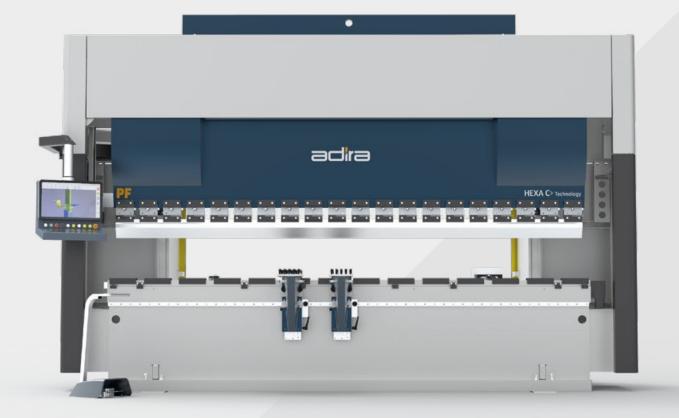


METAL FORMING SOLUTIONS



## PRESS BRAKES PF

TECHNICAL DATA SHEETS

### **Press Brakes**

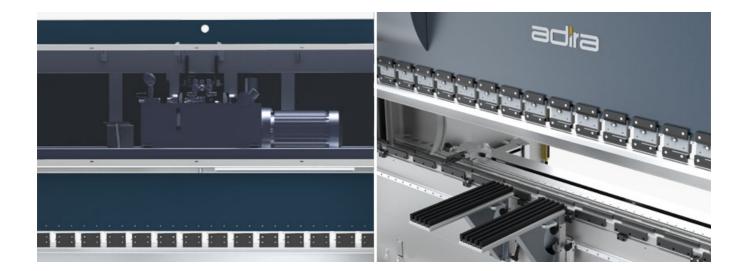


The high-performance hybrid PF (Press Fast) range is characterised by its high working speed and maximum productivity. With a wide opening and stroke, ADIRA PF press brakes not only allow for larger parts, but also integration with different automation projects (robotised cells).



Multi-axis back gauge and bend angle measuring systems available as an option.

Flexibility and adaptability.



#### **Main Features**

Flexible, high-yield tools Ergonomics, Design and Safety

Industry 4.0 ready

(Ideal for integration with robotised cells.) The right choice for performance More efficient energy consumption

Sustainable

Ability to carry out highly complex work with precision

#### Benefits

High approximation, bending and return speeds;

Wider Opening and Stroke;

Activation via servomotors;

Front support arm on rail with table and brushes (Product Standard); Speed change 2 mm above the sheet metal;

High precision;

Standard machine with crowning table, Lazersafe IRIS safety system, front support arms on rail with brushes and height adjustment and 4-axis back gauge (X, R, Z1 and Z2).

When the operator is not operating the hybrid PF, the hydraulics are also stopped as they are activated instantly by a servomotor. When the servomotor is stopped, the hydraulic system is at rest, leading to energy savings, and it's environmentally friendly too.

