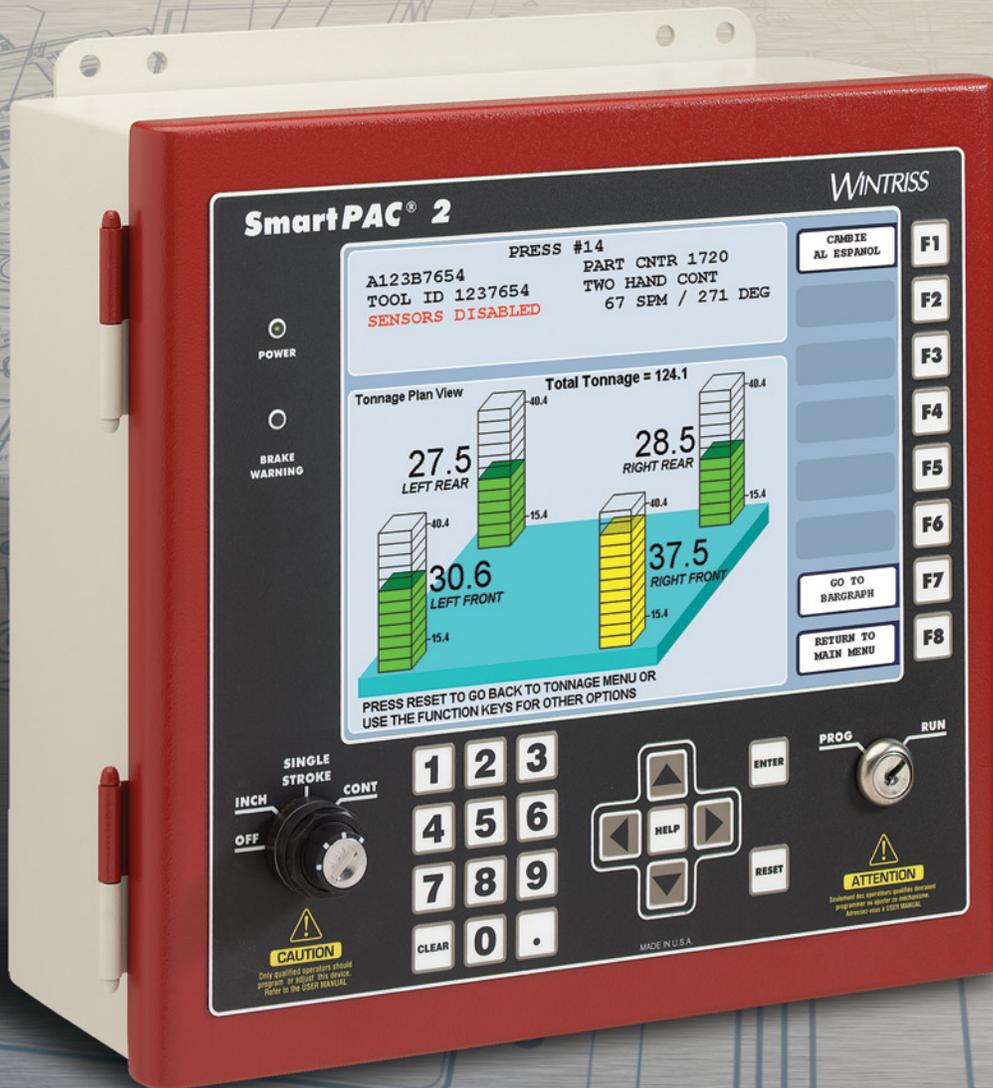


# Wintriss SmartPAC 2



TOTAL PRESS AUTOMATION CONTROL

Control and Monitor your Press.  
View Status from Anywhere in the World.

