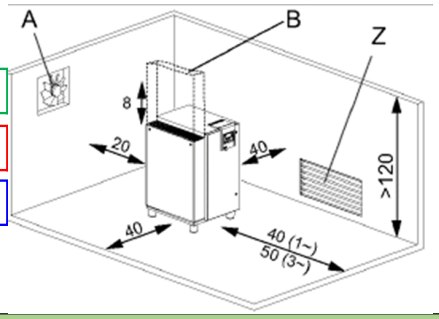
KAESER COMPRESSORS®

Installation Data Sheet

Series: 1:1 Belt Drive SX.2
Document No.: TI-DATA-2008-SX 3T 4T 5T 7.5T
Version: 2.8
Revision Date: 04/17/2023

Model	SX 3T		SX 4T			SX 5T			SX 7.5T		
Rated Pressure [psig]	**125**	**160**	**125**	**160**	**217**	**125**	**160**	**217**	**125**	**160**	**217**
I. COOLING DATA											
Cooling System Available [Std., Opt.]	A/C		A/C			A/C			A/C		
Standard Ambient Temp. Range [°F]	40 - 115		40 - 115			40 - 115			40 - 115		
VENTILATION OF COMPRESSOR ROOM											
Air Inlet Opening [sq. ft. free area] (A/C) Z	2.2		2.2			2.2			2.2		
Solution A (forced ventilation with exhaust fan) as shown in service manual											
Cooling Fan Capacity [CFM] (A/C)	883		1,001			1,236			1,530		
Solution B (exhaust air used for space heating) as shown in service manual											
Internal Cooling Fan Capacity [CFM] (A/C)	Compressor		Compressor			Compressor			Compressor		
	647		647			648	647		824		824
Internal Cooling Fan Capacity [CFM] Dryer	Dryer		Dryer			Dryer			Dryer		
	306		306			441	306		441		306
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C)	0.12		0.12			0.12			0.12		
Exhaust Air Opening Reference Dimensions (L x W) [in] — See drawing for actual dimensions. The actual individual duct dimension will vary for every installation based on actual length, number and type of bends, accessories etc.	20 x 20		20 x 20			20 x 20			20 x 20		

Model shown for reference only
Actual Duct size may vary with installation



Solution A Exhaust Fan

Solution B Exhaust Duct

Ventilation of Compressor Room Z

AIR COOLED DATA											
Internal Cooling Fan Capacity [CFM]	953		953			1,089			1,265		
Approach Temp. [°F] — Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	10.8		14.4			18			18		
Typical Heat Rejected [BTU / HR]	11,000		13,000			17,500			23,000		

