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Property Type	Number
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ASSIGNMENT

NOW, THEREFORE, in consideration of the sum of Ten Dollars ($10.00), and for other good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I, **Lance Nist** of Santa Ana, California ("Assignor"), hereby sell, assign, and transfer to **Konstantine P. Kralis**, of Chicago Illinois ("Assignee"), the entire title and interest, for all countries, in and to the concepts and technologies known as Rosin Press Extraction and Processing (described in Attachment A to this Assignment) and any related concepts and technologies developed now or in the future (referred to collectively as the "Inventions") and the right to registrations to the Inventions including:

(1) all copyrights, trade secrets, trademarks and associated good will relating to the Inventions;

(2) all the rights and privileges under all Letters Patents that may be granted for the Inventions including the right to sue and collect past damages relating to any of the patent rights granted herein, and including any continuations, continuations-in-part, divisions, and reissue patents or applications, and any foreign counterparts or international applications related to those Inventions;

(3) all priority rights to the Inventions under the International Convention for the Protection of Industrial Property for every member country.

Assignor warrants that: (1) such rights have not been previously licensed, pledged, assigned, or encumbered; and (2) that this assignment does not infringe on the rights of any person. Assignor agrees, without charge to Assignee but at Assignee's expense, to cooperate with Assignee and to execute and deliver all papers, instruments, and assignments as may be necessary to vest all right, title, and interest in and to the

intellectual property rights to the Inventions in Assignor. Assignor further agrees to testify in any legal proceeding, sign all lawful papers and applications, and make all rightful oaths and generally do everything possible to aid Assignee to obtain and enforce proper protection for the Inventions in all countries.

Signed at 2824 S. Wich SA 92105 this 30 day of November, 2018.

Lance Nist

Lance Nist, Assignor

ATTACHMENT A - Rosin Press Extraction and Processing

TITLE

[0001] SYSTEM AND METHOD FOR HIGH-YIELD ROSIN EXTRACTION.

INVENTORS

[0002] Konstantine Pericles Kralis. Chicago, Illlinois. USA. Citizen of the USA.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] This application relates to and describes an improved rosin press for extracting oils from plants using heat and pressure without the need for solvents or additives. In addition, related devices and accessories are described such as collection trays, gages, alarm systems, control systems, and platens, among others.

[0005] Rosin extraction refers to an extraction process that utilizes a combination of heat and pressure to nearly instantaneously squeeze resinous sap from plant material. See, e.g., https://www.leafly.com/news/cannabis-101/what-is-rosin. The plant material to be pressed into rosin can be dried or freeze dried cannabis flowers (which involves minimal pre-processing), kief (or dry sift), or it can be plant material that has already been processed, such as hash or "bubble hash." *See, e.g.*, Pure Pressure's "Pikes Peak, Longs Peak, V2 User Manual R2.1" at page 19, and Philosopher Seeds Blog "Making Bubble Hash with ice and water." Typically, the plant material is stored in a mesh filter bag with pore openings that are between 25 micron and 250 micron, depending on the application. The dimensions of the filter bag depend on the size of the press.

[0006] In existing systems, a layer of parchment paper is placed on the rosin press for collecting extracted rosin, and the filter bag containing plant material is placed on top of or inside of that parchment paper. Heat and pressure is applied by the press to the filter bag, which causes the rosin to be pushed through the pores of the filter bag and on to the parchment paper. The temperature and pressure varies depending on the application, and various temperature and pressure combinations can be applied to the bag during a single pressing (sometimes these combinations of temperature and pressure are referred to as "recipes"). Temperatures typically range between 100 Degrees and 300 Degrees Fahrenheit and pressures applied to the filter bag can be very low (10 PSI or less) or as high as 5,000 PSI in some applications.

[0007] Rosin presses are typically either hydraulically powered (using oil or water) or pneumatically powered (using compressed air or other gases).Suitable hydraulic pumps for driving the pistons of a hydraulic press include the following

https://www.zoro.com/enerpac-hydraulic-electric-pump-05-gal-115-vac-pmu10427/i/G3215536/feature-product?gclid=Cj0KCQiAxNnfBRDwARIsAJlH29Bie8f5lS9H2AWzx7AJiFB-Ve27Ippf_fSBH8TjFhVnNybrYAXBzk0aAnfOEALw_wcB&gclsrc=aw.ds

http://www.jackxchange.com/products/910052A.cfm?_vsrefdom=adwords&gclid=Cj0KCQiAxNnfBRDwARIsAJlH29BwX08wkyHShdI1hMOxHGDCpwhPNJBk1QHq-VmK5heDctqbzHAd84waAtwzEALw_wcB

A person having ordinary skill in the art will recognize that other hydraulic pumps are also suitable. The pressure can also be applied using an air compressor, or it can be applied using a hand pump, mechanical "twist" system, or other manual system.

[0008] The plates in a rosin press are typically electrically heated. The controls and/or monitors for the rosin press can involve a computerized system with a digital display. The material that results from the pressing process is also called rosin, and it can be a translucent, sappy material (sometimes referred to as "shatter"), an oil-like substance, a budder or batter (more like a solid), or a wax-like material.

[0009] The process of rosin extraction, and use of the extracted rosin, has recently become popular in connection with marijuana/cannabis, but it is also used in connection with other plant-based materials. For example, rosin can also be obtained from the oleoresin or deadwood of pine trees or from tall oil, and the oils extracted from that process can be used for making varnish. https://www.merriam-webster.com/dictionary/rosin. This invention disclosed herein is described in the context of cannabis rosin and cannabis rosin extraction, although its applicability to rosin extraction from other plants will be apparent to those of skill in the art.

[0010] It is known that rosin press extraction of cannabis oil offers significant benefits over cannabis oil extraction using solvents and chemicals. For a detailed description of the benefits of non-solvent rosin extraction (using a rosin press) versus extraction using solvents (such as hydrocarbon extraction processes), see the following articles:

[0011] https://www.herbnelements.com/blog/pros-and-cons-of-different-concentrates-#

[0012] https://gopurepressure.com/blogs/rosin-education/what-is-rosin-why-does-it-matter

[0013] Simple no alcohol . you can extract the full spectrum of flavor from the plant and all its essential oils from the plant leaving behind the stems leaves that cause cancer perhaps when burning

[0014]

[0015] In short, extraction with solvents often involves dangerous flammable materials, significant manual labor, and a person with a high level of skill and knowledge of chemical reactions to oversee the processes. In addition, solvent-based extraction uses potentially poisonous or toxic solvents and can lead to chemical impurities in the extracted oil, especially if the chemical processes are not carried out correctly. These impurities and potentially toxic substances in the rosin are especially problematic in the cannabis industry, where the extracted cannabis oils are intended to be used in products for human consumption.

[0016] In contrast, rosin press extraction can be completed without using chemicals or solvents, and results in a pure and natural product. However, a need exists in the art for better rosin presses and extraction methods.

[0017] 2. Description of Related Art

[0018] Existing rosin presses from Pure Pressure,

[0019]

[0020] https://www.rosintechproducts.com/products/rtp-gold-series-manual-rosin-tech-heat-press-5x5

[0021] https://www.myrosinpress.com/shop/rosin-press/

[0022] https://www.trimbud.com/products/10-ton-hydraulic-rosin-press?variant=12143446163527&_vsrefdom=adwords&gclid=Cj0KCQiAxNnfBRDwARIsAJlH29CULqkrydWJQsZV4FMLs_zk4BBy5RlKtHnTZYOG-VH_R7q00FmFSpoaAmrgEALw_wcB

[0023]

[0024]

[0025]], among others, are provided herewith and cited on an Information Disclosure Statement. The existing presses suffer from multiple shortcomings, as explained below.

[0026] More specifically, a problem with existing presses is that each time the rosin press is used for extraction, the extracted rosin must be collected on a sheet of parchment paper or equivalent paper. An example of such a collection system is shown in Pure Pressure's "Pikes Peak, Longs Peak, V2 User Manual R2.1" at page 33. Parchment paper collection requires significant extra work by the operator in setting up the press, and the set up process is required every time the press is used. For example, Pure Pressure's system requires a user to place and secure (using clips) the parchment paper, place the rosin filter bag containing the material to be pressed on top of the paper, fold the parchment paper over the rosin filter bag, re-center the rosin filter bag, and then clip the folded over parchment paper into place. If the operator improperly places or fails to secure the paper, the paper may fail to collect the extracted rosin, leading to wasted material. In addition, an operator using this system is spending significant amounts of time with his hands inside the pressing area, which can lead to danger from the heat on the press or pressure if the pressing process is mistakenly started. Other systems use even more rudimentary methods of collecting the rosin extra on parchment paper. For example, in some systems, the paper is placed flat on the bottom press with the rosin filter bag placed on top, and the user must manually fold or otherwise manipulate the parchment paper during operation of the press. Manual manipulation of the parchment paper during pressing leads to even more wasted rosin and potential danger for the operator. The use of parchment paper is also an added cost for the parchment paper materials, and it creates environmental waste in the form of wasted paper.

[0027] As described in more detail below, one aspect of the invention eliminates the need for parchment paper while providing a safe, effective system for collecting extracted rosin. More specifically, the lower platen of this aspect of the invention includes a gutter rail collector system that is designed to collect the extract as it oozes from the rosin filter bag. In one embodiment, the gutter rail system is designed with angled components that guide the extracted rosin to each of the four corners of the lower platen, with holes in the corners of the platen that "drain" into a tray underneath the platen, for easy collection. The lower platen can be made from brushed blab la anodized aluminum, which functions well at the temperatures and pressures used for extraction while allowing the extracted rosin to easily be removed from the gutter system (without sticking, for example).

[0028] Another problem with existing rosin presses is that the platen applying pressure (either the upper or lower platen) is typically driven by a single rod or other driving mechanism attached to the platen with one contact point or a limited number of contact points that are not well distributed across the entire plate. As a result, the distribution of pressure on the platenis often non-uniform during the pressing process. A non-uniform pressure distribution results in a lower yield of rosin from the plant material (some areas of the rosin filter bag are not properly compressed between the platens), and caneven lead to a blow out of plant material from certain areas of the filter bag, if one side of the filter bag is being compressed more than the other.

[0029] ALSO the platen start to warp and twit and fail in the end not good for the consumer they will never be perfect because of poor design

[0030] Having few points contact to drive the moving platen (for example, driving the platen through a single rod placed at the center of the platen) also limits the size of the platen. Specifically, with limited points of contact on the platen, the corners and edges of the platen are

not stabilized. Due to compression of the platen itself in the area around the driving mechanism, the pressure at the driving mechanism (typically the center of the platen) is greater than the pressure at the corners and edges. As the size of the platen increases and the corners and edges of the platen are located further away from the driving mechanism, this difference in pressure from the center to the outside, non-stabilizededges and corners of the platen becomes problematic. Existing systems limit the size of the platen (and correspondingly the size of the rosin filter bags) to reduce this effect.

[0031] As explained below, in one aspect of the invention, multiple driving mechanisms and/or multiple, well-distributed points of contact on the platen are used to increase pressure uniformity throughout the entire platen, including at the platen outside edges. A uniform pressure distribution allows for a better yield of extracted rosin because all areas of rosin filter bag are properly pressed throughout the extraction process. This also allows for larger platens, larger rosin filter bags, and correspondingly, more extracted rosin from a single run of the rosin press.

[0032] Another problem with existing rosin presses, and specifically presses with computerized control systems, is that the presses cannot interface wirelessly with remote devices, such as cellular phones, tablets, PDAs, or other computing devices. For example, existing presses are not enabled with Bluetooth, WIFI, or other wireless technologies for connecting to such remote devices. Even for simple tasks, such as software updates to the rosin press control system, the rosin press must be connected to a laptop or other computer via a USB cable, and the updates must be downloaded and installed via this separate computer. See, e.g.,Pure Pressure's "Pikes Peak, Longs Peak, V2 User Manual R2.1" at page 31. This also makes it difficult for

users to download/upload recipes from the rosin press system to locations on the internet, to share recipes among different users, and to remotely control and monitor the system.

