

SIMALFA[®] Water Based Adhesives

KülKöte[®] Temperature Regulating Technology

P R E S S U R E C U B E



JUNE 27, 2023

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Our Company

Founded in 1993, as an environmental adhesive and coating company.

Our mission from the beginning was to develop environmental technologies that provide clients with the means to eliminate hazardous chemicals and make for a safer planet. We're extremely different than the many traditional adhesive and coating companies as we don't produce or market products that contain any known hazards such as solvents... and we never will. We have strict internal company standards to protect our environment and the people who work with our products. We know of NO other adhesive and/or coating manufacturer who can state this!

Our primary area of expertise is focused on products that contain flexible foam, textiles and other porous materials.

Key industries served

Bedding, furniture, automotive, aerospace, medical, packaging, and foam fabrication

Legal name + address

Alfa Adhesives, Inc. (aka Simalfa or KulKote)
15 Lincoln Street, Hawthorne NJ 07506

Learn more by visiting our websites

www.simalfa.com
www.kulkote-inside.com
www.kulkote.com

For additional information, contact SUPPORT

+1.973.423.9266

support@simalfa.com or support@kulkote.com



Our Brands

SIMALFA®

Simalfa is the first water-based, solvent-free adhesive product series in the world that provides clients with high instant tack for quick processing, a permanent bond, and is environmentally friendly to meet ecological standards and regulations.

Industries

Bedding, footwear, furniture, medical, pet products, transportation, packaging, foam fabrication, and much more.

Website

www.simalfa.com

KülKöte®

KulKote is a Temperature Regulating Technology. It's a proprietary coating consisting of water based polymers and Phase Change Materials (PCMs). It's an industrial product that is used in consumer goods. KulKote is typically applied to flexible foams, textiles, and/or fibers for the purpose of regulating body temperature.

For example, mattresses and pillows are either all foam or have foam components in them. Foams are prone to absorbing and holding body heat. As a result, the mattress/pillow gets (and stays) hot which makes for an uncomfortable night's sleep. By regulating the temperature (narrowing the temperature variations), one would enjoy a more restful night of sleep. Better sleep will result in a more fulfilled, productive, and healthier life. For athletes, this will obviously lead to a faster recovery and better performance.

Industries

Bedding, footwear, furniture, medical, pet products, sporting goods, and transportation.

Websites

www.kulkote.com (for consumers)

www.kulkote-inside.com (technical site for manufacturers)

Our Certifications



ISO: 9001

ISO 9000 is a set of standards for quality management systems that is accepted around the world. Currently more than 90 countries have adopted ISO 9000 as national standards. When you purchase a product or service from an organization that is registered to the appropriate ISO 9000 standard, you have important assurances that the quality of what you receive will be as you expect. The standards apply uniformly to organizations of any size or description.

Alfa Adhesives, Inc. is ISO 9001 registered. We view ourselves as a “Service Company” that manufactures great products, not a typical manufacturer. Through customer satisfaction we enforce our reputation as being a superior supplier. ISO assists us in reinforcing our high level of commitment to be professional, consistent, creative, innovative, and competitive for the benefit of our customers and employees.

Third-party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001.



UL (Underwriters' Laboratories) GREENGUARD Gold Certified

All Simalfa and KulKote products are GREENGUARD Gold Certified.

By choosing products with GREENGUARD Certification, you are creating a healthier indoor environment for your home, office or institution by reducing chemical exposure. GREENGUARD Certification Standards are among the most rigorous in the world, so you can be confident that these certified products live up to their claims.

What Does “GREENGUARD Certified” Mean?

<https://www.ul.com/insights/what-does-green-guard-certified-mean>



USDA Certified BioBased Product

KulKote products are USDA Certified Biobased.

Biobased products are derived from plants and other renewables. They provide an alternative to conventional petroleum derived products for a more renewable and sustainable future. These products perform as well or better than their petroleum-based counterparts.

General Information

Description

The Pressure Cube is intended for use as a pressure container to supply Simalfa and/or KulKote a constant preset fluid and atomization air pressure. The pressure cube is extremely unique as compared to traditional pressure tanks as it's simple to use, easy to maintain, and is designed to work directly with our custom packaging to create the ideal cartridge system.