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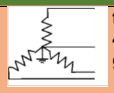
II. ELECTRICAL DATA	***Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.***											
DRIVE MOTOR												
Motor HP		3		4			5			7.5		
Insulation Class		F		F			F			F		
Standard Voltage		208-230/460V/3ph/60Hz		208-230/460V/3ph/60Hz			208-230/460V/3ph/60Hz			208-230/460V/3ph/60Hz		
Full Load Amps [FLA] @ 208V/1ph/60Hz		-		-			CF			CF		
Full Load Amps [FLA] @ 208V/3ph/60Hz		8		10.7			14.4			18.8		
Full Load Amps [FLA] @ 230V/1ph/60Hz		-		-			22.1			29.5		
Full Load Amps [FLA] @ 230V/3ph/60Hz		7.4		10.1			14.4			18		
Full Load Amps [FLA] @ 460V/3ph/60Hz		3.7		5.1			7.2			9		
Full Load Amps [FLA] @ 575V/3ph/60Hz		3		4.1			5.8			7.2		
TOTAL PACKAGE DATA (A/C)												
Do NOT operate package on any unsymmetrical power supply. Also do NOT operate package on power supplies like, for example, a three-phase (open) delta or three-phase star with non-grounded neutral. The machine requires a symmetrical three-phase power supply transformer with a WYE configuration output as shown on the right. In a symmetrical three-phase supply the phase angles and voltages are all the same. Other power supplies are not suitable.				**three-phase star (wye); 4-wire; grounded neutral**					**three-phase star (wye); 3-wire; grounded neutral**		
Continuous Duty [Hours per day]		24		24			24			24		
Control Cabinet Class (NEMA)		12		12			12			12		
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	Field installed fuse required, see below*	50		50			50			50		
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	Field installed fuse required, see below*	50		50			50			50		
Package Full Load Amps [FLA] @ 208V/1ph/60Hz		-		-			29			38		
Package Full Load Amps [FLA] @ 208V/3ph/60Hz		11		13			18			23		
Package Full Load Amps [FLA] @ 230V/1ph/60Hz		-		-			26			34		
Package Full Load Amps [FLA] @ 230V/3ph/60Hz		10		13			18			22		
Package Full Load Amps [FLA] @ 460V/3ph/60Hz		5		6			9			11		
Package Full Load Amps [FLA] @ 575V/3ph/60Hz		4		5			7			9		
Recommended Disconnect Fuse Size [Amps] @ 208V/1ph/60Hz	*Time delay (dual element) fuse; Class J ≤ 600A (e.g. AJT) / Class L > 600A (e.g. A4BQ). Based on 2020 NEC 240.6, 430.52, and Tables 430.52, 430.248, and 430.250	-		-			50			60		
Recommended Disconnect Fuse Size [Amps] @ 208V/3ph/60Hz		15		15			25			30		
Recommended Disconnect Fuse Size [Amps] @ 230V/1ph/60Hz		-		-			45			50		
Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz		15		15			25			30		
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz		10		10			15			15		
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz		6		10			10			15		
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/1ph/60Hz	The following multi-strand copper core wires are given according to 2020 NEC 310.14, 310.15, 310.16 and table 310.16 adjusted for 40°C ambient temperature. If other local conditions prevail, for example high temperature, the cross section should be checked and adjusted according to 2020 NEC 110.14(C), 220.3, 310.14, 310.15, 310.16, 430.6, 430.22, 430.24, 670.4(A) and other local codes.	-		-			8 AWG per phase and ground			6 AWG per phase and ground		
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/3ph/60Hz		14 AWG per phase and ground		14 AWG per phase and ground			10 AWG per phase and ground			10 AWG per phase and ground		
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/1ph/60Hz		-		-			8 AWG per phase and ground			8 AWG per phase and ground		
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz		14 AWG per phase and ground		14 AWG per phase and ground			10 AWG per phase and ground			10 AWG per phase and ground		
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz		14 AWG per phase and ground		14 AWG per phase and ground			14 AWG per phase and ground			14 AWG per phase and ground		
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz		14 AWG per phase and ground		14 AWG per phase and ground			14 AWG per phase and ground			14 AWG per phase and ground		

