



# Economical Plasma Cutting Systems

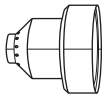
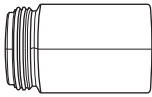

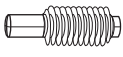

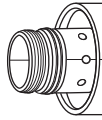
## AngelBlade

## 80 A

### Plasma Cutting Systems High performance (compare with H plasma)

System	Output current	Piercing capability	Edge start capability	Duty cycle under max output current	100% duty cycle	CPC and arc voltage ratio
AngelBlade 80A	25-80A	20mm	40mm	60-80%	62A	optional
H plasma	25-85A	20mm	38mm	60-80%	66A	optional

### Plasma cutter consumables half price (or use full-price H plasma cutter consumables)

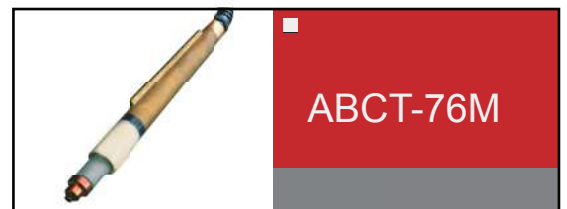
Shield	Retaining Cap	Nozzle	Electrode	Swirl Ring	Torch
ABCT-40810	ABCT-40820	ABCT-08030	ABCT-40840	ABCT-40850	ABCT-76M
					



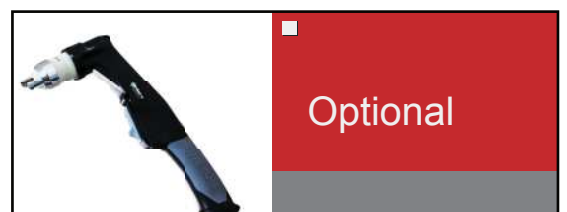
### AngelBlade™ Plasma Cutting Systems Key Technical Advantages

Key Advantages	Details
Major functions	Plasma cutting, marking, gouging, gridding, and support lower current at turning point;
Intelligent power	Inbuilt control system; updates via CAM cutting software;
Reliability	Self-detect function of correcting the main transformer bias; Double-overflowing protection; high or low voltage and overheating protection;
Excellent performance	DSP fuzzy logic control and self-adaptive control technology leads to success of arc strike, stable current and less draws.
External digital interface	CAN, USB and DEVICE NET enables networking;
20% of energy-saving	Use IGBT inverter technology with the temperature-controlled fan;
Database of cutting craft (optional)	Save current and voltage in time, make analysis on cutting data.

### Mechanized Plasma Cutter Torch



### Handheld Plasma Cutter Torch



### Description:

AngelBlade™ plasma cutting systems can work with half cost and good plasma cut quality, AngelBlade™ air plasma cutter can offer you an economical and intelligent plasma cutting systems. The core technology of AngelBlade™ air plasma cutter 80A is sure to have a stable plasma cut quality even in unfavorable working conditions. What's more, its powerful intelligent control system and editable database of cutting craft make customers have high expectation of the extended functions of AngelBlade™ air plasma cutter 80A.

**Plasma Cutting Systems Configuration**

Name	Series No.
Operator Manual	AB-00020
Warranty Card	AB-00030
Certificate	AB-00040
500A Earth Clamp	AB-00050
16mm <sup>2</sup> Ground Wire/ 2m length	AB-00060
DKJ16-1 Welding Cable Plug	AB-00070
Φ8 Oxygen Pipe	AB-00080
Φ12-Φ16 Clamp	AB-00090
Mechanized Torch Φ35mm/ 7.6m	ABCT-76M
Mechanized Torch Φ35mm/10.7m	ABCT-107M
Mechanized Torch Φ35mm/15.2m	ABCT-152M
Handheld Torch 7.6m	ABCT-76H
Handheld Torch 10.7m	ABCT-107H
Handheld Torch 15.2m	ABCT-152H
100A Shield	ABCT-10010
100A Retaining Cap	ABCT-10020
100A Nozzle	ABCT-10030
100A Electrode	ABCT-10040
100A Swirl Ring	ABCT-10050
40-80A Shield	ABCT-40810
40-80A Retaining Cap	ABCT-40820
40-80A Electrode	ABCT-40840
40-80A Swirl Ring	ABCT-40850
40A Nozzle	ABCT-04030
60A Nozzle	ABCT-06030
80A Nozzle	ABCT-08030

