Mailed: February 26, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

Trademark Trial and Appeal Board

In re Heatcon, Inc.

Serial Nos. 85281225
85281264
85281291
85281317
85281386

John M. Janeway of Janeway Patent Law PLLC for Heatcon, Inc.

Tracy Cross, Trademark Examining Attorney, Law Office 109,
Dan Vavonese, Managing Attorney.

Before Kuhlke, Taylor and Shaw
Administrative Trademark Judges.

Opinion by Kuhlke, Administrative Trademark Judge:

On September 30, 2015, the Board suspended further action on the fully briefed appeals referenced above pending the appeal period and any appeal of the Board's decision which could have been filed in Application Serial No. 85281360. The appeal period having expired with no appeal filed in Application Serial No. 85281360, and the proceeding terminated on January 11, 2016, we remove these appeals from

suspension and consider them in a single decision.[1] The issues presented in these appeals are quite similar to those presented in Serial No. 85281360 wherein the Board affirmed the Examining Attorney's refusals based on (1) functionality of the applied-for configuration under Trademark Act Sections 2(e)(5) and 23(c), 15 U.S.C. §§ 1052(e)(5), 1091(c), and (2) the failure to comply with the drawing requirement. *In re Heatcon, Inc.*, 116 USPQ2d 1366 (TTAB 2015).

In the applications that are the subject of these appeals, Heatcon, Inc. (Applicant) seeks registration on the Supplemental Register of the product configurations shown below for, as amended, "Equipment for controlling and recording the application of heat and pressure in a process for fabricating bonded composite materials, namely, woven glass, aramid fibers and carbon fabric, and adhesives bonds to composite or metallic components," in International Class 9.

Application Serial No. 85281225[2]

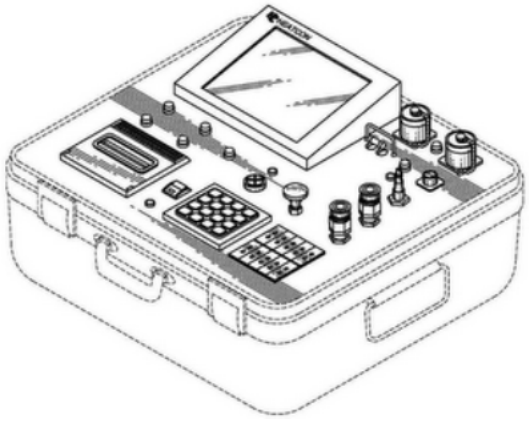
The mark is described as follows:

[1] References to the record and briefs are to Application Serial No. 85281225 unless otherwise noted.

[2] The application was filed on March 30, 2011, based upon Applicant's allegation of first use on March 1, 2000 and first use in commerce on April 1, 2000 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).

The mark consists of a three dimensional configuration of the arrangement of the HCS9000B Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the left of the top half of the interface, an input power receptacle right of the display panel, an output power LED indicator right of the input power receptacle, an output power receptacle right of the output power LED indicator, an air input port below the output power receptacle, a vacuum monitor port left of the air input port, a vacuum out port right of the display panel, a set of ten thermocouple jacks below the vacuum ports and air input port, a vacuum control regulator below the thermocouple jacks, a circuit breaker switch below the vacuum control regulator, a power switch left of the circuit breaker switch, a keypad left of the power switch and below the display panel, an alarm left of the keypad and also below the display panel, a printer exit left of the alarm and below the display panel, a printer paper feed pushbutton switch below the alarm and right of the printer exit, and the face plate that these components are located on. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Application Serial No. 85281264[3]

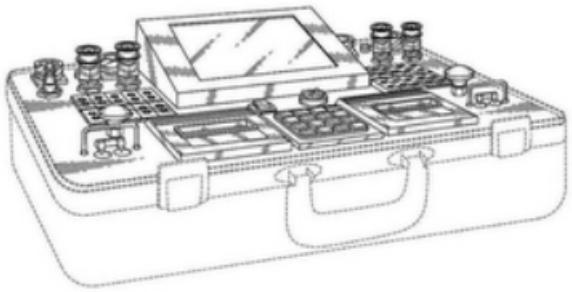


The mark is described as follows:

[3] The application was filed on March 30, 2011, based upon Applicant's allegation of first use and first use in commerce on April 1, 2000 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).

The mark consists of a three dimensional configuration of the arrangement of the HCS9000FL Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the left of the top half of the interface, an input power receptacle right of the display panel, an output power LED indicator right of the input power receptacle, an output power receptacle right of the output power LED indicator, a circuit breaker switch below the input power receptacle, a ground-fault interrupter (GFI) LED indicator right of the circuit breaker switch, a GFI reset switch, a heating blanket overheat supervisory circuit connector right of the GFI LED indicator, an air input port below the heating blanket overheat supervisory circuit connector, a vacuum out port below the air input port, a vacuum monitor port below the vacuum out port, a vacuum control regulator left of the vacuum monitor port, a set of ten thermocouple jacks below the vacuum control regulator and vacuum monitor port, a keypad left of the set of ten thermocouple jacks, an alarm above the keypad and below the display panel, five LED indicators below the display panel and left of the alarm, a power switch left of the keypad, a printer exit left of the power switch and below the five LED indicators, a printer paper feed pushbutton switch below the power switch and right of the printer exit, and the face plate that these components are located on. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Application Serial No. 85281291[4]

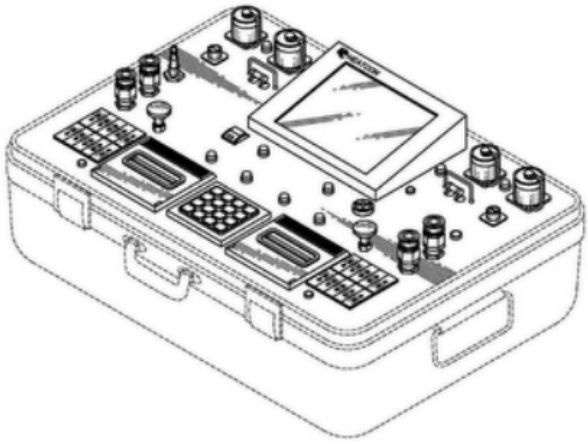


[4] The application was filed on March 30, 2011, based upon Applicant's allegation of first use and first use in commerce on May 1, 2000 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).

