



# Part Diverting Systems

## Automatically sort bad parts from good parts

**General Description:** A part diverter is used to change the direction of a shot of parts, the discharge of a complete cycle or cycles of parts from an injection molding machine. IMS offers two different styles of part diverters (also known as "part discriminators" in the injection molding industry) custom built to your specifications.

**1) Under the press part diverters:** Units sit or hang directly from the injection molding machine and based upon a specified signal from a IMM or process controller a pneumatically operated tipping tray internal to the diverter housing will discharge parts out the opposite end from where all "Good" shots discharge. The two different styles of under press part diverters are a free standing unit and a quick change type:

**A) Free standing S1:**

The free standing S1 diverter is either a square or rectangular stainless steel housing with an internal pivoting tray actuated by a pneumatic air cylinder positioned either under the internal tray, or alongside the housing.

The unit is typically supported by a mild steel T-type support stand that is 20" tall and allows the housing to adjust vertically. An air control kit consisting of a ready to mount plate supporting a solenoid valve with filter and regulator/gauge and 1/4" air hose from air valve to cylinder is included. Optional chute extensions in standardized lengths are available to add to the housing on either side to aid in part discharge.



**B) Quick Change Rail S1:** The quick change rail S1 type is a square or rectangular stainless steel housing with an internal pivoting tray actuated by a pneumatic air cylinder positioned either under the internal tray, or alongside the housing. This unit is typically supported by an optional QCRA1 or QCRA2 quick change rail attachment kit for either press depths up to 36" or 48" deep. The rail attachments support the load and provide



for easy installation, removal or movement. An air control kit consisting of a ready to mount plate supporting a solenoid valve with filter and regulator/ gauge and 1/4" air hose from air valve

to cylinder is included. Optional chute extensions in standardized lengths are available to add to the housing on either side to aid in part discharge. Many other options are available.

**2) Conveyor Mounted Part Diverters:** IMS offers 6 different orientations for conveyor mounted parts diverters. These are used either at the in-feed or discharge end of the conveyors. Four of the six may be used with a flat or cleated type conveyor belts. Uses at the in-feed end of a conveyor are primarily when the IMM cycle time is very fast, and/or where a reversing belt conveyor may not be feasible. Primary use at the discharge end is when the good part container and bad part container need to be on the same side of the IMM.

**A) PD1:** Pneumatically operated rail that has a pivot point and an air cylinder to angle the rail across the belt surface to side discharge the product. Includes air control kit. This is for non-cleated belts only, must use slider bed on conveyor frame and hard durometer belt surface.

**B) PD2:** Similar to PD1 without the pneumatic controls.

**PD3:** QCRS1 style housing in standard dimensions with flanged bottom to mount to either the conveyor frame or the side rails, when using a top return on rails. The unit is mounted at the in-feed end and directs products in the direction of belt travel for good parts and off the end of the conveyor for rejected parts. Includes air control kit package.

**D) PD4:** QCRS1 style housing in standard dimensions with flanged bottom or flanged top to mount with special brackets to the discharge end of the conveyor, which may be the drive end or the idle end. The unit is mounted at the discharge end and directs the flow of products in the direction of belt travel for good parts and off the end of the conveyor for rejected parts. Includes air control kit package.

**E) PD5:** QCRS1 style housing in standard dimensions with flanged bottom to mount to either the conveyor frame or the side rails, when using a top return on rails. The unit is mounted at the in-feed end and directs the flow of products perpendicular to the direction of belt travel. Includes air control kit package.

**F) PD6:** QCRS1 style housing in standard dimensions with flanged bottom or flanged top to mount with special brackets to the discharge end of the conveyor, which may be the drive end or the idle end. The unit is mounted at the discharge end and directs the flow of products perpendicular to the direction of belt travel. Includes air control kit package.

see form on next page



www.imscompany.com |

phone order toll-free (USA & Canada)

1.800.537.5375

fax order toll-free (USA & Canada)

phone order toll-free (Mexico)

tech support toll-free (USA & Canada)

e-mail

1.888.288.6900

001.888.304.1307

1.866.467.9001

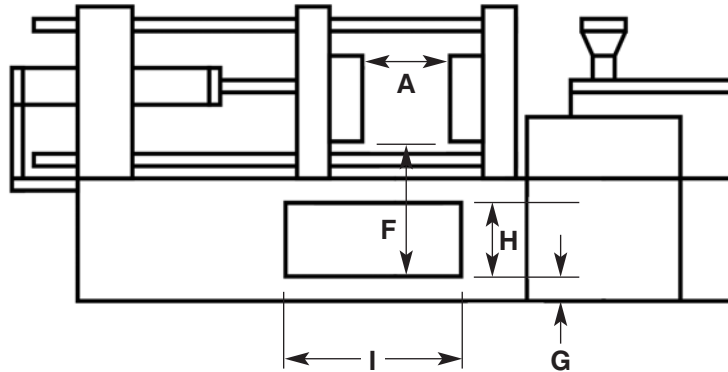
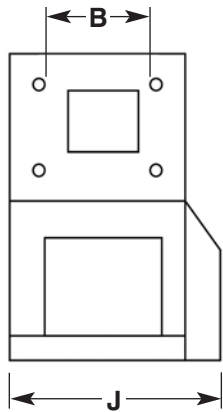
sales@imscompany.com



# Part Diverting Systems — Part 1 of 2

## SPECIFY:

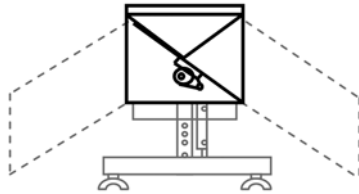
Please indicate dimensions in inches or feet  
(A = Operating Mold Open)



