

MIFAB BIG Big Max[®] - 50, 75 and 100 GPM HDPE Grease Interceptors

Specifications: MIFAB Series BIG[®] HDPE rotational molded grease interceptors with flow rating of _____ (indicated) and liquid holding capacity of _____ (indicated). Unit shall include 30" x 30" x 12" HDPE tank with 18" x 18" x 12" HDPE cover, stainless steel collection surface plate (cover or flow control), anchor plate access and 4" x 4" x 1/2" stainless steel outlet connections. Steel reinforced composite lid provides a water / gas tight seal and has a maximum of 20,000 lbs. load capacity. The lid is designed in accordance with the building department and AASHTO H-20 load rating. The lid is designed in accordance with the building department and AASHTO H-20 load rating. The lid is designed in accordance with the building department and AASHTO H-20 load rating.

Illustrated with Direct Connected Lid (Standard)

Model No.	Flow Rate (GPM)	Grease Design Capacity (Gallons)	Liquid Holding Capacity (Gallons) (Cul. Ft.)	Sediment Capacity (Gallons)	Ø	Shipping Weight (Lbs.)
BIG-500	50	250 Lbs. (30 Gallons)	55.7 (6.6)	28	28.00"	92
BIG-750	75	500 Lbs. (70 Gallons)	142.1 (16.8)	42	33.50"	150
BIG-1150	100	1,500 Lbs. (210 Gallons)	300.4 (35.2)	115	33.50"	275

Job Name: _____ **Page No:** _____
Section No: _____ **Contractor:** _____
Schedule No: _____ **Purchase Order No:** _____

MIFAB reserves the right to make changes in material and design without formal notice and obligation. USA: 1-800-465-2736 www.mifab.com CAN: 1-800-387-3880 2021-11-29

MIFAB **LiMax** **BIG MAX** **SuperMax** **INT-2022**

GREASE INTERCEPTOR CAPACITY DATA

Model No.	Flow Rate (GPM)	Liquid Cap. (Gal)	Grease Design Cap. (Lbs)	Sediment Cap. (Gal)
LIL-7	7	5.8	37	2.0
LIL-10	10	8.5	42	2.0
LIL-15	15	13	50	3.1
LIL-20	20	16	73	3.9
LIL-25	25	23	79	5.6
LIL-35	35	39	86	10.6
LIL-50	50	44	109	11.9
LIL-25-LP	25	19	74	11.9
BIG-750	75	140	601	42
BIG-1150	100	300	1556	115
SUPER-500	250	539	3492	53
SUPER-750	250	772	5002	77
SUPER-1000	250	1015	6577	102
SUPER-1250	250	1262	8177	126
SUPER-1300	250	1312	8501	131
SUPER-1500	250	1522	9862	152
SUPER-2000	250	2022	13102	202

Capacities listed are for reference. Many external circumstances can have an effect on the data provided.

GREASE PRODUCTION VALUES

PUMP OUT PER DAY	MEALS PER DAY	1	2	3	4	5	6	7	8
250	LIL-7	0.005 lbs./meal	0.0065 lbs./meal	0.022 lbs./meal	0.0325 lbs./meal	0.035 lbs./meal	0.0455 lbs./meal	0.058 lbs./meal	0.075 lbs./meal
30	750	LIL-50	BIG-750	BIG-1150	BIG-1150	BIG-1150	BIG-1150	BIG-1150	BIG-1150
1000	BIG-750	BIG-750	BIG-1150	BIG-1150	BIG-1150	BIG-1150	BIG-1150	SUPER-500	SUPER-500

GREASE PRODUCTION SIZING METHOD

1. **SIZE BY PIPE DIAMETER/FLOW RATE**
 Hydromechanical grease interceptor sizing using gravity flow rates (Per Chapter 10 of the Uniform Plumbing Code)

DIAMETER OF GREASE WASTE PIPE	MAX. FLOW PIPE FLOW	ONE MONTH DRAINAGE PERIOD	TWO MONTH DRAINAGE PERIOD
2"	20 GPM	20 GPM	10 GPM
3"	60 GPM	75 GPM	35 GPM
4"	125 GPM	150 GPM	75 GPM
5"	230 GPM	250 GPM	125 GPM
6"	375 GPM	500 GPM	250 GPM

