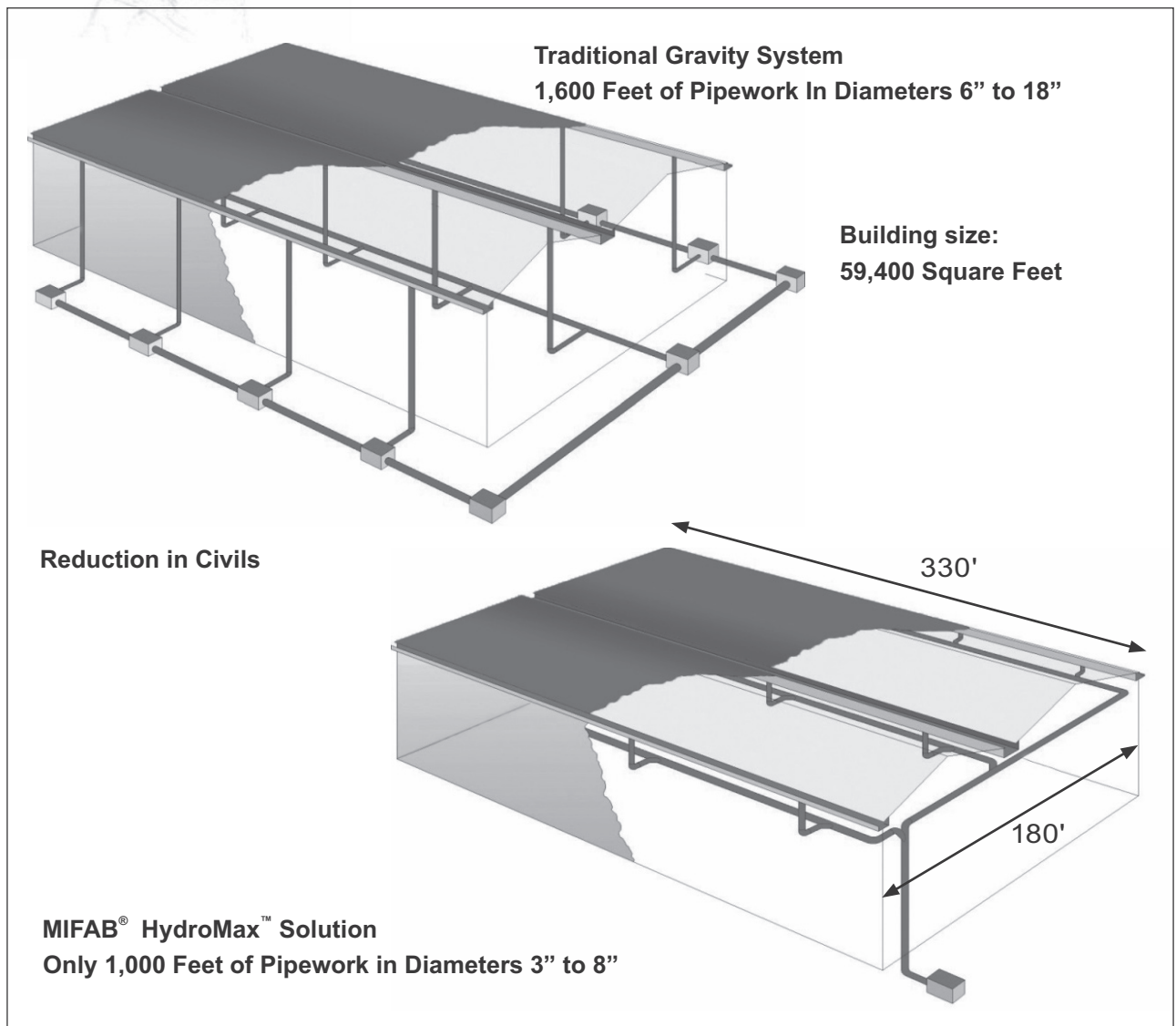




### INTRODUCTION



MIFAB® has taken the leadership in providing superior siphonic drainage solutions specifically engineered for the U.S., Canada and Mexico markets. Siphonic roof drainage solutions have been successfully used for nearly 50 years. The Mifab® HYDROMAX™ siphonic solutions are based on the latest ASPE/ANSI 45 Standard and with hundreds of HYDROMAX™ projects using many thousands of HYDROMAX™ siphonic roof drains tested to ASME/ANSI A112.6.9:2005 drain standard with IAPMO listing. The MIFAB HYDROMAX siphonic solutions are compliant with the latest IPC Chapter 11 requirements.



