

**DURMA**

Today Tomorrow Forever...

*March 2018*

# Newsletter

## **DURMA** COMPARISON OF ABKANT PRESSES

### COMPARISON OF ABKANT PRESSES

#### **AD-Servo (Sytronix) Energy Efficient – Hydraulic Abkant Press**

The increase in future energy prices and the efficient use of the system at different speeds meet market expectations and become an advantage.

#### **AD-Servo (Sytronix) Energy Efficient – The Advantages of Hydraulic Abkant Press :**

**High energy efficient potential**, falling usage charges.

**In an effort to cool down the system at low temperatures**, lower investment costs.

**System safety**, in accordance with machine safety instructions.

**The future technology**, it conforms to EU machine instructions.

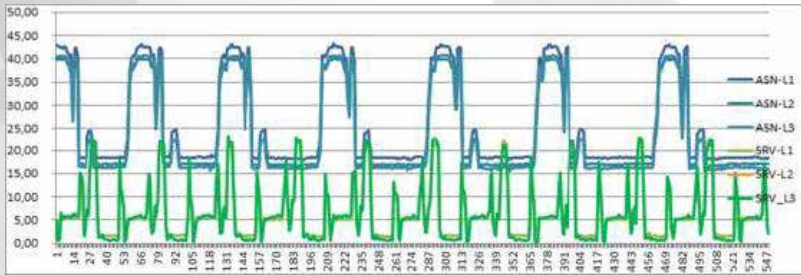
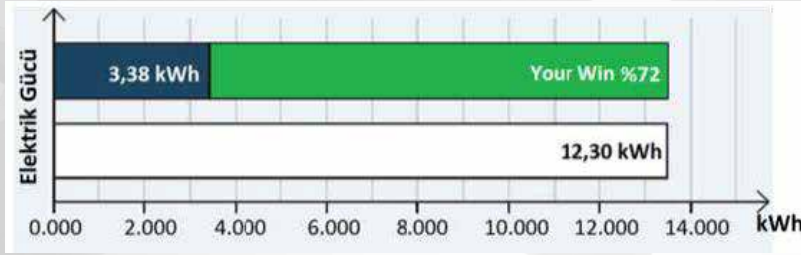
**Noteworthy working noise**, it conforms to EU machine instructions.

**Easy integration features into different production formats**, falling high cost machine mistakes.



## **DURMA** COMPARISON OF ABKANT PRESSES

### COMPARISON OF ABKANT PRESSES



- ASN - AD-S 30175 Ton
- SRV - AD-SERVO 30175 Ton

### Comparison of Technical Values

Technical Values	AD-S 30175 Ton	AD-SERVO 30175 Ton
Motor Power	18,5 kW	2 x 4 kW
Oil Tank Capacity	250 lt	40 lt
Fast Fall Rate	120 mm/s	180 mm/s
Bending Speed	10 mm/s	10 mm/s
Return Speed	100 mm/s	160 mm/s
Noise Violence	73 dB (A)	63 dB (A)

With AD-Servo Abant Press, 72% Energy Saving is achieved for 1 hour operation.  
At the same time, AD-Servo Press is environmentally friendly with global warming ...

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## **DURMA** COMPARISON OF ABKANT PRESSES