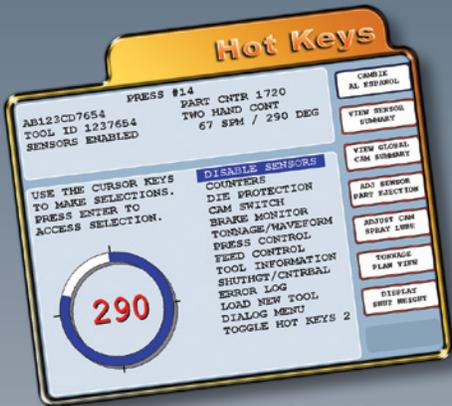
WINTRISS®

# SmartPAC 2: Features

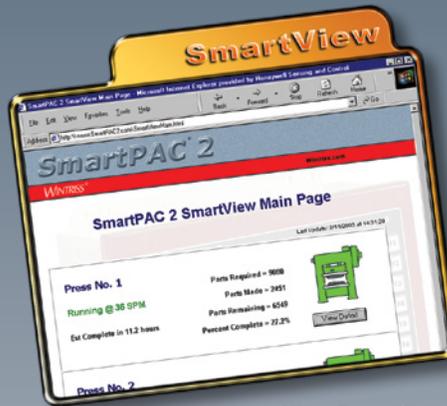
*The Wintriss SmartPAC 2 sets the standard for complete Press Automation Control.*

*The SmartPAC 2 features a large 10.4 inch color screen, advanced communications, superior graphics, and many performance enhancements.*

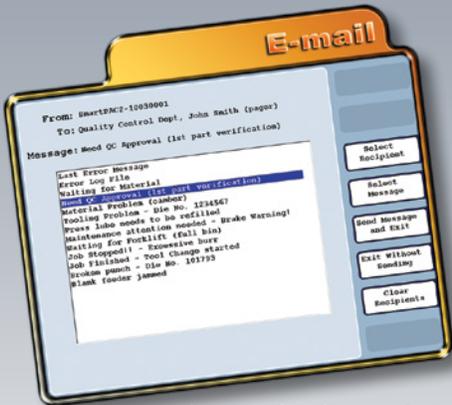
*Here are some of the powerful capabilities that make the SmartPAC 2 the most exciting control product since... well... the original SmartPAC!*



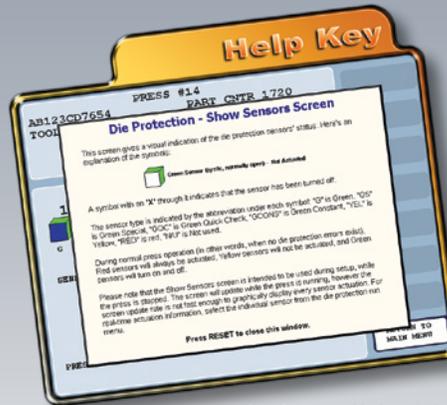
**Instant Access to Frequently Used Functions**



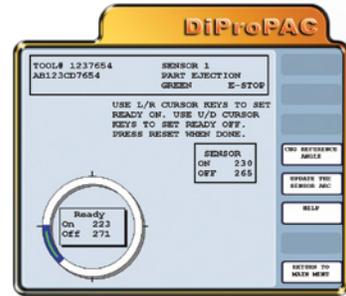
**View Press Status from Anywhere**



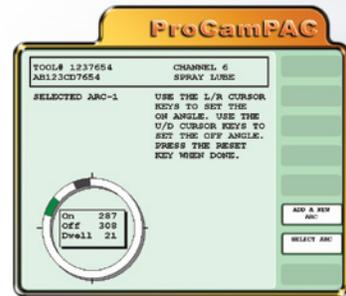
**Operator Can Communicate to Pagers, PDA's, E-Mail, etc.**



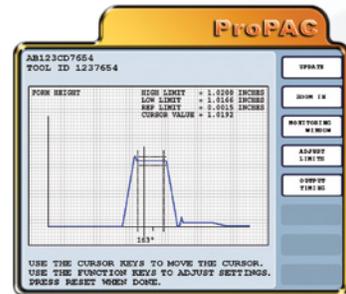
**On-Screen Help at the Touch of a Button**



**8, 16 or 32 Input Die Protection**



**8 or 16 Channel Programmable Cam**



**8 or 16 Input In-Die Measurement**



# SmartPAC 2: Standard Features and Die Protection Options

## SmartPAC 2's Modular Design Allows You to 'Have It Your Way'

One of the most powerful features of SmartPAC 2 is its unparalleled expansion capability. SmartPAC 2's impressive lineup of optional modules allows you to customize the product to exactly fit your needs. By combining various options, you get advanced capabilities for a lot less cost than other automation systems. And setup information for all options is stored for up to 200 tools.

