



Oil Injected Screw Compressor General Catalog





KOBELCO COMPRESSORS CORPORATION

KOBELCO COMPRESSORS MANUFACTURING (SHANGHAI) CORPORATION

Information in this catalog such as values, photographs, evaluation is listed for the purpose of explaining the general features and performance of our products only, and it does not guarantee anything as a result. In addition, the information contained in this catalog is subject to change without notice, so please contact our sales offices above for the latest information.

Oil Injected Screw Compressor 2410







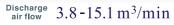




Group control









KOBELCO



AG







15-90 kW

 $\begin{array}{c} {}^{\text{Discharge}} \\ {}^{\text{air flow}} \end{array} \ 2.18 \text{--} 18.1 \ m^3/min \end{array}$ 

P.14









Large type VS+/AG+ series

110-160 kW

 $19.0 - 35.0 \,\mathrm{m}^3/\mathrm{min}$ 



P.19

# KOBELION SCREW COMPRESSOR

Large type VS/AG series

110-250 kW

 $18.6 - 43.4 \,\mathrm{m}^3/\mathrm{min}$ 





P.21

(kW)

														(12.11)
Model	Туре	15	22	30	37	45	55	75	90	110	132	160	200	250
VS+	INVERTER							•		•	•	•		
VS	INVENTER							•		•	•	•		
AG+										•				
AG	Fixed speed	•	•					•		•		•	•	
SG		•	•	•	•	•	•	•	•					



# WHAT'S NEW



#### Ultimate Energy saving

With newly developed screw elements, achieved up to 15% lower specific power consumption and up to 17% more air volume compared to previous model.



### Outstanding quietness

The insulation materials, flow of unit ventilation air, and frequency of noise were all reviewed and optimised for outstanding quietness.



#### Up to 50°C ambience

Designed with enough margin against temperature, continuous duty up to 46°C, can be operated up to 50°C.



#### Full color touch monitor\*

Newly developed "NGSC-430/700" is sophisticated LCD interface which enables you to figure out necessary information at a glance.

\* Available for NGSC-430/700 controller

**NEW GENERATION** 

KOBELION-1st generation launched in 2002,

presenting innovative concept in the industry.

When we developed NEW GENERATION KOBELION, we redefined every key component, from screw element, inverter, cooler to controller and took the most forward-looking way to design each of them. All new are for

the best, making KOBELION as masterpiece.

KOBELION Debut.

22-75 kW

 $3.8 - 15.1 \,\mathrm{m}^3/\mathrm{min}$ 

P.23

Ultimate Efficient Inverter Model.

Summit of high-tech for extreme efficiency. Premium energy saver with industrial top notch Air-End, super premium efficiency (IE4 equiv.) IPM motor, built-in overhung design. Much wider range, much better usability.

Energy saving with Inverter

New Wide Range Control

Super premium efficiency IPM motor (IE4 equiv.)

Built-in overhung design

Up to 50 ℃ ambient condition

BUILT-IN OVER HUNG DESIGN, as identity of KOBELION.

Now, you can feel the GENUINE.

#### ■ High efficiency

Motor rotor is directly mounted on the rotor shaft. No coupling, no belt and no gear design realize zero transmission loss.

#### **■** Easy maintenance

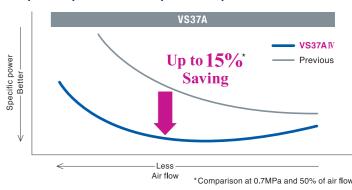
With built in overhung design, adjusting and replacing of v-belt is no longer necessary. It is not even required to change or re-grease motor bearings.



#### Ultimate specific power consumption

Thanks to newly developed Air-End from its rotor profile, super premium efficiency IPM motor and optimised package design, KOBELION VS achieved best in class specific power consumption.

#### Specific power consumption comparison





## Super Premium Efficiency IPM Motor (IE4 equiv.)

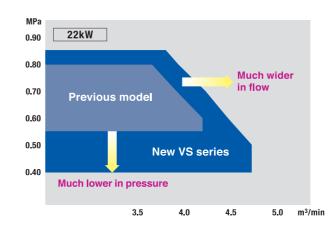
New KOBELION VS series equips super premium efficiency IPM (interior permanent magnet) motor, which efficiency is equivalent to IE4 of IEC standard. IPM has better efficiency from low load to high load compare to induction motor. This IPM is with oil cooled jacket cooling system with insulation class H, which has better resistance to high ambient conditions.

(\*) Standard of motor efficiency is defined by IEC (International Electrotechnical Commission) standard and it defines IE1=Standard Efficiency, IE2=High Efficiency, IE3=Premium Efficiency, and IE4=Super Premium Efficiency for induction motor. As IPM is synchronous motor, IPM is not defined in this scheme. IPM equipped on VS series has the efficiency beyond IE4 of induction motor, and has good efficiency in wide range of the working load.