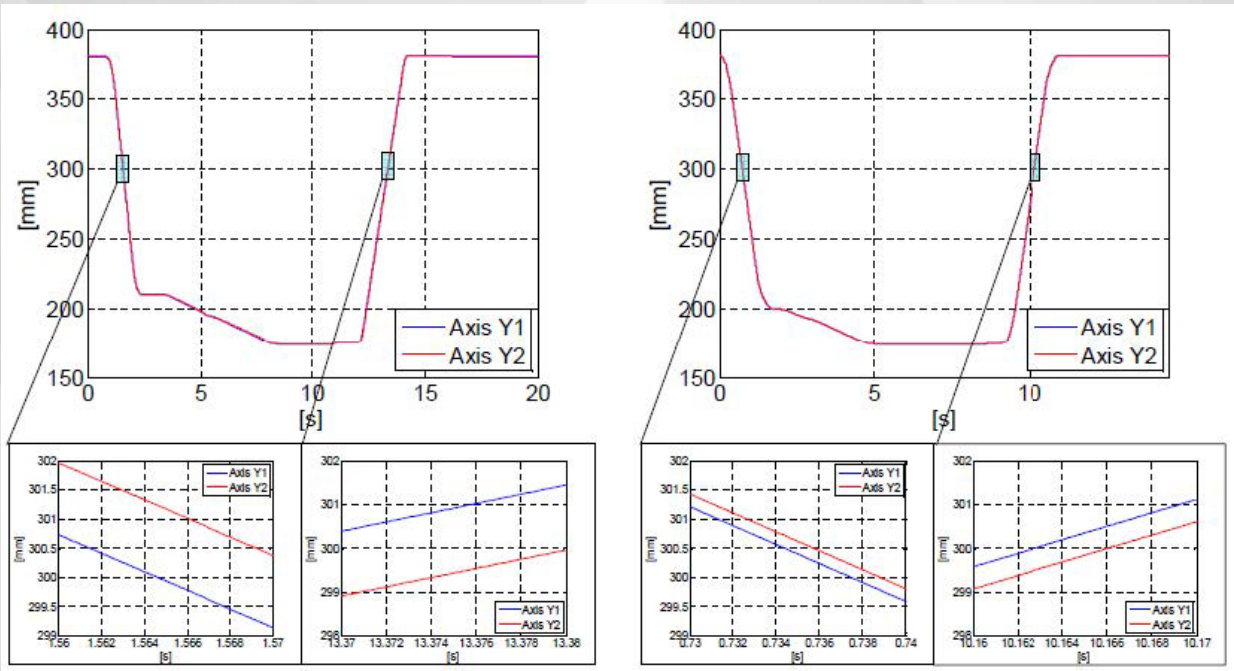
Technical Values	AD-S 30175 Ton	AD-SERVO 30175 Ton
Bekleme Akımı	18 A	2,2 A
Full Power Current	43 A	22 A
Total Visible Power @ 1s	9220 Wh	2730 Wh
Total Active Power @ 1s	12,30 kWh	3,38 kWh
Electricity consumption	1868,06 €/Year	513,13 €/Year
Energy Cost Gain	1355 €/Year	
1 year (9s * 225 days) in operation		72% less electricity consumption
Hydraulic Oil Cost	927,5 €/lt	148,4 €/Year
Hydraulic Oil Cost Gain		779,1 €/Year
1 year (9s * 225 days) in operation		84% less hydraulic oil consumption
Ceiling Value	Microphone 1: 83,8 dB(A) Microphone 2: 87,6 dB(A) Noise values of two positions at the press	Microphone 1: 81,4 dB(A) Microphone 2: 74,7 dB(A) Noise values of two positions at the press
Average Value	Microphone 1: 76,0 dB(A) Microphone 2: 74,6 dB(A) Noise values of two positions at the press	Microphone 1: 72,3 dB(A) Microphone 2: 65,9 dB(A) Noise values of two positions at the press

- Electricity Unit Cost = 0,075 €/hour (7,5 sent)
- Hydraulic Oil Cost = 3,71 €/lt
- Despite the same operational time, the unit does 40% more work.
- Microphone position 1 – From the top of the machine
- Microphone position 2 – Noise from the front of the machine : 53 dB(A)

## Position Comparison

Hydraulic Abkant ( AD-S 30175)

Sytronix Abkant ( AD-Servo 30175)



