

The Muscles_Beer Guide to War Base Design Version 1.0

Step 1. Core Design

First things first, we have to design the core of the base. The core should be as small as possible. For TH7s and TH8s, I would suggest including the town hall, clan castle and barb king. For TH9s, I recommend the town hall, clan castle, and both x-bows. TH9s may also replace the x-bows with heroes as long as the x-bows are just outside the core, however I do not recommend this because of problems I will address later (**Figure 1**). The core should be boxed in by walls.



Figure 1: Example of the recommended core compartment. (left) TH8 and (right) TH9.

The reasoning behind a small core is simple. There is no way to path wall breakers that far into the base, and while enemy units are breaking through the walls of the core, they are being targeted by most of the base's defenses. The highest level walls possible should be used for the core.

Some people like putting teslas in the core. I strongly disagree with this strategy. To me it's a waste because if the enemy makes it to the core, his units will most likely be either under a heal or rage spell, in which case they will destroy everything in the core with ease. My belief is that if the enemy makes it into the core, you might as well cut your losses and do everything you can to prevent the 3 star. At this point, it's nice to have the teslas still alive.

Step 2. The second layer

The second layer of defenses, or the layer outside the core, will consist of teslas, air defenses, air sweeper, mortars, cannons, and for TH9s, heroes (**Figure 2**). The teslas should all be covering the town hall (but not in the core). In the event that the enemy rushes the middle during a ground attack with say, a jump spell or skillful wall breaker deployment, the teslas will punish the enemy troops and make it extremely difficult to 3 star or even 2 star.



Figure 2: Example of a good second layer. (left) TH8 (right) TH9.

The AD's should be spaced evenly to cover as much of the base as possible. They should also be spaced so that they cover each other. This becomes important when defending against lava hounds. The air sweeper should be carefully placed so that it is covering all of the AD's. AD placement is the most important aspect of TH8 war base design, because 90% of the time as a TH8 you will be attacked by dragons. For TH8s, I suggest using Dark light's air defense setup from one of our previous wars (**Figure 3**). The square formation he has is just about perfect with all the air defenses overlapping each other and the sweeper protecting them all. Although I disagree with his compartment design which I'll address later, he defended us at least 4 times against air attacks and not a single one was a 3 star. Pretty impressive if you ask me.



Figure 3: Dark light's base, which demonstrates ideal AD configuration.

The Mortars are less important and are one of the less helpful defenses, but to maximize their value I believe they should be covering the most likely entry points for GoWiPe attacks so that they can at least put some damage on the wizards.

For TH9s, the trickiest part of base design is hero placement, specifically, the queen. The heroes should be as deep into the base as possible. It follows the same logic as the cc. The deeper they are, the harder they are to pull. If they don't get pulled, enemy units will be more spread out when they reach them. Against more experienced clans, it becomes important to not place the queen anywhere near the air defenses. The enemy will go to great lengths to kill the queen prior to sending in the air units, and if they can take out an air defense while killing the queen. It is bad news for you. This is why it becomes very tricky to put the queen inside the core. The AD's are

very likely to be located right outside the core so this becomes an issue. However I have seen it done effectively before. Also, most attacks heal/rage inside the core so the queen becomes useless there.

The second layer is the best place to put double giant bombs. It is far enough inside the base that opponents can't simply send a couple hogs in to defuse them. I also like to put skeleton traps and spring traps here too. Another trick I like is to leave four empty spaces next to the teslas so that it looks like a double giant bomb. All of these defenses and traps need to be strategically placed in compartments in order to maximize their value. To do this, I will now address grouping.

Grouping

The concept of grouping isn't that hard to understand. However, poor grouping is one of the biggest mistakes I see in a lot of bases. Grouping is isolating defenses into walled compartments. Ideally, I believe 2-3 defenses per compartment is the right number. It is almost never a good idea, especially in the second layer, to only put 1 defense in a compartment. To justify this we will look at Dark light's base again (**Figure 3**). Notice how his AD's are all in their own compartments. Ask yourself, how is that advantageous? If ground units were to break through those walls into the AD compartments, they obviously wouldn't be attacking with air units. So what did the defender gain by investing walls into AD protection? Nothing. This is a waste of walls, which you paid through the teeth to upgrade, and is a classic example of **not maximizing value**.

