

Multi-Unit Controller for Hitachi Compressor

MULTI ROLLER EX

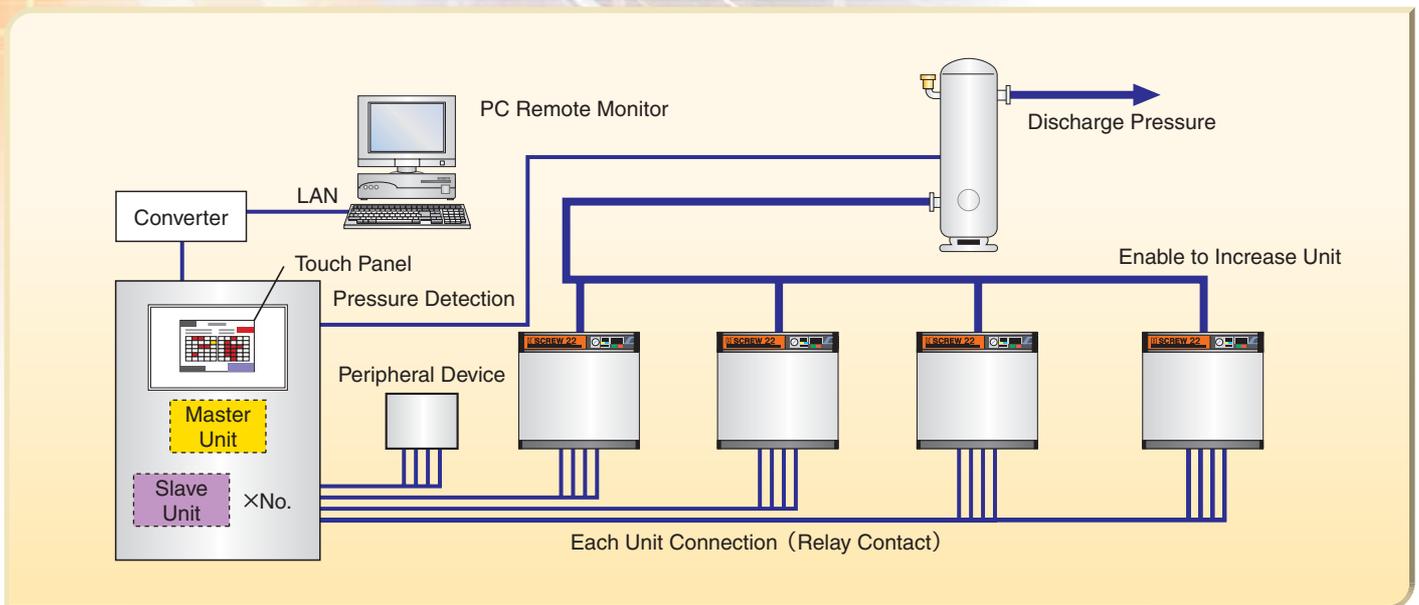
Efficient Multi Control Enables Advanced Productivity



MULTI ROLLER EX

Energy-Saving, Labor-Saving, Multi-Functional Multi-Unit Controller Employs the Finest Hitachi Technology

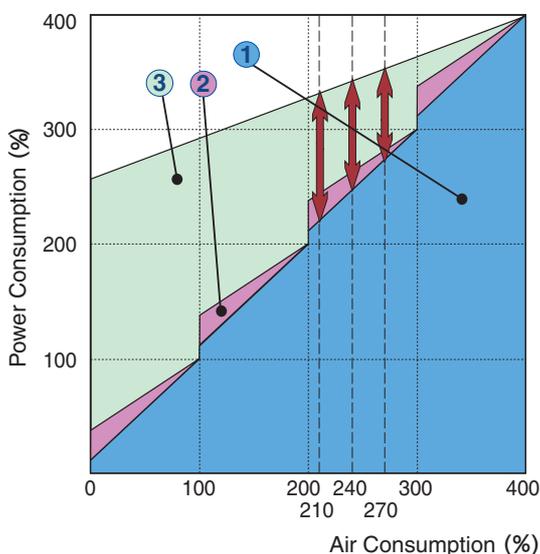
Hitachi Multi Roller EX efficiently controls up to 12 compressors by pressure sensor and dedicated controller for effective energy-saving. It can also control maximum of 14 peripheral devices (up to 12 separate air dryers and 2 cooling pumps).



