

Welding of Gapura from Iron

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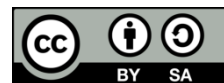
KKN

Welding

ABSTRACT

The manufacture of a welcome iron arch using a type of light iron iron with a thickness of each is for a 1.2 cm support pole and for its top 0.8 cm. The creation of the gate aims as the identity of the place name. In the selection of gapura raw materials using swot data method, the results of the analysis obtained raw materials meet the criteria of use and affordable. The use of paint is agreed to avoid corrosion in light iron due to water. Hopefully the welcome iron gap can last a long time and benefit the surrounding community.

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INTRODUCTION

Background

Real Work Lecture (KKN) is a form of student service to the community, in order to apply the knowledge received in lectures. KKN can be said as a forum for lectures that no longer prioritizes theory, but prioritizes practice in overcoming problems in society.

With this KKN program, students are expected to be able to provide knowledge that has been obtained in lectures, so that they can make a positive contribution in the form of energy, thoughts and knowledge in implementation of community activities. As well as a way to improve people's welfare through empowerment. Another experience gained by students is when facing life the actual community, understand the varied mindset of the community, for students of KKN activities is an appropriate means for self-development and improvement of life skills as prospective educators. As a community service activity through Real Work Lectures (KKN) students practice science, technology, art, religion to solve these problems and tackle them pragmatically. or it can be said that Real Work Lectures help in building society.

In the framework of Real Work Lectures and Community Empowerment by Ibn Khaldun University Students there will be construction of the Gate of Sukaharja Village, which is located in Sukaharja village KP Pasir Peundeuy RW 04 RT 02 Kec. Ciomas Kab. Bogor The gate is an important infrastructure and should be owned by every dusun or village. Which is the gate for each hamlet or village and also as a boundary marker.

Aim

1. The purpose of this activity is to increase student empathy and concern
2. Implementing science and technology in a team work and interdisciplinary manner
3. Instilling personal values, tenacity, work ethic and responsibility for independent leadership and entrepreneurship,
4. Instilling a research spirit from an early age is exploratory and analytical to encourage learning communities and learning societies

Benefit

Instilling a research spirit from an early age is exploratory and analytical to encourage learning communities and learning societies. National contribution through activities that can solve problems in society.

IMPLEMENTATION METHOD

The activity of making this iron gate is carried out for seven days in stages in its work, the first day is discussion and analysis of the place where the gate will be installed, the second day is purchasing materials or materials for making the gate, the third day is the process of measuring and cutting iron for the construction of the gate, the third day the fourth is the welding and caulking process, the fifth day is painting the gate construction, the sixth day is making mal letters for the gate name plate and painting the name plate, for the seventh day is installing the gate in a predetermined location.

Working Flow

1. Prepare Tools and Materials The first thing that must be prepared is all the tools and materials needed for welding this gate, including:
 - 2mm x 300mm electrodes
 - Welding machine
 - Coarse Sandpaper
2. Arrange the Hollow iron that has been cut to form a gate, then weld the ends of the iron so that it sticks first.
3. Then weld all the iron to form a gate, then clean the remaining welding crust.
4. Sand the used sandpaper using coarse sandpaper until it looks neat for the caulking process to then be carried out.

RESULTS AND DISCUSSION

In painting required tools and materials as well as the process, namely:

1. Elektroda 2mm x 300mm
2. Welding machine

Welding of hollow iron is carried out using a welding machine and electrodes with a size of 2mm x 300mm because the dimensions of the hollow iron are not that large with a width of 4 cm and a length of 3.5 meters, so it will be more effective to use electrodes ukuran 2mm x 300mm

3. Coarse sandpaper

Pig iron has the function of flattening or smoothing marks or results of pressing.

Table 1. Prices of Painting Materials and Tools

Name of goods	Amount	Price
Electrodes 2mm x 300mm	1kg	Rp 39.500
Coarse sandpaper	1 Meter	Rp 10.000
	Total	Rp 49.500

CONCLUSION

The success of a welding job as a whole from the results of observations in the field cannot be separated from several factors, namely:

- Good planning
- Selection of the right electrode
- Determine the welding machine voltage that will be used appropriately
- Welding method
- Environmental conditions (weather, cleanliness)
- Staff who are experts in their field

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