[0033] In one embodiment of the invention, the rosin press is equipped with Bluetooth, WIFI, and/or other wireless technologies to wirelessly connect to the internet and to cellular phones, tablets, and other remote devices. In this embodiment, software is provided and installed on the computer system of the rosin press that can communicate and interact with software applications on phones, tablets, or other wireless devices. The wireless devices can be used to program, control, and/or monitor the press. The software that is installed on the rosin press and wireless devices can be provided, for example, by the rosin press manufacturer or a third party on its behalf. Multiple devices and users can download the software for communicating with and controlling the rosin press, and different categories of permissions can be provided for different device users (for example, administrative permissions for some users but not others). Devices and users can also seamlessly share recipes and other information about the presses with each other and between the presses themselves (for example, a recipe saved on one press can be shared wirelessly over the internet or through an intermediary wireless device with another press).

[0034] Existing rosin presses also lack critical safety features. Partially or fully automated systems involve less user oversight, and therefore, built in safety features are important for these presses. Features described herein include heat sensors, pressure sensors, fuses. Ultrasonic sensors are used to create a force field so when press is in motion and you put your hands in there it immediately stops. There is also a manual pop breaker that will snap on the platen if it surpasses 230 degrees Fahrenheit . the heat is controlled by a computer and a rtd

resistance temperature detector which is like a thermal couple but if this fails and it starts to over heat there is a manual trip sensor that will shut it all down

[0035] Applicant(s) believe(s) that the material incorporated above is "non-essential" in accordance with 37 CFR 1.57, because it is referred to for purposes of indicating the background of the invention or illustrating the state of the art. However, if the Examiner believes that any of the above-incorporated material constitutes "essential material" within the meaning of 37 CFR 1.57(c)(1)-(3), Applicant(s) will amend the specification to expressly recite the essential material that is incorporated by reference as allowed by the applicable rules.

SUMMARY

[0036] Aspects and applications of the invention presented here are described below in the drawings and detailed description of the invention. Unless specifically noted, it is intended that the words and phrases in the specification and the claims be given their plain, ordinary, and accustomed meaning to those of ordinary skill in the applicable arts. The inventor is fully aware that he can be his own lexicographer if desired. The inventor expressly elects, as his own lexicographer, to use only the plain and ordinary meaning of terms in the specification and claims unless he clearly states otherwise and then further, expressly sets forth the "special" definition of that term and explains how it differs from the plain and ordinary meaning. Absent such clear statements of intent to apply a "special" definition, it is the inventor's intent and desire that the simple, plain and ordinary meaning to the terms be applied to the interpretation of the specification and claims.

[0037] The inventor is also aware of the normal precepts of English grammar. Thus, if a noun, term, or phrase is intended to be further characterized, specified, or narrowed in some way,

then such noun, term, or phrase will expressly include additional adjectives, descriptive terms, or other modifiers in accordance with the normal precepts of English grammar. Absent the use of such adjectives, descriptive terms, or modifiers, it is the intent that such nouns, terms, or phrases be given their plain, and ordinary English meaning to those skilled in the applicable arts as set forth above.

[0038] Further, the inventor is fully informed of the standards and application of the special provisions of post-AIA 35 U.S.C. § 112(f). Thus, the use of the words "function," "means" or "step" in the Detailed Description or Description of the Drawings or claims is not intended to somehow indicate a desire to invoke the special provisions of post-AIA 35 U.S.C. § 112(f), to define the invention. To the contrary, if the provisions of post-AIA 35 U.S.C. § 112(f) are sought to be invoked to define the inventions, the claims will specifically and expressly state the exact phrases "means for" or "step for, and will also recite the word "function" (i.e., will state "means for performing the function of [insert function]"), without also reciting in such phrases any structure, material or act in support of the function. Thus, even when the claims recite a "means for performing the function of . . . " or "step for performing the function of . . . ," if the claims also recite any structure, material or acts in support of that means or step, or that perform the recited function, then it is the clear intention of the inventor not to invoke the provisions of post-AIA 35 U.S.C. § 112(f). Moreover, even if the provisions of post-AIA 35 U.S.C. § 112(f) are invoked to define the claimed inventions, it is intended that the inventions not be limited only to the specific structure, material or acts that are described in the preferred embodiments, but in addition, include any and all structures, materials or acts that perform the claimed function as described in alternative embodiments or forms of the invention, or that are

well known present or later-developed, equivalent structures, material or acts for performing the claimed function.

[0039] The aspects, features, and advantages will be apparent to those artisans of ordinary skill in the art from the DETAILED DESCRIPTION and DRAWINGS, and from the CLAIMS. However, without attempting to characterize or limit the scope of inventions as they are described and claimed, some of the advantages of the various inventions are summarized below.

[0040] The rosin press and related accessories and inventions described herein are designed with improvements in at least four areas: rosin collection; pressing uniformity, stability, and efficiency; wireless and internet connectivity;,and safety. These rosinrosin press and related accessories and inventions described herein are also better for commercially pressing high quantities of cannabis rosin.

[0041] It is an object of the invention to provide an improved platen for collecting rosin that is safe, effective, easy to set up, and efficient system for collecting rosin as it is extracted by the press, without the need for parchment paper or other such materials.

[0042] It is yet another (and optionally independent) object of the invention to provide a rosin press that applies a more uniform and stable pressure throughout the entire platen and filter bag, including in a system with large platens, by using multiple driving mechanisms and/or multiple, well-distributed points of contact on the platen.

[0043] It is yet another (and optionally independent) object of the invention to provide a rosin press equipped with Bluetooth, WIFI, and/or other wireless technologies to wirelessly connect to the internet and to cellular phones, tablets, and other remote devices. In some variations of this embodiment, multiple wireless devices and users can program, control, and/or

monitor the press wirelessly, and recipes and other information about the presses can be shared among users and among multiple presses.

[0044] It is yet another (and optionally independent) object of the invention to increase safety in rosin presses and more automated rosin presses using heat sensors, pressure sensors, fuses, and [what is the process for preventing fingers from getting smashed?]. RTD and manual over heating pop fuse and ultrasonic force field hat will not allow fingers of any object to enter near platen while in operation semi automatic mode

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0045] A more complete understanding of the present invention may be derived by referring to the detailed description when considered in connection with the following illustrative figures. In the figures, like reference numbers refer to like elements or acts throughout the figures.

[0046] Figure 1 depicts an isometric view of an embodiment of the hydraulic rosin press invention, which includes (among other items) I-beam supports with angled support beams, an upper hydraulic support rod inserted through female cylinders to secure two hydraulic pistons, which drive two rams that fit into an upper platen, an upper platen support rod that fits through the rams and support brackets that are also attached to the upper platen, a lower platen, heat gages, and a manual control housing.

[0047] Figure 2 depicts an isometric view of a first embodiment of the upper platen.

[0048] Figure 3 depicts a front view of the first embodiment of the upper platen.

[0049] Figure 4 depicts a back view of the first embodiment of the upper platen

[0050] Figure 5depicts a right side view of the first embodiment of the upper platen.

[0051] Figure 6 depicts a left side view of the first embodiment of the upper platen.

[0052] Figure 7depicts a top view of the first embodiment of the upper platen.

[0053] Figure 8depicts a bottom view of the first embodiment of the upper platen.

[0054] Figure 9 depicts an isometric view of a first embodiment of the lower platen with a gutter rail collection system.

[0055] Figure 10 depicts a front view of the first embodiment of the lower platenwith a gutter rail collection system.

[0056] Figure 11 depicts a back view of the first embodiment of the lower platenwith a gutter rail collection system.

[0057] Figure 12 depicts a right side view of the first embodiment of the lower platenwith a gutter rail collection system.

[0058] Figure 13 depicts a left side view of the first embodiment of the lower platenwith a gutter rail collection system.

[0059] Figure 14depicts a top view of the first embodiment of the lower platenwith a gutter rail collection system.

[0060] Figure 15 depicts a bottom view of the first embodiment of the lower platenwith a gutter rail collection system.

[0061] Figure 16 depicts an isometric view of a first embodiment of anupper platen support bracket.

[0062] Figure 17 depicts a front view of the first embodiment of the upper platen support bracket.

[0063] Figure 18 depicts a back view of the first embodiment of the upper platen support bracket.

[0064] Figure 19 depicts a right side view of the first embodiment of the upper platen support bracket.

[0065] Figure 20 depicts a left side view of the first embodiment of the upper platen support bracket.

[0066] Figure 21depicts a top view of the first embodiment of the upper platen support bracket.

[0067] Figure 22 depicts a bottom view of the first embodiment of the upper platen support bracket.

[0068] Figure 23 depicts a top view of the rosin press floor piece.

[0069] Figure 24 shows a mesh filter bag filled with plant material.

[0070] Figure 25 shows the mesh filter bag on the press, just prior to operation of the press for extraction.

[0071] Figure 26 shows a close up view of the platen area of the press during extraction, with rosin oozing from the filter bag and collecting in the lower platen.

[0072] FIGURES SHOWING SAFETY FEATURES? Yes ultrasonic force field

[0073] Figure 27 shows one embodiment of a user interface for a remote device to interact with and control the rosin press.

[0074] Elements and acts in the figures are illustrated for simplicity and have not necessarily been rendered according to any particular sequence or embodiment.

DETAILED DESCRIPTION

[0075] In the following description, and for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the various aspects

of the invention. It will be understood, however, by those skilled in the relevant arts, that the present invention may be practiced without these specific details. In other instances, known structures and devices are shown or discussed more generally in order to avoid obscuring the invention. In many cases, a description of the operation is sufficient to enable one to implement the various forms of the invention, particularly when the operation is to be implemented in software. It should be noted that there are many different and alternative configurations, devices and technologies to which the disclosed inventions may be applied. The full scope of the inventions is not limited to the examples that are described below.

[0076] Figure 1 depicts an embodiment of the hydraulic rosin press. This embodiment of the press includes a horizontal top I-beam support (10), vertical side I-beam supports (12a and 12b), horizontal side base I-beam supports (14a and 14b), and a horizontal base center I-beam support (16). In this embodiment, cross supports (18a, 18b, 18c, and 18d) are attached to the vertical side I-beam supports (12a and 12b) and horizontal side base I-beam supports (14a and 14b) to further stabilize the rosin press.

[0077] Generally, the I-beam supports and cross supports in this embodiment are made from cast iron and welded to each other at the various points of contact show in the figures (although other known methods of attachment may also be suitable). For example, the upper ends ofside I-beam supports (12a and 12b)are welded to top I-beam support (10). The upper ends of cross supports (18a, 18b, 18c, and 18d) are welded to side I-beam supports (12a and 12b). The lower ends of cross supports (18a, 18b, 18c, and 18d) and lower ends of side I-beam supports (12a and 12b) are welded to side base I-beam supports (14a and 14b). The ends of base center I-beam support (16) are welded to the center, interior sides of each of the side base I-beam

supports (14a and 14b).As shown, the top I-beam support (10) is approximately parallel to the base center I-beam support (16) to maximize stability and support during pressing.

[0078] Although the top, side and base supports can be made from other materials, the I-beams are advantageous for several reasons, including 1) they provide a stable base that is very secure under pressure and 2) the I-beams are readily available in a variety of shapes and sizes, and different I-beam sizes can be used depending on the desired size and maximum pressure needed for a particular rosin press.

[0079] The rosin press floor (18) rests upon the side base I-beam supports (14a and 14b), and base center I-beam support (16). It can also be welded to the I-beams. Figure 23 provides a detailed top view of the rosin press floor piece. The floor in this embodiment includes several notches (XX in Figure 23) to fit around the support beams and a notch (XX in Figure 23) for the heat gauge tray (20). In addition, the rosin press floor (18) includes clips (XXin Figure 23) for LANCE securing the lower platen (22). With the clips (XX), the lower platen (20) that collects the extracted rosin can act as a tray (in certain embodiments) that is easily removed from the floor so that the collected rosin can be poured or otherwise removed from the lower platen. As shown in Figure 1, the lower platen (20) fastened with the clips (XXin Figure 23) sits above the base center I-beam support (16) so that it is supported by the base center I-beam support during pressing operations.

