

# **OIL FREE SCREW**

# **SINGLE STAGE / TWO STAGE**





# Oil-Free Rotary Screw Air Compressor, DSP Series







### ■OIL FREE SCREW (DSP) Model List

Fixed Speed Type

Model	1	Nominal Output (kW)	15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
	Air Caalad	Built-in Dryer															
Single-Stage	Air-Cooled	Without Dryer	•	•		•		•									
	Water-Cooled	Without Dryer															
	Ain On alad	Built-in Dryer		•	•	•	•	•	•								
Tivo Ctore	Air-Cooled	Without Dryer									•						•
Two-Stage	Water Cooled	Built-in Dryer					•										
	Water-Cooled	Without Dryer															

Vtype

Model	1	Nominal Output (kW)	15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
	Air Cooled	Built-in Dryer															
Single-Stage	Air-Cooled	Without Dryer		•		•		•									
	Water-Cooled	Without Dryer															
	Ain On alasi	Built-in Dryer				•		•	•								
Two Chana	Air-Cooled	Without Dryer															•
Two-Stage	W-4 0II	Built-in Dryer						•	•								
	Water-Cooled	Without Dryer															

# Structure of High Performance Airend

#### Stainless Steel Rotor

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

## **High Performance Rotor Profile**

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

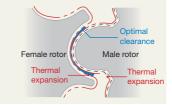
Hitachi's own 3D compensation technology is applied to ensure that appropriate clearance is maintained during operation with thermal expansion.

## **High Performance Coating**

#### Patent JP05416072

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







## Shaft Seal To Prevent Oil Leakage

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





#### **Bearing & Timing Gear**

Special ball and roller bearings are used, and jet lubrication is adopted.

In addition, precision-finished timing gears ensure proper clearance between rotors.

# DSP NEXT L series Common Features

## **Premium Air Quality**

#### True Oil-Free Air at Class 0 Level

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





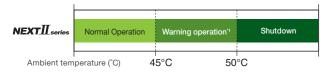


## Reliability at high temperature operation Fixed Spe



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

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



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



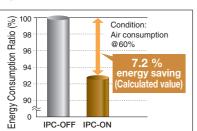
## IPC control (Intelligent Pressure Control) Fixed Spee



By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables energy-saving. JP patent No.4425768 and others

#### Example of effect by IPC

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

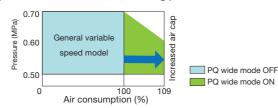


\*Use point pressure is changed according to working condition because of predicted control.

# PQ wide mode



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



\*The above figure is example of 37kW, 0.7MPa model.

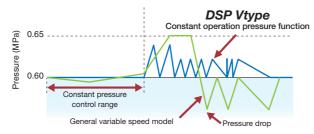
Please refer to the specification sheet for the discharge air capacity in each model.



## Constant operation Vtype pressure function



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

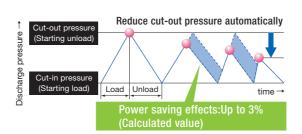




## **ECO-MODE** (Energy-saving operation control) Fixed Speed



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



# User-friendly operation interface Vtype



### **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).

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



## Long cycle and simple maintenance

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

Color Touch Screen



High withstand load type bearing

6 years long overhaul period

(The image is modified)

Cleaning period is shown on touch panel per setting time.

# Single-Stage (15-55kW)

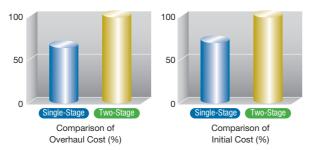


**Capacity Comparison** 

## Cut Down Overhaul and Initial Cost

DSP single-stage has only one airend inside. It makes its initial cost much lower than two-stage model.

The overhaul cost, which covers the most of maintenance cost, is about 60% of Two-Stage for the same reason.



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

# Low Pressure with Higher Air Capacity

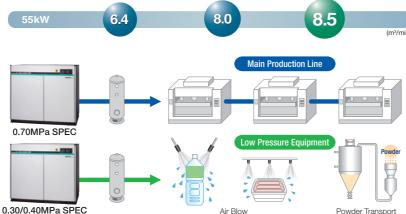
#### 0.30MPa model is newly added

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

# 0.70MPa 0.40MPa 0.30MPa Fixed Speed Model / Vtype 4.6

## **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·Uni	t	Model	DSP-15 <i>A</i> DSP-15 <i>A</i>			A[R]5N2 A[R]6N2	DSP-37 <i>F</i> DSP-37 <i>F</i>		DSP-55A[R]5N2 DSP-55A[R]6N2			
Discharge	e Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40		
Discharge	e Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0		
Nominal (	Output	kW	1	5	2	2	3	7	5	5		
Intake Air	Pressure / Temperature	_			Atm	ospheric Pressure	e / 0 – 45°C [2 – 45°	5°C]				
Discharge	e Air Temperature	°C				Ambient Tempera	ture +15 or below					
Discharge	e Pipe Diameter	_	Ro	:1			Rc1	-1/2				
Starting N	Method	_	Direct C	n-Line			Star-Delta (3	contactors)				
Driving M	lethod	_			4-Pol	e TEFC Motor wit	h V-Belt + Gear D	riving				
Lubricatir	ng Oil Capacity	L		12 (No	t filled)			18 (No	ot filled)			
Cooling F	an Motor Output	kW	0.	4		0.	65	·	0.9			
Coolant F	Pump Motor Output (50/60Hz)	kW				0.2	/0.3					
	P.D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-		
[Dryer]	Refrigerator Nominal Output	kW	[0.5]	-	[1.2]	-	[1.45]	-	[1.45]	-		
Refrigerant —			[R407C]	-	[R410A]	-	[R410A]	-	[R410A]	-		
Weight kg		770 [	800]	850	910]	1,080 [	1,230]	1,330 [1,480]				
Dimensions (W×D×H) mm				1,400×97	70×1,400		1,	830×980×1,580	0 [2,230×980×1,580]			
Noise Level (1.5m from front side)			62	63	63	64	66	68	68	70		

