

Estimating Film Lengths

When starting any film project, a question usually asked is, how much film do you have? Of course it's easy to count cans or rolls of film, but how much film is on each roll? Grab a ruler or yard stick, because it's actually pretty easy to estimate the running time.

First thing's first, what kind of film are we dealing with? You'll need to separate the reels into 35mm, 16mm and 8mm/Super 8 piles. How can you tell which is which? Look at the width. Remember that ruler I told you about - you'll need it here. 8mm and Super8 are, you guessed it, 8 millimeters wide. Don't have a metric ruler? No worries, that's about a .25 inch. 16mm is 16 millimeters wide, or just shy of .75 inch. And 35mm is 35 millimeters, or just under an inch and a half.

To get the total length of the film we are going to measure the diameter of the roll or reel. So find the widest part of the roll and use that for your measurement. If your film is on a reel, the film may not fill an entire reel, but by measuring the reel you can then estimate how full of the reel is. A 400 foot reel that's only half full? Estimate about 200 ft.

Now what's the running time of your film reel?

8mm:

The nice thing about 8mm is that it will ALMOST ALWAYS be on a reel. Not a core. That makes it easier when it comes to estimating the length because for 8mm there are roughly 3 "standard" sizes. 50 ft. (most common), 200 ft, and 400 ft reels. Grab that ruler! Please keep in mind most 8mm or Super8 film will run at 18fps.

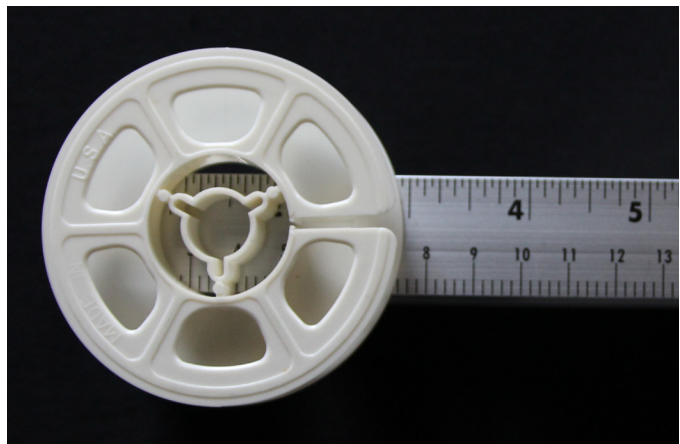
50 ft. reels.

3 inches diameter.

approx running time at 24 fps: 0:02:45

approx running time at 18 fps: 0:03:45

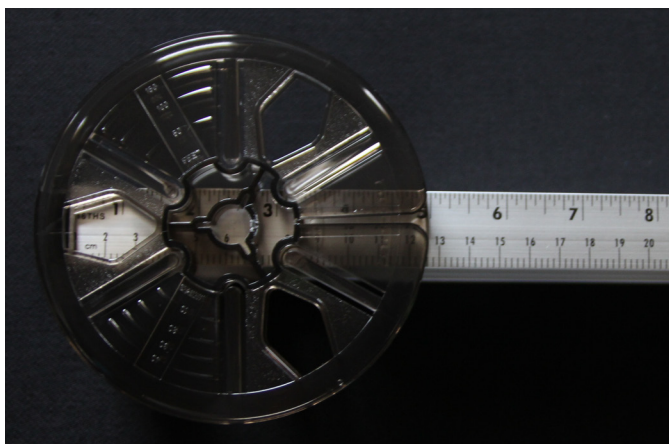
fps (frames per second)



