

# **TRI-SAC™**

**HIGH & MEDIUM EFFICIENCY  
EXTENDED SURFACE BAG FILTERS**



***Unequaled in Performance***

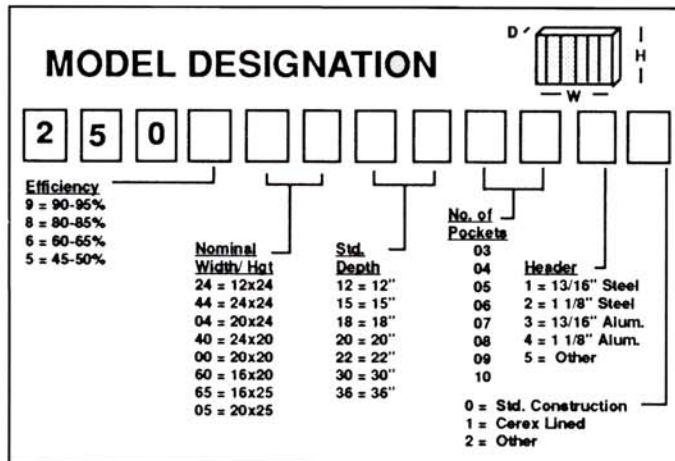
## PRODUCT DESCRIPTION

The **TRI-SAC™** Bag Filter manufactured by the Tri-Dim Filter Corporation is an extended surface, high capacity air filter. It is designed for use in those areas requiring a high degree of air cleanliness. The filter consists of a series of individual pockets supported by a rigid header frame. This filter is completely self-supporting, requiring no internal grids or framing. It is ready for installation.

**TRI-SAC™** Filters are used in a wide variety of applications within hospitals, laboratories, office complexes, industrial facilities, schools and universities, etc.

## FEATURES AND BENEFITS:

- **Rust and Resistant All Metal Header** — Providing strength and stability during installation and filter life as well as a neat, clean filter change-out.
- **Modular Header Design** — Interlocking header and pocket hoops reduce entry resistance providing longer service life.
- **Filter Gasketing** — Available upon request. Gaskets should always be included on Tri-Sac filters for installation in side access air handling systems.
- **Balanced Pocket Configuration** — Designed to maximize dust holding capacity and reduce resistance to air flow.
- **Unique Span Stitch Design** — Promotes total pocket inflation and maximum media utilization.
- **Media Backing** — Each individual pocket is bonded with a special non woven backing for added strength and support. U.L. Class I pockets are backed with a special U.L. Class I scrim.
- **Stitch Sealant** — Each stitch is sealed with a special adhesive to prevent the possibility of contaminant leakage or media break-off. Pocket edge sealant is available upon request.
- **Edge Safety Stitch** — Each pocket is sealed with exclusive overlock safety stitch to prevent dirty air bypass.
- **Pocket Support Loops** — For special low velocity applications **TRI-SAC™** filters are available with pocket support loops to assure proper inflation.
- **Availability of 4 Different Efficiencies** — No matter what your application TRI-DIM has a filter to meet your requirements.
- **Fire Resistant Construction** — All **TRI-SAC™** meet either U.L. Class I or U.L. Class II requirements.
- **In House Testing and Engineering** — TRI-DIM's ASHRAE test ducts allow our engineers to constantly monitor product performance and research specific product improvements.
- **Independent Testing Programs** — All **TRI-SAC™** models are independently laboratory tested to assure consistency in product construction and performance.
- **Non-glass fiber applications** — Syn-Pac 40, 50, 65, 85, 90 and 95 pocket filters are available in all synthetic non-toxic filter medias. Ask for Syn-Pac specifications.



#### NOTES:

- "Other" designations must be explained in body of order
- Actual face dimensions are 5/8" less than nominal - 24" x 24" nominal - Actual face dimensions are 23 3/8" x 23 3/8"
- Filter depth is measured from the front of the header to the end of the pocket, excluding loops. Depth dimensions have ±1/2" tolerance.

**TRI-SAC™** Filters are used as prefilters to HEPA filters in clean rooms and as final filters in hospitals and other critical applications.