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

Γ	1	Indicates	model	with	Dryer	integrated
L	J .	. II luicates	model	AAIFLI	DIYO	II ILOGI ALOC

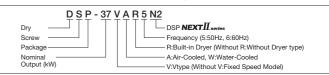
Air-Co	ooled / Water-Coole	a, viyp	e Model (	22-55KVV	)					[ ]: Indicat	es model with D	ryer integrate
Item · Unit		Model	DSP-22V		DSP-37V DSP-37V	A[R]5N2 A[R]6N2	DSP-55V		DSP-37	7VWN2	DSP-58	5VWN2
Cooling Me	thod	_			Air-C	ooled				Water-	Cooled	
Discharge F	Pressure	MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge A	Air Capacity	m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
	Discharge Pressure	MPa	0.60	-	0.60	-	0.60	-	0.60	-	0.60	-
PQ	Discharge Air Capacity	m³/min	3.7	-	5.5	-	7.0	-	5.5	-	7.0	-
WIDEMODE	Discharge Pressure	MPa	0.40 [0.50]	-	0.40 [0.50]	-	0.40 [0.50]	-	0.40	-	0.40	-
	Discharge Air Capacity	m³/min	4.3 [4.0]	-	6.4 [6.0]	-	8.2 [7.6]	-	6.4	-	8.2	-
PQ WIDEM	ODE Range	MPa	0.40 - 0.70 [0.50 - 0.70]	-	0.40 - 0.70 [0.50 - 0.70]	-	0.40 - 0.70 [0.50 - 0.70]	-	0.40 - 0.70 - 0.40 - 0.70			-
Nominal Output			22 37 55							7	5	5
Intake Air P	ressure / Temperature	_		Atmosp	heric Pressure		Atı	mospheric Pr	essure / 0 – 45	°C		
Discharge A	Air Temperature	°C		Am	bient Tempera	ture +15 or be	elow		Cooling	g Water Temp	erature +13 or	below
Discharge F	Pipe Diameter	_			Rc1	-1/2				Rc1	-1/2	
Starting Me	thod	_			Inve	erter				Inve	erter	
Driving Met	hod	_		4-Pole TI	EFC Motor wit	h V-Belt + Ge	ar Driving		4-Pole TE	FC Motor wit	th V-Belt + Gea	ar Driving
Lubricating	Oil Capacity	L	12 (No	t filled)		18 (No	t filled)			14 (No	t filled)	
Cooling Far	n Motor Output	kW		0.	65		0.	9		0	.2	
Cooling Wa	ter Flow Rate	L/min			-	-				3	80	
Cooling Wa	ter Temperature	°C			-	-				32 or	below	
Cooling Wa	ter Pipe Diameter	_			-	-				R	c1	
Coolant Pur	mp Motor Output (50/60Hz)	kW			0.2/	0.3					-	
	P.D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]			[10 (Under Pressure)] -			-	
[Dryer] F	[Dryer] Refrigerator Nominal Output kW			-	[1.45]	-	[1.45]	-			-	
F	Refrigerant -			-	[R410A]	-	[R410A]	-			_	
Weight kg 900 [960] 1,140 [1,290] 1,270 [1,420] 1,110 1,				1,2	40							
Dimensions	(W×D×H)	mm	1,650×97	'0×1,400	1,830	0×980×1,580	2,230×980×1,	230×980×1,580] 1,830×980×1,580				
Noise Level	(1.5m from front side)	dB(A)	63	64	66	68	68	70	64	66	64	66

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

Item·Unit	Model		5W5N2 5W6N2		2W5N2 2W6N2	DSP-3 DSP-3			5W5N2 5W6N2			
Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40			
Discharge Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0			
Nominal Output	kW	1	5	2	2	3	7	5	5			
Intake Air Pressure / Temperature	_				Atmospheric Pre	essure / 0 – 45°C						
Discharge Air Temperature	°C			Co	oling Water Tempe	erature+13 or be	ow					
Discharge Pipe Diameter	_	R	c1			Rc1	-1/2					
Cooling Water Flow Rate	L/min		5	0			8	0				
Cooling Water Temperature	°C				35 or	below						
Cooling Water Pipe Diameter	_		Rc	3/4			R	c1				
Starting Method	_	Direct (	On-Line			Star-Delta (3	contactors)					
Driving Method	_			4-Pol	e TEFC Motor wit	h V-Belt + Gear D	riving					
Lubricating Oil Quantity	L		10 (No	t filled)			14 (No	t filled)				
Cooling Fan Motor Output	kW		0.	05			0	.1				
Weight	kg	7	70	83	30	1,0	30	1,280				
Dimensions (W×D×H)	mm		1,400×9	70×1,400			1,830×9	30×1,580				
Noise Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66			

- Capacity is measured according to ISO 1217, Annex C.
   Nominal output is a numerical value for the rough compressor capacity. Refer to installation
- supply equipment.
- full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ
- 4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 °C, inlet temperature 45 °C, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
- Built-in dryer 0.30MPa model is NOT available.
- Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain

- 7. In case of dust-proof or package filter option, maximum ambient temperature is limited up to
- 8. Earth leakage breaker is not built in the compressor. Prepare by customer
- 9. Do not use the respiratory equipment to suck the compressed air directly.
- 10. Discharge pressure is gauge pressure.11. Install the air compressor indoors and avoid flammable and corrosive environment, moisture
- 12. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more
- 13. Appearance and specifications are subject to change without notice.



