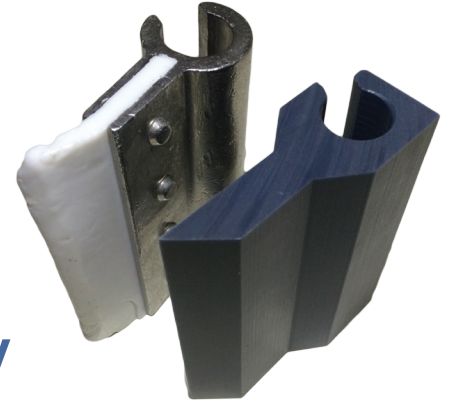




BOEDEKER PLASTICS, INC.



Sanitary Design & Enhanced Food Safety

One Piece Design | Metal Detectable Plastic

Case History | Food & Beverage Industry



Boedeker Plastics enhances food safety and sanitary design with scraper blades for mixing kettles in the food processing industry.

Problem

A two part scraper blade with a stainless steel base and UHMW blade, which had crevices for food product to migrate and collect. This required additional cleaning and potential for bacteria growth.

Solution

A new sanitary design eliminating the two part blade with food grade metal detectable Polystone® M MDT UHMW. This design is easier to clean and eliminates the crevices of the two part blade design and minimizes the possibility of product contamination. It also provides additional food safety with the metal detectable UHMW material over the previous non-detectable FDA grade UHMW blade.

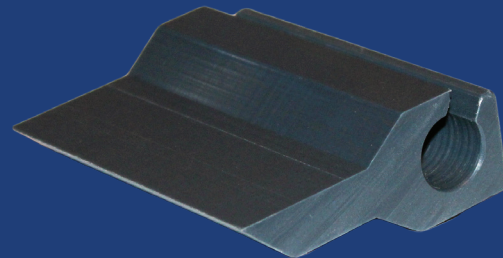
Result

The new design has been in service for several years, reducing cleaning and maintenance costs and enhancing food safety.

ORIGINAL TWO PART DESIGN



NEW SANITARY DESIGN



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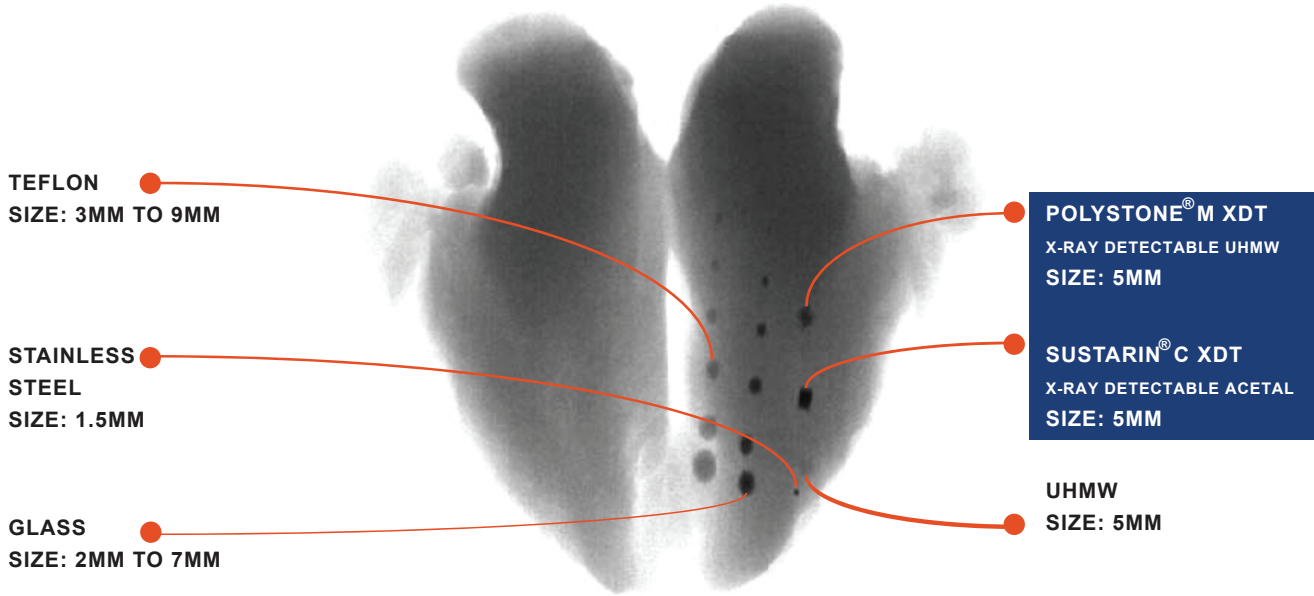
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DETECTION SIZE REFERENCE

X-RAY DETECTION MATERIALS COMPARISON

CHICKEN BREAST X-RAY SCAN

*XDT MATERIAL VISIBLE AS SMALL AS A 3MM CUBE



X-Ray Scan provided by Röchling Engineering Plastics from INSPX X-Ray Machine.

**Note: It is the responsibility of the user to test and approve the detection of this product due to variations in metal detection & x-ray detection systems and required sensitivity settings. Röchling's XDT product line has proven to be detected with a particle size as small as a 3mm cube at speeds up to 250 feet per minute.*

METAL DETECTION MATERIALS COMPARISON

Sustarin[®] C MDT (Acetal)

Ferrous (Sphere mm)	Non-Ferrous (Sphere mm)	Stainless Steel (Sphere mm)	Sustarin [®] C MDT (Cubed mm)
0.70	0.70	1.00	2.45
0.80	0.90	1.10	2.80
0.90	1.00	1.20	3.15
1.00	1.20	1.50	3.50
1.20	1.32	1.58	4.20
1.30	1.50	1.90	4.55
1.50	1.60	2.20	5.25
1.60	1.80	2.40	5.60

Polystone[®] M MDT (UHMW)

Ferrous (Sphere mm)	Non-Ferrous (Sphere mm)	Stainless Steel (Sphere mm)	Polystone [®] M MDT (Cubed mm)
0.70	0.70	0.80	2.33
0.80	0.80	1.00	2.66
0.90	0.90	1.10	3.00
1.00	1.00	1.20	3.33
1.20	1.20	1.50	4.00
1.30	1.27	1.60	4.33
1.50	1.50	1.80	5.00
1.60	1.60	2.00	5.33

Note: This test was designed to provide an estimate for the size of Sustarin[®] C MDT or Polystone[®] M MDT that could be detected in any product using Safeline Metal Detectors when the Ferrous, Non-Ferrous, or Stainless Steel standard detection size is known. It is reasonable to expect the corresponding equivalent conductive material of Sustarin[®] C MDT or Polystone[®] M MDT detected as well in the same product under same testing conditions.



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