DSP Series

High Performance Air-End

Stainless Steel Rotor

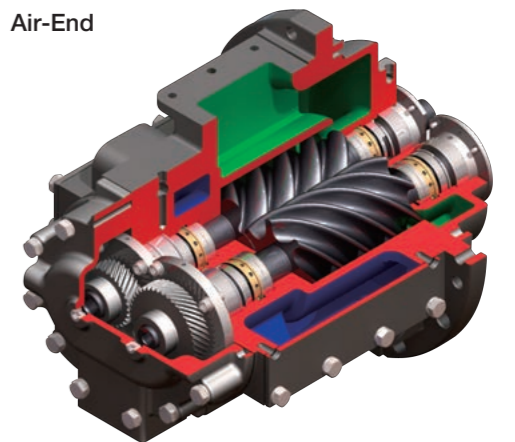
Particular stainless steel, which is superior in corrosion resistance and durability, is applied for rotor with highly accurate grinding. Furthermore, compensated profile, which is optimized for thermal expansion during operation, enables to keep optimal clearance.

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) and Single-Stage, Water-Cooled (37/55kW)

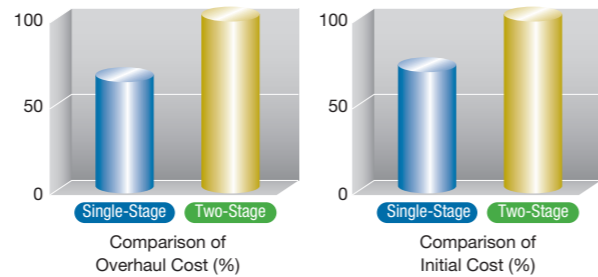


*The above picture shows the internal structure of 55kW Air-Cooled model (V-type).

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 half of two-stage for the same reason.

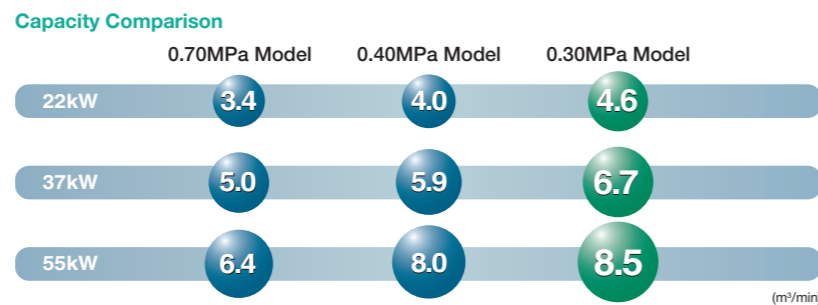


*Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer model

Expanded Line-Up (Low Pressure)

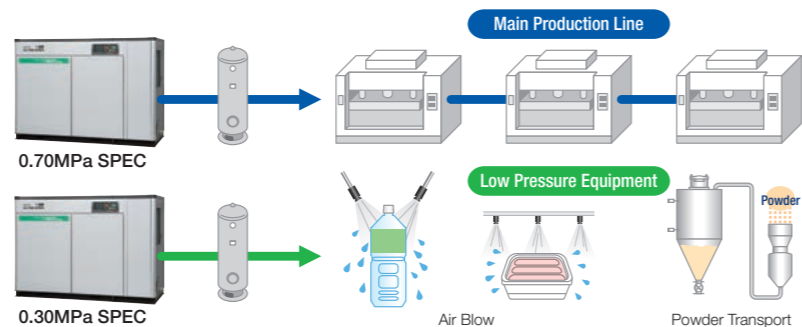
0.30MPa model is newly added

Air capacity is improved by the newly-developed high efficiency air-end.



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]5N DSP-15A[R]6N		DSP-22A[R]5N DSP-22A[R]6N		DSP-37A[R]5N DSP-37A[R]6N		DSP-55A[R]5N DSP-55A[R]6N		
		Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70
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 - 40 [5 - 40]								
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	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-
	Refrigerator Nominal Output	kW	[0.5]	-	[1.2]	-	[1.45]	-	[1.45]	-
	Refrigerant	-	[R407C]	-	[R410A]	-	[R410A]	-	[R410A]	-
Weight	kg	750 [780]		800 [860]		1,020 [1,170]		1,240 [1,390]		
Dimensions (WxDxH)	mm	1,400x970x1,400				1,830x980x1,580 [2,230x980x1,580]				
Sound Level (1.5m from front)	dB(A)	62	63	63	64	66	68	68	70	

Air-Cooled, V-type Model (22-55kW)

[] : indicates model with Dryer integrated

Item·Unit	Model	DSP-22VA[R]5N DSP-22VA[R]6N		DSP-37VA[R]5N DSP-37VA[R]6N		DSP-55VA[R]5N DSP-55VA[R]6N			
		Discharge Pressure	MPa	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		
PQ	Discharge Pressure	MPa	0.60	-	0.60	-	0.60	-	
	Discharge Air Capacity	m³/min	3.7	-	5.5	-	7.0	-	
WIDEMODE	Discharge Pressure	MPa	0.40 [0.50]	-	0.40 [0.50]	-	0.40 [0.50]	-	
	Discharge Air Capacity	m³/min	4.3 [4.0]	-	6.4 [6.0]	-	8.2 [7.6]	-	
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]			
Nominal Motor Output	kW	22		37		55			
Motor Type	-	4-Pole TEFC Motor							
Intake Air Pressure/Temperature	°C	Atmospheric Pressure/0 - 40 [5 - 40]							
Discharge Temperature	°C	Ambient Temperature +15 or below							
Discharge Air Pipe Connection	B	Rc1-1/2							
Starting Method	-	Inverter							
Driving Method	-	V-Belt+Gear-Driven							
Oil Quantity	L	12 (Not filled)			18 (Not filled)				
Cooling Fan Motor Output	kW	0.75				0.9			
Coolant Pump Motor Output (50/60Hz)	kW	0.2/0.3							
[Dryer]	P.D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	
	Refrigerator Nominal Output	kW	[1.2]	-	[1.45]	-	[1.45]	-	
	Refrigerant	-	[R410A]	-	[R410A]	-	[R410A]	-	
Weight	kg	850 [910]		1,080 [1,230]		1,180 [1,330]			
Dimensions (WxDxH)	mm	1,650x970x1,400				1,830x980x1,580 [2,230x980x1,580]			
Sound Level (1.5m from front)	dB(A)	63	64	66	68	68	70		

