



INSTRUCTION MANUAL

■ OIL-FREE SCROLL BASE MOUNT ENCLOSURE AIR COMPRESSOR

SLBE-7.5

SLBE-10

Thank you for purchasing our oil-free scroll air compressor.

- Before operation, be sure to read this instruction manual thoroughly for safe and efficient use for a long operating lifetime.
- After reading it, store in a convenient place for immediate and future reading.

Before use, be sure to fill in the blank spaces below for future repair and after service.

MODEL	
SERIAL No.	
Purchased from	
Date of purchase	
Date of use	

Important information and Safety precautions

▪ Important information

Be sure to read and understand this instruction manual.



The operator shall be fully conversant with the requirements stated within this instruction manual including important warnings, cautions and operation.

The marks and symbols have the following meanings.






Keep this booklet in an appropriate place for immediate reference.

• Indications of warnings and cautions

	WARNING	Indicates a potentially hazardous situation which, if not avoided, will result in serious injury or loss of life.
	CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

• Examples of warnings and cautions

	Indicates 「You must be careful」. We will explain briefly in or near the symbol. (The example on the left is [Be careful about electric shock])
	Indicates 「You must not do」. We will explain briefly in or near the symbol. (The example on the left is [Do not touch]).
	Indicates 「You must do」. We will explain briefly in or near the symbol. (The example on the left is [Be sure to ground it]).

* Supplier is not responsible for any injury or damage caused by disregard of warnings, operating instruction specifications or maintenance schedules.

Important	Indicates important notices you must observe. They are helpful to achieve top performance and functions of the equipment.
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Important information and Safety precautions

▪ Safety precautions

WARNING



Install in a safe area.

To prevent a fire or explosion, install in an area free of flammable gases or organic solvents.



Never install outdoors.

Do not install outdoors (This compressor is not water-proof)

If water splashes on electric equipment, it can cause electric shock or fire.



Turn off the main electric source.

To prevent electric shock or serious injury, always turn off the main electric source before inspecting or wiring the unit.



Ask a qualified electrician.

Only a qualified electrician should perform maintenance on the unit.



Be sure to ground.

Unit must be grounded to prevent electric shock.



Never use to compress anything other than air.

If done, it can cause explosion, fire or damage.



Do not use with respiratory equipment, which could cause serious injury or death.

Important information and Safety precautions

WARNING



Not for use as life support.

Serious bodily injury and/or death may occur.



Do not touch.

Keep hands and fingers away from fans, pulleys and belts while the power is on.
Serious injury, including entanglement of fingers or hands can occur.



Release pressure.

Release pressure from unit before conducting maintenance and/or inspection.
Failure to do so may cause explosion and/or serious injury.



Conduct maintenance and inspection.

Conduct maintenance and inspection according to this manual to prevent unit failure.

Important information and Safety precautions

CAUTION

 **Use at ambient temperature between 36°F to 104°F.**

Drain will freeze at less than 36°F and will cause unit failure.
Using at over 104°F will cause a shorter lifespan or unit damage.

 **Use in an area free of dirt and dust.**

Failure to do so may result in equipment failure.

 **Use in an area free of corrosive gas.**

Failure to do so may result in equipment failure.

 **Only qualified personnel should perform repairs.**

Failure to do so can result in electric shock or fire.

 **Keep Away.**

Keep away from the compressor while it is operating and allow it to cool before servicing.
Failure to do so may result in serious burns and or bodily harm.

 **Never alter the compressor**

Fire and or electric shock may occur if unit is altered and warranty will be void.

 **Use genuine parts**

Be sure to use only genuine parts during maintenance.
Failure to do so may result in equipment failure or shorter lifetime.

