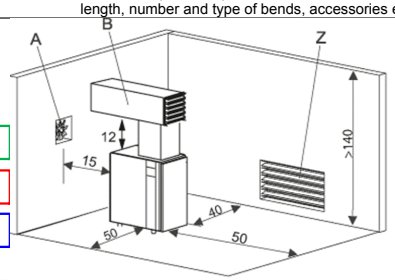
KAESER COMPRESSORS

Installation Data Sheet

Series: 1:1 Direct Drive ASD.4
Document No.: TI-DATA-2018-ASD.4 25T 30T 40ST 40T
Version: 1.8
Revision Date: 04/17/2023

Model	ASD 25T		ASD 30T				ASD 40ST						ASD 40T					
Rated Pressure [psig]	**110**	**125**	**110**	**125**	**145**	**175**	**110**	**125**	**145**	**175**	**190**	**217**	**110**	**125**	**145**	**175**	**190**	**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	6.5		7.5				8.6						9.7					
Solution A (forced ventilation with exhaust fan) as shown in service manual																		
Cooling Fan Capacity [CFM] (A/C)	5,297		5,886				7,063						8,240					
Solution B (exhaust air used for space heating) as shown in service manual																		
Internal Cooling Fan Capacity [CFM] (A/C)	Compressor	Dryer	Compressor		Dryer		Compressor		Dryer				Compressor		Dryer			
	2,649	1,118	2,649		1,118		2,649		1,118				3,120		1,118			
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C)	0.24		0.24				0.24						0.16					
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.	23 x 23		23 x 23				23 x 23						23 x 23					

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



Solution A Exhaust Fan

Solution B Exhaust Duct

Ventilation of Compressor Room

AIR COOLED DATA																		
Internal Cooling Fan Capacity [CFM]	2,649		2,649				2,649						3,120					
Approach Temp. [°F] — Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	7.2		10.8		9		10.8		9		7.2		14.4		12.6		10.8	
Typical Heat Rejected [BTU / HR]	71,500		85,000				99,500						118,500					
Fan Motor [HP], oilcooler/aircooler	0.75		0.75				0.75						0.75					
II. ELECTRICAL DATA	***Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.***																	
DRIVE MOTOR																		
Motor HP	25		30				40						40					
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/3ph/60Hz	61		74				98						98					
Full Load Amps [FLA] @ 230V/3ph/60Hz	55		70				91						91					
Full Load Amps [FLA] @ 460V/3ph/60Hz	28		35				46						46					
Full Load Amps [FLA] @ 575V/3ph/60Hz	22		28				37						37					

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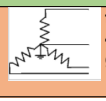
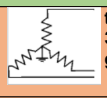
FAN MOTOR (A/C)																			
Insulation Class		F		F				F						F					
Fan Motor [HP], oilcooler | aircooler		0.75		0.75				0.75						0.75					
Full Load Amps [FLA] @ 208V/3ph/60Hz		2.7		2.7				2.7						2.7					
Full Load Amps [FLA] @ 230V/3ph/60Hz		2.5		2.5				2.5						2.5					
Full Load Amps [FLA] @ 460V/3ph/60Hz		1.5		1.5				1.5						1.5					
Full Load Amps [FLA] @ 575V/3ph/60Hz		1.2		1.2				1.2						1.2					
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*	30		30				30						30					
Package Full Load Amps @ 208V/3ph/60Hz [FLA]		72		86				100						116					
Package Full Load Amps @ 230V/3ph/60Hz [FLA]		65		81				93						107					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]		33		41				47						54					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]		26		33				38						43					
Recommended Disconnect Fuse Size [Amps] @ 208V/3ph/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	100		125				150						175					
Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz		100		110				125						150					
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz		50		60				70						80					
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz		40		50				50						60					
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/3ph/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.	2 AWG per phase and ground		1/0 AWG per phase and ground				2/0 AWG per phase and ground						2/0 AWG per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz		2 AWG per phase and ground		1 AWG per phase and ground				2/0 AWG per phase and ground						2/0 AWG per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz		6 AWG per phase and ground		6 AWG per phase and ground				4 AWG per phase and ground						4 AWG per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz		8 AWG per phase and ground		8 AWG per phase and ground				6 AWG per phase and ground						4 AWG per phase and ground					