Water-Cooled Model (37/55kW)

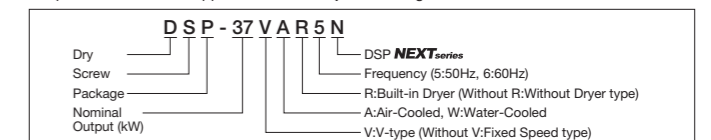
[] : indicates model with Dryer integrated

Item·Unit	Model	Fixed Speed Model				V type Model			
		DSP-37W5N DSP-37W6N		DSP-55W5N DSP-55W6N		DSP-37VWN		DSP-55VWN	
Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.30	0.70	0.30
Discharge Air Capacity	m³/min	5.0	5.9	6.4	8.0	5.0	6.7	6.4	8.5
PQ	Discharge Pressure	MPa	-	-	-	0.60	-	0.60	-
	Discharge Air Capacity	m³/min	-	-	-	5.5	-	7.0	-
WIDEMODE	Discharge Pressure	MPa	-	-	-	0.40	-	0.40	-
	Discharge Air Capacity	m³/min	-	-	-	6.4	-	8.2	-
PQ WIDEMODE Range	MPa	-		-		0.40 - 0.70		-	
Nominal Motor Output	kW	37		55		37		55	
Motor Type	-	4-Pole TEFC Motor				4-Pole TEFC Motor			
Intake Air Pressure/Temperature	°C	Atmospheric Pressure/0 - 40				Atmospheric Pressure/0 - 40			
Discharge Temperature	°C	Cooling Water Temperature +13 or below				Cooling Water Temperature +13 or below			
Discharge Air Pipe Connection	B	Rc1-1/2				Rc1-1/2			
Starting Method	-	Star-Delta (3 contact)				Inverter			
Driving Method	-	V-Belt+Gear-Driven				V-Belt+Gear-Driven			
Oil Quantity	L	14 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output	kW	0.1				0.2			
Cooling Water Flow Rate	L/min	80				80			
Cooling Water Temperature	°C	32 or below				32 or below			
Cooling Water Pipe Connection	B	Rc1				Rc1			
Weight	kg	970		1,190		1,050		1,150	
Dimensions (WxDxH)	mm	1,830x980x1,580				1,830x980x1,580			
Sound Level (1.5m from front)	dB(A)	64	66	64	66	64	66	64	66

NOTE:

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Sound Levels is the value at 1.5m in front and 1m height in an anechoic room. It varies in different operating conditions and/or different environment with echo of actual field installations.
- For V-type models, sound level is increased by 2dB at PQ WIDEMODE ON. P.D.P is measured at 30°C of intake air temperature and rated discharge pressure. P.D.P is much worse at 0.4MPa or less of discharge pressure. P.D.P rises 3°C at PQ WIDEMODE ON and 0.6MPa of discharge pressure.
- Air Capacity of Built-in Dryer model decreases by up to 3% when drain condensates.
- Discharge air temperature with Dust Proof option or Simple Package Filter option is ambient temperature + 18°C or below.
- Earth leakage circuit breaker is NOT equipped within. Prepare it in advance.

- Pressure is indicated as the gauge pressure.
- Dimensions do NOT include protruding objects such as piping.
- Specifications and/or appearances are subject to change without notice.



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



*The image described above has been modified.

IPC Control (Intelligent Pressure Control)

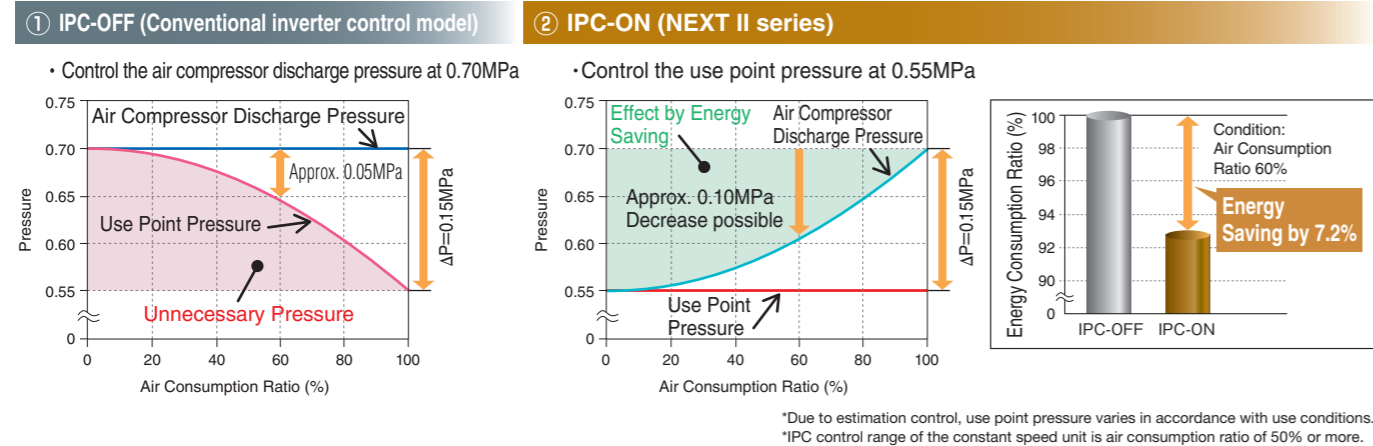
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

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)



