

PROTEC ADR 32

SHEETS COUNTING MACHINES RANGE



ADR 32 TECHNOLOGY COUNTING HEAD

3.000 SHEETS PER MINUTE EVEN WITH TAB-INSERTION
NO CORNER CURLING AND NO SCRATCHING
FROM 40 TO 800 GSM FOR PAPER, CARDBOARD AND PLASTIC
QUICK AND SIMPLE CHANGEOVER FROM THIN TO THICK SHEETS

ADR 32 Technology

B.Matic, active since 1986 with more than 7,000 machines delivered worldwide to the most important manufacturers of currency paper, security documents and banknotes, has invented and realized the "ADR 32" counting technology, perfect for use into the security and commercial printing, converting and packaging sectors.

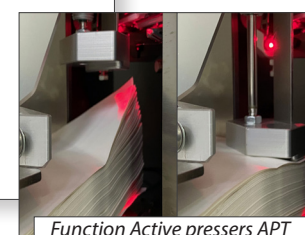
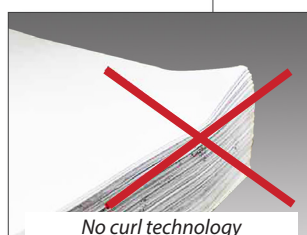
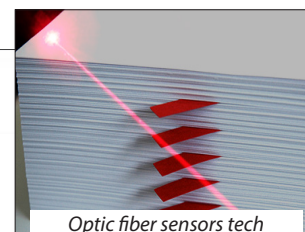
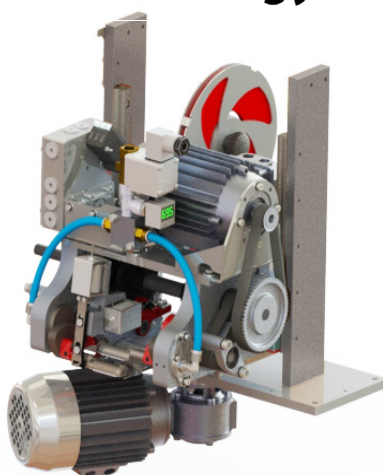
No Scratching / No curling: "ADR 32". is a mechanical system counting the sheets individually by two vacuum blades without corner deformation nor scratching.

Wide counting range and robust. The "ADR 32" sheets counting technology is able to count from 40 to 800 microns. It is characterized by robust mechanics and advanced electronics with touch panels, Inverters, industrial PLCs and uses high-speed fiber optic counting and level sensors.

High Counting speed. "ADR 32" counting head counts up to 3.000 sh/min.



ADR 32 Technology



Technological solutions incorporated into ADR 32

EasyClips

The Easy Clips technology consists of a simplified system to adjust the machine for the sheets' thickness.

In practice, with a simple manual operation carried out by a normal operator, the counting plates can be replaced in a few seconds. With the Pin & Blade system the counting blade replacement takes much more time and can be done only by a technician or an operator with mechanical skill and mechanical tools.

On the Disc system too the operation of replacement / disassembly for cleaning requires mechanical tools and an accidental fall can fatally damage the disk forcing a replacement of this very expensive part.

Stabilizer

The Stabilizer device solves the problem of upwards surface sheets deformations improving counting accuracy.




How it works. A metal strip presses down the deformed sheets flattening the surface.

CERTIFICATIONS AND TESTS

ADR 32 has been submitted to intense runs of functional and duration tests such as prescribed by quality procedures according to CE norms. Simulations of heavy duty cycles with a wide range of sheets types **, evidenced low wear levels for the mechanical parts, a perfect stability of the electronic components and of the machine software.

Tests effected in conformity with the prescriptions of the Operating and Service Manual

Sheets Counting Machines Range

Commercial Machines Sector		Security Machines Sector
		
Table Top "CM" model low-medium volumes	Standard model. "ST2"	Twin Head TH2 - Single Head- SH2 model
General Description		
<p>Table Top model especially suitable for low /medium volumes and small / medium sheets size. Depending on the version, it can count up to 500 GSM with a maximum speed of 2,400 sheets / min. It can be fit with tables of different sizes, optional tab insertion system and an optional base. This is a compact, robust machine made of steel designed for professional and durable use. There are three types available, CM 1, CM 2, CM 3 that can combined with many accessories to fulfill any sheets counting application.</p>	<p>It is a floor-standing machine suitable for professional use on high productions volumes with small and big sheets. It is a single frame structure extremely robust, 250 KG of solid steel with wide stainless joggers and a big pump. Depending on the version, it can count up to 800 GSM with a maximum speed of 3,000 sheets / min. with additional functions and data exports. There are three types available L-H-W that can be fit with many accessories and also optional functions such as the data export or security software.</p>	<p>Machine especially designed for counting security documents and currency sheets. In order to guarantee high quality standards the PROTEC ADR 32 SH2 and TH2 models have been realized with high quality production processes and testing, accurate dimensional checks and superior mechanical and electronic components. Their extremely robust structure include a sturdy stainless steel air flotation table, 800x2000 mm, suitable for large volume and they are equipped with advanced software for security printing. Three different types are available depending on the sheets thickness range.</p>

