

# **OIL FREE SCREW**

## **SINGLE STAGE / TWO STAGE**





# Hitachi Social Innovation

# - Environment Friendly, High Standard Oil-Free Rotary Screw Compressor (DSP)

Since the first Hitachi air compressor (1911),

Hitachi has become one of the global leading manufacturers in air compressor.

With the concept 'Toward the next 100 years, Contribute to Environment and Energy-Saving',

Hitachi commit ourselves to unstoppable effort in technology innovation.

With high standard reliability, excellent Energy-Saving and various air solutions,

Hitachi will contribute to the industrial growth and development.

#### **Premium Air Quality**

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

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







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







#### ■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-Cooled	Built-in Dryer															
Single-Stage		Without Dryer	•	•		•		•									
	Water-Cooled	Without Dryer		•		•											
	Air-Cooled	Built-in Dryer		•	•	•	•	•	•								
Two Stone	Air-Cooled	Without Dryer		•	•	•	•	•	•	•	•	•	•	•	•		
Two-Stage	Water-Cooled	Built-in Dryer					•	•	•								
	water-Cooled	Without Dryer					•	•	•	•	•	•	•				

V-type (VSD)

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

: NEXTII Series

#### High Performance Air-End

#### Stainless Steel Rotor

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

#### **High Performance Coating**

Patent JP05416072

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



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

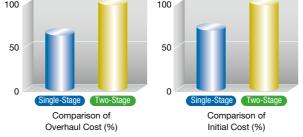


<sup>\*</sup>The above picture shows the internal structure of 55kW Air-Cooled model (V-type).

#### Cut Down Overhaul and Initial Cost

#### Comparison of cost with the same air capacity level

Because there is only one air-end for DSP Single-Stage model, the initial cost is lower than Two-Stage model. The overhaul cost, which covers the most of maintenance cost, is about 60% of Two-Stage for the same reason.



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

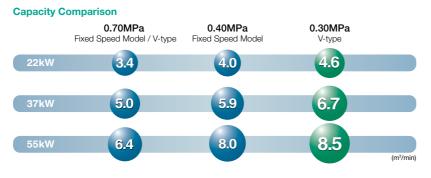
#### Expanded Line-Up (Low Pressure)

#### 0.30MPa model is newly added

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

#### **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.



# 0.30/0.40MPa SPEC

#### **Specifications**

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

[ ]: Indicates model with Dryer integrated.

Item•Uni	t	Model		A[R] 5N2 A[R] 6N2		A[R]5N2 A[R]6N2		A[R]5N2 A[R]6N2	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 I	Motor Output	kW	1	5	2	2	3	7	55			
Motor Ty	ре	_										
Intake Air	Pressure / Temperature	°C										
Discharge	e Temperature	°C		Ambient Temperature +15 or below								
Discharge	e Air Pipe Connection	В	Ro	Rc1 Rc1-1/2								
Starting N	Method	_	Full Volta	Voltage Start Star-Delta (3 contact)								
Driving M	lethod	_				V-Belt+G	ear-Driven					
Oil Quant	tity	L		12 (No	ot filled)			18 (No	ot filled)	illed)		
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]	ı	[1.2]	-	[1.45]	-	[1.45]	-		
Refrigerant		_	[R407C]	ı	[R410A]	-	[R410A]	-	[R410A]	-		
Weight kg			770 [	[008]	850 [	910]	1,080 [	[1,230]	1,330 [1,480]			
Dimensio	Dimensions (W×D×H) mm 1,400×970×1,400			1	1,830×980×1,580 [2,230×980×1,580]							
Sound Le	evel (1.5m from front)	dB(A)	62	63	63	64	66	68	68	70		

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

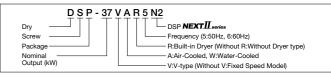
All Ook	bled / Water-Cooled	u, v-ty	Je iviouei	(22-JJKV)	')					[ ]: Indicat	es model with D	ryer integrated
		Model		A[R]5N2	DSP-37V		DSP-55V		DSP-37	7VWN2	DSP-55	5VWN2
Item · Unit			DSP-22V	A[R]6N2	DSP-37V		DSP-55V	A[R]6N2				2
Cooling Meth		_			Air-Co						Cooled	
Discharge Pr		MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge Ai		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 WIDEMO	DE 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 - 0.7			-
Nominal Mot	tor Output	kW	2	2	3	7	5	5	37			5
Motor Type		_			4-Pole TE	FC Motor			4-Pole TEFC Motor			
Intake Air Pre	essure / Temperature	°C		Atmo	spheric Pressu	ıre / 0 – 45 [2	- 45]		Atmospheric Pressure / 0 – 45			5
Discharge Te	emperature	°C	Ambient Temperature +15 or below						Cooling Water Temperature +13 or below			below
Discharge Ai	r Pipe Connection	В	Rc1-1/2							Rc1	-1/2	
Starting Meth	hod	_	Inverter							Inve	erter	
Driving Meth	od	_		V-Belt+Gear-Driven						V-Belt+G	ear-Driven	
Oil Quantity		L	12 (No	t filled)		18 (No	ot filled)			14 (No	ot filled)	
Cooling Fan	Motor Output	kW		0.	75		0.	9		0	.2	
Cooling Wate	er Flow Rate	L/min			-					8	30	
Cooling Wate	er Temperature	°C			_	-				32 or	below	
Cooling Wate	er Pipe Connection	В			-					R	c1	
Coolant Pum	np Motor Output (50/60Hz)	kW			0.2/	0.3					_	
P.	D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	-			
Refrigerator Nominal Output		kW	[1.2]	-	[1.45]	-	[1.45]	-			_	
Re	efrigerant	_	[R410A]	-	[R410A]	-	[R410A]	-				
Weight		kg	900 [960] 1,140 [1,290] 1,270 [1,420]					1,420]	1,110 1,240			40
Dimensions (	(W×D×H)	mm	1,650×970×1,400 1,830×980×1,580 [2,230×980×1,580]					580]	1,830×980×1,580			
Sound Level	(1.5m from front)	dB(A)	63	64	66	68	68	70				66