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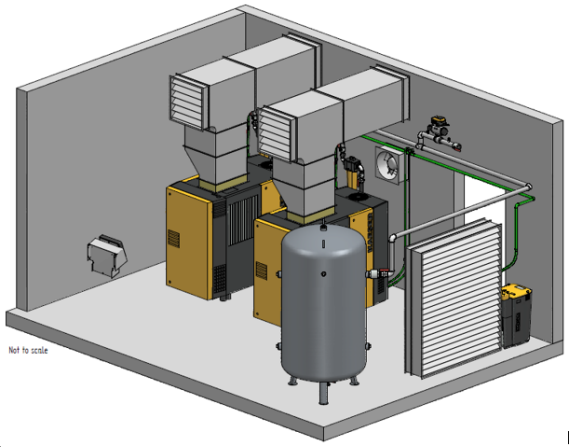
INSTALLATION and MAINTENANCE DATA																			
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]	66		67				67						69					
A/C Air Discharge [inches NPT or Flange]		1 1/4 NPT		1 1/4 NPT				1 1/4 NPT						1 1/4 NPT					
Power Input Conduit Opening(s) [inches]		2 1/4		2 1/4				2 1/4						2 1/4					
Condensate Drain Connection [NPT]		1/4		1/4				1/4						1/4					
Width [inches]		69 5/8		69 5/8				69 5/8						69 5/8					
Depth [inches]		35 3/8		35 3/8				35 3/8						35 3/8					
Height [inches]		60 1/4		60 1/4				60 1/4						60 1/4					
Floor Space [sq. ft.]		17 1/9		17 1/9				17 1/9						17 1/9					
Weight (A/C) [lb]	Weight may vary based on airend selected.	1,554		1,579				1,746						1,779					
COMPRESSOR FLUID DATA																			
Fluid Capacity (A/C) [gal]		4.0		4.0				4.0						4.0					
Flow Rate [gal/min]		7.9		7.9				7.9						7.9					
Typical Oil Consumption [fl. Oz./100 h]		2.82		3.29				4.06						4.76					
Standard Fluid Type		Sigma S-460		Sigma S-460				Sigma S-460						Sigma S-460					
MAINTENANCE PARTS																			
Air Inlet Filter		6.4143.0																	
Filter Mat (optional)		6.1943.00050 (2x)																	
Filter Mat for Control Cabinet		7.4519.0 (2x)																	
Fluid Filter		6.4778.0																	
Fluid Separator Kit		6.3669.0																	
Maintenance Kit for Optional 5-year warranty		ANAKASD4S																	
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant		ANAKASD4F																	
DRYER DATA - FOR T MODELS																			
Dryer Model		ABT 60		ABT 60				ABT 60						ABT 60					
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]		232		232				232						232					
Nominal Pressure Drop at Rated Flow [psid]		2.9		2.9				2.9						2.9					
Rated Pressure Dewpoint [°F] at Standard Conditions	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	38		38				38						38					
Pressure Dewpoint per ISO 8573-1		Class 4 - 6 based on ambient conditions.																	
REFRIGERATION SYSTEM DATA - FOR T MODELS																			
Compressor Type		TRK5512Y-XG		TRK5512Y-XG				TRK5512Y-XG						TRK5512Y-XG					
BTU/Refrigeration ASHRAE		9,980		9,980				9,980						9,980					
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	71		71				71						71					
Refrigerant Type		R-513A		R-513A				R-513A						R-513A					
GWP (Global Warming Potential)		631		631				631						631					
CO2 equivalent [t]		0.5		0.5				0.5						0.5					
Refrigerant Charge [lb]		1.7		1.7				1.7						1.7					
Air Flow Across Condenser [CFM]		1,118		1,118				1,118						1,118					

