Pan America Environmental, Inc.

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ENGINEERING SPECIFICATION

# MP Coalescing Oil Water Separator Media Pack

Engineering Specification

| GET A QUOTE | SPEAK TO AN ENGINEER |
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**PRODUCT PAGE**

https://www.panamenv.com/oil-water-separators/media-pack/

## SECTION 1.0 MP OIL SEPARATION MEDIA PACK DESIGN

### Purpose, Performance & Applications

Pan America Environmental, Inc. MP coalescer media pack system is designed for the separation of oils and fuels from waste water streams where oils and fuels are present. Flopak separator media packs can be sized and installed and retrofit in a variety of oil water separator tank designs in above ground and below ground applications.

The typical performance we design for is: 10 mg/l or less of oil droplets 30 micron and larger of non-emulsified, free and dispersed oils.



### Applications (small variety)

- Stormwater oil removal media
- Industrial water media
- Refinery oil water separation media
- Machining coolant media
- Separator retrofit media
- Canmaking coolant oil removal
- Precast vault oil water separators
- Parking lot oil water separators


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## Preliminary Sizing Detail

For accurate sizing our sales engineers can run calculations based on API 421 to quickly size and quote a Flopak system for you. How to size coalescing media: We will need the following details to perform the review:

- Flow GPM
- Oil/fuel type & concentration
- Water temperature
- Solids type and concentration
- Discharge limitations (if available)

## Media Pack Design

The MP series media packs are provided with the following standards:

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| **Frame MOC:** | 304/316SS, aluminum, polypropylene |
| **Coalescing media:** | Flopak or HDQPak |
| **Frame dimensions:** | Dimensions vary per application |
| **Frame details:** | Removable cover, lifting lug, sludge riser, anti-bypass baffles |
| **Flow rate:** | Any flow rate required |

## Improved Water Distribution

The engineered microstructure incorporated into the Flopak cross-fluted designs enhances water distribution and creation of high-density impact site throughout the coalescing media depth.

## Dedicated Bond Points

Pan America Environmental, Inc.’s cross-fluted coalescers feature bonded edges for added media strength and durability.

## Beveled Tips

Beveled tips are incorporated into the cross-fluted design to promote drainage at the fill pack interfaces.

## Mechanical Assembly

Pan America Environmental, Inc.’s Mechanical Assembly technology has been improved for the production of Flopak, yielding connections that are 50% stronger than glued.

## Mechanical Flow Path

Flopak separator media has been designed for use in a variety of oil water separator designs in many application types. Flopak splits the water stream ten times in an 11.8-inch (300 mm) horizontal path, balancing velocity reduction and turbulence diffusion.


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## Microorganisms

The process of bacteria growth can provide weight gain and slime accumulation on the media surface in some applications so to limit the number of microorganisms attaching to the plastic and prevent fouling an antimicrobial compound is added to the plastic resin to slow the growth of many forms of bacteria.

## Models & Details

### MP-XXX.5-PV

| | |
|---|---|
| **Plate spacing:** | 1/2” |
| **MOC:** | PVC, HPVC, polypropylene |
| **Frame MOC:** | 304 SS, 316 SS, Aluminum, polypropylene |
| **Flow splitting:** | 10 X in 12” of length |
| **Plates per ft width:** | 26 |
| **Ft2 per ft3:** | 69 Ft2 |
| **Corrugation angle:** | 60° in horizontal cross-flow configuration, 30° in vertical cross-flow configuration |
| **Nominal gauge mils:** | 15 |
| **Dry weight Lbs:** | PVC/HPVC: 3.8 Lbs, PP: 1.75 Lbs, |
| **Solids handling:** | 50 – 100 mg/L (type, particle size, surface characteristics and other elements can affect solid handling and recommended cleaning cycles) |
| **Standard dimensions:** | 24”L X 12”W X 11.75”H (PVC/PP stock, available dims) other lengths by order |
| **Temperature Max:** | PVC: 140° HPVC: 150° PP: 180° SS: No limit |
| **Fabrication technique:** | Thermo-forming |
| **Attachment method:** | PVC/HPVC: Solvent bond, Polypro: Tension crimp |


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## MP-XXX.75-PV

| | |
|---|---|
| **Plate spacing:** | 3/4” |
| **MOC:** | PVC, HPVC, polypropylene, SS 304L |
| **Frame MOC:** | 304 SS, 316 SS, Aluminum, polypropylene |
| **Flow splitting:** | 10 X in 12” of length |
| **Plates per ft width:** | 16 |
| **Ft2 per ft3:** | 48 Ft2 |
| **Corrugation angle:** | 60° in horizontal cross-flow configuration, 30° in vertical cross-flow configuration |
| **Nominal gauge mils:** | 15 |
| **Dry weight Lbs/Ft3:** | PVC/HPVC: 2.4 Lbs, PP: 1.75 Lbs, SS:4.8 Lbs. Per Ft3 |
| **Solids handling:** | 100 – 300 mg/L (type, particle size, surface characteristics and other elements can affect solid handling and recommended cleaning cycles) |
| **Standard dimensions:** | 48”L X 12”W X 12”H (PVC stock, available dims) other lengths by order |
| **Temperature Max:** | PVC: 140° HPVC: 150° PP: 180° SS: No limit |
| **Fabrication technique:** | Thermo-forming |
| **Attachment method:** | PVC/HPVC: Solvent bond, Polypro: Tension crimp, SS: Edge bond weld |

## MP-XXX.12-PV

| | |
|---|---|
| **Plate spacing:** | 1.2” |
| **MOC:** | PVC, HPVC, polypropylene, SS 304L |
| **Frame MOC:** | 304 SS, 316 SS, Aluminum, polypropylene |
| **Flow splitting:** | 10 X in 12” of length |
| **Plates per ft width:** | 10 |
| **Ft2 per ft3:** | 31 Ft2 |
| **Corrugation angle:** | 60° in horizontal cross-flow configuration, 30° in vertical cross-flow configuration |
| **Nominal gauge mils:** | 15 SS: 5 |
| **Dry weight Lbs/Ft3:** | PVC/HPVC: 1.6 Lbs Per Ft3 |
| **Solids handling:** | 300+ mg/L (type, particle size, surface characteristics and other elements can affect solid handling and recommended cleaning cycles) |
| **Standard dimensions:** | 48”L X 12”W X 12”/24”H (non-stock, other lengths available) |
| **Temperature Max:** | PVC: 140° HPVC: 150° |
| **Fabrication technique:** | Thermo-forming |
| **Attachment method:** | PVC/HPVC: Solvent bond |


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## Applications

- Precast concrete vault oil water separator
- Facet MPak media
- Old Castle vault media packs
- Stormwater oil water separator
- MPak coalescing plate pack replacement
- Precast vault coalescing media
- Concrete vault coalescing packs
- Jensen precast coalescing media
- Direct replacement coalescing packs
- Retrofit kits for concrete vaults
- Coalescing media packs for precast oil water separators
- High performance coalescing media precast concrete
- PVC plate coalescing media for concrete vaults

## Specifying an MP Coalescing Oil Water Separator Media Pack for your project?

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