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

Item · Unit	Model		5W5N2 5W6N2		2W5N2 2W6N2		7W5N2 7W6N2	DSP-55W5N2 DSP-55W6N2			
Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40		
Discharge Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0		
Nominal Motor Output	kW	1	15 22				7	55			
Motor Type	_				4-Pole TE	FC Motor					
Intake Air Pressure / Temperature	°C				Atmospheric P	ressure / 0 – 45					
Discharge Air Temperature	°C			Co	oling Water Temp	perature+13 or below					
Discharge Air Pipe Diameter	В	Re	c1			Rc1-1/2					
Cooling Water Flow Rate	L/min		5	0			8	0			
Cooling Water Temperature	°C				35 or	below					
Coolant Water Pipe Diameter	В		Ro	3/4		Rc1					
Starting Method		Full Volta	age Start			Star-Delta (3-contact)					
Driving Method	_				V-Belt+G	ear-Driven					
Lubricating Oil Quantity	L		10 (No	t filled)			14 (No	t filled)			
Cooling Fan Motor Output	kW		0.	05			0	.1			
Weight	kg	770 830			30	1,030 1,280					
Dimensions (W×D×H)	mm	1,400×970×1,400				1,830×980×1,580					
Sound Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66		

- 1. Capacity is measured according to ISO 1217, Annex C.
- 2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation cond environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
- 3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.40MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
- 4. Built-in dryer 0.30MPa model is NOT available.
- 5. Capacity after built-in dryer is decreased by 3%.
  - 6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature
  - 7. Earth leakage circuit breaker is out of supply scope from Hitachi.

- 10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture
- 11. Protruding objects such as discharge pipe are not included in Dimension
- 12. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.



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



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

#### IPC Control (Intelligent Pressure Control)

By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving. Patent JP4425768 and others

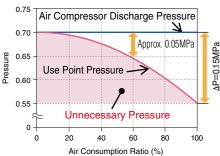
#### **Example of effect by IPC**

 Air compressor: DSP-37VATN2
 Control pressure setting: 0.70MPa
 Use point pressure during full load: 0.55MPa Piping pressure loss during full load: 0.15MPa

Graph of pressure change (Theoretical values)

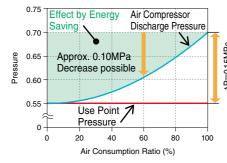
#### ① IPC-OFF

Control the air compressor discharge pressure at 0.70MPa

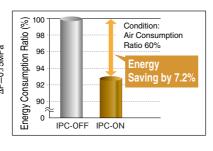


#### 2 IPC-ON

·Control the use point pressure at 0.55MPa



(The image is modified)



#### **IT Communication Functions**

#### **USB Flash Memory Possible for Data Logging**

\*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user's side.

\*Operation data for one day is approximately 400kB. (For reference)

#### Web Server Function via Bluetooth®

\*Necessary to prepare a Bluetooth® USB dongle on

\*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)



#### **Specifications**

#### ■ Air-Cooled (22/37kW)

		Model			Fixed Spe	eed Model			V-type	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	mymin			-	-			6.0	5.6	
Nominal	Motor Output	kW	2	2	3	0		37	37		
Motor Ty	ype	_		4-Pole TEFC						DCBL	
Intake A	ir Pressure / Temperature	$^{\circ}$		Atmospheric Pressure / 0 – 45 [2 – 45]						sure / 0 – 45 [2 – 45]	
Discharg	ge Temperature	°C	Ambient Temperature +15 or below Ambient Te					Ambient Tempera	ture +15 or below		
Discharg	ge Pipe Diameter	В			Rc1	-1/2			Rc1	I-1/2	
Starting	Method	_			Star-Delta	(3 contact)			Soft Start		
Driving I	Method	_		V-	Belt with Auto Ten	sioner+Gear-Dri	ven		Direct Connection + Gear		
Lubricat	ing Oil Filling	L			15 (No	t filled)			15 (No	ot filled)	
Output o	of Cooling Fan	kW			1.1 (In	verter)			1.1 (In	verter)	
	P.D.P	°C			[10 (Under	Pressure)]			[10 (Under	r Pressure)]	
[Dryer]	Refrigerator Nominal Output	kW			[1.4	45]			[1.	45]	
	Refrigerant	_	[R410A]						[R4	10A]	
Weight		kg	1,120 [1,180] 1,230 [1,290]						950 [1,010]		
Dimensi	ons (W×D×H)	mm	1,530×1,150×1,650						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 (45/55/75kW	/)										
		Model			Fixed Spe	eed Model						
Item•Ur	nit			T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2				
Discharg	e Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93				
Discharg	e Air Capacity	m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	13.0	10.5/11.1				
Discharge A	ir Capacity at PQ wide ON of 0.6MPa	mymin				-						
Nominal	Motor Output	kW	4	5	5	5	7	'5				
Motor Ty	ре	_			2-Pole TE	FC Flange						
Intake Air	r Pressure / Temperature	$^{\circ}$	Atmospheric Pressure / 0 – 45 [2 – 45]									
Discharg	e Temperature	$^{\circ}$		Ambient Temperature +15 or below								
Discharg	e Pipe Diameter	В	2 (Flange)									
Starting I	Method	_	Star-Delta (3 contact)									
Driving N	lethod	_	Direct Connection + Gear Driven									
Lubricati	ng Oil Filling	L			25 (No	t filled)						
Output o	f Cooling Fan	kW		1.5 (In	verter)		2.2 (Ir	verter)				
	P.D.P	°C			[10 (Under	Pressure)]						
[Dryer]	Refrigerator Nominal Output	kW		[2	.2]		[3	.0]				
	Refrigerant	_		[R4	10A]		[R4	07C]				
Weight		kg	1,600 [1,750] 1,860 [2,030]									
Dimensio	ons (W×D×H)	mm	2,000×1,300×1,800 2,250×1,300×1,800									
Noise Le	vel (1.5m from front side)	dB(A)	63 65 63 65 68									