#### New Wide Range Control

In case that required pressure of compressor is 0.5MPa, you may be able to use one size smaller compressor. Wide Range Control of KOBELION VS can deliver much higher flow when it runs at lower pressure point. KOBELION VS senses line pressure and automatically change maximum rpm limit. New KOBELION VS achieves much higher flow and much wider pressure range. As a leading company of Inverter compressor, we can offer cutting-edge value.



# ■ Increased discharge air flow by

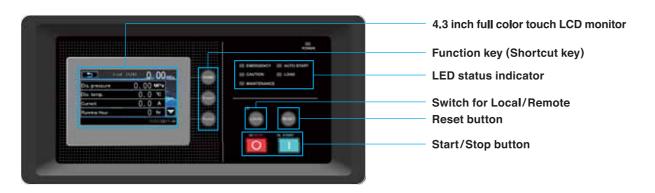
Wide Range Control (m³/mir												
	0.85MPa	0.8MPa	0.7MPa	0.5MPa	0.4MPa							
22kW	3.8	3.94	4.22	4.72	4.72							
Increased rate	Base	104%	111%	124%	124%							
37kW	37kW 6.3 6.5 7.0 7.6											
Increased rate	Base	103%	111%	121%	121%							
55kW	9.65	10	10.6	11.4	11.8							
Increased rate	Base	104%	110%	118%	122%							
75kW	12.9	13.1	13.9	14.8	15.1							
Increased rate	Base	102%	108%	115%	117%							

10



# New Generation Smart Controller

# NGSC-430 controller as standard



NGSC-430 for VS series equips 4.3 inch full color touch operation monitor. Sophisticated LCD interface enables you to figure out following information at a glance.

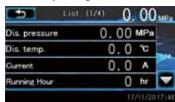
- Operating condition Maintenance schedule
- Alarm / Interlock list Alarm / Trip history
- Compressor settings
- Flow diagram
- Daily, Weekly, Monthly record

#### Various user interface

# Home window



Operating condition



Flow diagram





Setting home screen





# Compressor Group Control



Up to 6 units of compressor can be control by inbuilt sequencing function without external control panel. (Hard wire connections are needed)

#### Other features

- 3 mode pressure setting
- Energy saving logic USB data logging
- Modbus I / O
- 7500V lightning surge killer Multi language (JPN/ENG/CHN) etc.
- Overload protection
- Instant power failure ride-through: [AG]~0.3 sec [VS]~0.5 sec
- Automatic restart : 5~20 sec
- Reverse phase protection







## Monitor can be upgrade as option

#### **NGSC-700 Controller**



- 7.0 inch full color touch LCD monitor
- Operation / Maintenance / Alarm / Interlock information
- Flow diagram
- Operation record / Chart display
- Weekly timer

- Compressor setting (3 pressure mode setting, output signal terminal settings)
- Group control (2 units / 6 units)
- USB data logging
- Modbus I / O

etc

#### ■ Controller can be upgrade as option





# Why INVERTER? Question actually should be "WHY NOT?"



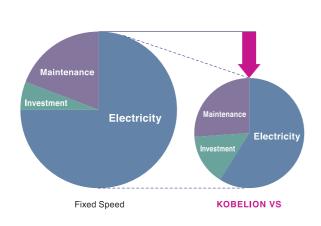
Since we firstly applied IPM motor on INVERTER compressor in 1998, we have been accumulated know-how of INVERTER compressor for nearly 20 years. Our advanced energy saving technology have been chosen by various fields of industry over the years.

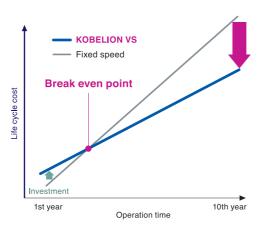


#### Down-to-earth investment for the future

What's important is not initial cost but life cycle cost (LCC). INVERTER compressors may look more expensive than fixed speed model, but many customers choose them because they know importance of life cycle cost (LCC) & return on investment (ROI) when it comes to choosing compressors.

#### ■ Life cycle cost (LCC) comparison





# Can Save

300<sub>/0</sub>

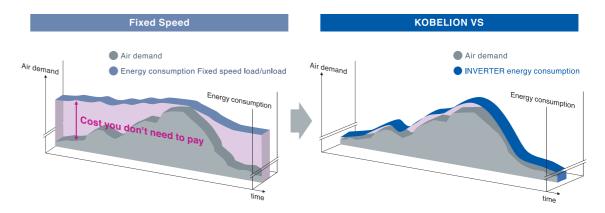
of life cycle cost (LCC)

- \* Comparison model VS22IV (Latest INVERTER model)
  - SG22A (Previous fixed speed model Load/Unload)
- \* Conditions Yearly running hour:6,000hours, Total running year:10 years:Load ratio:40%, Investment and maintenance cost is as per KOBELCO conditions.
- \* The energy saving outcome of introduction of inverter compressors can vary depending on actual running situations.

