

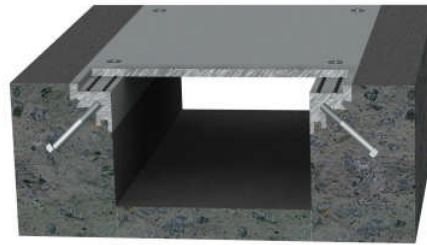
**Architectural Art Mfg.**

A division of Pittcon Architectural Metals, LLC

## Tech Data Sheet

# M Series

## Trench and Access Cover System



M12-11-11 Illustrated

### Typical M Series applications:

Trench and access covers are commonly used in school biology labs, Grocery stores, large warehouse and areas with underground utilities requiring access from above.

### Description:

Trench/Access frames and covers offer easy access to in-floor services with lightweight removable covers. Frames are factory mitered and pre-assembled for economical installation using cast aluminum 90° connectors. Cast aluminum splice connectors allow for exact alignment of frames during installation. All trench and access covers are assembled with dual vinyl hollow o-ring compression gaskets and stainless steel fasteners. All frames are coated with a protective finish to avoid corrosion when in contact with wet cement.

### Options:

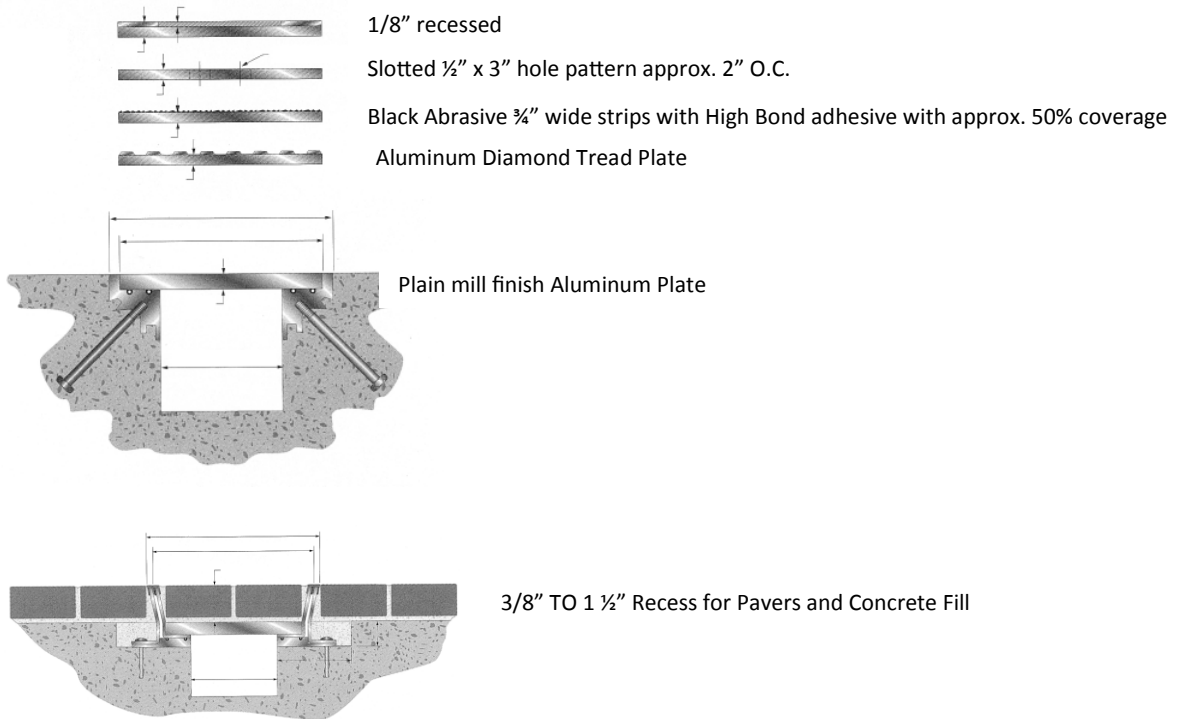
Covers are available with a variety of finishes from Smooth aluminum, Slotted hole pattern 1/2" x 3", Black abrasive, Diamond plate and two types of recessed cover systems. The 1/8" recessed cover system is used to accommodate VCT or other 1/8" thickness flooring. Our M30 series trench cover and M40 series access cover systems allow up to 1 1/2" recesses to accommodate tile, pavers and concrete infill.

All of our trench covers are offered with a trench liner. Our standard liner is 20 gauge galvanized steel. We also offer .063" aluminum and 22 gauge stainless steel liners. These are used as forms for pouring concrete and as conduits for cables and plumbing pipes.