V-type	Model
DSP-55VAT [R] N2	DSP-75VAT [R] N2

[ ]: Indicates model with Dryer integrated.

[ ]: Indicates model with Dryer integrated.

0.70	0.93	0.70	0.93						
9.3	7.7	12.6	10.9						
9.6	9.3	13.0	12.6						
5	5	7	5						
	6-Pole	DCBL							
Atmo	spheric Press	ure / 0 – 45 [2	?–45]						
Amb	oient Tempera	ture +15 or be	elow						
	2 (Flange)								
	Soft	Start							
Di	rect Connection	on + Gear Driv	en						
	25 (No	t filled)							
1.5 (In	verter)	2.2 (In	verter)						
	[10 (Under	Pressure)]							
[2.2] [3.0]									
[R410A] [R407C]									
1,340 [	1,490]	1,560 [	[1,730]						
2,000×1,300×1,800 2,250×1,300×1,800									

67 68

#### ■ Air-Cooled (90/100/120kW)

	Model				V-type	Model				
			5 [L] MN2		45 [L] MN2		0A5MN2	DSP-100	VA5MN2	
Item · Unit		DSP-90A	6 [L] MN2	DSP-100A	\6 [L] MN2	DSP-12	0A6MN2	DSP-100	VA6MN2	
Discharge Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93	
Discharge Air Capacity	m³/min	16.6	13.9	18.0	15.4	20.5	17.3	18.0	15.4	
Nominal Motor Output	kW	9	0	10	00					
Motor Type	_			2-Pole TE	FC Flange			2-Pole TE	FC Flange	
Intake Air Pressure / Temperature	°C	Atmospheric Pressure / 0 – 45 Atmospheric Pressure						ressure / 0 – 45		
Discharge Temperature	°C			Ambient Tempera	ture +15 or below	v		Ambient Tempera	ture +15 or below	
Discharge Pipe Diameter	В			2 (Fla	ange)			2 (Flange)		
Starting Method	_			Star-Delta	(3 contact)			Inve	erter	
Driving Method	_			Direct Connection	on + Gear Driven			Direct Connection	on + Gear Driven	
Lubricating Oil Filling	L			26 (No	ot filled)			26 (No	ot filled)	
Output of Cooling Fan	kW			1.5	5×2			1.5	5×2	
Weight	kg		2,	2,300						
Dimensions (W×D×H)	mm	2,150×1,520×1,975						2,150×1,520×1,975		
Noise Level (1.5m from front side)	dB(A)	68	70	69	71	72	73	69	71	

- 1. Capacity is measured according to ISO 1217, Annex C.
- 2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or
- environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.

  3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.60MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
- Capacity after built-in dryer is decreased by 3%.
   In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
- 6. Earth leakage circuit breaker is out of supply scope from Hitachi.
- 7. These air compressors are not designed, intended or approved for breathing air applications. 8. Pressures are indicated as the gauge pressure.

- 9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture
- 10. Protruding objects such as discharge pipe are not included in Dimension
- 11. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

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



### 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

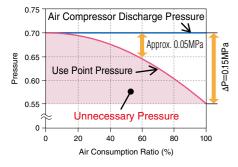
#### **Example of effect by IPC**

• Air compressor: DSP-37VATN2 • Control pressure setting: 0.70MPa • Use point pressure during full load: 0.55MPa • Piping pressure loss during full load: 0.15MPa

Graph of pressure change (Theoretical values)

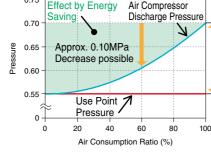
#### ① IPC-OFF

• Control the air compressor discharge pressure at 0.70MPa

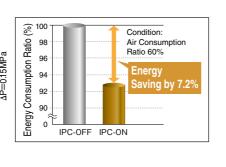


#### 2 IPC-ON

·Control the use point pressure at 0.55MPa



(The image is modified)



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

#### IT Communication Functions

#### **USB Flash Memory Possible for Data Logging**

\*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user's side.

\*Operation data for one day is approximately 400kB. (For reference)

#### Web Server Function via Bluetooth®

\*Necessary to prepare a Bluetooth® USB dongle on your side.

\*For setting changes, part of the items are applicable.

