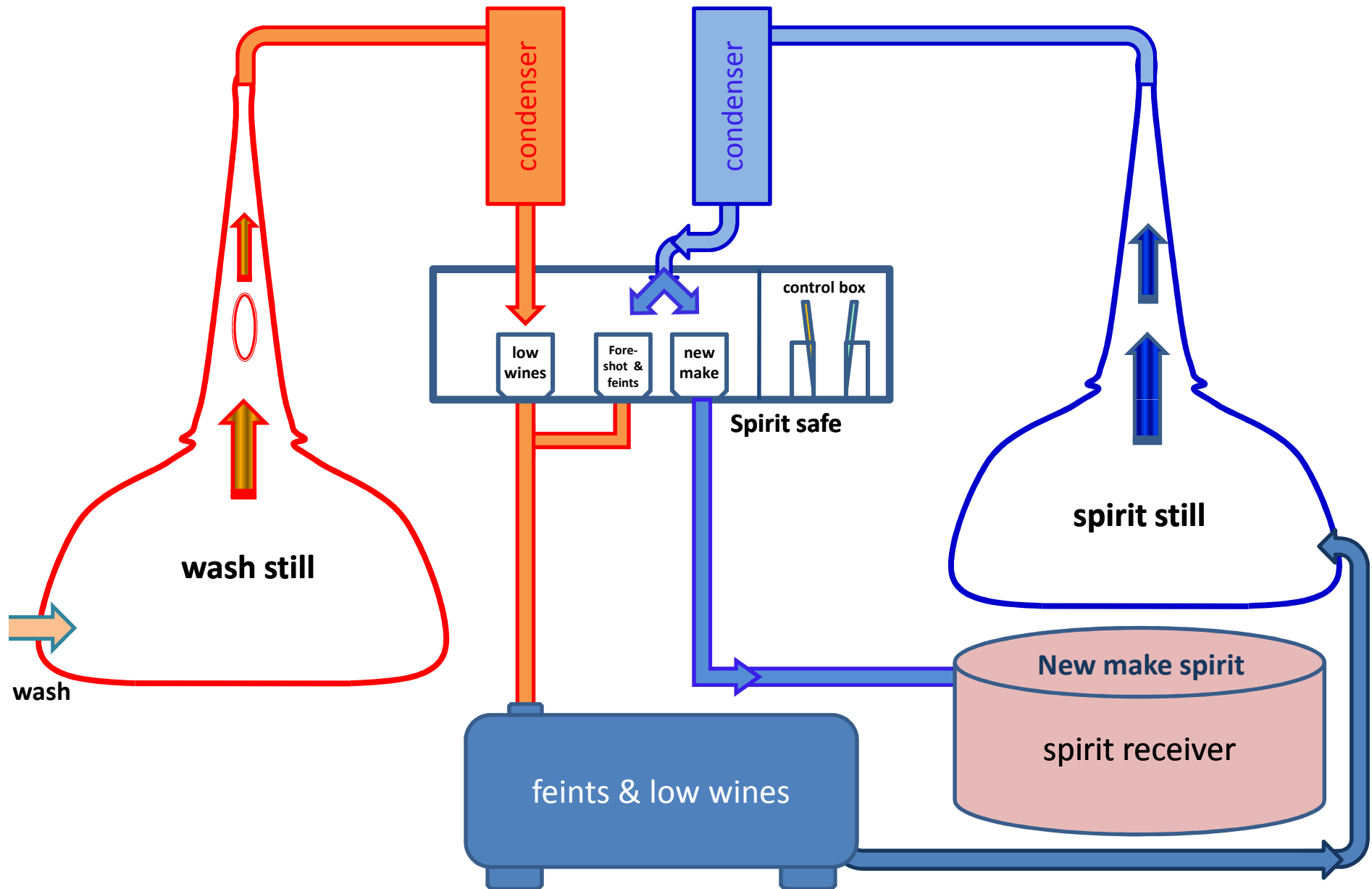


# Distillation Diagram



# The Distillation

**The distillation process** in the „pot stills“ of the Scotch whisky distilleries is not a simple one to understand, and many manual, technical, and chemical abilities as well as a lot of experience and practise are necessary to conduct a proper distillation.

The “Wash” from the wash back is pumped into the first (larger) of the two stills (wash still). The stills are heated indirectly with vapour or gas. When the wash reaches the boiling point of the alcohol, the alcohol volatilises and escapes through the neck. The distillate is then led through a condenser thus being reliquefied. After that, the raw spirit is checked for purity and temperature in the spirit safe and temporarily collected in a tank. At this point in the process, the spirits are called “low wines” and have a alcohol strength of about 20 per cent. The next step is the second distillation in the smaller spirit still. Again, the wash is heated, and after volatilising, the alcohol is led into the spirit safe via a condenser. Now the distillate (new-make spirit) is continuously analysed for alcohol strength, temperature, and purity. From this data, the distillers draw conclusions concerning the distillates consistence. Unfortunately, the result of the second distillation is not free of unwanted fusel alcohols and methanol. These have to be separated as only the “middle cut” - the heart of the distillation – can be used for a later maturation. The substances mentioned above would only cause bad headache and impaired eyesight. The premature foreshot and the weak feints are led back into a recuperation tank, mixed with the low wines and used again for the second distillation process.

**Now, we concentrate on the exact events in the spirit safe after the second distillation process:**

As the whole distillation process always has to run through completely, we initially await the watery foreshots, which includes impure esters, aldehyde, and also methyl alcohol and has an alcohol strength of 20 to 55 per cent. At first, the foreshots is turbid, but eventually it becomes clear and does no longer contain unwanted substances. An indication for the end of the foreshots is when the movable cover at the tap does not show any more movements resulting from the volatile substances. That is the right time to switch the tap to filling the spirit receiver. Now, the heart of the distillation, which is called middle cut and has an alcohol strength of 65 to 78 per cent, runs through the spirit safe. The new-make spirit is crystal clear and tastes raw, metallic, and unbalanced. Just with the maturation in an oak cask, the “baby whisky” becomes a whisky. The feints, which are led back into a tank by once again switching the tap, are mainly characterized by fusel oils as well as unpleasant odorous or gustatory substances. The feints have an alcohol strength of 15 to 30 per cent. The content of the spirit receiver (the product of several runs) is then cooled down to the ideal filling temperature for the cask filling with clear spring water. After having passed the spirit safe, the distillate falls within the area of responsibility of the custom officials.