### Accuracy of axis position Y1-Y2 in the approach of top-drop rapid descent.

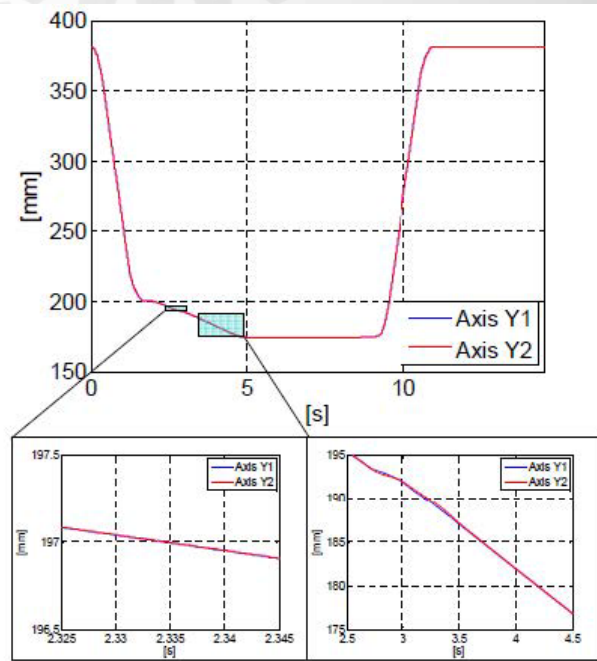
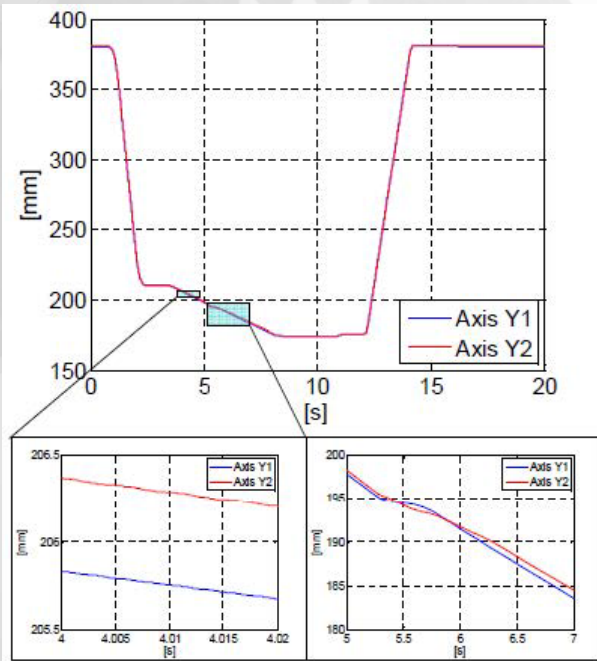
Technical Values	AD-S 30175 Ton	AD-SERVO 30175 Ton
Rapid Approach	$\Delta Y=1,24$ mm	$\Delta Y=0,22$ mm
Rapid Turn Backward	$\Delta Y=1,50$ mm	$\Delta Y=0,50$ mm



**During Concurrent Work - Bending Speed**

**Hydraulic Abkant ( AD-S 30175)**

**Sytronix Abkant ( AD-Servo 30175)**



**Before and after touching the material when the bending speed is in the Y1-Y2 axis position**

Technical Values	AD-S 30175 Ton	AD-SERVO 30175 Ton
Before touching the material	$\Delta Y=0,50$ mm	$\Delta Y=0,05$ mm
While touching the material	$\Delta Y=0,60$ mm	$\Delta Y=0,29$ mm
After touching the material	$\Delta Y=1$ mm	$\Delta Y=0,01$ mm

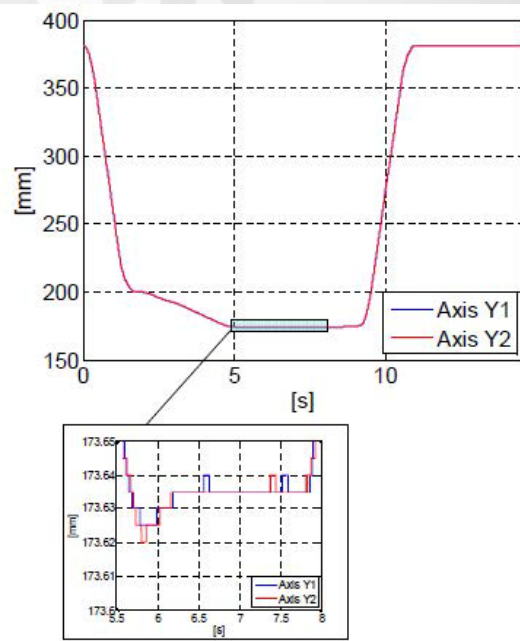
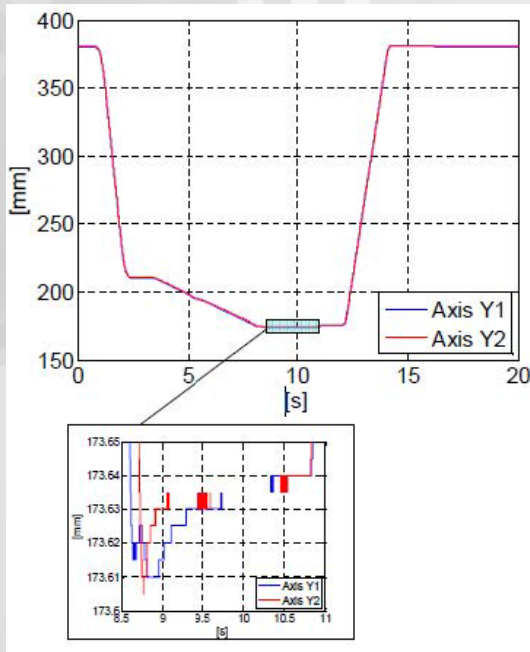
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## During Simultaneous Work - Bending Speed

