This paper deals with calculations of the shear capacity of precast, prestressed hollow core slabs. Such slabs are often used as floor systems in building structures. A common way to produce hollow core slabs is to use the extrusion technique where long strips of slabs are extruded and thereafter saw-cut into units with the desirable length. For this reason, hollow core slabs are usually not shear reinforced and anchorage of the prestressing strands has to be established by bond. Hollow core slabs may therefore be more critical to shear and anchorage failure than ordinary two-way spanning reinforced concrete slabs.