Energy-Saving

Multi Roller EX Offers Excellent Reductions in Energy Consumption

- Multi-unit control allows greater energy saving for Multi Roller EX, compared to parallel operation performed by conventional models (modulation control).
- The Multi Roller EX enables even greater energy saving when combined with V-type models.



- ① New Type Single-V/Multi-V Unit-Control System
- ② New Type Unit-Control System (Combined with Constant Speed Model)
- ③ Parallel Operation System by Conventional Model (Module Control)

Unit: MWh

Air Consumption	Energy-Saving Effect	
	③—①	③—②
270%	164	147
240%	205	171
210%	243	195

* Conditions : Oil-flooded, air-cooled, 37kW, model without air dryer (x 4 units), operating 6,000 hours/year

MULTI ROLLER EX

Easier Operation and Clear Visibility

Touch Panel with Liquid Crystal Display

Interactive interface makes control and setting simple.

Menu	Operation Control	Operation Monitor	Shutdown History

Scheduling Function

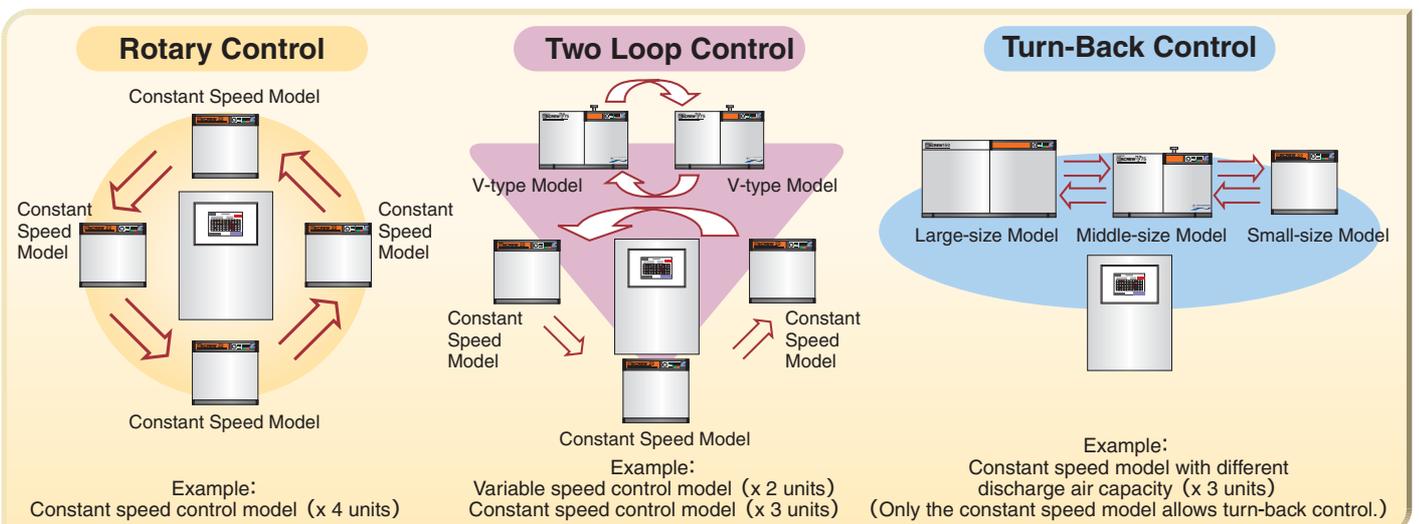
Standard Equipment: Weekly Operation and Second Pressure Setting Function

- Allows weekly schedule to be set (for multi-unit control).
- Energy is saved by setting the second pressure separately depending on the day/time of week.