<sup>\*</sup>The above picture shows the internal structure of 55kW Air-Cooled model (Vtype).

# Two-Stage (22–120kW)





#### **Specifications**

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

wat	er-Coolea, rixea Sp	Jeeu /	v type ivi	ouei (45	-75KVV)								
		Model				Fixed Spe	eed Model						
			DSP-45W	T [R]5N2	DSF	P-55WT [R]	5N2	DSF	P-75WT [R]	5N2			
Item•Ur	nit		DSP-45W	T [R]6N2	DSF	P-55WT [R]	6N2	DSF	P-75WT [R]	6N2			
Discharg	e Pressure	MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0			
Discharg	e Air Capacity (50Hz/60Hz)	m³/min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	6.4/6.6	13.2	10.7/11.3	9.6/9.7			
Discharge A	ir Capacity at PQ wide ON of 0.6MPa	111-7111111					-						
Nominal	Output	kW	4	5		55			75				
Intake Ai	r Pressure / Temperature	_	Atmo	ospheric Pr	essure / 0 –	45°C [5 – 4	5°C]	Atmospheric I	Pressure / 0 – 4	5°C [2 − 45°C]			
Discharg	e Air Temperature	°C		Cooling Water Temperature +13 or below									
Discharg	e Pipe Diameter	_	2 in (Flange)										
Starting I	Method	_	Star-Delta (3 contactors)										
Driving N	Method	_	2-Pole TEFC motor with Direct Connection + Gear Driving										
Lubricati	ng Oil Capacity	L	15 (Not filled)										
Cooling I	Fan Motor Output	kW	0.05×2										
Cooling \	Nater Flow Rate	L/min			90				120				
Cooling \	Nater Temperature	°C				35 or	below						
Cooling \	Water Pipe Diameter	_				Rc 1	I-1/4						
	P.D.P	°C		[10 (Under	Pressure)]		Built-in dryer	[10 (Under	Pressure)]	Built-in dryer			
[Dryer]	Refrigerator Nominal Output	kW		[2	.2]		model is	[3	.0]	model is			
	Refrigerant	[R407C]				NOT available.	[R4	10A]	NOT available.				
Weight		kg	1,580 [1,730] 1,580 1,710 [1,880] 1,7						1,710				
Dimensio	ons (W×D×H)	mm	2,000×1,300×1,800										
Noise Le	vel (1.5m from front side)	dB(A)	6	3		63		65	6	6			

<ul><li>Indicates model with Dryer integrate</li></ul>	[	] : Indicates	model	with	Dryer	integrated
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Vtype Model								
DSP-55V	WT [R] N2	DSP-75V	WT [R] N2					
0.70	0.93	0.70	0.93					
9.5	8.0	12.9	11.4					
9.8	9.5	13.4 13.0						
5	5	7	5					
Atmospheric Pressure	e/0-45°C[5-45°C]	Atmospheric Pressure	e / 0 - 45°C [2 - 45°C]					
Cooling Water Temperature +13 or below								
2 in (Flange)								
	Soft	Start						
6-Pole DCE	BL Direct Co	nnection + G	Gear Driving					
	15 (No	t filled)						
	0.0	5×2						
9	0	12	20					
	35 or	below						
	Rc 1	-1/4						
	[10 (Under	Pressure)]						
[2	.2]	[3.	.0]					
[R407C] [R410A]								
1,320 [	[1,470]	1,410 [	[1,580]					
2,000×1,300×1,800								
6	3	65	66					

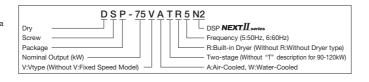
#### ■ Water-Cooled, Fixed Speed / Vtype Model (90-120kW)

	Model			Fixed Sp	eed Model			Vtype	Model		
		DSP-90W	/5 [L] MN2	DSP-100V	V5 [L] MN2	DSP-12	DW5MN2	DSP-100	VW5MN2		
Item·Unit		DSP-90W	6 [L] MN2	DSP-100V	V6 [L] MN2	DSP-12	DW6MN2	DSP-100	VW6MN2		
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93		
Discharge Air Capacity	m³/min	16.8	14.0	18.3	15.6	21.0	17.6	18.3	15.6		
Nominal Output	kW	9	0	1	00	1:	20	1	00		
Intake Air Pressure / Temperature	_				Atmospheric Pro	essure / 0 – 45°C					
Discharge Air Temperature	°C		Co		Cooling Water Temperature +13 or						
Discharge Pipe Diameter	_	2 in (Flange)						2 in (Flange)			
Starting Method	_	Star-Delta (3 contactors)						Inve	erter		
Driving Method	_		2-Pole TEF	C motor with Dire	ct Connection + 0	Gear Driving		2-Pole TEFC motor with Dire	ect Connection + Gear Driving		
Lubricating Oil Capacity	L			16 (No	ot filled)			16 (No	ot filled)		
Cooling Fan Motor Output	kW		0.05×3	[0.2×2]		0.0	5×3	0.2	2×2		
Cooling Water Flow Rate	L/min		1	60		18	30	1	60		
Cooling Water Temperature	°C			35 or	below			35 or	below		
Cooling Water Pipe Diameter	_			Rc	1-1/2			Rc 1	1-1/2		
Weight	kg		2,	050		2,2	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		

- 1. Capacity is measured according to ISO 1217, Annex C.
- 2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power
- supply equipment.