Solution for customers that need a high-yield, high-performance machine



Max. bending lengthmm3000300040004000Distance between side framesmm255031503150Maximum strokemm400400400Max. opening without Punch Holdersmm60366306635Throat Depthmm400040004000PowerkW2x112x112x11Approach Speedmm/s101010101010Warking speedmm/s101010101010Return speedmm/s662566256625X-axis strokemm610010001000X1-axis strokemm101010001000R-axis strokemm200020002000R-axis strokemm200020002000Z-Z/IZ-axis strokemm210021002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm210020002000Z-Z/IZ-axis strokemm21002000200		16030	13530		PF
Distance between side framesmm2550255031503150Maximum strokemm400400400Max. opening without Punch Holdersmm603663663Throat Depthmm400400400PowerkW2011201120112011Approach Speedmm/s1010101010101010Warking speedmm/s1010101010109Return speedmm/s1010101010101010Back gaugemm/s6625662566256625X-axis strokemm1010101010101010X1-axis strokemm2010200020002000R-axis strokemm2010200020002000R-axis strokemm2010201020002000R-axis strokemm2010201020002000R-axis strokemm2010201020002000Z-1/Z-axis strokemm2010201020002000Z-2/Z-axis strokemm2010201020002000Z-2/Z-axis strokemm2010201020002000Z-2/Z-axis strokemm2010201020102010Z-2/Z-axis strokemm2010201020102010Z-2/Z-axis strokemm2010201020102010Z-2/Z-axis strokemm/s2010<	1600	1600	1350	kN	Bending strength
Maximum strokemm440044004400Max. opening without Punch Holdersmm660066006610Max. opening without Punch Holdersmm670066006600PowerWW6700670067006700PowerWW6710770770770Approach Speedmm/s6710770770Working speedmm/s6710770770Back gaugemm/s6710770770X-axis strokemm6762566256755X-axis speedmm/s6710011001100X1-axis strokemm6710011001100R-axis speedmm/s6710011001100R-axis strokemm6710011001100R-axis strokemm/s6710011001000R-axis strokemm/s6710011001000R-axis strokemm/s6710011001000R-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000Z-ZI/Z-axis strokemm/s670010001000X/X-axis strokemm/s67001000 <td>4000</td> <td>3000</td> <td>3000</td> <td>mm</td> <td>Max. bending length</td>	4000	3000	3000	mm	Max. bending length
Max opening without Punch Holdersnm6630663066306630Throat Depthnm664046004600PowerkW2x112x112x112x11Approach Speedmm/s618011801170Working speedmm/s6180118011801180Bacturn speedmm/s6180118011801180Bacturn speedmm/s6180618061801180Bacturn speedmm/s6180618061806180Bacturn speedmm/s6180618061806180Bacturn speedmm/s6180618061806180Stais strokemm/s6180618061806180Atais strokemm/s6180618061806180Atais strokemm/s6180618061806180R-axis strokemm/s6190610061006100R-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100Z-JZ-2-axis strokemm/s6190610061006100X-X-2-3	3150	2550	2550	mm	Distance between side frames
Throat Depthmm400400400400PowerkW2x112x112x112x11Approach Speedmm/s180180180170Working speedmm/s180180180180Return speedmm/s180180180180Back gaugemm/s180625625625X-axis strokemm680800080008000X-axis strokemm/s110011001000X-axis strokemm/s6101010001000X-axis strokemm/s6101010001000X-axis strokemm/s6101010001000R-axis strokemm/s6101010001000R-axis strokemm/s6101010001000R-axis strokemm/s6102020002000R-axis strokemm/s6103020002000R-axis strokemm/s6103020002000R-axis strokemm/s6103020002000R-axis strokemm/s6103020002000Z-ZL/Z2-axis strokemm/s6103020002000Z-ZL/Z2-axis strokemm/s610303000*300*XU/Z-axis strokemm6103061056105XU/Z-axis strokemm6103061006100XU/Z-axis strokemm/s6103061006100XU/Z2-axis strokemm/s<	400	400	400	mm	Maximum stroke
PowerkWAllAllAllAllAllApproach Speedmm/sIIIIIIIIIIIIIIIIWorking speedmm/sIIIIIIIIIIIIIIIIIIIIBeturn speedmm/sIIIIIIIIIIIIIIIIIIIIIIIIIIBack gaugemm/sIII	630	630	630	mm	Max. opening without Punch Holders
Approach Speedmm/s180180180Working speedmm/s10°10°10°Return speedmm/s180180180180Back gaugeX-axis strokemm625625625X-axis strokemm/s680080008000X1-axis strokemm/s101010101010X1-axis strokemm/s100010001000R-axis strokemm/s100010001000R-axis strokemm/s100010001000R-axis strokemm/s100010001000R-axis strokemm/s100010001000R-axis strokemm/s100010001000R-axis strokemm/s100010001000Z-21/Z2-axis strokemm/s100010001000Z-21/Z2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s100010001000X1/X2-axis strokemm/s1000<	400	400	400	mm	Throat Depth
Working speedmm/sMm/s </td <td>2x11</td> <td>2x11</td> <td>2x11</td> <td>kW</td> <td>Power</td>	2x11	2x11	2x11	kW	Power
Return speed mm/s 180 <	180	180	180	mm/s	Approach Speed
Back gauge mm 6625	10	10*	10*	mm/s	Working speed
X-axis strokemmmm66256625662566256625X-axis speedmm/s800800800800800X1-axis strokemm100100100100X1-axis speedmm/s0000100R-axis strokemm00000R-axis speedmm/s000000Z - 21/Z2-axis strokemm000000Z - 21/Z2-axis speedmm/s0800**0000Tower back gaugemm/s000000X1/X2-axis strokemm0750750750750Mm/s00000000	180	180	180	mm/s	Return speed
X-axis speedmm/sAdd 800Add 800Add 800X1-axis strokemmmm/s100100100X1-axis speedmm/s000100R-axis strokemmM200200200R-axis speedmm/s0000R-axis speedmm/s0000Z - Z1/Z2-axis strokemm/s0000Z - Z1/Z2-axis speedmm/s0000Z - Z1/Z2-axis speedmm/s0000X1/X2-axis strokemm/s0000X1/X2-axis strokemm0750750750X1/X2-axis speedmm/s0000M000000M000000M000000M000000M000000M000000M000000M000000M000000M000000M000000M000000M					Back gauge
X1-axis stroke mm ± 100 ± 100 ± 100 ± 100   X1-axis stroke mm/s   100 ± 100   X1-axis speed mm/s   100 100   R-axis stroke mm   200	625	625	625	mm	X-axis stroke
X1-axis speedmm/smm/ammR-axis strokemmmm100100R-axis speedmm/s0000200R-axis speedmm/s0000200Z - Z1/Z2-axis strokemm10021502750Z - Z1/Z2-axis speedmm/s0000**000**Tower back gaugemm/s0750750X1/X2-axis speedmm100100100X1/X2-axis speedmm/s0100100Mm/s00000100X1/X2-axis speedmm/s01000	800	800	800	mm/s	X-axis speed
R-axis stroke mm 200 200   R-axis stroke mm/s 200	±100	± 100	± 100	mm	X1-axis stroke
R-axis speedmm/s200200200Z - Z1/Z2-axis strokemm10021502750Z - Z1/Z2-axis speedmm/s800**800**800**Tower back gaugemm/s100750750X1/X2-axis strokemm/s100100100X1/X2-axis speedmm/s100100100	100	100	100	mm/s	X1-axis speed
x - 2 L/Z2-axis stroke mm 2 - 6 L M M M M 2 - 10 M	200	200	200	mm	R-axis stroke
Z - Z1/Z2-axis speedmm/s800**800**800**Tower back gaugemm/s900**900**X1/X2-axis speedmm/s61750750750X1/X2-axis speedmm/s6100**6100**6100**	200	200	200	mm/s	R-axis speed
Tower back gauge mm 750 750 750 750   X1/X2-axis speed mm/s 400 400 400 400 400	2750	2150	2150	mm	Z - Z1/Z2-axis stroke
X1/X2-axis stroke mm 750 750 750 750   X1/X2-axis speed mm/s 400 400 400 400 400	800**	800**	800**	mm/s	Z - Z1/Z2-axis speed
X1/X2-axis speed mm/s 400 400 400 400					Tower back gauge
	750	750	750	mm	X1/X2-axis stroke
R1/R2-axis stroke mm 200 200 200 200	400	400	400	mm/s	X1/X2-axis speed
	200	200	200	mm	R1/R2-axis stroke
R1/R2-axis speed mm/s 200 200 200 200	200	200	200	mm/s	R1/R2-axis speed
Z1/Z2-axis stroke mm Variable Variable Variable Variable	Variable	Variable	Variable	mm	Z1/Z2-axis stroke
Z1/Z2-axis speed mm/s 800	800	800	800	mm/s	Z1/Z2-axis speed
Standard dimensions (LxWxH)					Standard dimensions (LxWxH)
Min./Max. Length mm 3920/4670 3920/4670 4950/5700 4970/5720	4950/5700	3920/4670	3920/4670	mm	Min./Max. Length
Max. Width mm 2200 2200 2240 2320	2240	2200	2200	mm	Max. Width
Max. Height mm 3110 3110 3250 3190	3250	3110	3110	mm	Max. Height
Height for transport mm 2980 2980 2980 2980 2980	2980	2980	2980	mm	Height for transport
Approx. mass Kg 9600 9800 12000 14500	12000	9800	9600	Kg	Approx. mass



