

## **TYPICAL SPECIFICATION**

### **MARTIN<sup>®</sup> S-CLASS<sup>™</sup> Air-Supported Conveyor System**

The material handling system will incorporate an air supported conveyor system. This air-supported belt conveyor will be designed and constructed to CEMA standards

This conveyor will use a film or stream of air released through a trough-shaped pan below the conveyor's belt to support the belt and the material load without need for idlers on the carrying side. The air will be supplied by a low-pressure centrifugal fan. Conventional return idlers will be used for the belt's return run.

The air-supported conveyor will use a "V"- shaped plenum to allow air movement along the conveyor length and trough the belt at a 35 degree angle. This plenum should maintain the 35 degree trough of the existing (conventional) idler set without distortion of the belt line.

The structural integrity of the V-plenum should allow its use in retrofit applications without requiring modification/re-engineering/reinforcement of the existing conveyor structure.

Constructed of galvanized mild (or stainless) steel, this plenum will be totally enclosed on the belt's carrying side to prevent the release of fugitive material. The plenum structure will be modular in construction to simplify installation.

The loading zone of the air supported belt conveyor will incorporate an engineered chute system to load the material onto the conveyor with centralized placement and minimal impact levels. Proper placement of the material will allow material loading without the requiring rubber skirting.

The supplier of the air-supported belt conveyor system will be certified to ISO 9001:2000 quality standards. The supplier shall provide performance guarantees.

The air-supported conveyor will incorporate a suitable multiple-element belt cleaning system. This system will be composed of a minimum of a urethane pre-cleaner installed on the head pulley below the material's discharge trajectory and one or more multiple arm and blade cleaners incorporating tungsten carbide cleaning elements. The cleaning system will also include a rubber-bladed V-plow to protect the tail pulley. Additional and/or specialty cleaners shall be incorporated to maintain effective cleaning as determined by material characteristics and operating conditions.

The air-supported belt conveyor will be the patented MARTIN<sup>®</sup> S-CLASS<sup>™</sup> Air Supported Belt Conveyor as supplied by Martin Engineering, Neponset, IL.

##

ADM 5/22/06