### What you pay should be only for what you use

In every situation in our life, we pay only for what we eat, drink and use etc. Of course, compressors also should be that way. KOBELION VS can adjust compressor's rotating speed depends on the demand of factory load which changes from moment to moment by own developed algorithm. Thus, it can provide exact volume and pressure what customer needs and achieve maximum energy saving.

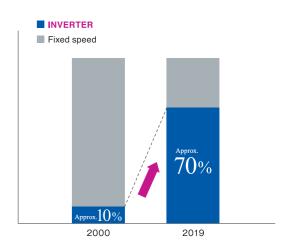




## Already majority in Japan

70<sub>0</sub>/<sub>0</sub>

The percentage of INVERTER type KOBELCO\*1 ships in Japanese market is approx. 70%\*2. In 2000, INVERTER ratio was only approx.10%. This is a sign of fact that people are getting aware of importance of "Life Cycle Cost (LCC)" and "Return on Investment (ROI). Now INVERTER is not special but mainstream for every industry. \*1:15~75kW/oil injected type \*2:As of 2019 April



Discharge air flow

 $2.18 - 18.1 \,\mathrm{m}^3/\mathrm{min}$ 

P.23

15-90kW

KOBBIGO

New Generation Air-end, Direct Gear Drive, IE3 premium efficiency motor standardly equips to minimize all types of losses and achieves best rated performance as base load machine. Industry leading quality with IoT compatible control. Best in class air flow in all the range.

PREMIUM LINE

- Fixed speed model

Extreme efficiency

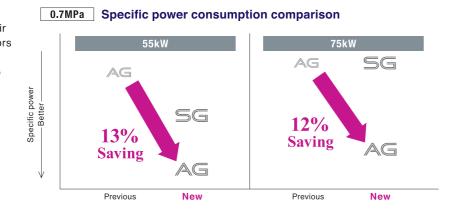
Direct Gear Drive

Premium efficiency motor (IE3)

Resistance to high ambient up to 50°C

### Ultimate specific power consumption

KOBELION AG equips state-of-the-art extra large size air end. Newly developed profile rotors and flow-optimized bearing lube control boost energy efficiency to the highest standard. Up to 15% energy, 8.5% on average more efficient compare to its previous model.







NGSC-430 controller as standard\* \*AG90 is equipped with a 7.0 inch monitor.



- 4.3 inch full color touch LCD monitor
- Operation / Maintenance /
- Alarm / Interlock information
- Flow diagram
- Operation record / Chart display
- Weekly timer

- Compressor setting (3 pressure mode setting, output signal terminal settings)
- Group control (2 units / 6 units)
- USB data logging
- Modbus I / O

15-90kW

Discharge air flow

 $2.18 - 18.1 \,\mathrm{m}^3/\mathrm{min}$ 

P.24



New Generation Air-end, Direct Gear Drive, IE3 premium efficiency motor standardly equips. Integration of cutting-edge technology as industrial compressor for highest reliability and simple controlability.

- Fixed speed model

Best-in-class discharge air flow

Direct Gear Drive

Premium efficiency motor (IE3)

Resistance to high ambient up to 50°C

#### Direct Gear Drive (AG/SG)

Designed to achieve best efficiency in rated load. Precise machined helical gears are directly mounted on motor shaft and eliminate coupling or v-belt. Single piece drive train minimize vibration of rotating part and mechanical losses. Also adjusting and replacing of v-belt is no longer necessary. All the model is with IE3 Premium efficiency motor.



(m³/min)

#### Best in Class discharge air flow

Previous model

New SG series

New KOBELION SG achieves best-in-class discharge air flow, and max 17% increase from existing model, thanks to New Generation Air-end.

30kW





Model	0.75MPa	0.85MPa	1.05MPa
SG30AIV	5.9	5.4	4.75
Previous model	109%	110%	111%
SG37A IV	7.0	6.4	5.7
Previous model	105%	102%	104%
SG45AIV	9.1	8.5	7.7
Previous model	112%	112%	117%

#### NGSC-200 controller as standard



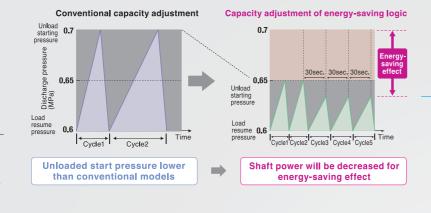
- 5 digits segment LED monitor
- Operation / Maintenance / Alarm / Interlock information
- Compressor setting
- LED status indication
- Remote I/O (Start/Stop/Load/Alarm/Trip)
- Modbus I/O

16

## Other features

#### Energy saving logic

KOBELCO's "Energy saving logic" can reduce pressure band of load/unload control to eliminate excess pressure hike.





# Reliable 3-step Oil separation system

Centrifugal, Gravity, Coalescing filtration 3-step oil separation system enables to remove oil mist from compressed air efficiently. Oil vapor in the compressed air is less than 1.6 ppm(\*).