[0080] The embodiment shown in Figure 1 includes two hydraulic pistons (24a and 24b) LANCE used to drive two hydraulic rams (26a and 26b). Alternatively, a single piston and ram or more than two hydraulic rams and pistons can be used. Two pistons are selected in this embodiment because as arranged and described herein, they help maintain a more uniform pressure across the platen during pressing. The hydraulic pistons (24a and 24b) are welded or

otherwise affixed to female cylinders (28a and 28b). Female cylinders (30a and 30b) of like diameter are also welded or otherwise affixed to the top I-beam support (10) and side I-beam supports (12a and 12b).

[0081] With this arrangement of the female cylinders of like size on the pistons and supports, an upper hydraulic support rod (32) can be inserted through female cylinders 28a,30a, 30b, and 28b in order to stably secure the hydraulic pistons under the top I-beam support (10). The hydraulic support rod is designed to withstand pressures of (xxx PSI), and typically is made from or equivalent material that can withstand these loads.LANCE

[0082]

[0083] The hydraulic rams (26a and 26b) fit into bores (34a and 34b) in the upper platen (36), and also include holes with a diameter sufficient to fit the upper platen support rod (38). The upper platen support rod is also welded on both sides to the upper platen support brackets (40a and 40b). The brackets (40a and 40b) are secured (with bolts? Welded?) to the upper platen (34) at points 42a, 42b, 42c, and 42d.

[0084] Accordingly, the present invention includes 6 separate "points of contact" to distribute force generated by the hydraulic press during pressing on the upper platen 36: the two center bores 34a and 34b and four points of contact (42a, 42b, 42c, and 42d) where the upper platen brackets meet the upper platen. Furthermore, these points of contact are distributed across the plate including near the outside edges of the plate, rather than being concentrated in one area (such as the plate center).

[0085] Figures 2-8 depict more detailed views of the upper platen as described above, including the center bores 34a and 34b and four points of contact (42a, 42b, 42c, and 42d). Optionally, as shown in Figures 2-8, the upper platen top side also includes a moat (44) for

collecting any dripping hydraulic fluid from the hydraulic cylinder, hydraulic rod, or tubing described above. As shown in Figure 2, the bottom of the upper platen includes a rectangular, flat surface (52) and beveled edges (54). The rectangular, flat surface (52) is the part of the upper platen that is in contact with the filter bag containing plant material during pressing operations, as explained in further detail below.

[0086] What is the upper platen made from? What are the holes on the sides?

[0087] Figure 1 also shows a manual control housing (46) for housing controls for the rosin press, including controls for the temperature and the hydraulic pump for setting the pressure. The manual control housing (46) can be placed in the location as shown or in other suitable locations on the rosin press that are not near the pressing area. The manual control housing can also be removable or separate from the rosin press, and it can also include a touchscreen and/or wireless capabilities to be controlled by a remote device, as explained in further detail below.

[0088] Figure1 also shows the top chamber inlets (48a and 48b) and bottom chamber outlets (50a and 50b) of the hydraulic pistons (24a and 24b). The chamber inlets and outlets are used to pump hydraulic fluid (such as oil) into or out of the hydraulic pistons to create pressure that is transferred to the upper platen and the filter bag containing plant material that is placed between the upper platen and lower platen (as explained in further detail below). Specifically, during a pressing operation, hydraulic fluid (such as oil) is pumped through lines (such as 3/8" aluminum lines) into the top chamber inlets (48a and 48b) of the hydraulic pistons (24a and 24b). Both lines can be attached to the same pump, with a single line from the pump being split by a "T" to send hydraulic fluid into both top chamber inlets (48a and 48b). In the alternative, multiple pumps can be used (with separate lines feed fluid to each top chamber inlet).

[0089] The upper platen is also heated

[0090] Figures 9-15 depicta first embodiment of the lower platen (20)with gutter rail collection system. As shown in Figure 9, the lowerplaten also includes a rectangular flat surface (56). This rectangular flat surface is approximately the same size the rectangular, flat surface (52) of the upper platen (36), and during pressing operations, the two rectangular flat surfaces are generally aligned and press against each side of the filter bag with plant material (placed between the two rectangular flat surfaces).

[0091] The lower platen also includes a gutter rail collection system 58. As shown, the gutter rail collection system has four "peaks" (58a, 58b, 58c, and 58d), with one peak at each side of the rectangle. From each side of each of the peaks, a sloping rail (labeled 60a-60h) extends toward each of the corners of the upper platen, so that gravity will cause rosin oozing from the filter bag to slide down the rails and into the corners. Additional sloping rails (labeled 62a-62h) also slope downward from the corners of the rectangular flat surface (56) toward the corners.

[0092] In this embodiment, the lower platen (20) has holes (64a-64d) bored at each of its four corners. In this embodiment, the holes are bored all the way through the bottom of the lower platen such that the rosin is "drained" out the bottom of the lower platen, through similar holes in the rosin press floor (18), and into a collection tray (or trays) underneath the rosin press floor.

[0093] The embodiment disclosed in Figures 9-15 is not the only possible embodiment of the gutter rail system. For example, the gutter rails system can exclude thesloping rails labeled 62a-62h, so that the rail system includes only the peaks with slopes from those peaks to each of the four corners. The gutter rail system can also consist of a rectangular "moat" that does not

include any sloping rails or peaks. The holes 64a-64d can also be excluded in certain embodiments, such that the lower platen itself acts as the tray for collecting the rosin. In other embodiments, the holes 64a-64d are not bored all the way through the lower platen but act as reservoirs to collect the rosin within the bottom platen.

[0094] The lower platen can be made from brushed blab la anodized aluminum, which functions well at the temperatures and pressures used for extraction while allowing the extracted rosin to easily be removed from the gutter system (without sticking, for example).

[0095] Figures 16-22 depicta first embodiment of one of theupper platen support brackets (shown as 40a and 40b in Figure 1). As shown, bolt holes 66a and 66b are included on each side of the upper platen support bracket for fastening the upper platen support brackets to the upper platen. The curved area 68 is welded to the upper platen support rod (38), so that during pressing operations the upper platen support rod causes pressure to be applied to the upper platen on the bottom surfaces (70) of the upper platen support brackets that are in contact with the upper platen.

[0096] Figures 24 show one example of a mesh filter bag filled with plant material.

[0097] Figure 25 shows the mesh filter bag on the press, just prior to operation of the press for extraction, and Figure 26 shows a close up view of the platen area of the press during extraction, with rosin oozing from the filter bag and collecting in the lowerplaten.

[0098] To help explain the invention, specific examples of the operations of the rosin press and components shown and described above are discussed below.

[0099] The process begins with placement of the rosin press filter bag directly on the lower platen (is it preheated?). As explained above, the plant material to be pressed into rosin can be dried or freeze dried cannabis flowers (which involves minimal pre-processing), kief (or

dry sift), or it can be plant material that has already been processed, such as hash or "bubble hash." *See, e.g.*, Pure Pressure's "Pikes Peak, Longs Peak, V2 User Manual R2.1" at page 19, and Philosopher Seeds Blog "Making Bubble Hash with ice and water." Typically, the plant material is stored in a mesh filter bag with pore openings that are between 25 micron and 250 micron, depending on the application.

[00100] The filter bag is typically about the same width and length as the rectangular, flat surfaces 52 and 56. With the present invention, because of the two hydraulic presses and multiples points of contact for distributing force on the upper platen, the filter bag width and length can be larger than usual. With the present invention, a filter bag size of 3" x 10" has been used effectively. Common filter bag sizes are XX.

[00101] With the larger filter bag size, more plant material is used in a single pressing, while maintaining a comparable yield per gram of material, resulting in a higher total yield of rosin compared with smaller bags and existing systems. Furthermore no parchment paper is required to be placed between the upper or lower platen and the filter bag containing plant material.

[00102] Next, the top and bottom plates are heated using….

[00103] Next, the hydraulic fluid is pumped from the pump (or pumps) to each of the hydraulic pistons (24a and 24b) at a pressure between XX and XX PSI to cause a pressure of between approximately XX and XX PSI on the plates. Pressure gauges on the plates can be read manually or adjusted or feed pressure readings back to an electronic control system to adjust the pressure fed to the hydraulic pistons. The hydraulic pistons drive the hydraulic rams (26a and 26b) which correspondingly drive the upper platen (36) through connections at the two center

bores 34a and 34b, the upper platen support rod (38), and the upper platen support brackets (40a and 40b) at 42a, 42b, 42c, and 42d. Thus, the plate

[00104] During pressing operations, the temperature and pressure are usually adjusted and applied during set intervals of time, in order to maximize yield from the plant material.

[00105] For example,

[00106] Accordingly, one of the recipes of applying heat and pressure described above, or some other recipe known by those skilled in the art (or by the user) is implemented.

[00107] At a time soon after the process of applying heat and pressure begins, the rosin begins to ooze from the rosin filter bag and into the gutter rail collection system of the lower platen (20). The rosin can be similar to a liquid, like an oil, or more like a thicker "sap," with varying levels of viscosity, depending on the application. Furthermore, the sap tends to harden or become less viscous as the temperature of the rosin descreases.

[00108] However, as the rosin is oozing from the rosin filter bag, it is typically at a temperature of 150 degrees or higher, and it is therefore relatively viscous. At this temperature, in most applications, the rosin is viscous to enter the gutter rail system and by force of gravity (in combination with the additional rosin oozing from the bag and pushing behind it), it will flow down the gutters toward the corners of the lower platen (20). When the rosin reaches the corners, it drips through the holes, down through the rosin press floor (18), and into a collection tray (or trays) underneath the rosin press floor.

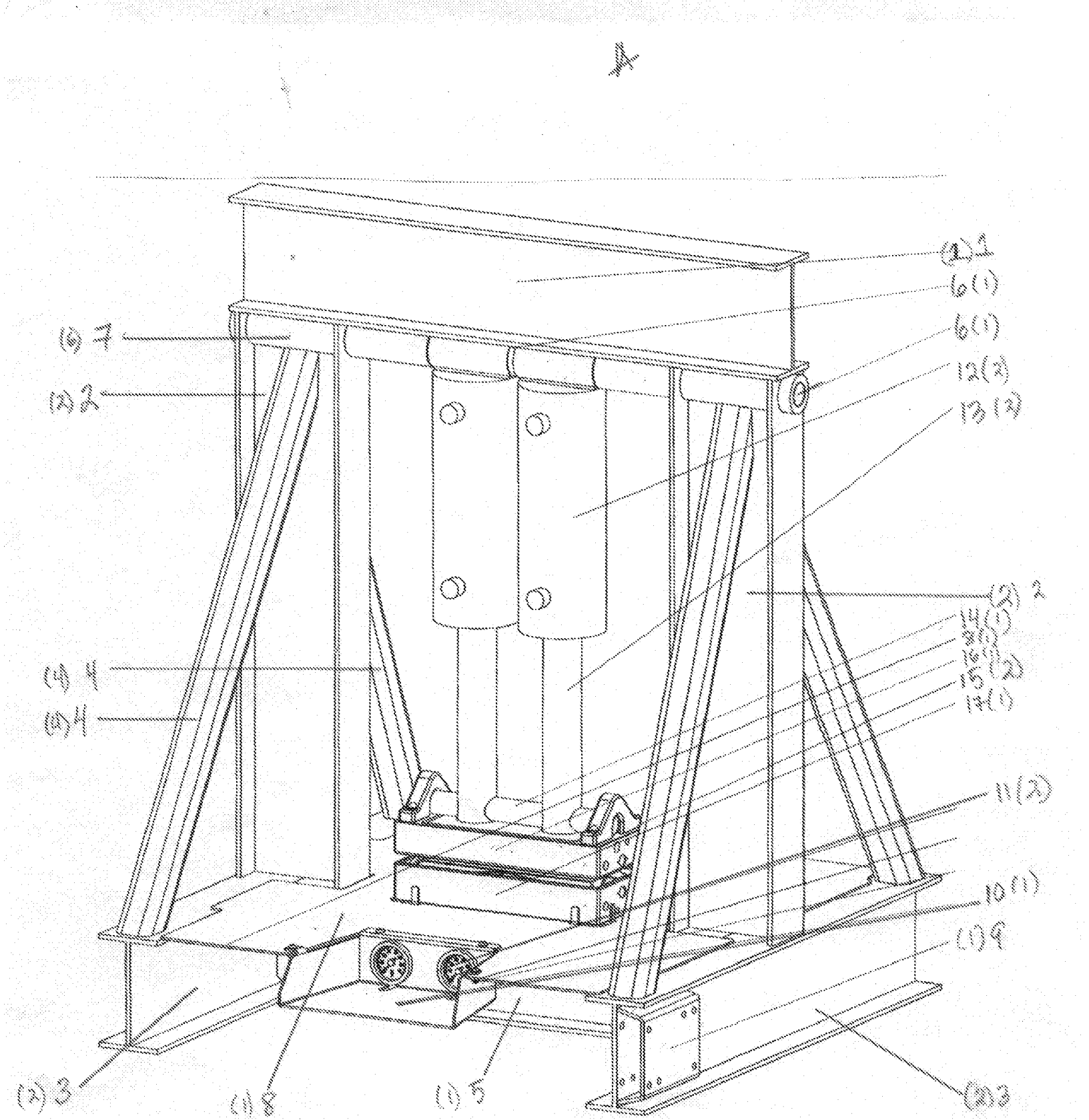
[00109] After the recipe is complete and/or the rosin has stopped oozing from the filter bag, the process ends by reducing the pressure and temperature of the press. Pressure can be reduced by pumping hydraulic fluid out of the bottom chamber outlets (50a and 50b) of the

hydraulic pistons (24a and 24b). Again, this can be computer-controlled or manually initiated by the user.

