

## General

Flanders Type 9 Holding Frames are used to construct built-up filter banks for upstream or downstream access using ASHRAE rated filters. Type 9 frames will accommodate 1", 2" or 4" panel filters including metal washable filters. They are also suitable for bag filters, self-supporting rigid filters and disposable type carbon elements. A filter-to-frame seal is effected by a factory-installed gasket and positive-sealing fasteners.

## Options

The standard frame is nominal 3" deep and constructed of 16 ga. galvanized steel. Type 304 stainless steel is an available option. Frames are also available in nominal 2", 4", and 6" depth. Actual depth is 1/8" under nominal size.

## Installation Consideration

Type 9 Frames can be assembled with pop rivets or nuts and bolts. Prior to assembly, all sides should be caulked with a non-hardening compound to prevent air bypass. Filter banks three frames high or higher should be strengthened with 3" wide 16 ga. stiffeners between each vertical row.

## Fasteners

Flanders offers several types of fasteners for use with Type 9 Frames. Refer to the Fastener Selection Chart on the reverse side of this sheet to select the appropriate fastener.

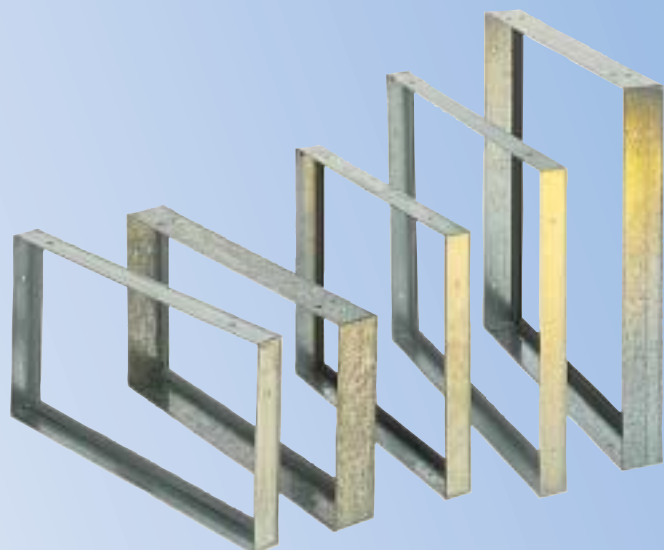
## Physical Data

- Frames are 16 ga. galvanized steel
- Furnished with factory-installed polyethylene butyl gasketing.
- 3" In-line depth makes a rigid and secure filter bank assembly.
- A selection of fasteners is offered to meet the requirements of the specified filters. Tools not needed to apply the fasteners.

Standard 3 inch Holding Frames

Model Number	Dimensions, Inches		
	H	W	D
9HF-12243	12	24	2-7/8
9HF-16203	16	20	2-7/8
9HF-16253	16	25	2-7/8
9HF-20203	20	20	2-7/8
9HF-20243	20	24	2-7/8
9HF-20253	20	25	2-7/8
9HF-24243	24	24	2-7/8

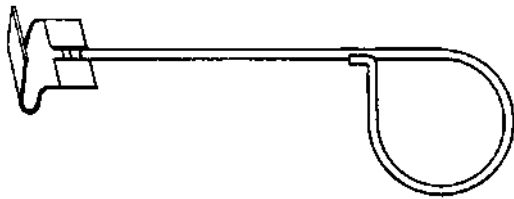
- Note:
1. Tolerances are +0 inch and -1/16 inch
  2. Special sizes are available upon request



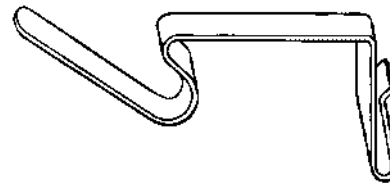
# Fastener Selection Chart

Model Number	Length (inch)	Filter Usage	Number Per Frame	
			Upstream Service	Downstream Service
P-1	1	1" panel filter, Precision Pak, PrecisionCell, or Rigid-Air	2	4
P-2	2	2" panel filter	2	4
P-3	3	2" panel prefilter with Precision Pak, PrecisionCell, or Rigid-Air With Single Header	2	Not Recommended
P-4	4	4" panel filter, PrecisionCell II	2	4
P-5	5	4" panel prefilter with Precision Pak bag, PrecisionCell, or Rigid-Air With Single Header	2	Not Recommended
P-6	6	6" PrecisionCell or Rigid-Air	2	4
P-12	12	12" PrecisionCell, or Rigid-Air Box Styles	2	4
C-2	2	2" panel prefilter with PrecisionCell or Rigid-Air	4	Not Used
C-4	4	4" panel prefilter with PrecisionCell or Rigid-Air	4	Not Used
C-12	12	12" PrecisionCell or Rigid-Air Box Styles	2	

**Model P Fastener**



**Model C-2 and C-4 Fastener**



**Model C-12 Spring Loaded Fastener**



**Flanders Precisionaire**  
**Foremost in Air Filtration**  
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**Replacement Products: 1-800-347-2220**

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