

[ABSTRACT]

NOX REMOVAL DEVICE

A NOx removal device (10) includes: an ammonia injection part (11) configured to inject ammonia to the flue gas flowing through a duct (3); a mixer (12) provided downstream of the ammonia injection part (11) and configured to mix the flue gas and ammonia; and a NOx removal catalyst (13) provided downstream of the mixer (12) and over the entire region of a flow path cross section of the duct (3) and configured to provide a resistance against a flow of a mixture fluid in which the flue gas and the reducing agent are mixed. The ammonia injection part (11) has an ammonia pipe (11a) and injecting nozzles (11b) provided in the ammonia pipe (11a) and configured to inject ammonia into the duct (3). The distance A from the ammonia injection part (11) to the mixer (12) is 10 times or greater and 30 times or less the outer diameter d of the ammonia pipe (11a). The distance B from the mixer (12) to the NOx removal catalyst (13) is longer than the distance A from the ammonia injection part (11) to the mixer (12).

[FIG. 2]