Hidrolik Abkant ( AD-S 30175)

Sytronix Abkant ( AD-Servo 30175)



### Differences in the target value output (max. value), axis and position accuracy

Technical Values	AD-S 30175 Ton	AD-SERVO 30175 Ton
Y1-Y2 Axis Differences	$\Delta Y=0,020$ mm	$\Delta Y=0,005$ mm
Position Sensitivity	$\Delta Y=0,005$ mm	$\Delta Y=0,005$ mm

## Dynamic Control with Sytronix System

- Kombinasyon: Servo Kontrolör, Servo Motor, Sabit Yer Değiştirme Pompası

### ARA YÜZ

- 5xAnalog
- Fieldbus
- CANopen / DeviceNet
- Sercos II, Sercos III
- Profibus DP



- Hedef: Enerji Verimliliği, Gürültü & Dinamik
- Yaygın Kullanım: Enjeksiyon Kalıplı Makinalar, Presler ( Hidrolik Eksen Kontrolleri)

## AD-Servo Abkant Press Basic Parts

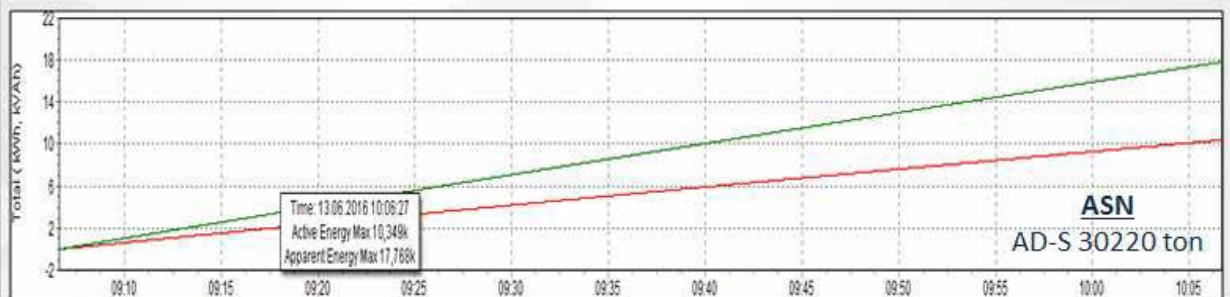
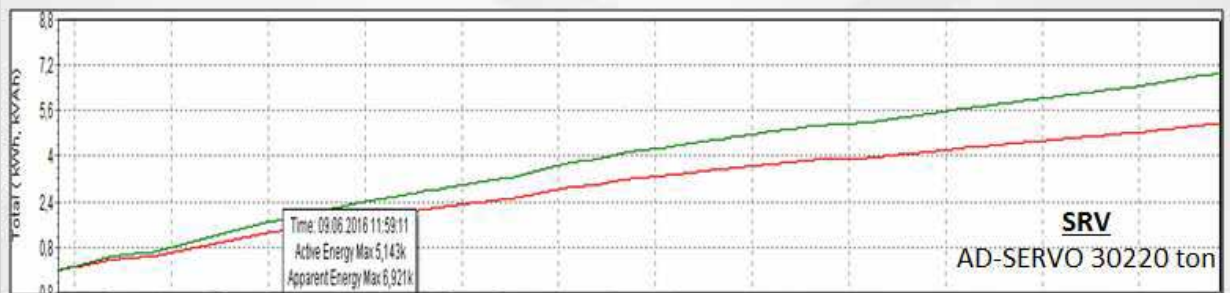
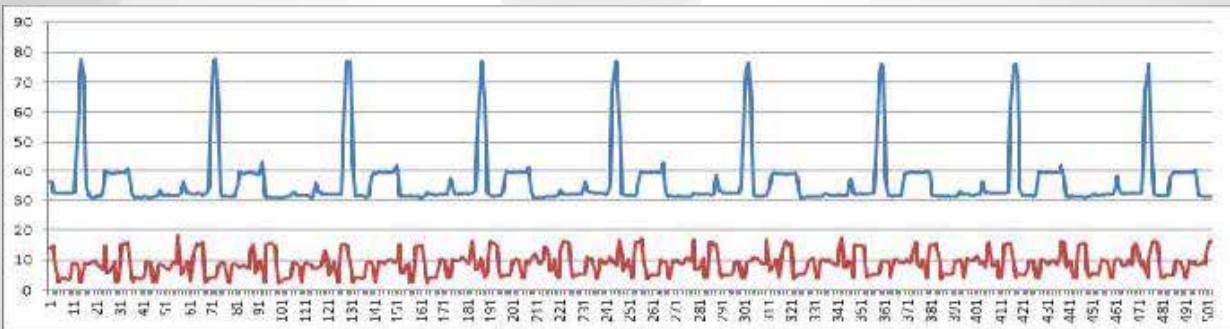
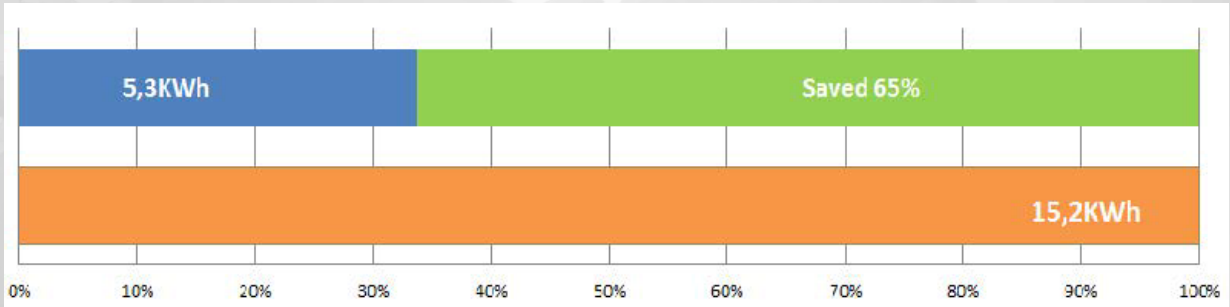
Servo Motor  
Hydromotor Pump (4- Quarter Operation)  
Servo Controller Indra Drive C  
Software Technology  
Voltage storage and sensing  
Power unit( Oil tank, spare parts )  
Valve Block, Cylinder