(\*) As per our reference condition

# Dust filter as standard

Unit dust filter standardly equipped for all model. Prevent heavy dust enter into the compressor package.

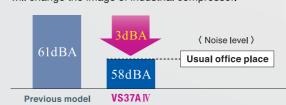




## Low noise package

New KOBELION achieves world best class low noise during operation.

Latest noise simulation analysis and our package design will change the image of industrial compressor.



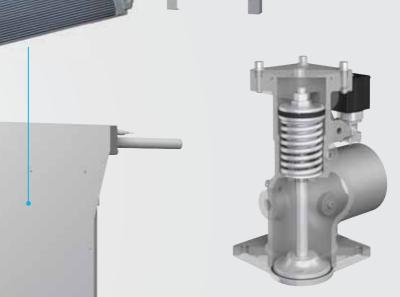
# Up to 50 ℃ Ambient

KOBELION is designed for operation up to 50  $^{\circ}\text{C}$  ambient condition.

All the component like split designed oil cooler and after cooler is designed for extreme condition.

Against 46°C continuous duty, we still have safety margin.

\*Maintenance interval may be changed under the surrounding condition of above 46°C.



# Special design unloader valve

KOBELCO special design suction unloader valve equipped.

Minimum pressure loss, high reliability.

Less chance of trouble, and longer maintenance life.

## More reliable bearing

New KOBELION equips bearings with stabilizing treatment.

This is our endless challenge for more reliability.



Motor power

75-90kW

Discharge air flow

12.8-20.2 m<sup>3</sup>/min P.23

The direct-coupled gear-driven inverter models are equipped with a super premium efficiency IE4 induction motor, which has high energy-saving performance and a wide pressure range to meet the needs of customers.

#### DIRECT GEAR DRIVE MODEL



Energy saving with Inverter

nverter Direct Gear Drive

Super premium efficiency IE4 motor as standard

New Wide Range Control

Up to 50 ℃ ambient condition

7.0 inch full color touch LCD monitor

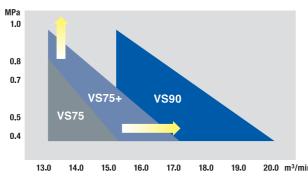
#### Super premium efficiency motor (IE4)

Equipped with a super-premium efficiency IE4 induction motor, the energy-saving performance reaches the highest level in the series.



## "Wider and more" New Wide Range Control

The selection of the optimum air-end and the direct gear structure with the motor realize high air volume, and at low pressure setting, the wide range control function covers the air volume range of machines one size larger. The optimal model can be selected for your low-pressure needs.







#### NGSC-700 controller as standard



- 7.0 inch full color touch LCD monitor
- Operation / Maintenance / Alarm /
  Interlock information
- Flow diagram
- Operation record / Chart display
- Weekly timer

- Compressor setting
- (3 pressure mode setting, output signal terminal settings)
- Group control (2 units / 6 units)
- USB data logging
- Modbus I/O
- etc

Quality, always our first priority • Complete in-house technologies, including screw element material Our prides Insatiable challenges for technology upgrade No compromise for every detail • Proven experience of over 100 years

20

110-160kW

P.25

 $19.0 - 35.0 \,\mathrm{m}^3/\mathrm{min}$ 



# Large high-efficiency model with further evolution.

The ultimate high-efficiency model equipped with a newly developed air-end and optimized pressure loss in each part. KOBELCO's overwhelming technological strength delivers to you the simple design of single-stage compression and high efficiency, together with conventional reliability.

New generation Air-end

Direct Gear Drive

Super premium IE4 motor as standard

New Wide Range Control

Up to 50 ℃ ambient condition

## Powered by Cutting-Edge High-Efficiency Air-End

New generation air-end, delivering significant efficiency improvement compared to previous model. Direct-Gear-Drive design eliminates maintenance of coupling and v-belt ensuring seamless integration of the powertrain. Experience enhanced reliability and extended maintenance intervals.



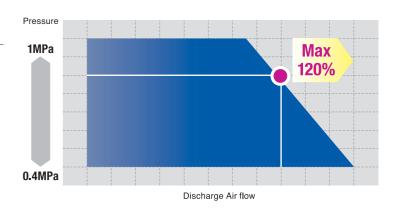
### Super premium IE4 motor as standard

Equipped with industry-leading IE4 motors across all models, achieving top-class efficiency. The utilization of dimensionally stabilized bearings enhances reliability under high-load conditions.



## Wide range control (VS+)

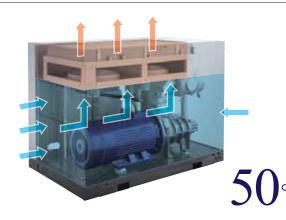
KOBELCO's wide range control, a pioneer in low-pressure increased airflow control for inverter machines, is also applied to large oil-injected models. A single model provides optimal variable speed control at all pressure points to optimize the user's energy-saving benefits.