### Every SmartPAC 2 has the following standard features

#### Control-reliable Brake Monitor

Disables machine operation when the preset safe stopping time is exceeded. A warning light signals when the stopping time nears the limit, indicating that service should be scheduled.

#### Counting Capability

STROKES	COUNT	PRESET VALUE
GOOD PARTS	1,720	50,000
BATCH 1 (TOP STOP)	1,720	10,000
BATCH 2 (TOGGLE) SCRAP CHOPPER	320	500
BATCH 3 (PULSE) CONVEYOR	0	0
TOTAL HITS	12,978	200,000

USE CURSOR KEYS TO MAKE SELECTION.  
PRESS THE RESET KEY WHEN DONE.  
PRESS ENTER TO SET THE COUNTERS.

In addition to stroke and part counters, three batch counters control three separate outputs for applications including parts diverters, conveyors, take-up reels, etc. The total-hits-on-a-tool counter keeps a running tally of strokes on each tool, which is helpful in scheduling die maintenance.

#### Resolver

A rugged resolver provides real-time value of the crank-shaft angle, vital for almost all functions in SmartPAC 2.



Wintriss Resolver

## User-Friendly Interface

Combining the legendary SmartPAC user interface with a large color screen makes SmartPAC 2 the easiest press automation control to use. In addition, pressing the convenient 'Help' key brings a full explanation of any screen in simple, straightforward language and graphics.

## Navigate Quickly to Your Favorite Screens

The SmartPAC 2 features user-configurable function keys called 'Hot Keys' that can be preset to go to any screen in Run mode with the touch of a single button. Do the press operators frequently 'tweak' the part blow-off or pilot-release timing? Do operators want to quickly view the tonnage graphs or counter screen? Simply set the Hot Keys, and these functions are just one button away.

### Add any of the following options

#### DiPro®PAC

#### Protect Your Investment with Die Protection

SENSOR STATUS

1	2	3	4	5	6	7	8
G	GRN	YEL	GR	GR	YEL	G	RED

SENSORS WILL AUTO ENABLE IN 15 STROKES

9	10	11	12	13	14	15	16
G	GRN	YEL	RED	RED	YEL	G	YEL

PRESS THE RESET KEY WHEN DONE.

SmartPAC 2 continues Wintriss's leadership in Die Protection technology. The DiProPAC prevents costly die repairs and press downtime by using up to 32 sensors to detect problems such as misfeeds and non-ejected parts. When a malfunction is detected, SmartPAC 2 stops the press before damage occurs and displays a sensor error message.

DiProPAC uses an intuitive, color-coded circle diagram for setting timing in both Program and Run modes. The

diagram dynamically represents the press stroke and illustrates the programmed 'on' and 'off' angle settings for each sensor, as well as the actual sensor on/off timing. You can customize your die protection system by assigning unique names to each of your sensor inputs.

## Built-in monitoring logic provides you with tremendous flexibility

TOOL#	1237654	CRITICAL ANGLE	= 100
1 PART EJECTION	GRN	ES	240/ 0
2 SHORT FEED	GRN CON	SS	4/160
3 OVER FEED	YEL (NO)	ES	
4 SLUG DETECTION	GRN SPEC	ES	5
5 CYLINDER RETURN	GRN QC	ES	275/ 23
6 MATERIAL BUCKLE	YEL (NO)	ES	
7 STRIPPER	GRN	TS	166/194
8 END OF STOCK	YEL (NO)	ES	

PRESS THE RESET KEY WHEN DONE.

In addition to monitoring common events such as part ejection, misfeed, and material buckle, the SmartPAC 2 has built-in monitoring logic to allow you to detect material pull-back, transfer problems, cylinder/cam return and slug ejection.

Because SmartPAC 2 uses an individual timing signal for each sensor, it can signal the press to stop at the earliest possible time.

#### Complete Die Protection Solution

Without sensors and a means to connect them, a die protection system is incomplete. Wintriss offers sensors, wiring accessories and interfaces (such as DSI 2 below). For more details, see the die protection handbook or sign up for a comprehensive Wintriss Die Protection Seminar at [www.wintriss.com](http://www.wintriss.com).



