Momentum Cleaning in the LHC, M. CRADDOCK, D. KALTCHEV, and R. SERVRANCKX, TRIUMF; T. RISSELADA, CERN - The collimation insertions IR7 and IR3 of the LHC machine are used for betatron and momentum cleaning respectively. The latter system must leave the nominal circulating beam unperturbed but be able to intercept off-momentum particles with momentum values close to the top or bottom of the rf bucket. This requires normalized dispersion values at least as large as in the arcs, and these can be obtained with the proposed insertion layout. The performance of the collimator configuration, as measured by the amplitude of the secondary halo, depends on the momentum error. The jaw locations can be numerically optimized to reduce this amplitude particularly for particles outside the bucket.