## Improved air quality and environmental durability



The adoption of spacious air piping and Victaulic joints reduce vibration and contributes to low pressure losses in the discharge air lines. The oil separation performance maintains its industry-leading standards of 1.6ppm and less.



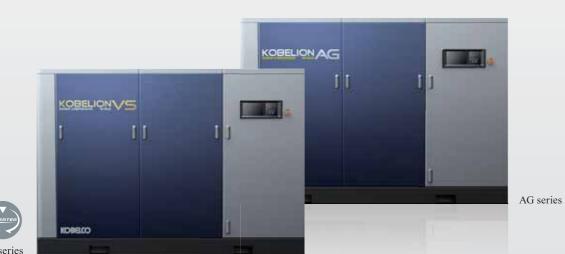
Standard equipped filter elevates the environmental performance against dust and firth. Optimized cooling system enables to run even up to 50°C ambient temperature.

# KOBELIONVS-AG

110-250kW

 $18.6 - 43.4 \, \text{m}^3/\text{min}$ 

P.25



Extreme durability & reliability, extra peace of mind.

#### High durability & reliability

- Optimized internal air flow and thermal pattern by separation of HOT and COOL zone and professional air duct design.
- Continuous operation under 46°C ambient condition with more margin against tripping point.



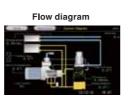
#### Big touch color monitor

■ Sophisticated LCD interface enables you to see operation conditions at a glance.



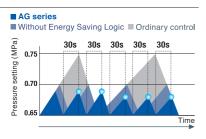


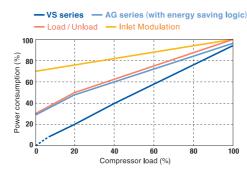




## Energy saving logic (AG series)

■ Automatically unloading if unload/load cycle is longer than setting time (30 seconds) and eliminates unnecessary pressure rise.





#### Group Controller Model EM

#### Efficient utilization of multiple compressors and accessories with energy saving.

#### Your merits are;

- > Saving electricity consumption by optimizing the number of running compressor.
- Minimizing pressure band compare with conventional cascade pressure setting.
- Maximizing energy saving merit of variable speed compressor.
- Equalizing compressor running hours.
- ▶ Integrating auxiliary equipment control for further energy saving.





#### Enhanced operability with LCD touch operation monitor

- Operating conditions can be captured at a glance with 4.3 inch (for EM4-2) and 7 inch (for EM4-4 / EM4-8) full color LCD monitor.
- Easy-to-set via touch operation monitor for all the range.
- Chart base display can be selected.



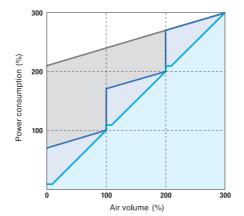
# Heavy electrical protection and control

- Voltage dip protection (up to 0.5 sec), Black out auto restart (up to 15 min).
- Easy-to-set via touch operation monitor for all the range.
- Weekly timer (7 days preset operation).
- Timer base advance switch over for running hour equalization standardly equipped.
- Remote command for START and STOP standardly equipped.
- Machine under trouble will be automatically skipped to maintain system operation.

#### ■ Control model

- Fixed speed × 3 units without group control
- Fixed speed ×3 units with group control
- Inverter × 1 unit Fixed speed × 2 units with group control

\*Fixed speed : Inlet modulation



#### ■ Specification

Model		EM4-2	EM4-4	EM4-8
Max No. of compres	sor	2	4	8
Display		4.3 inch	7 inch	7 inch
	Width	500	600	700
Dimensions (mm)	Depth	200	200	200
	Height	600	900	1,200
Control pre	essure		0~1.5MPa	
Installation	style		Wall mount	
Weight (kg	)	30	50	70
Power sup	ply	AC 100	OV to 240V 50/60	)Hz 1Φ







# NEW GENERATION KOBELION

#### VS series [IPM motor Inverter model / Air cooled]

	Discharge	Disabass	a air flaur	Nominal	Pipe	Fan	Lube Oil	Noise	Dimensions	Wajaha
Model	pressure	Discharg	e air ilow	output	connection	motor	Quantity	level	W×D×H	Weight
	MPa	m³/min	cfm	kW	А	kW	L	dB (A)	mm	kg
VS22AIV		4.72-3.8 [4.22]	167-134 [149]	22	25	0.55	12 (13)	55	1,250 × 850 × 1,500	560
VS37AIV	0.4-0.85	7.6-6.3 [7.0]	268-222 [247]	37	40	1.1	19 (21)	58	1,550 × 950 × 1,600	720
VS55AIV	[0.7]	11.8-9.65 [10.9]	417-341 [385]	55	50	1.5	32 (40)	63	2,200 × 1,200 × 1,700	1,330
VS75AIV		15.1-12.9 [13.9]	533-456 [491]	75	50	3.0	32 (40)	65	2,200 × 1,200 × 1,700	1,400

Main motor: 6pole, Synchronous IPM motor, Oil cooled, Class H, Inverter drive, Electrical spec: 380/415V, 50Hz Constant pressure setting can be 0.85MPa at maximum.

