



# Mucon A2P Iris Diaphragm Valve and HDPE Bottle Recycling

Americans use 2.5 million plastic bottles every hour,<sup>1</sup> most of these bottles are produced from HDPE plastic. Of these HDPE bottles, 1.15 million pounds are collected for recycling per year.<sup>2</sup> They are then cleaned, shredded, melted and extruded into pellets. These pellets are used in the manufacturing of plastic lumber, containers, trays, pipe, cutting boards, furniture, and films.

## Requirements

An HDPE recycler required a valve to assist in the inline control of shredded raw HDPE feed before the heat and extrusion process. The valve required must have a full-bore opening, be abrasion resistant, non-jamming and withstand frequent operation in a harsh environment.



[www.MuconUSA.com](http://www.MuconUSA.com)  
215-788-8013

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## The Solution

The Mucon Sales Team at Kemutec recommended the **Mucon A2P Iris Diaphragm Valve** with a coated poly nylon diaphragm and a red rubber inner liner. The coated poly nylon diaphragm provides strength and load-bearing capability, and the red rubber liner is formulated to resist abrasions and nicks. The liner can also be replaced without removing the diaphragm for easy maintenance.

The Mucon A2P Iris Diaphragm Valve also has an electric actuator with a 3-position switch assembly or is available with a pulse count for multiple diaphragm positions. It provides a full bore opening, lightweight, and compact requiring minimal space. It also features a self-supporting motor.

## Other Features of the Mucon A2P Iris Diaphragm Valve

- Double diaphragm for in-line applications with no leakage to atmosphere
- Suitable for heavy-duty materials up to 1600 kg/m<sup>3</sup>
- Quick operation, capable of opening or closing in one second
- Belt driven for quiet operation
- Drive ring supported on bearings for smooth operation
- Valve is sealed against ingress of dust
- Low profile compact design
- Fully open, closed and intermediate electric proximity sensors
- Electric or air motor operation to suit application

- Special switch/solenoid packages for hazardous locations\*
- Surface coating to suit corrosive environments\*
- 316 stainless steel product contact parts\*
- ATEX Certified to Category 2D \*

\*optional

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For more information on the Mucon A2P Iris Diaphragm Valve contact us at [www.MuconUSA.com](http://www.MuconUSA.com), [Sales@MuconUSA.com](mailto:Sales@MuconUSA.com) or 215 788-8013



*Mucon A2P provides inline control of product feed.*

<sup>1</sup><https://recyclingfacts.org/>

<sup>2</sup><https://plastics.americanchemistry.com/2015-United-States-National-Postconsumer-Plastic-Bottle-Recycling-Report.pdf>



130 Wharton Road • Bristol, PA 19007  
Telephone: 215 788-8013  
Email: [Sales@MuconUSA.com](mailto:Sales@MuconUSA.com)  
Web: [www.KemutecUSA.com](http://www.KemutecUSA.com)  
[www.MuconUSA.com](http://www.MuconUSA.com)