50 ft. 8mm Reel

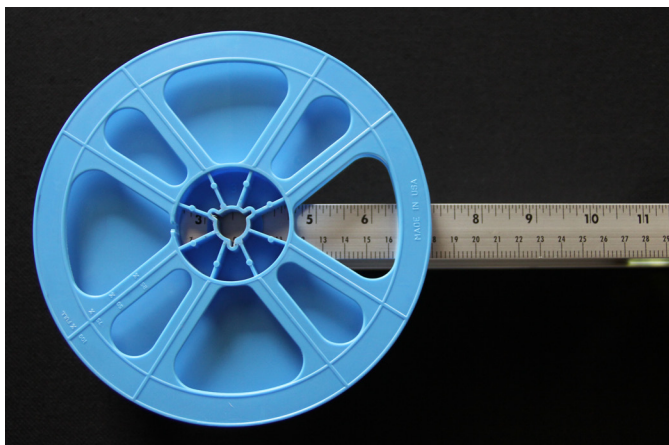


200 ft. reels.
5 inches diameter
approx running time at 24 fps: 0:11:00
approx running time at 18 fps: 0:15:00



200 ft. 8mm Reel

400 ft. reel
7 inches diameter
approx running time at 24 fps: 0:22:00
approx running time at 18 fps: 0:30:00



400 ft. 8mm Reel





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Now, 16mm and 35mm are a little more complicated. This is because the film can be on a core, on a reel, or nothing at all - that joyful occasion when you open a can and see that the film is just rolled tightly onto itself. But measuring the diameter gives you an estimate of the length and that can be enough to get pricing for transfer, inspection, etc. One nice thing about these two formats is that they are about the same thickness as each other - so a roll of either 16mm or 35mm is approximately the same footage. However, since 35mm is larger and has less frames per foot, the running time is different. One other thing to keep in mind is that 16mm and 35mm can have a variety of running speeds. An easy rule of thumb, if the film has a soundtrack, it will be 24 fps. If the film has no visible soundtrack - it could be 18 fps or 24fps.... or for that matter 12 fps, or 30 fps, or many other rates. But 18 and 24 are BY FAR the most common running speeds. For our purpose of estimating....shoot for one of these two.