  3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
- 4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 °C, inlet temperature 45 °C, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
- 5. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain
- 6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to

- 7. Earth leakage breaker is not built in the compressor. Prepare by customer
- 8. Do not use the respiratory equipment to suck the compressed air directly.
- 9. Discharge pressure is gauge pressure.
- 11. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more
- 12. Appearance and specifications are subject to change without notice.



#### **Specifications**

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

		Model			Fixed Spe	eed Model			Vtype	Model
Item·U	nit			T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2		AT [R] 5N2 AT [R] 6N2	DSP-37V	AT [R] N2
Discharg	ge Pressure	MPa	0.70	0.88	0.70	0.88	0.70	0.88	0.70	0.88
Discharg	ge 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	m-/min				_			6.0	5.6
Nominal	Output	kW	2	2	3	30	;	37	3	37
Intake A	ir Pressure / Temperature	_		Atm	ospheric Pressure	e / 0 - 45°C [2 - 4	5°C]		Atmospheric Pressu	re / 0 – 45°C [2 – 45°C]
Discharg	ge Air Temperature	°C		,	Ambient Tempera	ture +15 or belov	N		Ambient Tempera	ture +15 or below
Discharg	ge Pipe Diameter				Rc1	1-1/2			Rc1	-1/2
Starting	Method	_			Star-Delta (3	3 contactors)			Soft	Start
Driving I	Method			4-Pol	le TEFC Motor wit	th V-Belt + Gear D	Driving		DCBL Direct Conne	ection + Gear Driving
Lubricat	ing Oil Capacity	L			15 (No	ot filled)			15 (No	ot filled)
Cooling	Fan Motor Output	kW			1.1 (In	verter)			1.1 (In	verter)
	P.D.P	°C			[10 (Under	r Pressure)]			[10 (Under	r Pressure)]
[Dryer]	Refrigerator Nominal Output	kW			[1.	45]			[1.	45]
	Refrigerant	_			[R4	10A]			[R4	10A]
Weight		kg	1,120 [	[1,180]		1,230	[1,290]		950 [	1,010]
Dimensi	ons (W×D×H)	mm			1,530×1,1	150×1,650			1,530×1,1	150×1,650
Noise Le	evel (1.5m from front side)	dB(A)	63	64	65	66	66	67	66	67

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

Alf-	Coolea, Fixea Spee	u / viy	pe ivioue	31 (45-75	okvv)					
		Model				Fixed Spe	eed Model			
				T [R] 5N2		P-55AT [R]			P-75AT [R]	
Item•U	nit —		DSP-45A	T [R] 6N2	DSF	P-55AT [R]	6N2	DS	P-75AT [R]	6N2
Discharg	ge Pressure	MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0
Discharg	ge Air Capacity	m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	5.9/6.2	13.0	10.5/11.1	9.1
Discharge A	Air Capacity at PQ wide ON of 0.6MPa	m-/min					-			
Nominal	Output	kW	4	5		55			75	
Intake Ai	ir Pressure / Temperature	_	Atm	ospheric Pr	essure / 0 -	45°C [5 – 4	5°C]	Atmospheric I	Pressure / 0 - 4	15°C [2 - 45°C]
Discharg	je Air Temperature	°C			Ambie	nt Tempera	ture +15 or	below		
Discharg	ge Pipe Diameter	_				2 in (F	lange)			
Starting	Method	_			,	Star-Delta (3	3 contactors	s)		
Driving N	Method	_		2-Pole	e TEFC mot	or with Dire	ct Connect	ion + Gear I	Driving	
Lubricati	ing Oil Capacity	L				25 (No	t filled)			
Cooling	Fan Motor Output	kW			1.5 (Inverter	)			2.2 (Inverter	)
	P.D.P	°C		[10 (Under	Pressure)]		Built-in drver	[10 (Under	r Pressure)]	Built-in dryer
[Dryer]	Refrigerator Nominal Output	kW		[2	.2]		model is	[3	.0]	model is
	Refrigerant			[R40	07C]		NOT available.	[R4	10A]	NOT available.
Weight	<u> </u>			1,600	[1,750]		1,600	1,860	[2,030]	1,860
Dimensio	ions (WxDxH) mm 2,000×1,300×1,800 2,250×1,300×1,800				800					
					63	6	i5		68	

#### [ ]: Indicates model with Dryer integrated.

[ ]: Indicates model with Dryer integrated.