Container Size

20kg (44lb) box. Learn more about container sizes by visiting the following websites:

KulKote <https://kulkote-inside.com/technical/container-sizes>

Simalfa <http://www.simalfa.com/techinfo/containerizes>

Weight + Dimensions

Weight: 36.17kg / 77.53lb

Height: 37.465cm / 14.75" (without components installed)

Width 43.18cm / 17"

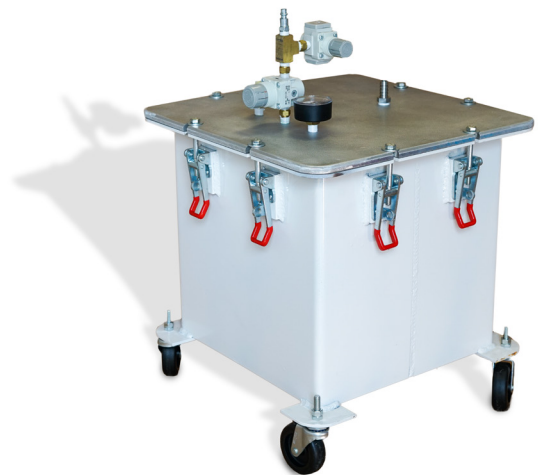
Depth 43.18cm / 17"

Pricing Options

See price sheet

IMPORTANT NOTICE

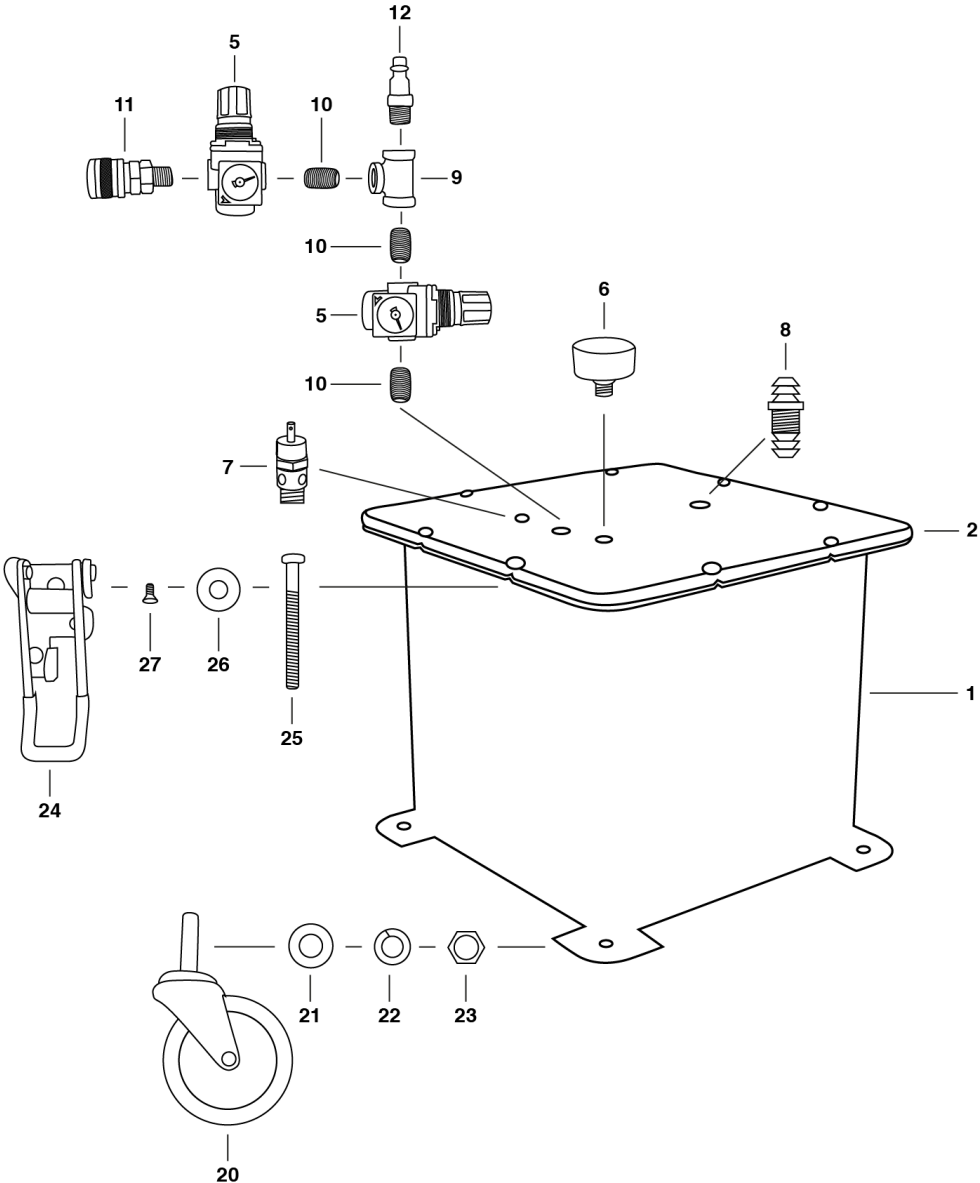
- » Read and follow SAFETY PRECAUTIONS + WARNINGS, ASSEMBLY INSTRUCTIONS, and SETUP + PROPER USE.
- » Alfa Adhesives, Inc or KulKote, LLC (aka Simalfa or KulKote) assumes no liability related to the pressure cube or it's operation and/or safe operation.
- » Retain this document for future reference.



