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The Benefits of installing FLOW'S Scanning Optic technology in the Final recovery are:

One of the key factors in diamond recovery is to recover all diamonds (including low luminescent diamonds) without generating excessive yield.

Excessive amounts of sorter concentrates require a lot of effort, inefficient, secure hand sorting and in many cases necessitate passing such concentrate through additional re-concentration machines before hand-sorting becomes feasible.

Reducing the amount of yield generated by a primary diamond recovery machine is generally achieved by lowering a sorters optical detection sensitivity at the cost of lower diamond recovery in the low luminescent spectrum of diamonds.

Flow Sort's recently developed and patented optical diamond scanning technology made it possible to operate X-ray diamond recovery machines at a high optical diamond luminescence detection setting without increasing the sorters yield. This is essential for the recovery of low luminescent diamonds.

If no "low" luminescent diamonds are present in the feed to the sorter FLOW'S new scanning technology guarantees a substantially lower yield (without lowering the sorters diamond detection sensitivity).

In practice the employment of this new scanning technology has improved the recovery of diamonds especially in the "fines" range as it allows increases in diamond detection sensitivity and at the same time maintains or even reduces concentrate volumes.

In the "middling" to "coarse" size ranges the optic scanning unit substantially reduces concentrate volumes (yield).

Practical test results from various sites have shown reductions in concentrate volumes from between 50% to 90% (ninety per cent!). It follows that the man hours of hand sorting with all its associated security aspects, have been reduced proportionately.

The Benefits of a Hands Free FLOW X-ray diamond recovery system in the final recovery are:

The elimination of problems caused by sorter operators changing critical sorter parameters or not timeously responding to sorter status feedback or misinterpreting sorter status indicators.

Flow Sort's HAND'S OFF concept ensures that sorters are always running the correct optimal set-up (optical diamond detection sensitivity, material size range adjusted feed-rate etc).

FLOW'S system also automatically conducts essential tracer tests (typically every hour) and automatically ensures that sorter operating parameters remain optimally set.



FLOW'S HANDS-OFF system also ensures that a sorter cannot be operated if any problems that could jeopardise diamond recover or operator safety exists.

Operators are not able to override settings thus eliminating incorrect adjustments.

This system automatically maintains sorter settings until such time when a sorter requires maintenance. At that point the system does indicate which sorter part needs maintenance or must be replaced. This way it is ensured that maintenance personnel do change critical parts eliminating maintenance requirements being overlooked.

The Benefits of using FLOW SORT HIGH CAPACITY X-RAY DIAMOND RECOVERY MACHINE treating "large material" prior to crushing are:

Large diamonds will be recovered by such sorters prior to the ROM material being reduced in size by means of crushing. Crushing, being known to be a process that does break large diamonds.

FLOW X-ray Sorters are fitted with a state of the art optical detection system designed to recover low luminescent diamonds whilst keeping the amount of concentrate generated (yield) to a minimum..

FLOW X-Ray sorters are hands off diamond recovery modules which do not require supervision thus providing maximum security.