Functions and Characteristics

Protec ADR 32 models	CM			ST2			TH2		
Type	CM1	CM2	CM3	L	H	W	L	H	W
Table	A3 / 70X70 /70X100			70X70 - 70X100 - 70X100 Air			2000 X 820 Stainless steel		
Counting speed (sheets per minute) *	1400	2400	2400	3000	2000	3000	3000	2000	3000
Sheets weight range, GSM*	150	250	500	40/300	200/800	40/800	40/300	200/800	40/800
Anti-scratch and anti-curl technology	√								
Maximum ream height *	20 (cm)								
Sheets size (min)	A5**			A5**			A4		
Optic fiber sensors technology for counting	√								
Counting head positioning system by optic fiber	√								
"APT" Active Pressers Technology	N/A			N/A			O		
Stainless Steel Air flotation table	N/A			O			√		
Table extension	N/A			N/A			O		
Curled corners counting with "Stabilizer System" *	√								
Tab insertion - Min sheets *	5 (10) O			5 (10)			5 (10) O		
"Easy Clips" system for counting plates replacement	√								
High definition touch screen color panel interface	7"			7"			10"		
Counting program storing function (8 levels)	√								
Security mode function with clamp locking	N/A			N/A			√		
Ethernet connection and USB port	N/A			O					
Data export - Variable tabbing function	N/A			O					
Dimensions Cm / weight Kg.	83x51x79h - 145			90x75x145h - 250			200 x 138 x H 1500 / 850		
Power supply max	230VAC 50/60Hz, 5A			230VAC 50/60Hz, 8A			230VAC 50/60Hz, 16A		
Table height	mm 880 (+/-20) with Base			mm 880 (+/- 20)					

√ = included O = optional N/A= Not available

* Technical data subject to circumstances such as sheets type, quality, weight, presentation and depending on the number of sheets in counted ream.

** A5 without accessory, A6 or smaller (95x60 mm) with accessory.

"PROTEC ADR 32 TH2 (SH2)"

Sheets counting machine for High Security Counting

PROTEC ADR 32 TH2 (Twin Head) is a completely redesigned twin head counting machine to count particularly deformed sheets common in modern security and high security printing processes.

It uses a new technology called **Active Pressers Technology "APT"** which consists of a system of pressers that can be easily activated from the touch panel according to the sheets type, combined with the new stabilizer system **"Stabilizer System 4"** to count accurately even in case of upwards and downwards deformations.

PROTEC ADR 32 TH2 counts without curling the corner upwards, and without scratching, besides it does not require frequent cleaning to remedy ink smearing; all defects often present in other counting technologies. PROTEC ADR 32 TH2 has unique features on the market.

The system programming interface is a large, high-resolution, icon-based Touch Screen for universal use.

It is an extremely robust machine (**850 kg of solid steel**) mechanically designed for professional and long-lasting use.

Three versions are available, depending on the paper weight, as shown in the table on the next page.

"PROTEC ADR 32 SH2" Single Head model is also available with the same structure as the Twin Head.



Basic data	"Protec ADR 32 TH2 - SH2"		
	TH2 - L	TH2 - H	TH2 - W
Type			
Sheets weight range, GSM*	40 - 300	200 - 800	40 - 800
Table 80 √ 200 cm with air and filter.	√		
Max counting speed (sheets per minute) *	3000		
Pneumatic block with uneven counting between the two heads	√		
The machine rests on 4 sturdy industrial feet with vibration-damping rubber, moved using a normal pallet truck.	√		
Adjustable clamps according to the size and type of sheets.	√		
Built-in knock-ups on the machine table.	√		
Software with advanced diagnostics and video tutorials for maintenance. with automatic periodic notification	√		
Latest generation electronics improved with quick wiring and industrial PLC.	√		
Setting a target value with alarm and pneumatic blocking of the ream in case of different counting.	√		
Storage of up to 8 count settings.	√		
Counting with or without accumulation of the total reams / piles / general.	√		

ACCESSORIES

- "APT" Active Pressers Technology with 16 programs for highly deformed sheets (optional).
- Tab-insertion
- Silent Air Compressor
- Professional paper jogger: Side flaps activated pneumatically and adjustable jogging intensity.
- Pile lifter with photocell
- Table extension (optional).