#### Modbus® Communication

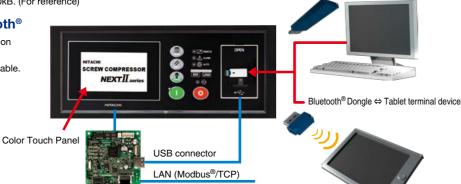
Open network serial communication Modbus®/RTU is

supported as standard

\*Modbus®/TCP support is optional.

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

#### USB flash memory (data retrieving)



#### **Specifications**

#### ■ Water-Cooled (45/55/75kW)

		Model			Fixed Spe	ed Model					
			DSP-45W	T [R]5N2	DSP-55W	T [R]5N2	DSP-75V	/T [R] 5N2			
Item•Ur	nit		DSP-45W	T [R]6N2	DSP-55W	T [R]6N2	DSP-75V	/T [R] 6N2			
Discharg	e Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93			
Discharg	e Air Capacity (50Hz/60Hz)	m³/min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	13.2	10.7/11.3			
Discharge A	ir Capacity at PQ wide ON of 0.6MPa	m-/mm									
Nominal	Motor Output	kW	4	5	5	5	7	'5			
Motor Ty	pe	_			FC Flange						
Intake Ai	r Pressure / Temperature	_		Atmos	ure / 0 – 45 [2	2 – 45]					
Discharg	e Temperature	°C		Cooling	or below						
Discharg	e Pipe Diameter	В	2 (Flange)								
Starting	Method	_			Star-Delta	(3 contact)					
Driving N	Method	_		Dii	rect Connection	n + Gear Driv	ren				
Lubricati	ng Oil Filling	L			15 (No	t filled)					
Output o	of Cooling Fan	kW			0.0	5×2					
Cooling \	Water Capacity	L/min		9	0		1:	20			
Cooling \	Water Temperature	°C			35 or	below					
Cooling \	Water Pipe Diame	В			Rc 1	-1/4					
	P.D.P	°C			[10 (Under	Pressure)]					
[Dryer]	Refrigerator Nominal Output	kW		[2.	.2]		[3	.0]			
	Refrigerant	_		[R41	10A]		[R4	07C]			
Weight		kg 1,580 [1,730] 1,710 [1,880]						[1,880]			
Dimensio	ons (W×D×H)	mm			2,000×1,3	800×1,800					
Noise Level (1.5m from front side) dB(			6	3	6	3	65	66			

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

		V-type	Model						
5N2 6N2	DSP-55V	WT [R]N2	DSP-75V\	WT [R]N2					
0.93	0.70	0.93	0.70	0.93					
7/11.3	9.5	8.0	12.9	11.4					
	9.8	9.5	13.4	13.0					
	5	5	75						
	-	6-Pole	DCBL						
	Atmo	Atmospheric Pressure / 0 – 45 [2 – 45]							
	Cooling	g Water Temp	erature +13 or	below					
		2 (Fla	ange)						
		Soft	Start						
	Di	rect Connection	on + Gear Driv	en					
		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]					
	[R410A] [R407C]								
1]	1,320 [	1,470]	1,410 [	1,580]					

2,000×1,300×1,800

#### ■ Water-Cooled (90/100/120kW)

	Model			Fixed Spe	eed Model			V-type	Model	
		DSP-90W	/5 [L] MN2	DSP-100V	V5 [L] MN2	DSP-12	0W5MN2	DSP-100	VW5MN2	
Item • Unit		DSP-90W	6 [L] MN2	DSP-100V	V6 [L] MN2	DSP-12	0W6MN2	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 Motor Output	kW	9	0	10	00	1	20	100		
Motor Type	_			2-Pole TE	FC Flange			2-Pole TEFC Flange		
Intake Air Pressure / Temperature	_		Atmospheric Pressure / 0 – 45						ressure / 0 – 45	
Discharge Temperature	°C		Cooling Water Temperature +13 or below						erature +13 or below	
Discharge Pipe Diameter	В				2 (FI	ange)				
Starting Method	_			Star-Delta	(3 contact)			Inverter		
Driving Method	_			Direct Connection	on + Gear Driven			Direct Connection + Gear Driv		
Lubricating Oil Filling	L			16 (No	ot filled)			16 (No	ot filled)	
Cooling Water Capacity	L/min		1	60		1	80	10	60	
Cooling Water Temperature	°C			35 or	below			35 or	below	
Cooling Water Pipe Diame	В			Rc 1	1-1/2			Rc ·	1-1/2	
Weight	kg	2,050 2,230					2,2	200		
Dimensions (W×D×H)	mm			2,150×1,5	520×1,825			2,150×1,5	520×1,825	
Noise Level (1.5m from front side)	dB(A)	66	68	67	69	69	70	67	69	

#### NOTE:

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

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



High Capacity by Equipping New **NEXTI** Series Air-End

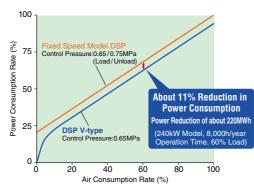
Low Noise Low Vibration

Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

#### Energy-Saving (V-type)

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



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

#### High Reliability and Easy Maintenance

#### Totally enclosed flange motor is standard

New totally enclosed flange motor is applied to improve reliability.

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

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

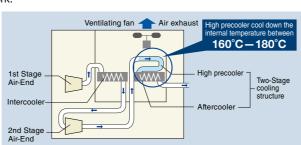
High precooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.

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

1.0MPa is available with high reliability.