Safety Precautions + Warnings

- » This pressure tank should only be used with Simalfa water based adhesives and/or KulKote temperature regulating technology.
- » DO NOT exceed maximum cube pressure of 15 psi.
- » Air pressure loads that are higher than design loads, or changes to the pressure cube, can cause the cube to rupture or explode.
- » A safety valve (Air Pressure Release Valve) protects the cube from over pressurization. During each use, pull ring on the valve to make sure it operates freely and relieves air pressure. If it needs replacement, it must be replaced with a safety valve having the same rating of 15 psi. Do not eliminate, make adjustments to, or substitute this valve.
- » DO NOT make changes to the pressure cube it will weaken it. Never drill into, weld or change the cube in any way.
- » DO NOT allow the tank to leak air. This will cause water to evaporate from the adhesive resulting in an increased level of service. Identify the leak and repair. Look at loose fittings or damaged lid seal.
- » DO NOT continue to use if empty. Air will be pushed through the fluid lines and cure the adhesive resulting in an increased level of service. If adhesive pulses, stop and replace container of adhesive.
- » Operators should be given adequate training in the safe use and maintenance of the equipment. Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, operation, maintenance, and housekeeping. (in the US these are OSHA Sections 1910.94 and 1910.107, and NFPA-33).
- » Alfa Adhesives, Inc or KulKote, LLC (aka Simalfa or KulKote) assumes no liability related to the pressure cube or it's safe operation.

Parts Diagram



Parts List

Item#	Diagram#	Description	
PC1-body	1	Pressure Cube 20kg Cube Body (v4)	
PC2-lid	2	Pressure Cube 20kg Cube Lid (v4)	
PC3-inhose		Pressure Cube Internal Fluid Hose (18", 45 Deg cut), kit *	
PC4-9407K13		Pressure Cube O-Ring Cord Stock (60")	
PC5-AR20KN02EZB	5	Pressure Cube Air Regulator With Gauge	Air Regulator Assembly
PC6-4FMC3	6	Pressure Cube Tank Gauge (15 psi)	
PC7-CAS25015	7	Pressure Cube Pressure Relief Value (15 psi)	
PC8-doublebarb	8	Pressure Cube Double Hose Barb	
PC9-BRT025	9	Pressure Cube Brass Tee (1/4")	Air Regulator Assembly
PC10-BRN025	10	Pressure Cube Brass Close Nipple (1/4")	Air Regulator Assembly
PC11-FS3103	11	Air Quick Connect (Female x 1/4" MNPT)	Air Regulator Assembly
PC12-FS113	12	Air Quick Connect (Male x 1/4" MNPT)	Air Regulator Assembly
PC20-PRE30605ZN	20	Pressure Cube Wheel (3/8" stud, 3" wheel)	
PC21-92141A031	21	Pressure Cube Wheel Washer (3/8")	
PC22-91101A231	22	Pressure Cube Wheel Lock Washer (3/8")	
PC23-90490A031	23	Pressure Cube Wheel Nut (3/8")	
PC24-GH4003	24	Pressure Cube Latch (M8 threaded, 660lbs rated)	
PC25-91280A286	25	Pressure Cube Latch Bolt (M8, 80mm long, Class 8.8)	
PC26-91100A160	26	Pressure Cube Latch Washer (M8, 24mm OD)	
PC27-90273A192	27	Pressure Cube Latch Mounting Screw (8-32, 3/8", flat head)	