## Physical Characteristics

Position Control  
Pressure Control / Load Control  
On / Off Hydraulic Cycle  
4- Quarter Operation

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## COMPARISON OF ENERGY CONSUMPTION OF ABRASIVE PRESSES (AD-S 30220 – AD-SERVO 30220 Ton)



- AD-SERVO 30220 Ton
- AD-S 30220 Ton
- Energy Gain
- ASN - AD-S 30220 Ton - 9 circuit
- SRV - AD-SERVO 30220 Ton - 16 circuit



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## Comparison Table of Technical Data for Energy Consumption and Output

Technical Values	AD-S 30220 Ton	AD-SERVO 30220 Ton
Motor Power	22 kW	2x11 kW
Oil Tank Capacity	250 lt	50 lt
Fast Fall Rate	120 mm/s	180 mm/s
Bending Speed	10 mm/s	12 mm/s
Return Speed	100 mm/s	160 mm/s
Noise Violence	75 dB (A)	63 dB (A)
Electricity consumption	2308 €/year	805 €/year
Energy Cost Gain	1503 €/Year	
1 year (9s * 225 days) in operation	% 65 less electricity consumption	
Hydraulic Oil Cost	927,5 €/lt	185,5 €/year
Hydraulic Oil Cost Gain	742 €/Year	
1 year (9s * 225 days) in operation	80% less hydraulic oil consumption	