**TRI-SAC™** Filters are available in various pocket configurations. See Performance Data Charts, page 3.

Tri-Dim's unique construction, and quality control provide consistency and performance unmatched by our competition:

## CERTIFIED FILTER MEDIA

Filters are available in five certified and color coded efficiencies.

| Model | Media Color | Avg. Eff. by ASHRAE | Avg. Arrestance by ASHRAE |
|-------|-------------|---------------------|---------------------------|
| 95    | Yellow      | 90-95%              | 99%                       |
| 85    | Pink        | 85-90%              | 98%                       |
| 60    | Orange      | 55-60%              | 97%                       |
| 45    | Tan         | 45-50%              | 95%                       |

## PERFORMANCE DATA

| Nominal Filter Size | No. of Pockets | Sq. Ft. Media | C.F.M. Capacity |      |      | Resistance (inches w.g.)<br>Rated Average Efficiency |      |      |        |      |      |        |      |      |
|---------------------|----------------|---------------|-----------------|------|------|--|------|------|--------|------|------|--------|------|------|
|                     |                |               |                 |      |      | 60--65%  |      |      | 80-85% |      |      | 90-95% |      |      |
|                     |                |               | Low             | Med. | High | Low  | Med. | High | Low    | Med. | High | Low    | Med. | High |
| 12x24x18            | 3              | 21            | 750             | 1000 | —    | .28  | .40  | —    | .35    | .49  | —    | .44    | .60  | —    |
| 12x24x18            | 4              | 28            | 750             | 1000 | —    | .30  | .47  | —    | .35    | .51  | —    | .49    | .72  | —    |
| 12x24x18            | 5              | 35            | 750             | 1000 | —    | .24  | .37  | —    | .32    | .47  | —    | .42    | .61  | —    |
| 12x24x22            | 3              | 26            | 750             | 1000 | —    | .29  | .39  | —    | .33    | .45  | —    | .42    | .65  | —    |
| 12x24x22            | 4              | 34            | 750             | 1000 | —    | .28  | .44  | —    | .33    | .51  | —    | .47    | .69  | —    |
| 12x24x22            | 5              | 42            | 750             | 1000 | —    | .22  | .35  | —    | .30    | .44  | —    | .40    | .59  | —    |
| 12x24x30            | 3              | 35            | 750             | 1000 | 1250 | .26  | .37  | .46  | .31    | .47  | .37  | .43    | .59  | .76  |
| 12x24x30            | 4              | 46            | 750             | 1000 | 1250 | .20  | .31  | .40  | .27    | .37  | .35  | .38    | .52  | .66  |
| 12x24x30            | 5              | 58            | 750             | 1000 | 1250 | .18  | .30  | .38  | .22    | .34  | .40  | .32    | .42  | .49  |
| 12x24x36            | 3              | 42            | 750             | 1000 | 1250 | .20  | .33  | .43  | .24    | .38  | .55  | .31    | .53  | .72  |
| 12x24x36            | 4              | 55            | 1000            | 1250 | —    | .26  | .27  | —    | .34    | .48  | —    | .48    | .59  | —    |
| 12x24x36            | 5              | 69            | 1000            | 1250 | 1500 | .25  | .35  | .50  | .32    | .46  | .55  | .40    | .45  | .58  |
| 20x24x18            | 5              | 36            | 1000            | 1200 | 1400 | .20  | .28  | .38  | .26    | .32  | .44  | .34    | .40  | .55  |
| 24x20x18            | 6              | 38            | 1000            | 1200 | 1400 | .20  | .28  | .38  | .33    | .48  | .55  | .29    | .37  | .46  |
| 20x24x22            | 5              | 40            | 1000            | 1200 | 1400 | .20  | .26  | .35  | .25    | .48  | .59  | .40    | .60  | .68  |
| 24x20x22            | 6              | 43            | 750             | 1500 | 2000 | .28  | .40  | .49  | .33    | .48  | .57  | .42    | .55  | .65  |
| 20x24x30            | 5              | 55            | 1250            | 1500 | —    | .28  | .40  | —    | .32    | .46  | .57  | .49    | .59  | .74  |
