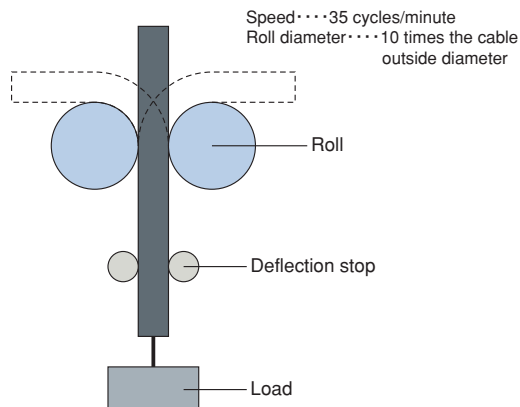


12. Bending durability test methods

Left/right bending test

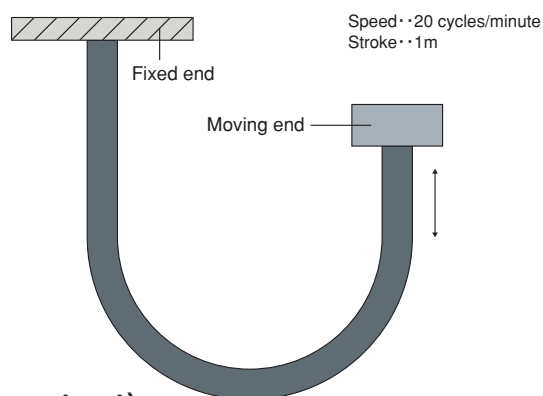
This test method is based on the test specified in the Electrical Appliance and Material Safety Law's attached table.

The procedure for the test is as follows. Take an approx. 2m specimen from the finished cable product and bend the specimen along the circular arc of the roll (whose diameter is about 10 times the outside diameter of the cable) by 90 degrees in one direction (left or right) and return it to the original vertical position before bending it by 90 degrees in the other direction and returning it to the original vertical position. With the above series of steps as one cycle, perform the test at a rate of about 35 cycles/minute.



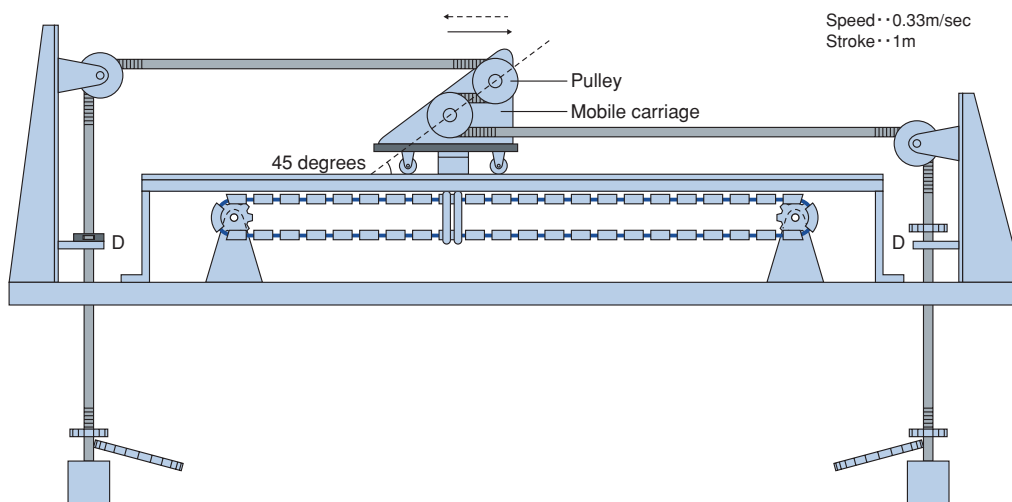
U-shape up/down resistance test

The procedure for the test is as follows. Take an approx. 3m specimen from the finished cable product and mount the specimen in the specified testing equipment so that it forms a U shape as shown in the figure. With the cable fixed at one end, move its other end "up/down" over a distance of 1m as one stroke at a rate of about 20 cycles/minute.



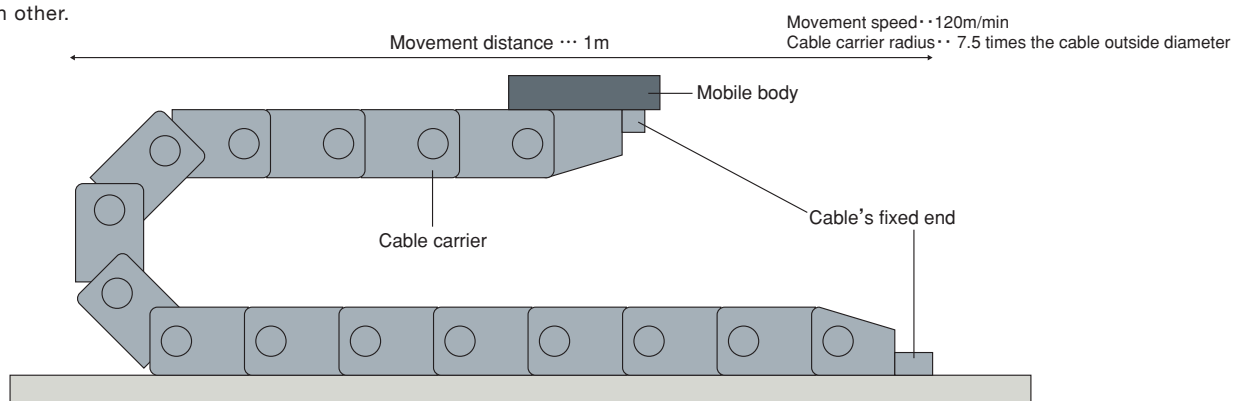
Flexing test (mobile bending resistance test)