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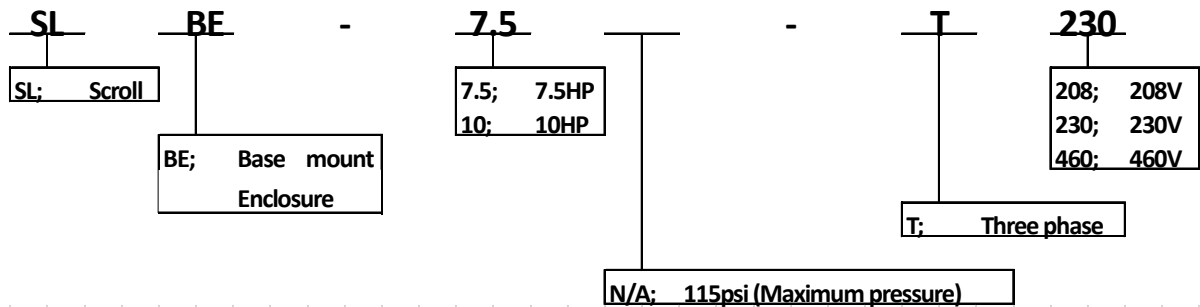
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Before use

■ Inspect the product

- Inspect the product to be sure you have the model you ordered.

Model name description;



- Check that there is no deformity or damage which occurred during transportation. Any shipping damage must be immediately filed with the freight carrier.
- Check that the following accessories are included.
 - Compressor instruction manual
 - Scroll pump instruction manual
 - 4 rubber mats

Installation

▪ Precautions about installation



WARNING!

Do not use in an area which is exposed to rain, steam or high humidity.

High humidity can cause electric shock or fire.

Do not install in an area with corrosive gas (ammonia, acid, salinity, ozone gas and sulfur dioxide) preventing a shorter lifespan of the unit.



WARNING!

To prevent a fire or explosion, install in an area free of flammable gases or organic solvents.



Ambient temperature

Use at ambient temperatures between 36°F and 104°F.

Using at less than 36°F will cause unit failure or freezing.



CAUTION!

Install this product on a level floor to prevent vibration and noise, which could damage the unit.



CAUTION!

Install in an area which is free of dust.

Dust can cause increased temperature and wear, resulting in a shorter lifespan and/or unit failure.

Installation

▪ Precautions about installation (Continue)

• Installation space

Secure the space around the compressor for safe inspection and maintenance.

Installation space (inch)	
Above	24
Other Sides	20

• Ventilation

When using in an enclosed closed room, install a fan for ventilation.

Model	British Thermal Unit (BTU)
SLBE-7.5	19,200
SLBE-10	25,600

▪ Piping

- Do not use a steel pipe or smaller size than the compressor outlet connection.
- If the compressor stops and starts frequently, we recommend you install air receiver. (option)
- When there is a riser in the piping, be sure to install a drain collector or drain valve.



WARNING

Be sure to install the check valve on the downstream piping from the compressor outlet.
If not, it can cause serious failure.



WARNING

Be sure to install the safety valve on the downstream piping from the compressor outlet.
The pressure setting of the safety valve must be no higher than the maximum working pressure of the tank and maximum designed pressure of the compressor.
If not, it can cause serious failure.

Installation

- Electrical wiring
 - Precautions about wiring



Turn off main electric source.

Be sure to turn off main electric source before inspection or wiring job.
If not, it can cause electric shock or serious bodily injury.



Ask qualified electrician.

Ask a qualified electrician to perform electric wiring job.
If not, it can cause electric shock or fire.



Be careful about wiring.

Do not use cable of less than designated size.
If done, overheat of cable can cause fire.



Be sure to ground.

Be sure to do the grounding on the wiring job.
If not, it can cause electric shock or fire.

Installation

- **Wiring**

Be sure to use the ring terminal to firmly connect the electric source to the designated place of the motor terminal box. Please refer to the rating plate on the motor.