IT Communication Functions

USB Flash Memory Possible for Data Logging

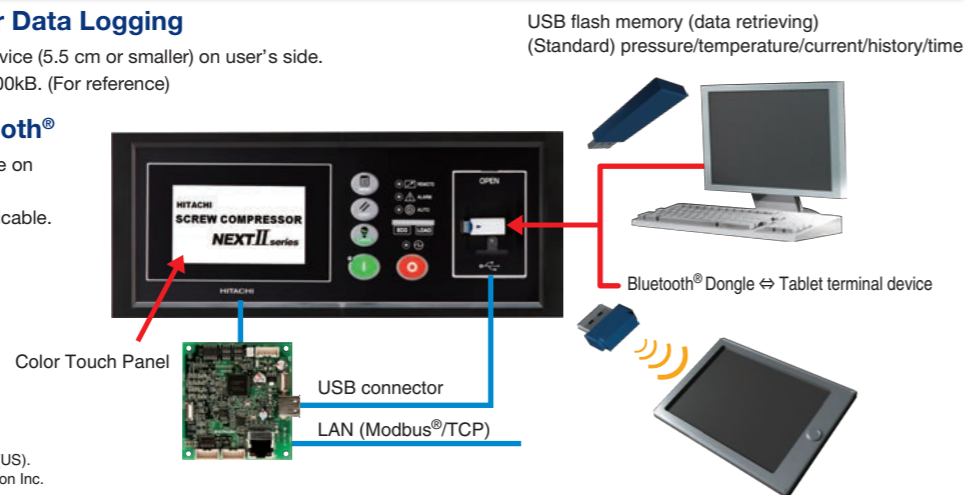
*Necessary to prepare a USB flash memory device (5.5 cm or smaller) on user's side.
*Operation data for one day is approximately 400kB. (For reference)

Web Server Function via Bluetooth®

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

Modbus® Communication

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



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

Specifications

■ Air-Cooled 22/37kW

Item·Unit	Model	Fixed Seed Model				V-type Model	
		DSP-22AT [R] 5N2	DSP-22AT [R] 6N2	DSP-30AT [R] 5N2	DSP-30AT [R] 6N2	DSP-37AT [R] N2	
Discharge Pressure	MPa	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	5.5	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] °C	
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)	
[Dryer] P.D.P	°C	[10 (Under Pressure)]				[10 (Under Pressure)]	
[Dryer] Refrigerator Nominal Output	kW	[1.45]				[1.45]	
[Dryer] Refrigerant	—	[R410A]				[R410A]	
Weight	kg	1,120 [1,180]		1,230 [1,290]		950 [1,010]	
Dimensions (W×D×H)	mm	1,530×1,150×1,650				1,530×1,150×1,650	
Noise Level (1.5m from front side)	dB(A)	63	64	65	66	66	67

■ Air-Cooled 45/55/75kW

Item·Unit	Model	Fixed Seed Model				V-type Model	
		DSP-45AT [R] 5N2	DSP-45AT [R] 6N2	DSP-55AT [R] 5N2	DSP-55AT [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
Discharge Air Capacity	m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	9.3	10.9
Discharge Air Capacity at PQ wide ON of 0.6MPa						9.6	12.6
Nominal Motor Output	kW	45		55		75	
Motor Type	—	2-Pole TEFC Flange				6-Pole DCBL	
Intake Air Pressure/Temperature	°C	Atmospheric Pressure·0 – 45 [2 – 45]				Atmospheric Pressure·0 – 40 [2–40]	
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)	
[Dryer] P.D.P	°C	[10 (Under Pressure)]				[10 (Under Pressure)]	
[Dryer] Refrigerator Nominal Output	kW	[2.2]				[2.2]	
[Dryer] Refrigerant	—	[R410A]				[R410A]	
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				2,000×1,300×1,800 2,250×1,300×1,800	
Noise Level (1.5m from front side)	dB(A)	63	65	63	65	63	68

■ Air-Cooled 90/100/120kW

Item·Unit	Model	Fixed Seed Model				V-type Model	
		DSP-90A5 [L] MN2	DSP-90A6 [L] MN2	DSP-100A5 [L] MN2	DSP-100A6 [L] MN2	DSP-100VA5MN2	DSP-100VA6MN2
Discharge Pressure	MPa	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	18.0	15.4
Nominal Motor Output	kW	90		100		100	
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 shows the flow rate converted in suction condition at rated discharge pressure.
- Noise Level is the value under the condition of full load running and auto-drain valves closed in an anechoic room. It may vary in different operating conditions and/or different environments with echo of actual field installations. Noise level might be increased by 3dB 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. might be worse at 0.40MPa or less of discharge pressure. P.D.P. might be 13 degree C at PQ WIDEMODE ON and 0.60MPa of discharge pressure.
- Free Air Delivery of Built-in Dryer model may decrease by up to 3% when drain condensates.
- Earth leakage circuit breaker is out of scope of supply from Hitachi.
- DSP series compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.
- For the quality of the cooling water, contact your nearest dealer or Hitachi local representative offices.
- Install the DSP indoors and avoid flammable and corrosive environment, moisture and dust.
- Motor output is nominal output.
- 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)



IPC Control (Intelligent Pressure Control)

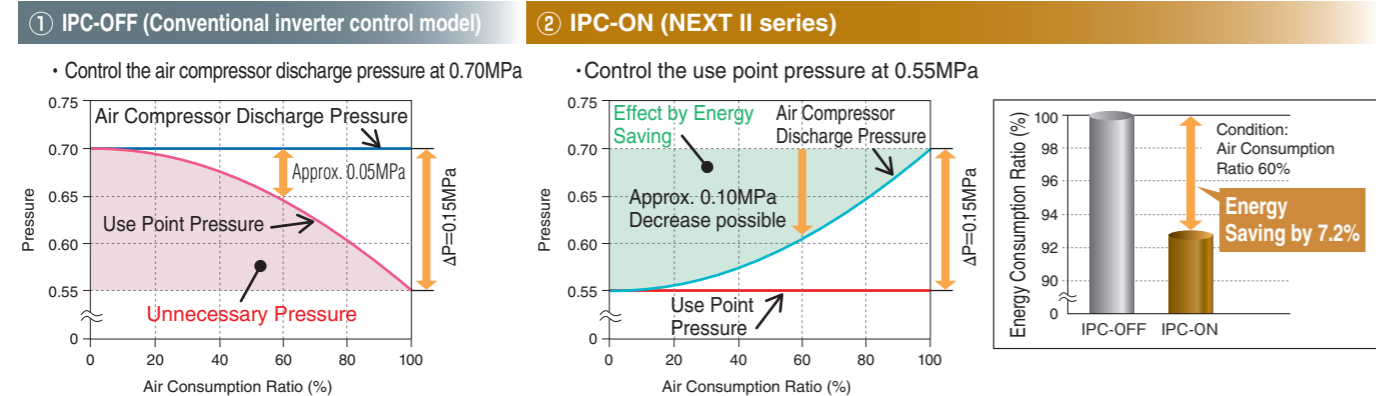
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