	Vtype	Model								
DSP-55V	AT [R] N2	DSP-75V	AT [R] N2							
0.70	0.93	0.70	0.93							
9.3	7.7	12.6	10.9							
9.6	9.3	13.0	12.6							
55 75										
Atmospheric Pressure / 0 - 45°C [5 - 45°C] Atmospheric Pressure / 0 - 45°C [2 - 45°C]										
Ambient Temperature +15 or below										
2 in (Flange)										
	Soft	Start								
DCBL D	irect Conne	ction + Gea	r Driving							
	25 (No	t filled)								
1.5 (In	verter)	2.2 (In	verter)							
	[10 (Under	Pressure)]								
[2.	2]	[3	.0]							
[R40	)7C]	[R4 <sup>-</sup>	10A]							
1,340 [1,490] 1,560 [1,730]										
2,000×1,3	00×1,800	2,250×1,3	800×1,800							
63	65	67	68							

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

	Model			Fixed Spe	ed Model			Vtype	Model	
Item•Unit			5 [L] MN2 6 [L] MN2		.5 [L] MN2 .6 [L] MN2		0A5MN2 0A6MN2	DSP-100 DSP-100		
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93	
Discharge Air Capacity	m³/min	16.6	13.9	18.0	15.4	20.5	17.3	18.0	15.4	
Nominal Output	kW	9	0	10	00	12	20	100		
Intake Air Pressure / Temperature	_			Atmospheric Pressure / 0 -						
Discharge Air Temperature	°C		,	Ambient Temperat	ture +15 or below					
Discharge Pipe Diameter	_			2 in (F	lange)			2 in (F	lange)	
Starting Method	_			Star-Delta (3	contactors)			Inve	erter	
Driving Method	_		2-Pole TEF	C motor with Dire	ct Connection + G	Gear Driving		2-Pole TEFC motor with Dire	ct Connection + Gear Driving	
Lubricating Oil Capacity	L			26 (No	t filled)			26 (No	t filled)	
Cooling Fan Motor Output	kW			1.5	i×2			1.5	×2	
Weight	kg	2,200 2,380						2,3	00	
Dimensions (W×D×H)	mm	2,150×1,520×1,975						2,150×1,5	20×1,975	
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, Annex C.
- 2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power
- supply equipment.

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

# Two-Stage (132-240kW)

Airend (1st Stage)

Oil Mist Remover (OMR)

Gear Case

Airend (2nd Stage)

TEFC Motor

High Capacity by Equipping New **NEXT** Series Airend

Low Noise Low Vibration

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

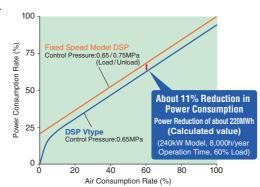
Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

# Energy-Saving (Vtype)

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

Oil Cooler



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

# High Reliability and Easy Maintenance

#### Totally enclosed flange motor is standard

New totally enclosed flange motor is applied to improve reliability.

Motor shaft in direct connection without coupling enables easy maintenance work.

#### Hi-precooler system (Air-Cooled models)

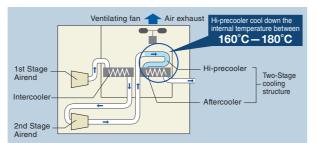
Hi-precooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.

#### **High Discharge Pressure Available**

1.0MPa is available with high reliability.

### **Maintenance Friendly**

DSP series provides easy accessibility for inspection and maintenance.



#### **Specifications**

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

	Model				D:	DSP-145A5N2			DSP-160A5N2			DSP-200A5N2			DSP-240A5N2	
Item • Unit		DS	SP-132A6	N2	D:	SP-145A6	N2	DS	SP-160A6	N2	DS	SP-200A6	N2	DSP-240A6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	22.5	20.0	19.0	25.0	21.4	20.0	27.5	23.9	22.5	37.0	32.2	30.0	40.0	35.0	32.5
Nominal Output	kW		132			145			160			200			240	
Intake Air Pressure / Temperature	_		Atmospheric Pressure / 0 - 45°C													
Discharge Air Temperature	°C		Ambient Temperature+15 or below													
Discharge Air Pipe Diameter	_		2-1/2 in (Flange) 3 in (Flange)													
Starting Method	_							Star-De	elta (3 con	tactors)						
Driving Method	_					4-P	ole TEFC i	notor with	Direct Co	nnection	+ Gear Dri	iving				
Lubricating Oil Capacity	L				5	0 (Not fille	d)						60 (No	t filled)		
Cooling Fan Motor Output	kW				4	1.4 (1.1×4	<b>!</b> )						6.0 (	1.5×4)		
Weight	kg		3,860 3,960 5,000													
Dimensions (W×D×H)	mm				2,90	0×1,700×	1,925						3,200×1,8	390×1,950		
Noise Level (1.5m from front side)	dB(A)	73	73 74			7	'5	74	7	5	76	7	7	77	7	'8

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

	Model	DS	SP-132W5	N2	DS	SP-145W5	N2	DS	SP-160W5	N2	DS	P-200W5	iN2	DS	P-240W5	N2
Item·Unit		DS	SP-132W6	N2	DS	SP-145W6	N2	DS	SP-160W6	N2	DS	P-200W6	N2	DS	P-240W6	N2
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m³/min	23.4	20.7	19.6	26.0	22.2	20.6	28.5	24.8	23.2	37.0	32.2	30.0	40.5	35.0	32.5
Nominal Output	kW		132			145			160			200		240		
Intake Air Pressure / Temperature	_						A	tmospher	ic Pressur	e / 0 - 45°	С					
Discharge Air Temperature	°C		Cooling Water Temperature+13 or below													
Discharge Air Pipe Diameter	_		2-1/2 in (Flange) 3 in (Flange)													
Starting Method	_		Star-Delta (3 contactors)													
Driving Method	_					4-P	ole TEFC	motor with	Direct Co	nnection	+ Gear Dri	ving				
Cooling Water Flow Rate	L/min		200			210			240			300			330	
Cooling Water Temperature	°C				3	35 or below	N						35 or	below		
Cooling Water Pipe Diameter	_								Rp2							
Lubricating Oil Capacity	L				4	0 (Not fille	d)						50 (No	t filled)		
Cooling Fan Motor Output	kW								0.4							
Weight	kg		3,760 4,600													
Dimensions (W×D×H)	mm				2,50	0×1,600×	1,925						2,800×1,8	300×1,950		
Noise Level (1.5m from front side)	dB(A)	68	6	9	69	7	0	69	7	0	69	7	'0	70	7	1

