

Hitachi Rotary Screw Compressors

HITACHI
Inspire the Next

HISCREW

NEXT II series (18-75kW)





**More Efficiency
Fit to Improve Productivity
Higher Level of User-friendly**

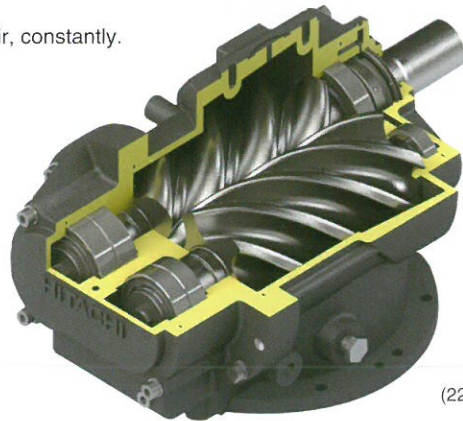
NEXT II series

Full Range Loaded with High Efficiency Motor

New Developed Air-End

Hitachi Latest Innovation of Air-End Technology

- High efficiency Air-End with low-noise and low-vibration supplies compressed air, constantly.



(22/37kW)

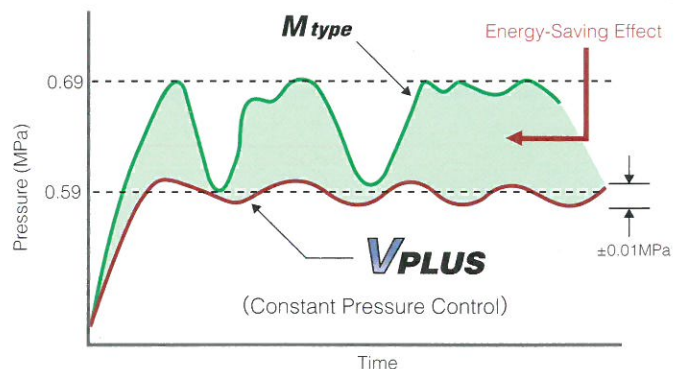
High Efficiency Capacity Control

VPLUS

Since Constant Pressure Control allows highly precise pressure control within range of $\pm 0.01\text{MPa}$, supply of compressed air at necessary pressure is possible with high efficiency.

M type

On M type models, I+P control (purge + motor auto START/STOP) is applicable during partial load operation.



IPC Control (Intelligent Pressure Control)

VPLUS Mtype

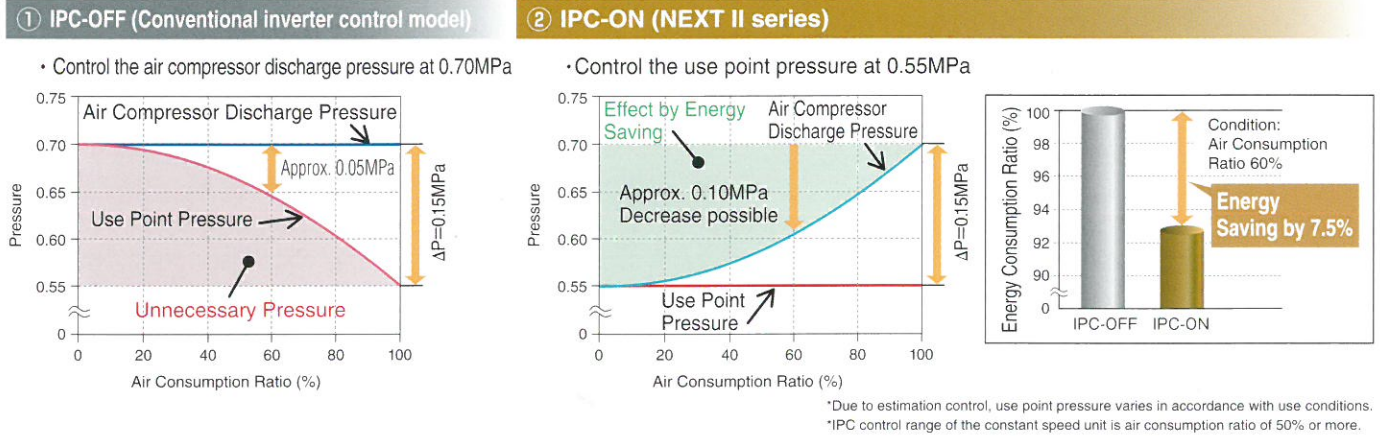
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables Energy-Saving.

Patent JP4425768 and others

Example of effect by IPC

- Conditions**
- Air compressor: OSP-37VAN2
 - 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)



Multi-Function Touch Panel*

- Significant Improvement of User-friendly
- Various Functions Available
- Operation Data Logging

Main Functions

- Schedule Operation (Weekly Timer)
- Instantaneous Power Interruption (IPI) Restart Function
- Alternate Operation (Option)
- Multi-unit Control (Option)
- AUTO Operation
- Communication Function
- Web Server Function
- Display/Store of Operation Data
- Store/Load of Settings
- Maintenance Time Notification
- Operation Data Memory, Display in Graph
- Display of Shutdown and Alarm History

*Touch panel less option does NOT have these functions. (Touch panel less option is available only for 18/22/30/37MAN2.)