ROOF DRAINS

The MIFAB HYDROMAX siphonic roof drain system is designed to have high flow capacities while minimizing ponding. Mifab's unique system prevents air ingress into the pipework, combined with a hydraulically designed pipe system, allows for high performance siphonic flows. The advanced Mifab® HydroTechnic™ online analytical design calculation software program which has been independently tested for full compliance with ASPE/ANSI 45, provides calculations for optimum system efficiency.



### SOME OF HYDROMAX™ SIPHONIC ROOF DRAINS



Part No. MH-200  
2" No Hub outlet Terrace Drain



Part No. MH-205-G  
2" No Hub outlet Gutter Drain



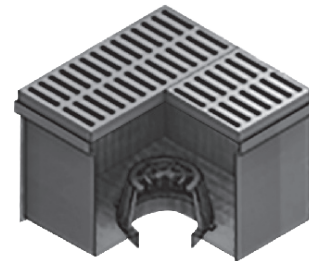
Part No. MH-305-G  
3" No Hub outlet Gutter Drain



Part No. MH-505-G  
5" No Hub outlet Gutter Drain



Part No. MH-505-G-OF  
5" No Hub outlet Gutter Overflow Drain

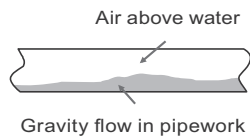


Part No. MH-T  
Siphonic Trench Assembly

HYDROMAX™ siphonic roof drains are compliant the IPC 2015 (Roof Drain testing to ASME A112.6.9)

### FOUR FLOW PATTERNS OF SIPHONIC DRAINAGE

#### Stage 1- Light Rainfall - Wavy or Gravity flow



#### Priming of Main Pipe Work

#### Stage 2- Plug flow

Plug of water filling whole pipe at high velocities which achieves self-cleansing.

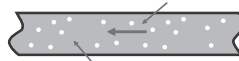


Air pockets driven down pipework

Tests have shown that **self-cleansing** can be achieved at as low as **10% to 15%** of the design rainfall rate.

#### Stage 3- Bubble flow

Water filling whole pipe



Air bubbles in suspension carried at high velocity

#### Stage 4- Full-bore flow

No more air entry – Air within Pipe now Fully Purged



Water filling whole pipe

#### MIFAB's expertise is "on-call"

Increase the satisfaction your clients receive from you by having our staff assist you in the design process.

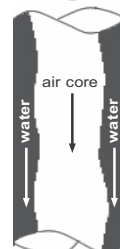
Our in-house engineers are available to assist you throughout the design process and our web-based Mifab HydroTechnic™ software allows easy support to any hydraulic calculations.

### SYSTEM COMPARISON

Traditional Gravity



Water in annular flow



MIFAB® HydroMax™ Siphonic



No Air

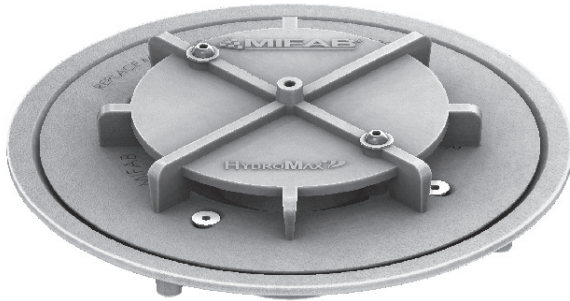
ROOF DRAINS



**MH-300, 400, 500, 600**

MIFAB® HYDROMAX™ PRIMARY SIPHONIC ROOF DRAINS

**MH-300, 400, 500, 600**



MODEL No.	K FACTOR	MAX CAPACITY (GPM)	
MH-300	0.05	415	POA
MH-400	0.07	750	POA
MH-500	0.06	1280	POA
MH-600	0.11	1820	POA

**MH-301, 401, 501, 601**

MIFAB® HYDROMAX™ SECONDARY OVERFLOW SIPHONIC ROOF DRAINS WITH 2" DAM

**MH-301, 401, 501, 601**



MODEL No.	K FACTOR	MAX CAPACITY (GPM)	
MH-301	0.095	415	POA
MH-401	0.12	750	POA
MH-501	0.11	1280	POA
MH-601	0.14	1820	POA

