# TECHNICAL DATA SHEETS Dynamic Conveyor

## **All-Metal Detector**

Detector Model: ACC7\_\_



Reliable Detection of <u>ALL</u> types of metal...

Steel • Aluminum • Copper • Brass • Stainless Steel

## **Special Features**

- Quick lead time
- Module adapts easily into existing Dyna-Con Conveyors
- No product effect caused by moist products
- No skid plate required, belt rides directly over the detector for maximum sensitivity
- Dry relay contacts are available for wiring into the conveyor circuit to stop the belt when metal is detected

## **Standard Scope of Supply**

- Detection Coil
- Electronic Controls
- Connection Cable (3 ft)
- Instruction Manual

## **Optional Equipment Available**

- Audible / Visual Alarm system to indicate the presence of metal on belt
- External Reset Button
- Additional Power Conditioner
- Digital Metal Counter (Resetable)

## **Suitable Applications**

## Blow Molding & Injection Molding

Ideal for inspecting tops, tails and sprues as they come off of molding machines and are fed to granulators. Prevents large pieces of metal from entering into the granulator and causing extensive damage to the blades and further contamination of the product stream.

Model No.	Module Size		Crossbar Length		Belt Width		Coil Size		Price
			(A)		(B)				
	in	Mm	In	mm	In	mm	In	mm	US
n/a	4	102	4.0	102	4.68	119	n/a	n/a	n/a
n/a	6	152	6.0	152	6.68	170	n/a	n/a	n/a
MD.SL.DYNA.0008	8	203	7.93	202	8.62	219	7.87	200	\$ Call
MD.SL.DYNA.0010	10	254	9.93	252	10.62	270	9.84	250	\$ Call
MD.SL.DYNA.0012	12	305	11.93	303	12.62	321	11.81	300	\$ Call
MD.SL.DYNA.0014	14	356	13.93	354	14.62	371	13.77	350	\$ Call
MD.SL.DYNA.0016	16	406	15.87	403	16.56	421	15.74	400	\$ Call
MD.SL.DYNA.0018	18	457	17.87	454	18.56	471	17.71	450	\$ Call
MD.SL.DYNA.0020	20	508	19.87	505	20.56	522	19.68	500	\$ Call
MD.SL.DYNA.0022	22	559	21.87	556	22.56	573	21.65	550	\$ Call
MD.SL.DYNA.0024	24	610	23.87	606	24.56	624	23.62	600	\$ Call
MD.SL.DYNA.0026	26	660	25.87	657	26.56	675	25.59	650	\$ Call
MD.SL.DYNA.0028	28	711	27.87	708	28.56	725	27.55	700	\$ Call
MD.SL.DYNA.0030	30	762	29.87	759	30.56	776	29.52	750	\$ Call
MD.SL.DYNA.0036	36	914	35.87	911	36.56	929	35.43	900	\$ Call
n/a	42	1067	41.87	1064	42.56	1081	n/a	n/a	n/a
n/a	48	1219	47.87	1216	48.56	1233	n/a	n/a	n/a
n/a	54	1372	53.87	1368	54.56	1386	n/a	n/a	n/a
n/a	60	1524	59.87	1521	60.56	1538	n/a	n/a	n/a

# Part Numbers and List Pricing

• See following page for drawings pertaining to this chart

• Note pricing is subject to change. Please use above pricing for reference only

• Pricing last updated Feb-12-03





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# **Required Modifications**



## Sensitivity Diagrams

Sensitivity of the SL under-belt detector is dependent upon the distance at which the metal passes over the detector surface. As this distance increases, the sensitivity decreases proportionally. SL coils are typically installed into a conveyor frame to inspect sprues, runners and reject parts as they are being transported to the granulator adjacent to the machine. Generally, the parts are loose on the belt and it's the occasional nut or bolt, which may have fallen off the press, that the customer is most interested in detecting. Since the nut or bolt will typically work its way to the belt surface while being conveyed on an incline, the SL detector is the perfect choice for protecting the blades of the granulator and can save hundreds if not thousands of dollars each time it senses a metal particle.



Note:

It is important to remember that if insert molded components need to be detected, samples must first be send in for testing to make sure they can be detected at the desired distance.



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# Features of the AMD 03 Controls

## **Temperature Compensation**

New technology makes it possible to operate the SL coils in extreme temperature variations without effecting the performance of the system.

## Easy to Use

All components used to adjust the controls are clearly marked on the printed circuit board. Setup and calibration of the system can be done without requiring any additional tools.

## **Diagnostics**

The electronic controls have a built in diagnostics circuit which monitors all functions of the detector. In the unlikely event that a fault occurs in the system, a fault LED will illuminate indicating that user intervention is required. A set of relay contacts are also provided so that the system can be wired to sound an optional alarm or communicate with a PLC.

## Auto-Balance

Upon initial start-up, the AMD 03 controls adjust themselves to the surrounding environment to provide the best performance possible for the operating conditions. There is no further tuning required by the operator.

#### **Noise Compensation**

Since these systems are intended for industrial use, it is common that installations are not perfect. With the aid of digital noise filtration, we remove some of these unwanted interference's without jeopardizing the overall performance of the system.

#### **Quality Control**

All AMD 03 circuit boards are manufactured using SMD components (Surface Mounted Devices) which not only minimize space requirements but they also provide superior performance in harsh environments. Each board is burned in prior to leaving for assembly to make sure each and every component free of defects.

#### Universal Controls

Each AMD 03 controller is 100% compatible with another. This makes stocking parts and exchanging boards virtually effortless. There are no special tools required to swap boards and entire procedure should take less than 5 minutes.

# **Electronic Controls**



#### **Technical Specifications**

Voltage Power Consumption Fuses Electronic Enclosure Operating Temperature Storage Temperature Humidity Conveying Speeds Paint Materials

Connection cable Power Cable

85-264 VAC 50/60 Hz Single Phase max 0.3 A 800 mA (Slow Blow) Nema 4 -10°C to +50°C -10°C to +60°C 100% 0.05 to 1.5 m/second RAL 3027 (Red) Controls and detector housing - Steel Detection surface – Duroplex Controls to Detection Coil (3 ft) 2 conductor + ground (6 foot)