What is claimed is:

1. An alignment device for double-sided exposure, wherein the device comprises:

positioning signs, marking signs and a position acquisition device;

wherein the positioning signs are used for determining the positions of the marking signs in real time, so as to determine the position of an exposure pattern of a sample to be exposed according to the positions of the marking signs;

the marking signs are used for marking the sample to be exposed; and

the position acquisition device is used for acquiring the position information of the positioning signs in real time;

wherein the distance between the positioning signs and the marking signs is less than 20 mm and/or the positioning signs and the marking signs are connected by an anti-deformation material.

2. The device according to claim 1, wherein the relative position variation of the positioning signs and the marking signs is less than a predetermined value, and the predetermined value is set according to the alignment accuracy required when the sample to be exposed is subjected to double-sided exposure.

3. The device according to claim 1, wherein the device further comprises:

a sample carrier and a marking device, wherein the sample carrier is used for bearing the sample to be exposed, the marking device is used for marking the sample to be exposed through the marking signs, and

the marking signs are located on the sample carrier.

4. The device according to claim 3, wherein the marking signs are located on an edge of the sample carrier.

5. An alignment method for double-sided exposure, wherein the method is applied to the above alignment device for double-sided exposure, and the method comprises:

exposing one side of a sample to be exposed;

marking the other side of the sample to be exposed with marking signs;

acquiring the position information of positioning signs in real time;

determining the position information of the marking signs according to the position information of the positioning signs acquired in real time;

setting the the distance between the positioning signs and the marking signs to be less than 20 mm and/or connecting the positioning sign and the marking signs by an anti-deformation material;

conducting alignment exposure on the other side of the sample to be exposed according to the position information of the marking signs.

6. The method according to claim 5, wherein before exposing one side of the sample to be exposed, the method further comprises:

acquiring the position information of the positioning signs when exposing one side of the sample to be exposed in real time, and exposing an intermediate mark on one side of the sample to be exposed according to the acquired position information of the positioning signs, the intermediate mark being used for determining the position of an exposure pattern on the side where the intermediate mark is located.

7. The method according to claim 6, wherein before marking the other side of the sample to be exposed with the marking signs, the method further comprises:

selecting at least two marking signs according to the size of the sample to be exposed; and

covering the marking signs with the sample to be exposed without covering the positioning signs corresponding to the selected marking signs.

8. The method according to claim 7, wherein the alignment exposure of the other side of the sample to be exposed according to the position information of the marking signs comprises:

determining the position of an exposure pattern on the other side of the sample to be exposed in real time according to the position information of the marking signs; and

exposing the other side of the sample to be exposed according to the position of the exposure pattern on the other side of the sample to be exposed determined in real time.

9. Exposure equipment, wherein the exposure equipment comprises the alignment device for double-sided exposure according to any one of claims 1 to 4.