



## Systems for Tableware 日用陶瓷窑具系统

There are many different kinds of tableware all with different types of firing and hundreds of thousands of shapes. Due to this the kiln furniture required is also very complicated. Choosing the correct kiln furniture system can allow greater yields, greater kiln loads, decreased firing costs and reduced loads carried by workers, which will ultimately and resultantly, reduce costs. Through many years of activity and through working with Dyson, Beijing Trend has already developed kiln furniture systems for all the different kinds of tableware and produced total solutions for the tableware industry.

日用陶瓷瓷种很多，烧成工艺各不相同，形状也千变万化，因此所用窑具系统也最为复杂。选择合适的窑具系统可以提高优品率、提高窑炉装载量、降低燃料消耗、减少人工劳动强度，从而大幅节约成本。北京创导通过多年的积累，已开发出目前国内外所有瓷种所使用的窑具系统，为日用陶瓷工业提供全方位的窑具解决方案。

When the temperature of a glaze firing is considerably higher than a biscuit firing, the plate's foot deform much were easily. Total foot support setters (TFS) are specially designed to minimize the deformation of the plate's foot during the glaze firing. It offers an excellent solution.

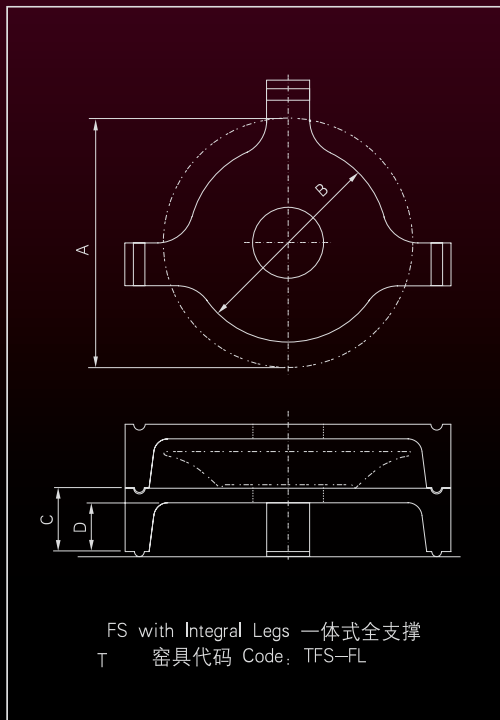
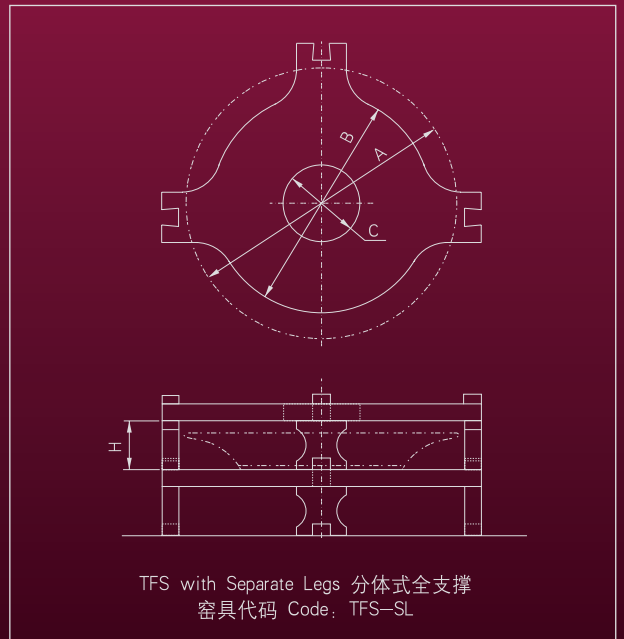
TREND supply five ranges of TFS, TFS with separate legs, TFS with integral legs, profile TFS with integral legs, Y-type TFS and T-type TFS. All the TFS can be loaded on the kiln deck as separate unit, which offers a very efficient kiln fill. Another advantage of the TFS system is it can be loaded and unloaded as a unit, so the placing and unloading is also very efficient. All of TFS above can be used in once-fired tableware.

Using separate legs of variable height, Y-type and T-type TFS can be adjusted according to the plate, so they are used widely and can accommodate most sizes of ware. In order to enhance the stability of TFS with separate legs, we can use refractory cement to attach the legs before use.