This test method is based on the test specified in Electrical Appliance and Material Safety Law's attached table. The procedure for the test is as follows. Take an approx. 5m specimen from the finished cable product and pass the specimen over the two pulleys on the mobile carriage mounted in the testing equipment as shown in the figure (so that the pulley portions are horizontal) with a 1.5kg weight suspended on each end of the cable.



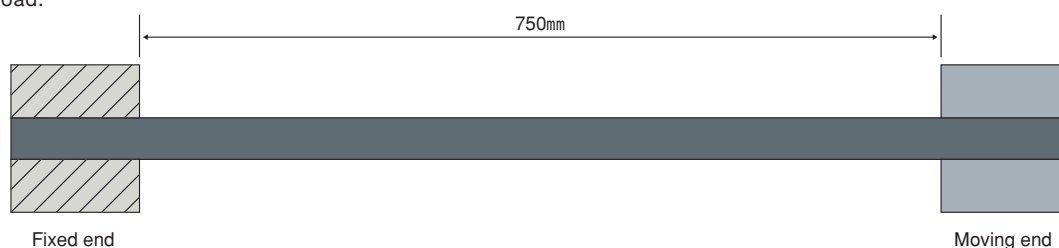
■ Cable carrier resistance test

The procedure for the test is as follows. Take an approx. 2m specimen from the finished cable product and mount the specimen in cable carrier, the radius of which is approximately 7.5 times the outside diameter of the cable and move it over a distance of 1m at a speed of approximately 120m/minute. During the test, make sure that the cables are sufficiently spaced apart to prevent them from interfering with each other.



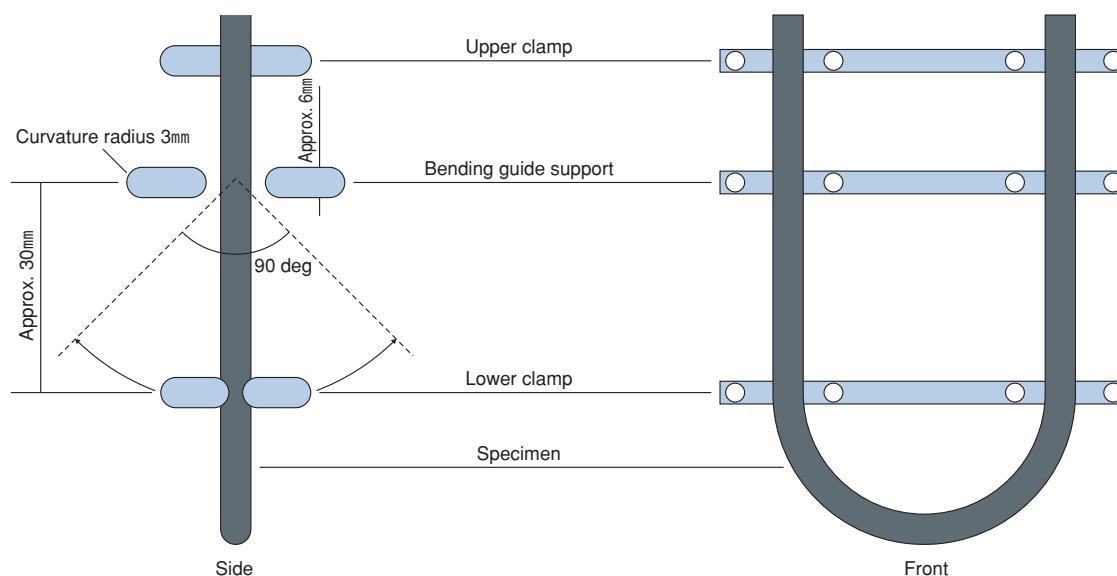
■ Torsion resistance test

The procedure for the test is as follows. Take an approx. 1m specimen from the finished cable product and fix the specimen at one end and twist its other end left/right by 180 degrees over a distance of 750mm as one cycle at a rate of approximately 60 cycles/minute with a load.



■ 45°Left/right vibration resistance test

The procedure for the test is as follows. Take a specimen of appropriate length from the finished cable product and bend the specimen into a U shape and mount it in the specified electric cord vibration tester, fixing it at both ends with the equipment's upper clamp, to bend it by swinging the equipment's lower clamp left/right each by 45 degrees with the equipment's bending guide support as a fulcrum for the bending. With the above series of steps as one cycle, perform the test at a rate of approximately 200 cycles/minute.



※Each bending test condition is an example.