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

		Model	D	SP-160VA5N	12	D	SP-240VA5N	12	D:	SP-160VW5	N2	D:	SP-240VW5N	<b>1</b> 2		
Item•Unit			D	SP-160VA6N		D:	SP-240VA6N	√2	D:	SP-160VW6	N2	DS	SP-240VW6N	<b>1</b> 2		
Discharge Press	sure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0		
Discharge Air Ca	apacity	m³/min	27.5	24.8	22.5	40.0	35.0	32.5	28.5	24.8	23.2	40.5	35.0	32.5		
Nominal Output		kW		160			240			160			240			
Intake Air Pressu	re / Temperature	_					Atm	ospheric Pr	essure / 0 - 4	5°C						
Discharge Air Te	emperature	°C	°C Ambient tempera			ture+15 or b	elow		Cooling V		Cooling Water Temperature + 13 or below					
Discharge Air Pipe Diameter			2-	1/2 in (Flang	2 in (Flange) 3 in (Flange) 2-1/2 in (Flange) 3 in (Flange)											
Starting Method		_						Inve	erter							
Driving Method		_				4-Pc	ole TEFC mo	tor with Dire	ct Connectio	t Connection + Gear Driving						
Cooling Water F	low Rate	L/min					_			240			330			
Cooling Water T	emperature	°C		_ 35						35 or	below					
Cooling Water P	Pipe Diameter	_			-	_					R	p2				
Lubricating Oil C	Capacity	L	į	50 (Not filled)	)	(	60 (Not filled	)		40 (Not filled	)		50 (Not filled)			
Cooling Fan Mo	tor Output	kW		4.4 (1.1 × 4)			6.0 (1.5 × 4)				0	.4				
Weight	Compressor	kg		3,960			5,000			3,960			4,900			
vveignt	Inverter Panel	kg		400		540		_								
Dimensions	Compressor	mm	2,900×1,700×1,925		2,900×1,700×1,925 3,200×1,880×1,950		3,200×1,880×1,950 2,5			2,50	2,500×1,600×1,925		2,800×1,800×1,950			
(W×D×H)	Inverter Panel	mm	690×1,175×1,760		810×1,360×1,760				_		_					
Noise Level (1.5m	from front side)	dB(A)	74	7	5	77	7	'8		70			71			

#### OTE:

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

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# Auxiliary Equipment

# Air Dryer

#### **HDR** series

R407C·R410A







HDR-150AX

## **Specifications**

Item•Unit	Model	HDR-7.5AX2	HDR-15AG1	HDR-22AG1	HDR-37AG1	HDR-55AX	HDR-75AX	HDR-100AX
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	3.0/3.4	4.9/5.4	7.9/8.4	10.8/11.3	15.0/15.7	19.0/20.0
Max. Inlet Pressure of Compressed Air	MPa	0.3 - 0.97		0.3 – 1.0			0.4 - 0.97	
Max. Inlet Temperature of Compressed Air	°C				80			
Ambient Temperature	°C	5 – 40		2 – 45			5 – 40	
Dew Point of Outlet Air	°C				10 Under Pressure			
Cooling Method of Condenser	_				Air-Cooled			
Refrigerant Control Device	_	Capillary Tube Ejector						
Capacity Control Device	_			Н	lot Gas Bypass Valv	re		
Refrigerant Used	_	R407C		R410A			R407C	
Charged Quantity	g	250	450	680	1,0	000	1,650	2,000
Finish Color	_	lvory		Gray			Ivory	
Pipe Diameter	_	Ro	1		Rc 1-1/2		Rc 2	Rc 2-1/2
Dimensions (W×D×H)	mm	303×603×720	303×633×840	356×543×1,067	356×543×1,274	356×903×1,274	356×903×1,489	406×1,400×1,380
Weight	kg	43	60	84	107	135	170	280
Accessories	_		·	Auto Drain Tra	ap, Drain Valve, Fοι	indation Bolts		·

HDR-22AG1

- 1. 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.
   Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
- 4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Item•Unit	Model	HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Max. Inlet Pressure of Compressed Air	MPa		0.30 -	- 0.97		0.30 -	- 0.93		0.30	- 0.97		0.30	- 0.93
Max. Inlet Temperature of Compressed Air	℃						6	0					
Ambient Temperature	°C						2 -	- 40					
Dew Point of Outlet Air	°C						10 Under	r Pressure					
Cooling Method of Condenser	_			Water-	Cooled					Air-C	ooled		
Refrigerant Control Device	_						Capilla	ry Tube					
Capacity Control Device	_		Hot Gas Bypass Valve										
Refrigerant Used	_						R40	07C					
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	_						lve	ory					
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0				_		
Cooling Water Pipe Diameter	_		Rp 3/4		Rp 1	Rc 1	-1/2				_		
Pipe Diameter	_	2·1/2 in (Flange)	3 in (F	lange)	4 in (Flange)	5 in (F	lange)	2.1/2 in (Flange)	3 in (F	lange)	4 in (Flange)	5 in (F	lange)
Dimensions (W×D×H)	mm	672×1,260	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									00×1 650	
Diffierisions (WxDxH)	111111	×1,276	950×1,2	90×1,332	×1,583	2,020×1,1	000,1,000	×1,276	950/1,23	00^1,332	×1,583	2,020×1,1	000,1000
Weight	kg	238	346	344	534	792	872	258	372	370	557	792	872
Accessories	_		Auto Drain Trap, Drain Valve										