DSI 2

# SmartPAC 2: Automation Options

## ProPAC®

### Measure Dimensions on the Fly for Every Part

TOOL# 1237654 PROCESS MONITOR INPUT 1

SENSOR NAME	FORM HEIGHT
ENG. UNITS	INCHES
SENSOR RANGE	-0.0200 TO 0.0200
POSITION OFFSET	1.0000
SENSOR OUTPUT	-10.000 TO 10.000 VDC
FAULT MODE	ACTUATE OUTPUT 1
OUTPUT 1 TIMING	250° TO 310°
STOP CONTROL	5 FAULTS IN A ROW
MEAS. LOGIC	HIGH PEAK
MONIT. WINDOW	170° TO 200°
SETPOINT TYPE	MANUAL SETPOINTS
HIGH LIMIT	1.0190 INCHES
LOW LIMIT	1.0150 INCHES
REP LIMIT	0.0005 INCHES

USE CURSOR KEYS TO MAKE SELECTION. PRESS ENTER TO CHANGE. PRESS RESET WHEN DONE. PRESS CLEAR TO DELETE THESE SETTINGS.

ProPAC is an in-die measurement module that can accept input from up to 16 analog or digital sensors. It has built-in 'shift registers' to track out-of-tolerance parts through the die and divert them to a scrap bin without stopping the press. ProPAC can also monitor important process parameters such as bearing temperature, lube level and nitrogen pressure. ProPAC has built-in DiProPAC logic for use with digital sensors. Up to two ProPAC modules (32 inputs total) can be connected to a SmartPAC 2, stretching SmartPAC 2's die protection capacity to 64 inputs! For more details, visit [www.wintriss.com](http://www.wintriss.com).

## ProCam® PAC

### Improve Productivity with Programmable Cam Outputs

TOOL# 1237654 CHANNEL 6  
AB123CD7654 SPRAY LUBE

SELECTED ARC-1 USE THE L/R CURSOR KEYS TO SET THE ON ANGLE. USE THE U/D CURSOR KEYS TO SET THE OFF ANGLE. PRESS THE RESET KEY WHEN DONE.

On	287
Off	308
Dwell	21

ADD A NEW ARC  
SELECT ARC

With SmartPAC 2, it's easy to set accurate, repeatable timing for up to 16 cam channels, to control items such as feeders, lubricators and air blow-off.

Cam channels can be set to turn on and off at specific angles (for feed advance timing), more than once per stroke (for lube) to automatically advance or retard the timing when the press speed changes (for pilot release timing), to turn on at a specific angle and stay on for a preset number of milliseconds (for part blow-off timing), or to turn on when the press starts and to turn off shortly after the press stops (for conveyor control).

GLOBAL CAMS

- 1 HYD OVLDR RESETON/OFF 330/30
- 2 LUBE PULSE ON/OFF 270/0

PRESS THE RESET KEY WHEN DONE.

RETURN TO MAIN MENU

Press-related functions, like hydraulic overload reset, can be set once as a Global Cam and you never have to program it again.

## AutoSet® PAC

### Improve Process Control and Detect Press Overloads

AB123CD7654 PRESS #14  
TOOL ID 1237654 PART CNTR TWO HAND CONT  
PRESS SPEED 67 SPM

Tonnage Bargraph View Total Tonnage = 109.7

LR	14.2	17.8	21.5	25.2	28.9	32.6	36.2	40.0
RR								
LF								
RF								

PRESS RESET TO GO BACK TO THE TONNAGE MENU OR USE THE FUNCTION KEYS FOR OTHER OPTIONS.

RESCALE THE GRAPH  
GO TO PLAN VIEW  
RETURN TO MAIN MENU

The AutoSetPAC tonnage monitor protects your press and dies with high, low, repeatability, and reverse (snap-through load) setpoints that are stored with the tool setups.

AB123CD7654 PRESS #14  
TOOL ID 1237654 PART CNTR 1720  
TWO HAND CONT PRESS SPEED 67 SPM

TONNAGE HISTORY FOR RIGHT REAR

# OF HITS	= 5650
HIGHEST LOAD	= 29.8
AVERAGE LOAD	= 27.2
ACTUAL LOAD	= 25.3
HIGH OVERLOADS	= 1
LOW FAULTS	= 3
REP FAULTS	= 2

PRESS RESET WHEN DONE.