The mark is described as follows:

> The mark consists of a three dimensional configuration of the arrangement of the HCS9200B Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the middle of the top half of the interface, an output power LED indicator left of the display panel, another output power LED indicator right of the display panel, an input power receptacle left of the display panel, another input power receptacle right of the display panel, an output power receptacle left of the display panel, another output power receptacle right of the display panel, an air input port left of the display panel, an electric vacuum pump power receptacle right of the display panel, a vacuum out port left of the display panel, another vacuum out port right of the display panel, a vacuum monitor port left of the display panel, another vacuum monitor port right of the display panel, a set of ten thermocouple jacks left of the display panel and below the vacuum ports, another set of ten thermocouple jacks right of the display panel and below the vacuum ports, a power switch below the display panel, an alarm also below the display panel and right of the power switch, a vacuum control regulator below the thermocouple jacks left of the display panel, another vacuum control regulator below the thermocouple jacks right of the display panel, a circuit breaker switch below the vacuum control regulator left of the display panel, another circuit breaker switch below the vacuum control regulator right of the display panel, a keypad below the power switch and alarm, a printer exit left of the keypad, another printer exit right of the keypad, and the face plate that these components are located on. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Application Serial No. 85281317[5]



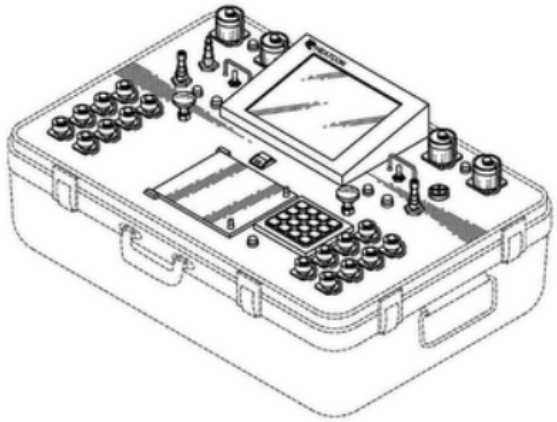
The mark is described as follows:

> The mark consists of a three dimensional configuration of the arrangement of the HCS9200FL Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the middle of the top half of the interface, an output power receptacle left of the display panel, another output power receptacle right of the display panel, an input power receptacle left of the output power receptacle on the left of the display panel, another input power receptacle right of the output power receptacle on the right of the display panel, an output power LED indicator left of the display panel between the output and input power receptacles, another output power LED indicator right of the display panel between the output and input power receptacles, a circuit breaker switch left of the display panel and below the output power receptacle, another circuit breaker switch right of the display panel and below the other output power receptacle, a ground-fault interrupter (GFI) LED indicator between the display panel and the circuit breaker switch on the right of the display panel, another ground-fault interrupter (GFI) LED indicator between the display panel and the circuit breaker switch on the left of the display panel, a GFI reset switch below the GFI on

[5] The application was filed on March 30, 2011, based upon Applicant's allegation of first use and first use in commerce on June 1, 1999 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).

the right of the display panel, another GFI reset switch below the GFI on the left of the display panel, a heating blanket overheat supervisory circuit receptacle right of the circuit breaker switch on the right of the display panel, another heating blanket overheat supervisory circuit receptacle left of the circuit breaker switch on the left of the display panel, an air input port left of the display panel and below the heating blanket overheat supervisory circuit receptacle, a case vent port right of the display panel and below the heating blanket overheat supervisory circuit receptacle, a vacuum monitor port below the air input port, another vacuum monitor port below the case vent port, a vacuum out port left of the display panel and below the vacuum monitor port, another vacuum out port right of the display panel and below the other vacuum monitor port, a vacuum control regulator left of the display panel and right of the vacuum out port, another vacuum control regulator right of the display panel and left of the other vacuum out port, a power switch below the left corner of the display panel, an alarm below the right corner of the display panel, six LED indicators below the display panel and between the power switch and the alarm, a keypad below the middle two of the six LED indicators, a printer exit left of the keypad, another printer exit right of the keypad, a set of ten thermocouple jacks left of the printer exit left of the keypad, another set of ten thermocouple jacks right of the printer exit right of the keypad, a printer paper feed pushbutton switch below the thermocouple jacks left of the keypad, another printer paper feed pushbutton switch below the thermocouple jacks right of the keypad, and the face plate that these components are located on. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Application Serial No. 85281386[6]



The mark is described as follows:

> The mark consists of a three dimensional configuration of the arrangement of the HCS9200N Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the middle of the top half of the interface, an output power receptacle left of the display panel, another output power receptacle right of the display panel, an input power receptacle left of the output power receptacle left of the display panel, another input power receptacle right of the output power receptacle right of the display panel, an output power LED between the two power receptacles left of the display panel, another output power LED between the two power receptacles right of the display panel, a circuit breaker switch below the output power receptacle left of the display panel, another circuit breaker switch below the output power receptacle right of the display panel, an air input port below the power input receptacle left of the display panel, an alarm also below the power input receptacle right of the display panel, a vacuum out port below the air input port, another vacuum out port below the alarm, a ground-fault interrupter (GFI) LED indicator right of the vacuum out port left of the display panel, another GFI LED indicator right of the display panel and below the circuit breaker switch, a GFI reset switch left of

[6] The application was filed on March 30, 2011, based upon Applicant's allegation of first use and first use in commerce on August 1, 2005 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).