Pressure Setting 1	Weekly Setting	Pressure Setting 2	Weekly Pressure Setting 2

Loop Control

3 Control Pattern Options



Other Control Functions

High-Level Functions are Equipped as Standard

Direct Control for V-type Models

Easy to combine with constant speed model due to direct control signal from Multi Roller EX to V-type model.

- No control piping modification necessary for either Single-V or Multi-V control.
- Pressure setting adjustment for V-type models (compressor side) is unnecessary because pressure is set by the Multi Roller EX side.

Operation Hours Equalizing Function

When the air capacity is stable and the same unit continues to operate, this function will equalize the operation time.

Auto/Solo Select Function

Auto/Solo can be selected at any time.

IPI (Instant Power Interruption) Blackout Auto Restart Function

Prevents compressor shutdown caused by IPI.

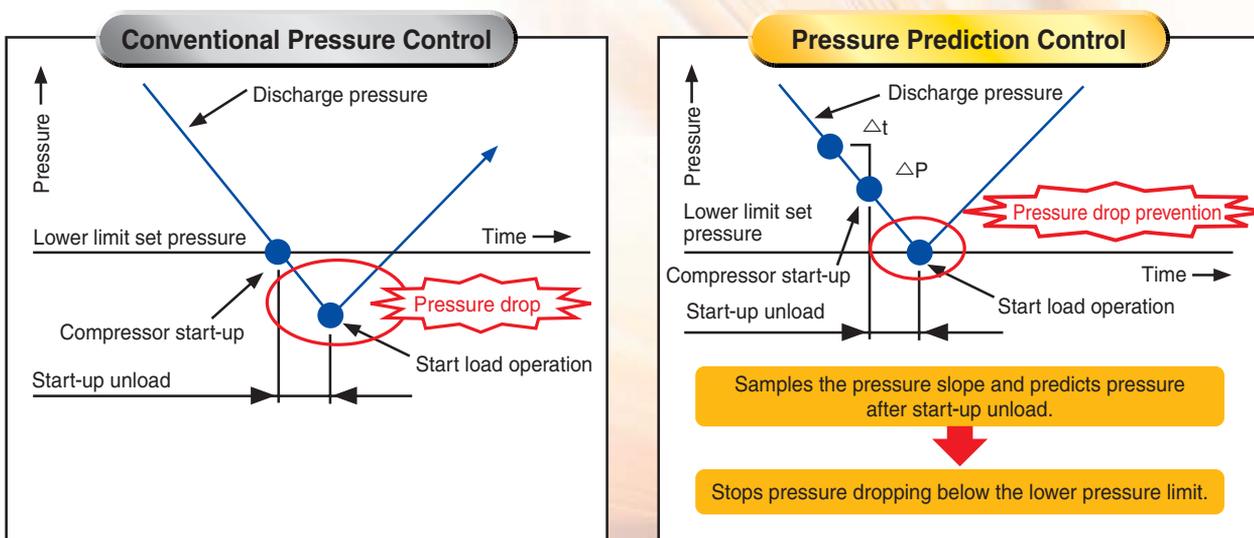
When IPI occurs, the Multi Roller EX will restart automatically.

- Operation continues up to 20msec.
- When IPI occurs, the compressor shuts down once and restarts operation again automatically.
- Selectable auto restart function.
- Possible to combine with compressor with IPI auto restart function.

Pressure Prediction Control Function (Patented)

Control Pressure Drop by Backup Operation for Start-up Timing

- Calculates pressure drop slope. Speeds up the start-up timing and controls pressure drop by predicting the lowest point.
(Only when in combination with constant speed model)



MULTI ROLLER EX

Auxiliary Device Control Function

Equipped with Auxiliary Device Control as a Standard Feature

Enables control of up to 12 separate air dryer units and 2 cooling water pump units.