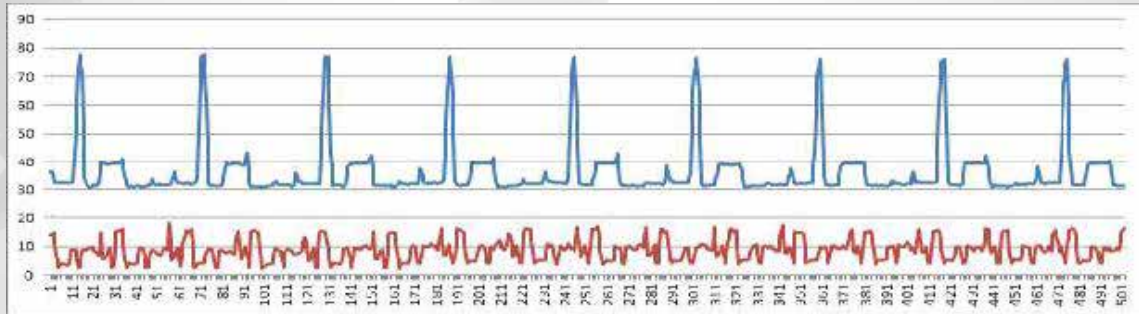
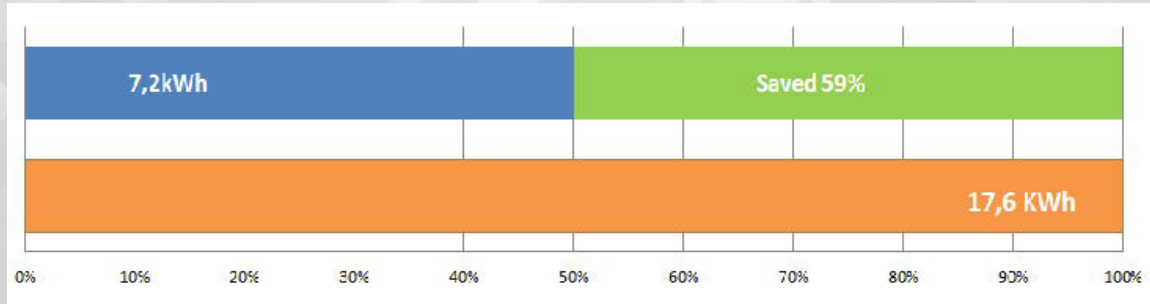
Power Unit Cost = 0,075 €/hour (7,5 sent)

Hydraulic Oil Cost = 3,71 €/lt

At the same time, AD-Servo Press is environmentally friendly with global warming ...

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(AD-S 30320 – AD-SERVO 30320 Ton)



 AD-SERVO 30320 Ton	 ASN - AD-S 30320 Ton - 9 circuit
 AD-S 30320 Ton	 SRV - AD-SERVO 30320 Ton - 16 circuit
 Energy Gain	

**Comparison Table of Technical Data for Energy Consumption and Output**

Technical Values	AD-S 30320 Ton	AD-SERVO 30320 Ton
Motor Power	37 kW	2x11 kW
Oil Tank Capacity	250 lt	50 lt
Fast Fall Rate	100 mm/s	160 mm/s
Bending Speed	10 mm/s	10mm/s
Return Speed	100 mm/s	160 mm/s
Noise Violence	75 dB(A)	65 dB(A)