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.
*IPC control range of the constant speed unit is air consumption ratio of 50% or more.

IT Communication Functions

USB Flash Memory Possible for Data Logging

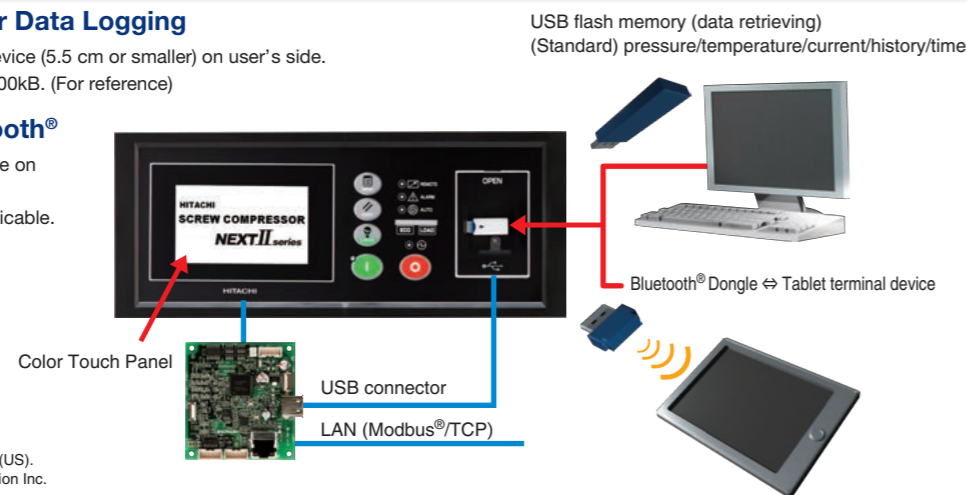
- *Necessary to prepare a USB flash memory device (5.5 cm or smaller) on user's side.
- *Operation data for one day is approximately 400kB. (For reference)

Web Server Function via Bluetooth®

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

Modbus® Communication

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



•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

Item · Unit	Model	Fixed Seed Model				V-type Model	
		DSP-45WT [R] 5N2	DSP-55WT [R] 5N2	DSP-75WT [R] 5N2	DSP-55VWT [R] N2	DSP-75VWT [R] N2	
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.93	
Discharge Air Capacity (50Hz/60Hz)	m ³ /min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	13.2	
Discharge Air Capacity at PQ wide ON of 0.6MPa	m ³ /min	-				10.7/11.3	9.8
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]				Atmospheric Pressure 0 - 45 [2 - 45]	
Discharge Temperature	°C	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	0.05x2				0.05x2	
Cooling Water Capacity	L/min	90		120		90	
Cooling Water Temperature	°C	35 or below				35 or below	
Cooling Water Pipe Diame	B	Rc 1 · 1/4				Rc 1 · 1/4	
[Dryer] P.D.P	°C	[10 (Under Pressure)]				[10 (Under Pressure)]	
[Dryer] Refrigerator Nominal Output	kW	[2.2]		[3.0]		[2.2]	
[Dryer] Refrigerant	-	[R410A]				[R410A]	
Weight	kg	1,580 [1,730]		1,710 [1,880]		1,320 [1,470]	
Dimensions (WxDxH)	mm	2,000x1,300x1,800				2,000x1,300x1,800	
Noise Level (1.5m from front side)	dB(A)	63		63		65	
						66	