- 1. 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.
- Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
   In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

## Multi Unit Controller

## MULTI ROLLER Gseries

- Efficient Control of Multiple Units
- Energy-Saving

11

Various Functions Available



#### **Standard Specification**

Item	Model	MRG-4E	MRG-8E	MRG-NE					
Ambient	Usage place		Indoor (Dust-proof wall-mounted type)						
Ambient	Temperature		0-40 deg-C						
Power supply			1-ph. AC85 to 240V 50/60Hz						
Controllable	Max. connectable Units		12 compressors						
	Connectable contacts	4	8	0 (comm. only)					
compressors	(internal of above)	4	4 0 (COITIII. OIII))						
Touch panel			7" wide color LCD						
Control function	on	nitial air charge, Selection of preceding machine, Rotary operation, Turn-back operation (only for fixed speed machine), PID control, Pressure prediction control, 2nd-pressure, Weekly operation, Forced changeover, Restart at power off, Interlock/Individual operation changeover, Central operation, Forced start Long stop, Operation control of auxiliary machine (dryer, pump)(excl. MRG-N), Lead-lag operation							
	Discharge pressure		0~1MPa (digital display)						
Input	Control	Operation answer, Fault –							
	Remote	Remote operation	on, Remote stop, Forced start, (Flow vo	olume (option *1))					
Output	Control	Run, Stop, Load com	mand, PID command	-					
	Remote		n, Remote selection, Low pressure, Fa						
	n specification		ire) half-duplex asynchronous, 9600bp						
Communication	n contents	Run	, Stop, Load, Operation answer, Fault,	etc.					
	ontrol discharge press.		Min. ±0.001 MPa settable						
Power supply		40W or less	50W or less	30W or less					
Dimensions W	×D×H (mm)	400×250×600	500×250×900	400×250v400					
Weight		25kg 37kg 13kg							
Painted color			Cream						

## Line Filter

### Air Filter\*1



#### Micron Mist Filter\*2



#### **Activated Carbon Filter\*3**



#### **Specifications**

Sp	ecitica	luons													
	Item		Model	7.5BX	11BX	15G1	22G1	37G1	55B	75B	100B	125C	160C	200C	240B
	Air	Capacity (converted to	m³/min	1.2	1.8	2.7	5.2	8.6	10.6	13.8	20	27.6	32	40	50
	Condition	the atmospheric pressure)													
Common		Inlet Air Temperature	℃						3	2					
o III		Inlet Air Pressure	MPa	0.	69		0.7					0.69			
0	Use	Applicable Fluid	_						Compre	ssed Air					
	Condition	Max. Pressure	MPa		1.57		1.	.0				0.97			
	Connecti	ng Pipe Diameter	_	Rc3/4	Ro			Rc1-1/2				2-1/2 in FF (Flange)	3 in FF	(Flange)	4 in FF (Flange)
	Item		Model	HAF-7.5BX	HAF-11BX	HAF-15G1	HAF-22G1	HAF-37G1	HAF-55B	HAF-75B	HAF-100B	HAF-125C	HAF-160C	HAF-200C	HAF-240B
	Use	Inlet Air Temperature Range	℃						5 –	60					
	Condition	Ambient Temperature Range	℃						2 –	60					
ক	Filtration	Rating	μm						1'	<b>*</b> 1					
Filter	Filtration	Efficiency	%						99.9	999					
Ą	Pressure	Initial	MPa						0.005 o	r below					
	Drop (Loss)	Element Exchange	MPa						0.0	07					
	Dimension	(Max. Diameter×Length)	mm	92×237	130×	290.5	170×588	170×673	170x718	173x811	173x968	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Out	let Diameter	_	Rc1/4 Hose nipple for Φ5.7 $\sim$ 6.0 inner diameter tube* <sup>4</sup>											
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
	Item		Model	HMF-7.5BX	HMF-11BX	HMF-15G1	HMF-22G1	HMF-37G1	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B
	Use	Inlet Air Temperature Range	℃						5 –	60					
70	Condition	Ambient Temperature Range	℃						2 –	60					
Ĕ	Density of	f Oil in the Discharge Air	wtppm						0.0	1*2					
Micron Mist Filter	Pressure	Initial	MPa						0.0	01					
≥	Drop (Loss)	Element Exchange	MPa						0.0	07					
icro	Dimension	(Max. Diameter×Length)	mm	92×237	130>	<364	170x660	170x745	170x791	173x884	173x1,041	590×1,511	590×1,511	590×1,511	640×1,735
Σ	Drain Out	let Diameter	_		Rc1/4				Hose n	ipple for Φ5	$6.7\sim$ 6.0 in	ner diamete	r tube*4		
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
	Item		Model	HKF-7.5BX	HKF-11BX	HKF-15G1	HKF-22G1	HKF-37G1	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B
Te.	Use	Inlet Air Temperature Range	°C						5 –	60					
iΞ	Condition	Ambient Temperature Range	℃						2 –	60					
arbo	Density of	Oil in the Discharge Air	wtppm						0.00	)3* <sup>3</sup>					
Ö	Pressure	Drop (Loss)	MPa						0.0	109					
Activated Carbon Filter	Dimension	(Max. Diameter×Length)	mm	92×232	130×	281.5	160×362	170×447	170×498	173×591	173×748	590×1,511	590×1,511	590×1,511	640×1,735
Activ	Weight		kg	1	2	2	3.2	3.5	3.7	4.3	6	41	43	43	73

