

Fixtures for Toggle Clamp & Glass Hinge

Kattamuri Venkata, Siva Sai Kumar, Avala Naga Venkata,

Manikanta Sai Krishna

Mechanical Engineering ,VVIT/JNTUK, India

Corresponding Author: Kattamuri Venkata Siva Sai Kumar

ABSTRACT: In a pharmaceutical isolator manufacturing company has the following functions to manufacture the isolators , in that welding plays a crucial role in manufacturing . So we designed a fixture which is useful for welding the clamps at the correct position without any errors . Here right now we designed fixtures for fixing toggle clamp and glass hinges with minimal errors.

Every company needs high quality production of their products for that fixtures plays a major role in improving quality.

The toggle clamp fixture holds the position of the toggle clamp holder at the position which is of standard length from the chamber .

The glass hinge position is also of standard length from the chamber . it has two positions to hold the glass on the chamber . the glass hinge can be fixed either vertically or horizontally as per the requirement

Some of the toggle clamps will fix angularly for that we have angular fixture.

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I. INTRODUCTION

In the manufacturing company every one wants quality of the product as the final result whether the product is smaller or bigger, or the product is costlier or cheaper at last the final result will be linked up with quality of the product .

Here we tries to improve the quality of the arrangement of the holders and the hinges.

We taken the considerations of length and width of the holders and hinges .

The main problem is that the arrangement of the holders will deviate from the actual place . so we tried to maintain them in their place accurately using the fixtures we designed

The points considered in the designing of the fixtures are:-

1. Location of the hinges and clamp holders
2. Conditions taken into consideration

1.1 location of the hinges and toggle clamp holders

The toggle clamp holders will be at a distance of 51 mm from the top of the gasket slot in the vertical distance and in the horizontal distance it will be of 90 mm from the outer surface of gasket slot

The glass hinge will be held at the vertical distance of 35 mm from the inner surface of the gasket slot and at a distance of 90 mm from the outer surface of the vertical slot of the gasket.

The angular holder of the toggle clamp will be at a distance of 35mm at an angle of 45⁰ to the horizontal line .

the dimensions of the glass hinge is about 24mm x 18mm x 25mm

the dimensions of the toggle clamp holder is 40mm x 40mm x 25mm

1.2 conditions taken into consideration

The edge toggle clamp is located at a distance of 90 mm from the edge of the gasket slot on the either sides of the chamber. The no of holders will be increased by the increase in length of the glass and chamber. The holders will arrange by maintaining equal distance between them.

The hinges located at the edge will be at a distance of 90mm from the edge of the gasket socket and the remaining hinges will be arranged by maintaining equal distance between them . Their number also increase by increasing the size of the glass and chamber.

But the angular holders number will be remains same whether the glass size is small or large . their number is always 2.

II. CONCLUSION

We designed fixtures which are very useful for the company to increase the quality of their products as these fixtures resulted very accurate locations of these holders and hinges.

References

- [1]. We have taken company standard dimensions as the reference for the designing of the fixtures which are maintained by them to manufacture their products.

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