A: \_\_\_\_\_  
 B: \_\_\_\_\_  
 F: \_\_\_\_\_  
 G: \_\_\_\_\_  
 H: \_\_\_\_\_  
 I: \_\_\_\_\_  
 J: \_\_\_\_\_

## S1-Sorter

(shown with optional extensions and leg stand)



Will the S1-Sorter be discharging into a container?  Yes  No

If Yes: Length: \_\_\_\_\_ Width: \_\_\_\_\_ Depth: \_\_\_\_\_

If No, than what?: \_\_\_\_\_

Are there any obstructions?:  Yes  No

If Yes: Length: \_\_\_\_\_ Width: \_\_\_\_\_ Depth: \_\_\_\_\_

Position: \_\_\_\_\_

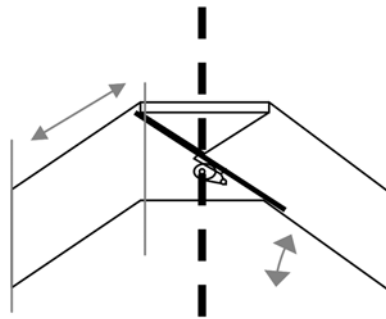
## Optional Extensions

Desired extension length:

- 6"       12"  
 18"       Other \_\_\_\_\_"

(Custom charges may apply for lengths over 18")

No extensions desired



Desired angle:

- 25°       30° (Standard)  
 Other \_\_\_\_\_°

(Custom charges may apply for angles over 30°)

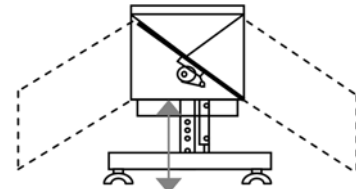
## Leg Stand

Required height from the floor:

- 7"       7" – 12"  
 12" – 20"       Other \_\_\_\_\_"

(Custom charges may apply for heights over 20")

No leg stand desired



(Continued on next page)



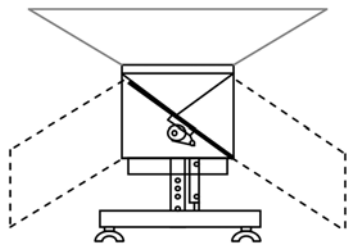
[www.imscompany.com](http://www.imscompany.com) | phone order toll-free (USA & Canada) **1.800.537.5375**

fax order toll-free (USA & Canada) 1.888.288.6900 | phone order toll-free (Mexico) 001.888.304.1307 | tech support toll-free (USA & Canada) 1.866.467.9001 | e-mail [sales@imscompany.com](mailto:sales@imscompany.com)



# Part Diverting Systems — Part 2 of 2

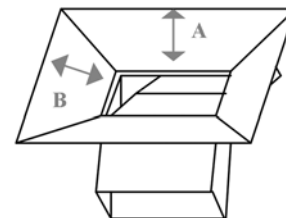
## Optional Flared Top *(Not available with Quick-Change Rail System — below)*



Desired Flare length:

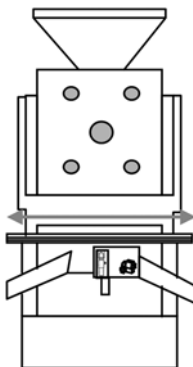
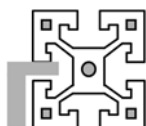
- A:  4"  6"  8" Other: \_\_\_\_\_  
 B:  4"  6"  8" Other: \_\_\_\_\_

*(A & B are normally the same length)  
 (custom charges may apply  
 for lengths over 8")*



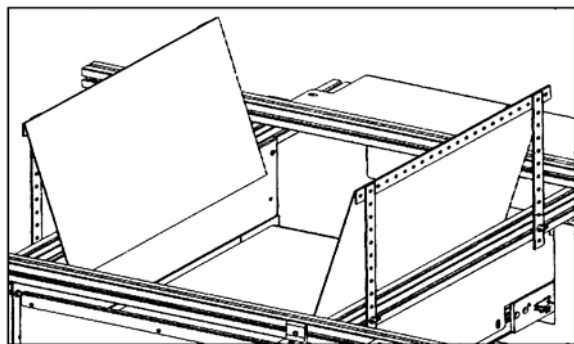
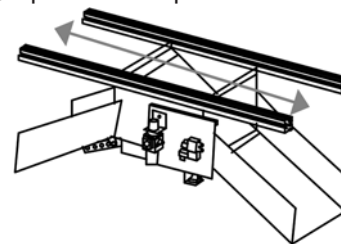
## Optional Quick-Change Rail System

*(This system mounts to the press  
 with our "Sliding Track System")*



What is the depth of your press?:

- Up to 36" deep  
 Up to 48" deep



## Quick-Change Containment Package

These components are used to create custom part containment. This is designed for the end-user to cut to fit. Includes standard hardware.

- Yes, please include this package on my quotation.  
 No, I am not interested in this optional package.

*(Serves as a hopper for the QCRS System)*

Date: \_\_\_\_\_ Quantity: \_\_\_\_\_ Phone: ( \_\_\_\_\_ ) \_\_\_\_\_ Fax: ( \_\_\_\_\_ ) \_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company Name: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_



[www.imscompany.com](http://www.imscompany.com)

phone order toll-free  
(USA & Canada)

**1.800.537.5375**

fax order toll-free (USA & Canada)

phone order toll-free (Mexico)

tech support toll-free (USA & Canada)

e-mail

**1.888.288.6900**

**001.888.304.1307**

**1.866.467.9001**

**sales@imscompany.com**