> the display panel and right of the GFI LED indicator, another GFI reset switch right of the GFI LED indicator right of the display panel, a vacuum control regulator below the GFI LED indicator and GFI reset switch left of the display panel, another vacuum control regulator below the GFI LED indicator and GFI reset switch right of the display panel, a power switch below the display panel, a printer access door below the power switch, a keypad right of printer access door, below the power switch and alarm, a printer paper feed pushbutton switch below the keypad, a set of eight thermocouple jacks right of the keypad, another set of eight thermocouple jacks left of the printer access door. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Color is not claimed as a feature of any of the marks.

Issues on Appeal

The Examining Attorney has refused registration of Applicant's proposed marks on the ground that they are functional, under Sections 2(e)(5) and 23(c) of the Trademark Act, 15 U.S.C. §§ 1052(e)(5) and 1091(c).[7] In addition, the Examining Attorney has refused registration in each application based on the requirement to submit an amended drawing depicting all functional features of the configurations in dotted lines.[8] We affirm the refusals to register in each application.

[7] The prosecution history in each of the applications on appeal addressed by this decision is very similar to the one in Application Serial No. 85281360. *See In re Heatcon, Inc.*, 116 USPQ2d 1366, 1368-69 (TTAB 2015).

[8] If the entirety of Applicant's claims for the marks, including the arrangement, is functional, then the drawing refusals would be moot. The drawing requirement is relevant only to the extent that the descriptions of the marks claim the arrangement of the user interface components that are individually functional, and the arrangements of those functional components are found to be not functional, *i.e.*, more than the sum of their parts.

Functionality

Under the statute, functional matter is unregistrable on the Principal and Supplemental Registers. 15 U.S.C. § 1052(e)(5) ("No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the *principal register* on account of its nature unless it … (e) Consists of a mark which … (5) comprises any matter that, as a whole, is functional") and 15 U.S.C. § 1091(c) ("For the purposes of registration on the *supplemental register*, a mark may consist of any … configuration of goods … that as a whole is not functional … but such mark must be capable of distinguishing the applicant's goods or services") (emphasis added).

Matter is functional if "it is essential to the use or purpose of the article or if it affects the cost or quality of the article." *TrafFix Devices Inc. v. Marketing Displays Inc.*, 532 U.S. 23, 58 USPQ2d 1001, 1006 (2001) (citation omitted). "To support a functionality rejection in proceedings before the Board, the PTO examining attorney must make a *prima facie* case of functionality, which if established must be rebutted by 'competent evidence.'" *In re Becton, Dickinson and Co.*, 675 F.3d 1368, 102 USPQ2d 1372, 1376 (Fed. Cir. 2012) (quoting *In re Teledyne Indus.*, 696 F.2d 968, 217 USPQ 9, 11 (Fed. Cir. 1982)). In making our determination of functionality we apply the test first set forth in *In re Morton Norwich Products, Inc.*, 740 F.2d 1550, 213 USPQ 9 (CCPA 1982). *See Becton, Dickinson and Co.*, 102 USPQ2d at 1377, (citing *Morton-Norwich*, 213 USPQ at 15-16). These factors are not exclusive, however, for functionality "depends upon the totality of the evidence." *Valu Engineering Inc. v. Rexnord Corp.*, 278 F.3d 1268, 61 USPQ2d 1422, 1424 (Fed. Cir.

2002). *Morton-Norwich* identifies the following factors to be considered in determining whether a particular design is functional: (1) the existence of a utility patent disclosing the utilitarian advantages of the design; (2) advertising materials in which the originator of the design touts the design's utilitarian advantages; (3) the availability to competitors of functionally equivalent designs; and (4) facts indicating that the design results in a comparatively simple or cheap method of manufacturing the product. *Morton-Norwich,* 213 USPQ at 15-16. It is not required that all four factors be proven in every case, nor do all four factors have to weigh in favor of functionality to support a refusal. Nevertheless, in reaching our decision, we will review all four factors. *See AS Holdings, Inc. v. H & C Milcor, Inc.*, 107 USPQ2d 1829, 1833 (TTAB 2013).

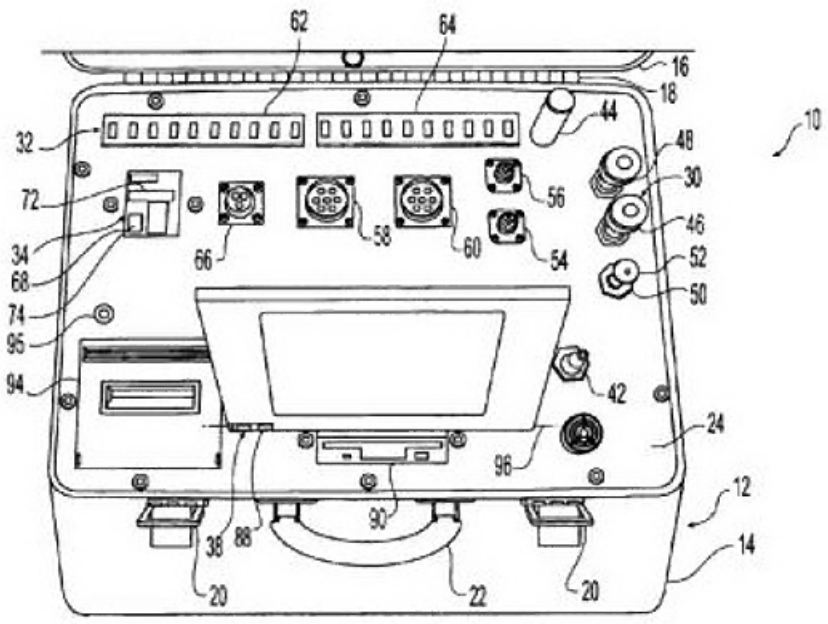
Before applying these factors to the facts of these cases, we first must define what Applicant intends to claim as trademarks. Similar to the case in *In re Heatcon, Inc.*, 116 USQP2d 1366, the dispute regarding the absence of dotted lines in the drawing, could lead to the interpretation that the drawings claim as marks the shape of each of the functional features as well as their placement on the devices. We will address the drawing requirements *infra*; however, for purposes of the functionality analysis we follow the descriptions of the marks and Applicant's representation in its briefs that it only claims the arrangement or placement of each of the specific functional features of the user interfaces but not the individual functional features *per se*.