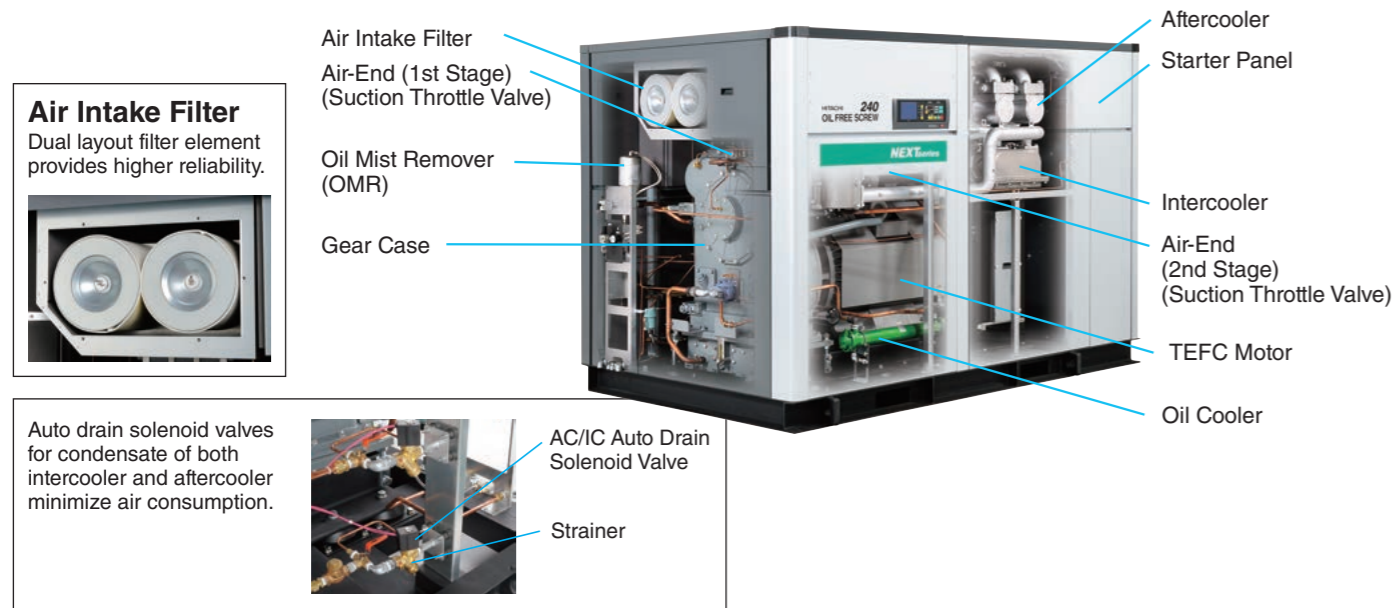
Water-Cooled 90/100/120kW

Item · Unit	Model	Fixed Seed Model				V-type Model	
		DSP-90W5 [L] MN2	DSP-100W5 [L] MN2	DSP-120W5MN2	DSP-100W5MN2	DSP-100W6MN2	
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.93	
Discharge Air Capacity	m ³ /min	16.8	14.0	18.3	15.6	21.0	
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				Atmospheric Pressure 0 - 45	
Discharge Temperature	°C	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	°C	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 (WxDxH)	mm	2,150x1,520x1,825				2,150x1,520x1,825	
Noise Level (1.5m from front side)	dB(A)	66	68	67	69	69	
					70	69	

NOTE:

- Capacity shows the flow rate converted in suction condition at rated discharge pressure.
- Noise Level is the value under the condition of full load running and auto-drain valves closed in an anechoic room.
It may vary in different operating conditions and/or different environments with echo of actual field installations.
Noise level might be increased by 3dB 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. might be worse at 0.40MPa or less of discharge pressure.
P.D.P. might be 13 degree C at PQ WIDEMODE ON and 0.60MPa of discharge pressure.
- Free Air Delivery of Built-in Dryer model may decrease by up to 3% when drain condensates.
- Earth leakage circuit breaker is out of scope of supply from Hitachi.
- DSP series compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.
- For the quality of the cooling water, contact your nearest dealer or Hitachi local representative offices.
- Install the DSP indoors and avoid flammable and corrosive environment, moisture and dust.
- Motor output is nominal output.
- 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)



High Capacity by Equipping New NEXTseries Air-End

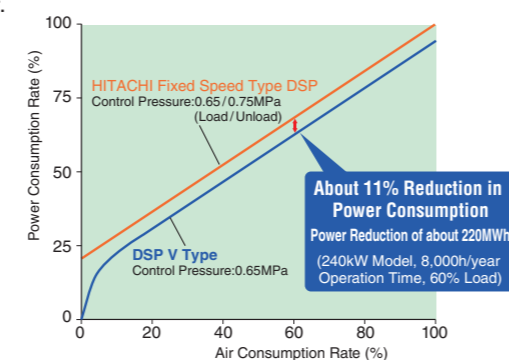
Low Noise and Vibration

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 NEXTseries with Built-in Inverter.



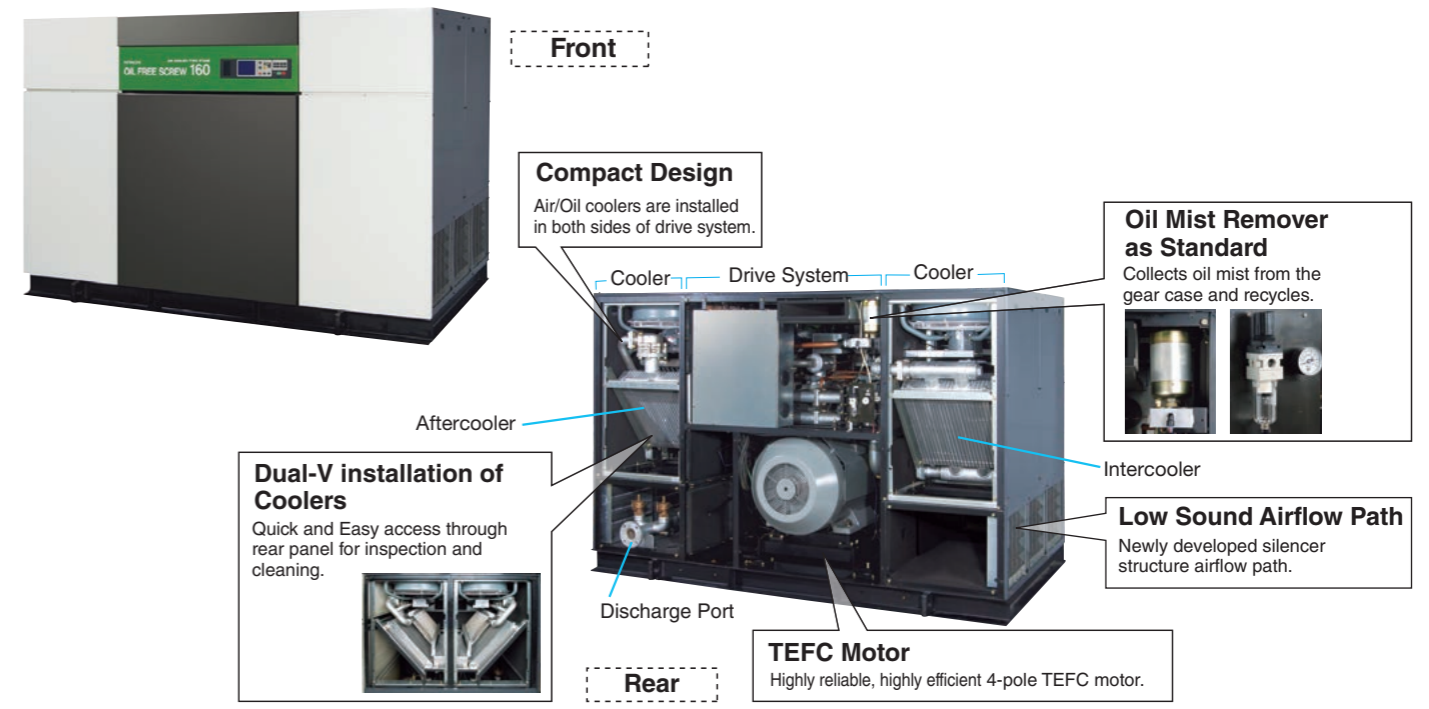
*Compared to conventional Load/Unload Control Type, lower pressure setting is possible due to the stable pressure control.

