

# MECHANICAL SPECIFICATIONS

## TABLE OF CONTENTS

Deadlines..... 2  
ROP Mechanical Requirements..... 3  
Classified Mechanical Requirements ..... 4  
Preprinted Supplements Mechanical Requirements..... 5  
Preprint Requirements ..... 6  
Poly Bags Mechanical Requirements..... 7  
Print and Deliver Mechanical Requirements..... 8  
StarTribune.com Online  
Mechanical Requirements..... 9-15  
    General Requirements..... 9  
    HTML5 Specifications ..... 10  
    Standard Display Sizes ..... 11  
    Unique / Premium Desktop Display Ads ..... 12  
        Overlays..... 12  
        Desktop Skins..... 12  
        Desktop Hoverboard..... 12  
        Homepage Native Ad ..... 12  
        In-Banner Video ..... 12  
        Preroll ..... 12  
    Mobile Browser ..... 13  
    Newsreader App..... 13  
    Newsletters..... 13  
    Streaming Audio ..... 14  
    OTT/CTV Streaming Video ..... 14  
    E-mail..... 15

For General Advertising  
Information, call  
**612-673-4000**

## ROP DEADLINES

| Publication Day/Product                  | 4-Color and Spot Color Space Commitment | Black/White Space Commitment | Materials Due 5 pm | Page-Ready Materials/Final Corrections Due |
|--|---|------------------------------|--------------------|--|
| <b>Monday-All sections</b>               | Wed., 3 pm                              | Thu., 3 pm                   | Thu.               | Fri., noon                                 |
| <b>Tuesday</b>                           |   |                              |                    |  |
| – A News, B News, Sports and Business    | Thu., 3 pm                              | Fri., 3 pm                   | Fri.               | Mon., noon                                 |
| – Variety                                | Thu., 3 pm                              | Thu., 5 pm                   | Thu.               | Fri., 5 pm                                 |
| <b>Wednesday</b>                         |   |                              |                    |  |
| – A News, B News, Sports and Business    | Fri., 3 pm                              | Mon., 3 pm                   | Mon.               | Tue., noon                                 |
| – Variety                                | Thur., 3 pm                             | Fri., 3 pm                   | Fri.               | Mon., noon                                 |
| <b>Thursday</b>                          |   |                              |                    |  |
| – A News, B News, Sports and Business    | Mon., 3 pm                              | Tue., 3 pm                   | Tue.               | Wed., noon                                 |
| – Taste                                  | Fri., 3 pm                              | Mon., 3 pm                   | Mon.               | Tue., noon                                 |
| <b>Friday</b>                            |   |                              |                    |  |
| – A News, B News, Sports and Business    | Tue., 3 pm                              | Wed., 3 pm                   | Wed.               | Thu., noon                                 |
| – Variety                                | Mon., noon                              | Tue., 3 pm                   | Tue.               | Wed., 5 pm                                 |
| <b>Saturday</b>                          |   |                              |                    |  |
| – A News, B News, Sports and Business    | Wed., 3 pm                              | Thu., 3 pm                   | Thu.               | Fri., noon                                 |
| – Variety                                | Tue., 5 pm                              | Wed., 3 pm                   | Wed.               | Thu., 5 pm                                 |
| <b>Sunday</b>                            |   |                              |                    |  |
| – A News and Sports                      | Tue., noon                              | Thu., 3 pm                   | Thu.               | Fri., noon                                 |
| – B News                                 | Tue., 3 pm                              | Wed., 3 pm                   | Thu.               | Fri., noon                                 |
| – Variety, Science & Health and Business | Tue., noon                              | Tue., 5 pm                   | Wed., noon         | Thu., noon                                 |
| – Homes                                  | Tue., 3 pm                              | Wed., 3 pm                   | Wed., 5 pm         | Thu., 5 pm                                 |
| – Comics                                 | Fri., Noon                              | NA                           | Mon., noon         | Mon., 5 pm                                 |
|  | the prior week                          |                              |                    |  |

**Notes**

- All deadlines: Central Standard Time (CST).
- Double-trucks: due 24 hours in advance of above deadlines.
- Unique ads: due 72 hours in advance of space commitments listed above.