Other Items (always match hose lengths)

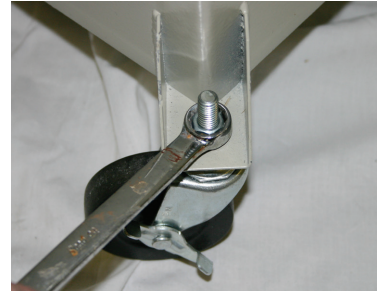
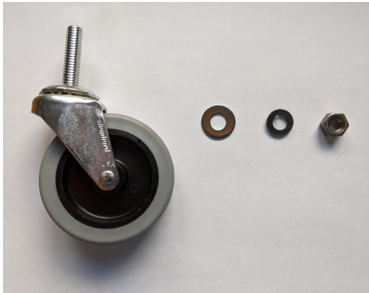
PC-40-15	Pressure Cube - Air Hose and connectors - 15 Feet, kit *
PC-50-15	Pressure Cube - Fluid Hose and connectors - 15 Feet, kit *
PC-40-25	Pressure Cube - Air Hose and connectors - 25 Feet, kit *
PC-50-25	Pressure Cube - Fluid Hose and connectors - 25 Feet, kit *
PC-40-35	Pressure Cube - Air Hose and connectors - 35 Feet, kit *
PC-50-35	Pressure Cube - Fluid Hose and connectors - 35 Feet, kit *

* see kit details for list of components

Assembly Instructions

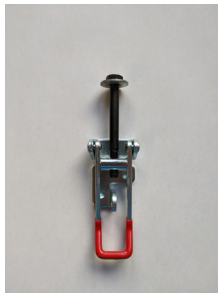
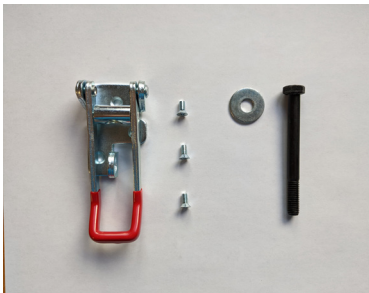
Wheels

- » Attach wheels using supplied components.



Latches

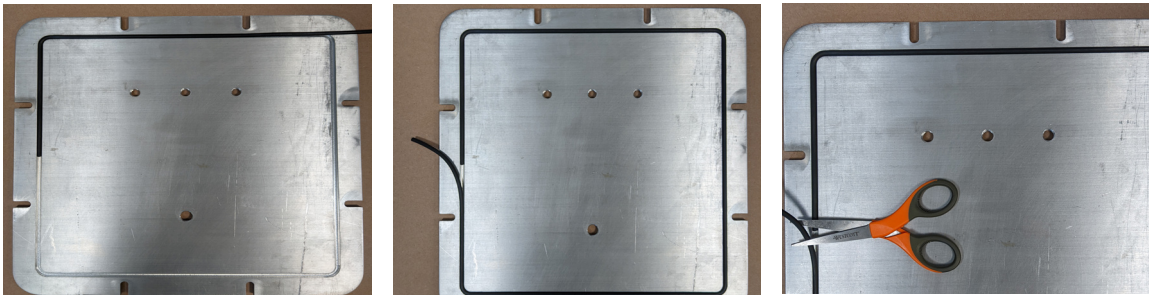
- » Attach latches using supplied components.
- » Use Loctite to keep screws secured.