全支撑支架 (TFS) 是创导公司为防止盘子釉烧时发生变形而专门设计的, 当釉烧温度远高于素烧温度且盘子易于变形时, 可以采用TFS。

创导公司的TFS主要有5个系列: 分体式、一体式、仿形一体式、T型和Y型。它们都可以直接从窑车台面码放到窑顶, 大大提高窑车的装载量。同时, 由于在设计时已充分考虑到TFS码放的稳定性和操作的方便性, 所有TFS系统在装卸产品时均无需将TFS单个取下, 只需挪动TFS垛即可, 从而大大减轻劳动强度, 提高生产效率。以上所有TFS系统均可用于陶瓷盘子的一次烧成。

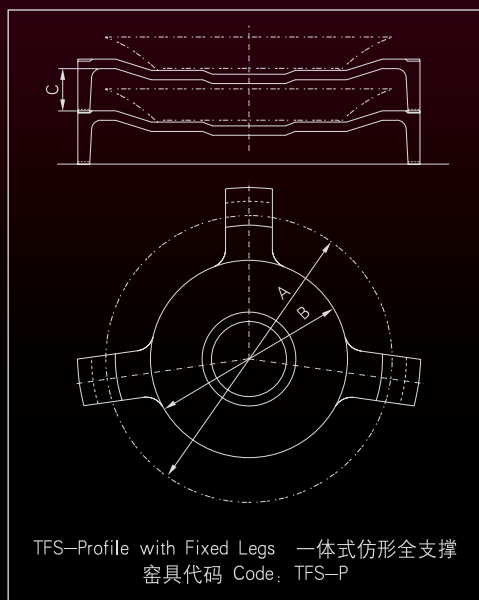
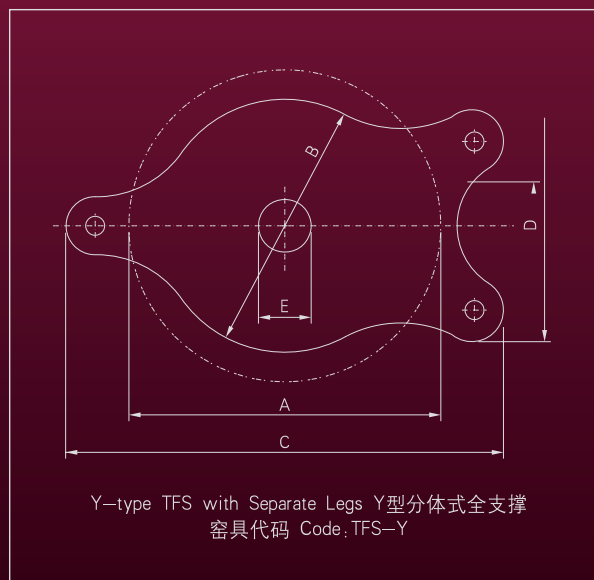
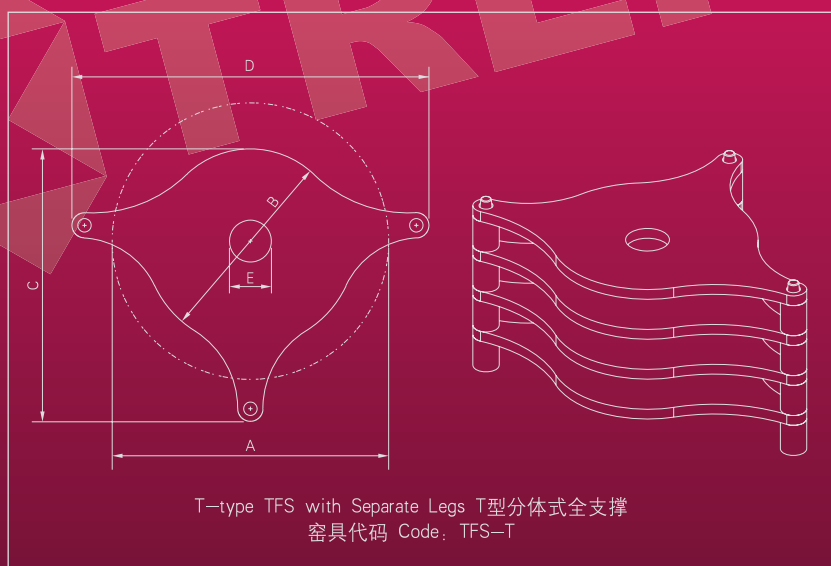
分体式、T型和Y型TFS的支腿高度都可以调整, 使用范围最广, 几乎可以满足所有盘子的烧成需要。分体式TFS的支腿在使用前需用粘剂将其与主体粘结, 以提高其稳定性。



