

# POLAR – PACE Automation for Cutting Efficiency



 CUTTING DOWN COMPLEXITY



**PACE**

- THE STORY BEHIND
- GOOD REASONS TO AUTOMATE THE CUTTING PROCESS
- PERFORMANCE
- APPLICATION AREAS
- CUSTOMER BENEFITS
- WORKFLOW
- FEATURES AUTOTURN
- PERFORMANCE COMPARISON
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Scan and watch  
the PACE 200 in action.

## THE STORY BEHIND

- Goal: unmanned automated cutting of high runs
- First development: 2002
- First customer: 2003 Quad/Graphics, USA, for National Geographic Magazine
- First components:
  - XT 137 with loader and unloader, System 300
- Currently 2nd generation PACE
  - With jogging process (PACE 200)
  - Without jogging process (PACE 300)



## GOOD REASONS TO AUTOMATE THE CUTTING PROCESS

- Rising labor costs
- Rising job volume
- Regular overtime occurs
- Downtime due to physical strain
- Lack of skilled workers
- Price and time pressure
- Competitive market

## PERFORMANCE

- Extraordinary performance: up to 45,000 sheets/hr
- Can handle the output of two XL 106 presses
- 5 automatic cuts, at least

- Doubles the output or saves one person
- Part of the Smart Print shop
- Fully integrated into the digital workflow



## POLAR CuttingSystem 200

This system is typically used by companies working with at least two printing presses for medium-size format or larger.

- Recommended workload > 8 hours
- Recommended reams > 6 per job
- Average number of cuts =< 8

## POLAR CuttingSystem 300

Processes blank cutting material or for print products that do not require any jogging process.

### Placards, posters



**Four-side trim (4 cuts)**  
Automatic cutting

### Folded sheets



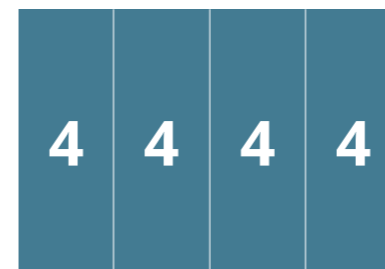
**2 products (5 cuts)**  
Automatic cutting

### Calendars



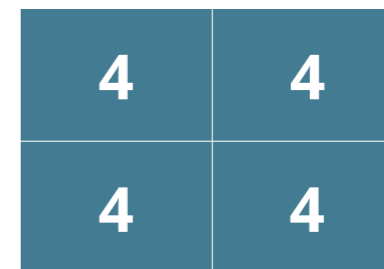
**3 products (6 cuts)**  
Automatic cutting