**If You Build Your Ad**

- Page ready files are considered ready to publish “as is” and must comply with mechanical requirements (see page 11). The Minnesota Star Tribune reserves the right to reduce the ad to fit the space ordered.
- PDF format preferred.
- CMYK color – 200 dpi for newsprint (300 dpi for commercial).
- Embedded fonts.
- Electronic files are submitted via e-mail to your Minnesota Star Tribune Sales Representative.

**For all products, ad orders are non-cancelable after the space deadline and the Advertiser/Agency will be charged for the space regardless of whether the advertisement is published.**

# ROP MECHANICAL REQUIREMENTS

## ROP PRODUCTION INFO/COLOR MECHANICAL REQUIREMENTS

The following requirements apply to The Minnesota Star Tribune's newsprint products – ROP and Sunday Comics. Contact your sales representative for mechanical requirements for our other products.

### REPRODUCTION REQUIREMENTS

- Printing process is photo composition, web offset.
- The minimum font size recommended is 7 point for sans-serif type or 12 point for serif type (black type on white background or reversed)
- Type smaller than 12 points should not be reversed on a 4 color background
- Type smaller than 10 points should not be reversed on a single color background
- If reversing type from 4 color it is recommended that a bold font is used
- Serif and fine script type below 12 points should not be screened on any color
- For contrast and readability reverse type should not be placed on screens below 50%
- Borders smaller than 4 points should be built as a single color
- Surprinted type should be solid black and contrasted against 40% screen or less
- Reverse type should be white type on a 50% screen or higher – avoid serif fonts
- Total Area Coverage (TAC): The darkest 4-color area should not exceed 240%

### RECOMMENDED SCREEN RANGES

- Images should be designed to compensate for a 28-30% dot gain.
- Reverse Color 50% to 100%.
- Overprint 10% to 40%.
- Minimum size highlight dot: Cyan 4%, Magenta 2%, Yellow 2%, Black 0%.
- Color should be gray balanced.

### LINE SCREEN FOR ROP

85 line screen

### ROP DEPTH REQUIREMENTS

Minimum depth is one inch on one column width.

Advertisements can be ordered in half-inch increments.

Ads exceeding 18 inches in depth are set to occupy full depth and are charged at full depth.

### ELECTRONIC SUBMISSION OF COMPLETED ADS AND AD MATERIALS

We request that all electronic files be submitted to the Minnesota Star Tribune via e-mails to your Sales Representative.

### PREFERRED FORMATS FOR COMPLETED ADS PDFs

We ask that our customers submit Adobe Acrobat PDFs of their ads. All PDFs must be created through Adobe Distiller and, if the ad is a color ad, created in CMYK color and not RGB color. All fonts must be embedded.

### IMAGES AND AD COMPONENTS

Images and ad components should be submitted in TIFF, EPS, JPEG or BMP (Bitmapped) formats. Color images need to be CMYK. Black and white need to be grayscale.

### RESOLUTION

Black and White – 170 dpi at 100%

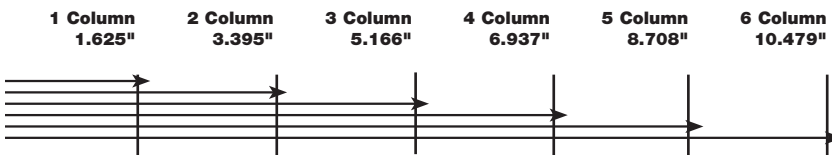
Four Color – 200 dpi at 100%

Line Art – 800 to 1200 dpi at 100%

### TECHNICAL QUESTIONS

For further information, contact your sales rep or Graphic Services at 612-673-7038.

### THE MINNESOTA STAR TRIBUNE STANDARD COLUMN MEASUREMENTS



Double Truck = 21.7292 Inches Wide x 20.5 Inches Deep

### TAB SIZES

(Good Life, Washington Post Weekly, State Fair & Top Workplaces)

- 1 column: 1.778 inches
- 2 columns: 3.701 inches
- 3 columns: 5.625 inches
- 4 columns: 7.548 inches
- 5 columns: 9.472 inches

**NOTE: Full ad depth: 10.25 inches**

**Full double truck (spread): 20.472**

**Inches wide x 10.25 inches Deep**

# CLASSIFIED MECHANICAL REQUIREMENTS

## PRODUCTION INFORMATION COLOR MECHANICAL REQUIREMENTS

The following requirements apply to The Minnesota Star Tribune's Classified newsprint products. Contact your sales representative for mechanical requirements for our other products.

