



# DELTA

[www.deltasaw.com](http://www.deltasaw.com)

## 인사말

당사는 1989년 설립이후 지속적인 설비투자과 기술개발로 꾸준한 성장을 하고 있는 금속절단용 톱기계 및 밀링기계 전문제조기업입니다. 수입에만 의존했던 초고속 원형 톱기계의 국산화에 국내 최초로 성공한 것을 비롯하여 다양한 용도의 톱기계와 밀링기계의 생산으로 국내 철강 절단 및 밀링가공업체의 생산성 향상에 크게 기여하고 있습니다.

그리고 다년간 절단기계 제작을 하면서 축적한 기술력과 절단노하우를 바탕으로 톱절단 및 면가공을 핵심으로 하는 철판가공설비 자체제작과 전용공장을 새로 마련하여 철판 규격품도 생산하고 있습니다. 이와 별도로 절단 및 밀링기계의 소재투입과 배출의 안정성과 효율성 제고를 위해 로봇을 접목한 자동화시스템을 적극 개발 공급하는 등 스마트팩토리의 구축에 파트너사로 나아갈 방향을 정하고 개발에 매진하고 있습니다.

또한, 세계 최고수준의 톱날의 수입판매와 더불어, 국내 고객분들의 선택의 폭을 넓혀드리기 위해 외국의 톱기계 및 양두밀링도 총판대리점을 체결하여 전국적으로 판매를 하고 있습니다. 품질이나 성능면에서 가성비가 대단히 우수하오니 이 수입제품에 대해서도 고객분들의 관심과 성원을 부탁드립니다.

앞으로 제품의 성능, 품질 및 서비스의 부단한 개선노력을 통해 고객의 보다 높은 부가가치 창출을 위해 최선의 노력을 다하겠습니다.

델타기계(주)

## Greeting

Since its establishment in 1989, we have been manufacturing sawing and milling machines for metal processing and growing steadily through continuous technology development. With Korea's first successful localization of high-speed circular saw machines and also the production of various saw machines and milling machines, we contributes to the productivity improvement of steel cutting and milling sectors.

Based on the technology and cutting know-how accumulated during the manufacture of cutting machines for many years, we produce steel plate processing facilities that focus on saw cutting and surface processing and produce standardized steel plate products. Also, we are actively developing automation systems that incorporate robots to improve the stability and efficiency of material loading and unloading of cutting and milling machines.

In addition to import of the world's best saw blades, we have also established sole distributorship for foreign top quality machines for local customers who seek for high cost-effective machines, so we would like to ask for your interest and support in those imported products.

In the future, we will keep doing our best to create higher added value for our customers through continuous efforts to improve product performance, quality and services.

Delta Machinery.Co.,Ltd.

## 연혁

- 1989 델타기계(주) 설립
- 2001 초고속 원형톱기계 개발
- 2002 스페인 대리점 개설  
ISO9001 인증획득
- 2006 철판절단용 전자동 원형톱기계 개발  
버티컬톱기계(V-6000) 싱가포르 수출
- 2008 기술혁신형 중소기업(INNO-BIZ) 인증획득  
벤처기업 인증획득
- 2009 규격철판을 전문유통하는 델타스틸(주) 설립  
규격철판 전국대리점망 구축  
4면 밀링가공기 개발
- 2011 초고속 초경밴드톱기계 개발
- 2012 파이프 다발절단전용 밴드톱기계 개발  
톱대경사형 양각절단 밴드톱기계 개발
- 2014 ISO14001 획득  
소형 플레너 개발  
선박용 리그절단전용 밴드톱기계 개발
- 2015 알루미늄 가공용 양두밀링 개발  
회사 재도약을 위한 취지로 회사로고 변경
- 2016 초대형링 절단용 밴드톱기계 개발
- 2020 초고속 파이프절단전용 원형톱기계 개발
- 2021 원형톱기계 슬랜트타입 개발
- 2022 JLH SAW(톱기계) 국내 총판대리점 체결  
LONGCHANG PRECISION(밀링기계)  
국내 총판대리점 체결

## Company History

- 1989 Established
- 2001 Developed high speed TCT circular sawing machines  
Designated "FAT S.A." as our selling agent in Spain  
Acquired ISO 9001 certification
- 2006 Developed circular sawing machines for steel plates  
Exported vertical saw (V-6000) to Malaysia
- 2008 Designated as the Technology Innovation Business  
Certified as Venture Business
- 2009 Established Delta Steel Co. Ltd  
Established nationwide sales network for DELTA standard steel bars  
Developed four face milling machines
- 2011 Developed high speed band saws for carbide blade.
- 2012 Developed band sawing machines for bundle cutting  
Developed double angle cutting band sawing machine with tilting sawhead
- 2014 Certified ISO40001  
Developed mini plane milling machines  
Developed lug-cutting band saw for ship building
- 2015 Developed double headed milling machines for aluminum plates  
Changed the company logo as a bid for taking another leap
- 2016 Developed band sawing machines for cutting super large steel rings
- 2020 Developed High speed circular sawing machines for cutting pipes
- 2021 Developed slant type circular sawing machines
- 2022 Designated as sole agent for JLH sawing machines  
Designated as sole agent for Longchang milling machines

## Contents

- 04 Band Sawing Machines 밴드톱기계
- 16 Band Sawing Machines for Large Rings 대형링 절단기
- 18 High Speed Pipe Cutting Machines 고속파이프 절단기
- 20 Circular Sawing Machines 원형톱기계
- 26 Steel Plate Processing Facilities 철판가공기
- 30 Band Saw Blades 밴드톱날
- 31 Circular Saw Blades 원형톱날



# High Speed Band Sawing Machines

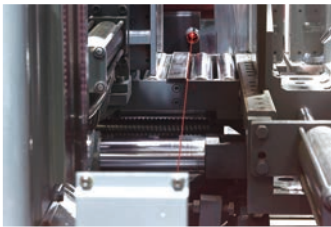
Bimetal(HSS) Blades / Carbide Tipped Blades