#### **Maintenance Friendly**

DSP series provides easy accessibility for inspection and maintenance.



#### **Specifications**

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

	Model		DSP-160VW5N2		DSP-240VW5N2					
Item·Unit			DSP-160VW6N2			DSP-240VW6N2				
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0			
Discharge Air Capacity	m³/min	28.5	24.8	23.2	40.5	35.0	32.5			
Nominal Motor Output	kW		160			240				
Motor Type	_		4-Pole TEFC Flange Motor							
Intake Air Pressure / Temperature	℃			Atmospheric P	ressure / 0 - 45					
Discharge Air Temperature	°C		Cooling Water Temperature+13 or below							
Discharge Air Pipe Diameter	В	2-1/2 (Flange) 3 (Flange)								
Starting Method	_	Inverter								
Driving Method	_			Direct Connection Wit	h Motor+Gear-Driven					
Cooling Water Flow Rate	L/min		240			330				
Cooling Water Temperature	°C			35 or	below					
Coolant Water Pipe Diameter	В			Ro	c2					
Lubricating Oil Quantity	L		40 (Not filled)			50 (Not filled)				
Cooling Fan Motor Output	kW			0.	4					
Weight	kg	3,960 4,900								
Dimensions (W×D×H)	mm	2,500×1,600×1,925 2,800×1,800×1,950								
Sound Level (1.5m from front side)	dB(A)	70 71								

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

	Model	DS	SP-132A5I	N2	DS	SP-145A5	N2	DS	SP-160A5	N2	DS	SP-200A5	N2	DS	SP-240A5	N2
Item·Unit		DS	SP-132A6I		DS	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 Motor Output	kW	132 145 160 200							240							
Motor Type	_		4-Pole TEFC Flange Motor													
Intake Air Pressure / Temperature	℃		Atmospheric Pressure / 0 - 45													
Discharge Air Temperature	℃		Ambient Temperature+15 or below													
Discharge Air Pipe Diameter	В		2-1/2 (Flange) 3 (Flange)													
Starting Method	_							Star-D	elta (3-co	ntact)						
Driving Method	_						Direct (	Connectio	n With Mo	tor+Gear	-Driven					
Lubricating Oil Quantity	L				5	0 (Not fille	d)						60 (No	t filled)		
Cooling Fan Motor Output	kW				4	.4 (1.1×4	.)						6.0 (1	1.5×4)		
Weight	kg		3,860 3,960 5,000													
Dimensions (W×D×H)	mm	2,900×1,700×1,925 3,200×1,890×1,950														
Sound Level (1.5m from front side)	dB(A)	73	7	4	74	7	5	74	7	5	76	7	7	77	7	'8

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

	Model		DSP-132W5N2 DSP-132W6N2			P-145W5			P-160W5			P-200W5		DSP-240W5N2		
Item · Unit		DS	P-132W6	N2	DS	P-145W6	N2	DS	P-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 Motor Output	kW		132 145 160						200 240							
Motor Type	_		4-Pole TEFC Flange Motor													
Intake Air Pressure / Temperature	℃		Atmospheric Pressure / 0					ire / 0 - 45	5							
Discharge Air Temperature	℃		Cooling Water Temperature+13 or be						below							
Discharge Air Pipe Diameter	В		2-1/2 (Flange) 3 (Flange)													
Starting Method	_		Star-Delta (3-contact)													
Driving Method	_						Direct (	Connectio	n With Mo	tor+Gear	-Driven					
Cooling Water Flow Rate	L/min		200			210			240			300			330	
Cooling Water Temperature	℃				3	5 or below	v						35 or	below		
Coolant Water Pipe Diameter	В					Rc2							R	c2		
Lubricating Oil Quantity	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		2,500×1,600×1,925 2,800×1,800×1,950													
Sound Level (1.5m from front side)	dB(A)	68	6	9	69	7	0	69	7	0	69	7	0	70	7	1

#### NOTE:

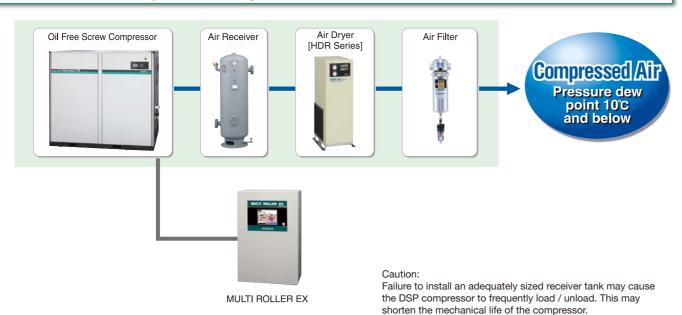
- 1. Capacity is measured according to ISO 1217, Annex C.
- Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or
- In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature 1.9 degree C or least
- 4. Earth leakage circuit breaker is out of supply scope from Hitachi

- 5. These air compressors are not designed, intended or approved for breathing air applications.
- Pressures are indicated as the gauge pressure.