So now that we've addressed the problem, let's try to correct it. First we will separate defensive buildings into three different classes. Teslas, archer towers, cannons, and x-bows we will call single target. Wizard towers and mortars we will call splash. And air defense and sweeper we will call air. There are some exceptions of course such as teslas and archers could be considered air and single target. There is also the question of where heroes fit in to this picture. However for now we will keep it simple.

Single target defenses in my opinion are the most useful because they are the ones that take down ground attack tanks such as golems and pekkas. Splash defenses I believe are the least important. They are useful for protecting loot in matchmaking but honestly don't have that much application in war defense. Air defenses are obviously important because they stop air units. As I mentioned earlier, I have found through testing that 2-3 defenses per compartment is ideal.

Grouping is deciding which 2-3 defenses you chose to put in a compartment. The general rule of thumb is to never put 2 or more defenses of the same class in a single compartment. So never put more than 1 tesla in the same compartment. Never put a tesla and cannon in the same compartment. Never put a wizard tower and mortar in the same compartment. And NEVER put more than 1 air defense in the same compartment. X-bows are the only exception. If the reasoning behind this doesn't make sense right away, I will elaborate.

To explore this idea of grouping we will study the most generic attack possible: GoWiPe. The attack fails when the meat shields die and there is nothing left to tank for the wizards. But what defenses do the most damage to golems and pekkas? Single target defenses obviously, emphasis on TESLAS. As the units make their way from compartment to compartment, all the while

taking out defenses and taking damage, their success teeters on whether or not they can kill enough single target defenses fast enough. They will spend a certain amount of time breaking into each compartment. If they break into a compartment and kill more than 1 single target defense, it's to their advantage. If they break in, kill 1 single target defense and then waste time killing a useless wizard tower and air defense, all the while taking damage from surrounding compartments, then that is to your advantage. That is how you maximize the value of each defense and your walls.

At this point some people might be wondering: wouldn't putting individual defenses in their own compartments maximize their value since ground units have to break into each one? The short answer is no. Firstly, you don't have enough walls to do that and you will end up having unprotected defenses outside the base, and that is not maximizing value. Secondly, there are more attack strategies than just GoWiPe. Putting defenses in their own compartments tends to make your base very compact, which makes you very weak to every other attack strategy, most notably dragons at TH8, lavaloon at TH9, and hog riders at any TH. Thirdly, jump spells do exist. Do not fall into this common misconception.

Figures 2 and 4 illustrate the correct way to group compartments. **Figure 3** illustrates a very awful way to group. It is my belief that if every war base was correctly grouped, GoWiPe would be at best a 2 star strategy.

Step 3: The Outside Layers.

At TH8 and TH9, if you are correctly grouping your defenses outside the core, you probably will only have enough walls and defenses left to do a third layer. The third layer should consist of most of your single target defenses. Since every ground attack barring hog riders revolves around rushing the core, it makes sense to keep your most effective defenses around the outside. This is because A.) if properly spaced, all the single target defenses can target units at the core, utilizing team work to kill enemy units, which maximizes their value, and B.) they won't get killed when enemy units rush the core and are most likely under heal/rage spells, thus helping you prevent the three star.

Group your outside layers with cannons closer to the core and archers further away, since cannons have slightly more health and archer towers have slightly longer range. You will usually want to group cannons and archer towers with wizard towers. I highly suggest placing the wizard towers in compartments adjacent to giant bombs for self-explanatory reasons. At TH9, you will likely have enough walls to place some of the furthest away single target defenses in their own compartments. In this situation, it is okay to do so because the number of single target defenses greatly outnumbers the number of splash. And you definitely don't want to have any air defenses that far away from the core. Spring traps work the best in the outside layers because that is when enemy units are the most likely to still be grouped up. This is irrelevant in GoWiPe but comes into play more when being attacked by hog riders. The proper grouping of outside compartments can be seen in **Figure 4**.



Figure 4: Example of proper grouping and outside layers.

At TH8, there was a strategy I often used in war to prevent getting 3 starred by dragons. Following the release of the air sweeper, you can force which direction your opponent enters in from. If you have your AD's/sweeper set up in the recommended square formation, they pretty much have to come from the direction opposite of the sweeper. This kind of attack is shown in **Figure 5**, where the red arrows indicate the path of the dragons. They must come from the south because the sweeper is aimed north. Since this is the case, I put most of my archer towers and teslas on the northern half of the base. If they lightning the northern AD, which would be the best strategy for this example base, there is probably no stopping them from getting the 2 star. There is really no such thing as a TH8 base that can prevent a 2 star dragon attack. After the dragons kill the AD's and the TH however, they will be weak, and they will split up. In this situation, the teslas and archer towers can actually do a lot of damage and will prevent the 3 star. If some of the archer towers were to be placed in the southern half of the base, they would be useless because the dragons would be grouped and would annihilate them.