Model DT-360A





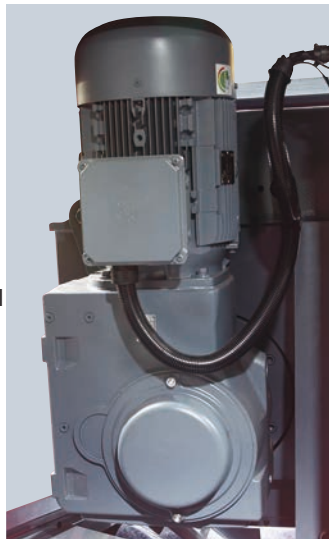
■ Bar Front Detector



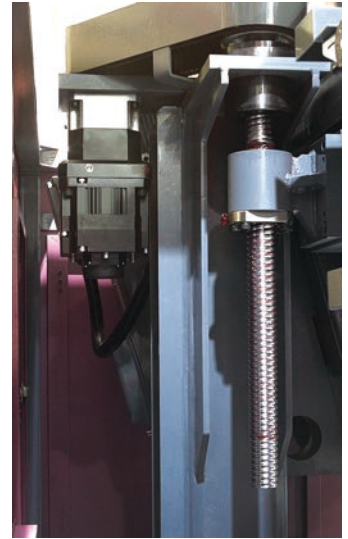
■ Back Gauge Device



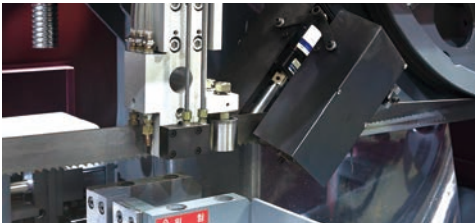
■ High Precision Reducer



■ Precision Cutting by Servo Motor



■ 2Way Brush



■ CNC Control Panel



## 특장점 Features

- CNC System 및 Touch Screen  
CNC system and touch screen
- 초경톱날사용으로 절단속도 150~300% 향상  
Cutting speed 150~300% up by using carbide blades
- 톱대 및 소재 서보이송에 의한 정밀절단 실현  
Precision cutting by servo for sawhead and material feeding
- 2Way Roller LM Guide 및 Gantry Column 사용으로 절삭 안정성 제고  
Excellent cutting performance by roller LM guide & gantry column
- 헬리컬+베벨형 감속기 사용으로 절삭성 향상  
Excellent cutting performance by helical+bevel type reducer
- 자기진단 및 입출력 점검기능  
Self diagnosis & input and output monitoring system
- 자동이송 톱날 가이드암  
Auto moving guide arm
- 소재 빗썰림 감지장치  
Inclined cutting detection device

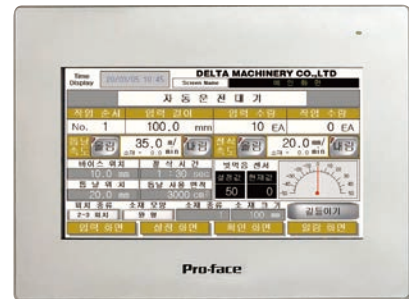
## SPECIFICATIONS

MODEL	DT-360A	DT-530A	DT-8075A	
Control Method	CNC Control & Touch Screen			
Cutting Capacity	Round	Ø10~360	Ø30~530	Ø50~750
	Square	360x360mm	530x530mm	750x750mm
	Feeding Stroke	500mm	500mm	400mm
Saw Blade	Size	6400x54x1.6mm	7150x67x1.6mm	8300x67x1.6mm
	Speed(60hz)	15~200m/min	15~140m/min	15~140m/min
	Tension	Hydraulic	Hydraulic	Hydraulic
Motor	Band Drive	11kw	15kw	15kw
	Hydraulic	2.25kw	3.75kw	3.75kw
	Coolant	1.4kw	1.4kw	1.4kw
Tank Capacity	Hydraulic	100ℓ	150ℓ	150ℓ
	Coolant	160ℓ	200ℓ	200ℓ
Weight	5,000kg	6,000kg	7,000kg	
Floor Space (W×L×H)	3000x2110x2110mm	3300x2150x2600mm	4520x2700x2580mm	

# Band Sawing Machines

밴드톱기계

Model DT-350 / 450 / 520 / 560 / 650 (Column Type)



Touch Screen on the Control Panel

## SPECIFICATIONS

MODEL	DT-350	DT-450	DT-520	DT-560	DT-650	
Operating Method			Fully Automatic & NC System			
Cutting Capacity	Round	Ø10~350	Ø10~450	Ø10~520	Ø15~560	Ø15~650
	Square(W×H)	350×350mm	450×450mm	520×520mm	610×560mm	670×650mm
	Bundle(W×H)	250×140mm	350×200mm	400×230mm	560×300mm	650×300mm
Saw Blade	Speed(60Hz)	15~115m/min	15~115m/min	15~115m/min	15~115m/min	15~115m/min
	Size(L×W×T)	3980×34×1.1mm	4880×41×1.3mm	5800×41×1.3mm	6700×54×1.6mm	7530×54×1.6mm
	Tension	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Motor	Band Drive	4.0kw	5.5kw	7.5kw	7.5kw	7.5kw
	Hydraulic System	1.5kw	1.5kw	1.5kw	2.2kw	2.2kw
	Coolant Pump	0.2kw	0.2kw	0.2kw	0.2kw	0.2kw
Tank Capacity	Hydraulic	70ℓ	80ℓ	85ℓ	85ℓ	90ℓ
	Cutting Fluid	70ℓ	85ℓ	90ℓ	100ℓ	110ℓ
Weight	1,800kg	2,600kg	3,000kg	4,250kg	4,710kg	
Floor Space (W×L×H)	2150×2170×1630mm	2400×2260×1900mm	2750×2270×2050mm	3320×2300×2350mm	3320×2300×2350mm	

□ 반자동 타입 Semi-auto type : DT-350M/450M/520M/560M/650M

Model DT-450



Band Sawing Machine

Circular Sawing Machine

Processing Facility

Standard Steel Plate

Band Saw Blade

Circular Saw Blade

## 특장점 Features

- 전자동 NC System 및 TOUCH SCREEN  
Fully automatic NC system and touch screen
- 유압시스템 최적화로 절단속도 안정화 실현  
Implementing cutting speed stability by upgraded hydraulic system
- 절단길이 최대 10가지 입력  
10 cutoff length programmable
- 인버터에 의한 톱날 선속도 무단 조절  
Infinitely variable blade speed by inverter
- 유압에 의한 톱날 장력 유지  
Hydraulic blade tension
- 양분된 앞바이스 및 3개의 동작 바이스 사용  
Split front vice and three-jaw clamping
- 자기진단 및 입출력 점검기능  
Self diagnosis & input and output monitoring system
- 자동이송 톱날 가이드암  
Auto moving guide arm