**MH-PG-D3, D4, D5**

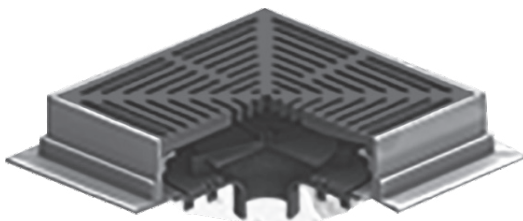
MIFAB® HYDROMAX™ PARKING / PROMENADE DECK DRAIN

**MH-PG-D3, D4, D5**



MODEL No.	K FACTOR	MAX CAPACITY (GPM)	
MH-PG-D3	0.05	415	POA
MH-PG-D4	0.07	750	POA
MH-PG-D5	0.06	1280	POA

ROOF DRAINS



Part No. MH-PG-D  
Parking Garage/Deck Siphonic Drain  
(Available in 3", 4" or 5" No Hub outlet connections)

## Benefits of incorporating a MIFAB® HYDROMAX™ Siphonic Roof Drain System

- **Cost savings of 25 to 45%**  
Smaller Pipe Size
- **Horizontal pipes installed flat, no slope means substantial space savings.**  
Labor savings
- **Less ponding**
- **IPC 2018 compliant – All MIFAB® HYDROMAX™ drains have ponding graphs GPM of drain from testing to ASME A112.6.9**
- **Ideal for primary & secondary overflow roof drainage**
- **Flexibility in routing – frees up building space.**
- **Eliminate trenching under building floor.**



In order to correctly design a Mifab® HYDROMAX™ Siphonic roof drain system the following information is needed:

1. Designed rainfall rate (inches per Hour).
2. Piping material: Schedule 40 solid wall PVC or Cast Iron (If PVC, specify sizes you have access to).
3. For quicker turnaround time (2-3 days). A fully dimensioned riser drawing with GPM inflow (or individual areas with design rainfall rate).
4. For a standard turnaround time (no. of days dependent on complexity and size).
  - A. Plans showing or that can help us determine and fully dimension the following (In AutoCAD .DWG file format only. We can't use .PDF files).
    - i. Catchment areas or the GPM's per drain location (Roof Plans).
    - ii. Preferred piping routes and discharge points (Floor Plans directly below roof.).
    - iii. Elevation from drain to horizontal.
    - iv. Elevation from horizontal to discharge.
5. Name, address, contact details including email address of Engineer of record or Design Build Contractor (Please include all contact info in order to set up access to HydroTechnic software).
6. Project title.
7. Project address (City, State & Zip at minimum).
8. Confirmation of below grade being designed to free flow or surcharge (If surcharging, we need to know the height between the center of siphonic horizontal line at discharge to the manhole grate cover).

ROOF DRAINS

The provision of all the above requested information allows MIFAB to assist with your siphonic roof drainage design.

We will provide access to our MIFAB® HydroTechnic™ analytical design calculation software for the Engineer of Record, designer and contractor as directed by the EoR. Within HydroTechnic™ you can access the hydraulic calculation, edit the design, print the design calculation report, BOM and drawing files. All dimensions, GPM's, Routes, Pipe Materials, etc. should be verified by EoR.

Please contact us at [hydromax@mifab.com](mailto:hydromax@mifab.com) at any time for assistance.

**We offer full-time FREE design support. Our experience includes 1,000's of Walmarts!**

**For access to the Hydro-Technic calculation program, go to  
<http://www.mifab.com/Catalog/Hydromax>  
 And return to [B.Ross@Hyromax.com](mailto:B.Ross@Hyromax.com)**

### CONTACT INFORMATION

@ [jstenklyft@mifab.com](mailto:jstenklyft@mifab.com)

☎ (903) 521-8180

@ [b.ross@HYDROMAX.com](mailto:b.ross@HYDROMAX.com)

☎ (903) 200-4748

@ [hydromax@mifab.com](mailto:hydromax@mifab.com)

☎ 1-773-341-3048

@ [jgremchuk@mifab.com](mailto:jgremchuk@mifab.com)

☎ 773-341-3004

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