### Calendars



**4 products (7 cuts)**  
Automatic cutting

### Envelopes



**4 products (6 cuts)**  
5 automated cuts  
one manual cut

### CD-Rom Covers



**9 products (8 cuts)**  
6 automated cuts  
2 manual cuts

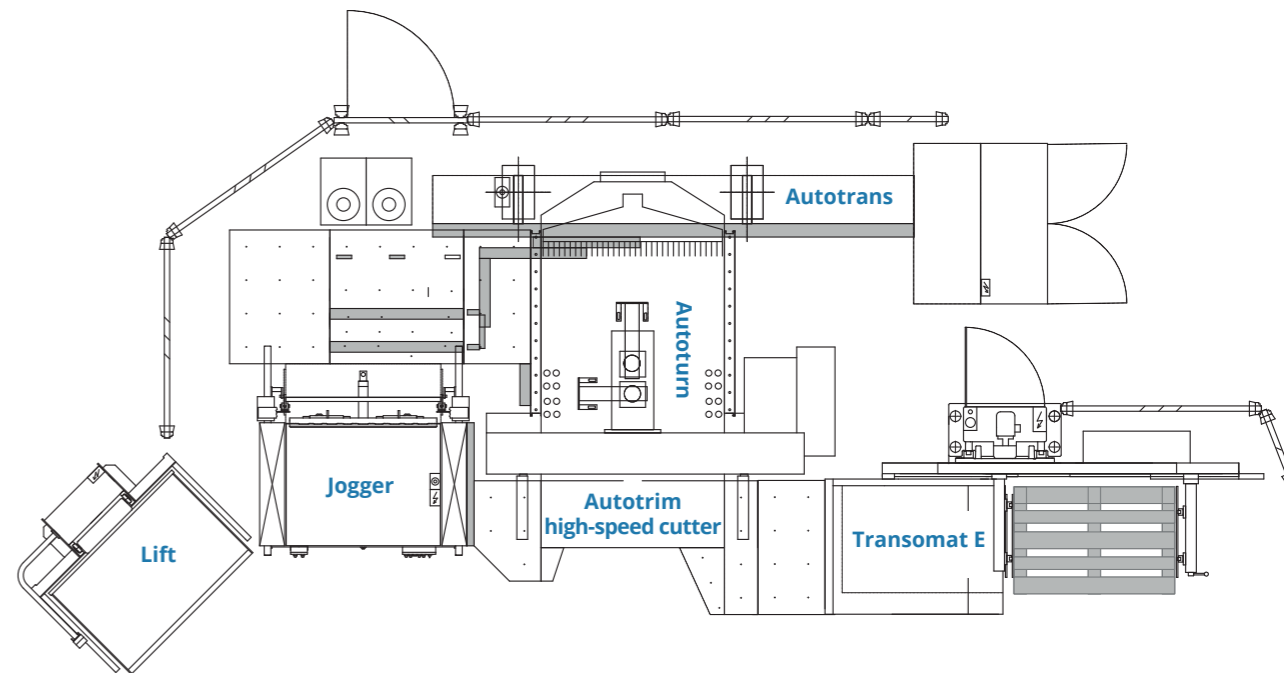
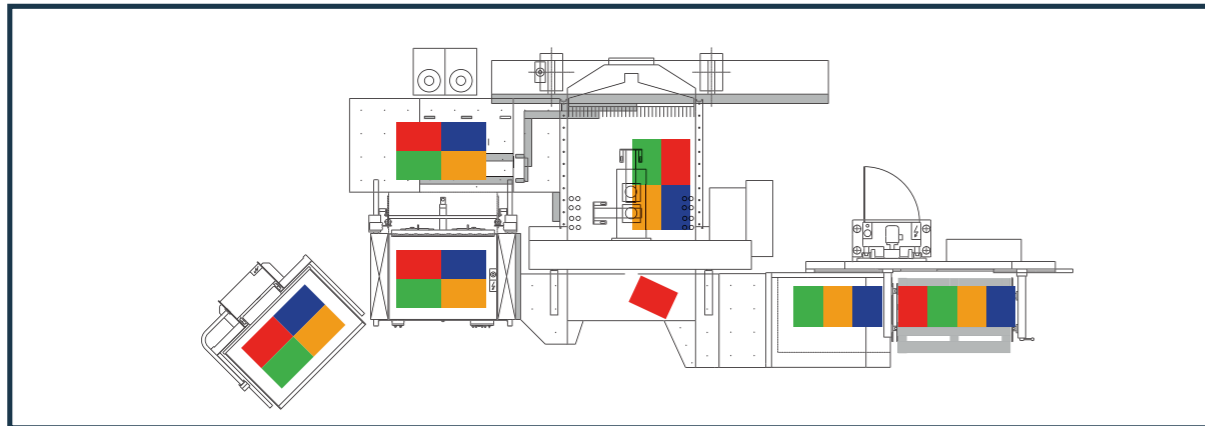
## CUSTOMER BENEFITS

- Up to 100% higher productivity through automated cutting
- Reduction of production times
- Reduction of labour costs by requiring one person less
- Reduced downtime through improved ergonomics
- Consistently high performance through movement of higher reams
- Consistently high cutting quality – 24 hours a day
- Easy changeover between automatic and manual operation
- Nearly no setup times for job changes through external programming with Compucut®
- Reduction of the machine park



## PACE 200 WORKFLOW

- Automated elevation of the material to work at an optimum ergonomic height
- Manual loading into the automatic jogger
- Jogging process
- Automatic loading of the high-speed cutter with gripper transport system Autotrans
- Automatic rotation and alignment of undivided reams with turning gripper Autoturn
- Alignment of the material with two lateral gauges after turning allows fully automatic cutting
- Automatic disposal of the cutting waste with Autotrim function
- After cutting, the Transomat Unloader stacks the reams automatically on the pallet, while the cutting process resumes