RETURN TO MAIN MENU

AutoSetPAC's tonnage history feature takes the guesswork out of improving overall part quality, achieving more consistent runs and identifying tool wear. For more details, visit [www.wintriss.com](http://www.wintriss.com).

## WaveFormPAC™

### Monitor Tonnage Waveforms on Every Stroke

TOOL# 1237654 RIGHT REAR

0.0000 OFF BOTTOM  
0.0 RPM FPM  
STORED 15.0 TONS  
CURRENT 23.2 TONS  
CHANGE 8.2 TONS

USE L/R CURSOR KEYS TO CHANGE COMPARISON REFERENCE ANGLE FOR TONNAGE INFORMATION ON THE TWO WAVES. PRESS RESET WHEN DONE.

DISPLAY SELECT  
RETURN TO MAIN MENU

The WaveFormPAC advanced tonnage monitor adds even more load-monitoring capability to SmartPAC 2.

In addition to traditional peak forward and reverse load monitoring, you can also graphically view tonnage waveforms and create setpoint limits for up to four monitoring windows.

WaveFormPAC stores a set of benchmark waveforms for every die. The stored waveforms allow you to quickly verify setups and identify problems by overlaying the current waveform over a stored image. You can also graphically view the critical curve and quickly identify where the tonnage exceeds the press's off-bottom capacity. For more details, visit [www.wintriss.com](http://www.wintriss.com).

# SmartPAC 2: Options for Efficiency, Safety and Maintenance

## RamPAC®

**Automate Setup of Shut Height, Counterbalance Pressure and Die-Cushion Pressure During Every Tool Change**

**PRESS #14**  
 AB123CD7654 PART CNTR 1720  
 TOOL ID 1237654 TWO HAND CONT  
 SENSORS ENABLED 67 FSPM / 290 DEG  
 SHUT HEIGHT OFF

SHUT HEIGHT/COUNTER BALANCE/CUSHION  
 CURRENT SHUT HEIGHT  
**15.263** IN  
 SHUT HEIGHT ADJUST IN OFF MODE

COUNTERBALANCE ACTUAL SETPOINT (PSI)  
 62 62

PRESS THE RESET KEY WHEN DONE

RamPAC can reduce setup time by automatically adjusting shut height and counterbalance and cushion pressures every time you change tools. Consistent shut height and counterbalance and cushion pressures help keep parts uniform from run to run.

**COUNTERBALANCE INIT MENU**  
 UPPER DIE WEIGHT PRESSURE  
 0 LBS 50 PSI  
 1,500 LBS 68 PSI

MIN CRITCAL PRESSURE = 55 PSI  
 SHOP AIR PRESSURE = 95 PSI  
 MIN PULSE TIME = 120 MSEC  
 SETUP MODE = DISABLED

USE THE CURSOR KEYS TO SELECT THE VALUE.  
 PRESS THE ENTER KEY TO CHANGE THE VALUE.  
 PRESS THE RESET KEY WHEN DONE.

**COUNTERBALANCE AND SHUT HEIGHT MENU**  
 COUNTERBALANCE MODE = AUTOMATIC  
 MAX UPPER DIE WEIGHT = 1,500 LBS  
 UPPER DIE WEIGHT = 1,000 LBS  
 SHUT HEIGHT = 15.263 IN

USE THE CURSOR KEYS TO SELECT THE VALUE THAT YOU WANT TO CHANGE. PRESS THE ENTER KEY TO CHANGE THE VALUE. PRESS THE RESET KEY WHEN DONE.

Correct pressure for the counterbalance can save energy, minimize stopping time and increase the life of the clutch and the press. For more details, visit [www.wintriss.com](http://www.wintriss.com).

## WPC: Wintriss Clutch/Brake Control Integrated, Powerful Press Control Package

**PRESS #14**  
 TOOL NUMBER 6160 PART CNTR 0  
 DEMO TOOL 2 TWO HAND INCH 3 DEG  
 67 FSPM / 290 DEG  
 RAM ADJ. IS OFF

**MOTOR LOAD**  
 % MOTOR LOAD  
 MAX 94  
 MIN 63  
 % VARIATION  
**31**

PRESS THE RESET KEY WHEN DONE.