You can find more information in the PROTEC Twin Head brochure

* Technical data subject to circumstances such as sheets type, quality, weight, presentation and depending on the number of sheets in counted ream.

Commercial Sheets Counters

"PROTEC ADR 32 ST2" Sheets counting machine

PROTEC ADR 32 ST2 is the new ST model with redesigned structure to ensure better use and maintenance, equipped with the high performance technology of the ADR 32 sheets counting head. The machine structure is realized in a single body including the base, for more rigidity. PROTEC ADR 32 ST2 counts without corner deformation nor scratches up to 3.000 sheets per minute. The counting is done from top downwards. This is an extremely robust machine (**250 Kg of solid steel**) with wide steel knock-ups and designed for a professional and durable use. The machine is programmed by a graphic high resolution touch screen panel 7" allowing communication to external networks via dedicated ports. The machine software has been completely redesigned and integrated with additional functions to speed up production cycles. A wide choice of accessory is available for any requirement. Three models are supplied for counting different sheets ranges. Additional models with structure, technical solutions and software designed to serve special security requirements are covered by specific literature.



New design steel aligners



WIDE TOUCH SCREEN HD 7"



Stainless steel air table



USB and Ethernet shocket

Standard Functions

- Counting with or without ream splitting by tab insertion.
- Counting of preset quantity and stopping for pick up of counted ream and counting accumulation into General Total for multiple ream jobs.
- Display of correct machine settings for the counted paper on HD 7" wide screen.
- Up to 8 programs storing to speed up machine setting.
- Maintenance deadlines notification - Diagnostic system for the machine sensors.
- The machine rests on 4 sturdy industrial feet with vibration-damping rubber and can be easily moved using a normal pallet truck.

Model	"Protec ADR 32 ST2"		
Type	ST2 - L	ST2 - H	ST2 - W
Sheets weight range, GSM*	40 - 300	200 - 800	40 - 800
Table 70x70 - 70x100 - 70x100 AIR depending on the model	√		
Max counting speed (sheets per minute) *	3000		
Tab-insertion Included	√		
Single body structure with base	√		
Wide Aligner for big paper size	√		

ACCESSORIES

- Table 70 x 100 (cm) with or without air flotation.
- Small size adapting tray.
- Device for counting upwards deformed corners.
- Counting data transmission to external computers / Adhesive labels Printer.

You can find more information in the Protec Twin Head brochure

* Technical data subject to circumstances such as sheets type, quality, weight, presentation and depending on the number of sheets in counted ream.

"PROTEC ADR 32 CM" Sheets counting machine

ADR 32 technology is now available on a tabletop model perfect for medium / low volumes.

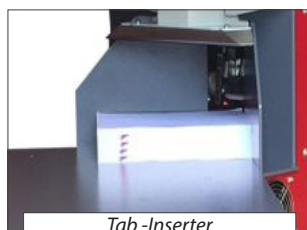
This highly customizable machine can count paper, cardboard and plastic without scratching nor curling the corner of the sheets.

It counts up to 500 GSM at the maximum speed of 2400 sheets/minute, is equipped with tab inserting function to divide the ream into preset quantity of sheets, can be used with tables of various size and can also be supplied complete with base.

This extremely robust machine, made of solid steel and with wide knock-ups, is designed for a professional and durable use.

It is programmed by a 7" high resolution touch screen and a software interface updated with additional functions.

Three models are available, **1, 2 and 3**, to be equipped with a wide choice of accessories, in order to fit every need in the Commercial Printing and Converting sectors.



Tab-Inserter



Wide touch screen HD 7"



Steel Aligners



Table up to 70X100 cm

Standard Functions

- Counting with or without pack splitting by tab insertion (optional).
- Counting of preset quantity and stopping for pick up; counting accumulation into General Total for multiple packs jobs.
- Display of correct machine settings for the counted paper on HD 7" wide screen.
- Maintenance deadlines notification - Diagnostic system for the machine sensors.
- The machine rests on 4 sturdy industrial feet with vibration-damping rubber and can be easily moved using a normal pallet truck.

Model	Protec ADR 32 CM		
Type	CM1	CM2	CM3
Table (# 70X100 only with base).	A3 / 50X70 / 70X100 #	A3 / 70X70 / 70X100 #	A3 / 70X70 / 70X100 #
Max counting speed (sheets per minute) *	1400	2400	2400
Sheets weight range, GSM*	40-150	40-250	40-500
Tab-insertion	O		
Resizer for small products up to 55X85mm	O		

ACCESSORIES

- Table in different size available from A3 / 50X70 / 70X100
- Small size adapting tray.
- Raised corner device
- Base

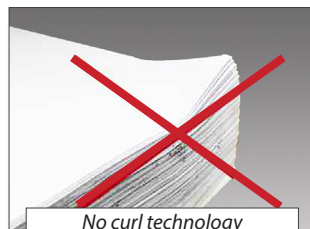
You can find more information in the Protec CM brochure

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ADR 32

Comparison with other counting technologies

The comparison between technologies is an important element for evaluating an accurate purchase, we therefore believe it is correct and transparent to inform the customer. In practice there are 3 technologies on the market, the oldest is the Pin & Blade technology, the second is the one we invented ADR 32 (a derivation of our Dual System invented in 1993) and finally the Disc system. Below we list the key points comparing the 3 technologies according to our information, you can however check this information on the Web.