Many other optional features are also available like Lift handles, Sump baskets and Blockout mount clips.

**Available Materials and Finishes:**

All plate available in 1/4", 3/8" and 1/2" thicknesses



**Load Table**

**Allowable Loads in Pounds Per Square Foot**

Plate Thickness in Inches	Square Access Size							
	9" x 9"	12" x 12"	14" x 14"	18" x 18"	20" x 20"	24" x 24"	30" x 30"	36" x 36"
1/4"	4,645	1,959	1,234	581	423	785	402	233
3/8"	15,676	6,613	4,165	1,959	1,428	2,649	1,356	785
1/2"	37,158	15,676	9,872	4,645	3,386	6,279	3,215	1,860

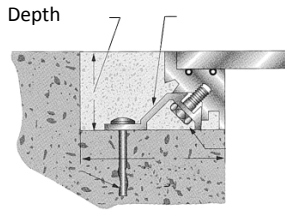
Plate Thickness in Inches	Trench Width												
	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	30"	36"
1/4"	16,482	4,884	2,060	1,055	612	386	258	182	133	266	245	165	129
3/8"	55,627	16,482	6,953	3,560	2,065	1,301	872	613	449	897	827	558	434
1/2"	131,857	39,069	16,482	8,439	4,894	3,084	2,068	1,453	1,065	2,126	1,959	1,323	1,030

Loads shown in this table were calculated from formulas developed by S. Timoshenko and given on pages 156 and 157 in his *Strength of Material,\* Part II, Second Edition, 1941*. The basis of the formulas and therefore the calculations are:

1. The deflection is small in comparison with the thickness of the plate
2. The plate is uniformly loaded.
3. 22" to 36" spans have 3/16" x 2" x 2" aluminum angle stiffeners at 24" O.C. MAX.

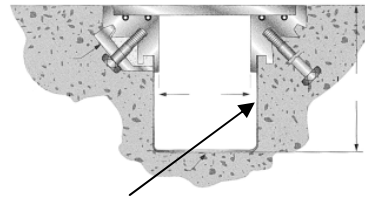
Tables are based on flat plate thickness excluding any raised pattern on the material. Loads are limited by either a maximum deflection of 1/150 of the short side length or a maximum stress of 28,000 psi. The above load table does not apply to the slotted hole cover plates. Contact Architectural Art Mfg. for allowable loads.

Optional M Series Features:

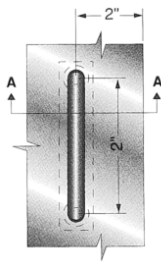


TRENCH FRAME	BLOCKOUT DEPTH
TF250	1 1/2"
TF375	1 5/8"
TF500	1 3/4"

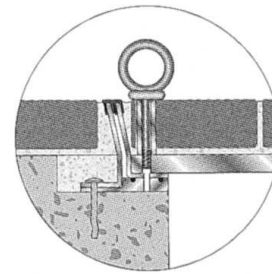
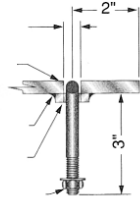
Blockout Installation



Trench Liner  
20 Ga. Galv.  
.063 Alum  
22 Ga. S.S.

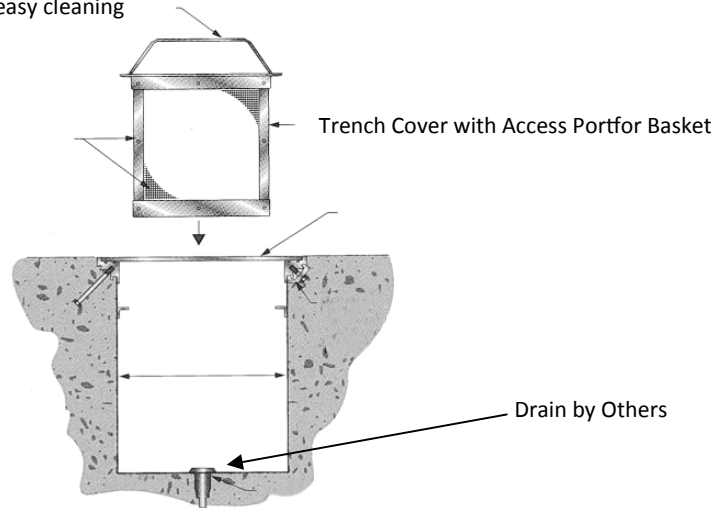


Recessed Lift Handle



Removable Lift Handle

Basket lifts out for easy cleaning



Sump Basket