TFS with integral legs have the general character of TFS. Comparing with TFS with separate legs, Y-type TFS and T-type TFS, TFS with integral legs can be loaded and unloaded more easily and the stability of this system is also higher.

一体式全支撑除具有全支撑的通性外, 相比较于分体式全支撑、Y型全支撑和T型全支撑, 一体式全支撑在装卸过程中更为方便, 使用更加稳定。





Cup rings are used to maintain the shape of bone and vitreous china hollow ware during biscuit firing. These are available with a slot to accommodate the handle if required.

TREND can design and supply the cup rings according to customer's individual requirements to insure insurance high quality products.

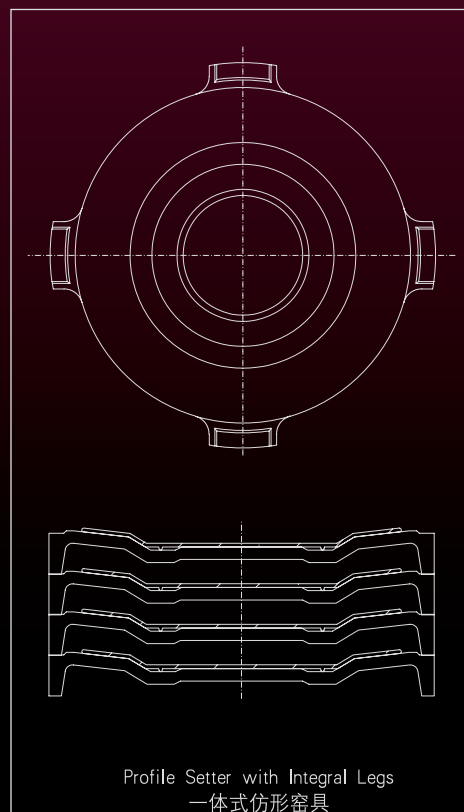
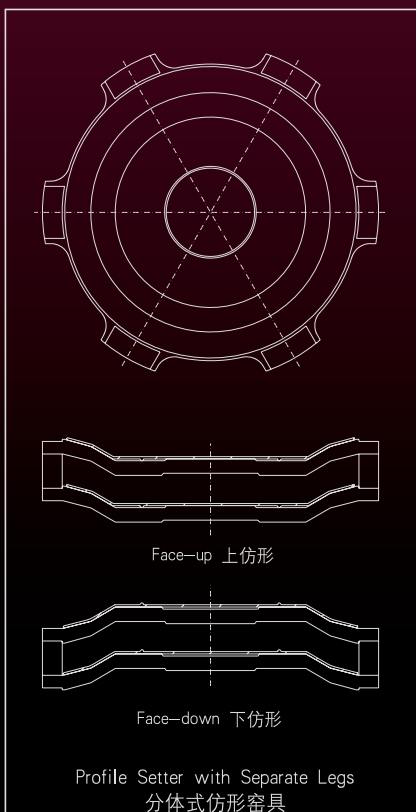
杯托用于骨灰瓷或瓷质杯类产品的素烧，以保持良好的杯口形状。若需要可在杯托上预留杯把槽。