## 기본장비 Standard Accessories

- 기본공구 및 공구상자(1set) Tool and tool box(1set)
- 톱날(2pcs) Saw blade(2pcs)
- 사용설명서 Instruction manual
- 롤러콘베어 2M(1set) Roller table 2M(1set)
- 상단 바이스 Overhead vise for bundle cutting
- 자동 칩 배출장치 Auto chip conveyor
- 인버터 Inverter
- 감압장치 Vise clamping power reducing device

## 선택장비 Optional Accessories

- 빗썰림 감지장치 Inclined cutting detection device
- 미스팅장치 Misting oil supply unit

High Precision Reducer



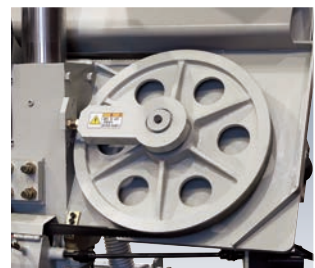
Auto Moving Guide Arm



Inclined Cutting Detection Device



Shaft-Supported Drive Wheel





# Miter Cutting Band Sawing Machines for Heavy Duty Fully Automatic / Semi Automatic NC System

Model

DT-5035R / 6042R / 7555R (Twin Column Type)  
DT-4550VR (Vertical Type)



## 특장점 Features

- 전자동 NC SYSTEM 및 TOUCH SCREEN Fully automatic NC system and touch screen
- TWIN POST TYPE에 의한 안정적인 절삭실현(Twin Column Type) Stable angle cutting by twin post type
- VERTICAL TYPE에 의한 안정된 양각 절단 (Vertical Type) Efficient angle cutting by 2way tilting vertical sawhead
- 절단길이 최대 10가지 입력 10 cutoff length programmable
- 인버터에 의한 톱날 선속도 무단조절 Infinitely variable blade speed by inverter
- 고효율 감속기 사용으로 절삭력 강화 Precise and powerful cutting by helical+bevel gear type reducer
- 유압에 의한 톱날 장력 유지 Hydraulic blade tension
- 자기진단 및 입출력 점검 기능 Self diagnosis and Input output monitoring system
- LED작업등 설치 LED work light
- 절단각 표시 및 편리한 각도조절 Precise angle control by encoder



## SPECIFICATIONS

MODEL		DT-5035R		DT-6042R		DT-7555R		DT-4550VR	
Control Method		Fully Automatic & NC System		Fully Automatic & NC System		Semi Automatic & NC System		Fully Automatic & NC System	
Cutting Capacity	Angle	0°	45°	0°	45°	0°	45°	0°	±45°
	Round	Ø350	Ø320	Ø420	Ø420	Ø550	Ø520	Ø460	Ø340
	Square(W×H)	500×350mm	320×350mm	600×420mm	400×420mm	770×550mm	520×550mm	460×500mm	450×300mm
Blade	Size	4570×34×1.1mm		5800×41×1.3mm		8100×54×1.6mm		4880×34×1.1mm	
	Speed	15~115m/min		15~115m/min		15~115m/min		15~115m/min	
Motor	Drive	4kw		5.5kw		7.5kw		4kw	
	Hydraulic	1.5kw		1.5kw		2.2kw		1.5kw	
Tank Capacity	Cutting Fluid	0.2kw		0.2kw		0.2kw		0.2kw	
	Hydraulic	100ℓ		100ℓ		100ℓ		80ℓ	
	Cutting Fluid	100ℓ		100ℓ		100ℓ		150ℓ	
Stroke		1000mm		1000mm		NA		800mm	
Weight		2,500kg		3,500kg		6,500kg		3,850kg	
Floor Space (W×L×H)		2400×3700×1850mm		2950×3750×2450mm		3800×2230×2370mm		3120×3420×2760mm	

☐ 반자동 타입 Semi-auto type : DT-5035RM/6042RM

# Band Sawing Machines for Bundle Cutting Fully Automatic NC system

Model DT-560B / 660B



■ 원형파이프 다발절단



■ 사각파이프 다발절단



■ H-빔 절단



## 특장점 Features

- 전자동 NC시스템 및 TOUCH SCREEN  
Fully automatic NC system and touch screen
- 고정상단바이스에 의한 다발절단 용이  
Easier bundle cutting by fixed overhead vise
- 인버터에 의한 톱날 선속도 무단 조절  
Infinitely variable blade speed by inverter
- 헬리컬+베벨형 감속기 사용으로 절삭성 향상  
Cutting performance up by helical+bevel type reducer
- 자기진단 및 입출력 점검기능  
Self diagnosis & input and output monitoring system
- 자동이송 톱날 가이드암  
Auto moving guide arm
- 바이스 감압장치  
Vice clamping power reducing device
- 유선 리모콘  
Remote controller