Utility Patent

With regard to the first factor, the existence of a utility patent "is strong evidence that the features claimed therein are functional" and "[w]here the expired patent claimed the features in question, one who seeks to establish trade dress protection must carry the heavy burden of showing that the feature is not functional, for instance by showing that it is merely an ornamental, incidental, or arbitrary aspect of the device." *TrafFix*, 58 USPQ2d at 1005. In addition, third-party utility patents may be relied upon as evidence; ownership of the utility patent is not relevant. *In re Pohl-Boskamp GmbH & Co.*, 106 USPQ2d 1042, 1046 n. 22 (TTAB 2013); *In re Mars Inc.*, 105 USPQ2d 1859, 1861 (TTAB 2013); *In re Virshup*, 42 USPQ2d 1402, 1405 (TTAB 1997).

The Examining Attorney relies on United States Patent No. 6976519 ('519), owned by a third party, for a "Portable Curing System for Use with Vacuum Bag Repairs and the Like" as shown in the drawing below.[9]

[9] September 20, 2012 Office action, TSDR pp. 99-111. The Examining Attorney also references another third-party patent for an "In Situ Pipe Repair Controller and System" that arranges the ports around the upper periphery of the instrument panel for easy and unencumbered connection of cables and hoses. However, we focus our attention on the more relevant patent.



The Examining Attorney observes that the claims include "a carrying case, a controller with a microprocessor, a vacuum pump, at least one heater connector for receiving a lead of a thermocouple, and a touch screen display to view information and input information to the controller." Ex. Att. Br., 18 TTABVUE 9. It also has power ports along the top with a printer beside a central display screen. Further, the Examining Attorney points out that the patented device and Applicant's devices share various similarities. For example, the configurations in each of the applications have a tilted display screen toward the user and the printer is placed away from the power input port and vacuum connector ports and the "operator can connect cords, cables and wires away from his position and avoid entangling the connections or blocking access to the other features of the panel." *Id.* at 9.

Applicant argues patent '519 has no probative value as to whether or not the specific arrangement as a whole is functional because the claims do not reference how the components are arranged and figures 1 and 2 simply show "one possible

arrangement of a virtually infinite number of possible arrangements." App. Br., 16 TTABVUE 14. However, as noted by the Examining Attorney, the utility patent need not "claim the exact configuration for which trademark protection is sought in order to undermine an applicant's assertion that an applied-for mark is not … functional." *Becton, Dickinson and Co.*, 102 USPQ2d at 1377. Rather "a patent's specification illuminating the purpose served by a design may constitute equally strong evidence of functionality." *Id*.

Claim 20 of patent '519 is set forth below:

> A portable curing system comprising, in combination: a carrying case; a controller located within the carrying case and having a microprocessor; a vacuum pump located within the case and having at least two vacuum ports for connection of vacuum lines; at least two vacuum sensor connectors located within the carrying case for receiving leads of vacuum sensors; at least two heater connectors located within the carrying case for receiving leads of electrical heaters; at least two temperature sensor connectors located within the carrying case for receiving leads of thermocouples; wherein the controller is operably connected to the vacuum pump, the vacuum sensor connectors, the heater connectors, and the temperature sensor connectors; a touch-screen video display mounted within the carrying case and operably connected to the controller to display information from the controller and input information to the controller; and wherein the video display is pivotable between a stowed position and a viewing position.[10]

The patent claim includes the boundaries of any arrangement, *i.e.*, portable carrying case, and specifically claims the ability of the touchscreen video to be in a raised position. The patent further discloses the "preferred embodiments" that

[10] September 20, 2012 Office action, TSDR p. 106.

include "for example, specific dimensions, orientations, and shapes of the portable curing system components" which "will be determined in part by the particular intended application and use environment." In addition, the patent discloses (emphasis added) that:

> The illustrated vacuum pump 40 is secured to the upper panel 24 below the upper panel 24 and at the right side of the carrying case 12 (as viewed in Fig. 1). The air supply port 42 is connected to an air inlet of the vacuum pump 40 and is adapted for receiving an air input line to connect a source of compressed air to the vacuum pump 40. The illustrated air supply port 42 extends through the upper panel 24 so that an inlet end of the port 42 is located above the upper panel 24 and an outlet end of the port 42 is located below the upper panel 24 at a front end of the vacuum pump 40. **Mounted in this manner, the air input line can be easily connected to the port 42 when the lid 16 of the carrying case 12 is in its open position.** The air exhaust port 44 is connected to an outlet of the vacuum pump 40 for exhausting fluids from the vacuum pump 40. The illustrated air exhaust port 44 extends through the upper panel 24 so that an outlet end of the port 44 is located above the upper panel 24 and an inlet end of the port 44 is located below the upper panel 24 at a rear end of the vacuum pump 40. **Mounted in this manner, air or other fluid can be easily discharged to the surrounding environment when the lid 16 of the carrying case 12 is in its open position.** … The illustrated control valve 50 is provided with an adjustment knob 52 so that the operator can manually adjust the level of vacuum provided through the vacuum lines by the vacuum pump 40. The illustrated control valve 50 extends through the upper panel 24 so that the adjustment knob 52 is located above the upper panel 24 and the valve portion located below the upper panel 24 at a right side of the vacuum pump 40 in the line between the vacuum pump 40 and the vacuum ports 46, 48. **Mounted in this manner, the adjustment knob 52 can be easily adjusted when the lid 16 of the carrying case 12 is in its open position.** It is noted that the adjustment knob 52 can alternatively be any