2. **FIND GREASE PRODUCTION VALUE**

RESTAURANT TYPE	GREASE PRODUCTION VALUES	GREASE PRODUCTION VALUES
Low Grease Production	005 lbs./meal no fatware 0065 lbs./meal with fatware	From pigout, hotel breakfast bar, fast food, sports, deli, bar, convenience store, residential
Medium Grease Production	025 lbs./meal no fatware 0265 lbs./meal with fatware	Cafes, low grease output restaurant, pizza restaurant, grocery stores (with no fryer), ice cream parlor
High Grease Production	035 lbs./meal no fatware 0455 lbs./meal with fatware	Full line family, German, Italian, fast food Mexican, hamburger bar and grill and fast food restaurant, medium level restaurants with fryer
Very High Grease Production	058 lbs./meal no fatware 078 lbs./meal with fatware	Full line BBQ, fast food fast chicken, fast line Mexican, Steak and Seafood, Hawaiian and Chinese

3. **CALCULATE GREASE CAPACITY**

MEALS PER DAY X GREASE PRODUCTION VALUE (STEP 2) X DAYS PER PUMP OUT CYCLE = GREASE CAPACITY NEEDED

4. **ABOVE GRADE INSTALLATION - ANCHOR KITS**

Anchor kit is recommended for installation in high water table conditions to prevent float out. Necessity to be determined by Project Engineer. Hold down force achieved by backfill weight acting on Anchor plates. Place Anchor hook over handle on interceptor. Bolt hardware through hole of anchor hook, to ensure hook does not become removed. Anchor plate may be bolted to concrete slab using provided holes.

MIFAB **LiMax** **BIG MAX** **SuperMax** **INT-2022**

GREASE PRODUCTION SIZING METHOD

Some industry people believe that sizing grease interceptors based on the amount of grease that is produced in a restaurant or kitchen makes a lot more sense than sizing based on flow rate of water and / or drainage fixture units going into the grease interceptor. This can be done first by flow rate and then by grease capacity for pump-out cycle. Note that local codes and ordinances should be followed for compliance. For example, a Chinese restaurant with a 4" drain line can be sized to require a grease interceptor with a 50 GPM flow rate. Therefore, two restaurants with very different meal types and production of grease can end up having the same code compliant grease interceptor sized.

The following information and sizing chart can be used to size grease interceptors based on the grease produced in a variety of different restaurants. Note that local codes and ordinances should be followed for compliance.

"If I buy MIFAB HDPE grease interceptors for one reason, the local rep. it is the ability to get my questions answered quickly. The local knowledge is a great resource."
 -Mark Gomez, Manager, HDO Service, Louisville, KY

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BIG-SP/L-OF - BIG MAX HDPE SAMPLING PORT 36" HEIGHT WITH H-20 LID

SPECIFICATIONS

NOTES:
 1. 4" no-hub connection for inlet/outlet.
 2. Unit weight total-125lbs.
 3. Unit supplied with H-20 load rated access cover, 18" corrugated pipe, and sealing gasket.
 4. Maximum operating temperature: 180° F continuous.
 5. Unit for below ground application; -DC for direct connect lid in above ground application.

ENGINEER SPECIFICATION GUIDE
 MIFAB sampling port models BIG-SP, BIG-SP-OF, and BIG-SP-L are made in the USA of molded polyethylene.

SECTION A-A (Level Connection)
 SECTION A-A (Offset Connection)
 SECTION A-A (Low Level Connection)

Fabricated SS trough to retrieve waste water sample as effluent is flowing

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INSTALLATIONS

BELOW GRADE/BACKFILL INSTALL:

- Install the interceptor(s) as close as practical to the fixtures being served.
- The excavation must be a minimum of 12" greater on all sides of the tank.
- The depth of the excavation must be greater than 6" on the bottom of the interceptor.
- Fill the interceptor with water prior to backfilling in order to prevent the interceptor from floating.
- Fully install the double wall corrugated pipe and lid prior to backfilling.
- Concrete or finishing material requirements is to be determined by the specifying engineer.
- Encase the interceptor in well-packed 3/4" rock, or sand, do not compact backfill around interceptor.
- To prevent float out: the Anchor kit is recommended for installations in high water table conditions. This is to be determined by the specifying engineer.

FINISHED CONCRETE SLAB
 Slab must extend 18" minimum outside the footprint of the unit. Pedestrian traffic areas: 4" thick reinforced concrete slab required. Vehicular traffic areas: Minimum 6" thick concrete slab with rebar is required.

Thickness of concrete around cover to be determined by specifying engineer. If traffic loading is required, the concrete slab dimensions shown are for guiding purposes only. Concrete to be 28 day compressive strength to 4,000 PSI. Use #4 rebar (1/2") grade 60 steel per ASTM A615; connected with wire wire. Rebar to be 2-1/2" from edge of concrete and spaced in a 12" grid with 4" spacing around access openings.