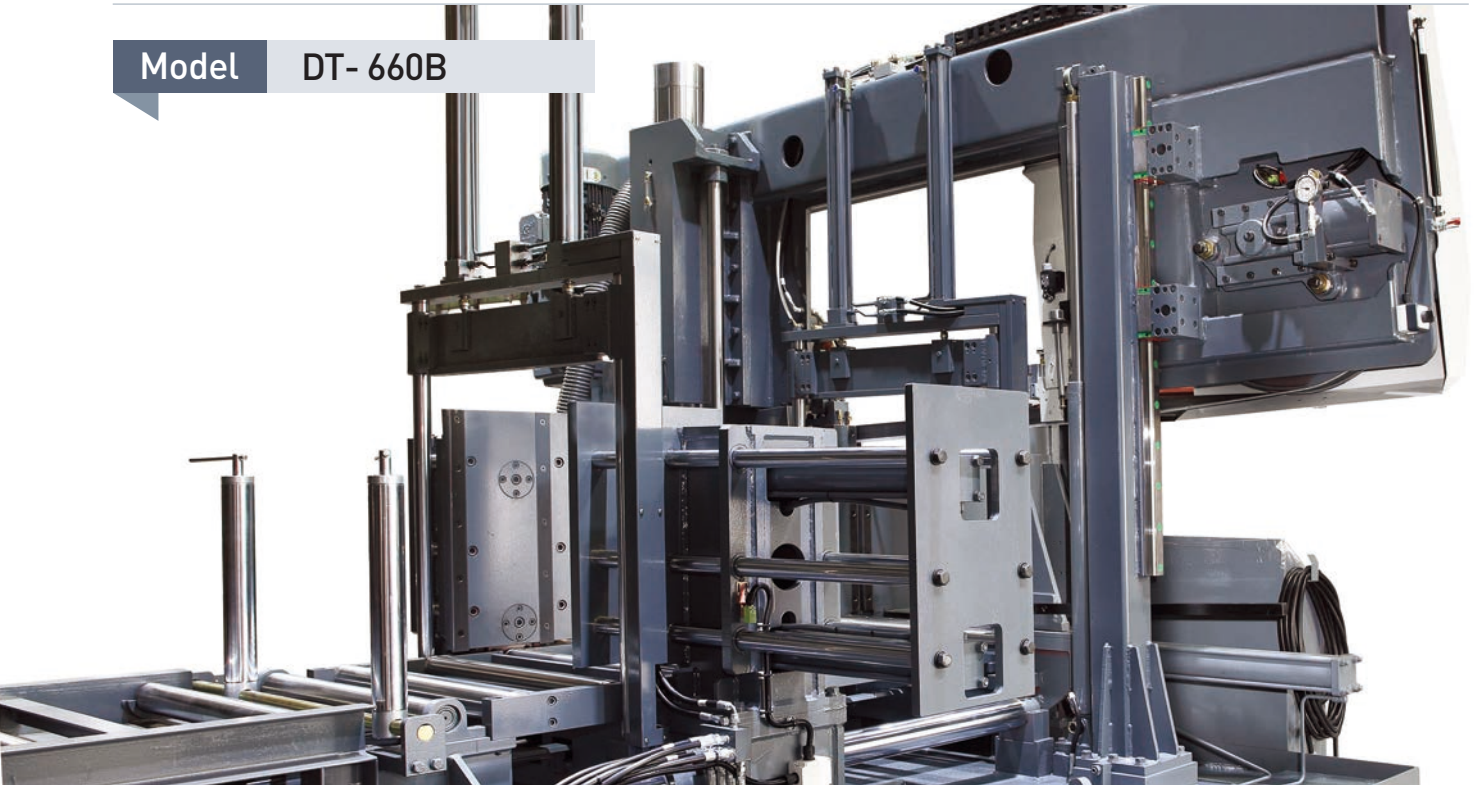
## SPECIFICATIONS

MODEL		DT-560B	DT-660B
Control Method		Fully Automatic & NC System	
Cutting Capacity	Round	Ø20~560	Ø20~660
	Square(W×H)	560x560mm	670x660mm
	Shuttle Stroke	1000mm	1000mm
Sawhead Inclination Angle		3°	3°
Saw Blade	Size	7400x54x1.6mm	7530x54x1.6mm
	Speed	15~115m/min	15~115/min
	Tension	Hydraulic	Hydraulic
Motor	Band Drive	7.5kw	7.5kw
	Hydraulic	1.5kw	1.5kw
	Coolant	0.2kw	0.2kw
Tank Capacity	Hydraulic	70ℓ	70ℓ
	Cutting Fluid	120ℓ	120ℓ
Weight		5,000kg	6,500kg
Floor Space (W×L×H)		3450x3430x2310mm	3550x3620x2640mm



## Band Sawing Machines for Bundle Cutting : Fully Automatic NC system

**Model** DT- 660B



Band Sawing Machine

Circular Sawing Machine

Steel Processing Facility

## Miter Cutting Band Sawing Machines for Light Duty : Semi-Auto Type

**Model** CY280N / CY300N

### 특장점 Features

- 반자동 동작방식
- 톱대회전에 의한 정확한 각도 절단
- 극수변환방식에 의한 2단 속도조절
- 스프링에 의한 톱날 장력 유지
- 절삭유 펌프에 의한 톱날냉각
- 톱날 장력계에 의한 적정 장력 유지
- 스탠드 부착으로 작업성 향상



Standard Steel Plate

Band Saw Blade

### SPECIFICATIONS

MODEL		CY280N				CY300N			
Cutting Capacity	Angle	0°	+45°	+60°	-45°	0°	+45°	+60°	-45°
	Round	Ø225	Ø160	Ø100	Ø130	Ø255	Ø220	Ø135	Ø170
	Square(W×H)	245×180mm	160×160mm	100×100mm	130×130mm	310×210mm	220×200mm	135×135mm	170×170mm
Blade	Size	2480×27×0.9mm				2750×27×0.9mm			
	Speed	45m/min, 90m/min				35m/min, 70m/min			
Motor	Drive	1½HP				2HP			
Machine Weight		315kg				350kg			
Floor Space (W×L×H)		1500×510×1570mm				1730×770×1600mm			