### REPRODUCTION REQUIREMENTS

- Printing process is photo composition, web offset.
- The minimum font size recommended is 7 point for sans-serif type or 12 point for serif type (black type on white background or reversed)
- Type smaller than 12 points should not be reversed on a 4 color background
- Type smaller than 10 points should not be reversed on a single color background
- If reversing type from 4 color it is recommended that a bold font is used
- Serif and fine script type below 12 points should not be screened on any color
- For contrast and readability reverse type should not be placed on screens below 50%
- Ruler smaller than 4 points should be built as a single color
- Surprinted type should be solid black and contrasted against 40% screen or less
- Reverse type should be white type on a 50% screen or higher – avoid serif fonts
- Total Area Coverage (TAC): The darkest 4-color area should not exceed 240%

### RECOMMENDED SCREEN RANGES

- Images should be designed to compensate for a 28-30% dot gain.
- Reverse Color 50% to 100%.
- Overprint 10% to 40%.
- Minimum size highlight dot: Cyan 4%, Magenta 2%, Yellow 2%, Black 0%.
- Color should be gray balanced.

### LINE SCREEN FOR ROP

85 line screen

### CARS ROP AD SPECS

| Ad Size           | Dimensions        |
|-------------------|-------------------|
| • 1/8 page        | 5.1667" x 5.125"  |
| • 1/4 page        | 5.1667" x 10.25"  |
| • 1/2 page horiz. | 10.4792" x 10.25" |
| • Full page       | 10.4792" x 20.5"  |
| • 1/2 page vert.  | 5.1667" x 20.5"   |

### ROP DEPTH REQUIREMENTS

Minimum depth is one inch on one column width.

Advertisements can be ordered in half-inch increments.

Ads exceeding 18 inches in depth are set to occupy full depth and are charged at full depth.

### ELECTRONIC SUBMISSION OF COMPLETED ADS AND AD MATERIALS

We request that all electronic files be submitted to the Minnesota Star Tribune via e-mails to your Sales Representative.

### PREFERRED FORMATS FOR COMPLETED ADS PDFs

We ask that our customers submit Adobe Acrobat PDFs of their ads. All PDFs must be created through Adobe Distiller and, if the ad is a color ad, created in CMYK color and not RGB color. All fonts must be embedded.

### IMAGES AND AD COMPONENTS

Images and ad components should be submitted in TIFF, EPS, JPEG or BMP (Bitmapped) formats. Color images need to be CMYK. Black and white need to be grayscale.

### RESOLUTION

Black and White – 170 dpi at 100%

Four Color – 200 dpi at 100%

Line Art – 800 to 1200 dpi at 100%

### TECHNICAL QUESTIONS

For further information, contact your sales rep or Graphic Services at 612-673-7038.

# PREPRINTED SUPPLEMENTS MECHANICAL REQUIREMENTS

## PAPER STOCK REQUIREMENTS

### STOCK

Minimum: Multiple Page Preprints .0025 (each page)  
Single Sheet Preprints .005

## MATERIAL SIZE RESTRICTIONS

### SIZE

Minimum: 5" x 7"  
Maximum: 10" x 11.5" (folded edge)

## RECEIVING DOCK

### DAYS

Monday-Thursday 9:00 AM - 4:00 PM

### CLOSED

Fridays, Saturday, Sunday and holidays

Holidays affect deadlines. Please check with your Minnesota Star Tribune sales representative.

## DELIVERY ADDRESS

### for the Minnesota Star Tribune Newspaper

Heritage Production Facility  
800 1st Street North, Minneapolis, MN 55401

## CONTACTS

|                  |                         |
|------------------|-------------------------|
| Mailroom Foreman | Joe Tucker 612-673-8837 |
| Receiving Dock   | 612-673-8829            |

Note: Ask your Minnesota Star Tribune sales rep for *A Guide to Designing, Packaging and Shipping Preprinted Machine Inserted Supplements*. Supplements that do not meet the proper size, paper weight and packing specifications may be subject to extra charges.

## PREPRINT REQUIREMENTS

### PREPRINT STOCK, SIZE AND THICKNESS

Preprints that meet minimum size and thickness requirements are less likely to have inserting and distribution problems.