ADR 32 compared to Pin & Blade system

- **Does not bend the corner.** ADR 32 No Curling System with the planar movement from top to bottom of the double suction blades very similar to the manual gesture, has solved the problem of the Pin and Blade system, which bends the edges due to the Pin which like a satellite revolves around the Blade (Palette).
- **Does not stain.** ADR 32 has greatly reduced the problem of ink transfer on both the upper and lower sides of the sheets caused by the Pin which rotates around the Blade like a satellite.
- **Quickly adjusted.** With the ADR 32 Easy Clips system it is possible to replace the counting plates in a few seconds without removing screws and without tools. In the Pin and Blade counting technology tools must be used with more complex operations and much longer time.
- **Fast,** up to 3,000 sheets per minute and even with the Tab-Insenter the speed drops very little.
- **Versatile.** The ADR 32 Wide Thickness Range system is the only machine that can count up to 800GSM* and for this reason it houses an up to 16 m²/h* pump. The Pin and Blade system, on the other hand, reaches up to a maximum of 255 GSM.
- **The ducts do not clog.** The dust present in the sheets tends to dirty the filters and clog the ducts, to avoid this problem the suction ducts we use are double (they have a double section area) of the other systems, reducing maintenance.

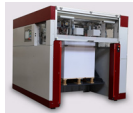
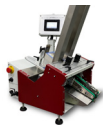



ADR 32 compared to Disc system

- **Does not scratch,** ADR 32 No Scratch System with the planar movement from top to bottom of the double suction blades very similar to the manual gesture has solved the problem of the Disc which, on the contrary, using a horizontal helix movement fits laterally for a few centimeters crawling on the surface of the leaves. This sliding can cause scratches especially in the presence of fresh printing and plastic sheets.
- **It is not necessary to clean it.** ADR 32 Ink Cleaning Free System does not accumulate ink on the counting hands and has therefore solved the problem of the Disk system which, by sliding on the sheets, forces maintenance personnel to frequently disassemble it to clean it and remove the accumulated ink.
- **Detect Bent Edges** In the security industry, Edge Counting detects any bent and damaged edges, unlike some disk systems that count on the edge.
- **Fast** ADR 32 counts up to 3000 sheets per minute which, associated with reduced start-up times, do not fear comparison with the disk system. Theoretically it is faster, but compared to the counting cycle times, real productivity is practically identical.
- **Quickly adjusted** With the ADR 32 Easy Clip system you can replace the counting plate in a few seconds without unscrewing screws and without using spanners or Allen keys. In the disc counting system it is necessary to use tools that force more complex operations and with much longer times that cannot be carried out by untrained operators.
- **Reduction of accidental risks** ADR 32 avoids accidental risks during routine maintenance. If a counting plate is dropped, it can be picked up and reassembled, while if a disc is dropped, it almost certainly needs to be replaced and is not cheap.
- **Versatile** The ADR 32 Wide Thickness Range system is the only machine that can count paper, cardboard and plastic up to 800GSM* and for this reason it houses a 16 m²/h* pump inside. the Disc system, on the other hand, reaches up to a maximum of 500GSM.
- **Price.** The single head Disc system has a high price, which is why it is rarely used in the printing sector.

We reserve to update them without notice further to a development process. Images and diagrams are purely for illustrative purposes. Detailed information are to be found uniquely in the Operating and Service Manual of the machines.

Additional B.MATIC Products

"PackMover ADR 32" models					
Model	Type.	Sheets / min	GSM	Sector	Picture
PackMover ADR 32 100	CV #/SK #	3.000	80/300	Commercial/Security	
"F350" models with OCS Technology					
Model	Type.	Mt/min	Thickness	Sector	Picture
F 350	Counter SC	200	0,1-10 (mm)	Converting/Packaging	
"Tab-Inserter" models with DUAL RIBBING Technology					
Model	Type	Tabs / sec	Devices	Sector	Picture
TAB-IN	Counter	3	Photocell/Pedestal	Commercial printing	



Counting Line with Twin head, table extension and lifter with Photocell

For detailed specifications, please refer to the dedicated literature, web site and YOUTUBE channel



Dealer area



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