Despite the effort in the field of artificial intelligence for real time strategy games, computer controlled agents (bots) still struggle even against average human players. One of the keys to success in such games is the ability to take advantage of various tactical points on the map, like chokepoints — narrow passages connecting open areas. With the use of genetic algorithms and SparCraft, a simplified simulator of StarCraft: Brood War, we present a method to generate advantageous unit layouts for defending chokepoints. Our experiments show that layouts produced using our method perform significantly better than random layouts, and are comparable in quality with layouts traditionally employed by human players. Our method may also be used to generate a database of advantageous unit layouts, which could be incorporated into an existing StarCraft: Brood War bot.