#### MINIMUM PAGE THICKNESS

|                              |                                  |
|------------------------------|----------------------------------|
| Multiple Page Preprint Page: | .0025 each                       |
| Single Sheet Preprints:      | .005 each                        |
| <b>Minimum Size:</b>         | <b>5" x 7" (Folded Edge)</b>     |
| <b>Maximum Size:</b>         | <b>10" x 11.5" (Folded Edge)</b> |

**Inserts with the following characteristics may cause problems for inserting machines. We will run these inserts to the best of our ability but can not guarantee results.**

#### Quarter Folding

Quarter folding is not recommended and not necessary when minimum paper requirements are met.

#### Print Quantities

For inserts meeting these guidelines, the pad should be a minimum of 2% of the draw order. A higher percentage pad may be required for out-of-specification inserts, especially for single sheet inserts and inserts printed on lightweight paper. Check with your Sales Representative.

#### Paper Grocery Bags

Grocery bags to be inserted as supplements must meet the following standards:

- Bags must be folded exactly in half. Finished product should measure 8.5" x 11.75".
- No seams or glue on the outside of the folded bag.
- No handles on the bag.
- Bags must be packed in gaylords and stacked on skids, not wrapped. Turns should be 6" – 12".

#### Gloss Paper

Coated, gloss and flimsy calendered papers tend to pull doubles and multiples.

#### Staples

Page counts of 32 pages or less should not be stapled. Oversized staples cause jams in the insertion equipment.

#### Pullouts/Oversized

Oversized pop-ups extending beyond the maximum trim size are often damaged during packing. Damaged supplements result in poor insertion results.

#### Off-Folds

Layered, off-folded supplements cause unevenly stacked bundles resulting in added insertion waste.

#### Die-Cuts

Unconventional shapes and sizes are difficult and sometimes impossible to insert. Two hundred prototypes are required for mailroom testing before acceptance.

#### Product Samples/Attachments

Objects such as keys, coins, CDs, etc., attached to any page of an insert; sachets containing scented objects; liquids or shampoos; polybags; paper bags; or product samples may not be ideal for machine insertion. These pieces can often be hand inserted in the field by carriers at an additional cost. Please contact your Sales Representative for more information.

## POLY BAGS MECHANICAL REQUIREMENTS

### DAILY MECHANICALS (WIDTH & DEPTH)

Minimum Bag Size: 8" x 19" (Add 1" to width on holidays)  
1.0 Mil (.0010) in thickness

### SUNDAY MECHANICALS (WIDTH & DEPTH)

Minimum Bag Size: 13.75" x 21"  
1.5 Mil (.0015) in thickness

### PACKING & SHIPPING SPECIFICATIONS

Header must be 1/16" thick, made of corrugated cardboard and be the width of the bag (wire and plastic headers are not acceptable). Bags must be perforated and stapled to the header with industrial staples. Each header should hold 50 bags.

Boxes should not exceed 1,000 bags or 40 pounds. Boxes should be packed on 40" x 48" pallets not exceeding 54" in height and marked 1 of 20, 2 of 20, etc.

### DELIVERY

Heritage Production Facility  
800 1st Street North, Minneapolis, MN 55401

### RECEIVING DOCK

Monday-Friday: 8:00 AM - 4:00 PM  
Phone Number: 612-673-8829

### POLY-BAGS WITH SAMPLES

Advertiser must provide a bag and sample before newspaper acceptance.

### PRINT & DELIVER POLY-BAGS

Ask your Minnesota Star Tribune sales representative about a custom quote for bag design, print and distribution.

**NOTE:** This suffocation warning must be included in the image area:  
CAUTION! KEEP AWAY FROM SMALL CHILDREN. THE THIN FILM MAY CLING TO NOSE AND MOUTH AND PREVENT BREATHING.

## PRINT AND DELIVER MECHANICAL REQUIREMENTS

|                                     | Document Size | Image Area |
|-------------------------------------|---------------|------------|
| Print and Deliver, 4-color, 2 sided | 5.5" x 11"    | 5" x 10.5" |
|                                     | 8.5" x 11"    | 8" x 10.5" |

### MECHANICALS

4 color, 2 sided, glossy 70# stock, no bleed  
PDFs preferred format  
4-color resolution: 300 dpi at 100%, no 4-color black type  
Minimum font size recommended is 7 point  
Total Area Coverage (TAC): should not exceed 280%

*Note: Web images are normally 72 dpi and do not reproduce well in print.  
Minimum 300 dpi for commercial print products.*



# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS

## GENERAL REQUIREMENTS FOR ALL ONLINE DISPLAY ADS

- The Minnesota Star Tribune requests that all rich media creative be sent and built in HTML5. Flash is no longer supported.
- All banners with a white background must have a non-white border of 1 pixel
- Banners may loop 3 times or animate for 30 seconds, whichever is less
- Click-through URLs may not exceed 512 characters
- Audio must be user initiated by click and requires an on/off button. Ad will load with audio turned off. Expanding panels are the exception – audio may play after a 2 second delay when expanded, audio must stop when expanding panel is closed.
- Companies supplying creative should submit creative 3 business days prior to placement
- We accept customer provided ads (3rd party tag) from PointRoll, EyeBlaster, and other vendors compliant to our guidelines
- Creative must not auto-download additional media, spawn additional ads, or ask the user to download plug-ins
- The Minnesota Star Tribune reserves the right to approve or decline an ad campaign if delivery of site content or user experience is compromised. All ad materials must be compliant with the Minnesota Star Tribune ad acceptability standards and guidelines

## HTML5 SPECIFICATIONS

HTML5 creative should follow the same digital advertising specifications as other Standard and Rich Media creative developed for the Minnesota Star Tribune.

### FILE SIZE for all ad types

- **150K** initial load
- **200K** polite load
- **2MB** with in-banner Video (user hosted only)
- File Size is measured after all code and assets are stored to a .zip file. The .zip file must include ALL assets and reference code such as JavaScript libraries and Web Fonts. Javascript libraries and Web fonts can be called from another location but are considered as part of the overall file size.

### ASSETS

- All creative assets (images, code, etc.) should be submitted in a single .zip file.
- The .zip file must include all referenced code
- Once the .zip is uncompressed, the ad must be viewable without a network connection.
- The HTML5 creative must include the complete HTML document that includes at least one click tag and can load into an iFrame
- Do not include any .zip files or unreferenced files within your HTML5 .zip file.
- HTML5 assets should not use local or session storage.
- Do not include backup assets in your HTML5 .zip file unless they're referenced by the HTML file.
- HTML text or webfonts should be used whenever possible to reduce file weight, improve readability, scalability and accessibility. Fonts may be stored in the ad package as an asset.
- Minimize file count within the zip document to decrease the overall deliverable file size. The more files a creative needs to load in order to render will lead to increased user-perceived latency.
- Supported file types and limits for your .zip file: HTML, HTM, JS, CSS, JPG, JPEG, GIF, PNG, JSON, XML, and SVG.

# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS (CONT.)

## HTML5 SPECIFICATIONS

### Click Tags

- Ads must use the clickTag variable as the click destination.
- The URL will be added in the ad-serving platform—do not hardcode the URL. Hard-coded click-throughs URLs cannot be recorded by the ad server.
- All required clickTags must be placed within the HTML file without minification or obfuscation.
- When multiple .html files are included, the click tag variable must be present in the first .html file that loads

### Sample clickTag insertion:

```
<html>
<head>
<meta name="ad.size" content="width=300,height=250">
<script type="text/javascript">
var clickTag = "%CLICK_URL_UNESC%%DEST_URL%";//This value is used
by the ad server and should not be changed
</script>
</head>
[The rest of your creative code goes here.]
</html>
```

### Ensure your creative uses the clickTag variable as the click-through URL:

```
<a href="javascript:window.open(window.clickTag)">

</a>
```

### Or place it in a container by making use of events:

```
<div onclick="window.open(window.clickTag);">

</div>
```

- In instances of multiple clickthrough urls in the same ad, enumerate click tags as follows:  
*clickTag0, clickTag1, clickTag2*
- Set the target attribute to “\_blank” so the click destination opens in a new window or tab
- Ad dimensions must match placement dimensions to avoid distortion unless the ad is specifically designed to be responsive.
- Ad dimensions should be defined within the <head> using the <meta> tag with the name “ad.size”  
For example,

```
<meta name="ad.size" content="width=300,height=250">
```

- To prevent code conflicts with the pub site the use of wrapping Javascript and CSS in closures or namespaces is recommended

# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS (CONT.)