| 24x20x30            | 6              | 59            | 1250            | 1500 | 2000 | .20  | .28  | .38  | .31    | .47  | .57  | .42    | .60  | .76  |
| 20x24x36            | 5              | 68            | 1250            | 1675 | 2100 | .21  | .34  | .44  | .25    | .39  | .56  | .32    | .37  | .70  |
| 24x20x36            | 6              | 72            | 1250            | 1675 | 2100 | .19  | .32  | .42  | .24    | .38  | .55  | .30    | .52  | .72  |
| 24x24x18            | 6              | 42            | 1000            | 1500 | —    | .27  | .39  | —    | .34    | .50  | —    | .44    | .68  | —    |
| 24x24x18            | 7              | 48            | 1000            | 1500 | 1750 | .25  | .36  | .45  | .32    | .48  | .43  | .40    | .55  | .60  |
| 24x24x18            | 8              | 55            | 1500            | 2000 | —    | .29  | .44  | —    | .37    | .53  | —    | .57    | .80  | .93  |
| 24x24x18            | 9              | 62            | 1500            | 2000 | 2500 | .28  | .43  | .56  | .36    | .52  | .59  | .42    | .59  | .78  |
| 24x24x18            | 10             | 69            | 1500            | 2000 | 2500 | .26  | .40  | .56  | .30    | .47  | .65  | .47    | .69  | .90  |
| 24x24x22            | 6              | 51            | 1000            | 1500 | —    | .28  | .40  | —    | .33    | .48  | —    | .59    | .82  | —    |
| 24x24x22            | 7              | 59            | 1000            | 1500 | —    | .26  | .38  | —    | .32    | .46  | —    | .40    | .54  | —    |
| 24x24x22            | 8              | 68            | 1500            | 2000 | —    | .26  | .40  | —    | .35    | .51  | —    | .56    | .69  | —    |
| 24x24x22            | 9              | 76            | 1500            | 2000 | 2500 | .24  | .38  | .55  | .33    | .49  | .53  | .41    | .56  | .64  |
| 24x24x22            | 10             | 84            | 1500            | 2000 | 2500 | .22  | .35  | .46  | .35    | .57  | .84  | .40    | .59  | .70  |
| 24x24x30            | 6              | 69            | 1500            | 2000 | 2500 | .16  | .27  | .39  | .31    | .47  | .60  | .43    | .55  | .65  |
| 24x24x30            | 7              | 80            | 1500            | 2000 | 2500 | .19  | .29  | .41  | .25    | .40  | .58  | .38    | .54  | .73  |
| 24x24x30            | 8              | 92            | 1500            | 2000 | 2500 | .21  | .35  | .45  | .27    | .36  | .55  | .38    | .59  | .80  |
| 24x24x30            | 9              | 103           | 1500            | 2000 | 2500 | .21  | .30  | .40  | .27    | .35  | .54  | .35    | .43  | .63  |
| 24x24x30            | 10             | 115           | 1500            | 2000 | 2500 | .18  | .26  | .36  | .23    | .34  | .47  | .37    | .42  | .55  |
| 24x24x36            | 6              | 83            | 1500            | 2000 | 2500 | .20  | .32  | .43  | .24    | .37  | .55  | .33    | .54  | .72  |
| 24x24x36            | 7              | 97            | 1500            | 2000 | 2500 | .18  | .30  | .41  | .23    | .36  | .52  | .31    | .50  | .63  |
| 24x24x36            | 8              | 110           | 1500            | 2000 | 2500 | .18  | .29  | .39  | .22    | .35  | .51  | .29    | .51  | .63  |
| 24x24x36            | 9              | 124           | 2000            | 2500 | —    | .26  | .38  | —    | .34    | .47  | —    | .47    | .62  | —    |
| 24x24x36            | 10             | 138           | 2000            | 2500 | 3000 | .24  | .36  | .47  | .33    | .46  | .59  | .46    | .61  | .69  |
| 20x20x18            | 5              | 30            | 1000            | 1400 | 2000 | .22  | .35  | .42  | .30    | .43  | .51  | .38    | .53  | —    |
| 20x20x22            | 5              | 41            | 1000            | 1400 | 2000 | .20  | .35  | .40  | .29    | .34  | .48  | .38    | .60  | .70  |
| 20x20x36            | 5              | 49            | 1000            | 1500 | 2000 | .18  | .34  | .38  | .26    | .39  | .44  | .35    | .48  | .53  |
| 20x20x36            | 5              | 59            | 1000            | 1500 | 2000 | .19  | .33  | .46  | .28    | .38  | .55  | .32    | .35  | .57  |