IT Communication Functions*

USB Flash Memory Possible for Data Logging

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

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

Web Server Function via Bluetooth®

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

Modbus® Communication

Open network serial communication Modbus®/RTU is supported as standard

*Modbus®/TCP support is optional.



*Touch panel less option does NOT have these functions.
(Touch panel less option is available only for 18/22/30/37MAN2.)

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

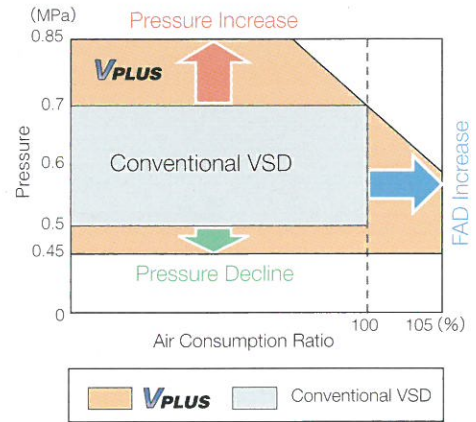
Versatility in Hitachi Original Technology

PQ WIDE MODE

PQ WIDE MODE, by automatically adjusting the maximum rotation speed of the compressor, enables to increase the discharge FAD in case that the pressure declines. Compared to conventional VSD, compressor is possible to operate at a wider range of pressure (P) and FAD (Q).

FAD at PQ WIDE MODE

Model	Discharge Pressure MPa					Unit: m ³ /min.
	0.45	0.50	0.60	0.70	0.85	
22kW	4.3	4.3	4.3	4.1	3.6	
37kW	7.1	7.1	7.1	6.8	6.2	
55kW	10.6	10.6	10.6	10.1	9.1	
75kW	14.0	14.0	14.0	13.3	12.0	



Various System Combinations with VPLUS

To respond to the change of air use, Hitachi provides various system combinations with VSD for further Energy-Saving.

V-M Combination System

If 2 or 3 compressors are necessary, Hitachi V-M combination system is your excellent choice. There is great merit on Hitachi V-M combination system which divides 1 compressor into 2.

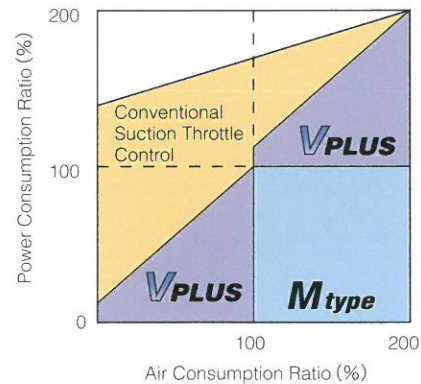
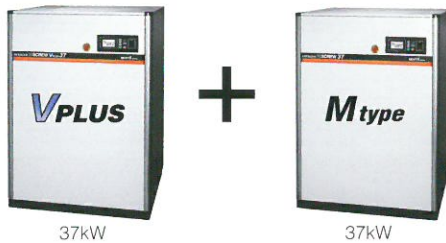
Single-V System/Multi-V System

Besides V-M Combination System, Energy-Saving is also possible with any combination such as Single-V multi-unit control system, or Multi-V multi-unit control system etc.

Example Effect of V-M Combination System

- 1 Energy consumption is similar to the one of 75kW V plus.
- 2 Power consumption is saved by **39%** or **164MWh/year**, when the air consumption ratio is 60% at pressure of 0.6MPa.

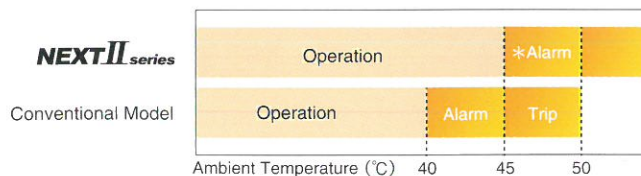
* Calculation condition: 6,000h/year running



High Reliability

Up to 50°C

- Standard up to 45°C
- Operation is possible under 50°C



* Ambient temperature alarm will be indicated when ambient temperature is over 45°C. Continuous operation at higher than 45°C may shorten lifetime of lubricating oil and electric parts.

AC Reactor*

- Protect Fan Inverter against voltage surge due to unstable power supply.

*For 22/37kW and 55/75kW only

NEW HISCREW OIL NEXT

- Designed for screw air compressor.
- Oil change cycle is every 2 years or 12,000hr which comes first.



Package Filter as Standard

- Easy maintenance
- Maintenance information is indicated on the touch panel periodically.