SmartPAC 2 can be integrated with the Wintriss Clutch/Brake Control (WPC 2000), a powerful, dual-microprocessor-based press control system. The WPC 2000 meets or exceeds all current regulations for control reliability, including OSHA 1910.217, ANSI B11.1-2009 and CSA Z142; and is third-party tested and certified to CSA 22.2-0.8 and 22.2-14.

The Option 2 Module for the WPC 2000 provides additional press control functions such as extra user-configurable inputs and motor current readout, as well as hydraulic overload, flywheel brake, press speed, and lube control. For more details, see the WPC 2000 brochure or visit [www.wintriss.com](http://www.wintriss.com).

## Bilingual

**Change 'Run' Menus Between Spanish & English with One Button**

**PRESS #14**  
 AB123CD7654 CNDR. PZAS.1720  
 TOOL ID 1237654 TWO HAND CONT  
 SENSORS HAB. 67 FSPM / 290 DEG

USE TECLAS DEL CURSOR PARA SELECCIONAR. APRIETE ENTER PARA ENTRAR LA SELECCION.

SENSORS INHABIL. CONTADORES PROTECC. TROQUEL INTER. DE LEVA MONITOR FUERZA MONITOR FUERZA CNTRL. DE PRENSA CONTROL DE ALIM. INFORM. DE HERR. SHUTHTG/COUNTBAL LISTA DE FALTAS CARG. NUEVA HERR. DIALOGO TOGGLE HOT KEYS 2

**290**

SmartPAC 2's optional Bilingual Run mode allows you to display Adjust menus and Status information in English or Spanish.

## PM Monitor

**Preventive Maintenance Monitor**

**PRESS #14 PM MONITOR**

ITEM	ALERT EVERY
NEW ITEM	
LUBE MOTOR	3 MONTHS
DRIVE BELTS	2,000 RUN HOURS
FEEDER	1,000,000 CH 1 CYCLES
BRAKE	100,000 STARTS/STOPS
DSV	10,000 STARTS/STOPS
OIL LEVEL	1 WEEKS
PILOT SOLENOID	500,000 CH 2 CYCLES
AIR ROTARY SEALS	75,000 RUN HOURS
LUBE FILTER	1,000 RUN HOURS
FLYWHEEL BEARING	150,000 RUN HOURS
BCKSHT BEARING 1	26 WEEKS

USE THE CURSOR KEYS TO MAKE SELECTION. PRESS ENTER TO SELECT, RESET WHEN DONE.

SmartPAC 2's Preventive Maintenance (PM) Monitor tracks up to 64 items on the press and alerts you when maintenance is due. You can schedule maintenance based on time, strokes, machine starts and stops, die changes, or other parameters, depending on the SmartPAC 2 options installed.

Preventive maintenance in the pressroom is normally based solely on elapsed time. However, with shorter job runs and more tool changes, traditional PM programs can be ineffective.

**SmartPAC DEMO PM MONITOR**

THERE ARE 4 ITEMS WITH ALERT STATUS

BCKSHT BEARING 1 !!ALERT!!  
 ALERT AT 60 DAYS  
 CURRENT 61 DAYS

BRAKE  
 ALERT AT 100,000 STARTS/STOPS  
 CURRENT 45,783 STARTS/STOPS

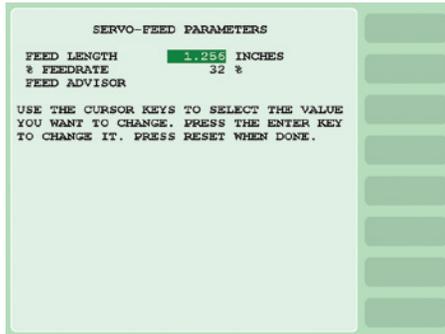
BCKSHT BEARING 3 !!ALERT!!  
 ALERT AT 26 WEEKS  
 CURRENT 30 WEEKS

USE THE CURSOR KEYS TO MAKE SELECTION. PRESS RESET WHEN DONE

Since the SmartPAC 2 tracks each item according to the way it's used (for example, the braking system based on the number of times the machine stops), your maintenance department can use its time most effectively. The PM Monitor can be password protected with a separate 'Maintenance' password.

