

## Brief characteristics and advantages of the Universal Segment Clamping System (USS) in comparison with conventional welded jigs:

### 1. Base plate

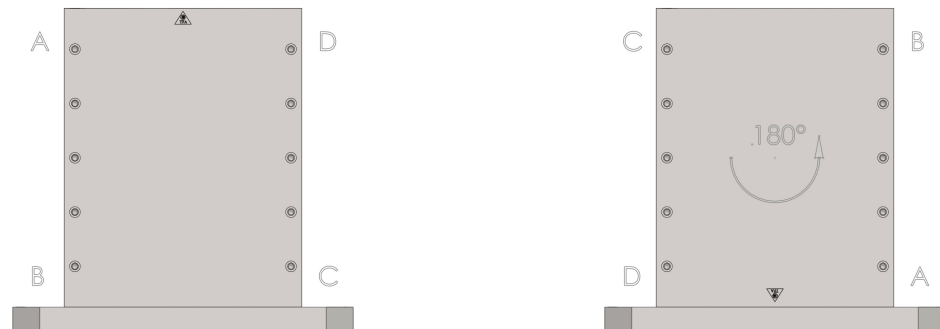
This component is practically wear-free in the jig assembly and it can be used for another configuration of the product (tombstone).

The base plate represents some 25-30% of the price of USS set

### 2. Side plates

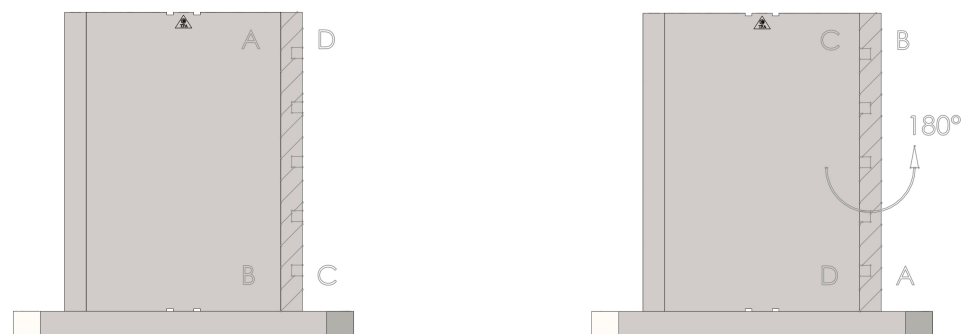
The Universal Segment Clamping System uses side plates type "A" and type "B". Both types of side plates could be utilized multiple times.

- a. In the case of significant wear (i.e. there is no space where to drill holes for clamps) it is possible to rotate each of the side plate by  $180^\circ$  in the plane (which utilizes the fact that the machines have always set the minimum dimension in the Y-axis). This is the utilization of uneven wear of the surface.



new costs are = 0

- b. In the case of wear, each of the side plates can be rotated about its axis by  $180^\circ$  in a way that the worn side is turned into the interior of the jig. Each side of a side plate has full-value, maintain accuracy and rigidity of the jig set.



new costs are = 0

This means that virtually any configuration of the plates in terms of size can be assembled together 4-times.

### 3. Replacement of side plates having different sizes and utilization of a higher floor base plate

When a different dimension of jig (tombstone) is needed it is not necessary to purchase a new jig set. Instead of that, it can be easily solved by purchasing only a new side plate

with required dimensions and exchanging the new one for the original side plate. Another option is extending the variability by additional mounting of the horizontal plate (smaller base), thus obtaining a fifth clamping area e.g. for a long hole drilling etc.

#### 4. Economic expression

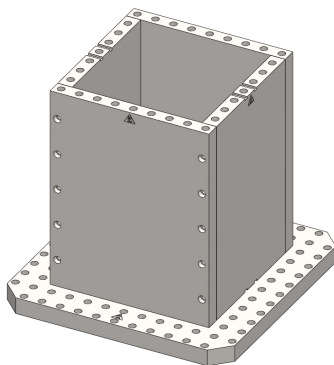
High efficiency is a result of accepting the USS as a system of clamping.

Each first tower (tombstone) is more expensive than conventional welded one. By purchasing additional variants of side plates and base plates having different dimensions the number of variability increases by one with each additional plate.

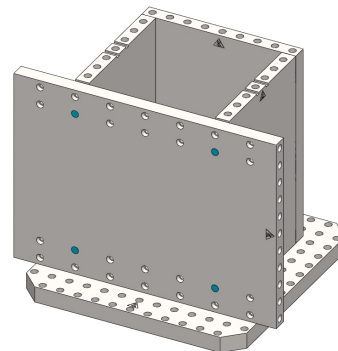
- a. According to paragraph 1: There is no need to purchase additional base plate for another tower (tombstone)
- b. According to paragraph 2: It is possible to use the parts (side plates) multiple times in the case of wear
- c. According to paragraph 3: By combining with other components the utilization of the system increases while keeping the costs at minimum for other sizes

#### Summary:

1. When you first configure the USS system the costs are higher than the cost of manufacturing a welded version of the jigs.
2. When using the side plates multiple times the savings reach up to 3-times of the price of welded variant of the jig.
3. When using a combination of multiple sizes there is a clear multiple savings in comparison with the production of several types of welded jigs using the original base.

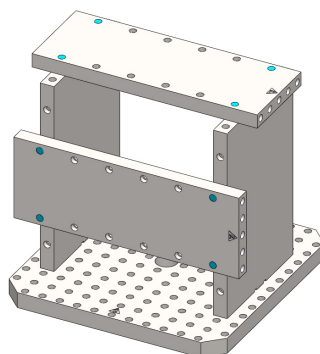


price "A" = 100



price = "A" + 30  
 "•" – point clamping

another example of a combination of



"•" – point clamping