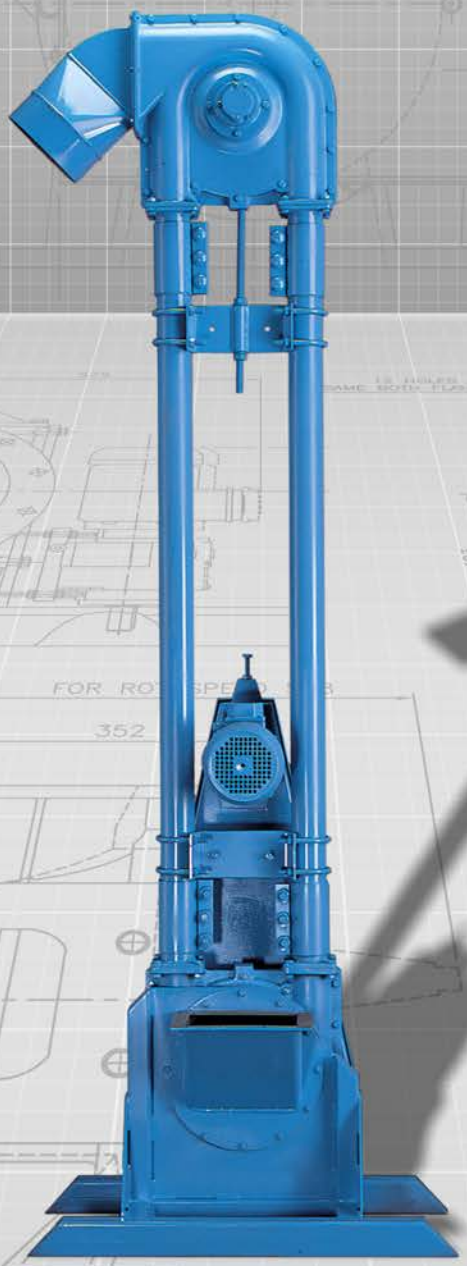
SOLITEC

ROTOLOK DISCAIR



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INTRODUCTION

The DiscAir is a well established method of air/product conveying. It works on the principle of a clamped polyurethane disc fixed to a wire rope travelling in a tube at a relatively high linear speed. The discs, loosely fitted in the tube draw in air and product, thereby effectively and efficiently creating fluidisation and product protection with minimal degradation.

The design lends itself to vertical and horizontal conveying or a combination of both.

Conveying distances are only limited by the horsepower consumption and physical constraints. By splitting the units into various or varying lengths unlimited distances can be conveyed.

Products handled are almost limitless, from light non-abrasive products like carbon black, to aggressive products such as iron oxide and sand.

As rope assembly speeds are considerably in excess of the conventional bucket elevators, the DiscAir is considered to have high capacities compared with other methods available on the market.

The 125mm unit can handle up to 120 tonnes/hr of product depending on bulk density.

DISCAIR FEATURES

The DiscAir Conveyor is based on a selection of housing assemblies positioned to meet site requirements. Each housing is fitted with standard thin wall tube by easily connected Compression Couplings.

The aluminium housings are constructed from two castings that can be split to allow inspection and cleaning, without dismantling the conveyor. All drive, return and elbow housing shafts are fitted with two accessible sealed bearings.

A simple vee-belt drive, using standard face mounted motor is used to maintain a high efficiency power to output load, while keeping noise levels to a minimum. Speed control is an easily fitted option. All the drive gear is fully enclosed in a coated steel guard. Special motors can be fitted to meet client specification.

For small or mobile units drive gear is mounted at low level. In fixed installations, with longer conveying lengths, drive gear is preferred at the high level return point. The wire rope passes through the housings and tube with its discs and disc clamps. A DiscAir feature is that disc maintenance and replacement can take place at any of the housing units, without removing the wire rope. Discs, selected to meet the needs of each application, are attached to the wire rope by a nylon clamp and stainless steel fastenings.

At the opposite position to the drive, an easily accessible external adjustment bolt maintains an even tension on the wire rope to sustain a smooth system. To supply material into the DiscAir conveyor a wide selection of feed devices are available; flooded hopper directly above the inlet chute; controlled chute feed; screw feed; Big Bag discharge frames. Vibration feeders can also be accommodated.

Outlet attachments are to suit site requirements. Standard is a 200mm round, but flanges, frames, valves and diverters, along with flexible connectors, to suit DiscAir or other conveying operations are readily available. As DiscAir operates at atmospheric pressure and within sealed tubes, outlet filters are not required to keep a controlled environment.