### Format ranges:

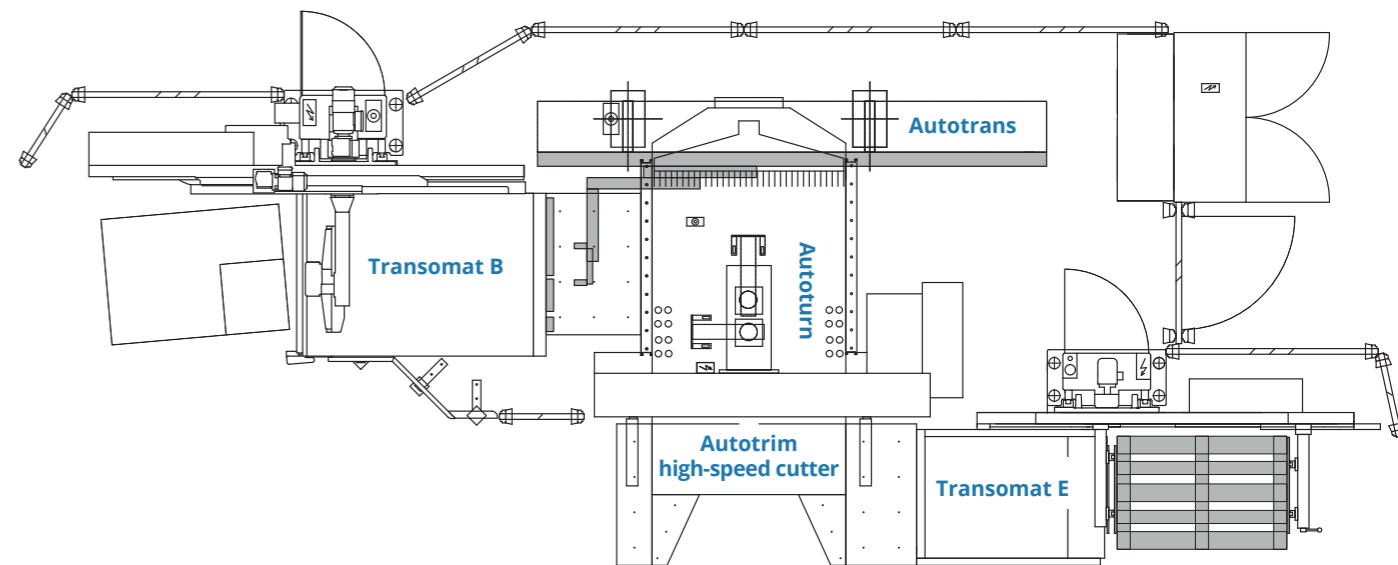
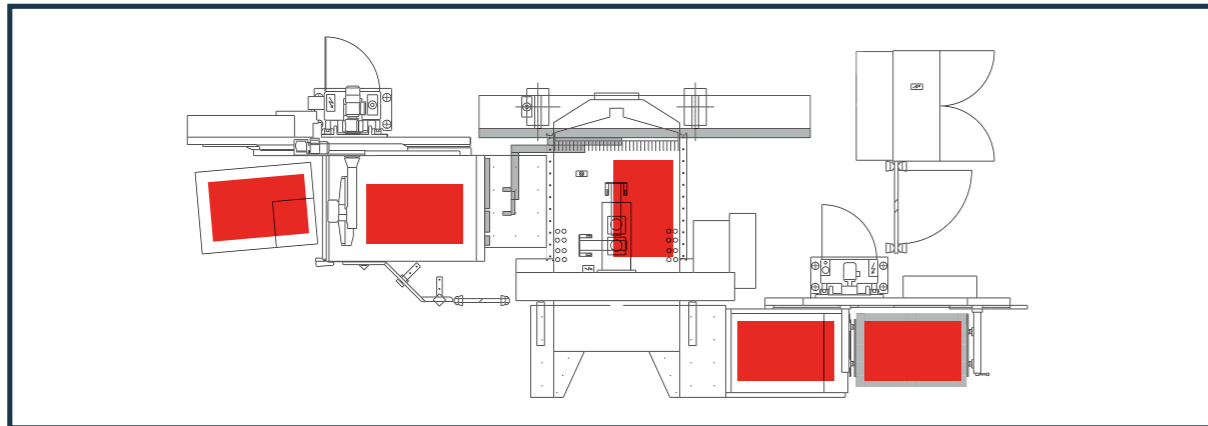
- 3b (75 x 105) – 137
- 6 (106 x 145) – 155
- 7s (126 x 164) – 176

### Target groups:

- Industrial printers or converters
- Printers with large formats

## PACE 300 WORKFLOW

- Transomat unit automatically loads the cutting material from the stack onto the Transomat pallet
- Gripper transport system Autotrans automatically loads the material onto the rear table of the high-speed cutter
- Frame-mounted Autoturn turning gripper automates the turning and alignment process of uncut reams
- Alignment of the material with two lateral gauges after turning allows fully automatic cutting
- Autotrim function disposes of cutting waste automatically
- After cutting, the Transomat Unloader stacks the reams automatically on the pallet while cutting resumes



### Format ranges:

- 3b (75 x 105) – 137
- 6 (106 x 145) – 155
- 7s (126 x 164) – 176

### Target groups:

- Paper manufacturers
- Paper wholesalers



## FEATURES AUTOTURN

- Mounted directly to the frame of the high-speed cutter
- Motorized drive with a smooth start/stop cycle
- Pneumatically controlled grippers
- Programmable rotation direction (90° left or right, 180°)
- Operation and control are integrated into the high-speed cutter and are directly added and stored in the relevant cutting program
- The machine table features an integrated lifting mechanism which lifts the material so that the grippers can easily take it



## PERFORMANCE COMPARISON (POLAR SIM)

Options	Cutting System 200				Cutting System 200 PACE								
					Autorim				Computcut				
Number of Employees	1				1								
Cutting pattern sheet size 750 x 1050	4	5	5	6	6	6	6	8	8	8	8	8	8
						6	6	8	8	8	8	8	8

### Annual production capacity [y]

CuttingSystem 200	46.824.986	100%
CuttingSystem 200 PACE	74.112.678	158%

Capacity sheets per year

### Production time per day [hrs]

CuttingSystem 200	16,0
CuttingSystem 200 PACE	10,1

## PRESS REVIEWS



bindereport

Druckspiegel



Druck & Medien  
DAS MAGAZIN FÜR FÜHRUNGSKRÄFTE



packMITTEL



PrintingNews



PrintWeek

WhatTheyTh!nk



## WORLD MARKET LEADER WITH 157 INSTALLATIONS





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