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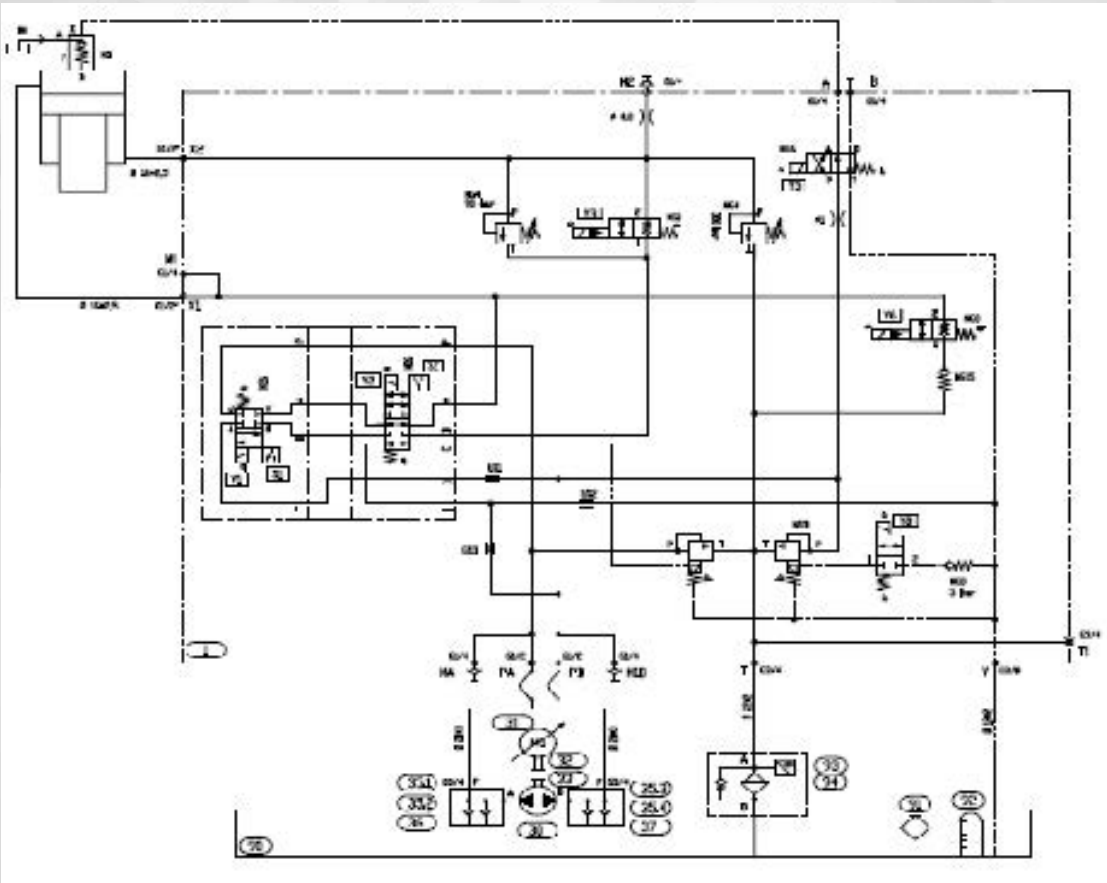
Technical Values	AD-S 30320 Ton	AD-SERVO 30320 Ton
Electricity consumption	2673 €/year	1093,5 €/year
Energy Cost Gain	1579,5 €/year	
1 year (9s * 225 days) in operation	59% less electricity consumption	
Hydraulic Oil Cost	80% less electricity consumption	
Hydraulic Oil Cost Gain	927,5 €/lt	185,5 €/year
1 year (9s * 225 days) in operation	742 €/year	-

Electricity Unit Cost = 0,075 €/hour(7,5 sent)

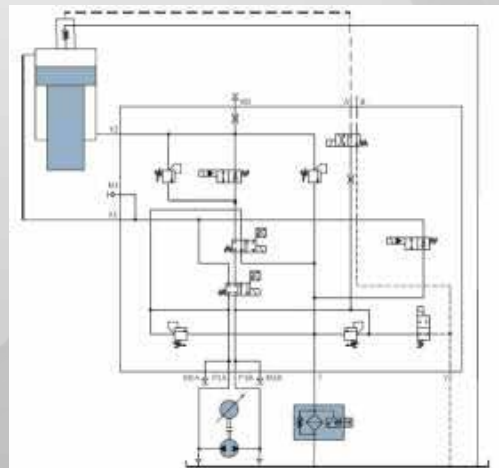
Hydraulic Oil Cost = 3,71 €/lt

At the same time, AD-Servo Press is environmentally friendly with global warming ...