# SmartPAC 2: Options for Maximum Press Automation

## SFI: ServoFeed Interface Communicate with Popular Brands of ServoFeeds



With SmartPAC 2's ServoFeed Interface (SFI) option, available for many popular brands of servofeeds, you can program, store and automatically download feed parameters for each tool. For many servofeed brands, SFIs Feed Advisor aids setup by analyzing when the feed occurs relative to die closure.

Call the factory for a complete list of SFIs and specific applications.

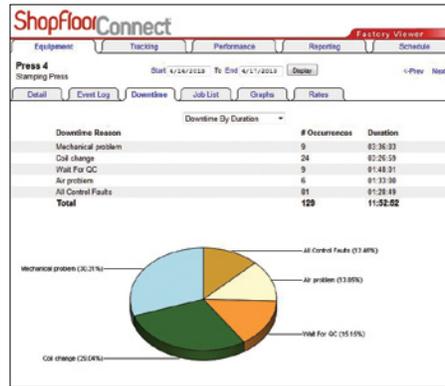
## ShopFloorConnect® Asset Utilization Software



SmartPAC 2 can send production data over your existing Ethernet network to our ShopFloorConnect Asset Utilization Software (SFC). SFC automatically collects data such as uptime, downtime, and parts counts from your presses and other machinery in real time. ShopFloorConnect allows you to build a custom downtime reason menu for each machine, which is displayed on the SmartPAC 2's screen.

The downtime menu enables the press operator to specify the reason for any machine stoppages.

ShopFloorConnect is a vital bridge from the machines to your ERP and MES software, and can virtually eliminate manual production data entry.



SFC can collect and store accurate, timely, and unbiased data from multiple plant locations, and display real-time factory status from all of your locations in an ordinary web browser on your computer, tablet, or other mobile device.

ShopFloorConnect

Equipment Tracking Performance Reporting Factory View Schedule

Action	Event	Winstar Crg	All
Press 1 Running @ 16 SPH (00:00:04)	Press 2 Running @ 64 SPH (00:13:23)	Press 3 Coil change (00:00:26)	
Press 4 Running @ 41 SPH (00:13:52)	Press 5 Pressed Downtime (07:04:38)	Press 6 Running @ 25 SPH (03:11:44)	
Press 7 Running @ 45 SPH (00:30:32)	Press 8 Idle (00:00:03)	Press 9 Mechanical problem (00:22:21)	
Press 10 Running @ 76 SPH (01:27:34)			

SFC's powerful user-configurable reporting system automatically generates reports (including Overall Equipment Effectiveness (OEE)) in multiple formats (Excel, PDF, Word, etc) and distributes them automatically according to your preset schedule. Reports can be distributed via email, archived into the database, and/or stored in any network location. For more details, visit [www.ShopFloorConnect.com](http://www.ShopFloorConnect.com).



## Custom Consoles

Wintriss can custom build press-control consoles or panels tailored to your needs, including variable speed drives, soft start, servofeed controls, lubrication monitor and control, and PLCs for automation.