- 208V-230V/460V, 3PH, 60Hz

Motor Size (HP)	Power (V/PH)	Motor Load (FLA)	Non-time Delay Fuse (A)	Time Delay Fuse (A)	Inverse-time circuit breaker (A)
7.5	208/3	24.2	80	45	70
	230/3	22	70	40	60
	460/3	11	35	20	30
10	208/3	30.8	100	60	80
	230/3	28	90	50	70
	460/3	14	45	25	35


Operation

▪ Before starting up:

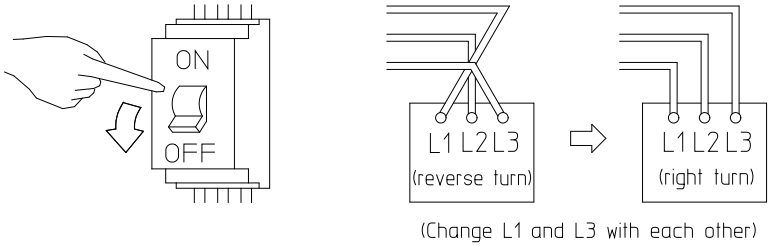
- Make sure all safety warning labels and instructions have been read and understood before continuing.
- Make sure any shipping materials and brackets are removed.
- Check that the electric power source has been firmly connected and grounded.
- Make sure all pressure connections are tight.
- Confirm all safety relief valves are correctly installed.
- Check that all fuses and circuit breakers are the proper size.
- Make sure the inlet filter is correctly installed.
- Inspect the drain valve to be sure it is closed.

▪ Start-up and operation:

- Turn the electric source breaker on.
- Turn the pressure switch on.
- Open the discharge valve completely.
- Confirm the compressor operates without excessive vibration, unusual noises or leaks.
- Close the discharge valve completely.
- If the pressure does not rise on a three phase unit, stop the unit and turn the electric source breaker off.
Switch the L1 and L2 connections inside the control box.

 **CAUTION!**

If the pressure does not increase and an abnormal sound is heard during reverse rotation, turn the pressure switch and the main electric source breakers off. Switch the L1 and L2 connections inside the control box.



(Change L1 and L3 with each other)

Operation

- Check the discharge pressure. Be sure the compressor **stops** at the setting pressure indicated below.

Model	Cut-out pressure (psi)
SLBE-7.5	115
SLBE-10	

- Check the discharge pressure. Be sure the compressor **starts** at the setting pressure indicated below.

Model	Cut-in pressure (psi)
SLBE-7.5	85
SLBE-10	

Maintenance

The following maintenance is required at specific intervals. These intervals are based on conditions where the ambient temperature is around 86°F. If your location is warmer or running condition is more severe, maintain within a shorter period. During warmer conditions, shorten the period approximately 30% from our recommendation at every 9°F.

Standard maintenance period is not our warranty period.

▪ **Standard maintenance period**

- For 115psi models (SLBE-7.5 and SLBE-10)

Maintenance is to be done according to operating hours, or period, whichever comes first.

Item	Details	Maintenance period (every hours or periods)							Remark
		Daily	Every 400hrs Every 2months	Every 2,000 yearly	Every 4,000 Every 2 years	Every 8,000 Every 4 years	Every 16,000 Every 8 years	Every 24,000 Every 12 years	
Drain (Option)	Air receiver	○				○☆			Change as necessary
Noise, vibration	Check	○							
Air intake filter	Clean		○	●					Whenever it is dirty
Safety valve	Check function		○						
V belt	Tension/replace		○ initial only	○		●☆			Not slack or loose
Ventilation fan	Smooth rotation			○					Replace if abnormal
Pressure gauge	Check			○					
Magnetic switch	Check or replace				○☆	●☆			
Motor, insulation	Check resistance				○☆				Change as necessary
Motor	Check/replace						●☆		
Pulley	Check					○☆			Change as necessary
Pressure switch	Check function					○☆			Change as necessary
After cooler	Clean					○☆			Change as necessary
O rings	Replace					●☆			Use genuine Parts
Check valve	Check function					●☆			Change as necessary
Air end fan FS-OS fin	Clean					○☆			Whenever it is Dirty
Tip & dust seals Grease up	Replace					●☆			Use genuine Grease
Air end								●☆	

○ Inspect ● Replace ☆ Consult with distributor who sold it to you

* Air intake filters are not covered under the warranty. You may want to keep extra filters on hand.

Maintenance

▪ How to carry out maintenance:

- Intake filter

Blow dust off the filter with an air gun and replace if it is dirty.