**Hydraulic Oil CostAD-Servo Hydraulic Diagram 220-320 Ton**



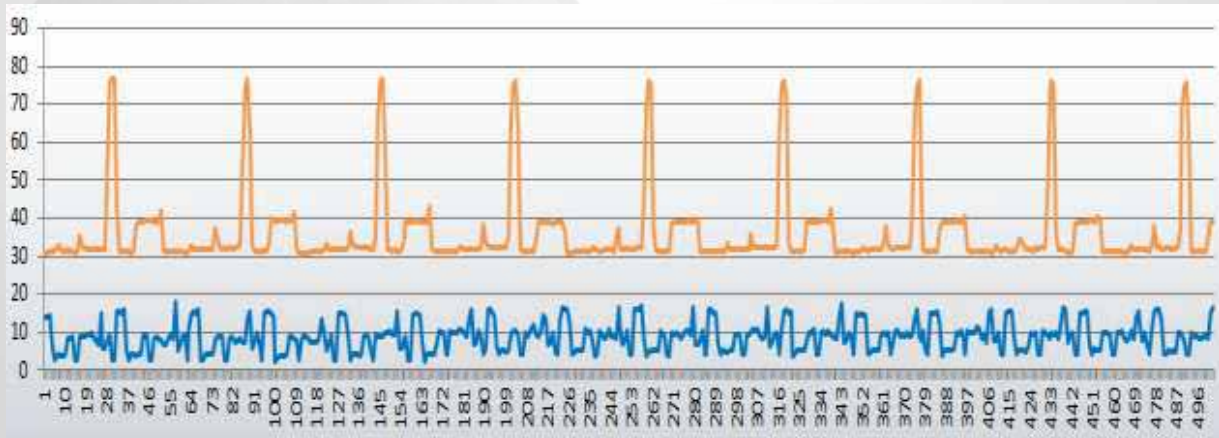
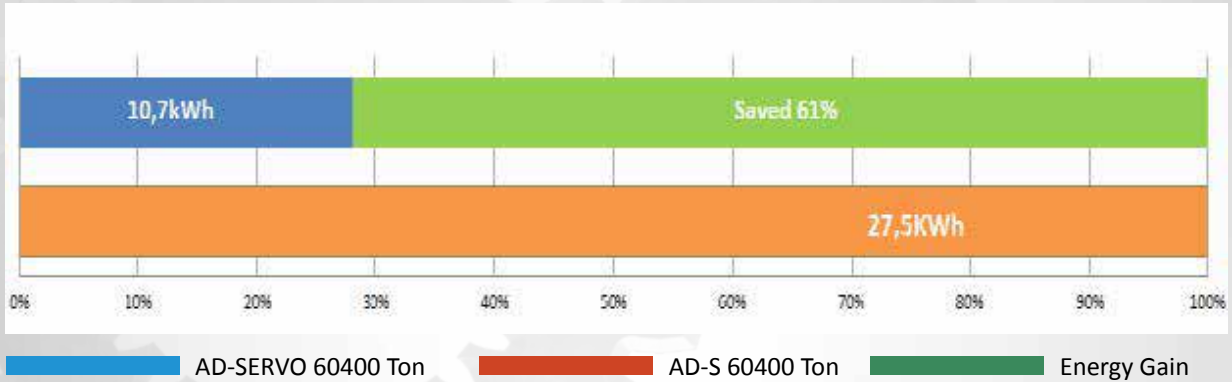
**AD-Servo 220-320 Ton Bending Press / Single Cylinder**





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## COMPARISON OF ENERGY CONSUMPTION OF ABRASIVE PRESSES (AD-S 60400 – AD SERVO 60400)



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## Comparison Table of Technical Data for Energy Consumption and Output

Technical Values	AD-S 60400 Ton	AD-SERVO 60400 Ton
Motor Power	37 kW	2x11 kW
Oil Tank Capacity	510 lt	100 lt
Fast Fall Rate	120 mm/s	150 mm/s
Bending Speed	8 mm/s	9 mm/s
Return Speed	100 mm/s	150 mm/s
Noise Violence	75 dB (A)	66 dB (A)
Electricity consumption	4176,56 €/Year	1625,06 €/Year
Energy Cost Gain	2551 €/Year	
1 year (9s * 225 days) in operation	61% less electricity consumption	
Hydraulic Oil Cost	371 €/Year	
Hydraulic Oil Cost Gain	1521,1 €/Year	
1 year (9s * 225 days) in operation	80% less hydraulic oil consumption	

50% Energy Saving for 1 hour working with AD-Servo Abkant Press  
It is provided.

- Despite the same operational time, the unit does 177% more work.
- At the same time, AD-Servo Press is environmentally friendly with global warming ...

## Comparison Table of Technical Data for Energy Consumption and Output

Technical Values	AD-S 60600 Ton	AD-SERVO 60600 Ton
Motor Power	45 kW	2x11 kW
Oil Tank Capacity	510 lt	100 lt
Fast Fall Rate	80mm/s	100 mm/s
Bending Speed	7 mm/s	6,5 mm/s
Return Speed	80 mm/s	100 mm/s
Noise Violence	75 dB(A)	-

AD-Servo 60600 Ton Abkant Pres has not been tested yet.

- At the same time, AD-Servo Press is environmentally friendly with global warming...

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## AD-Servo Hydraulic Diagram 400-600 Ton