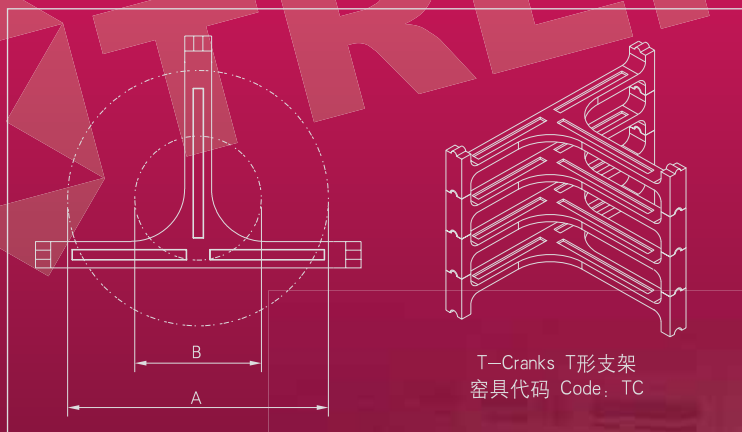
创导公司可根据客户的需求，设计和生产各种形状的杯托，以满足您烧成高品质杯类产品的需求。



Profile setters are used to maintain the shape of bone and vitreous china during biscuit firing. TREND can design and produce profile setters according to the customer's requirement. Both face-up and face-down styles of profile setters are available.

仿形窑具用于骨灰瓷和玻璃质陶瓷的素烧，以得到最终所需要的产品器型。创导公司可以按客户的产品形状设计、生产各种上烧型、下烧型仿形窑具。



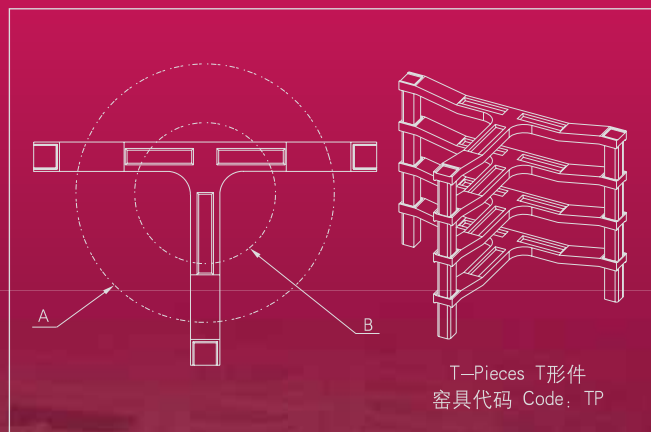


T-cranks are designed to support ware at three points under its foot during glost firing. The plates can be placed and drawn without separating the T-crank stacks, thus reducing handling loss. Slots are available on the upper surface of T-crank for locating pins if needed. By using the T-crank system during the glost firing, you can achieve the maximum amount of support by using the minimum amount of kiln furniture. This range of cranks is also used extensively in fast firing conditions, e.g. 45 minutes in a roller kiln.

T-cranks with integral legs are flat in section. The legs have a semi-circular spigot on the top and recess on the bottom to allow them to interlock with each other during use, thus enhancing the stability of this system. The height between cranks can be increased by use of special spacers.

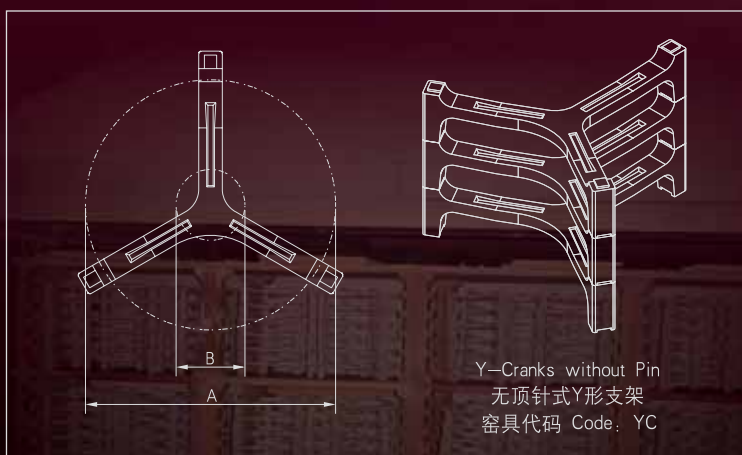
T形支架为釉烧的陶瓷器型提供三点支撑，装卸产品时无需将支架拆分开，大大减轻劳动强度。支架的上表面有槽以便放置顶针。在釉烧时采用该系统，能以最少的窑具用量获得对瓷器的最大支撑。该系统也广泛用于陶瓷的快烧，如烧成周期为45分钟的辊道窑中。

