CLAIMS

What is claimed is:

1. A riser protection structure being suitable to be employed in a Jackup rig, said riser protection structure comprising:

a plurality of piles;

an upper module, wherein the upper module comprises a main protection tubing for receiving a riser, a plurality of sleeves to be installed over the plurality of piles, and a connecting network; wherein the plurality of sleeves are disposed around the main protection tubing; and wherein the main protection tubing and the plurality of sleeves are connected together by the connecting network; and

a lower module, wherein the lower module comprises a plurality of tubular guides for guiding and later fixing the piles and a connecting structure;

where the plurality of piles are securely disposed into the seabed for providing the requisite support for the upper and lower modules when they are assembled.

2. The riser protection structure of claim 1, wherein the plurality of piles have a cylindrical configuration.

3. The riser protection structure of claim 1, wherein the plurality of piles are 3 or more.

4. The riser protection structure of claim 1, wherein the connecting network of the upper module is a truss structure or a plated structure.

5. The riser protection structure of claim 1, wherein the top of the sleeves is partially or completely closed so as to allow the sleeves to sit on the top of the piles.

6. The riser protection structure of claim 1, wherein each of the piles comprises a support structure fixed to the piles onto which the upper module is supported.

7. The riser protection structure of claim 1, wherein the connecting structure of the lower module is a truss structure or a plated structure.

8. The riser protection structure of claim 1, further comprising a bracing structure fixed to a Jackup deck in order to provide additional strength and stiffness to the riser protection structure.

What is claimed is:

1. A jackup rig, comprising:

a plurality of legs;

a jackup deck being supported by the plurality of legs; and

a riser protection structure comprising:

a plurality of piles;

an upper module removably and slidably disposed onto the plurality of the plurality of piles, wherein the upper module comprises a main protection tubing for receiving a riser, a plurality of sleeves to be installed over the plurality of piles, and a connecting network; wherein the plurality of sleeves are disposed around the main protection tubing; wherein the main protection tubing and the plurality of sleeves are connected together by the connecting network, and wherein the upper module provides no support to the jackup deck and can be removed from the plurality of piles when the jackup rig is in its assembled state; and

a lower module, wherein the lower module comprises a plurality of tubular guides for guiding and later fixing the piles and a connecting structure connecting the plurality of tubular guides together;

where the plurality of piles are securely disposed into the seabed for providing the requisite support for the upper and lower modules when they are assembled.

2. The jackup rig of claim 1, wherein the plurality of piles have a cylindrical configuration.

3. The jackup rig of claim 1, wherein the plurality of piles are 3 or more.

4. The jackup rig of claim 1, wherein the connecting network of the upper module is a truss structure or a plated structure.

5. The jackup rig of claim 1, wherein the top of the sleeves is partially or completely closed so as to allow the sleeves to sit on the top of the piles.

6. The jackup rig of claim 1, wherein each of the piles comprises a support structure fixed to the piles onto which the upper module is supported.

7. The jackup rig of claim 1, wherein the connecting structure of the lower module is a truss structure or a plated structure.

8. The jackup rig of claim 1, further comprising a bracing structure fixed to the jackup deck in order to provide additional strength and stiffness to the riser protection structure.