SPECIFICATION

Standard materials of construction

Housing
Aluminium/Mild Steel

Tubes
Mild Steel

Discs
Polyurethane with Nylon clamps

Wire Rope
Galvanized Mild Steel

Special materials of construction

Housing
Stainless Steel

Tubes
Stainless Steel

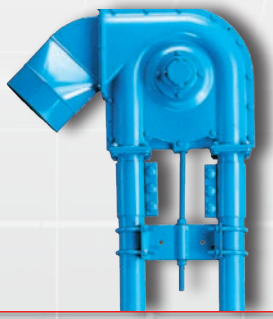
Discs
Viton, Natural Rubber, Nylon

Disc Clamps
Aluminium, Stainless Steel

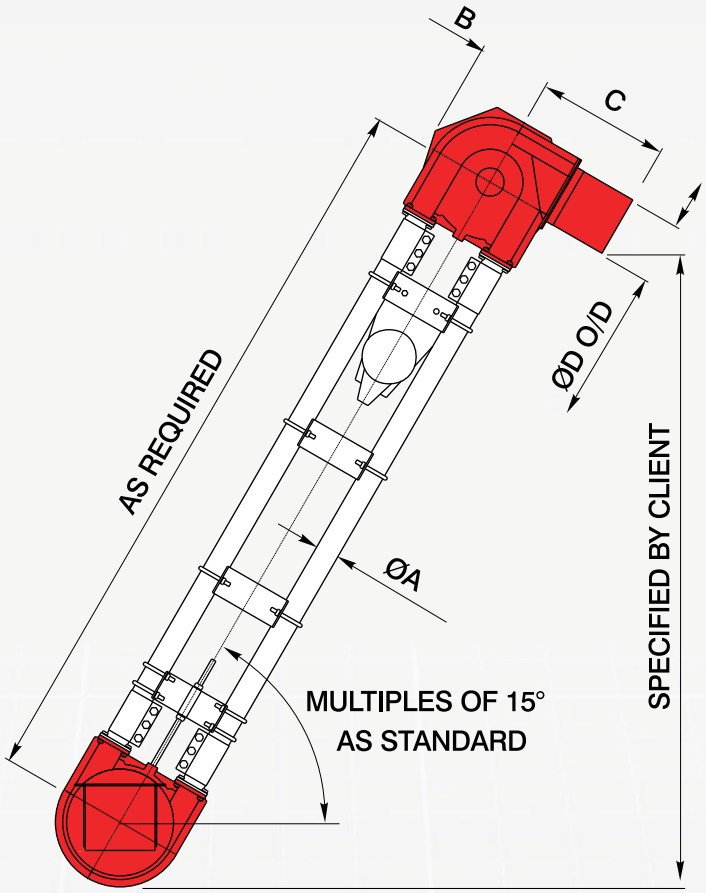
Wire Rope
Galvanized Mild Steel

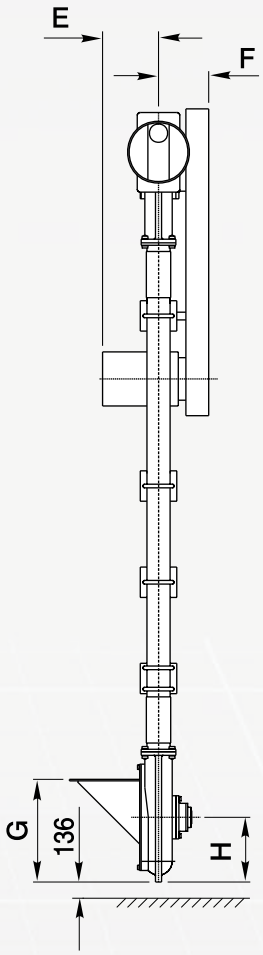
With this varied range of materials the DiscAir conveyor can be custom designed to suit:

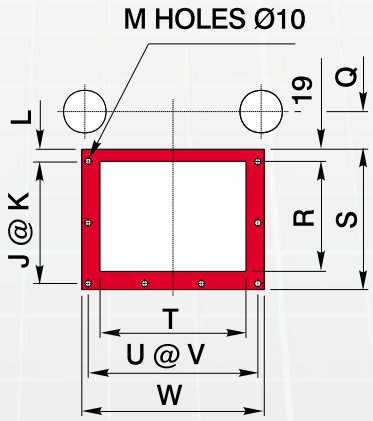
- the product to be handled
- the conveyor configuration
- the site condictions
- the material specifications



DISCAIR AEROMECHANICAL CONVEYOR







DETAILS OF INLET
FLANGE CONNECTION

SIZE A	TYPICAL FLOW RATE cu. M. / hr.
75	15
100	30
125	45

All dimensions are in millimetres

SIZES	A	B	C	D	E	F	G	H	J	K	L	M	Q	R	S	T	U	V	W
75	75	242	440	200	190	170	340	214	2	100	20	8	62	184	232	240	3	94	300
100	100	275	545	200	190	170	435	276	3	95	30	11	68	276	320	292	4	86	362
125	125	340	610	250	190	170	510	336	4	80	20	13	108	302	350	375	4	103	432

Planning-in detail for general guidance only
(To cover safety aspects ask for our safety leaflets)
Drillings are Rotolok standards. Variations can be made.

PRODUCTS HANDLED

The DiscAir can be used to convey a variety of products, including: Aluminium Hydrate, Barley, Calcium Carbide, Cast Iron Chips, Coffee, Iron Oxide Dust, Rye, Sand, Sugar, Wheat Flour and Tobacco.