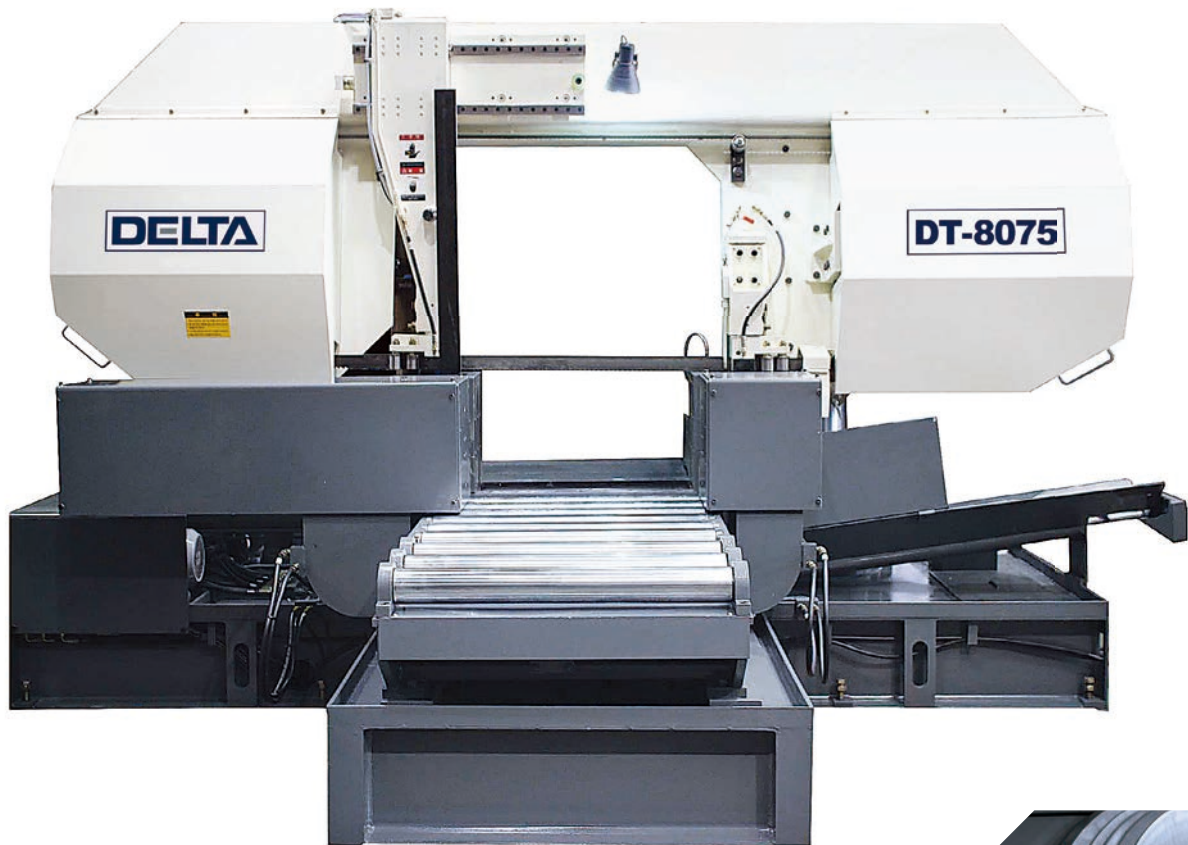
Circular Saw Blade

# Heavy Duty Band Sawing Machines

## Model

DT-8075/1075/1000/1310/1300 (Fully Automatic Type)

DT-8075T/1075T/1000T/1310T/1300T/1600T/1816T/2116T (Semi Automatic Type)



## SPECIFICATIONS

MODEL	DT-8075	DT-1075	DT-1310T	DT-1300T	DT-1600T	DT-1816T	
Operating Method	Fully Automatic NC System or Semi Automation NC System						
Cutting Capacity	Round	Ø50~750	Ø50~750	Ø350~1000	Ø350~1300	Ø500~1600	Ø600~1800
	Square(W×H)	800×750mm	1000×750mm	1300×1000mm	1300×1300mm	1600×1600mm	1800×1600mm
	Speed	15~80m/min	15~80m/min	15~80m/min	15~80m/min	15~80m/min	15~80m/min
Saw Blade	Size(L×W×T)	7800×54×1.6mm	8200×54×1.6mm	10260×67×1.6mm	11880×80×1.6mm	15500×80×1.6mm	15900×80×1.6mm
	Tension	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Motor	Band Drive	9.2kw	9.2kw	11kw	15kw	20kw	20kw
	Hydraulic System	3.75kw	3.75kw	5.5kw	3.75kw	5.5kw	5.5kw
	Coolant Pump	0.4kw	0.4kw	0.4kw	0.4kw	0.4kw	0.4kw
Tank Capacity	Hydraulic	120ℓ	120ℓ	150ℓ	150ℓ	150ℓ	150ℓ
	Cutting Fluid	80ℓ	80ℓ	100ℓ	150ℓ	150ℓ	150ℓ
Weight	9,100kg	10,000kg	14,000kg	19,000kg	31,000kg	34,500kg	
Floor Space (W×L×H)	4250×2700×2550mm	4400×2700×2550mm	5150×2380×2900mm	5650×4360×3810mm	8300×4850×4350mm	8400×4850×4350mm	

