

Title (en)  
Differential rate screening.

Title (de)  
Differentialsiebring.

Title (fr)  
Tamisage différentiel.

Publication  
**EP 0094741 A2 19831123 (EN)**

Application  
**EP 83302020 A 19830411**

Priority  
• US 36696182 A 19820409  
• US 36696582 A 19820409

Abstract (en)  
Disclosed are differential rate screening processes and apparatuses for continuously screening undersize particles in different size classes to different degrees of incompleteness to provide a product having a preselected distribution of particle sizes substantially different from the distribution of particle sizes in a feed of particulate material. An input stream of feed material (62 min ) is introduced onto a screening member (60 min ) having apertures of sufficient size to pass a plurality of size classes, and is separated into at least a throughs stream (250 min ) and one other stream (252 min ) by causing undersize classes to pass through screen apertures (64 min ) and into a throughs stream (250 min ) in proportions relative to one another substantially different from the proportions of the same undersize classes relative to one another in the input stream (62 min ). The overs, throughs or both from one rate screening member (60 min ) may be introduced as an input stream onto another rate screening member (68 min ). A sufficient population of undersize particles are provided in each undersize class and differentials between relative proportions of undersize classes in an input stream (62 min ) and relative proportions of undersize classes in a throughs stream (250 min ) are controlled so as to provide a product having substantially the desired particle size distribution. Various means such as a shroud (130 min ) are provided for causing differentials between relative proportions of undersize classes in an input stream (62 min ) and relative proportions of undersize classes passing through a screening member (60 min , 68 min ) and into a throughs stream (250 min , 258 min ), and for controlling these differentials. An output stream from one rate screening member (60 min ) may be blended with an output stream from another rate screening member (68 min ) and at least a portion of an output stream from one rate screening member may be recycled to a crusher and then sent to the same or a different rate screening member.

IPC 1-7  
**B07B 9/00**

IPC 8 full level  
**B07B 9/00** (2006.01); **B07B 13/18** (2006.01)

CPC (source: EP)  
**B07B 9/00** (2013.01); **B07B 13/18** (2013.01)

Cited by  
GB2228215A; CN113145439A; CN115399407A; AU2017206261A1; AU2017206261B2; US2019091727A1; EP3439798A4; WO2017173482A1; WO2022229094A1; US10967403B2; US11607710B2; EP3326720B1

Designated contracting state (EPC)  
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