



**VULCAN MACHINERY CORP.**

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*Engineering Makes The Difference™*

**AXIS SERVO PULLER CUTTER  
 SPC Series**



Model Number	Max. Bushing Dia. (inches)	Knife Axis Drive	Puller Axis Drive	Drive Belt Size
SPC1	1	AC Servo Motor 33 in.*lbs. torque rating	AC Servo Motor 33 in.*lbs. torque rating	3" wide 10" contact length
SPC2	2	AC Servo Motor 48 in.*lbs. torque rating	AC Servo Motor 48 in.*lbs. torque rating	3" wide 10" contact length
SPC1D	1	AC Servo Motor 33 in.*lbs. torque rating	AC Servo Motor 33 in.*lbs. torque rating	3" wide 10" contact length
SPC2D	2	AC Servo Motor 48 in.*lbs. torque rating	AC Servo Motor 48 in.*lbs. torque rating	3" wide 10" contact length

**APPLICATION:**

- The Axis Servo Puller Cutter is capable of operating in two specific modes: on-demand or continuous. Operating mode is selected by a simple touch pad entry on a four line LCD operator control panel. Cut length changes are accomplished "on-the-fly" typically with one production piece. Timing of the cutting knife in relation to the puller belt position is accomplished by computerized communication between the servo knife and puller drive.
- The quickly interchangeable blade is directly mounted to the servo motor output shaft. It is important to note that this approach eliminates commonly used clutches, either electro-mechanical or vacuum (producing millisecond speed variations), resulting in larger cut length tolerances. Also eliminated are the higher maintenance costs associated with the rather short service life of clutch driven results. The lower rotational inertia of the servo driven cutter provides quick response, resulting in higher cut velocities and reduced horsepower requirements.

## **PROGRAMMABLE CONTROLS:**

- 4.1" LCD touch screen HMI
- Proprietary software driven display
  - Guides operator through set-up and prevents input errors
- Start pushbutton
- Emergency stop pushbutton
- Automatic/manual locking selector switch
- Manual counter override with counter reset
  - Pushbutton for reset after package

## **KNIFE AXIS:**

- Two models of operation – on demand and continuous
- Direct coupling of knife motor armature; no clutches or brakes in knife drive train
- Absence of clutch or brake provides low inertia of moving parts; higher knife accelerations and blade contact velocities possible
- Knife pivot axis located to accommodate longer knives and provides higher blade contact velocities
- Park accuracy in on-demand mode within .001%
- Knife axis synchronized to belt axis within .001%
- Knife can be extended away from puller for start-up

## **DRIVE TRAIN:**

- Drive Motor are class H, low inertia, brushless AC servo motors
- Puller cutter drives are geared in at customer's desired max. speed
- 2000 to 1 speed range
- Belt nip opens about extrudate centerline
- Pneumatically actuated nip
- Infinitely adjustable nip opening stop
- Belt covering is ¼" thick, non marking neoprene or natural rubber

## **FRAME:**

- Heavy wall tubing, steel plate and structural sections
- Two rigid and two swivel casters and hold-downs
- Screw type floor jacks
- Fully guarded drive train and electrical components

## **ELECTRICAL:**

- Standard Electrical is 230 Volt/3 Phase/60 Hertz
  - Electrical other than the above is available as an option



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