一体式T形支架端面平整，且支腿与主体连在一起，支腿的顶部有凸起，底部有凹槽，上下码放时形成互锁结构，增加系统稳定性。通过在支架间增加垫块，可增大码放空间。



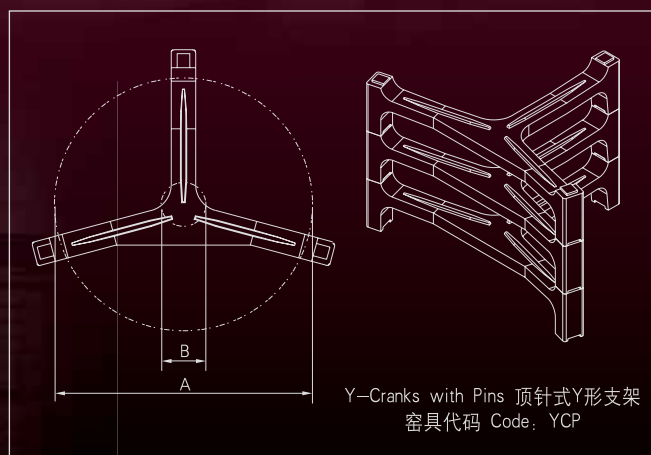
This range of T-Pieces does not have integral legs. Legs are cemented onto the piece and can be supplied in various heights to enable the optimum separation to be achieved. The piece can be either an individual unit or cemented together to form a stable multiple unit. Available height of legs is as follows: 25, 30, 32, 34, 38, 48, 52, 57, 62, 65, 76 and 85mm.

此种T形件的支腿采用高温粘结剂与主体粘结。支腿的高度有很多种，根据所烧产品的高度来选择合适支腿，以使其达到最佳间距。此种T形件既可以单独使用，也可以将许多T形件粘结在一起，形成多层单元使用。常用支腿的高度有：25，30，32，34，38，48，52，57，62，65，76和85mm等。



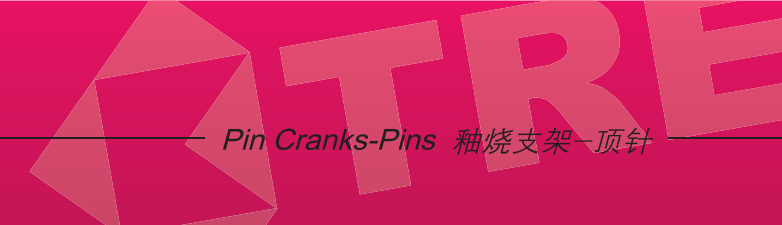
Y-cranks without pins are designed for the glost firing of high quality ware. The integral legs of the crank radiate at 120° to each other, therefore the crank provides the maximum amount of support during the firing. Slots are available on the upper surface to accommodate pins.

无顶针式Y形支架用于高档陶瓷制品的釉烧。三个支腿呈120°夹角分布，这样就保证陶瓷制品烧成时以最佳支撑，同时其稳定性也是最好的。其上表面设有三个顶针凹槽以便需要时放入顶针。



Y-cranks with pins are designed for the glost firing to support the foot of the plate just at three points. The cranks have integral legs and pins. The integral pins on their upper surface enable point contact to be made with the plate during firing.