CONCRETE SLAB DETAIL

FINISHED GRADE
CORRUGATED PIPE EXTENSION
NATIVE SOIL
BACKFILL (NOT COMPACTED)
WELL PACKED BASE
ANCHOR TAB (OPTIONAL)

FINISHED GRADE
CORRUGATED PIPE TO GRADE
FINISHED GRADE
RECOMMENDED 2-WAY CLEANOUT TEE TO GRADE

TOP VIEW
ELEVATION VIEW

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INSTALLATIONS

EXTENSION COLLAR INSTALLATION

- Set the BIG MAX unit height to grade by installing the 18" diameter corrugated pipe onto the top opening of the body, then insert the lid on top to measure and adjust the finished height from the top to grade. If less extension is needed, measure the required dimension and mark the extension. Then cut to fit with a saw. The extension system is ADS pipe and is designed to be field cut as needed. If a longer extension is required to meet grade, new ADS pipe can be purchased and cut to length in order to equal grade. (ADS pipe part #18N12)
- Install the Pipe Gasket between the bottom ribs. Then firmly press the 18" diameter pipe into the top opening of the body. The gasket is designed to fit tightly around the extension collar. Prying the gasket into place with a pry tool can save time and make this process easier. Watch the installation video at www.bit.ly/ADS-gasket
- Insert the extension collar and pipe gasket onto the opening of the BIG MAX. Press firmly until the extension is seated inside the provided recessed channel. The BIG MAX is designed to fit tightly, and installation can be made easier by wetting the receiving area with mild soapy water. This will reduce the friction and allow the extension to press more easily into place.
- Remove the cover from the lid assembly to see the predrilled screw holes. Affix the lid gasket with the self adhesive onto the underside of the collar. Place lid assembly onto the top of the corrugated pipe. Connect the lid assembly collar to the pipe with the 8 self tapping screws into the counterbore holes. Replace lid back onto the lid assembly collar.
- When installing the collar on concrete roads, an 8 inch-wide concrete ring beam with a 16" width guard circle around it should be poured between the collar and brick setting to make the surrounding compaction level and unmovable.
- When installing the collar on a bituminous road, the collar must be installed after the road is paved. Roller compaction by construction equipment around the collar must be avoided. A hole that is slightly larger than the collar should be inserted before pouring the pavement. The reserved hole can help ensure the installation quality and prolong the usefulness of the installation.

COVER HARDWARE
COVER
LID HARDWARE
LID
CORRUGATED PIPE
CORRUGATED PIPE GASKET

COVER
ADS CORRUGATED PIPE (ADS PART #18N12)
HDPE INTERCEPTOR
CORRUGATED PIPE SEALING GASKET (ADS PART #18R04)

COVER
7" PORT HEIGHT

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SPECIAL PRECAUTIONS

4. ABOVE GRADE INSTALLATION - ANCHOR KITS

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ANCHOR KIT (SET OF 4) TO BE PLACED ON EACH HANDLE

SECTION A-A
DETAIL A SCALE 1:4

ANCHOR HOOK
ANCHOR PLATE

MIFAB SAFETY SHIELD

The issue of open sewer manholes is a real one. Unfortunately, interceptor lids are sometimes not secured properly and / or left off the interceptor. This has resulted in people falling into the interceptor - causing drowning and deaths. MIFAB's solution is the Safety Shield. It is a heavy duty fabricated steel, powder epoxy coated plate with a 450 lb. load rating that is installed underneath the lid, on top of the pipe extension. The Safety Shield provides enough access for inspection and pump out / maintenance while preventing people from falling into the interceptor. It can also be removed for full access to the interceptor. The MIFAB Safety Shield is available with all Big Max and SuperMax interceptors and is installed on top of the corrugated pipe extension before the lid assembly is placed on top of the pipe extension.

Big Max Safety Shield Model # BIG-STR
List Price of \$614.00

SuperMax Safety Shield Model # SUPER-STR
List Price of \$614.00

Note: A different design of Safety Shield is available from MIFAB for installation after the interceptor is installed in the ground. Contact MIFAB for part number and pricing.

Additional Venting for Floor-Below Installation

Vent terminate above the top rim of the sink

Vent stack

Kitchen floor

Add this vent if unit is installed one or more floors below the fixture being served.

Basement Installation with Pumpout Kit

3" Cam-groove fitting for pumpout connection

3" Ball valve

Piping by others

Pumpout kit port by Mifab

Installation with Sampling Port (BIG-SP)

FLOW

Recessed and Suspended

Must be fully supported

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TITLE: 50GPM HDPE GREASE INTERCEPTOR

SIZE DWG. NO. **BIG-500** REV

SCALE: 1:11 WEIGHT: SHEET 1 OF 1

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