- Safety valve

Lift up the stem of the safety valve at around maximum pressure and check to see if air blows out.

- Belt tension

If the V belt makes a slipping sound at the startup, due to decrease of V belt tension, readjust the belt tension or replace it.

If belt tension is less than the figure in the chart below, adjust belt tension again.

An exclusive tool is necessary to measure belt tension.

Ask our distributor to readjust belt tension when needed.

Model	Readjustment standard load / Hz	Readjustment target load / Hz Tolerance ± 5	Replacement new belt target load / Hz Tolerance ± 5
SLBE-7.5	65	76	84
SLBE-10	70	82	90

Troubleshooting Guide

If you have any problems, please refer to the chart below.

If the (*) marked items are difficult for you to fix, please contact the shop you purchased it from.

- Compressor

Problem	Cause	Corrective action
Compressor unit does not start	Electric source is not ON.	Turn on electric source
	Electric source is not connected correctly.	Connect it correctly
	Pressure switch is in OPEN position	Reduce pressure in air receiver
Power is at supply connection and compressor does not start	Over load relay has tripped	See last entry of Troubleshooting guide
	Wrong or low voltage	Inspect incoming power supply and unit power rating.
	Starter has failed	Inspect, repair or replace contactor assembly *
	Pressure switch has failed	Inspect, repair or replace pressure switch assembly *
	Motor has failed	Inspect, repair or replace motor *
Compressor is running but will not make pressure	Drive belts came off or too loose	Inspect, tighten or replace drive belts *
	Clogged intake filter element	Clean or replace intake filter element
	Discharge air is leaking	Inspect and repair
	Pump has failed	Inspect, repair or replace pump *
	Pump running in the wrong direction	Correct power connections
Excessive noise or vibration	Drive belt has flipped or slipped	Inspect, repair or replace drive belt *
	Motor has failed	Inspect, repair or replace motor*
	Pump has failed	Inspect, repair or replace pump
Compressor running hot	Ambient temperature is high	Be sure not to exceed above 104°F
	Pump running at high pressure	Check tank pressure and pump outlet are not obstructed
	After cooler fins clogged	Clean after cooler
	Clogged intake filter element	Clean or replace intake filter element
Compressor turns on/off rapidly	Receiver tank has high level of water	Drain condensation
	Check valve has failed	Inspect, repair or replace check valve *
	Pressure switch has failed	Inspect, repair or replace pressure switch *
Safety valve blows off	Motor starter contacts welded shut	Inspect, repair or replace motor starter *
	Pressure switch has failed	Inspect, repair or replace pressure switch *
Motor overload has tripped	Pump has failed	Inspect, repair or replace pump *
	Motor has failed	Inspect, repair or replace motor*
	Improper wiring	Inspect and rewire *
	Wrong overload setting	Check setting of overload relay *
	Low voltage	Check incoming power supply