**Plasma Cutting Samples**



Handheld or mechanized plasma cutter torch for cutting and gouging metal

Capacity	Thickness	Cutting speed
	Handheld cut	
Recommended	25mm	320mm/min
	30mm	180mm/min
Severance	38mm	125mm/min
Pierce	20mm	

**Plasma Cutting Systems Technical Parameters:**

Type	60A	80A	100A
Parameters			
Input Voltage (U1)	380V±10% 50Hz 3 phase AC*		
Input Current (I1)	9.5A	13.6A	22.4A
Input Power	6.5kW	9kW	13.8kW
Floating Voltage	307V±5%		320V±5%
No-load Loss	30W		
Output Current Range (I2)	20~60A	25~80A	30-100A
Current Indication Precision	2.5 degree		
Power Factor	COSφ≥0.85		
Efficiency	η≥85%		
Insulation Degree	F		
Enclosure Protection Class	IP23S		
Rated Duty Circle	60% (60A/104V)	60% (80A/112V)	60% (100A/120V)
	100% (46A/98V)	100% (62A/105V)	100% (93A/116V)
Feature of external power	Sharp drop of constant current		
Maximum Severance(mm)	30	40	50
Recommended(mm)	20	25	32
Pierce Cut (mm)	16	20	22
Arc Strike	Not high-frequency		
Cooling	Air cooling		
Dimension (W×H×L)	290×503×603		320×567×650
Net Weight of Power	33kg		46kg

\* 220V 3-phase is optional.



**Dayo International Ltd.**  
plasma cutter manufacturers

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**Air Plasma Cutter 80A**

Amperage (A)	Material	Torch-Distance of Workpiece (mm)	Initial Pierce Height(mm)	Thickness (mm)	Pierce Delay Time (S)	Arc Voltage (V)	Optimum Cutting Speed (mm/min)	Max Cutting Speed (mm/min)	
air plasma cutter 80A	Carbon Steel	1.5	3.8	3	0.5	120	6500	8000	
				6	1.0	122	3200	4000	
				8	1.2	124	2200	3000	
				10	1.2	126	1500		
				12	1.5	128	1250		
				16	1.8	130	855		
				20		134	520		
				25	Edge Cutting	138	350		
				30		140	165		
	Stainless Steel	1.5	3.8	3	0.5	120	6500	7000	
				6	0.5	122	3200	4000	
				8	0.5	124	2200	3000	
				12	1.0	128	1200		
				20	1.5	134	500		
				25	Edge Cutting	138	320		
				3		0.5	120	7000	8000
				6	0.5	122	3500	4000	
				8	0.5	124	1500	2000	
	12	1.0	128	1400	1800				
	20	1.5	134	800					
	25	Edge Cutting	138	500					

The max cutting speed refers to the highest speed to be achieved when cutting materials without considering the plasma cut quality of kerf. While the optimum cutting speed can ensure a better kerf angle, free of dross and a better cutting surface. For every cutting system in different THC systems, plasma cutter torch, air pressure or other cutting conditions, the optimum cutting speed and cutting plasma cut quality kerf can be achieved only after adjustment.

Dayo International Ltd. as plasma cutter manufacturers take environment stewardship as its core value. A series plasma cutting systems and E series air plasma cutter meet the standard of ISO 9001:2008 in design and manufacturing process.



Please refer to safety signs and related safety regulation for avoiding injury. Watch out for electric shock, or hand burn by moving parts and thermal objects. Please put on weld cap, use suitable filter glass and wear protective suit. Contact Dayo International Ltd. and ask for the method of reducing electromagnetic field on work site.