## SUGGESTED PRODUCT SPECIFICATIONS

Filters shall be **TRI-SAC™** high performance extended surface bag filters. Each filter shall consist of certified ultrafine glass filter media formed into individual dust holding pockets. Pocket openings shall be secured to double turned pocket hoops. Pockets shall be locked into a frame channel along exterior edges and mechanically joined to adjacent interior pockets to prevent bypass and add rigidity. Header frame shall be corrosion resistant extruded aluminum, or 24-gauge galvanized steel. Pockets shall be span-stitched media bonded to a non-woven or glass backing. Each row of stitching shall be sealed with a narrow ribbon of adhesive. Stitching shall be such that each pocket forms an even air flow tunnel allowing uniform velocities and dust loading throughout the depth of the pocket.

Filters shall have an average efficiency of **#1 (as listed below)** and an average arrestance of not less than **#2 (as listed below)** in accordance with ASHRAE Standard 52. Filters shall contain not less than **#3 (as listed below)** square feet of media.

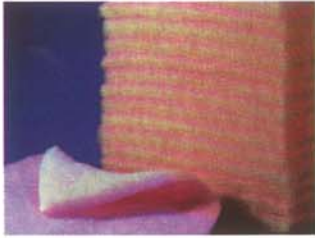
#1. 45-50%, 60-65%, 80-85%, 90-95%

#2. 95%, 97%, 98%, 99%

#3. See Performance Data (Above)

| TRI-SAC™ 45-50% Efficiency |                |        |                          |
|----------------------------|----------------|--------|--------------------------|
| Filter Size                | No. of Pockets | R.A.F. | Resistance (inches w.g.) |
| 24x24x20                   | 6              | 2500   | .30                      |
| 24x24x15                   | 6              | 2000   | .27                      |
| 24x24x12                   | 6              | 1500   | .33                      |
| 12x24x20                   | 3              | 1250   | .30                      |
| 12x24x15                   | 3              | 1000   | .27                      |
| 12x24x12                   | 3              | 750    | .16                      |
| 20x24x20                   | 5              | 2500   | .35                      |
| 20x24x15                   | 5              | 2000   | .35                      |
| 20x24x12                   | 5              | 1500   | .21                      |
| 20x20x20                   | 5              | 2000   | .35                      |
| 20x20x15                   | 5              | 1750   | .27                      |
| 20x20x12                   | 5              | 1500   | .28                      |
| 16x20x12                   | 4              | 1500   | .35                      |
| 16x25x12                   | 5              | 2000   | .35                      |

# TRI-DIM offers a wide variety of prefilters to enhance TRI-SAC™ performance



## TRI-DEK™ Media Pads, and Frame Assemblies

TRI-DIM offers 2, 3 and 4 ply medias for various applications. Filter pads are an economical way to greatly enhance TRI-SAC™ service life.



## TRI-DEK™ Panels, Link Filters

TRI-DEK™ panels and links are state-of-the-art in prefiltration. Self gasketing edge seals eliminate dirty air bypass greatly increasing TRI-SAC™ filter life. Link filters eliminate dirty air bypass between individual panels which is inherent with the use of cardboard or metal framed filters in a side access system. TRI-DEK™ panels and links are available in 2, 3, and 4 ply configurations.

## TRI-CUBES™

The Tri-Cube™ filter is the ultimate prefilter in front access filter housings. The frequency of filter changes is greatly reduced because of extremely high dust holding capacity. Self gasketing edge seals eliminate costly air bypass. TRI-SAC™ service life can be extended up to five times through the use of Tri-Cube™ prefilters. Tri-Cubes™ are available in 3 and 4 ply configurations.



## TRI-PLEAT™ EXTENDED SURFACE PANEL

TRI-DIM's radial pleated filters provide extended surface loading, with high arrestance values. The pleat is an excellent prefilter in appropriate applications.

## TRI-DEK™ Auto Rolls

TRI-DEK™ media is available in various efficiencies for use in all competitive roll filter machines. TRI-DEK™ media operates with unsurpassed performance, enhancing TRI-SAC™ filter life.

Independent laboratory testing, as well as actual in-field test and evaluations consistently provide proof that TRI-SAC™ filter life is extended up to five times when prefiltered with the appropriate TRI-DIM prefilter. Contact your TRI-DIM representative or distributor to discuss a prefiltering program designed to fit your needs.



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