( ) for initial charge

#### VS series [Induction motor Inverter model / Air cooled]

Model	Discharge pressure	Discharg	e air flow	Nominal output	Pipe connection	Fan motor	Lube Oil Quantity	Noise level	Dimensions W×D×H	Weight
	MPa	m³/min	cfm	kW	А	kW	L	dB (A)	mm	kg
VS75+AIV	0.4-0.85 [0.7]	16.8-14.1 [15.0]	593-498 [530]	75		3.0	32 (40)	67		1,970
VS75+A IV-H	0.4-1.05 [0.8]	15.5-12.8 [14.7]	547-452 [519]	75	50	3.0	32 (40)	67	0.000 v.1.000 v.1.700	1,970
VS90AIV	0.4-0.85 [0.7]	20.2-16.5 [18.1]	713-583 [639]	90	50	4.0	35 (43)	69	2,200×1,200×1,700	2,110
VS90AIV-H	0.4-1.05 [0.8]	18.0-14.6 [16.8]	636-516 [593]	90		4.0	35 (43)	69		2,110

Main motor: 2pole, TEFC induction motor, IE4, Class F, Inverter drive, Electrical spec: 380/415V, 50Hz

The Maximum pressure for constant pressure control is up to 1.05MPa.

( ) for initial charge

#### AG series [Fixed speed model / Air cooled]

	Discharge	D'		Nominal	Pipe	Fan	Lube Oil	Noise	Dimensions	
Model	pressure	Discharg	e air flow	output	connection	motor	Quantity	level	W×D×H	Weight
	MPa	m³/min	cfm	kW	Α	kW	L	dB (A)	mm	kg
	0.75	2.75	97.1				10			
AG15AIV	0.85	2.53	89.3	15	25	0.55	(11)	55	1,250 × 850 × 1,500	650
	1.05	2.18	77				(117			
	0.75	4.15	147				11			
AG22AIV	0.85	3.9	138	22	25	0.55	(12)	55	$1,250 \times 850 \times 1,500$	750
	1.05	3.2	113				(12)			
	0.75	7.3	258				18			
AG37A IV	0.85	6.9	244	37	40	1.1	(20)	58	1,550 × 950 × 1,600	1,020
	1.05	6.2	219				(20)			
	0.75	11.3	399				32			
AG55AIV	0.85	10.5	371	55	50	1.5	(40)	64	2,200 × 1,200 × 1,700	1,790
	1.05	9.6	339				(40)			
	0.75	15.0	530				32			
AG75A IV	0.85	14.7	505	75	50	3.0	(40)	67	2,200 × 1,200 × 1,700	2,000
	1.05	12.9	456				(40)			
	0.75	18.1	639				35			
AG90AIV	0.85	16.8	593	90	50	4.0	(43)	69	2,200 × 1,200 × 1,700	2,230
	1.05	15.2	537				(40)			

Main motor: 2pole (4pole for AG15AIV), TEFC induction motor, IE3, Class F, Star-delta drive, Electrical spec: 380/415V, 50Hz

23

#### SG series [Fixed speed model / Air cooled]

	Discharge			Nominal	Pipe	Fan	Lube Oil	Noise	Dimensions	
Model	pressure	Discharg	e air flow	output	connection	motor	Quantity	level	W×D×H	Weight
	MPa	m³/min	cfm	kW	Α	kW	L	dB (A)	mm	kg
	0.75	2.53	89.3				10			
SG15AIV	0.85	2.53	89.3	15	25	0.55	(11)	55	1,250 × 850 × 1,500	650
	1.05	2.18	77	1			(11)			
	0.75	3.9	138				11			
SG22AIV	0.85	3.9	138	22	25	0.55	(12)	58	$1,250 \times 850 \times 1,500$	730
	1.05	3.2	113				(12)			
	0.75	5.9	208				18			
SG30AIV	0.85	5.4	191	30	40	1.1	(20)	58	$1,550 \times 950 \times 1,600$	940
	1.05	4.75	168				(20)			
	0.75	7.0	247				18			
SG37A IV	0.85	6.4	226	37	40	1.1	(20)	58	$1,550 \times 950 \times 1,600$	970
	1.05	5.7	201				(20)			
	0.75	9.1	321				30			
SG45AIV	0.85	8.5	300	45	50	1.1	(37)	63	2,200 × 1,200 × 1,700	1,640
	1.05	7.7	272				(3/)			
	0.75	10.7	378				30			
SG55AIV	0.85	10.1	357	55	50	1.5	(37)	64	2,200 × 1,200 × 1,700	1,690
	1.05	9.1	321				(3/)			
	0.75	13.9	491				32			
SG75AIV	0.85	13.4	473	75	50	3.0	(40)	66	2,200 × 1,200 × 1,700	1,800
	1.05	12.0	424				(40)			
	0.75	18.1	629				35			
SG90AIV	0.85	16.8	583	90	50	4.0	(43)	69	2,200 × 1,200 × 1,700	2,230
	1.05	15.2	537				(40)			