顶针式Y形支架用于盘子釉烧时仅为三点支撑。该支架的支腿与顶针均为一体式，不用再放顶针。其上表面的自带顶针可以保证釉烧时以点接触的形式支撑盘子。

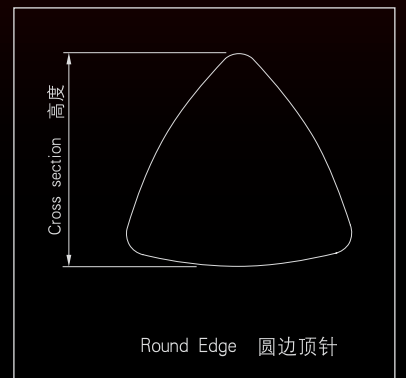
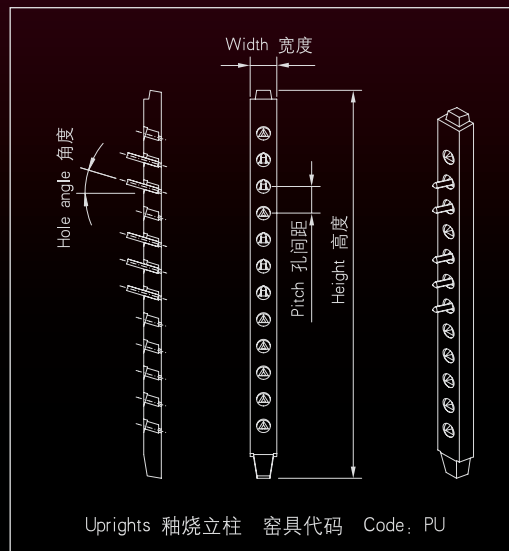
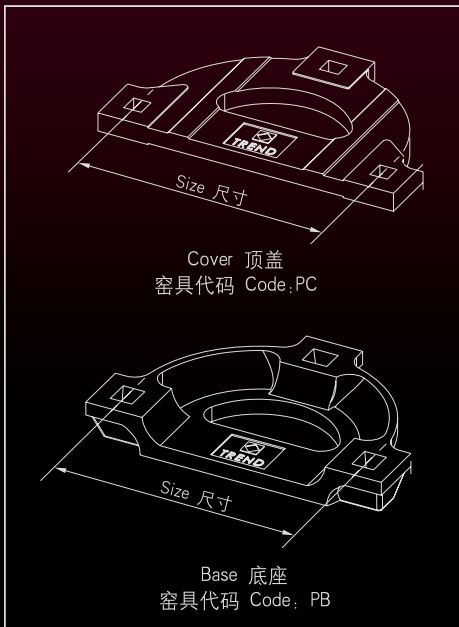


顶针式支架系统 (PCS) 广泛用精陶、宾馆瓷、白云瓷及其它烧成温度在1200°C以下的产品, 它具有装烧产品与码放时的稳定性好, 使用寿命长、窑炉装载率高、窑具产品重量比最低以及燃料消耗率低等一系列优点。

该系统由一只底座、一只顶盖、三支立柱和若干根顶针组成。顶针插入到立柱的孔中。所设计的立柱孔既能插入截面尺寸为5mm (3/16") 的顶针又能插入截面尺寸为6mm (1/4") 的顶针。所有立柱上端和下端的插头都具有相同尺寸及锥度, 所以每种立柱都可插入到任何规格的底座与顶盖中, 结构稳定性非常高, 即使在非常苛刻的条件 (在辊道窑) 下使用, 该结构也是十分理想的。客户可以根据产品的形状和窑中的码放高度来选择不同代号和长度的立柱以达到最佳的窑炉装载量。底座和顶盖的尺寸从114mm(4 1/2")到311mm(12 1/4"), 每隔6.35mm(1/4") 为一个规格, 可以满足直径从89mm到284mm的圆形平盘和其他器形的烧成需要。