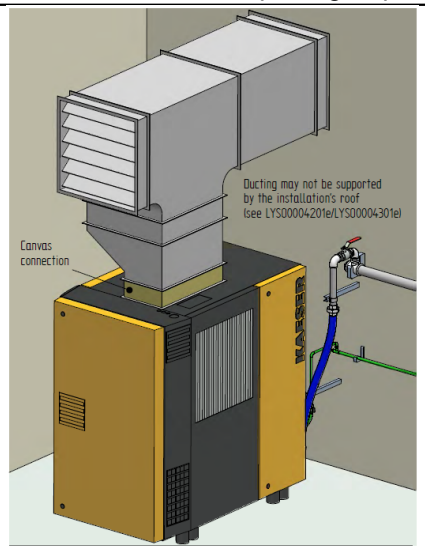
Model	ASD 25T		ASD 30T				ASD 40ST						ASD 40T					
Rated Pressure [psig]	110	125	110	125	145	175	110	125	145	175	190	217	110	125	145	175	190	217

SAMPLE SKETCHES

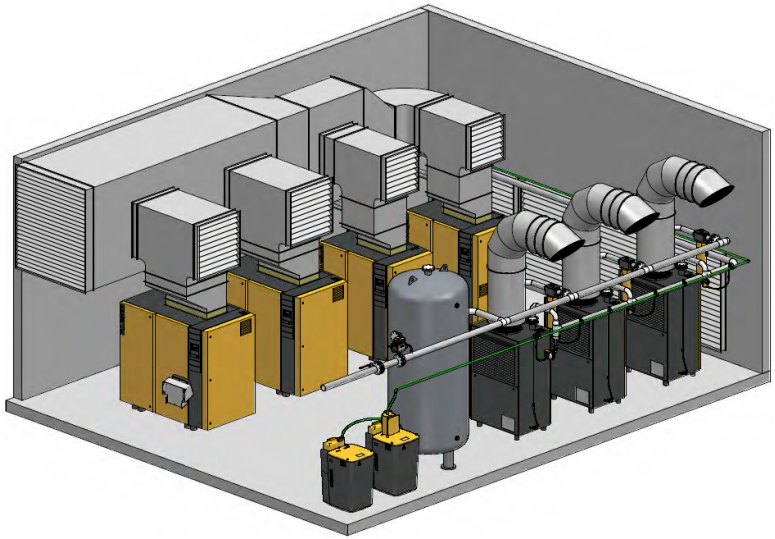
Sample Installation Planning
Examples of room ventilation and ductwork
Please note the upsizing required for compressor exhaust ducts

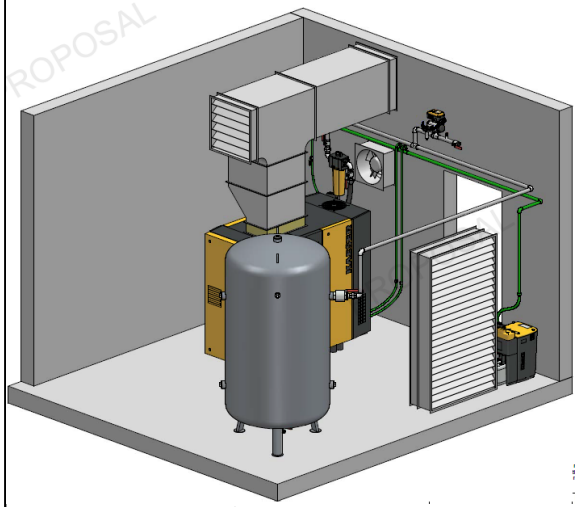


2x ASD 40 T / 2x F83KE



Duct / pipe connection ASD





ASD 40 T / F83KE

Example designs only, not for construction purposes.