Main motor: 2pole, TEFC induction motor, IE3, Class F, Star-delta drive, Electrical spec: 380/415V, 50Hz

( ) for initial charge

\*Suction conditions Absolute suction pressure : 1bar, Suction temperature : 20°C, Humidity: 0%RH

\*Discharge air volumes is converted to suction conditions.
\*Discharge pressures are measured after gas coolers.

Discharge pressures are measured after gas coolers.

\*Air produced by compressors should not be used in respiratory equipment furnishing air for direct inhalation.

\*Nominal working pressure is as per below;

0.75MPa variant: 0.7MPa

0.85MPa variant : 0.8MPa 1.05MPa variant : 1.0MPa

\*Noise values are based on the height of 1.0 m and at the distance of 1.5 m in front from the compressor package in anechoic chamber and under full-load operation.

\*Tolerance of noise value :  $\pm 3$ dB \*Since the cooling for the compressed air, lubricant, and the inside of the

compressor unit depends on the surrounding air condition, the surrounding air must

be properly ventilated to prevent the ambient temperature from rising above 46°C. \*Specifications and descriptions are subject to change without notice.

\*Weight values are based on 380V model.

\*Please be sure to use KOBELCO genuine lubricants.

( ) for initial charge





# NEW GENERATION KOBELION Large type

#### VS+series (Performance line) [Inverter model / [A]: Air cooled [W]: Water cooled ]

Model	Discharge pressure	Discharg	e air flow	Nominal output	Pipe connection	Fan motor	Lube oil quantity	Noise level	Dimension W×D×H	Weight
	MPa	m³/min	cfm	kW	Α	kW×qty	L	dB (A)	mm	kg
VS110+A/W		24.9-19.0 [22.0]	879-671 [777]	110		1.8×2 (0.37×1)	80	69		3,370 (3,220)
VS132+A/W	0.40-1.05 [0.7]	29.5-22.0 [26.0]	1,042-777 [918]	132	80	3.0×2 (0.37×1)	85	70	2,600 × 1,600 × 1,910	3,590 (3,450)
VS160+A/W		35.0-26.2 [31.1]	1,236-925 [1,098]	160		3.0×2 (0.37×1)	95	71		3,730 (3,620)

Main motor: 4-pole, TEFC Induction motor, IE4, Class F, Inverter drive Electrical spec: 380/415V-50Hz The maximum pressure for constant pressure control is up to 1.05MPa.

( ) for water cooled model

#### AG+series (Performance line) [ Fixed speed model / [A]: Air cooled [W]: Water cooled ]

	Discharge	Dischard	e air flow	Nominal	Pipe	Fan	Lube oil	Noise	Dimension	Weight
Model	pressure	Discharg	e all flow	output	connection	motor	quantity	level	W×D×H	weight
	MPa	m³/min	cfm	kW	Α	kW × qty	L	dB (A)	mm	kg
	0.75	22.0	777			1.8×2				3,260
AG110+A/W	0.85	20.7	731	110		(0.37×1)	80	69		(3,190)
	1.05	19.0	671			(0.07 × 17				(0,130)
	0.75	26.0	918			3.0×2				3,430
AG132+A/W	0.85	24.5	865	132	80	(0.37×1)	85	70	2,600 × 1,600 × 1,910	(3,340)
	1.05	22.2	784			(0.07 × 17				(0,040)
	0.75	31.1	1,098			3.0×2				3.490
AG160+A/W	0.85	29.2	1,031	160		(0.37×1)	95	71		(3,450)
	1.05	26.5	936			(0.07 × 17				(0,430)

Main motor: 4-pole, TEFC Induction motor, IE4, Class F, Star-delta drive Electrical spec: 380/415V-50Hz