Assembly Instructions

Lid Seal (O-Ring Cord Stock)

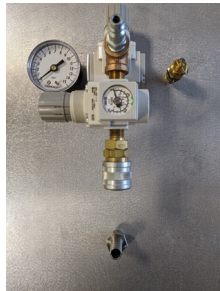
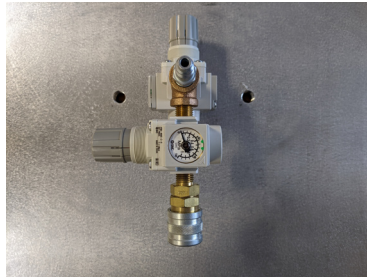
- » Place "O-ring Cord Stock" into slot on bottom of pressure cube lid.
- » With ends overlapping, cut to size.
- » Glue in place using silicone.



Assembly Instructions

Lid Components

- » Use teflon tape when installing the lid components.
- » Install "Air regulator assembly".
- » Install "Tank Gauge (15 psi)".
- » Install " Pressure Relief Value (15 psi)".
- » Install "Double Hose Barb".



Assembly Instructions

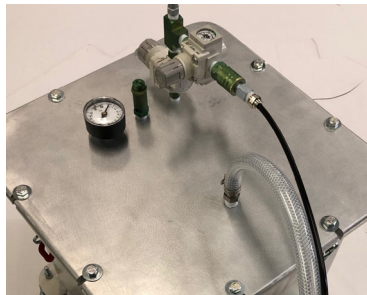
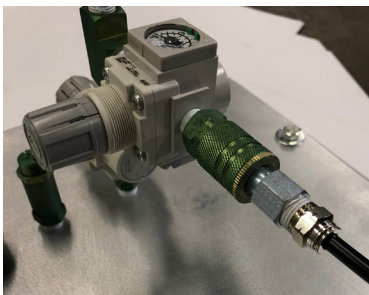
Interior Fluid Hose

- » Attach the "Internal Fluid Hose" using the supplied clamp.



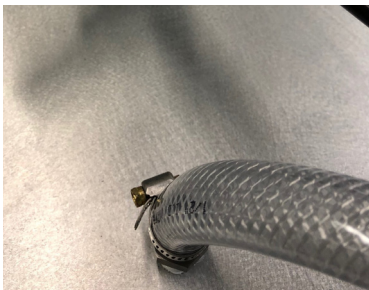
Air Hose

- » Attach "Air Hose and connectors - kit" to pressure cube.



Fluid Hose

- » Attach "Fluid Hose and connectors - kit" to pressure cube.



Assembly Instructions

Spray Gun

- » Attach fluid hose to fluid inlet (front of spray gun).
- » Attach air hose to handle of spray gun using supplied components.
- » Use zip ties or tape to combine the hoses for easy use.

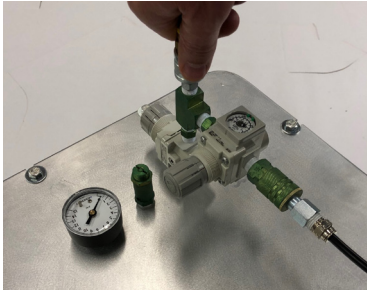


Testing the Assembly

- » Attach compressed air to the pressure tank.
- » Using the tank regulator increase the tank pressure and check for leaks.
- » Air leaking from the lid. Remove the air from the pressure cube. Release any air pressure via the relief valve, tighten the latches. Repeat as needed to stop any air leaks.
- » Air leaking from the lid components. Remove the air from the pressure cube. Release any air pressure via the relief valve, tighten the lid component. Repeat as needed to stop any air leaks.

Setup + Proper Use

Remove air hose from "compressed air inlet".



Release air pressure from cube using the "Pressure Relief Valve".



Release the lid "Latches", remove the lid, then remove the used 20kg container from cube.



Setup + Proper Use

Place Simalfa 20kg container in cube and remove cap.



Place lid on cube with "Internal Fluid Hose" being inserted into container. Make sure hose and lid are aligned properly.