> other suitable operator control device. … Below the upper panel 24, the outlet ends of the connectors 54, 56 are suitably connected to the controller 36 as described in more detail hereinafter. **Mounted in this manner, the vacuum sensor lines can be easily plugged into the connectors 54, 56 when the lid 16 of the carrying case 12 is in its open position.** … **Mounted in this manner, the heater leads can be easily plugged into the connectors 58, 60 when the lid 16 of the carrying case 12 is in its open position.**[11]

These references to the placement of various functional features in relation to each other and within the confines of the portable carrying case clearly indicate the utilitarian advantages of how the features are arranged. The importance and benefit of the arrangement of the various functional features which enables the device to operate optimally without, for example, cable entanglement, is illustrated by the picture below showing one of Applicant's devices when hooked up for operation.

[12]

[11] *Id.*, TSDR p. 108-109.

[12] July 23, 2014 Office action, TSDR p. 56.

We find the '519 patent discloses the utilitarian advantages of the arrangement of the various parts, *e.g.*, vacuum ports and pumps, power ports, printers and monitor, of an interface for a portable hot bonder. Given the strong weight to be accorded patent evidence under *TrafFix*, we find that the patent is sufficient to establish *prima facie* that the design is functional.

Advertising

Under this factor, we consider evidence regarding "advertising materials in which the originator of the design touts the design's utilitarian advantages." *Valu Engineering v. Rexnord*, 61 USPQ2d at 1426 *citing Morton-Norwich*, 213 USPQ at 15-16. The Examining Attorney argues that Applicant's own advertising extols specific utilitarian advantages of the applied-for configurations. For example, Applicant's brochure lists the following as "standard features":

> All aluminum, scratch resistant, anodized faceplate
>
> Ergonomic design, convenient hookup of all accessories
>
> Circuit breakers are on front panel, no fuses to replace[13]

and further "touts" the various configurations' ease of use, compact size, and portability with "a built-in vacuum system to allow easier mobility to the repair site."[14]

The Examining Attorney observes that the "'ergonomic design' reference is immediately followed by 'convenient hookup of all accessories'. The connections for

[13] January 5, 2012 Response, TSDR p. 11.

[14] *Id.*, TSDR p. 10.

the accessories are arranged on the face of the interface panel in a manner that makes hooking up the accessories convenient." Ex. Att. Br., 18 TTABVUE 11.

We find that the references to "ergonomic design," "convenient hook up" and "circuit breakers on the front panel" directly address Applicant's claim, namely the arrangement of the features on the faceplate, and as such are probative on this point. Ergonomic is defined as "2. Designed to minimize physical effort and discomfort, and hence maximize efficiency."[15] In addition to the convenient hook up, in the case of the configurations in Serial Nos. 85281291 and 85281317[16] the ergonomic design allows for dual zone applications, by allowing the user to operate in the center entering data and monitoring from the center screen and providing input and output ports and receptacles on either side.

Applicant's other models that do not have the dual zone option do not have the screen in the middle. See below:[17]

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[15] COLLINS ENGLISH DICTIONARY (www.collinsdictionary.com), July 23, 2014 Office Action, TSDR pp. 87-88. We note this definition which the Examining Attorney made of record is not from the COLLINS AMERICAN ENGLISH DICTIONARY but approximates the definition in the MERRIAM-WEBSTER online dictionary (www.merriam-webster.com/dictionary/ergonomic); "1. An applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely – called also biotechnology, human engineering, human factors 2. The design characteristics of an object resulting especially from the application of the science of ergonomics." The Board may take judicial notice of dictionary definitions. *In re Red Bull GmbH*, 78 USPQ2d 1375, 1378 (TTAB 2006). *See also University of Notre Dame du Lac v. J.C. Gourmet Food Imports Co.*, 213 USPQ 594, 596 (TTAB 1982), *aff'd*, 703 F.2d 1372, 217 USPQ 505 (Fed. Cir. 1983).

[16] The configuration in Serial No. 85281386 also appears to be dual zone, but it is listed in the category "military" on the product comparison guide. January 5, 2012, Response, TSDR p. 9.

[17] January 5, 2012, Response, TSDR p. 10-11.

The Examining Attorney also points to third-party references to Applicant's configurations, touting the display "that lets mechanics monitor the cure cycle for composites used in repairs, which is important for assuring that the resulting component meets airworthiness requirements. Speed, rapid response and visually assuring that cure cycles parameters are being followed are absolutely essential in this whole process."[18]

The Examining Attorney also relies on competitors' advertising and promotional materials touting the utilitarian aspects of their products. *In re Van Valkenburgh*, 97 USPQ2d 1757, 1763 (TTAB 2011). For example, third-party WichiTech Industries "promotes the ease of operation and safety of its product … [which] features a centralized input pad enabling the user to control the device and reach the components from the center of the unit with minimal movement [and] the overall unit retains its compact size." Ex. Att. Br. 15 TTABVUE 12 (Application

[18] September 20, 2012 Office action, TSDR p. 119.

Serial No. 85281291).[19] *See also* Ex. Att. Br. 14 TTABVUE 13 (Application Serial No. 85281317) and 17 TTABVUE 12 (Application Serial No. 85281386).