[00110] Temperature is reduced.

[00111] When the process is complete, the collected rosin can be scraped from the tray, or if it is still warm enough to be viscous, it can be poured from the tray into some other storage.

[00112] Figure 27 shows one embodiment of a user interface for a remote device to interact with and control the rosin press.In one embodiment of the invention, the rosin press is equipped with Bluetooth, WIFI, and/or other wireless technologies to wirelessly connect to the internet and to cellular phones, tablets, and other remote devices. In this embodiment, software is provided and installed on the computer system of the rosin press that can communicate and interact with software applications on phones, tablets, or other wireless devices. The wireless devices can be used to program, control, and/or monitor the press. The software that is installed on the rosin press and wireless devices can be provided, for example, by the rosin press manufacturer or a third party on its behalf. Multiple devices and users can download the software for communicating with and controlling the rosin press, and different categories of permissions can be provided for different device users (for example, administrative permissions for some users but not others). Devices and users can also seamlessly share recipes and other information about the presses with each other and between the presses themselves (for example, a recipe saved on one press can be shared wirelessly over the internet or through an intermediary wireless device with another press).



(4) = 4

1 top I beam support (horizontal) cast iron

2 side I beam support (vertical) cast iron

3 base/side I beam support (horizontal) cast iron

4 angled iron cross supports cast iron

5 ~~bottom~~ I beam support (horizontal) cast iron
base/center

6 upper ~~support~~ hydraulic support rod (diagram B)

7 female cylinder

8 resin press floor (diagram C) aluminum

9 manual control housing (diagram D)

10 heat gauge tray (diagram E) aluminum

11 heat gauges

12 hydraulic piston

13 hydraulic ram

14 upper platen support rod (diagram F)

15 upper platen support rod brackets (diagram G)

16 upper platen (diagram H)

17 lower platen (diagram I)

CLAIMS BY KONSTANTINE P KRALIS

Referring to Diagram A

1. Diagram A it's the only plant press that uses **dual hydraulic** using a **force of 100000lbs** to extract oils from plants organically using no additives
2. **The top platen "plate" has force distribution in 6 points**. Diagram G this bracket shows 2 points there are 2 of these brackets on each end of the top platen which is in diagram H (that's 4 points) also look at diagram F that is the rod that goes through the protruding rods of the hydraulic and also these 2 brackets from diagram G. Diagram H where the hydraulic protruding ram meets the platen diameter 2.015" by .625" deep those are the other 2 points the force is distributed on top platen.
3. Diagram A part 6(qty1) or diagram B 32.75" x1.250" diameter rod , we will call this upper hydraulic support rod. This is the only plant extract machine that **uses this rod to support the upper side of the hydraulics which hold all the 100000 lbs pressure**
4. Diagram A part 1 and 2 and 3 the **I-beam support** this is the only machine with I beam technology for support . in general the whole press is supported mostly **with I beam steel** that's unique
5. Diagram A part 4 qty4 this is only press that has **60 degree angle side angle** supports that connect the I beams
6. Diagram I this is called lower platen its unique because it's the only one that
   a. Is made from brushed blab la anodized aluminum
   b. It has a gutter rail collector system that will collect all extract from the plant and distribute it under the platen in the 4 corners of the lower platen.
   c. It has 2 stainless steel straight heating rods
   d. It has a 235 max cut of fuse so it will pop if it excess 235f
   e. It has a computer controlled thermostat
7. Diagram A this press will have an electric oil pump connected to it. Part 12 hydraulic piston as you can see there are up and down pressure line connectors . **there will be solid aluminum 3/8"lines not rubber hoses** that will lead to an up and down control handle mounted to diagram A part 9 manual control housing which is diagram D
8. Diagram H upper platen picture A you will see two 2.015"diameter by 6.25 deep circles. Diagram A part 13 hydraulic rams fit in there , moving outward away from these 2 circular holes divots there is a rectangular moat 9.0" by 4.250 by .250 wide and .250 deep I think. **This moat is used to collect any drips of hydraulic oil.**mmmmm
9. Computer controlled press.
   a. The psi in the hydraulic line will be anywhere from 0 to 5000 psi this can be translated to force lbs per square inch etc. **we will have a sensor on the oil line to tell us how much pressure is generated. We will name this pressure sensor**
   b. **Platens will be heat controlled by computer or manually**

c. You will be able to execute a program that you programmed and will run every time you press start. Example lets say you want to start pressing your rosin bag with plant product inside the bag. so set platen upper at 220F platen lower at 140F and right when the platens start touching the rosin bag lets say 20psi hold for 1 min to heat the product . then go to 1000 psi hold for 30 sec then 2000 psi hold for 2 min then release hydraulics to original state. You will be able to control heat of platen pressure of hydraulics time duration of a set pressure desired, multiple stages then release all by computer.
d. Each machine can be controlled by android phone or apple
e. Each machine will have wifi capabilities
f. The computer will have user and admin levels of control
g. Each machine will have its own ip address unique identifier so that it can be programs reviewed by owner so that the user can run set programs for a specific product
h. The machine will have a press counter so when pressure reaches let's say 500 psi then we know it did a press that will be counted like hours on jet ski...
i. There is a sensor on the pressure line of hydraulic the reads the psi (0-5000) it will be computer controlled also if it removed an alarm will go off

This invention relates to a fully automated rosin press for extracting rosin from a whole and entire plant material. Rosin is described as a solid form of resin obtained from plant material by means of heat and pressure.

The object of this invention is to provide an immediate production of rosin from the producing plant. The process occurs through an automated process via hydraulic pressure and heat. A further function is to provide the expressed rosin to be collected in a tray at the base. The tray can be removed for collection of the rosin material. The framework provides a stable support when the press is operative. Heat and pressure gauges maintain conditions to allow a downward flow of rosin into the collection tray.

Diagram A- frontal view

Diagram B-upper hydraulic support rod

Diagram C-rosin press floor

Diagram D-manual control housing

Diagram E-heat gauge tray

Diagram F-upper platen support rod

Diagram G-upper platen support rod brackets (2)

Diagram H-upper platen

Diagram I-lower platen

Referring to diagram A the numeral **1** designates the top I-beam support. The upper end of the side I-beam support **2** (2) and the upper end of the angled iron cross support **4** (4) are to be welded to the top I-beam support **1**.

The lower end of the side I-beam support **2** (2) and the lower end of the angled iron cross support **4** (4) are to be welded to the base/side I-beam support **3** (2).

The base/center I-beam support **5** is to be welded to the center, interior side of the base/side I-beam support **3** (2).

The rosin press floor **8** rests upon the base/side I-beam support **3** (2) and the base/center I-beam support **5**.

The heat gauge tray **10** is to be bolted to the rosin press floor **8**.

The heat gauges **11** (2) are affixed to the heat gauge tray **10**. The heat gauges **11** (2) maintain correct temperature for proper extraction.

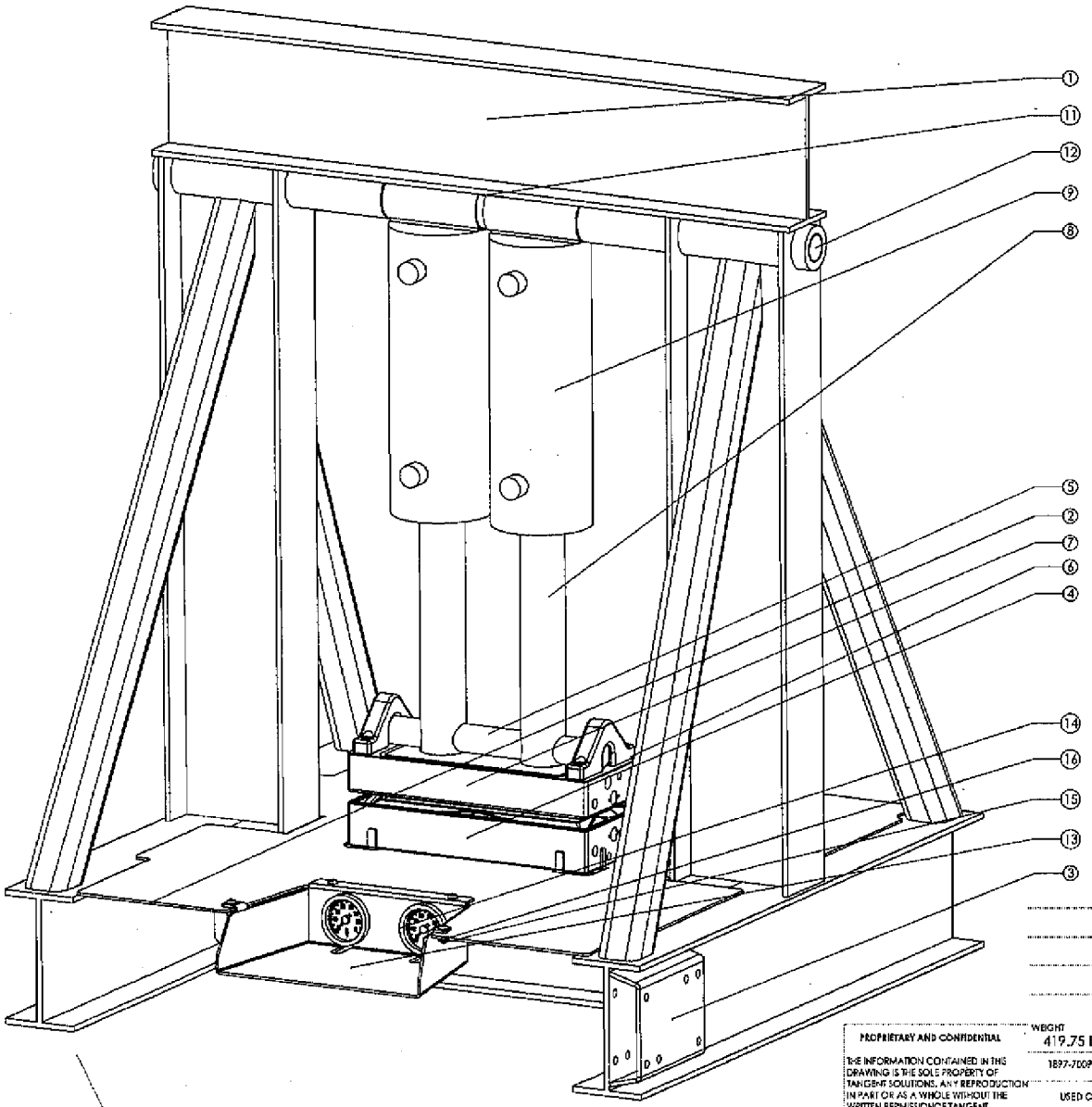
The manual control housing **9** is affixed to the exterior of one of the base/side I-beams **3** (2). The function of the manual control housing **9** is to manipulate the upper platen **16**.

***1,2,3,4,5** to be cast iron

***8,10** to be polished aluminum

Plant product is placed in a 3"X10", 50-250 micron, nylon, mesh pouch between the upper platen **16** and lower platen **17**. The pressed rosin material is then collected into a tray under the rosin press floor **8**.