## STANDARD DESKTOP DISPLAY ADS

| Ad Name                  | Dimensions | File Size* | File Type                                 |
|--------------------------|------------|------------|---|
| Medium Rectangle         | 300 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Leaderboard              | 728 x 90   | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Super Leaderboard        | 970 x 90   | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Billboard                | 970 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Half Page Banner         | 300 x 600  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Portrait                 | 300 x 1050 | 200k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Wide Sky                 | 160 x 600  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| In-stream Article Banner | 525 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |

*\*Please see file size limits for HTML5 creatives on page 2*

# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS (CONT.)

## UNIQUE / PREMIUM DISPLAY ADS

### Desktop Overlay

|                    |   |
|--------------------|---|
| Dimensions         | 640 x 480 preferred. 900 x 600 max.                 |
| File Size*         | 150k  |
| File Type          | JPG, GIF, PNG, HTML5, or approved 3rd party ad tag  |
| Animation          | Static preferred. Animation limited to 12 seconds.  |
| Frequency          | Limited to 1 per user per day                       |
| Other Capabilities | Video allowed. (see In-Banner Video specifications) |

### Desktop Skins

|            |  |
|------------|--|
| Dimensions | 293 x 800 (per side)   |
| File Size* | 150k, each file  |
| File Type  | JPG, GIF, or PNG files only. 3rd Party click and impression trackers are accepted. |
| Animation  | Static only  |

### Hoverboard

|              |   |
|--------------|---|
| Dimensions   | 1016 x 90 Expanded Panel<br>100 x 90 Collapsed Panel  |
| File Sizes   | 150k, each file   |
| File Type    | JPG, GIF, PNG, HTML5, or approved 3rd party ad tag  |
| Close Button | Required in the lower right hand corner with the standard X and the word close.<br>Example: X CLOSE |

### Homepage Native Ad

|            |   |
|------------|---|
| Dimensions | 638 x 100   |
| File Size* | 150k  |
| File Type  | JPG, GIF, or PNG files only. 3rd Party click and impression trackers are accepted.  |
| Animation  | Static only. Ad must have a white background with a black border, "Sponsored By [advertiser name]" at the top, with one headline and one image. |

### In-Banner Video

|              |  |
|--------------|--|
| File Size*   | 3 MB   |
| File Type    | wmv, mov, mp4  |
| Duration     | 30 seconds (15 second limit for overlays)  |
| z-index      | 100,000 (z-index only applies to Standard Medium Rectangle ad and Standard Halfpage ad)                  |
| Audio        | Audio must be user initiated by click and requires an on/off button. Ad will load with audio turned off. |
| Availability | May run in Medium Rectangle ads, Halfpage ads, Billboards, and desktop overlays                          |

### Pre-Roll Video

|              |   |
|--------------|---|
| File Size    | 30 MB                                   |
| File Type    | mp3, mp4, wmv, mov, avi (mp4 preferred) |
| Duration     | Recommended 15 seconds.                 |
| Aspect Ratio | 16:9 preferred                          |
| Quality      | 1080p preferred                         |

VAST redirect URLs accepted

# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS (CONT.)

## MOBILE BROWSER

| Mobile Browser   | Dimensions | File Size* | File Type                                 |
|------------------|------------|------------|---|
| Mobile Banner    | 320 x 50   | 40k        | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Medium Rectangle | 300 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Mobile Overlay   | 300 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |

## NEWSREADER APP

| App              | Dimensions | File Size* | File Type                                 |
|------------------|------------|------------|---|
| Mobile Banner    | 320 x 50   | 40k        | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Medium Rectangle | 300 x 250  | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |
| Leaderboard      | 728 x 90   | 150k       | JPG, GIF, PNG, HTML5, or 3rd party ad tag |

*Video, flash, and rich media are not allowed*

## NEWSLETTERS

| App              | Dimensions | File Size* | File Type        |
|------------------|------------|------------|------------------|
| Medium Rectangle | 320 x 250  | 150k       | JPG, GIF or PNG  |
| Billboard        | 970 x 250  | 150k       | JPG, GIF, or PNG |
| Leaderboard      | 728 x 90   | 150k       | JPG, GIF, or PNG |

*Medium Rectangle ads are required for all newsletters. Include a billboard or a leaderboard ad to serve on desktop environments. 3rd party impression and click trackers are allowed.*