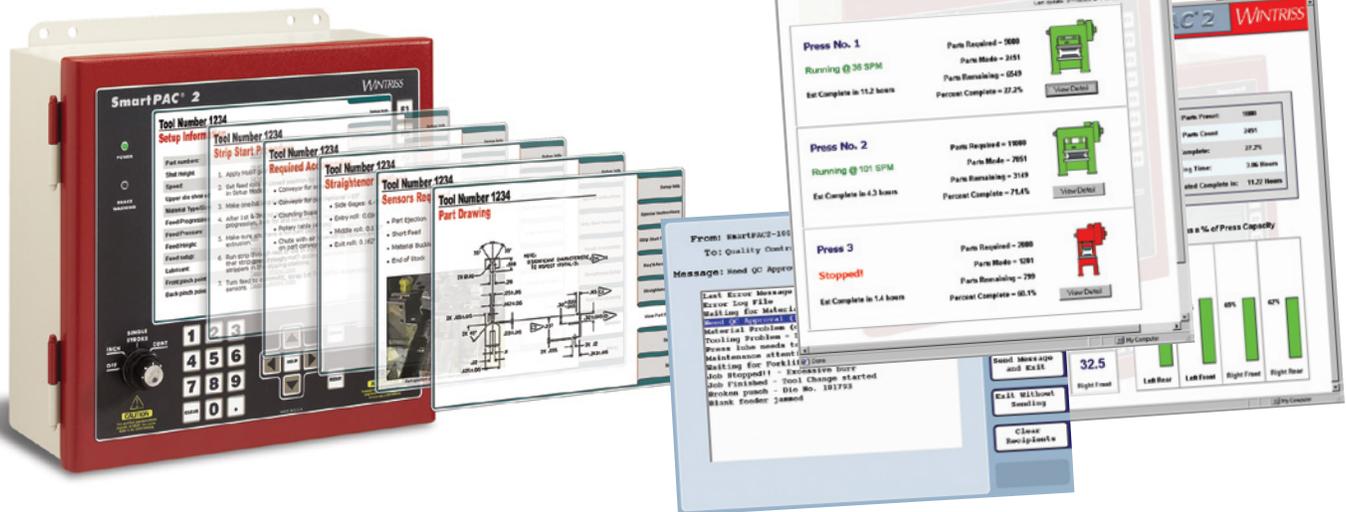
SmartPAC 2  
Panel Mount

**Upgrade Your SmartPAC 1  
with Current Modules Intact**

In an era when technical innovation is usually synonymous with instant obsolescence, Wintriss is happy to announce that because of your original SmartPAC's unique modular design, you can upgrade to SmartPAC 2 while keeping the resolver and using all of the same option modules. The tool number information that you've already programmed into your original SmartPAC can even be moved to the SmartPAC 2!

# SmartPAC 2

It's got connections...



## Info Center: SmartPAC 2 Option that Ushers in the Paperless Shop

Many quality systems require setup procedures to be available at every press. Not only is this difficult to maintain, but setup sheets are often damaged or misplaced. SmartPAC 2 Info Center option rids you of these headaches once and for all.

The SmartPAC 2 is Ethernet-ready. The Info Center allows your networked SmartPAC 2 to display setup sheets, drawings, photographs and other information right at the press. The platform's flexibility allows you to display as much or as little information as you wish; you can display a simple text-only setup sheet or a full set of part drawings, press schematics, maintenance records and more.

## SmartView: View Press Status from Anywhere

SmartPAC 2 includes an exciting new standard feature that gives you the ability to view press status from your networked SmartPAC 2 over the World Wide Web. No special software is required—all you need is web browser Internet Explorer version 5.5 or higher and a remote connection to your in-house network.

## Back up Tool Memory on a Network

A networked SmartPAC 2 also includes the ability to back up a copy of its tool memory to a safe network location, and restore it to the control when required. Not networked? No problem—Every SmartPAC 2 has a USB port. A new option allows you to back up the tool memory to a USB drive.

## Receive Text Messages via E-Mail, Pagers, Cell-Phones

When connected to your network, the press operator can use SmartPAC 2 to send pre-formatted messages to pagers, text-enabled cell phones and e-mail accounts. When your press needs attention, the operator simply selects the name of the person he wants to contact and sends a message. SmartPAC 2 can also send status and diagnostic information to Wintriss Tech Support—giving our industry-best support staff even more tools to help you with application and troubleshooting questions.

### Find out more

For more information, contact your local Wintriss representative or visit our web site at [www.wintriss.com](http://www.wintriss.com).

### Wintriss Controls Group, LLC

100 Discovery Way, Unit 110  
Acton, Massachusetts 01720 USA

Toll Free: (800) 586-8324

Web Site: [www.wintriss.com](http://www.wintriss.com)

Wintriss Controls is a leading manufacturer of press automation, die protection and safety controls for metal stamping and forming industries; and data collection systems for all discrete manufacturing. We provide seminars for all products and OSHA compliance along with plant surveys. These products, which leverage Wintriss' 50+ years of experience in the metal stamping industry, are known for their proven performance and rugged dependability in the toughest factory environments. Wintriss equipment is backed by attentive service, timely repairs, and comprehensive spares inventories. A toll-free hotline gives customers immediate access to technical support experts for product information and applications assistance.

1127100 May 2013 KP2000

© 2013 Wintriss Controls Group, LLC

**WINTRISS**