( ) for water cooled model



#### KOBELION Large type VS/AG series

#### VS series [Inverter model / [A]: Air cooled [W]: Water cooled]

	Discharge	Dischara	e air flow	Nominal	Pipe	Fan	Lube Oil	Noise	Dimensions	Weight
Model	pressure	Discharg	e all How	output	connection	motor	Quantity	level	W×D×H	weigiit
	MPa	m³/min	cfm	kW	Α	kW	L	dB (A)	mm	kg
VS110A/W	0.75	21.4	756			1.8×2				3,000
VS110A/W-H	0.85	20.2	713	110	80	(0.37)	81	69	2,600 × 1,600 × 1,850	(2,900)
VS110A/W-GH	1.0	18.6	657			(0.37)				(2,300)
VS132A/W	0.75	25.4	897			3.0×2				3,250
VS132A/W-H	0.85	24.1	851	132	80	(0.37)	81	70	2,600 × 1,600 × 1,850	(3,050)
VS132A/W-GH	1.0	21.4	756			(0.37)				(0,000)
VS160A/W	0.75	30.3	1,070			3.0×2				3,600
VS160A/W-H	0.85	28.8	1,017	160	80	(0.55)	98	71	2,600 × 1,600 × 1,850	(3,250)
VS160A/W-GH	1.0	23.8	840			(0.55)				3,500 (3,150)
VS200A/W	0.75	37.3	1,317			4.0×2		73		4,900
VS200A/W-H	0.85	34.2	1,208	200	100	(0.37)	170	(72)	3,060 × 2,120 × 2,150	(5,000)
VS200A/W-GH	1.0	31.1	1,098			(0.37)		(12)		(3,000)
VS250A/W	0.75	43.4	1,533			4.0×2		75		5,300
VS250A/W-H	0.85	41.4	1,462	250	100	(0.37)	195	(72)	3,060 × 2,120 × 2,150	(5,400)
VS250A/W-GH	1.0	38.6	1.363			(0.37)		(12)		(3,400)

Main motor: 4pole, TEFC induction motor, Class F, Inverter drive, Electrical spec: 380/415V, 50Hz

( ) for water cooled model

#### AG series [Fixed speed model / [A]: Air cooled [W]: Water cooled]

Model	Discharge pressure	Discharg	e air flow	Nominal output	Pipe connection	Fan motor	Lube Oil Quantity	Noise level	Dimensions W×D×H	Weight
	MPa	m³/min	cfm	kW	А	kW	L	dB (A)	mm	kg
AG110A/W	0.75	21.4	756			1.8×2				2,950
AG110A/W-H	0.85	20.2	713	110	80	(0.37)	81	69	2,600 × 1,600 × 1,850	(2,850)
AG110A/W-GH	1.0	18.6	657			(0.37)				(2,030)
AG132A/W	0.75	25.4	897			3.0×2				3.150
AG132A/W-H	0.85	24.1	851	132	80	(0.37)	81	70	2,600 × 1,600 × 1,850	(2,950)
AG132A/W-GH	1.0	21.4	756			(0.37)				(2,930)
AG160A/W	0.75	30.3	1,070			3.0×2				3,500
AG160A/W-H	0.85	28.8	1,017	160	80	(0.55)	98	71	2,600 × 1,600 × 1,850	(3.150)
AG160A/W-GH	1.0	25.8	911			(0.55)				(3,130)
AG200A/W	0.75	37.3	1,317			4.0×2		73		4.900
AG200A/W-H	0.85	34.2	1,208	200	100	(0.37)	170	(72)	3,060 × 2,120 × 2,150	(5,000)
AG200A/W-GH	1.0	31.1	1,098			(0.37)		(12)		(3,000)
AG250A/W	0.75	43.4	1,533			4.0×2		75		5,300
AG250A/W-H	0.85	41.4	1,462	250	100	(0.37)	195	(72)	3,060 × 2,120 × 2,150	(5,400)
AG250A/W-GH	1.0	38.6	1,363			(0.37)		(12)		(3,400)

Main motor: 4pole, TEFC induction motor, Class F, Inverter drive, Electrical spec: 380/415V, 50Hz

\*Discharge air volumes is converted to suction conditions.
\*Discharge pressures are measured after gas coolers.

\*Air produced by compressors should not be used in respiratory equipment furnishing air for direct inhalation.
\*Noise values are based on the height of 1.0 m and at the distance of 1.5 m in front

from the compressor package in anechoic chamber and under full-load operation

\*Suction conditions Absolute suction pressure : 1bar, Suction temperature : 20°C,

\*Since the cooling for the compressed air, lubricant, and the inside of the

compressor unit depends on the surrounding air condition, the surrounding air must be properly ventilated to prevent the ambient temperature from rising above 40°C. \*Specifications and descriptions are subject to change without notice. \*Weight values are based on 380V model.

\*Please be sure to use KOBELCO genuine lubricants

# The strong partnership with our customers is producing fruitful results throughout the world.

KOBELCO COMPRESSOR sales and production locations are based in the regions of Asia and North America, in response to expanding demand overseas. Domestically KOBELCO responds to customer requirements in a meticulous manner through sales offices and service centers nationwide, which provide support for customers in a coordinated manner, covering all their needs ranging from daily support work to proposals for the implementation of new technologies.



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#### Safety Precautions

- 1. Before operating, be sure to read the entire instruction manual and follow all safety directions.
- 2. Never attempt to perform unauthorized equipment modifications. Doing so could cause accidents resulting in injury.
- 3. The compressors are designed to compress air. Never use them with other gases. Doing so could result in accidents or breakdowns.
- 4. Never directly inhale the compressed air or use it for respiration systems of any kind. Doing so could cause pulmonary injury.