# STARTRIBUNE.COM ONLINE MECHANICAL REQUIREMENTS (CONT.)

## STREAMING AUDIO

|                             |  |
|-----------------------------|--|
| Suggested Bitrate           | 160 kbps or less (we cannot encode third-party files lower than the rate at which they are set)<br>Include both .MP3 and .OGG file types in your tag. While an .OGG file type should not be used for first-party hosted audio, it should be included in your VAST/DAAST tag. |
| Available Spot Length       | 15 seconds or 30 seconds (60 seconds also available, but not recommended)  |
| Companion Banner File Types | JPEG, PNG  |
| Companion Banner Tracking   | Should be hosted on The Trade Desk for best compatibility  |
| Optimal File Type           | MP3, M4A, WAV  |
| Optimal Bitrate             | 160 kbps   |
| Optimal Spot Length         | 15 seconds or 30 seconds   |

## OTT/CTV STREAMING VIDEO

### OTT/CTV Standards

|                     |                                 |
|---------------------|---------------------------------|
| Dimensions          | 1920 x 1200px and 1920 x 1080px |
| Audio Bitrate       | 160 kbps or higher              |
| Video Bitrate       | 5.4 mbps or higher              |
| Preferred format    | mp4 (h.264)                     |
| Max video file size | 200MB Limit                     |

*OTT: Over The Top – When a streaming service, such as Apple TV, is connected to your television, it is considered OTT.*

*CTV: Connected TV – When a streaming service, such as Apple TV, is connected to your television, PLUS mobile and tablet, it is considered CTV.*

# STARTRIBUNE.COM EMAIL AND ADVANTAGE MECHANICAL REQUIREMENTS

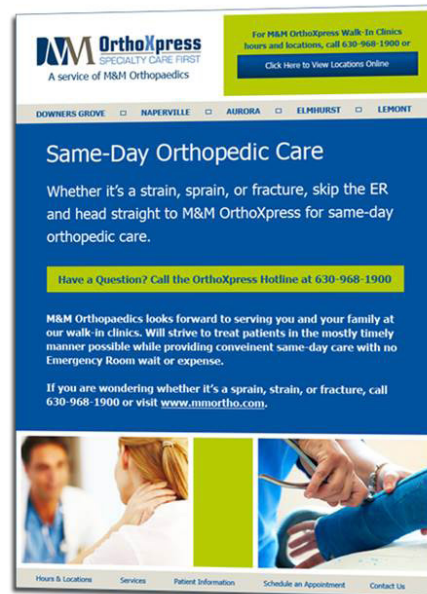
## SOLO EMAILS (ADVANTAGE AND FYI)

The Minnesota Star Tribune will provide production services for your e-mail creative at no extra charge. If you plan on designing your own creative, here are some helpful tips & guidelines to ensure the best deliverability and results:

- Make sure the offer is relevant to the audience.
- Have one strong call to action to determine success of your email campaign such as a spike in direct traffic or a 1-800 number. Many people view emails in the preview pane which doesn't always register as an open in reporting.
- Do not use SPAM words or phrases such as: "Free!", "Amazing", "Get paid", "Earn Money"
- Design an ad with:
  - A benefit statement headline
  - An image relevant to what you are selling
  - Effective landing pages (either your website or custom jump page)

### Calls to Action

- Navigation options to click to site
- Clear headline
- 1 Strong call to action
- Several softer calls to action
- Locations, directions



### What We Need To Run Your Email:

1. HTML creative if you are designing it
2. Any image files used in the email
3. Seed list email addresses – these will be included in the list when the campaign is deployed
4. Tracking system info if you are using Google Analytics, redirects, etc.
5. Working URLs used in the e-mail

### Production Guidelines

- HTML file sizes commonly used are centered and are 400x400px to 600x600px. You may increase the depth, but "less is more"
- Use a mix of HTML text and images so that if recipients have images blocked in their email settings they can still see your message. Add "click to view" links in your pre-header texts.
- Images are accepted in JPG, PNG, and GIF formats. File size should be kept to a minimum for quicker downloading.
- Use In-Line styles, not external stylesheets.
- Do not use Image Mapping code.
- Add style block code to images: style="display: block;"
- Bullet points that have spacing before or after need to have that space coded: &nbsp;&bull;&nbsp;&nbsp;
- Do not use a background image, most email sending applications will remove these.
- Do not use <div> for coding.
- Font styles should be coded in a font tag whenever possible - coding font styles in <td> or other tags should be avoided. Use font lists.
- All special characters such as bullets, copyright symbols and other characters should be converted into images or avoided if possible as these elements will not show or look the same across different email platforms.