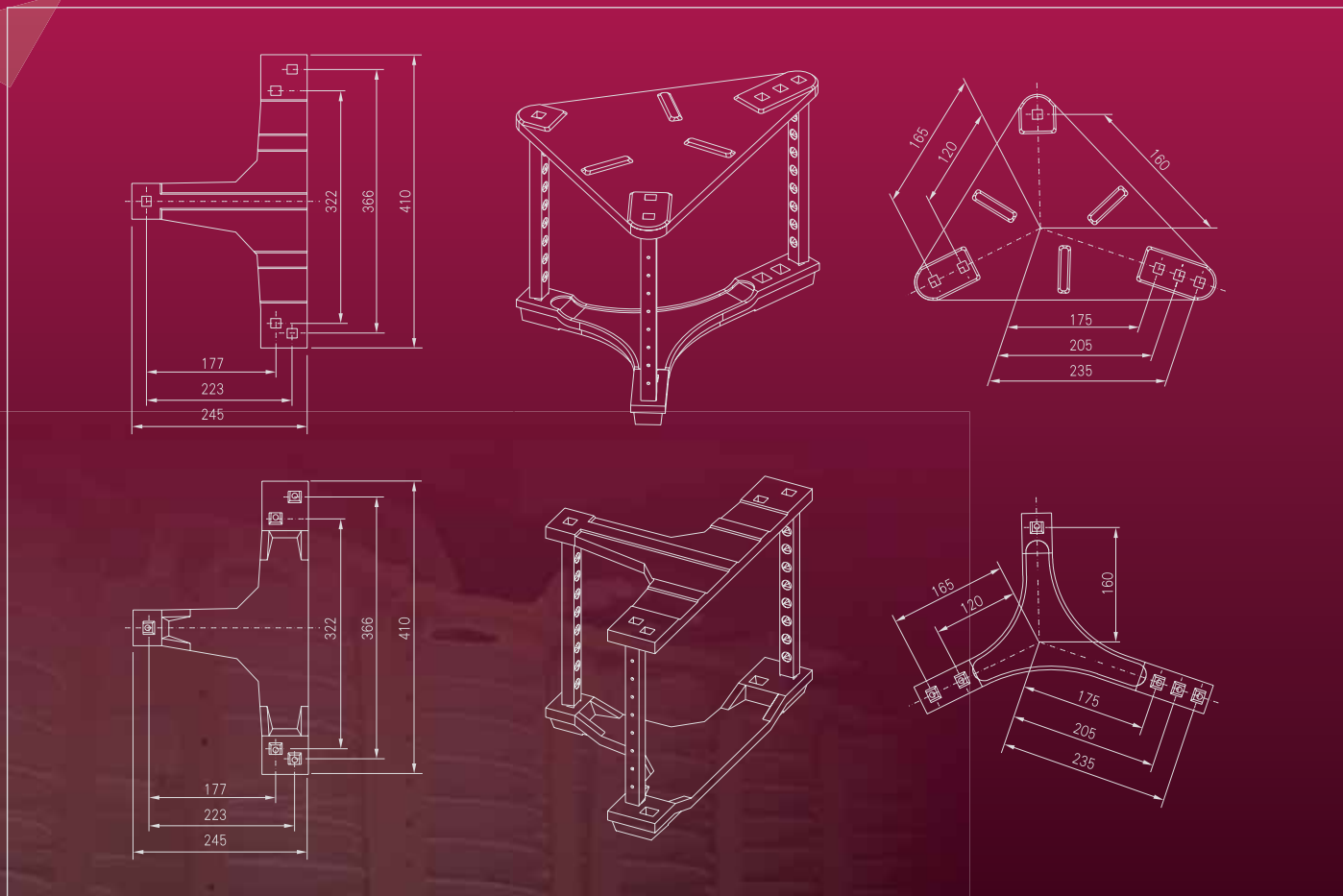
The pin crank system (PCS) is extensively used in the firing of earthenware, hotelware, fine china and dolomitic ware, as well as other wares with firing temperatures below 1220°C. This system gives a high stability, long life, maximum kiln fill and a very good refractory to product ratio, which in turn ensures good fuel economy.

The system consists of one base, one cover, three uprights and a number of pins. The pins are inserted into the holes in the upright, normally by machine. The holes are normally designed to accept either 5mm (3/16") or 6mm (1/4") cross-section pins. The top and bottom end of any upright is consistent and with tapered shape that enables the uprights to fit into any base or cover resulting in a highly stable structure ideal for even the most rigorous firing. Customers can choose uprights with different hole sizes and centres as well as length (according to their product and placing height) to keep the maximum kiln fill. The bases and covers are designed ranging from 114mm (4 1/2") to 311mm(12 1/4") in 6.35mm (1/4") increments for the firing of round flatware and dishes with a diameter from 89mm to 284mm.



The multi-fitting Pin Crank is designed for large oval and round dishes such as  $\Phi 295\text{mm}$  to  $\Phi 340\text{mm}$ . There are three sets of holes on the base and cover to enable customers to adjust the distance between three uprights to support different sizes of product. The holes have been designed to accept any uprights in our range.