Specifications

Item · Unit	Model	Water-Cooled																	
		DSP-132W5N				DSP-145W5N				DSP-160W5N				DSP-200W5N				DSP-240W5N	
Cooling Method	—	Water-Cooled																	
Control Method	—	Fixed Speed Type								V type (VSD)									
Discharge Pressure	MPa	0.75	0.93	0.75	0.93	0.75	0.93	0.75	0.93	0.75	0.93	0.75	0.93	0.75	0.93	0.75	0.93		
Capacity	m ³ /min	23.4	20.7	26.0	22.2	28.5	24.8	37.0	32.2	40.5	35.0	28.5	24.8	40.5	35.0				
Nominal Output	kW	132		145		160		200		240		160		240					
Motor Type	—	4-Pole TEFC Flange Motor																	
Intake Air Press. / Temp.	—	Atmospheric Pressure / 0 – 40°C																	
Discharge Temperature	°C	Ambient Temperature + 15 or below																	
Discharge Pipe Diameter	B	2 1/2 (Flange)				3 (Flange)				2 1/2 (Flange)				3 (Flange)					
Starting Type	—	Star-Delta								Inverter									
Driving Method	—	Direct Connection with Motor + Gear Driving																	
Lubricating Oil Capacity	L	40 (Not filled)				50 (Not filled)				40 (Not filled)				50 (Not filled)					
Cooling Fan Motor Output	kW	0.4																	
Weight	kg	3,800				4,800				4,000				5,100					
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	70	70	71	71				

NOTE:
 1. Capacity is converted value at its inlet condition (atmospheric pressure).
 2. Sound Level is value at 1.5m in front and 1m height in an anechoic room. It may vary in different operating conditions and/or different environment with echo of actual field installations.
 3. Earth leakage circuit breaker is out of scope of supply from Hitachi.
 4. DSP NEXTseries compressors are not designed, intended or approved for breathing air applications.
 5. Pressures are indicated as the gauge pressure.
 6. For the quality of the cooling water, contact your nearest dealer or Hitachi local representative offices.
 7. Install the DSP indoors and avoid flammable and corrosive environment, moisture and dust.
 8. 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 (132/145/160/200/240kW)



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)

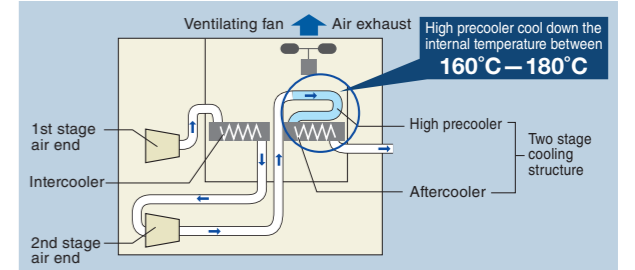
High precooler system reduces temperature of extremely hot air to aftercooler and two stage cooling structure improves reliability.

High Discharge Pressure Available

1.0MPa is available with high reliability.

Maintenance Friendly

DSP series provides easy accessibility for inspection and maintenance.



