On integral models of algebraic tori and affine toric varieties

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It is a report on our joint work with B. É. Kunyavskii. Let T be an algebraic torus defined over a number field k with ring of integers $\mathfrak{o}$. In a joint work with V.E. Voskresenskii we have defined an $\mathfrak{o}$-integral model of T, called the standard model (cf. St. Petersburg Math. Journal, 14 (2003), 99-105). One of the goals of the present work is to simplify that construction. Our second goal is to investigate the integral models of affine T-toric varieties, used in my early works on integer points of those varieties and studied in our previous paper (see Proc. of the St. Petersburg Math. Society, 7 (1999), 116-123).