☐ 기타모델 Other model : DT-2116T

# Heavy Duty Band Sawing Machines



Band Sawing Machine

Circular Sawing Machine

Steel Processing Facility

Standard Steel Plate

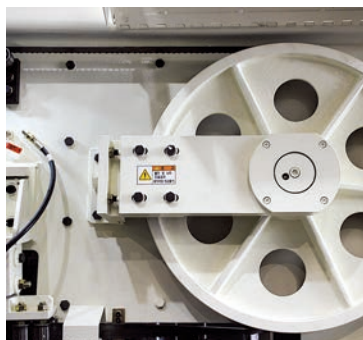
Band Saw Blade

Circular Saw Blade

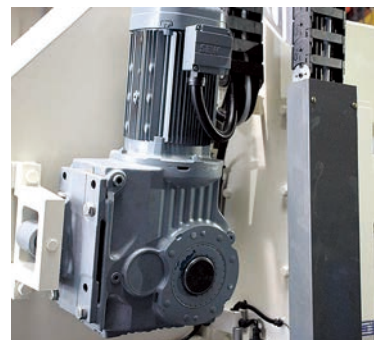
■ Hydraulic Moving Guide Arm



■ Wheel Shaft Clamping



■ Helical & Bevel Gear Reducer

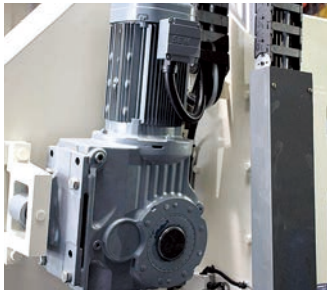




# Heavy Duty Band Sawing Machines



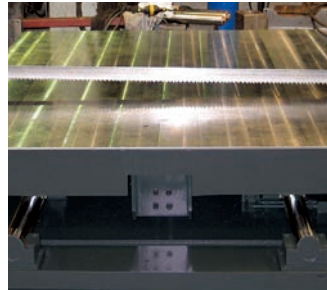
■ High Precision Reducer



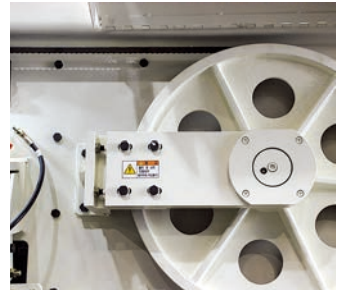
■ LM Guide & Oil Supply Unit



■ Flat Work Bed



■ Wheel Shaft Clamping

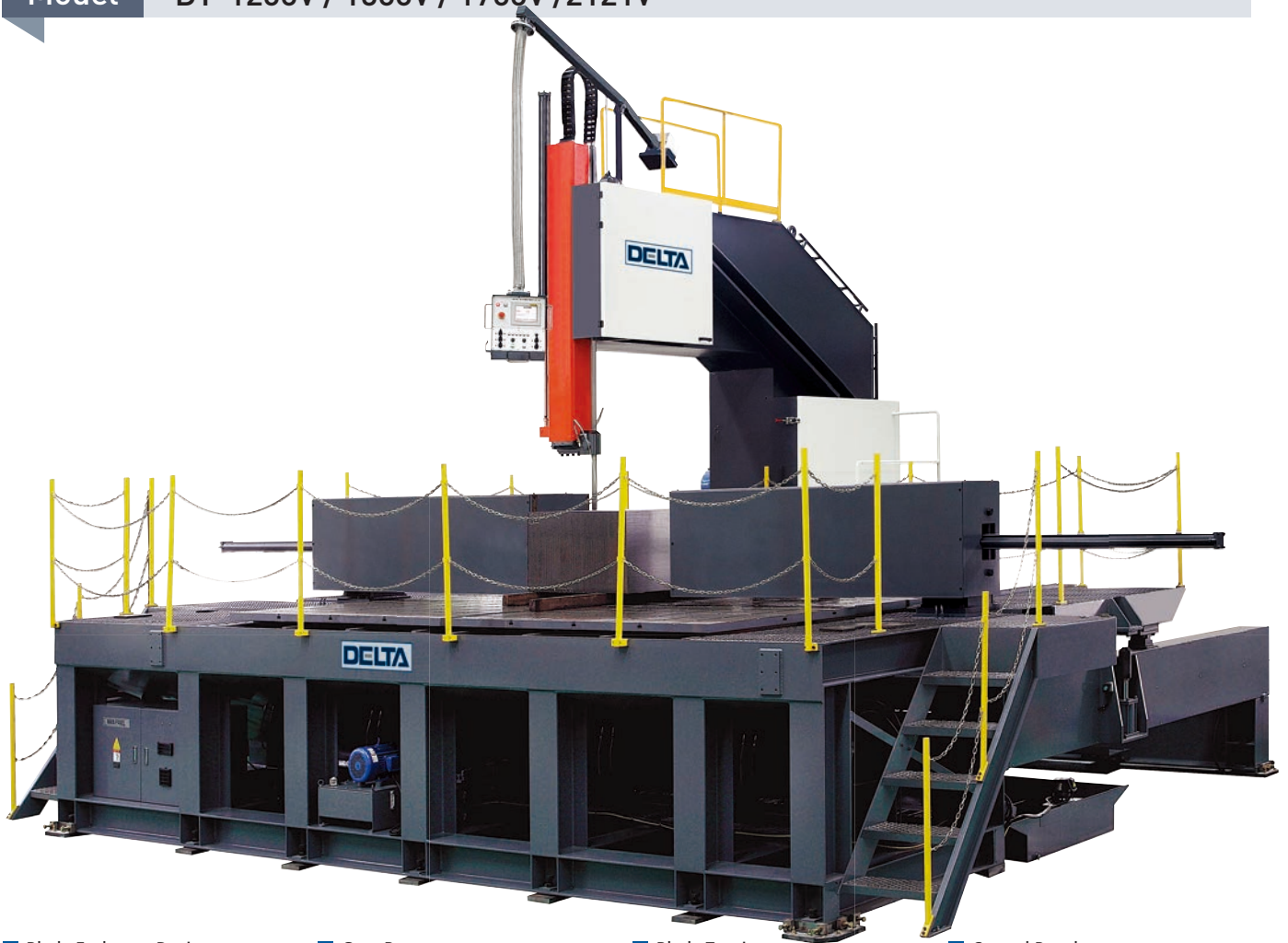


## 특장점 Features

- 반자동 NC SYSTEM & TOUCH SCREEN Semi Automatic NC system and touch screen
- 고정밀 LM GUIDE에 의한 진직도, 정밀도 향상 Precise cutting by high-precision LM guide arm
- 고정밀 감속기 사용으로 절삭력 향상 High production and longer blade life by high-precision reducer
- 감속기 샤프트 클램핑 및 부하감쇠장치 적용으로 감속기 보호 Reducer protection by shaft clamping device
- 인버터에 의한 톱날 선속도 무단조절 Infinitely variable blade speed by inverter
- 유압시스템 최적화로 절단속도 안정화 실현 Implementing stable cutting by upgraded hydraulic system
- 절삭 깊이 설정 기능으로 코어 절단 가능 Core cutting available by cutting depth setting function
- 소재 전후진 2단속도 제어 치수 설정 최적화 Accurate cutting length by two step feeding speed control method
- 4JAW 물림방식에 의한 소재 진직도 향상 Optimum clamping by 4JAW clamping method
- 리모콘 사용으로 조작편리성 제고 Easy operation by remote control

# Vertical Band Sawing Machines for Block Cutting

**Model** DT-1200V / 1500V / 1700V /2121V

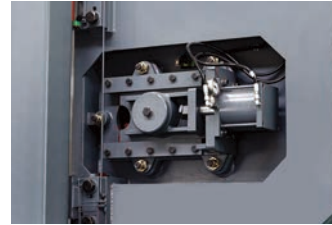
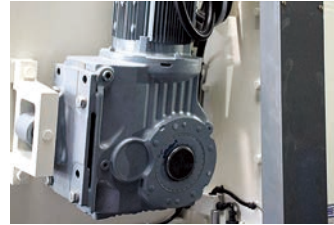
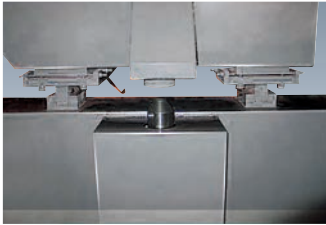


■ Blade Exchange Device

■ Gear Box

■ Blade Tension

■ Control Panel



## SPECIFICATIONS

MODEL		DT-1200V	DT-1500V	DT-1700V	DT-2121V
Control		NC Control & Touch Screen			
Capacity	Height	1200mm	1500mm	1700mm	2100mm
	Throat	1200mm	1500mm	1700mm	2100mm
	Length	2500mm	4000mm	4000mm	5000mm
Blade	Size	9700x67x1.6mm	10600x67x1.6mm	11880x67x1.6mm	13000x80x1.6mm
	Blade speed	12~80m/min	12~80m/min	12~80m/min	12~80m/min
	Tension	Hydraulic	Hydraulic	Hydraulic	Hydraulic
	Drive	15kw	15kw	15kw	15kw
Motor	Hydraulic	2.2kw/3.75kw	2.2kw/3.75kw	2.2kw/3.75kw	2.2kw/3.75kw
	Cutting fluid	0.4kw	0.4kw	0.4kw	0.4kw
Table Height		1660mm	1700mm	1750mm	1750mm
Weight		35,000kg	40,000kg	45,000kg	55,000kg

□ Other specifications can be made on demand.