Equipment		PF		
	Manual Fast Clamping "ADIRA" punch holders, reversible	standard		
	"ADIRA/USA" Punch Holders			
	Wila Pro Hydraulic Punch Clamping	-		
Punch Tightening	Wila Pro USA Hydraulic Punch Clamping			
	Wila Premium Hydraulic Punch Clamping			
	Wila Premium USA Hydraulic Punch Clamping	•		
	Pneumatic Punch Clamping Teda with Frontal Insertion	•		
Tables	Crowning Table, base 60, "Standard Table Kit"	standard		
	180 mm Table for Multi V "Table Kit II" Dies			
	13 mm Table for Wila "Table Kit III" Dies			
	Wila Pro Hydraulic Clamping with Crowning table			
	Pneumatic Clamping for 60 mm base dies			
	2 support arms on rail (with height adjustment, with brushes, $L = 800$ mm)	standard		
Sheet metal	1 additional support arm on rail (with height adjustment, with brushes, L = 800 mm) Bending Follower AQ1			
support				
	Second Bending Follower (AQ2)	-		
	X/R/Z1/Z2 back gauge for AD60	standard		
	X/R/Z1/Z2 back gauge for Delem 6X X/X1/R/Z1/Z2 back gauge for AD60 X/X1/R/Z1/Z2 back gauge for Delem 6X	-		
Back gauges				
Jack gauges	X1/X2 - R1/R2 - Z1/Z2 tower back gauge (AD61 or Delem 6X)			
	1 extra light-duty back gauge stop			
	2 extra back gauge stops			
	Anti-collision function per stop (extra for each stop)			
Safety	IRIS Laser Safety	standard		
Controls	ESA AD75	standard		
	DELEM DA 69_3D (up to 16 axes)			
Leds	Leds (Smart Placing) Esa (only with AD6X)			
	Leds (Smart Placing) Esa (only with Wila and AD6X)	-		
	Leds (Smart Placing) Esa (only with Wila and Delem6X)	-		
	Interface with Robot			
	Air Conditioning on the Electrical Cabinet			
	Standard tool kit - @ 85° Punch: 3 or 4 x701603305 + 1x701602302 / 4-vee die 3 or 4 x721103300 +1x721104300			
Other	Special Tools	on reques		
	Digital Goniometer	-		
	2 Machines in tandem	on reques		

<sup>\*</sup> Speeds for machines without CE Safety \*\* Speeds for machines without an X1 axis



# adira

Rua das Lages 67 . 4410-272 Vila Nova de Gaia T.: +351 226 192 700 . adira@adira.pt