Claims.....??????



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2	PEFI-PRESS-02	PANTERA - ROSEN PRESS CATCH PLATE	1
3	PEFI-PRESS-07	PANTERA - ROSEN PRESS HYDRAULIC VALVE MOUNT	1
4	PEFI-PRESS LOWER DIE	PANTERA - ROSEN PRESS LOWER DIE	1
5	PEFI-PRESS-06	PANTERA - ROSEN PRESS DIE RETAINING PIN	1
6	PEFI-PRESS-05	PANTERA - ROSEN PRESS PIN RETAINER	2
7	PEFI-PRESS UPPER DIE	PANTERA - ROSEN PRESS UPPER DIE	1
8	PEFI-PRESS-2.000 SHAFT	Description	2
9	PEFI-PRESS-4.500 CYL	Description	2
10	.313 X .875 SOCKET HEAD MCMASTER		4
11	PEFI-PRESS-04	Description	1
12	PEFI-PRESS-08	PANTERA - ROSEN PRESS RAM HANGER PIN	1
13	PEFI-PRESS-03	PANTERA - ROSEN PRESS GAUGE TRAY	1
14	autometer jauge temp huile		2
15	.250 X .625 BUTTON HEAD MCMASTER		4
16	.250 NYLOCK STD NUT MCMASTER		4

WEIGHT: 419.75 LBS
1897-7009-01
USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
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THREE PLACE DECIMAL .005
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994
MATERIAL
FINISH: RAW
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	S. KEPLER	6/26/2018
ENG APPR.		
MFG APPR.		

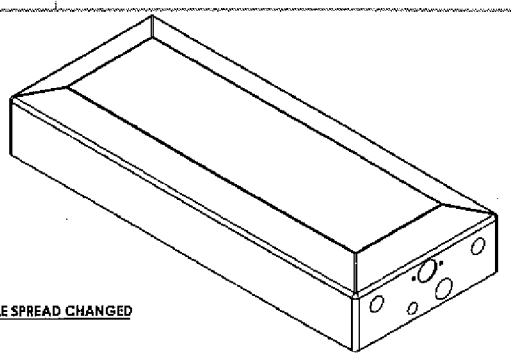
TANGENT SOLUTIONS
PO BOX 78885
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

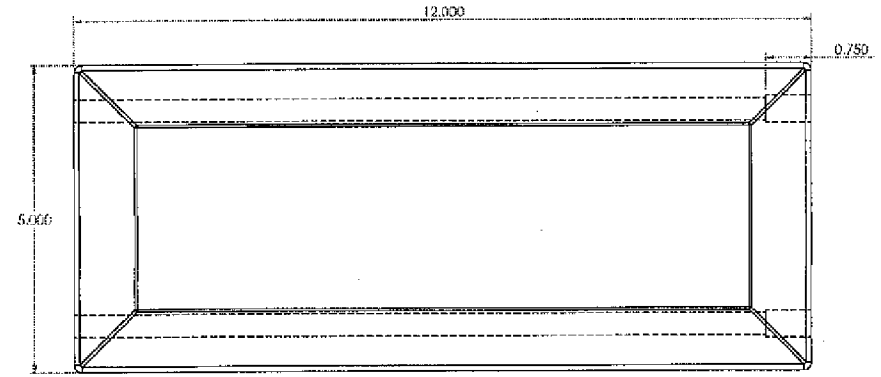
TITLE: PANTERA - ROSEN PRESS FULL ASSEMBLY

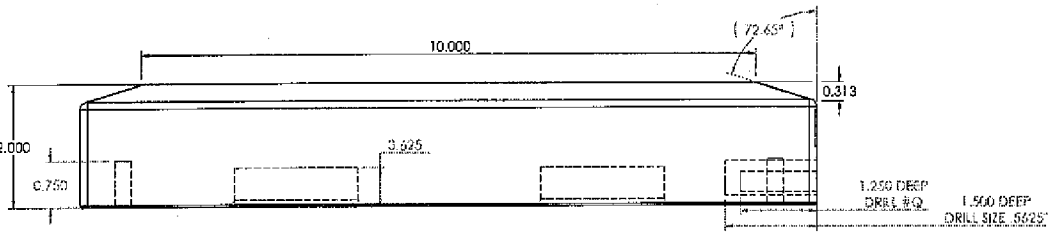
SIZE: B | DWG. NO.: PEFI-PRESS ASSEMB | REV: A

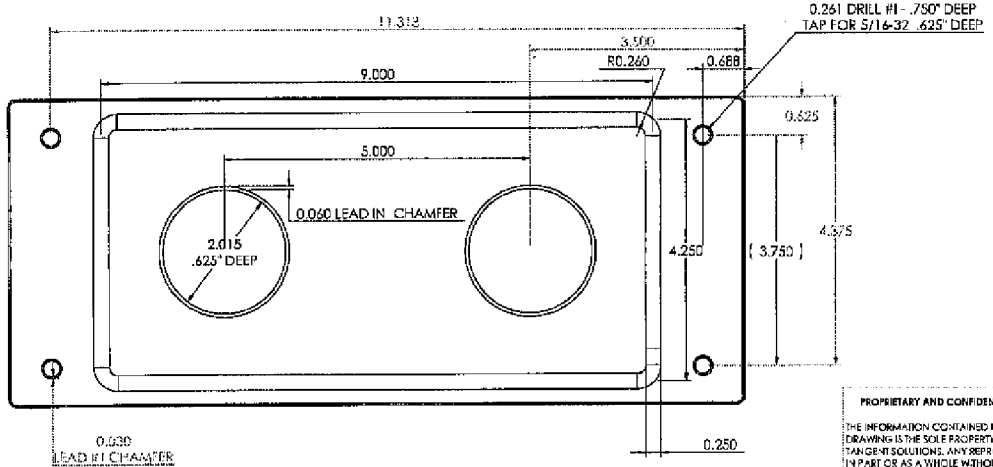
SCALE: 1:5 | SHEET 1 OF 1

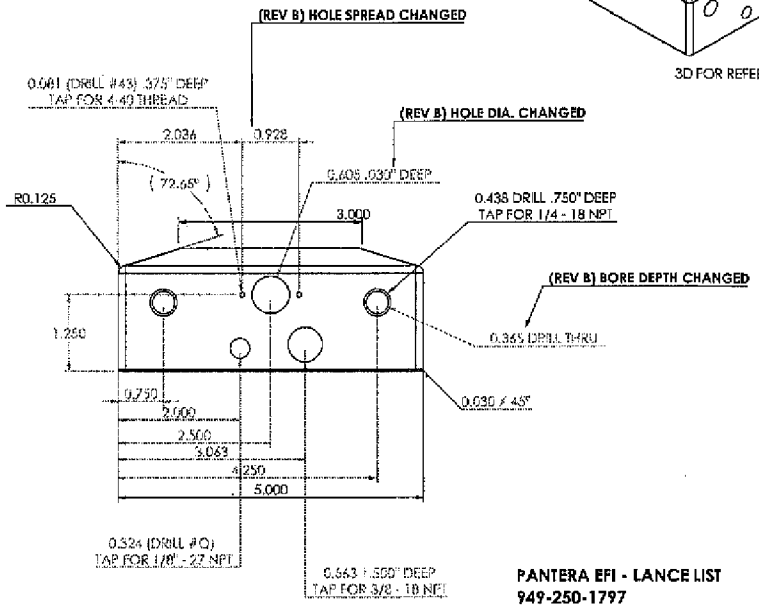


3D FOR REFERENCE ONLY









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2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:			NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018	
TOLERANCES: TWO PLACE DECIMAL .01 THREE PLACE DECIMAL .005	ENG APPR.			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994	MFG APPR.			
WEIGHT: 10.45 LBS	MATERIAL: 6061 ALUM			
1897-7009-01	FINISH: RAW			
USED ON	APPLICATION: DO NOT SCALE DRAWING			

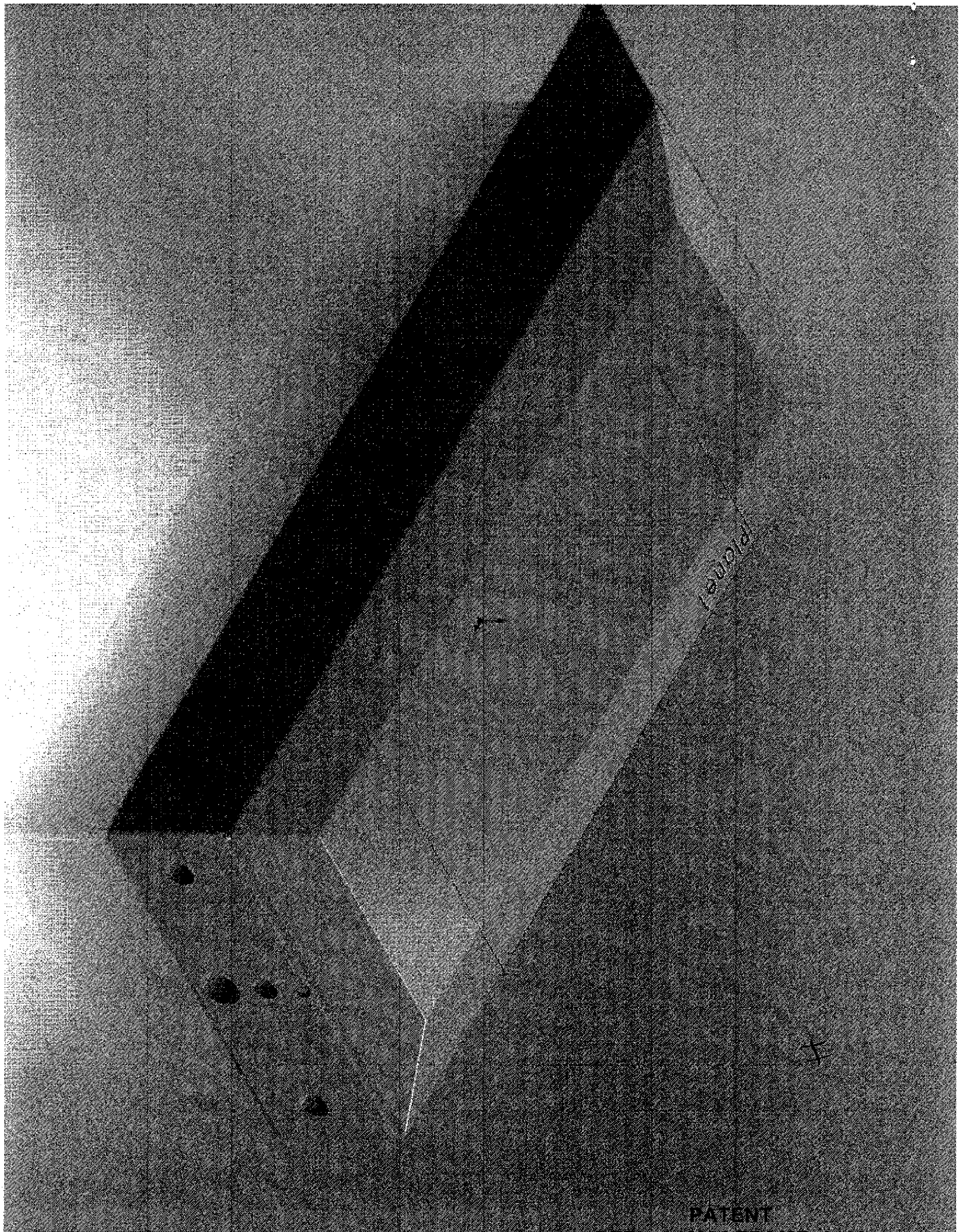
TANGENT SOLUTIONS
PO BOX 78865
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

