

**CHAMPION**

by Gardner Denver

# Screw Compressors

## 55 - 90 kW

KSA / KSV 55 - 90 Series



Smart and affordable



## The **New** Generation

Industries across the globe rely on Champion rotary screw compressors for the supply of high quality compressed air. The KSA/KSV55-90 Series air compressor range incorporates the best of Champion technology, design and quality, to deliver reliable, economical and efficient performance in a completely new package.

The KSA/KSV Series delivers high quality air at volumes of 9.5 to 15.3 m<sup>3</sup>/min at a pressure range between 7 and 10 bar and is available in either air or water cooled versions.

### High Efficiency Air End

KSA/KSV Series screw compression elements are manufactured in-house using the latest CNC rotor grinding machinery, coupled with on-line laser technology, in order to maintain precise manufacturing tolerances.

Champion's commitment to quality ensures KSA/KSV Series compressors offer the highest levels of reliability and performance with low operating costs throughout the compressor's life.

### Maximum Durability

We maximise service life and durability by eliminating elastomer and thermoplastic pipe and tube in system pressure lines, replacing them with corrosion resistant stainless steel tubing and passive zinc coated carbon steel piping. For ease of maintenance we complete the connection with viton sealed, grooved couplings and self-sealing high pressure compression fittings.

### Belt Free Drive

With direct or gear drive coupling, the belt free drive KSA/KSV55-90 Series compressor range not only reduces transmission losses, it improves efficiency and reduces noise. Most importantly, it delivers greater reliability and reduced maintenance costs.

### Energy Efficient Motor

High efficiency TEFC IE3 electric motors are fitted as standard to the entire KSA/KSV55-90 Series screw compressor range, reducing not only your power consumption but also your CO<sub>2</sub> emissions.



# KSV The correct response to changing air demand

Variable Speed Technology

## Variable speed compressor: One smart solution

Variable speed compressors can efficiently and reliably handle the varying air demand found in most plant air systems. These compressors speed up and slow down to match air supply to air demand as it fluctuates.

The right variable speed compressor in the right application delivers significant energy savings and a stable, consistent air supply.

## Compressor energy cost example

Nominal kW	Operating Cost per Year (5000 hours) at Cost per kWh (€)					
	0.06	0.08	0.10	0.12	0.14	0.16
55	€ 16.500	€ 22.000	€ 27.500	€ 33.000	€ 38.500	€ 44.000
75	€ 22.500	€ 30.000	€ 37.500	€ 45.000	€ 52.500	€ 60.000
90	€ 27.000	€ 36.000	€ 45.000	€ 54.000	€ 63.000	€ 72.000

Note: Hours of operation based on two 8hrs-shifts, 6 days per week.  
Calculations based on nominal kW.



Allows substantial energy savings of at least 25% of the energy cost

## Designed for serviceability

Maintenance personnel love the KSA/KSV series compressor range. Service access is quick and easy with all doors able to be removed in seconds.

We've also made sure serviceable components including filters are easily accessible and no piping needs to be disconnected to service the separator.

## Heavy Duty Inlet Filter

Dirt and dust that enter the compressor can adversely impact lubricant and machine life. An inlet filter with an efficiency rating of 99% is standard equipment on the KSA/KSV Series compressor range.

# KSA/KSV55-90 Controller

The control system ensures reliable operation and protects your investment by continuously monitoring the operational parameters, essential to reducing your running costs.

The controller also has the capability to have programmable inputs and outputs, control additional equipment, as well as providing the following features with clear readable instructions.

- Smart energy cost calculation
- Clear text indicator display
- Multiple languages
- Microprocessor controller
- Pressure, temperature & runtime display
- High temperature, high pressure & reverse-phase protection function



- Filter and oil change reminder
- Low 24V/DC control voltage.
- Intelligent protection in extreme environments
- Safe operation protection
- Multiple pressure/temperature input points
- Integrated sequence control (up to 8 compressors)
- RS-232 series communications for local monitoring
- Optional RS-485 ethernet communications for remote monitoring via Airbus485™ or Modbus RTU

## Technical data

Model	Ref	FAD <sup>o</sup>	Nominal Pressure	IP55 Class F	Noise Level	Weight	Dimension	Out BSP
		m <sup>3</sup> /min	bar g		kW			
KSA 55	CMP1143969	10.7	7.5	55	72	1400	2104 x 1300 x 1580	2"
KSA 55	CMP1143970	9.5	10.5					
KSA 75	CMP1143971	13.8	7.5	75	74	1450	2104 x 1300 x 1580	2"
KSA 75	CMP1143972	10.6	10.5					
KSA 90	CMP1143973	15.3	7.5	90	75	1500	2104 x 1300 x 1580	2"
KSA 90	CMP1143974	13.8	10.5					

\* Capacity and Power measurements according to ISO 1217, ed. 4, 2009 test code, to the following operating pressures: 7 bar for 7.5 bar models; 10 bar for 10.5 bar models.

\*\* Noise values determined according to ISO 2151 and ISO 3744, tolerance +/-3 dB(A).

Model	Ref	FAD <sup>o</sup>	Nominal Pressure	IP55 Class F	Noise Level	Weight	Dimension	Out BSP
		m <sup>3</sup> /min	bar g		kW			
KSV 55	CMP1143970V	3.12 / 9.02	10.5	55	73	1500	2104 x 1300 x 1580	2"
KSV 75	CMP1143972V	4.30 / 12.11	10.5	75	75	1570	2104 x 1300 x 1580	2"
KSV 90	CMP1143974V	4.30 / 13.8	10.5	90	77	1640	2104 x 1300 x 1580	2"

\* Measured and stated in accordance with ISO1217 Annex C and Pneurop/Cagi PN2CPT2 at reference conditions.

Air Intake Pressure - 1bar a/14.5 psia Air Intake Temperature - 20°C / 68 F.

\*\* +/- 3db(A) according to Pneurop/Cagi test code

\*\*\* At reference conditions - Air intake pressure - 1bar a.

Intake & Cooling air temperature - 20°C , Humidity - 0% (dry)

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For additional information please contact your local representative.

Specifications subject to change without notice.