50 ft. reel

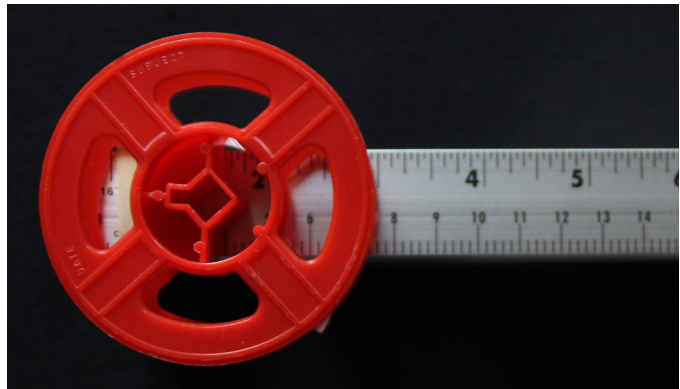
3 inches diameter

16mm: approx running time at 24 fps: 0:01:30

16mm: approx running time at 18 fps: 0:02:00

35mm: approx running time at 24 fps: 0:00:30

35mm: approx running time at 18 fps: 0:00:45



50 ft. 16mm Reel

100 ft. reel

Just under 4 inches diameter

16mm: approx running time at 24 fps: 0:02:45

16mm: approx running time at 18 fps: 0:03:45

35mm: approx running time at 24 fps: 0:01:00

35mm: approx running time at 18 fps: 0:01:30



100 ft. 16mm Reel

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400 ft. reel

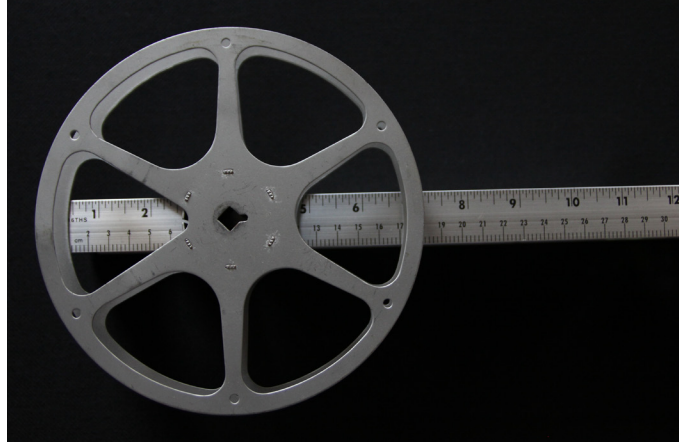
Just under 7 inches diameter

16mm: approx running time at 24 fps: 0:11:00

16mm: approx running time at 18 fps: 0:15:00

35mm: approx running time at 24 fps: 0:04:30

35mm: approx running time at 18 fps: 0:06:00



400 ft. 16mm Reel

800 ft. reel

Just under 10.5 inches diameter

16mm: approx running time at 24 fps: 0:22:00

16mm: approx running time at 18 fps: 0:30:00

35mm: approx running time at 24 fps: 0:09:00

35mm: approx running time at 18 fps: 0:12:00



800 ft. 16mm Reel

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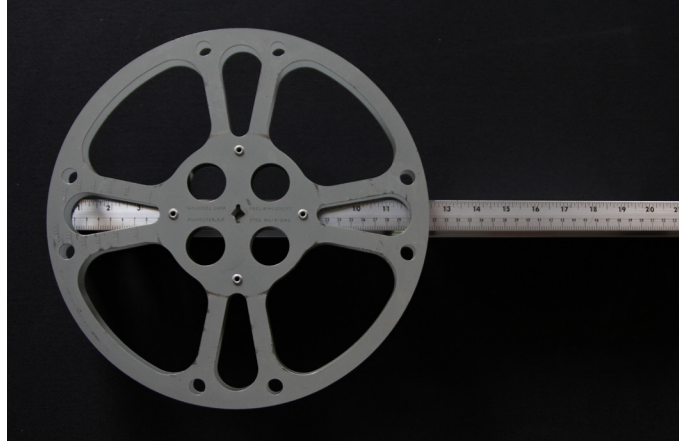




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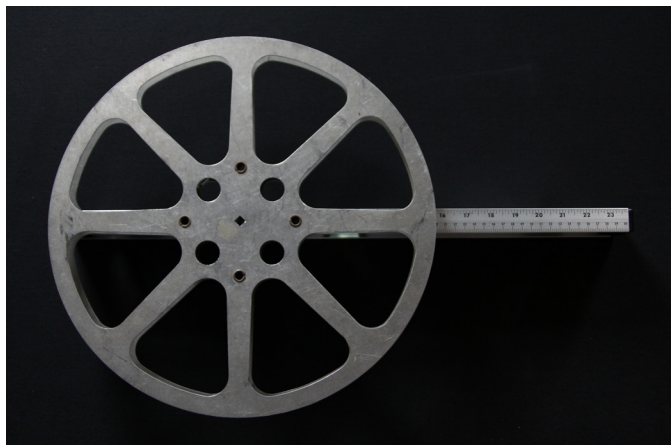
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1200 ft. reel
approx 12.5 inches diameter
16mm: approx running time at 24 fps: 0:33:00
16mm: approx running time at 18 fps: 0:45:00
35mm: approx running time at 24 fps: 0:13:00
35mm: approx running time at 18 fps: 0:18:00



1200 ft. 16mm Reel

2000 ft. reel
Just under 16 inches diameter
16mm: approx running time at 24 fps: 0:55:00
16mm: approx running time at 18 fps: 1:14:00
35mm: approx running time at 24 fps: 0:22:00
35mm: approx running time at 18 fps: 0:30:00



2000 ft. 16mm Reel

The above guide will give you an approximate running time of individual films, without the hassle or risk of having to wind through them by hand or play them back on a projector. In a perfect world every motion picture film would come with documented runtimes, but too often our world is anything but perfect. Having the ability to estimate the running times of your films is a valuable step towards better understanding your collection.

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