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

# HITACHI ROTARY COMPRESSOR OIL

# **Specifications**



•		
Item	Unit	Content
SO Viscosity Grade		32
Density @15°C	kg/L	0.86
/iscosity @40°C	mm²/s	32.6
/iscosity Index		102
lash Point	°C	> 200
Content	L	20
Package		Plastic Container Tank
Veight	kg	About 18
Exchange Cycle	_	Every half year

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

# HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

**Specifications** 





- Color Phase Density @15°C kg/L Viscosity @40°C Pour Point -50 or lower 8,000 operating hours or 1 year which comes earlier Exchange Cycle Flushing running operation with the exclusive flushing use oil (new oil 20L can) for 30 minutes  $\times$  twice then refill with new oil Plastic Container Tank kg
- Compliance Standard / Law: NSF H1 registration No. 150658 and FDA21 CFR178.3570
   For retrofitting from conventional mineral oil to HITACHI FOOD GRADE DSP OIL, contact your nearest Hitachi sales representative.

# Systems and Options

# **Energy-saving Combinations**

### 3 ways to maximize energy-saving effect

**Energy saving operation without** external controller



Energy saving operation by one Vtype and maximum two Fixed Speed Model **Energy saving operation with** external controller

Single-V System

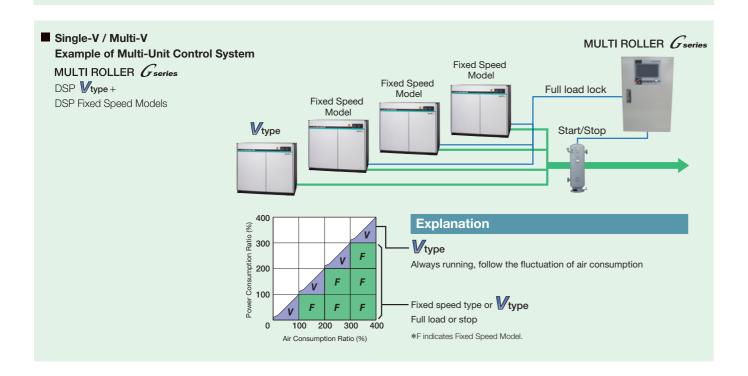
Energy saving operation by one Vtype and multiple Fixed Speed Model with multi-unit controller.

Energy saving operation with multiple Vtype model and external controller

## Multi-V System

Energy saving operation by multiple Vtype to average Vtype operation hour

# ■ Basic Example of V-M Combination System 100 150 200 Air Receiver Tank Air Consumption Ratio (%)



# **Options**

			DSP <b>NE</b> X	XTII series			
	Single	-Stage	Two-	Stage	Two	-Stage	
	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model	
Nominal Output (kW)	22 — 55	15 — 55	37 — 100	22 — 120	160/240	132 — 240	
	No.				Shared Mary		
Oil Mist Remover (OMR)	Standard	Standard	Standard	Standard	Standard	Standard	
Instantaneous Power Interruption (IPI) Restart	Standard	Standard	Standard	Standard	Standard	Standard	
Multi-unit Control (with MULTI ROLLER $G_{series}$ )	•	•	•	•	•	•	
Alternate Operation (with MULTI ROLLER Gseries)	•	•	•	•	•	•	
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	•	•	•	•	•	•	

- \*1 Alternate Operation is possible between same models or models of the same series.

  In case of alternate operation between models of different series, connection and control by MULTI ROLLER  $G_{series}$  is necessary.

  \*2 In case of V-M Combination, modification on the Fixed Speed Model is not necessary.
- · For other options, contact your nearest dealer or Hitachi local representative office.

# ! Safety Precautions

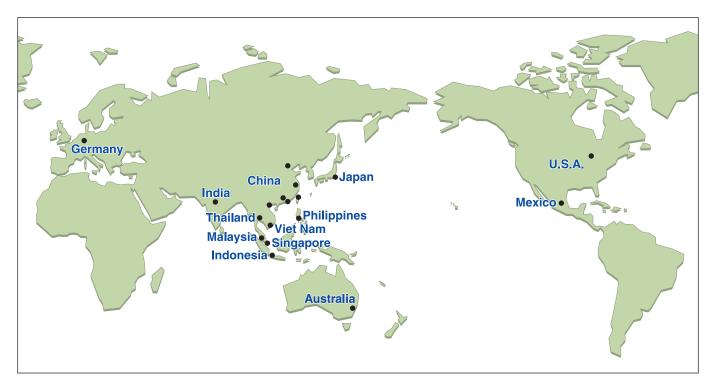
## What compressors are used for

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

## ■Installation location

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

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



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or further information, please contact your nearest sales representative.







ISO14001 EC97J1107

ISO9001

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