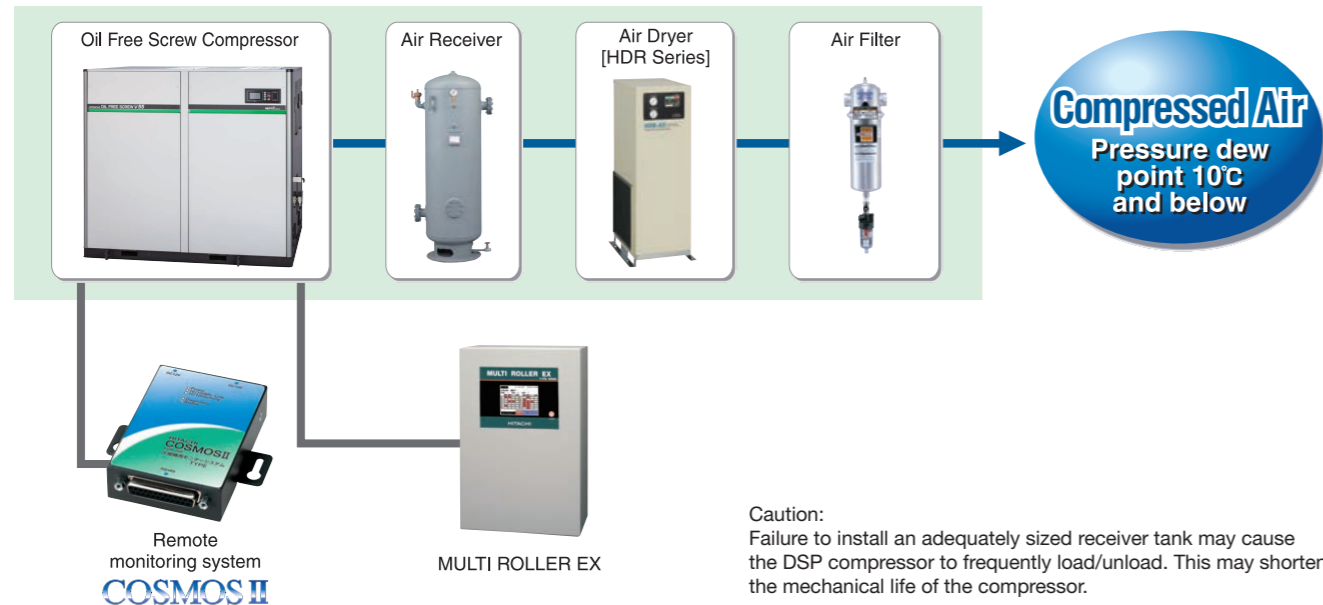
Specifications

Item · Unit	Model	Air-Cooled									
		DSP-132A5		DSP-145A5		DSP-160A5		DSP-200A5		DSP-240A5	
Cooling Method	—	Air-Cooled									
Discharge Pressure	MPa	0.75	1.0	0.75	1.0	0.75	1.0	0.75	1.0	0.75	1.0
Capacity	m ³ /min	22.5	19.0	25.0	20.0	27.5	22.5	35.5	30.0	40.0	32.5
Nominal Output	kW	132		145		160		200		240	
Motor Type	—	4-Pole TEFC Flange Motor									
Intake Air Press. / Temp.	—	Atmospheric Pressure / 0 – 40°C									
Discharge Temperature	°C	Ambient Temperature + 15 or below									
Discharge Pipe Diameter	B	2 1/2 (Flange)				3 (Flange)				3 (Flange)	
Starting Type	—	Star-Delta									
Driving Method	—	Direct Connection with Motor + Gear Driving									
Lubricating Oil Capacity	L	50 (Not filled)				60 (Not filled)					
Cooling Fan Motor Output	kW	4.4 (1.1 × 4)				6.0 (1.5 × 4)					
Weight	kg	3,900				4,000		5,200			
Dimensions (W×D×H)	mm	2,900×1,710×1,925						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

NOTE:
 1. Capacity is converted value at its inlet condition (atmospheric pressure).
 2. Sound Level is value at 1.5m in front and 1m height in an anechoic room. It may vary in different operating conditions and/or different environment with echo of actual field installations.
 3. Earth leakage circuit breaker is out of scope of supply from Hitachi.
 4. DSP series compressors are not designed, intended or approved for breathing air applications.
 5. Pressures are indicated as the gauge pressure.
 6. Install the DSP indoors and avoid flammable and corrosive environment, moisture and dust.
 7. 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	400x200x600	500x200x900	500x200x1,200	
Weight	kg	19	32	37	

Standard Specification

Item	Model	Unit	SDR-3	
Power Supply	—	—	AC100V (-10%+10%)	
Frequency	—	—	[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	—	—	
	Run [Operation] × 2	—	Connection using the contacts to which no voltage is applied [Power supply DC24V]	
	Failure [Shut down] × 2	—	—	
	Electric pulse · 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	*c"contact
	Status × 2	—	AC250V0.3A	*a"contact
Pressure detection	—	—	Built-in pressure sensor [0 - 1 MPa]	
Operation method	—	—	Following control [pressure/failure], Switching time [LAP/GAP], Schedule	
Standard function	—	—	Initial pump-up operation, Err. history, IPS restart, Remote operation	
Dimensions (WxDxH)	mm	—	300x160x400	
Weight	kg	—	10	

COSMOS II



COSMOS II (Compressor Status Monitoring System)

Web monitoring system shows real time status of compressors via office computer with high speed interface(100BASE-T).

Features

1 Labor saving

A COSMOS II module can set and monitor operating conditions of maximum four (4) DSP units, which saves costs of daily checking and facility workers.

2 Monitoring energy saving

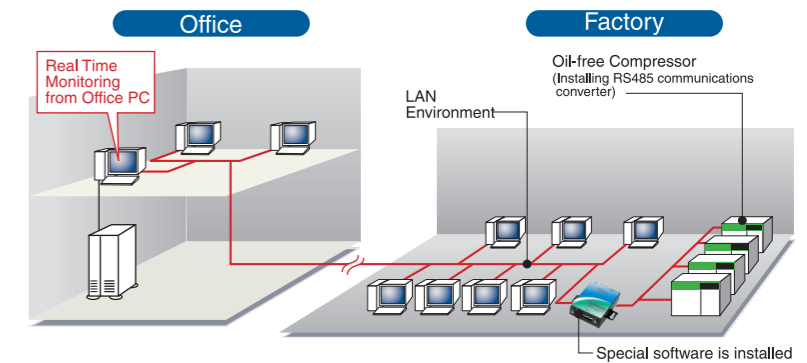
A COSMOS II module can monitor the history of compressor load from data of load factor, amperage, mean-load and other operating data.

3 Immediate failure notice

Operating conditions can be monitored visually by animations and bar charts. In an emergency, the operating data and shutdown history are conveyed immediately to make necessary maintenance quicker.

4 Easy installation

RS485 Multi Drop cable system is applied. In addition, connecting to existing LAN cable makes wiring construction easy and economical. When the optional database software is introduced, additional functions such as trend generation will be available to enhance the monitoring capability.



Specifications (model: COS-200)

Interface	RS485 (D-SUB 25-pin connector) - LAN (10/100BASE-T)	* Compressor requires converters for communications. Other applicable models will be lined up sequentially. * This system is only for COSMOS II body, and user shall do wiring separately. * For existing compressors already installed, please contact Hitachi authorized distributors. * The PC should be a DOS/V machine with Windows'98, XP, NT and 2000 and browser (IE6.0 or higher). * It always uploads data in a short time. However, due to facility condition, semantics may slow down. * Windows' is a registered trademark of Microsoft Corporation.
Transmission Speed	9600bps	
Communication System	Full duplex	
Synchronization System	Start-stop synchronous	
Isolation	None	
Compressor	DSP with control board ver. VO.Z.Z. or higher	
No. of Compressors Monitored	4 (monitoring timing with multi-monitor: 10 s)	
Transfer Format	Start bit: 1, data bit: 7, parity: even, stop bit: 1	
Dimensions and Weight	90 × 64 × 23mm, 200g	
Operating Environment	Temperature: 0-40°C, humidity: 30-80%	
Power Supply	100-240VAC (AC adapter:12V, 0.9A)	
LAN Protocol	TCP/IP	
RS485 Cable Length	250 m, max.	
Connector	D-SUB 25-pin Female (RS485), RJ-45 (10/100BASE-T)	

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



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)



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

*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
Density @15°C	kg/L	0.86
Viscosity @40°C	mm ² /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.