多功能顶针式支架主要用于大尺寸的鱼盘和圆盘(如直径在295至340mm的圆盘)。在底座与顶盖上有三组支柱插孔,使得用户能够调节立柱的间距,从而用于支撑不同尺寸的盘子,实现“一架”多能。我公司生产的所有型号的立柱均可插入到该系统的底座与顶盖中。



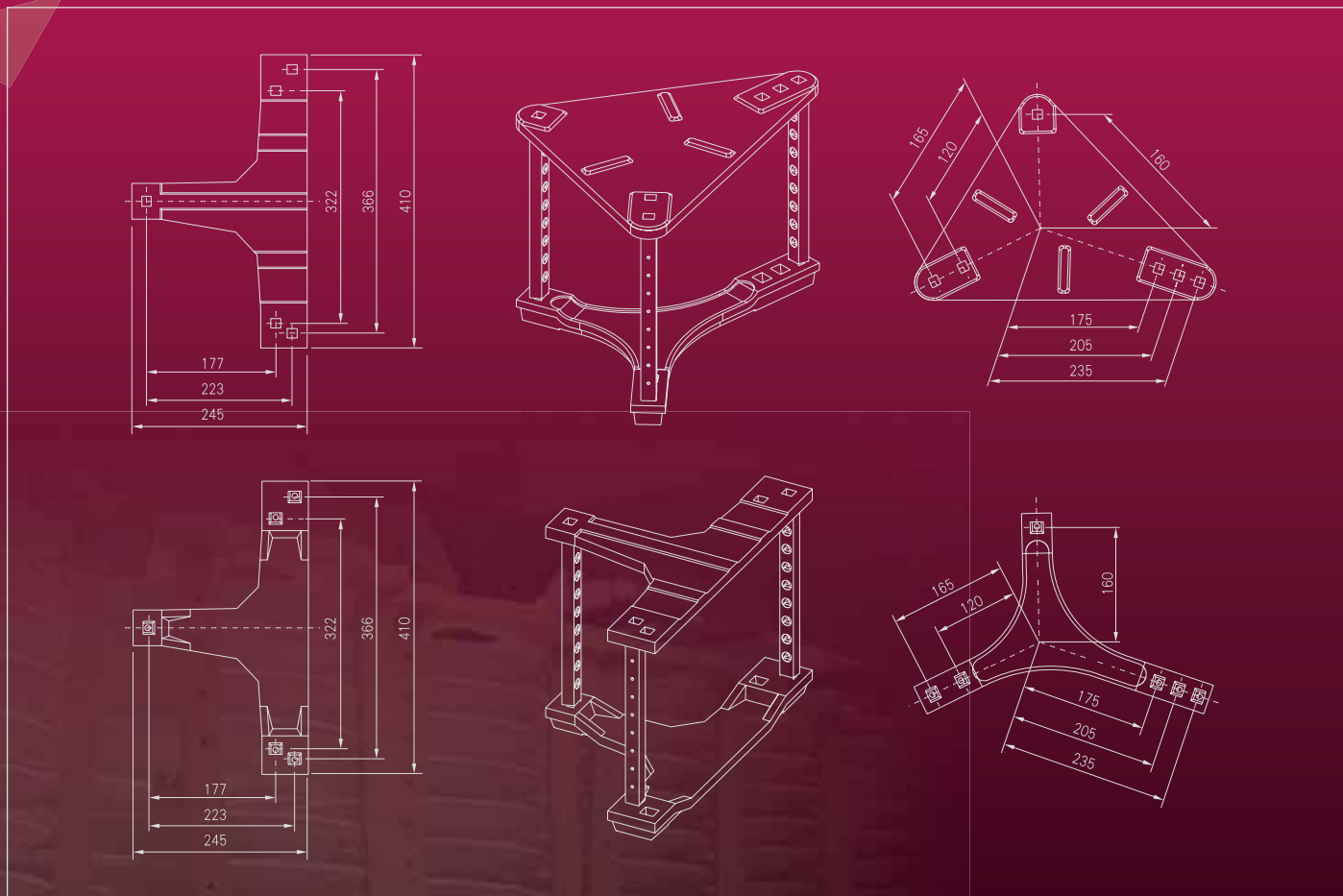
There are two typical kinds of sagger used in the modern tableware industry. One is the profile sagger (closed profile setter) for the biscuit firing of bone china, vitreous ware (and also for porcelain firing). The other is the box sagger for the glost firing of high quality bone china and other high value ware.

目前主要有两种类型的匣钵在现代日用陶瓷工业中使用。一种是仿型匣钵(封闭式仿型支架)用于骨灰瓷和瓷质胚体的素烧以及日用细瓷的烧成;另一种箱式匣钵主要用于某些高级骨灰瓷及其它高级陶瓷的釉烧。



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