Specifications

- Compressor specifications

- 7.5 / 10HP

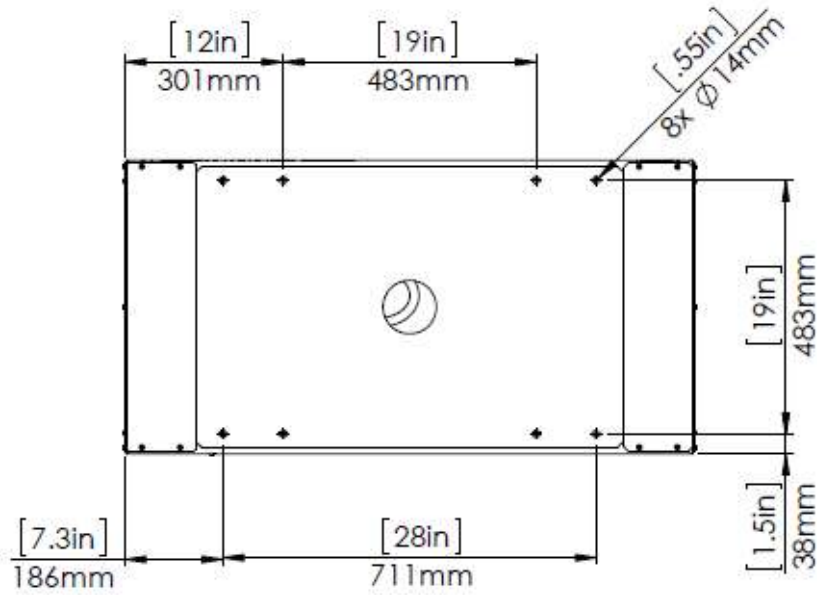
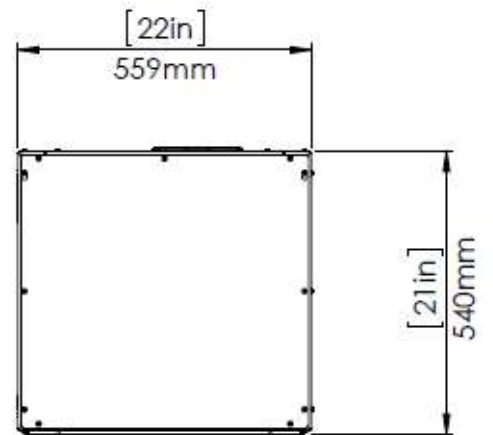
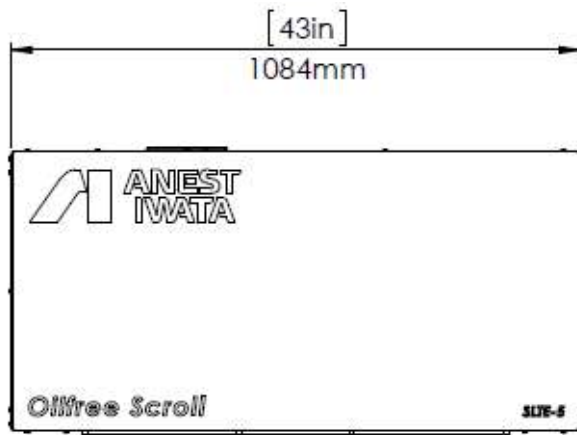
Item		SLBE-7.5	SLBE-10
Max. discharge pressure	psi	115	
Air delivery (*1)	cfm	22.6	29.7
Air outlet		NPT 3/8"	
Operating voltage		3Phase, 208-230/460V, 60Hz	
Dimensions (LxWxH) (*2)	In.	43 x 22 x 21	43 x 22 x 21
Approx. mass	Lbs.	390	440

*1. Air delivery means average discharge air volume at the maximum operating pressure, converted into atmospheric pressure. It is not a warranted figure.

*2. Dimensions are outer dimensions, excluding extruding parts.