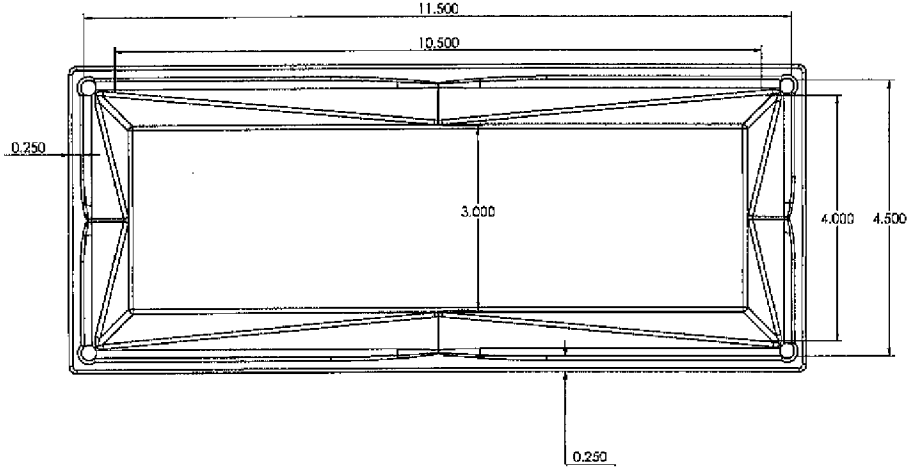
COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

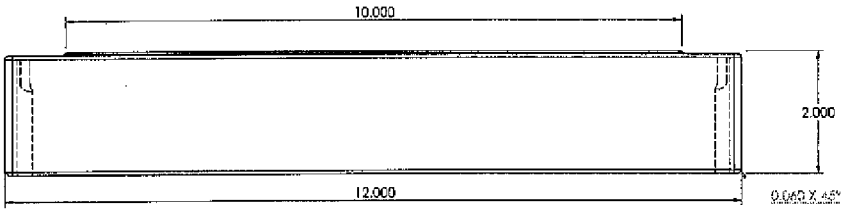
TITLE:
PANTERA - ROSEN PRESS UPPER DIE

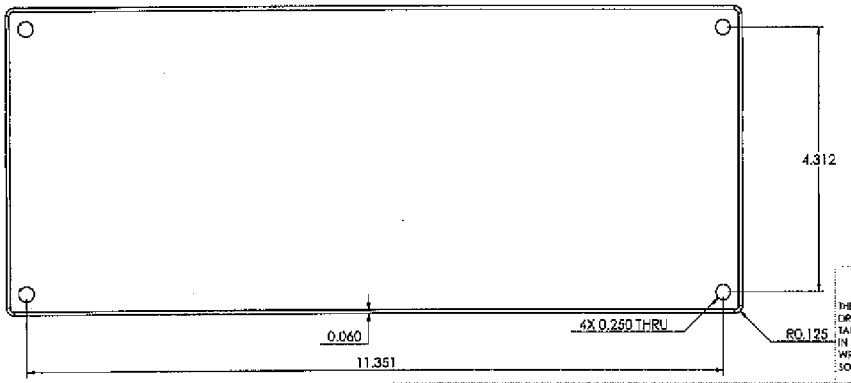
SIZE	DWG. NO.	REV
B	PEFI-PRESS UPPER DIE	B

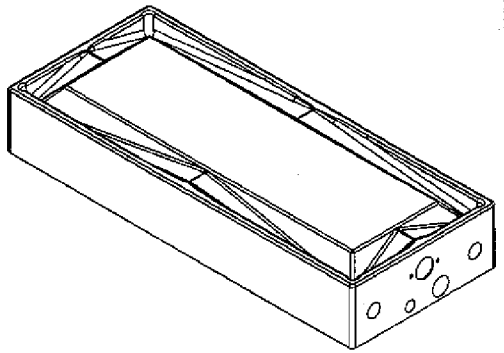
SCALE: 1:2 SHEET 1 OF 1



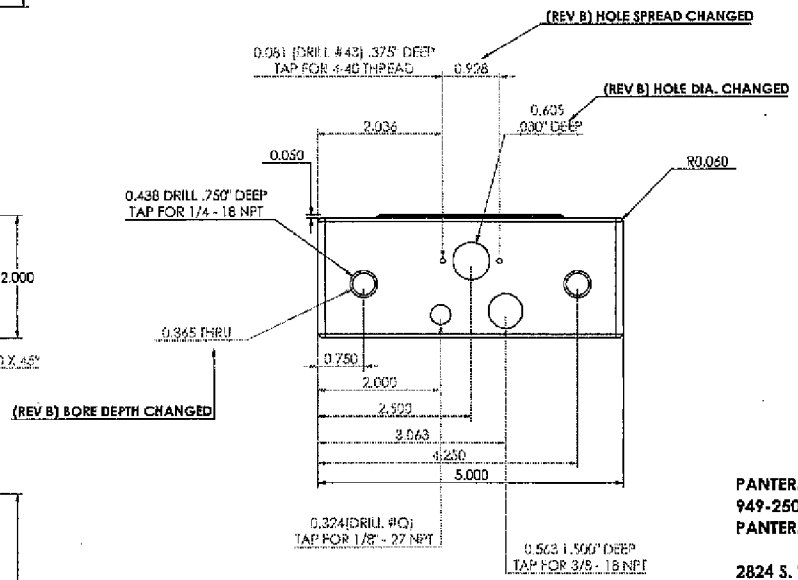








3D FOR REFERENCE ONLY



PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

	UNLESS OTHERWISE SPECIFIED:		NAME	DATE
	DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
	TOLERANCES: TWO PLACE DECIMAL .01 THREE PLACE DECIMAL .005	ENG APPR.		
		MFG APPR.		
	INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			
WEIGHT: 10.78 LBS	MATERIAL 6061 ALUM	TANGENT SOLUTIONS PO BOX 78885 CORONA, CA 92877 SEAN@THEJUMPCHAMPS.COM		
1097-7009-01	FINISH RAW			
USED ON				
APPLICATION	DO NOT SCALE DRAWING			

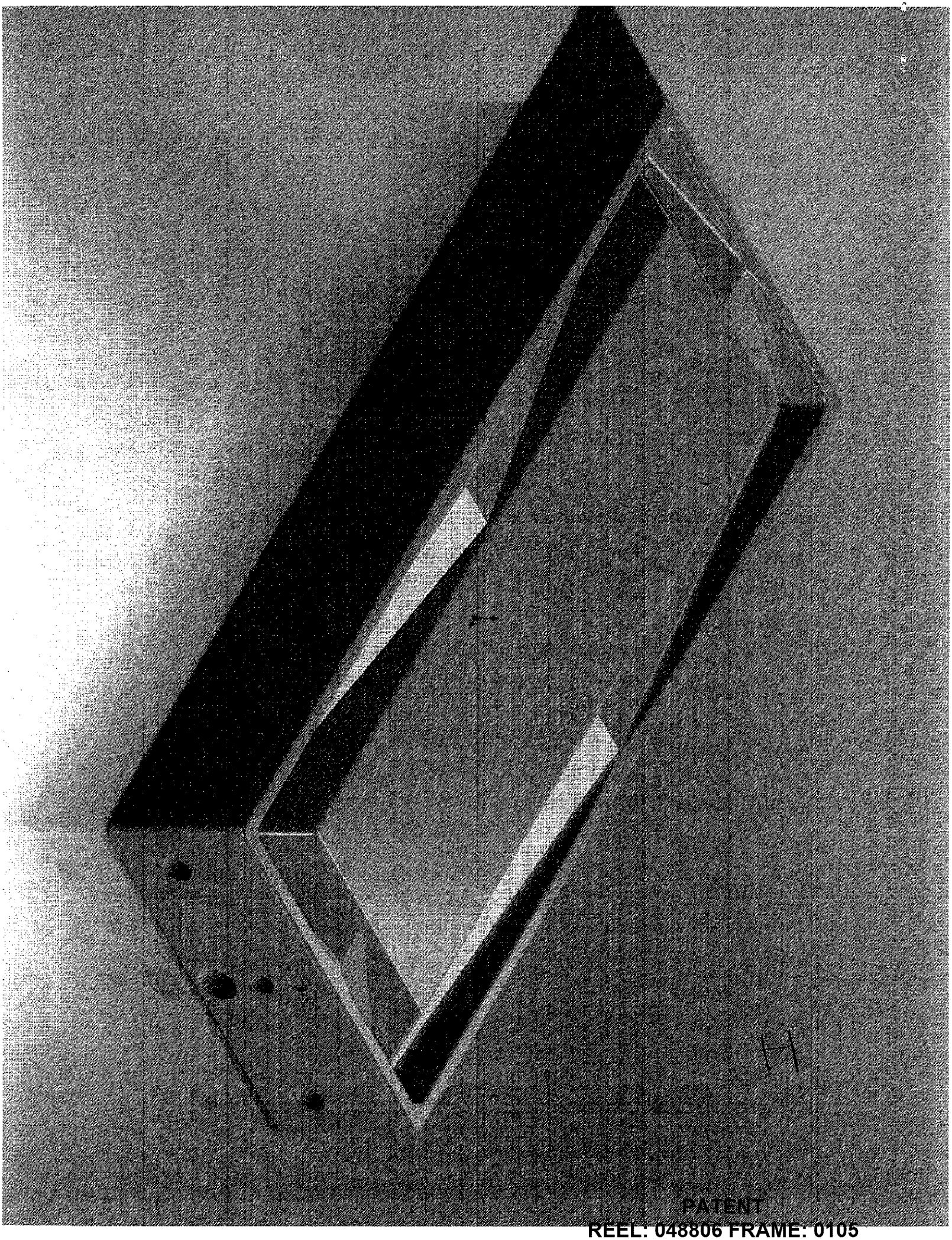
COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

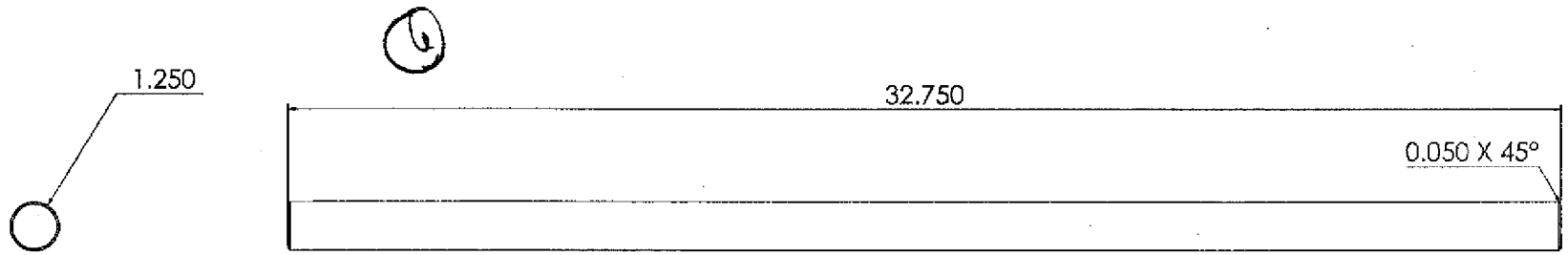
TITLE:

PANTERA - ROSEN PRESS LOWER DIE

SIZE	DWG. NO.	REV
B	PEFI-PRESS LOWER DIE	B

SCALE: 1:2 SHEET 1 OF 1





PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
TOLERANCES:	ENG APPR.		
TWO PLACE DECIMAL .01	MFG APPR.		
THREE PLACE DECIMAL .005			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			
MATERIAL 1018 CRS			
FINISH RAW			
DO NOT SCALE DRAWING			