  Install the air compressor indoors and avoid flammable and corresive environment in
- Rear duct (200mm depth) and other protruding objects such as a discharge pipe are not
- included in dimension.
- Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

## **Auxiliary Equipment & Options**

#### Oil Free Screw Compressed Air System



#### **Control Panel**

#### **Multi Unit Controller** (MULTI ROLLER EX)

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



#### **Alternate Operation Controller** (Dual Roller III)

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



#### **Standard Specification**

_	Model				115 00 10					
Iter	n Model	Unit	MR 26-4	MR 26-8	MR 26-12					
Pov	wer Supply	_	Single-ph	ase AC100/200V (	Common)					
Fre	quency	-		50/60Hz (Common	)					
Cor	ntrolled Unit	-	4	8	12					
+	Discharge Pressure	MPa	a 0-1 (Digital Indication)							
Input	Control	_	Ans	wer (Operation), Fa	ailure					
_	External	-	0 - 1 (Digital Indication)  Answer (Operation), Failure  Start, Stop, Forced Start-up, Remote  Run, Stop, Load, PID Command							
Output	Control	_	Run, S	top, Load, PID Cor	mmand					
Out	External	_	S	tart, Shutdown, Au	to					
Con	trolled Discharge Pressure	_	Minir	num ±0.001MPa s	etting					
Din	nensions (W×D×H)	mm	400×200×600	500×200×900	500×200×1,200					
We	ight	kg	19	32	37					

#### Standard Specification

Οl	Standard Specification												
Ite	m Model	Unit	SD	R-3									
Pov	wer Supply	_	AC100V (—	10%+10%) by switching connector]									
Pov	wer Supply Frequency	_	AC100 to 240V±10% 5	0/60Hz [Single-phase]									
Co	ntrollable Number of Units		2										
	Frequency × 2	mA	4 – 20 (250Ω)										
	Remote-Set [Remote] × 2	_	Connection using the	contacts to which no									
Input	Run [Operation] × 2	_	Connection using the										
_	Failure [Shut down] × 2	_	voltage is applied [P	ower supply DC24V]									
	ElectricPulse • Extra ×2	-	Optional	terminals									
	Run × 2	_	1500ms w/out voltage	"a"contact									
but	Stop × 2	_	Pulse AC250V0.3A	"b"contact									
Output	Load/Unload Command × 2	_	Dry contact	"c"contact									
	Status × 2	_	AC250V0.3A	"a"contact									
Pre	ssure Detection	-	Built-in pressure s	ensor [0 - 1 MPa]									
Ор	eration Method	_		[pressure/failure] , P/GAP] , Schedule									
Sta	ndard Function	1	Initial pump-up ope IPS restart, Re	ration, Err. history, mote operation									
Din	nensions (W×D×H)	mm	300×16	60×400									
We	ight	kg	1	0									

#### HITACHI ROTARY COMPRESSOR OIL

#### **HITACHI Genuine Lubricating Oil designed** for Hitachi Rotary Screw Compressor

#### **Features**

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



#### **Specifications**

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

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

#### HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

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

#### **Features**

- Comply with the international hygiene control method for food safety, HACCP\*1
- Consist of ONLY prescript substances specified by the US FDA\*2
- Approved and registered as H1 grade\*4 by the US NSF International\*3
- Applicable for both HITACHI Rotary Screw Compressor (HISCREW/DSP)
- \*1 Hazard Analysis Critical Control Point \*2 Food and Drug Administration
- \*3 National Sanitation Foundation International
  \*4 The OIL can be used in places where it can make occasional contact with foods.

  - The materials must be prescript substances regulated in the US Food and Drug Law: FDA21 CFR178.3570.





#### **Specifications**

Item	Unit	Content
ISO Viscosity Grade	_	32
Color Phase	_	Colorless and Transparent
Density @15°C	kg/L	0.84
Viscosity @40°C	mm²/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
netrolit		(new oil 20L can) for 30 minutes x twice then refill with new oil
Package	_	Plastic Container Tank
Weight	kg	About 18

- 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





#### **Specifications**

Item•Unit	Model	HDR-7.5AXI	HDR-15AXI	HDR-22AXII	HDR-37AXII	HDR-55AX	HDR-75AX	HDR-100AX			
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	2.5/2.9	4.0/4.3	6.8/7.4	10.8/11.3	15.0/15.7	19.0/20.0			
Max. Inlet Pressure of Compressed Air	MPa		0.30	- 0.97			0.40 - 0.97				
Max. Inlet Temperature of Compressed Air	°C				80						
Ambient Temperature	°C	5 – 40									
Dew Point of Outlet Air	°C	10 Under Pressure									
Cooling Method of Condenser	nod of Condenser — Air-Cooled										
Refrigerant Control Device	_	Ejector									
Capacity Control Device	_			Н	lot Gas Bypass Valv	re					
Refrigerant Used	_				R407C						
Charged Quantity	g	250	380	600	1,0	000	1,650	2,000			
Finish Color	_			Ivor	y (Munsell No. 5Y8.	5/1)					
Pipe Diameter	В	Re	c 1		Rc 1-1/2		Rc 2	Rc 2-1/2			
Dimensions (W×D×H)	mm	303×6	303×603×720 356×513×1,067 356×513×1,274 356×903×1,274 356×903×1,489 406×1,400:								
Weight	kg	44	46	74	87	135	170	280			
Accessories	_			Auto	Drain Trap, Drain \	/alve					