In the promotional materials, WichiTech Industries touts:

> These twin features permit you to perform two independently-programmed cures simultaneously. Fail-safe protection is provided by the monitoring of multiple thermocouples, and audible alarms guard against temperature and vacuum conditions that could ruin the repair.[20]

The reference to "failsafe protection" as a result of "monitoring of multiple thermocouples" is also relevant to the single zone configurations in Application Serial Nos. 85281225 and 85281264. In addition, these configurations are similar to the WichiTech configuration in that "the power and vacuum connector ports are along the top of the unit, with thermocouple jacks grouped together on the side [and] the keypads are located in the center." Ex. Att. Br. 18 TTABVUE 12 (Application Serial No. 85281225). *See also* 15 TTABVUE 12 (Application Serial No. 85281264).

Similarly, another competitor, Zimac Laboratories, touts that its dual zone hot bonder can "Increase your productivity."[21] As noted by the Examining Attorney, this hot bonder also has the power ports along the top and the thermocouple ports arranged along each side.

[19] July 26, 2014 Office Action, TSDR p. 60 (Application Serial No. 85281291).

[20] January 6, 2012 Response, TSDR p. 19.

[21] July 7, 2011 Office action, TSDR p. 25.

A competitor, BriskHeat, touts its product as "easier ● better" with an "easy-to-use full-color HD Touch-Screen" and a "Fast Dual Vacuum System."[22] Again, this product has a centered display with printers on each side and power ports at the top.

Accordingly, we conclude that the advertising evidence supports a finding that Applicant's configurations are functional.

Alternative Designs

Applicant submitted the following third-party products as examples of alternative designs.

APPLIED HEAT[23] WichiTech Industries, Inc.[24]

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[22] February 10, 2012 Office action, TSDR pp. 5-6.

[23] January 5, 2012 Response, TSDR p. 13. This is a single zone hot bonder with dual zone capabilities by linking two bonders "via a communications cable to create a fully functional Dual Zone Hot Bonder." *Id.*

[24] January 5, 2012 Response, TSDR p. 19.

ZIMAC Laboratories Inc.[25]

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aeroform FRANCE[26]

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BriskHeat®[27]

[25] July 7, 2011 Office action, TSDR p. 25.

[26] February 10, 2012 Office Action, TSDR p. 11.

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atacs products inc. »composite repair systems:[28]

Applicant argues these examples show the "availability of numerous alternative configurations" and "strongly support[ ] a finding of non-functionality." App. Br., 16 TTABVUE 17. However, as explained by the Examining Attorney, the third-party examples relied on by Applicant, *i.e.*, WichiTech, BriskHeat, Applied Heat, Aeroform France, ATACS and Zimac, do not necessarily evidence alternative configurations that provide the same utilitarian benefit as "[h]ot bonders are often designed to be compliant with the repair specifications of the industries in which they operate." Ex. Att. Br. 18 TTABVUE 14. Moreover, with regard to the dual zone

[27] February 5, 2012 Office action, TSDR p. 5.

[28] February 5, 2012 Office action, TSDR p. 17.

configurations, the Examining Attorney asserts that Applicant's configurations "appear[] safer [than the Aeroform France product] as [they] lessen[] the likelihood of connecting the thermocouples to the wrong zone" and "Applicant's user-interface arrangement provides the dual zone capability in one compact package without the expense of additional equipment and accessories" as required in the Applied Heat product. Ex. Att. Br. 15 TTABVUE 16 (Application Serial No. 85281291).

The examples of hot bonders that do not include a raised display screen are not examples of alternatives for hot bonders that include a raised display screen and are not strong evidence of alternative designs.

While we find that the third-party examples do not strongly support Applicant's argument regarding the availability of other designs, we also observe that once functionality is found based on other considerations, there is "no need to consider the [third Morton-Norwich factor regarding] availability of alternative designs, because the feature cannot be given trade dress protection merely because there are alternative designs available." *Becton, Dickinson and Co.*, 102 USPQ2d at 1378. *See also TrafFix*, 58 USPQ2d at 1006 ("Where the design is functional … there is no need to proceed further to consider if there is a competitive necessity for the feature.") The fact that other competitive alternatives may exist does not alter the initial finding that the configuration is functional and, thus, unregistrable. *See also In re Bose Corp.*, 772 F.2d 866, 227 USPQ 1, 5-6 (Fed. Cir. 1985).

Accordingly, we conclude that the evidence of alternative designs does not support a finding of non-functionality.[29]

Cost of Manufacturing

The information regarding the comparative costs of manufacturing for different designs resides with the Applicant and Applicant did not provide more than the one statement in its January 5, 2012 Response that "the three-dimensional configuration of the arrangement of the HCS9000B Composite Repair Set's user interface components does not appear to be simpler or less expensive."[30] This unsupported statement is not sufficient for us to make a determination on this factor and we consider it neutral in our analysis. Moreover, even if Applicant's interfaces are not "comparatively simple or cheap" to manufacture, this does not mean that the design is not functional. *In re American National Can Co.*, 41 USPQ2d 1841, 1844-45 (TTAB 1997).

Analysis

As noted above, the statute prohibits registration of a configuration that, "as a whole, is functional." 15 U.S.C. §§ 1052(e)(5) and 1091(c). Applicant argues that "the existence of functional elements or components in the specific arrangement does not establish functionality of the specific arrangement, as a whole." App. Br., 16 TTABVUE 8. It is Applicant's contention that the "Examining Attorney has not

[29] We further note that when viewed together, including the configuration that was the subject of Application Serial No. 85281360, Applicant's various configurations would eliminate several options for competitors.