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

TITLE:
PANTERA - ROSEN PRESS
RAM HANGER PIN

SIZE	DWG. NO.	REV
B	PEFI-PRESS-08	A

SCALE: 1:3 SHEET 1 OF 1

WEIGHT 12.34 LBS

1897-7009-01

USED ON

APPLICATION

TANGENT SOLUTIONS
PO BOX 78885
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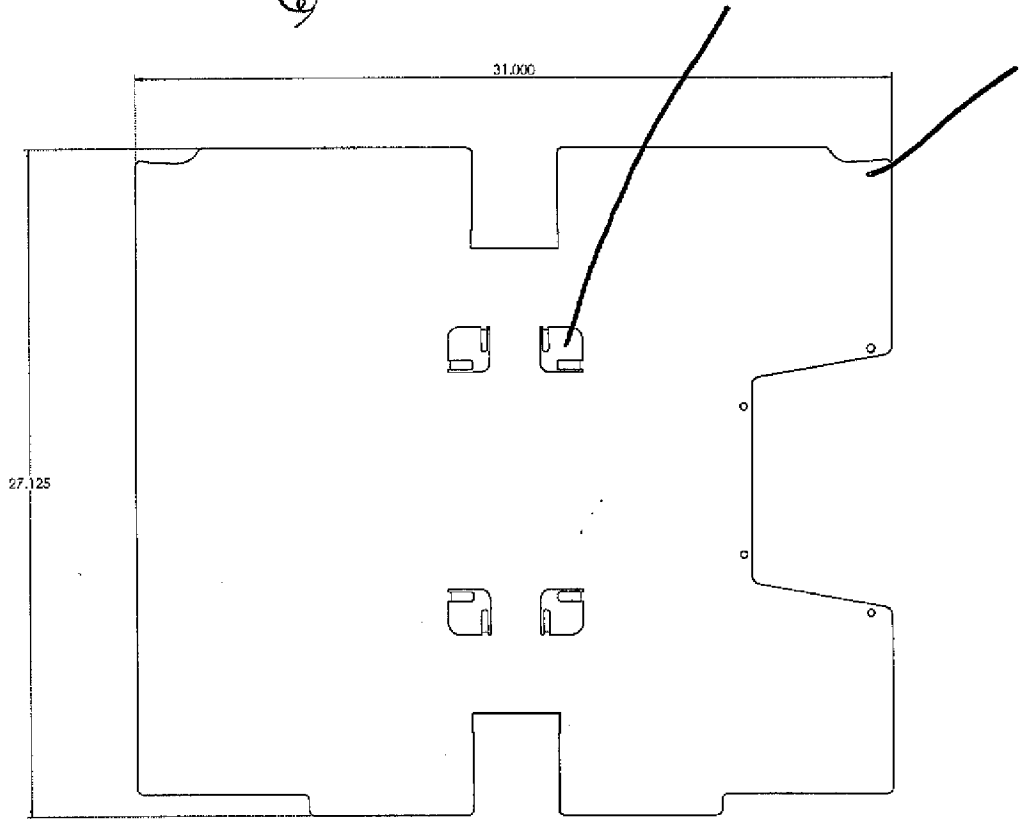
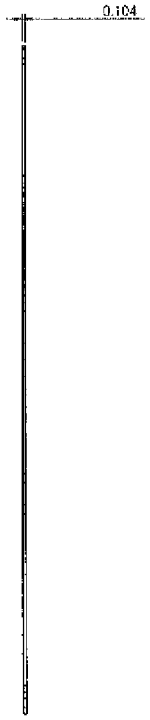




PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
TOLERANCES: TWO PLACE DECIMAL .01 THREE PLACE DECIMAL .005	ENG APPR.		
	MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

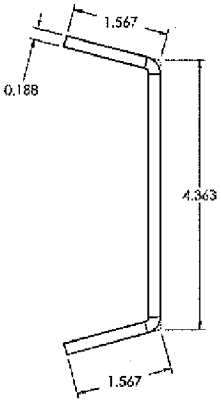
TITLE:
PANTERA - ROSEN PRESS CATCH PLATE

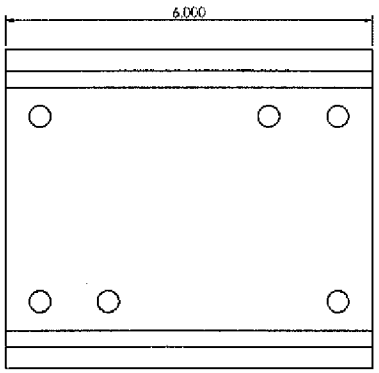
WEIGHT	22.04 LBS
	1897-7009-01
USED ON	
APPLICATION	
MATERIAL	12GA STAINLESS
FINISH	RAW
	DO NOT SCALE DRAWING

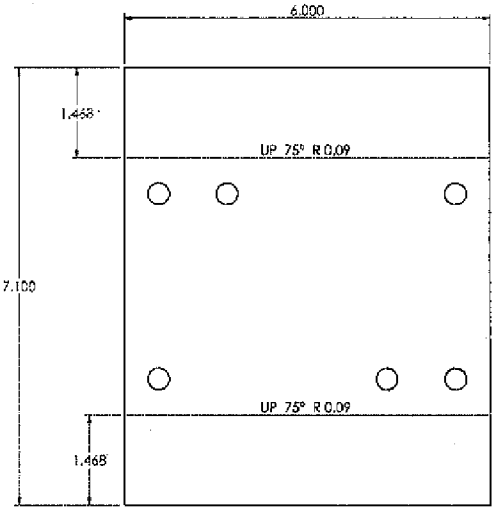
TANGENT SOLUTIONS
PO BOX 78885
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

SIZE	DWG. NO.	REV
B	PEFI-PRESS-02	A

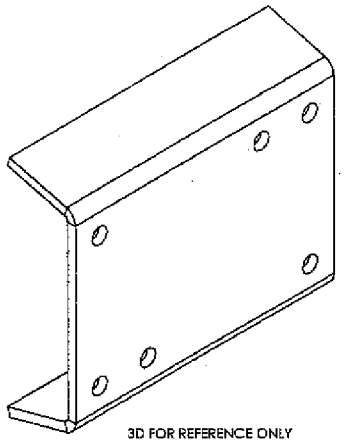
SCALE: 1:5 SHEET 1 OF 2







FLAT PATTERN



3D FOR REFERENCE ONLY

PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018	
TOLERANCES: TWO PLACE DECIMAL .01 THREE PLACE DECIMAL .005	ENG APPR.			
	MFG APPR.			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994				
MATERIAL 0.188 HRPO	TANGENT SOLUTIONS PO BOX 78885 CORONA, CA 92877			
FINISH RAW	SEAN@THEJUMPCHAMPS.COM			
DO NOT SCALE DRAWING				

TITLE:

PANTERA - ROSEN PRESS HYDRAULIC VALVE MOUNT

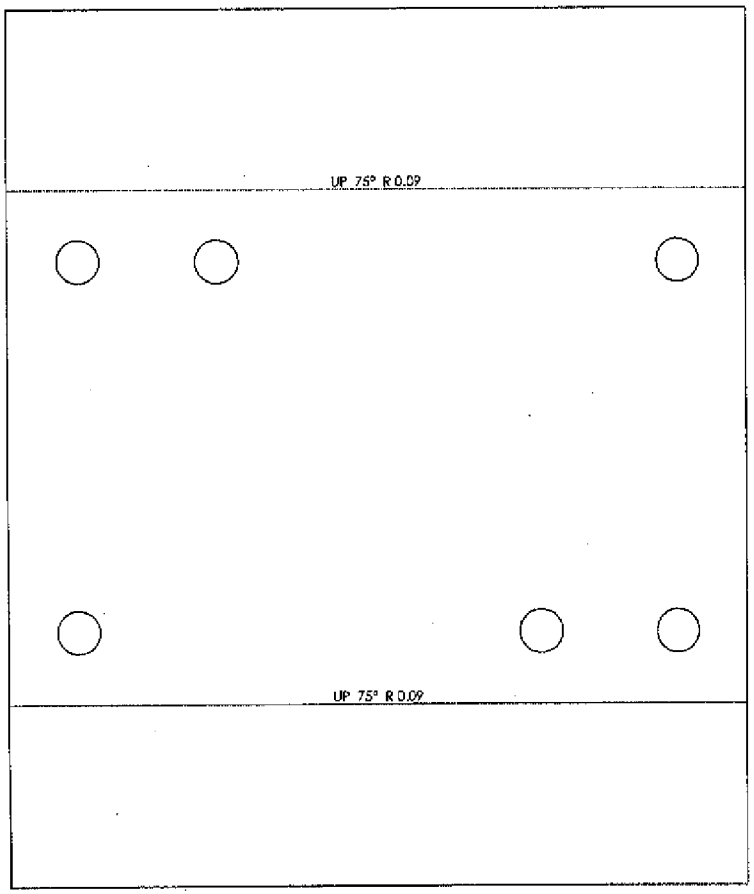
SIZE	DWG. NO.	REV
B	PEFI-PRESS-07	A

SCALE: 1:2 | SHEET 1 OF 2

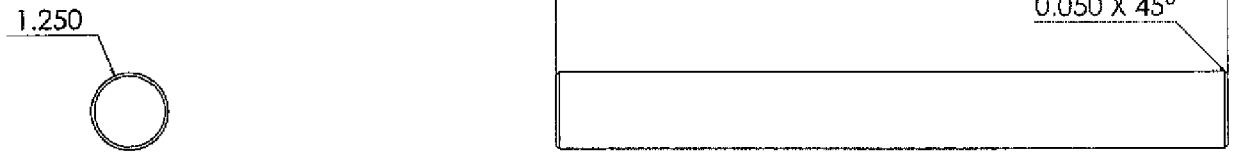
WEIGHT	2.25 LBS
1897-7009-01	
USED ON	
APPLICATION	

D

PANTERA - ROSEN PRESS HYDRAULIC MOUNT
.188 HRPO
REV A - 05-07-2018 - SK



F



PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

		NAME	DATE
UNLESS OTHERWISE SPECIFIED:			
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
TOLERANCES:	ENG APPR.		
TWO PLACE DECIMAL .01	MFG APPR.		
THREE PLACE DECIMAL .005			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

TITLE:
PANTERA - ROSEN PRESS DIE RETAINING PIN

SIZE	DWG. NO.	REV
B	PEFI-PRESS-06	A

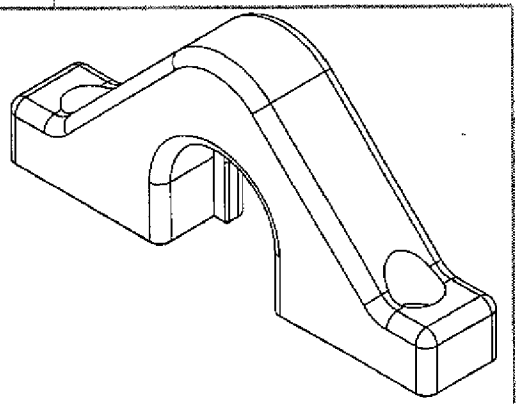
SCALE: 1:2 SHEET 1 OF 1

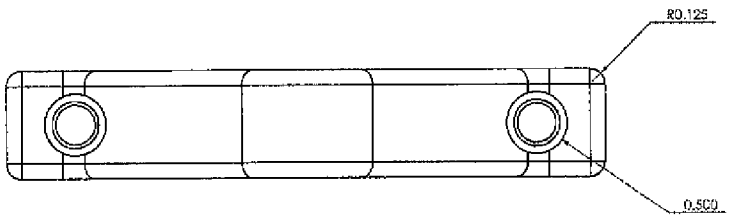
WEIGHT	3.80 LBS
	1899-7009-01
USED ON	
APPLICATION	

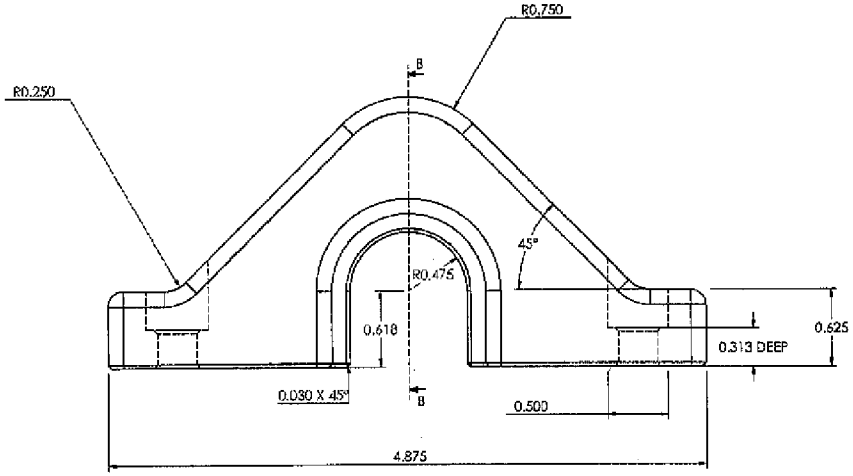
MATERIAL: 1018 CRS
FINISH: RAW
DO NOT SCALE DRAWING

