## Screening Process Consulting POLYDECK







The industry leader in synthetic modular screen media, technology and systems since 1978

# **Screening Process Consulting**

If you're designing a new plant or an addition to an existing one, there are many decisions to be made. A second opinion would help to ensure that the right choices are made in your screening process. It is important to know that your screen media is matched correctly with your vibrating screen sizes, and that both your vibrating screen and screen media will keep pace with the crushing side.

Polydeck offers just such a service by acting as your unbiased partner - offering expert evaluation of your plant flow design with independent recommendations to maximize screening efficiency - and ultimately your production. Our Screening Process Consulting Service is conducted by specialists in screening efficiency who's stake in your project is to help ensure that you get maximum performance and production from your screening process. The service is customized to each project and is conducted in complete confidentiality.



## When Is Best?

The best time to involve our screening process experts is once your plant flow design has been completed, but before capital purchase decisions have been made. This allows a review of all potential product mixes so gradation inconsistencies and plant bottlenecks can be identified and adjustments made before your capital has been committed. By evaluating your plant flow early, time and money can be saved by avoiding mistakes that are much more costly to correct later in the project.

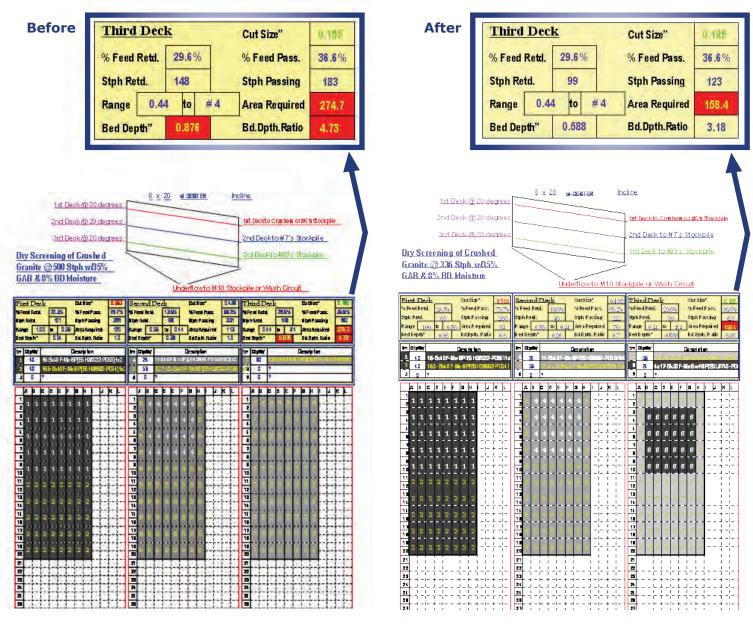
## **Our Credentials**

Our Screening Process Consulting Service is performed by a team of application specialists and industry managers with more than 100 years of combined experience in field operations, plant management, and screening technology. They are backed by the resources and talent pool of the entire Polydeck organization. The result is a recommendation that enables our customers to determine their product mix rather than having the resulting product mix from the plant and process design determine production targets. Thus screening actually functions as a major operational tool, not an afterthought.



### The Tools We Use

In examining your plant flow and process requirements, Polydeck utilizes not only our 30 years' experience in screening technology and operations, but also specialized software programs like AggFlow and our own proprietary process evaluation software. This unique combination of hands-on plant experience and customized software tools enables us to capture the critical statistics of your existing or proposed operation and then run "what-if" scenarios to arrive at a screening process recommendation that is optimized for your application. You can see how changing variables within your screening operation will affect itsoverall efficiency.



Existing conditions resulted in excessive bed depth and a required screening area that was much greater than the screen deck was capable of. Running "what if" scenarios allowed a reduction in bed depth and screening area requirements by changing the configuration of the modular screen panels, without sacrificing % retained and % passing.

## **Case Study 1**

#### Mining

A copper mine in South America used wire mesh on five tertiary screens in the plant. The copper ore is wet, sticky and abrasive which constantly blinded over their screens. Polydeck's Screening Process Consulting Service reviewed the plant flow and moisture content, along with other associated issues. A synthetic screen media design was recommended that eliminated blinding on the screen surface and allowed the customer to operate only three of the five screening lines, while sending the same amount of material to the leach pad. Because of the success of this solution, the mine has since expanded its operating capacity and now uses only 4 screening lines.

#### Case Study 2 Aggregate

A rock producer altered his plant flow to provide different products as the market required. He was unable to consistently meet spec on the middle and bottom deck over products (7's & 89's) of his 'dry finish screens', thus causing the need for further processing (manual transport of out-of-spec product to a rinse tower to wash and rinse before it could be sold). Polydeck's Screening Process Consulting Service reviewed his entire plant flow, gradation data, moisture readings, equipment specs and deck loads. Using our

process evaluation software, we were able to suggest changes to

the feed rate and the screen panel layout that not only brought product consistently into spec (even with varying moisture contents), but eliminated the need for the final process step. The result was the ability to make in-spec products without expensive reprocessing regardless of the ambient weather conditions - a major saving of cost, time, and space.

## Case Study 3

#### Mining

A mine was using three decks for scalping ahead of a secondary cone crusher. The media being used was inefficient and the three decks were barely able to keep up with the high tonnage demands. Blinding caused by moisture content in the feed further aggravated the problem and the moisture was expected to increase as the open pit operation approached the water table. Polydeck's Screening Process Consulting Service reviewed the entire plant flow, gradation data, moisture readings, equipment specs and deck loads. As a result of the study, the recommended change in screen media allowed them to operate with only two of the three decks, while maintaining higher availability and

## **Make the Right Choice**

Make sure that the equipment choices and production specifications of your new or expanding plant are based on your priorities. Polydeck's Screening Process Consulting Service offers an independent evaluation of your plant flow, leading to greater peace of mind and a plant that performs better from initial start-up.



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