- 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



#### **Specifications**

Item·Unit	Model	HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Max. Inlet Pressure of Compressed Air	MPa		0.30 -	- 0.97		0.30	- 0.93		0.30	- 0.97		0.30	- 0.93
Max. Inlet Temperature of Compressed Air	°C						6	0					
Ambient Temperature	°C						2 -	40					
Dew Point of Outlet Air	°C						10 Under	Pressure					
Cooling Method of Condenser	_			Water-	Cooled					Air-C	ooled		
Refrigerant Control Device	_		Capillary 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	_					lv	ory (Munsell	No. 5Y8.5/	1)				
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0			-	_		
Pipe Diameter	В	2.1/2*	3	*	4*		5*	2.1/2*	3	}*	4*	5	5*
Dimensions (W×D×H)	mm	672×1,260 ×1,276	950x1 290x1 332   650   2 020x1 100x1 650   950x1 290x1 332   650   2 020x1 1							00×1,650			
Weight	kg	238 346 344 534 792 872 258 372 370 557 792							792	872			
Accessories	_					A	uto Drain Tra	ap, Drain Val	ve				

\* JIS 10K Flange

- 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.
   The dimensions do NOT include protruding objects.
   In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

#### Line Filter

#### Air Filter\*1

#### Micron Mist Filter\*2



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



#### **Specifications**

Op	ecilica															
	Item		Model	7.5BX	11BX	15BX	22B	37B	55B	75B	100B	125C	160C	200C	240B	
	Air Condition	Capacity (converted to theambient pressure)	m³/min	1.2	1.8	2.4	3.9	6.6	10.6	13.8	20	27.6	32	40	50	
O C		Inlet Air Temperature	°C						3	0	'					
Common		Inlet Air Pressure	MPa						0.6	69						
ŏ	Use	Applicable Fluid	_						Compres	ssed Air						
	Condition	Max. Pressure	MPa		1.57						0.97					
	Connectir	ng Pipe Diameter	B (A)	Rc3/4 (20)	Rc1	(25)	Rc1 (25)	Rc1 <sub>1/2</sub> (40)	Rc1 <sub>1/2</sub> (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	
	Use	Inlet Air Temperature Range	°C						5 –	60						
	Condition	Ambient Temperature Range	℃						2 -	60						
_	Filtration	Rating	μm						1'	:1						
ile	Filtration	Efficiency	%		99.999											
Air Filter	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	160×509	170×591	170×699	173×792	173×949	590×1,511	590×1,511	590×1,511	640×1,735	
	Drain Out	let Diameter	B (A)						Rc1/	4 (8)	'					
	Weight		kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73	
	Item		Model	HMF-7.5BX	HMF-11BX	HMF-15BX	HMF-22B	HMF-37B	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B	
	Use	Inlet Air Temperature Range	℃		5 – 60											
70	Condition	Ambient Temperature Range	℃						2 -	60						
Filter	Density of	Oil in the Discharge Air	wtppm						0.0	<b>1</b> *2						
	Pressure	Initial	MPa						0.0	)1						
Micron Mist	Drop (Loss)	Element Exchange	MPa						0.0	07						
icic	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	
Σ	Drain Out	let Diameter	B (A)						Rc1/	4 (8)						
	Weight		kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73	
	Item		Model	HKF-7.5BX	HKF-11BX	HKF-15BX	HKF-22B	HKF-37B	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B	
Iter	Use	Inlet Air Temperature Range	℃						5 –	60						
i <u>E</u>	Condition	Ambient Temperature Range	℃						2 -	60						
arbc	Density of	Oil in the Discharge Air	wtppm						0.00	<b>3</b> *3						
Ö	Pressure	Drop (Loss)	MPa						0.0	07						
Activated Carbon Filter	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	
\cti	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 Model achieves

Energy saving operation without external controller

#### **V-M Combination System**

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

Energy saving operation with external controller

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

Single-V System

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

#### Multi-V System

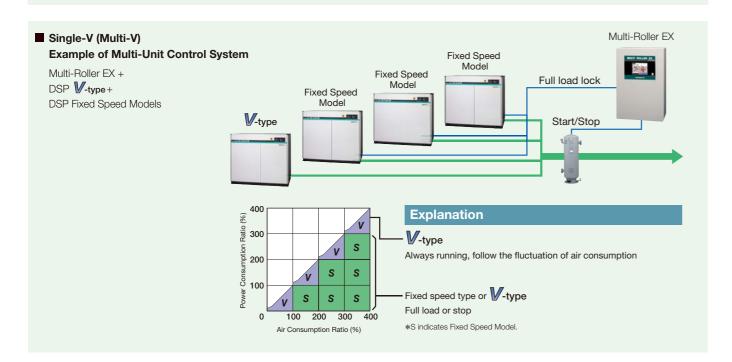
Energy saving operation and averaging V-type operating hour

Fixed Speed Model

Fixed Speed Model

Air Receiver Tank

Air Consumption Ratio (%)



#### **Options**

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

#### NOTE:

- $\ensuremath{\star} 1$  Alternate Operation is possible between same models or models of the same series.
- In case of alternate operation between models of different series, connection and control by Dual Roller is necessary.

  \*2 In case of V-M Combination, modification on the Fixed Speed Model is not necessary.
- \*3 For other options, contact your nearest dealer or Hitachi local representative office.

#### Safety Precautions

#### ■ Regarding compressor application

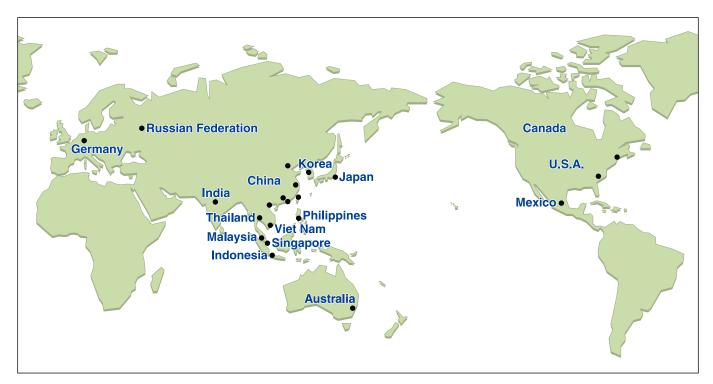
- The compressor described in this catalog utilizes only air as a gas. Absolutely avoid using it for compression of a gas other than air
   — this could result in a fire hazard or damage to the equipment.
- $\ensuremath{\bullet}$  Never use compressed air for human breathing.