Standard Specification (18–75kW)

VPLUS

Model		OSP-22VAN2		OSP-37VAN2		OSP-55VAN2		OSP-75VAN2		
Item - Unit										
Cooling Method	-	Air-Cooled								
Nominal Output	kW	22		37		55		75		
	HP	30		50		75		100		
Rated	Discharge Pressure	MPa	0.7							
		PSI	102							
	Discharge Capacity	m ³ /min	4.1		6.8		10.1		13.3	
		CFM	145		240		357		470	
PQ WIDE MODE	Discharge Pressure	MPa	0.6	0.85	0.6	0.85	0.6	0.85	0.6	0.85
		PSI	87	123	87	123	87	123	87	123
	Discharge Capacity	m ³ /min	4.3	3.6	7.1	6.2	10.6	9.1	14.0	12.0
		CFM	152	127	251	219	374	321	494	424
Intake Air Pressure/Temperature	-	Atmospheric Pressure / 0 to 45°C								
Discharge Temperature	°C	Atmospheric Temperature + 15 or below								
Driving Method	-	DCBL Motor Direct Drive				DCBL Motor with Coupling				
Starting Type	-	Soft Start								
Lubricating Oil	-	HITACHI NEW HISCREW OIL NEXT								
Lubricating Oil Quantity	-L	10		15		28		39		
Nominal Output of Cooling Fan	kW	1.5 (with Inverter Control)				2.2 (with Inverter Control)				
Discharge Pipe Diameter	-	Rc 1-1/2				Rc 2				
Dimension (WxDxH)	mm	1,000x1,050x1,550		1,200x1,150x1,650		2,000x1,200x1,800				
Weight	kg	450		670		1,230		1,405		
Sound Level	dB [A]	58		60		64		66		

M type

Model		OSP-18M5AN2		OSP-22M5AN2		OSP-30M5AN2		OSP-37M5AN2		
Item - Unit										
Cooling Method	-	Air-Cooled								
Nominal Output	kW	18		22		30		37		
	HP	24		30		40		50		
Rated	Discharge Pressure	MPa	0.7 <0.85>		0.7 <0.85> [1.0]		0.7 <0.85>		0.7 <0.85> [1.0]	
		PSI	102 <123>		102 <123> [145]		102 <123>		102 <123> [145]	
	Discharge Capacity	m ³ /min	3.4 <3.0>		4.0 <3.7> [3.3]		6.0 <5.4>		7.2 <6.6> [5.8]	
		CFM	120 <106>		141 <131> [117]		212 <191>		254 <233> [205]	
Intake Air Pressure/Temperature	-	Atmospheric Pressure / 0 to 45°C								
Discharge Temperature	°C	Atmospheric Temperature + 15 or below								
Driving Method	-	4-Pole TEFC Motor with V-Belt Drive								
Starting Type	-	Star-Delta								
Lubricating Oil	-	HITACHI NEW HISCREW OIL NEXT								
Lubricating Oil Quantity	L	10				15				
Nominal Output of Cooling Fan	kW	1.5		1.5 (with Inverter Control)		1.5		1.5 (with Inverter Control)		
Discharge Pipe Diameter	-	Rc 1-1/2								
Dimension (WxDxH)	mm	1,000x1,050x1,550				1,200x1,150x1,650				
Weight	kg	670		930		930		930		
Sound Level	dB [A]	59		65		65		65		

Model		OSP-55M5AN2		OSP-75M5AN2		
Item - Unit						
Cooling Method	-	Air-Cooled				
Nominal Output	kW	55		75		
	HP	75		100		
Rated	Discharge Pressure	MPa	0.7 <0.85> [1.0]			
		PSI	102 <123> [145]			
	Discharge Capacity	m ³ /min	10.0 <9.0> [8.3]		13.2 <11.9> [10.9]	
		CFM	353 <318> [293]		466 <420> [385]	
Intake Air Pressure/Temperature	-	Atmospheric Pressure / 0 to 45°C				
Discharge Temperature	°C	Atmospheric Temperature + 15 or below				
Driving Method	-	2-Pole TEFC Motor with Gear Driving				
Starting Type	-	Star-Delta				
Lubricating Oil	-	HITACHI NEW HISCREW OIL NEXT				
Lubricating Oil Quantity	L	29		40		
Nominal Output of Cooling Fan	kW	1.5 (with Inverter Control)		2.2 (with Inverter Control)		
Discharge Pipe Diameter	-	Rc 2				
Dimension (WxDxH)	mm	2,000x1,200x1,800				
Weight	kg	1,400		1,690		
Sound Level	dB [A]	65		67		

Notes:

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Pressures are indicated as the gauge pressure.
- Sound Level is the converted value under the condition of 1.5m in front and 1m height in an anechoic room.
It may vary in different operating conditions and/or different environment with echo of actual field installations.
Sound Level may be increased by 3dB at PQ WIDEMODE ON.
- Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
- Do NOT use any oil other than "HITACHI NEW HISCREW OIL NEXT".
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- < > [] show values of capacity under different discharge pressures.
- 1.0 MPa model is ONLY available on 22/37/55/75kW M type.
For details, contact your nearest dealer of Hitachi local representative office.
- Digital instrument panel can be chosen only for M type (18/22/30/37kW) as Touch Panel less option.



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