

When a sling is rigged as a basket, the diameter of the bend where the sling contacts the load can affect the sling’s lifting capacity. How much the lifting capacity is affected can be calculated by dividing the diameter of the bend where the rope contacts the load (represented by “D”) by the diameter of the rope or the component rope diameter in a multi-part sling (represented by “d”).

For example, if the diameter of the bend (“D”) is 10 and the component rope diameter (“d”) is 1/2, the D/d ratio is $10 \div 1/2$ or 20.

When using D/d ratios that are smaller than those shown in the table below, the rated capacity of the sling must be decreased.

Standard D/d ratios are applied to determine efficiency of various sling constructions

Mechanically spliced, single-part slings	25 times rope diameter
Hand-spliced, single-part slings	15 times rope diameter
Braided multi-part slings of 3 parts	10 times component rope diameter
Braided multi-part slings of 6 parts	25 times component rope diameter
Braided multi-part slings of 8 parts	25 times component rope diameter
Braided multi-part slings of 9 parts	20 times component rope diameter
Mechanically spliced grommets	5 times sling body diameter

**REDUCTION
IN EFFICIENCY**
of wire rope when bent
over pins of various sizes