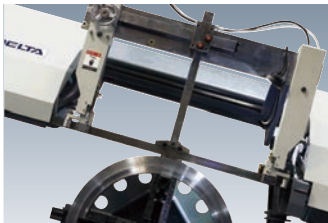
# Band Sawing Machines for Large Rings

## 대형링 절단기

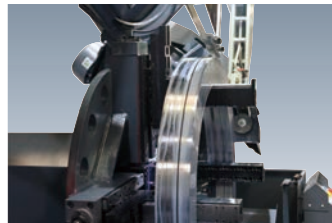
Model DT-1500HR



■ Hinge Cutting Type



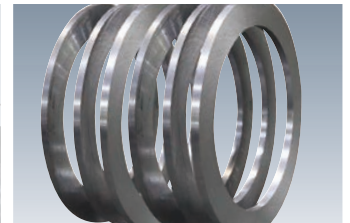
■ Universal Chuck



■ Control System



■ Rings After Cutting



### 특장점 Features

- HINGE TYPE에 의한 절삭성 극대화  
High cutting efficiency by hinge type
- Cycloid에 의한 척 회전  
Precise control of chuck revolution by cycloid gear box
- 헬리컬+베벨감속기 장착  
Highly efficient helical bevel type gear box
- 절단깊이 설정장치 부착으로 안전성 도모  
Safety upgrade by cutting depth control devise
- 톱날 비틀림각도 최소화로 톱날수명 연장  
Longer blade life by minimum twisting of blade
- 척이송부 백래쉬 제로 롤러 LM가이드 사용  
Using backlash free roller LM guide for check moving
- 4JAW에 의한 기계식 연동척 물림방식에 의한 소재고정  
Material clamping by 4jaws and scroll chuck
- 다양한 규격의 링 절단 가능  
Capable of cutting wide rage of rings

### SPECIFICATIONS

MODEL		DT-1500HR
Control		NC CONTROL & TOUCH SCREEN
Capacity	Min. ID	Ø400
	Max. OD	Ø1500
	Length	25~350mm
Blade	Size	6400x54x1.6mm
	Blade speed	20~115m/min
	Tension	Hydraulic
Chuck	Revolution speed	1~5RPM
	Stroke	500mm
	Chuck	3HP
Motor	Drive	10HP
	Hydraulic	3HP
	Coolant fluid	1/4HP
Tank capacity	Hydraulic	60L
	Cutting fluid	120L
Weight		6,000kg
Floor Space (W×L×H)		3100x2850x2400mm

□ Other specifications can be made on demand.



# Vertical Band Saw for Large Rings

## 대형링절단기

Model DT-3500VR

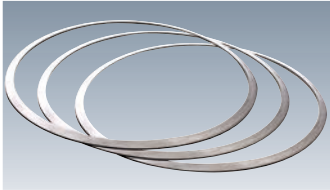
Auto Moving Guide Arm



5Jaw Scroll Chuck



Rings After Cutting



NC Control System



Band Sawing Machine

Circular Sawing Machine

Steel Processing Facility

Standard Steel Plate

Band Saw Blade

Circular Saw Blade

### 특장점 Features

- TOUCH SCREEN에 의한 작업상황 모니터링  
Monitoring cutting work status in real time by touch screen
- 자기진단 및 입출력 점검기능 내장  
Self diagnosis & Input output monitoring system
- 고정도 ROLLER LM GUIDE 및 BALL SCREW 사용으로 정밀 절단능력 향상  
Stable cutting performance by high precision LM Guide and ball screw
- 소재크기에 따라 자동이송되는 2WAY 가이드암 적용으로 절단시간 단축  
Shortening cutting time by auto moving 2way blade guide arm
- 대용량 유성차차 감속기 사용으로 절단능력 향상(효율 92~95%)  
Good cutting performance by planetary reduction gear (efficiency 92~95%)
- 사이클로 감속기에 의한 정밀 척 회전  
Precise chuck rotation by cyclo reducer controled with inverter
- 인버터에 의한 톨날 선속도 무단조절 및 인버터 전용모터 사용으로 회전력 보상  
Infinitely variable blade speed by inverter
- 2WAY BRUSH 및 절삭유 다방향 공급으로 칩 제거  
Chip clearance by 2way brush unit and coolant supply system
- 소재(척) 전후진 2단 속도 제어치수 설정으로 작업시간 단축  
Shortening cutting time by two-step feeding speed of chuck

### SPECIFICATIONS

MODEL		DT-3500VR
Control Method		NC CONTROL & TOUCH SCREEN
Cutting Capacity	Bore	Min. Ø1870
	OD	Max. Ø3600
Blade	Size	11500x67x1.6
	Speed	15~90m/min
Chuck	Tension	Hydraulic
	Revolution Speed	1~8RPM
Motor	Stroke	365mm
	Chuck	10HP
	Drive	20HP
Tank Capacity	Hydraulic	5HPx2ea
	Coolant	1/4HP
Machine Weight	Hydraulic Oil	30Lx2ea
Floor Space (W×L×H)		35,000kg
		5300x7700x6410mm

Other specifications can be made on demand.

# High Speed Pipe Cutting Machines

## 고속 파이프 절단기

Model DT-90P

### 특장점 Features

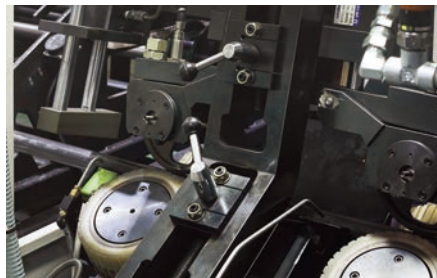
- 터치스크린 방식 및 NC제어에 의한 간편한 동작  
Easy operation by touch screen method and NC control
- 고정밀 감속기 채용으로 정밀절단 실현  
Excellent cutting accuracy by high precision reducer
- 써보모터에 의한 이송으로 정확한 길이 절단보장  
Precise cutting by servo motor control
- POWDER TENSION BRAKE 사용 및 AIR MISTING OIL 분사  
Powder tension brake and mist oil supply
- 절단시간 표시기능 및 작업완료 예상시간 표시  
Cutting time and work finishing time display
- 작업데이터 메모리 기능 - 최대 10개 사용  
Work data memory function up to max ten works
- 다발적재 소재 자동공급장치  
Automatic material feeding unit with motorized rope
- 고장부위 진단 및 조치방법 DISPLAY  
Error self detecting and their solutions display
- SAWHEAD 슬랜트 이송 방식  
Sawhead slant moving type by servo motor
- 하이스톱날 및 초경톱날 겸용  
Both HSS blade and carbide tipped blade can be usable
- 모터구동 칩브러쉬 유니트  
Motor driven chip brush unit