#### Regarding installation site

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

#### Regarding usage

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



#### Asia & Oceania

China Hitachi Industrial Equipment Systems (China) Co., Ltd. (Shanghai Branch)

Room2201, Rui Jin Building, No.205

Maoming Road(S) Shanghai 200020 TEL: +86 (21) 5489-2378 FAX: +86 (21) 3356-5070 (Beijing Branch)

Room1420, Beijing Fortune Building, No.5 Dong San Huan Bei Road, Chao Yang District, Beijing 100004

TEL: +86 (10) 6590-8180 FAX: +86 (10) 6590-8189 (Guangzhou Branch)

Room3003, HNA Tower, 8# Linhezhong Road, Tianhe District, Guangzhou 510610

TEL: +86 (20) 3877-3819 FAX: +86 (20) 2735-3820

Hitachi Industrial Equipment Systems (Hong Kong) Co., Ltd.

8/F, Building 20E, Phase 3, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong TEL: +852 2735-9218 FAX: +852 2735-6793

Taiwan Hitachi Asia Pacific Co., Ltd 3rd Floor, No. 167, Tun Hwa N. Road, Hung-Kuo Building, Taipei 10512, Taiwan

TEL: +886 (2) 2718-3666 FAX: +886 (2) 2514-7664

Hitachi India Pvt. Ltd.

Units 304-306, 3rd Floor, ABW Elegance Tower, Jasola District Centre, New Delhi 110 025, India

TEL: +91 (11) 4060-5252 FAX: +91 (11) 4060-5253

#### Indonesia

PT Hitachi Asia Indonesia

Menara BCA 38th Floor Suite #3804 & 3805 Jl. M. H Thamrin No.1, Jakarta 10310, Indonesia

TEL: +62 (21) 2358-6757 FAX: +62 (21) 2358-6755

Hitachi Asia (Malaysia) Sdn. Bhd. Suite 17.3, Level 17, Menara IMC (Letter Box No.5) No. 8 Jalan Sultan İsmail, 50250, Kuala Lumpur

TEL: +60 (3) 2031-8751 FAX: +60 (3) 2031-8758

Philippines
Hitachi Asia Ltd. Philippine Branch Unit 8, 11th Floor Zuellig Bldg., Makati Avenue corner Paseo de Roxas Makati City, Philippines 1225

TEL: +632 886-9018 FAX: +632 887-3794

#### Singapore Hitachi Asia Ltd.

(Industrial Components & Equipment Group)

No.30, Pioneer Crescent #10-15, West Park Bizcentral Singapore 628560

TEL: +65-6305-7400 FAX: +65-6305-7401

Hitachi Asia (Thailand) Co., Ltd. 18th Floor, Ramaland Building, 952 Rama IV Road Bangrak, Bangkok 10500

TEL: +66 (2) 632-9292 FAX: +66 (2) 632-9299

#### Viet Nam

Hitachi Asia Ltd.

(Ho Chi Minh City Office) 4th Floor, The Landmark, 5B Ton Duc Thang Street District 1, Ho Chi Minh City

TEL: +84 (8) 3829-9725 FAX: +84 (8) 3829-9729

(Ha Noi Office) Sun Red River Bldg., 5th Floor, 23 Phan Chu Trinh Street Hoan Kiem District, Hanoi TEL: +84 (4) 3933-3123 FAX: +84 (4) 3933-3125

#### Australia

Hitachi Australia Pty Ltd. Level 8, 123 Epping Road, North Ryde, NSW 2113

TEL: +61 (2) 9888-4100 FAX: +61 (2) 9888-4188

#### **Europe** Germany

Hitachi Europe GmbH (Industrial Components & Equipment Group)

Am Seestern 18 (Euro Center) D-40547 Düsseldorf TEL: +49 (211) 5283 0 FAX: +49 (211) 5283 649

Hitachi, Ltd. (Moscow Office) Millenium House, 12, Trubnaya, Moscow 107045

TEL: +7 (495) 787-4020 FAX: +7 (495) 787-4021

#### **Latin America**

Mexico

Hitachi Industrial Equipment Mexico S.A. de C.V.

Avenida Rio Seguro 161, Parque Tecno Industrial Castro del Rio Tramo Irapuato-Silao km125, Carretera Panamericaa C.P.36810, Irapuato, Gto., Mexico

TEL: +52 (462) 693-7088, -7089, -7090 FAX: +52 (462) 693-7091

#### **North America**

Hitachi America, Ltd. (Industrial Components & Equipment Division)

50 Prospect Avenue, Tarrytown. New York, 10591-4625 TEL: +1(914) 332-5800

FAX: +1(914) 332-5555 (Charlotte Office) (Industrial Components & Equipment

Division) 6901 Northpark Blvd., Suite A, Charlotte,

NC 28216

TEL: +1 (704) 494-3008 FAX: +1 (704) 599-4108

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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