[30] January 5, 2012 Response, TSDR p. 6. A similar statement is found in each of the other applications.

made out a *prima facie* showing of functionality … [and] [Applicant's] specific arrangement, as a whole, of user-interface components for the HCS9000B hot bonder is not essential to the use or purpose of the hot bonder, and there is no evidence that protecting [Applicant's] specific arrangement, as a whole, will disadvantage [Applicant's] competitors." App. Br., 16 TTABVUE 18.[31]

However, contrary to Applicant's argument, the USPTO may satisfy its burden of establishing that a configuration is functional by showing the functionality of various aspects of the configuration. In fact, "one object of the *Morton-Norwich* inquiry is to weigh the elements of a mark against one another to develop an understanding of whether the mark as a whole is essentially functional and thus non-registrable." *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. As the Court of Appeals for the Federal Circuit explains, "functionality precedent indeed mandates that the Board conduct such an assessment [weighing the functional and non-functional factors] as part of its determination of whether a mark in its entirety is overall … functional." *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. *See also In re R.M. Smith, Inc.*, 734 F.2d 1482, 222 USPQ2d 1, 2 (Fed. Cir. 1984) ("[the board] proceeded to initially review the six features claimed by Smith to comprise its mark. Upon consideration of the entire design, the board found that not only were those features themselves highly functional, except perhaps for the ribs, but that the drawing as a whole included various other highly functional elements … Based on the functionality of the individual features comprising the design, the board

[31] Applicant makes the same assertion in its briefs in each of the other applications on appeal.

concluded that the design as a whole was de jure functional. We agree with the board that the PTO attorney established a prima facie case of de jure functionality.").

Here, the arrangements are composed entirely of functional parts but Applicant asserts that the arrangements by themselves are non-functional and therefore are registrable on the Supplemental Register. Because Applicant has not depicted the individual features in broken lines they are collectively (if not individually) part of the mark and part of the analysis. Therefore, the functional features far outweigh any non-functional aspect of the arrangements which is incidental and hardly discernible as a separate element from the functional parts in each configuration. While we do not foreclose the possibility, it is difficult to imagine a situation where the sum of a configuration's entirely functional parts adds up to a design capable of indicating the source of the product. In any event, the configurations in these applications present no such exception.

Even if we accept that the functional parts collectively are not intended as part of Applicant's claims for its proposed marks, that is, they fall into the exception where functional features may be depicted in solid lines, the same analysis would apply in these proceedings because without considering them there are no marks.

Finally, even if we do not weigh the functional features against the asserted non-functional arrangements, the record establishes the utilitarian nature of the arrangements themselves. The record shows in each application that the arrangement of significant functional features is directed by utilitarian concerns to

make operation of the devices easier, safer and more efficient. *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. Applicant's interfaces provide specific utilitarian advantages in that they prevent entanglement of cables (placement of the power receptacles and vacuum hoses at the top edge of the unit), create safer configurations of the various components (*e.g.*, placement of thermocouple connection ports at opposite positions on the panel to prevent dual zones from connecting to each other), and afford an efficient and ergonomic arrangement by, *inter alia*, providing for convenient hookup of accessories and, in the case of the dual zone interfaces, allowing the user to engage in two processes by placing the monitor in the center with the keyboard in front and keeping the dual zones visually and physically separate. *See In re Bose Corp.*, 227 USPQ 1 (shape of loudspeaker system enclosure that conforms to the shape of the sound matrix held functional); *In re Dietrich*, 91 USPQ2d 162 (TTAB 2009) (spoke arrangement of bicycle wheel more stable with better performance than wheels with other spoke arrangements).

In short, the Examining Attorney has satisfied her burden in making a *prima facie* case and Applicant has not rebutted it with "competent evidence," defined as "proof by preponderant evidence." *Becton, Dickinson and Co.*, 102 USPQ2d at 1379.

Applicant's reliance on certain case law does not persuade us of a different result. In *In re Honeywell Inc.*, 8 USPQ2d 1600 (TTAB 1988), the Board held that the round thermostat cover configuration was not functional based in part on the finding of no "evidence of use by competitors … for so many years, despite applicant's apparent lack of any patent and trademark protection for it." The Board

concluded that "the number of alternative designs available to competitors, although limited, is sufficient for this product." *Id.* at 1604. In that case, the drawing and description included only a rounded cover; the inner workings and face plate were not part of the applied-for mark. By contrast, here Applicant's configurations are created by the arrangement of specific functional features.

In *Cartier, Inc. v. Four Star Jewelry Creations, Inc.*, 348 F. Supp. 2d 217 (S.D.N.Y. 2004), the court found the watch "trade dress as a whole" was not functional. However, in that case the watch trade dress incorporated elements not essential to the function of the watch, such as "Roman numerals, a cabochon, an octagonal winding stem, a minute track, a particular face shape, a particular shape of a watch case and its extensions connecting the face to the strap and a particular bracelet link formation or shape." *Id.* at 225. Here, as the Examining Attorney explains, "applicant's goods incorporate essentially all functional elements" and is not "decorative." Ex. Att. Br., 18 TTABVUE 21. Each part is essential to the function of the hot bonder and each part is placed in such a way as to make operation easier, safer and more efficient.

Finally, in *In re Cheseborogh-Pond's, Inc.*, 224 USPQ 967 (TTAB 1984), the Board stated there was nothing to indicate that the design has superiority over other possible designs. Here, the number of possible designs for a portable hot bonder is limited by, at a minimum, industry specifications, ease of use and space constraints. Where all or substantially all of an applicant's overall design is dictated by the function it performs, it is functional. *In re Vico Products Mfg. Co., Inc.*, 229

USPQ 364, 370 (TTAB 1985) (configuration of whirlpool jets for bathtubs held functional because "the appearance of the body is adapted to the function it performs").

