

ROPE

The primary safety device for any sort of climbing and rappelling.

- Climbing rope (8-12 mm diameter)
- Rappelling rope (8-9 mm diameter)

Now a days for climbing and rappelling 8 mm and 9 mm diameter rope is widely used.

Type of ropes are

- Howser laid - Howserlaid rope (PP Rope) is mostly used for fixed rope.
- Kernmantle - Kernmantle rope is most used both in climbing & rappelling. Normal length varies from 40-50 meter and having a breaking strength is about 16-20 Kn.

Dynamic rope

Designed to stretch and absorb the impact of a falling climber, dynamic ropes are used for activities that involve a risk of falling, such as rock climbing, ice climbing, and mountaineering. Dynamic ropes can stretch up to 40%.

Static rope

Designed to stretch minimally, static ropes are used for activities that require more controlled ascents and descents, such as lowering an injured climber, ascending a rope, or hauling a load up. Static ropes typically stretch less than 5%.

ROPE KNOTS

For several necessity climbers often using several rope knots, which are as follows:

Direct Rope up Knot:

- Guide man Knot or Endman Knot
- Bowline knot
- Middleman knot

Rope Joining Knot

- Reef knot and Fisherman knot (For equal diameter of 2 rope)
- Sheet bend knot (For unequal diameter of 2 rope)

Anchoring knot

- Clove Hitch
- Running Bowline

Prusik Hitch (Friction Hitch) – Instead of Jumar – we can use it.

Universal Knot: Figure of '8' knot – Can be used for all purpose. We are emphasizing only the above rope knots which is necessary for basic rock climbing for a beginner.