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Color Phase	—	Colorless and Transparent
Density @15°C	kg/L	0.84
Viscosity @40°C	mm ² /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 ³ /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	303x603x720		356x513x1,067	356x513x1,274	356x903x1,274	356x903x1,489	406x1,400x1,380	
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°C, inlet temperature of 45°C, inlet pressure of 0.70MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. The dimensions do NOT include protruding objects.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Hitachi Air Dryer HDR (Large Size) series

HFC Refrigerant
R407C



HDR-150AX

Specifications

Item/Unit	Model	HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m ³ /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											
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 ³ /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	672x1,260 x1,276	950x1,290x1,332		1,969x905 x1,583	2,020x1,100x1,650		672x1,260 x1,276	950x1,290x1,332		1,969x905 x1,583	2,020x1,100x1,650	
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°C, inlet temperature of 40°C, inlet pressure of 0.69MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. The dimensions do NOT include protruding objects.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Line Filter

Air Filter*1



Micron Mist Filter*2



Activated Carbon Filter*3



Specifications

Item		Model	7.5BX	11BX	15BX	22B	37B	55B	75B	100B	125C	160C	200C	240B	
Common	Air	Capacity (converted to the ambient pressure)	m ³ /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											
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)	
	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	Inlet Air Temperature Range	°C	5 - 60											
		Ambient Temperature Range	°C	2 - 60											
	Condition	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		
Micron Mist Filter	Use	Inlet Air Temperature Range	°C	5 - 60											
		Ambient Temperature Range	°C	2 - 60											
	Condition	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	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											
	Condition	Density of Oil in the Discharge Air	w/ppm	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.

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 type 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 type

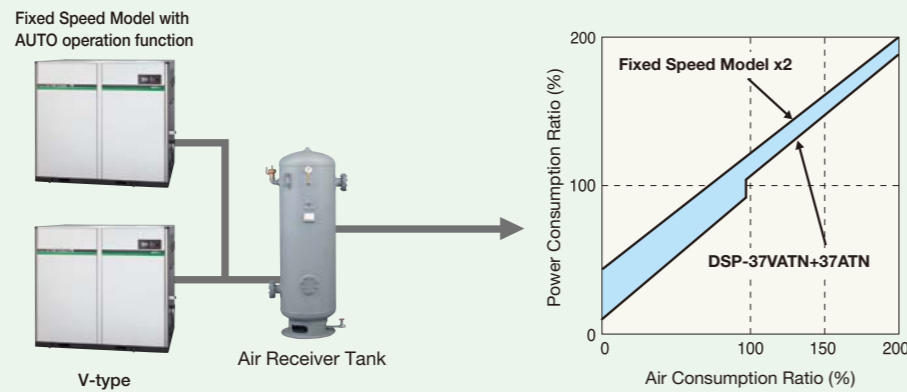
Single-V System

Energy saving operation by one V-type and more than one fixed speed type with multi-unit controller.

Multi-V System

Energy saving operation and averaging V-type operating hour

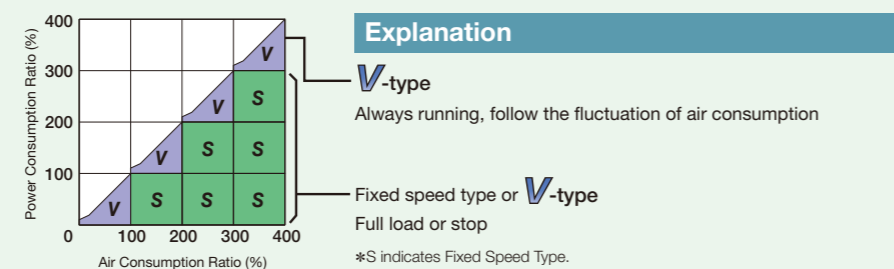
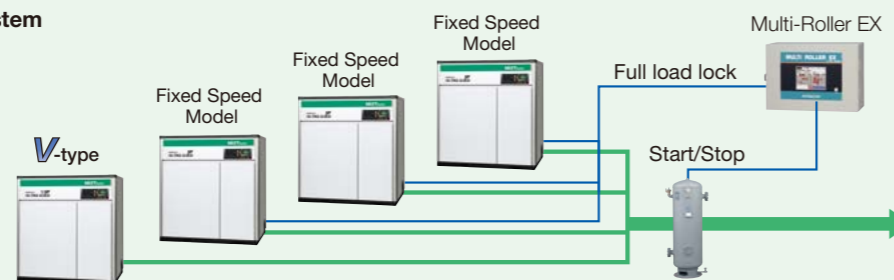
Basic Example of V-M Combination System



Single-V (Multi-V)

Example of Multi-Unit Control System

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



Options

	NEW DSP series	DSP NEXT series				DSP NEXT II series	
	Two-Stage	Single-Stage		Two-Stage		Two-Stage	
	Fixed Speed Type	V type (VSD)	Fixed Speed Type	V type (VSD)	Fixed Speed Type	V type (VSD)	Fixed Speed Type
Nominal Output (kW)	132 - 240 (Air-Cooled)	22 - 55	15 - 55	160/240 (Water-Cooled)	132 - 240 (Water-Cooled)	37 - 100	22 - 120
Oil Mist Remover (OMR)	Standard	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
V-M Combination	●*2	●	●*2	●	●*2	●	●
Modbus*/TCP	—	—	—	—	—	●	●
Communication Function (for COSMOS II)	●	●	●	●	●	—	—
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 of AUTO Operation on the Fixed Speed model is 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.