Figure 5: Example TH8 anti-dragon strategy with archer towers and teslas on the opposite side of air sweeper

After you have placed all of your defenses in walled compartments, finish your base off by placing all the other buildings around the outside as close to the base as possible. Try to make it so the archers are covering all the buildings. This makes it very hard to pull the cc troops out of the castle. For this reason, I strongly recommend not putting builder huts in the corners. A smart player will just drop an archer at each one and it will give them a building to camp an archer at to lure the cc troops all the way outside of the base. On a very rare occasion, you may have the space to put a gold storage or barracks in a compartment. I do not recommend this however because it does not help you maximize the value of your walls.

It is important to realize that it is next to impossible to design a base that includes all of the qualities we've talked about. Every base has its flaws. For example the base shown in figure 4 has the king in the outermost layer and the core is out of the range of some of the outside archer towers. There is no such thing as an unbeatable base. However maybe someday with a little intuition someone will figure it out. It is through trial and error, and careful examination of failures that we improve and grow in skill as a clan.

Concluding Thoughts

An entire clan with properly designed war bases is very hard to defeat. Even if the defenses are low level. Proper base design is just as if not more important than upgrading defenses. However, there are some defenses you definitely should upgrade before others. Also, the level of your defenses is what dictates your rank on the war map and is **involved in the Clan Wars opponent selection process**. Obviously, the matchmaking formula tries to match clans as fairly and equally as possible. It takes into account the levels of every defense (and TH) of every clan member involved. It should go without saying that because of this, it is disadvantageous to the clan for people to rush town halls. It is less known however that it is to the clan's advantage to **not upgrade certain defenses**. Mortars and wizard towers for example, as we discussed earlier, play hardly any role in the outcome of a battle. Therefore, you leveling them up ranks you higher on the clan map and pits you against harder opponents, while not really helping you defend against them. It is for this reason that I advise everyone to upgrade mortars and wizard towers last. For TH9's, it is a known fact that upgrading x-bows influences your rank more than any other defense. There are a couple of examples of this in our clan. While x-bows are a powerful defense, the benefits of upgrading them do not outweigh the consequence of increasing your rank. Therefore, I strongly advise you to also upgrade x-bows last. Walls and heroes on the other hand have very little impact on your rank and the matching system so it is very advantageous to upgrade them frequently. And since we can hopefully all agree that single target defenses are the most useful against ground, it should go without saying that you should upgrade them. Most importantly, especially for TH8's, upgrade your air defenses. At TH8, AD's are by far the most important defense. As previously stated, 90% of your defenses will be against dragons. Against experienced clans, TH9's who do not upgrade their air defenses will be punished by lavaloon. So definitely upgrade air defenses. Lastly, the level of your troops has very little impact on your rank or the matching system so it is to your advantage to always have your lab running.

The last thing I want to talk about is x-bows. I usually check the profiles of my likely attackers during preparation day. If they have highly upgraded lavaloon and mediocre ground troops, I will set them to ground and air. If they have highly upgraded ground and/or have not unlocked lava

hounds, I will set them to ground only. You can usually design your base so that it forces them to attack you with ground. And I advise doing so because the extra range the x-bows gain in ground mode is huge. That being said I've had them in ground every war so far.

Base Design Checklist

- Is your core as small as possible with the appropriate buildings within?
- Are your teslas covering the core?
- Are your air defenses/sweeper properly spaced around the core with proper coverage of each other?
- Are your heroes as deep inside the base as possible?
- Is your queen far away from the nearest air defense?
- Do you have at least 1 double giant bomb spot outside the core?
- (optional) do you have any decoy double giant bomb spots?
- Are all your compartments properly grouped with the appropriate number of defenses in each one?
- Are all your defenses in the right locations? I.e. are your single targets mostly away from the core?
- Do your single target defenses mostly cover the core?
- Are your wizard towers adjacent to giant bomb compartments?
- Are your cannons more inwards than your archer towers?
- Are your non-defense buildings tightly packed around the outside of the base?
- Is your clan castle hard to pull and lure?
- Are your x-bows in the correct setting?
- Have you maximized the value of each and every one of your walls and defenses?