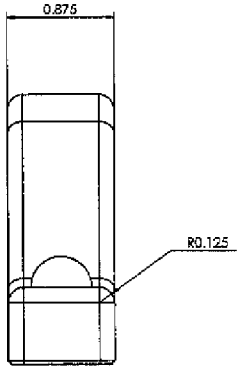
TANGENT SOLUTIONS
PO BOX 78885
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

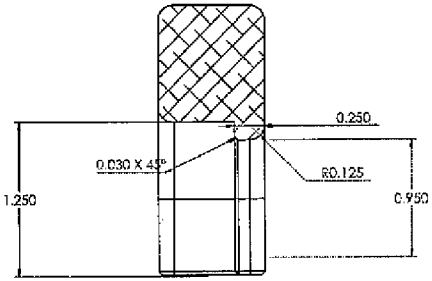
6



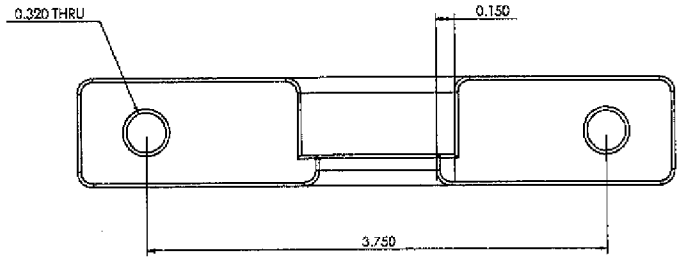








SECTION B-B



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949-250-1797
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2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
TOLERANCES:	ENG APPR.		
TWO PLACE DECIMAL .01	MFG APPR.		
THREE PLACE DECIMAL .005			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

TITLE:

PANTERA - ROSEN PRESS PIN RETAINER

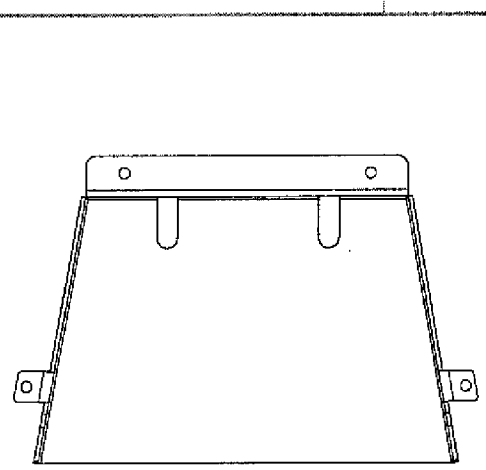
WEIGHT	0.42 LBS
	1697-7009-01
USED ON	
APPLICATION	
MATERIAL	6061 ALUM
FINISH	RAW
DO NOT SCALE DRAWING	

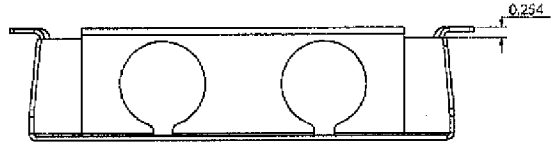
TANGENT SOLUTIONS
PO BOX 78885
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

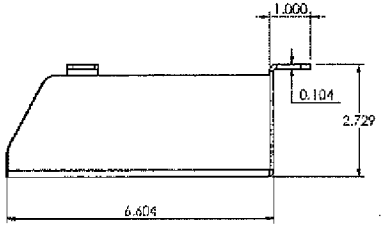
SIZE	DWG. NO.	REV
B	PEFI-PRESS-05	A

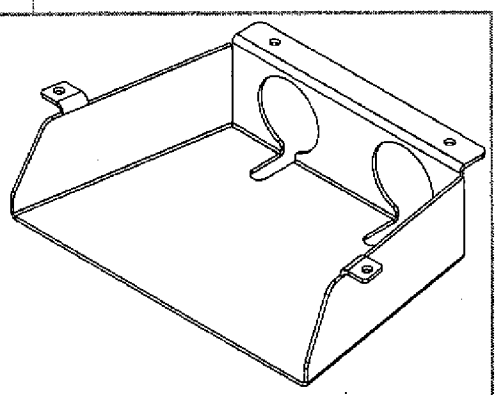
SCALE: 1:1 SHEET 1 OF 1

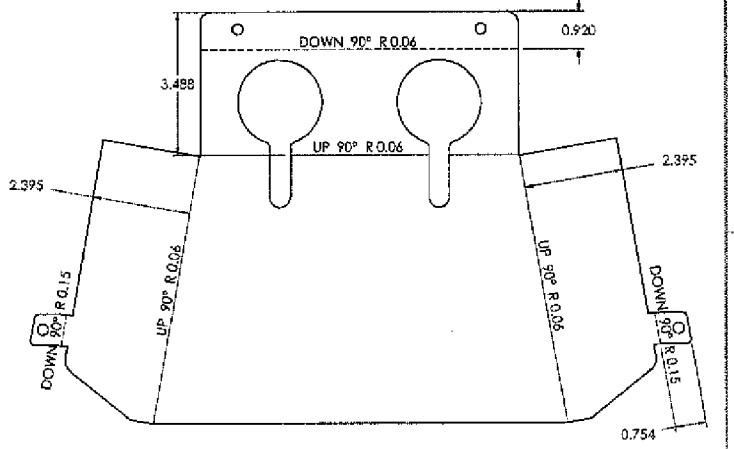
E

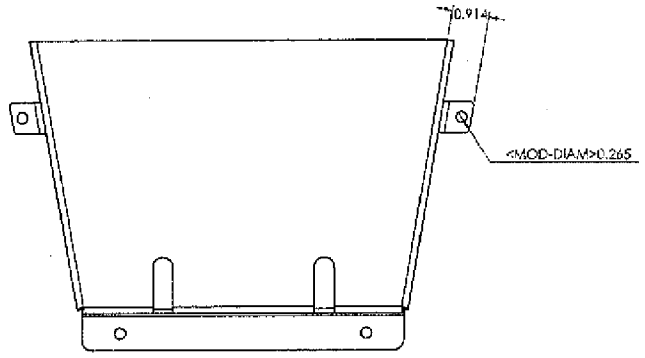












PANTERA EFI - LANCE LIST
949-250-1797
PANTERAEFI@LANCE.OCCOXMAIL.COM

2824 S. WILLIS ST.
SANTA ANA, CA 92705

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	S. KEPLER	5/7/2018
TOLERANCES:	ENG APPR.		
TWO PLACE DECIMAL .01	MFG APPR.		
THREE PLACE DECIMAL .005			
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-1994			
MATERIAL 12GA STAINLESS			
FINISH RAW			
DO NOT SCALE DRAWING			

WEIGHT: 3.22 LBS

1897-7009-01

USED ON

APPLICATION

TANGENT SOLUTIONS
PO BOX 78865
CORONA, CA 92877
SEAN@THEJUMPCHAMPS.COM

COMMENTS: SEE SOLID MODEL FOR DETAILED GEOMETRY

TITLE:

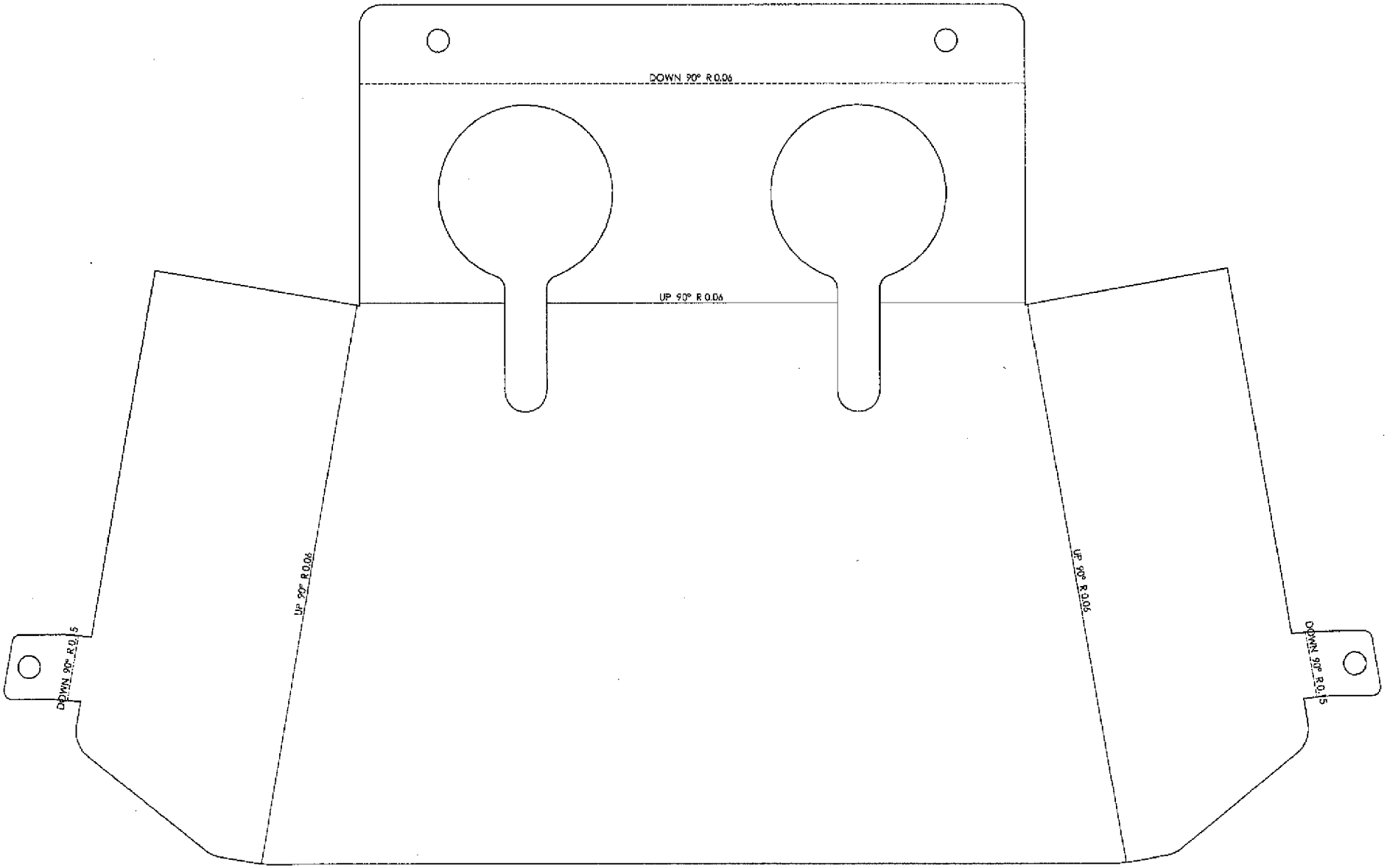
PANTERA - ROSEN PRESS GAUGE TRAY

SIZE	DWG. NO.	REV
B	PEFI-PRESS-03	A

SCALE: 1:3 SHEET 1 OF 2

PANTERA - ROSEN PRESS GAUGE TRAY
12GA STAINLESS (TYPE TBD BY CUSTOMER)
REV A - 05-07-2018 - SK

E



ASSIGNMENT

NOW, THEREFORE, in consideration of the sum of Ten Dollars ($10.00), and for other good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I, **Lance Nist** of Santa Ana, California ("Inventor"), one of the named co-inventors of the below-referenced patent application, hereby sell, assign, and transfer to **Konstantine P. Kralis**, of Chicago Illinois ("Assignee"), the entire title and interest, for all countries, in and to certain inventions relating to or described in patent Application Number 16/248,752, and all the rights and privileges under all Letters Patents that may be granted for those inventions including the right to sue and collect past damages relating to any of the patent rights granted herein, and including any continuations, continuations-in-part, divisions, and reissue patents or applications, and any foreign counterparts or international applications related to those inventions.

I agree that, when requested, I will, without charge to Assignee but at Assignee's expense, sign all papers, take all rightful oaths, and do all acts that may be necessary, desirable, or convenient for securing and maintaining patents for the inventions in all countries and for vesting title to such patents in Assignee.

I represent and covenant with Assignee that the rights and property conveyed by this Assignment are free and clear of any encumbrance, and that I have full right to convey those rights and property.

Signed at 2824 Willis 92705, this 15th day of January, 2019.

Lance Nist

Lance Nist, Co-Inventor