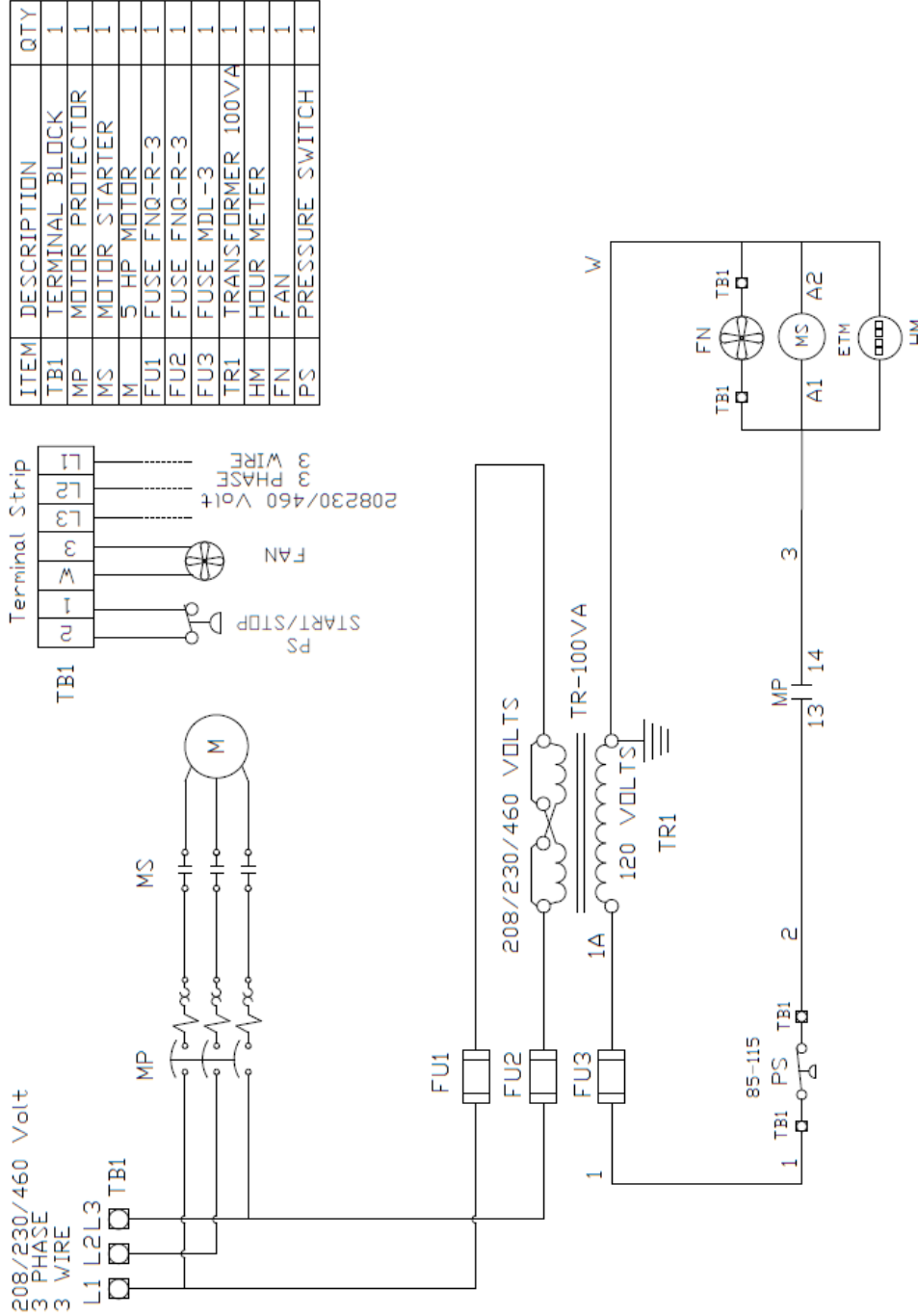
Appendix

- Outer dimensions
 - SLBE-7.5 and SLBE-10



Appendix

- Circuit diagram
 - SLBE-7.5/SLBE-10



Warranty

■ Warranty and Remedies

- (a) **General.** Anest Iwata - Air Engineering warrants each Compressor System, Compressor Air-End, or Anest Iwata branded accessory (collectively “products”, individually each a “product”) to be free from defects in material and workmanship (“Defects”) at the date of shipment. EXCEPT AS SET FORTH BELOW, NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF SUCH PRODUCTS. TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. All claims under this warranty must be made in writing and delivered to Anest Iwata Air Engineering, or such claim shall be barred. Upon timely receipt of a claim, Anest Iwata Air Engineering shall inspect the product claimed to have a defect, and Anest Iwata Air Engineering shall repair, or, at its option, replace, free of charge, any product which it determines to have had a defect at the time of shipment from Anest Iwata Air Engineering; provided, however, that if circumstances are such as to preclude the remedying of defect by repair or replacement, Anest Iwata Air Engineering shall, upon return of the product, refund to buyer any part of the purchase price of such products paid to Anest Iwata Air Engineering. Freight for the returning products to Anest Iwata Air Engineering for inspection shall be paid by buyer. The warranties and remedies herein are the sole and exclusive remedy for any breach of warranty or for any other claim based on any defect, or non-performance of the products, whether based upon contract, warranty or negligence.
- (b) **Initial period of warranty – Parts and Labor.** Anest Iwata Air Engineering warrants and represents all products shall be free from defects for the first twelve (12) months from the date of shipment by Anest Iwata Air Engineering, or five thousand (5,000) hours of use, whichever occurs first. During such warranty period, Anest Iwata Air Engineering shall be fully liable for all defects in the products (the “product defects”), i.e., all costs of repair or replacement, which may include “in and out” charges, so long as the products are located in the continental United States, and the products are reasonably located and accessible by service personnel for removal. “In and out” charges include the costs of removing a product from buyer’s equipment for repair or replacement.
- (c) **Additional period of Warranty – Parts Only (No Labor).** In addition to the above, Anest Iwata Air Engineering warrants each Anest Iwata branded compressor air-end, shall be free of defects for a period of eighteen months from the date of shipment of product, or 10,000 hours of use, whichever occurs first. Supplier’s repair or replacement of any product shall not extend the period of any warranty of any product. This warranty applies to the exchange of part(s) found to be defective by an authorized Anest Iwata service center only.
- (d) **Coverage.** The above mentioned warranty applies to Anest Iwata Air Engineering manufactured units or systems only.
- (e) **Exceptions.** Notwithstanding anything to the contrary herein, Anest Iwata Air Engineering shall have no warranty obligations with respect to products:
- (i) That have not been installed in accordance with Anest Iwata Air Engineering’s Written specifications and instructions;
 - (ii) That have not been maintained in accordance with Anest Iwata Air Engineering’s written instructions;
 - (iii) that have been materially modified without the prior written approval of Anest Iwata Air Engineering; or
 - (iv) That experience failures resulting from operation, either intentional or otherwise, in excess of rated capacities or in an otherwise improper manner.
- (f) The warranty provided herein shall not apply to: (i) any defects arising from corrosion, abrasion, use of insoluble lubricants, or negligent attendance to or faulty operation of the products; (ii) ordinary wear and tear of the products; or (iii) defects arising from abnormal conditions of temperature, dirt or corrosive matter; (iv) any OEM component which is shipped by Anest Iwata Air Engineering with the original manufacturer’s warranty, which shall be the sole applicable warranty for such component.

Limitation of liability. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, NOT WITHSTANDING ANYTHING TO THE CONTRARY HEREIN, UNDER NO CIRCUMSTANCES SHALL ANEST IWATA AIR ENGINEERING BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECULATIVE OR INDIRECT LOSSES OR DAMAGES WHATSOEVER ARISING OUT OF OR IN ANY WAY RELATED TO ANY OF THE PRODUCTS OR GOODS SOLD OR AGREED TO BE SOLD BY ANEST IWATA AIR ENGINEERING TO BUYER. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, ANEST IWATA AIR ENGINEERING’S LIABILITY IN ALL EVENTS IS LIMITED TO AND SHALL NOT EXCEED THE PURCHASE PRICE PAID.

Warranty Disclaimer. Anest Iwata Air Engineering has made a diligent effort to illustrate and describe the products in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions.

Product Suitability. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Anest Iwata Air Engineering attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, please review the product applications, and national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Claims. Claims pertaining to the products, with the exception of warranty claims, must be filed with Anest Iwata Air Engineering within 6 months of the invoice date, or they will not be honored. Prices, discounts, and terms are subject to change without notice or as stipulated in specific product quotations. All agreements are contingent upon strikes, accidents, or other causes beyond our control. All shipments are carefully inspected and counted before leaving the factory. Please inspect carefully any receipt of products noting any discrepancy or damage on the carrier’s freight bill at the time of delivery. Discrepancies or damage which obviously occurred in transit are the carrier’s responsibility and related claims should be made promptly directly to the carrier. Returned products will not be accepted without prior written authorization by Anest Iwata Air Engineering and deductions from invoices for shortage or damage claims will not be allowed. **UNLESS OTHERWISE AGREED TO IN WRITING, THESE TERMS AND CONDITIONS WILL CONTROL IN ANY TRANSACTION WITH ANEST IWATA AIR ENGINEERING** Any different or conflicting terms as may appear on any order form now or later submitted by the buyer. All orders are subject to acceptance by Anest Iwata Air Engineering.

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