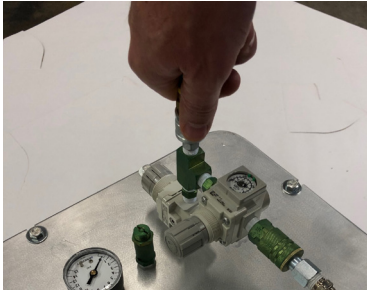


Securely fasten cube lid by clamping lid 'Latches'.



Setup + Proper Use

Attach plant air to “compressed air inlet”.



Adjust cube pressure using the “fluid pressure regulator”. The inside pressure is displayed on the “fluid pressure gauge”. It is recommended that 4-8 psi for Simalfa and 10-14 psi for KulKote is used. Fluid volume required and hose length will determine gauge reading.



Adjust atomization air pressure using the “atomization air pressure regulator”. It is recommended that 25-50 psi is used. However, this is directly related to the fluid volume and spray gun setup.



SIMALFA®

WATER BASED ADHESIVES



Made in the USA Made in Switzerland

Combining Swiss innovation and American ingenuity, we are constantly adapting and creating products to meet your every need. Selecting a so called “me too” product adds too much risk to your business.



Options

With 150+ formulations, we can recommend a product that will fit your specific need today and easily adjust as your needs evolve tomorrow.



Proven

Countless years of development, numerous amazing products, and many years of proven market acceptance ensure your long-term success.



The Simalfa Team

Expertise to guide and assist you with applications, production processes, inventory management and much more. Always professional + timely, we never miss ship dates or an opportunity to help you.



IT'S SIMPLE

SIMALFA®

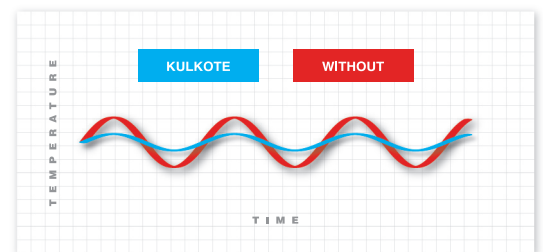
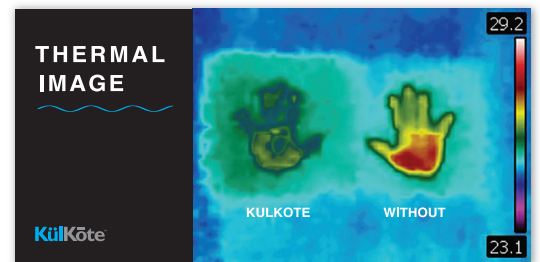




Cools when hot.
Warms when cold.
Ideal comfort for the best night's sleep!

Sleeping hot makes for a restless night and a tired morning. KülKöte regulates temperature variations, keeping you not too hot and not too cold, so you sleep more soundly. Sleep better with KülKöte. KülKöte provides you with a more fulfilled, productive, and healthier life by giving you the rest you need to recharge and tackle the day.

- 100% Water-Based
- Non-Toxic
- Odor Free
- Functions for a Lifetime
- USDA Certified Biobased Product



IT'S COOL

THE DIFFERENCE! WHAT THIS MEANS FOR YOUR BUSINESS.



Made in USA Made in Switzerland

Combining Swiss innovation and American ingenuity, we are constantly adapting and creating products to meet your every need. Selecting a so called "me too" product adds too much risk to your business.



Options

With 150+ formulations, we can recommend a product that will fit your specific need today and easily adjust as your needs evolve tomorrow.



Proven

Countless years of development, numerous amazing products, and many years of proven market acceptance ensure your long-term success.



The Simalfa Team

Expertise to guide and assist you with applications, production processes, inventory management and much more. Always professional + timely, we never miss ship dates or an opportunity to serve you.



Brand Name

The KülKote brand is recognized worldwide and provides a continuous benefit for your brand, whereas selecting a "me too" product adds risk to your business.



Proven

Countless years of development, numerous amazing products, and many years of proven market acceptance ensure your long-term success.



Validation

Capitalize on KülKote's acceptance in a variety of markets. KülKote is used in various consumer products from sleep goods to footwear and more.



The KülKote Team

Expertise to guide and assist you with product design, marketing, and manufacturing. Always professional + timely, we never miss ship dates or an opportunity to serve you.



IT'S SIMPLE



IT'S COOL