## Cell Yields and Recommended Medium Volume

| Corning® and Costar® Flasks | Approximate Growth Area ($cm^2$) | Average Cell Yield* | Recommended Medium Volume (mL) | Maximum Working Volume (mL)† |
|---|---|---|---|---|
| 25 $cm^2$ | 25 | $2.5 \times 10^6$ | 5 - 7.5 | 10 |
| 75 $cm^2$ Canted neck | 75 | $7.5 \times 10^6$ | 15 - 22.5 | 60 |
| 75 $cm^2$ Straight neck | 75 | $7.5 \times 10^6$ | 15 - 22.5 | 90 |
| 150 $cm^2$ | 150 | $1.5 \times 10^7$ | 30 - 45 | 210 |
| 162 $cm^2$ | 162 | $1.6 \times 10^7$ | 32 - 48 | 175 |
| 175 $cm^2$ | 175 | $1.75 \times 10^7$ | 35 - 52.5 | 250 |
| 225 $cm^2$ | 225 | $2.25 \times 10^7$ | 45 - 67.5 | 370 |

*Assumes an average yield of $1 \times 10^5$ cells/$cm^2$ from a 100% confluent culture. Yields from many cell types can be lower than this.
† Maximum working volume is the amount a flask can hold in the horizontal position when filled to the neck.

## Well Dimensions, Expected Cell Yields, and Recommended Medium Volumes

| | | Single Well Only | | | | Entire Plate | | |
|---|---|---|---|---|---|---|---|---|
| Costar Cell Culture Plates | Well Diameter (Bottom, mm) | Approx. Growth Area ($cm^2$) | Average Cell Yield* | Total Well Volume (mL) | Working Volume (mL) | Approx. Growth Area ($cm^2$) | Average Cell Yield* | Working Volume (mL) |
| 6 well | 34.8 | 9.5 | $9.5 \times 10^5$ | 16.8 | 1.9 - 2.9 | 57 | $5.7 \times 10^6$ | 11.4 - 17.1 |
| 12 well | 22.1 | 3.8 | $3.8 \times 10^5$ | 6.9 | 0.760 - 1.14 | 45.6 | $4.56 \times 10^6$ | 9.1 - 13.7 |
| 24 well | 15.6 | 1.9 | $1.9 \times 10^5$ | 3.4 | 0.380 - 0.570 | 45.6 | $4.56 \times 10^6$ | 9.1 - 13.7 |
| 48 well | 11 | 0.95 | $8.0 \times 10^4$ | 1.6 | 0.19 - 0.285 | 45.6 | $38.4 \times 10^6$ | 9.1 - 13.7 |

*Assumes an average yield of $1 \times 10^5$ cells/$cm^2$ from a 100% confluent culture. Yields from many cell types can be lower than this.

## Expected Cell Yields and Recommended Medium Volumes

| Corning Dishes | Approximate Growth Area ($cm^2$) | Average Cell Yield* | Recommended Medium Volume (mL)† |
|---|---|---|---|
| 35 mm | 8 | $8.0 \times 10^5$ | 1.6 - 2.4 |
| 60 mm | 21 | $2.1 \times 10^6$ | 4.2 - 6.3 |
| 100 mm | 55 | $5.5 \times 10^6$ | 11 - 16.5 |
| 150 mm | 148 | $1.48 \times 10^7$ | 30 - 45 |
| 245 mm (square) | 500 | $5.0 \times 10^7$ | 100 - 150 |

*Assumes an average yield of $1 \times 10^5$ cells/$cm^2$ from a 100% confluent culture.
†Yields from many cell types can be lower than this.