Standard Specifications

Item		Model	Collection-Type Multi Roller EX		
			MR26-4E	MR26-8E	MR26-12E
Environment	Location	Indoors (hooked on wall)			
	Temperature	0 to 40 deg. C			
Power Supply		Single-phase AC100/200V(common)			
Frequency		50/60Hz (common)			
Controlled Units		4	8	12	
Touch Panel		Color LCD 5.7 inch			
Control Function		Equalizing Operation Hours Auto/Solo Select IPI (Instant Power Interruption) Blackout Auto Restart Pressure Prediction Control Auxiliary Device Control			
Input	Discharge Pressure	0 to 1 MPa (digital display)			
	Control	Operation answer, shutdown			
Output	External	Start, stop, external forced start-up, flow volume			
	Control	Start, stop, load, PID command			
Output	External	Start, shutdown, auto			
	Control Discharge Pressure Range	Can be set to ± 0.001 MPa			
Dimensions (Width x Length x Height)		400 x 200 x 600	500 x 200 x 900	500 x 200 x 1200	
Weight		19kg	32kg	37kg	
Painting Color Coating		Cream (equivalent to Munsell No. 5Y7/1)			

Precautions for Use of System

[Compressor Operation]

· For compressor maintenance, always set compressor to "SOLO" and handle after setting the breaker off. If the Multi Roller EX is set to Auto Restart after a power interruption, it will always restart multi-unit control after power recovery and output an operation command to the compressor.

[Electrical System]

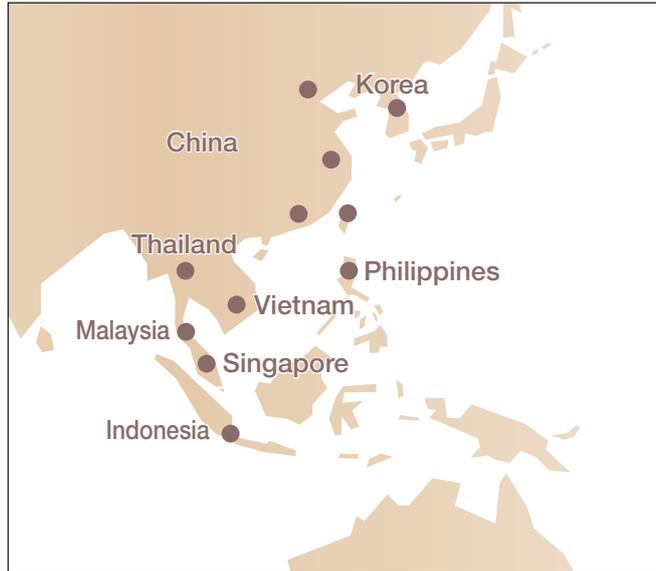
- If combining with a DSP V-type model, always use the same power supply system for the DSP V-type model and set both to "OFF" for IPI.
- We recommend installing the compressor and Multi Roller EX Breaker on the same power supply system and wiring a breaker for each.
- To prevent malfunction in the collection-type Multi Roller EX, AC and DC wires should be wired by a separate shielded line. For the built-in compressor type Multi Roller EX, use twist pair communication cables.
- Each compressor earth wire and Multi Roller EX earth wire should be set into the ground. Take special care to ground the V-type earth wire separately from other earth wires.

[Model]

- PQ WIDEMODE function is not applicable for Vplus. (As of March 2005)

⚠ Safety Precautions

- Compressor applications
 - The compressor described in this catalogue is only to be used for air compressor related products.
- Installation site
 - The compressor must be installed indoors. Avoid places susceptible to moisture (precipitation/vapors), as this can lead to fire, electric shock, rusting or the shortening of parts life.
 - To prevent fire, keep away from explosive or flammable gas (acetylene, propane, etc.), organic solvents, explosive powders and flames.
 - Avoid places with corrosive gas such as ammonia, acid, salt sulfurous acid gas, etc. as contact with such gases may cause rusting or damage to equipment.
- Usage
 - Read the instruction manual thoroughly and be sure to use the compressor correctly.
 - Do not modify the compressor or its components as this could result in damage or malfunction.



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