The softness is one factor that carries the most influence on the palatability of meat. The Warner-Bratzler device is the most used in measurement of meat tenderness, however there are certainly more modern equipment which can be used for this purpose. The aim of this work was to correlate results of evaluation of the softness of six commercial cuts (Sirloin Steak, sirloin tri tip roast, eye round, tenderloin, rumpsteak and pork loin) obtained from Warner-Bratzler conventional and from a texturometer with 1 and 3 mm thick blades. It was analyzed the shear strength of the cuts and images from the microstructure were collected using scanning electron microscopy. The highest averages were obtained by texturometer with 3 mm blades, followed by Warner-Bratzler and the texturometer with 1 mm blades. The rumpsteak presented higher values in all equipments, which can be explained by the factor that the meat is very tender and during testing have been a great compression prior to shear, requiring greater force for the breakup. The same behavior can be observed with the filet mignon, which also had high scores. The sirloin steak presented average, standard deviations and coefficient of variation very close, which highlights a good correction between the equipments for this cutting. The pork loin had higher coefficients of variation, while the eye round showed the lowest. With the electron microscopy it was observed that the equipments caused different cutting behaviors, like fibers irregular breaking, stretching and kneading, which probably influenced in variations of the means.