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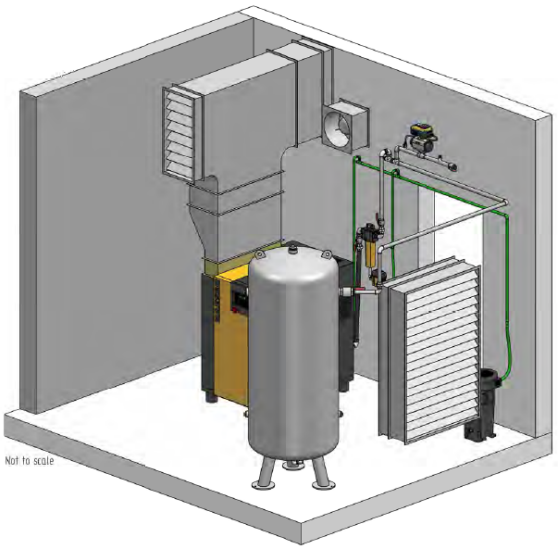
INSTALLATION and MAINTENANCE DATA												
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]	61		62			63			66		
A/C Air Discharge [inches NPT or Flange]		3/4 NPT		3/4 NPT			3/4 NPT			3/4 NPT		
Power Input Conduit Opening(s) [inches]		1 1/4		1 1/4			1 1/4			1 1/4		
Condensate Drain Connection [NPT]		1/4		1/4			1/4			1/4		
Width [inches]		23 1/4		23 1/4			23 1/4			23 1/4		
Depth [inches]		36		36			36			36		
Height [inches]		38 1/8		38 1/8			38 1/8			38 1/8		
Floor Space [sq. ft.]		5 4/5		5 4/5			5 4/5			5 4/5		
Weight (A/C) [lb]	Weight may vary based on airend selected.	408		408			419			441		
COMPRESSOR FLUID DATA												
Fluid Capacity (A/C) [qt]		3.0		3.0			3.0			3.0		
Flow Rate [gal/min]		1.3		1.3			1.3			1.3		
Typical Oil Consumption [fl. Oz./100 h]		0.3		0.4			0.5			0.7		
Standard Fluid Type		Sigma S-460		Sigma S-460			Sigma S-460			Sigma S-460		
MAINTENANCE PARTS												
Air Inlet Filter		6.4212.0										
Filter Mat (optional)		5.3398.0										
Filter Mat for Control Cabinet		402532										
Fluid Filter		6.3461.1										
Fluid Separator Kit		6.4334.1										
Maintenance Kit for Optional 5-year warranty		AN5YRKTSX2										
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant		AN5YRKTSX2F										
DRYER DATA - FOR T MODELS												
Dryer Model		ABT 4		ABT4			ABT8	ABT4		ABT8		ABT4
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]		232		232			232			232		
Nominal Pressure Drop at Rated Flow [psid]		1.6		1.6			1.6			1.6		
Rated Dewpoint [°F] at Standard Conditions	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	38		38			38			38		
REFRIGERATION SYSTEM DATA - FOR T MODELS												
Compressor Type		GL 60 TG		GL 60 TG			GL 60 TG			GL 60 TG		
BTU/Refrigeration ASHRAE		1750		1750			1750			1750		
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	80		80			83			83		
Refrigerant Type		R-513A		R-513A			R-513A			R-513A		
GWP (Global Warming Potential)		631		631			631			631		
CO2 equivalent [t]		0.1		0.1			0.13	0.1		0.13		0.1
Refrigerant Charge [lb]		0.37		0.37			0.44	0.37		0.44		0.37
Air Flow Across Condenser [CFM]		306		306			441	306		441		306
Air Receiver Tank Size - AIRCENTER units only [gal]	Simplex / Duplex tank size is 100 gallons	52.8		52.8			52.8			52.8		

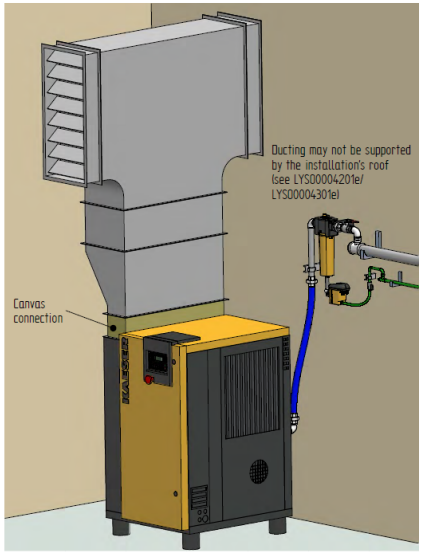
Model	SX 3T		SX 4T			SX 5T			SX 7.5T		
Rated Pressure [psig]	125	160	125	160	217	125	160	217	125	160	217

