Every skew effect algebra can be extended into a total algebra

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Skew effect algebras were already introduced as a non-associative modification of the so-called effect algebras which serve as an algebraic axiomatization of the propositional logic of quantum mechanics. Since skew effect algebras have a partial binary operation, we search for an algebra with a total binary operation which extends a given skew effect algebra and such that the underlying posets coincide. It turns out that the suitable candidate is a skew basic algebra. Algebraic properties of skew basic algebras are described and they are compared with the so-called pseudo basic algebras introduced by the authors recently.