In making our determination, we keep in mind the guidance from the Supreme Court that "[t]he functionality doctrine … protects competitors against a disadvantage (unrelated to recognition or reputation) that trademark protection might otherwise impose, namely their inability reasonably to replicate important non-reputation-related product features." *Qualitex Co. v. Jacobson Products Co., Inc.*, 514 U.S. 159, 34 USPQ2d 1161, 1165 (1995). To afford registration to functional designs would inhibit legitimate competition by, in effect, granting a monopoly to a non-reputational, or non-source-identifying, feature of a product. *Id.*, 34 USPQ2d at 1163-64. As emphasized in *Morton-Norwich,* which sets out the four analytical factors, "the effect on competition 'is really the crux of the matter," and a balance must be struck "between the 'right to copy' and the right to protect one's method of trade identification." *Morton-Norwich*, 213 USPQ at 15-16.

Based on all of the record evidence and arguments in relation to the *Morton-Norwich* factors, we find that the overall design of each of Applicant's configurations is "essential to the use or purpose of the article." *TrafFix*, 58 USPQ2d at 1006. Thus, we find that the configurations as a whole are functional and are not registrable on that basis.

DRAWING

Although we have found the configurations as a whole to be functional which renders the drawing requirements moot, for completeness we address the drawing refusals directed to the individual functional user-interface components. A drawing depicts the mark sought to be registered. Trademark Rule 2.52, 37 C.F.R. § 2.52. Product configuration marks require special form drawings and must depict matter not claimed as part of the mark in broken lines. Broken lines must also be used to indicate placement of the mark. Trademark Rule 2.52(b)(4), 37 C.F.R. § 2.52(b)(4). The Examining Attorney argues that the functional elements of the marks may not be registered and "to show that they are not part of the mark, functional elements must be depicted in broken or dotted lines on the drawing to show the position or placement of the claimed portion of the mark." Ex. Att. Br., 18 TTABVUE 21. Further, because "applicant asserts that the proposed mark is for the arrangement of the components … the functional components themselves must be shown in dotted lines to show their position." *Id.* at 22.

Applicant argues:

> [T]he components of the user interface currently shown in solid lines should remain in solid lines because each of these components is an element of the specific, three-dimensional arrangement, as a whole, of the user-interface components of the HCS9000B Composite Repair Set. … Because the mark is the specific, three-dimensional arrangement, as a whole, of the user-interface components of the HCS9000B, the whole user interface should be shown in solid lines. And although the mark includes elements that should be shown in broken

> or dotted lines because they are functional, if doing so would result in an unclear depiction of the mark, the applicant may use solid lines to show the elements. … If the drawing of the mark, … were amended to show each component of the whole user interface in broken or dotted lines, then the drawing of the mark would not include any solid lines. And thus, the specific arrangement, as a whole, of the user-interface components of the HCS9000B Composite Repair Set would not be clearly depicted in the drawing.

App. Br., 16 TTABVUE 19.[32]

The Examining Attorney responds that where dotted lines would result in an unclear depiction of the mark and an applicant uses solid lines, an applicant must "insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods … [and here] applicant claimed the elements as a part of the overall configuration and failed to insert a statement to the contrary." Ex. Att. Br., 18 TTABVUE 23.

The TMEP provides:

> In rare instances where it is impractical to render certain elements of a mark in dotted or broken lines – for example, if those elements are proportionally so small as to render dotted lines illegible – or if dotted lines would result in an unclear depiction of the mark, the applicant may use solid lines. However, the applicant must insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods, as appropriate.

TMEP § 1202.02(c)(i) (October 2015).

[32] Applicant makes a similar argument in the briefs in each of the applications on appeal.

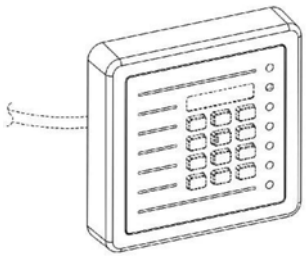
Without the benefit of examples of the drawings with the functional features in dotted lines, it is difficult to tell whether the drawings required by the Examining Attorney would be unclear depictions, although none of the functional features is so small as to create difficulty and the scope of the marks are clearly explained in the description. However, Applicant did not include a statement in the descriptions of the marks indicating these elements remaining in solid lines in the drawing are not part of the marks. In fact, Applicant's argument could be interpreted to mean Applicant is including within its claims the shape of each functional feature in addition to the specific location wherein it resides with other specific functional features in specific locations. The Examining Attorney provided examples of registrations wherein the drawing of the configuration, which included the location/arrangement of certain functional features, depicted those features in broken lines. For example, in Reg. No. 4058153 the mark is described as follows:[33]

> The mark consists of a three dimensional configuration of an RFID reader comprising a housing having a generally quadrangular front face and a plurality of side surfaces connected to the front face. The front face defines a rounded peripheral edge which transitions into the plurality of side surfaces, and further includes a generally quadrangular groove. The front face additionally includes five short grooves in vertical alignment with each other, a generally quadrangular recess and an indicator light disposed along a common horizontal axis with the uppermost short groove. A pair of long grooves are disposed on opposing ends of the short grooves. Six rounded depressions are formed within the front face and are aligned along a common vertical axis with the indicator light and are horizontally aligned with respective ones of the short and long grooves. **The front**

[33] September 20, 2012 Office action, TSDR p. 77-79.

> **face additionally includes an offset keypad shown in dotted lines. The matter shown in broken or dotted lines is not part of the mark and serves only to show the position or placement of the mark**. (emphasis added)

The drawing depicts the inclusion of a keypad in broken lines.



In view of the functionality of the individual components, the requirement to depict them in broken lines is appropriate. We are not persuaded that such depiction would be "unclear." Moreover, to the extent it would be "unclear" the requirement to insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods is also appropriate.

Decision: The refusals to register the configurations on the Supplemental Register on the ground that the configurations are functional are affirmed in each application. The refusals to register the configurations for failure to comply with the drawing requirements are affirmed in each application.