SAMPLE SKETCHES

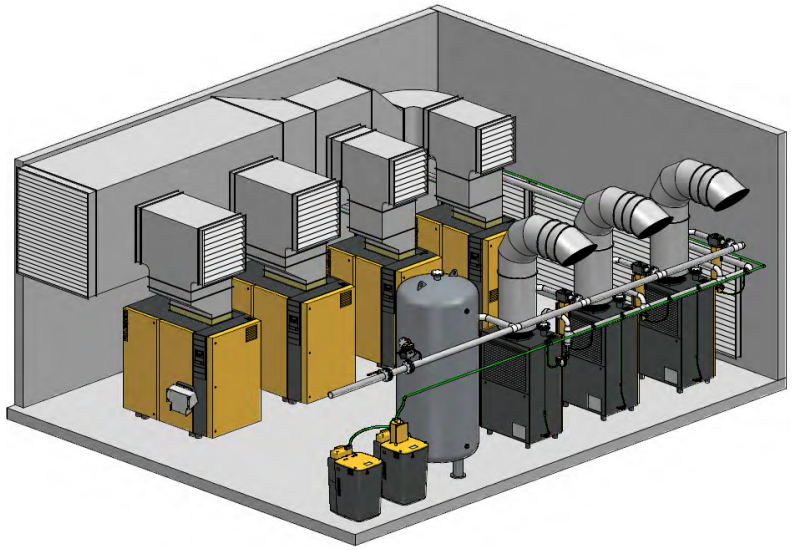
Sample Installation Planning
Examples of room ventilation and ductwork
Please note the upsizing required for compressor exhaust ducts

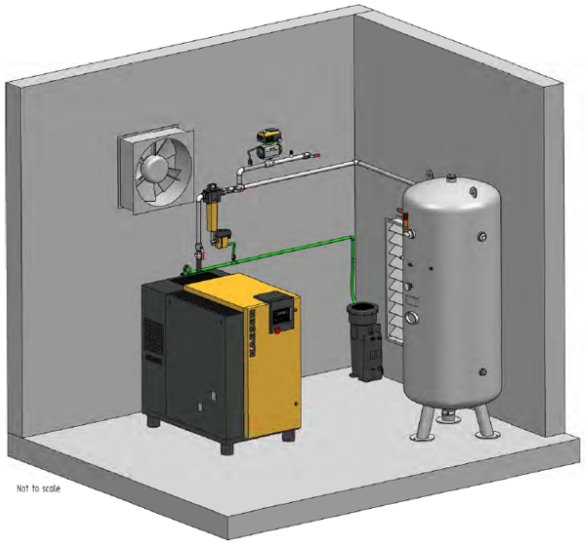


SK 20 T / F26KE Sample Layout

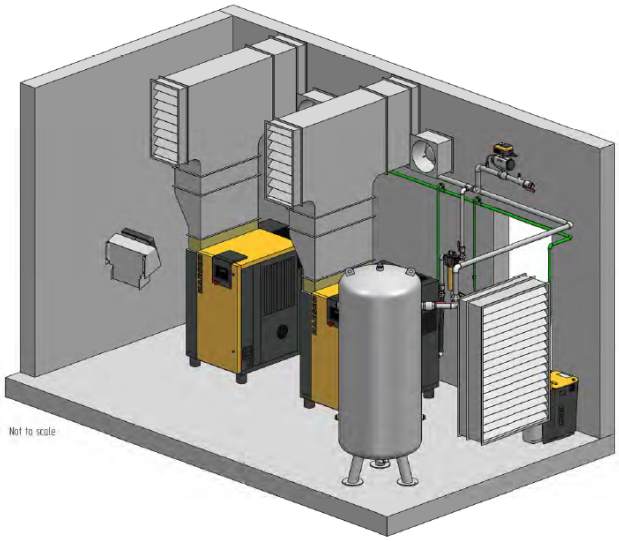


Duct / Pipe connection SX





SK 20 T / F26KESample Layout



2x SK 20 T / 2x F26KE

Example designs only, not for construction purposes.