■ Motorized Rope Type Feeder



■ Material Feeding Unit



■ Cutting Length Measuring



■ Pipe Cutting with HSS Blade



■ Control Panel



■ Deburring Machine(Optional)





**DT-90P + Deburring M/C**

## SPECIFICATIONS

MODEL		DT - 90P
Control Method		NC CONTROL & TOUCH SCREEN
Cutting Capacity	Round	Ø10~90
	Square	75x75mm/90x75mm
	Thickness	1~10T
	Length	30~3000mm
	Minimum Remnent	30mm
	Trim Cutting	Min. 15mm
Blade	Cutting Length Tolerance	±0.1mm
	Size	HSS Ø360x2.8T / Carbide Ø315x2.2T
Motor	Rotation Speed	30~250±α rpm
	Drive	5.5kw
	Hydraulic	2.2kw
Blade Cooling		Compressed air + Mist oil
Material Feeding		AC Servo Motor(2kw)
Weight		3,800Kg
Floor Space(WxLxH)		2560x10340x2160mm

□ Cutting length of longer than 3,000mm is optional.

### STANDARD ACCESSORIES

- Tools and tool box (1set)
- Circular Blade (2pcs)
- Manual (1copy)
- Material unloading unit
- Motorized rope type auto feeder

### OPTIONAL ACCESSORIES

- Mist cleaner
- Blade cooling device
- Brush deburring unit
- Length measuring unit



# Circular Sawing Machine

원형톱기계

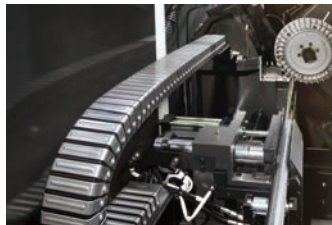
Model DT-100S



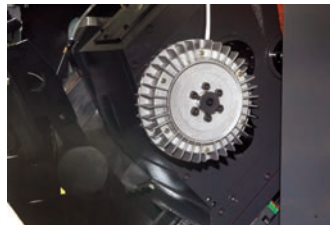
■ Slant Cutting Unit



■ Material Feeding Unit



■ Powder Brake Unit



■ Touch Screen & Control Panel



## 특장점 Features

- 전자동 NC 시스템 및 Touch Screen 방식 Fully automatic NC control and touch screen type
- 고정밀 감속기 채용으로 톱날 수명 연장 Extension of saw blade life by using high precision reducer
- 이송 서보모터에 의한 정확한 길이 절단 Precise cutting length by servo motor
- 절단길이 10가지 예약 입력 Ten cut off lengths programmable
- 고장부위 진단 및 조치방법 표시 Display of error types and their solutions
- 볼스크류에 의한 헤드 이송 방식 Head moving by ball screw
- 소재크기 자동측정 기능 Material size auto measuring
- 모터구동 칩제거 장치 Motor driven chip brush unit
- 톱대 서보 이송 방식 Sawhead servo feeding
- 절단조건 내장 Embedded workpiece cutting data

α 표준 장비 》 자동 칩배출장치  
 》 자동 소재 공급장치(5.5M)  
 Standard Accessories - Auto chip conveyor  
 - Auto feeder(5.5M)

α 선택 장비 》 미스트 크리너  
 》 소재 취출장치  
 》 톱날 냉각장치  
 Optional Accessories - Mist cleaner  
 - Material unloading device  
 - Blade cooling device

## Automatic Circular Sawing Machines with Auto Feeder Carbide Tipped Saw Blade / HSS Saw Blade

**Model** DT-70S



### Features

#### CUT-OFF SPEED

- Ø70 : 9 sec
- Ø50 : 6 sec
- Ø30 : 3 sec
- Material : USA 1045, JIS S45C, DIN CK45
- Blade : Carbide Tipped Blade

#### FEED GRIPPER SYSTEM

- AC servo and ball screw  
Anti-dropping roller with cover
- Speed : 20 m/min
  - Stroke : 670~700 mm / once  
9999 mm / multiple
  - Remnent : 30mm

HSS / TCT Blade

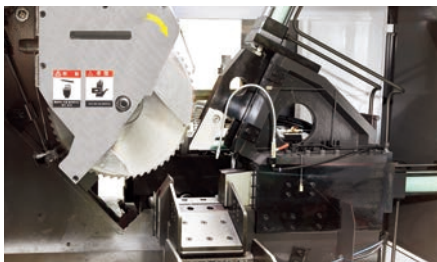


# Automatic Circular Sawing Machine with Auto Feeder Carbide Tipped Saw Blade / HSS Saw Blade

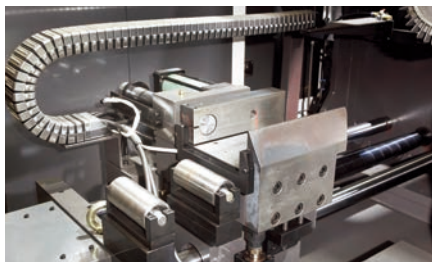
Model DT-160S



■ Slant Cutting Unit



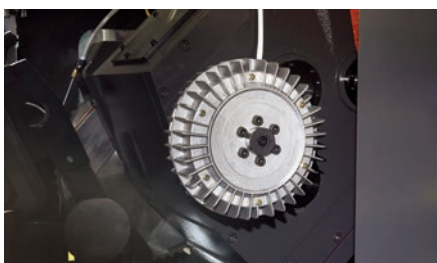
■ Feed Gripper System



■ Coolant & Rubricant Spray Unit



■ Powder Brake Unit



■ Touch Screen Control Panel





## DT-160S 본체 + 소재공급장치



### 특장점 Features

- 전자동 NC 컨트롤 및 터치스크린
- 고정밀 감속기 채용 및 톱대 슬랜트피딩방식으로 톱날수명 보장
- 감속기 기어오일 강제 순환으로 냉각보정
- 서보모터에 의한 소재이송으로 정밀절단 실현
- 서보모터에 의한 톱대 이송방식
- 파우더브레이크 사용 및 에어 미스트 오일 분사
- 쿨드건 장착으로 톱날수명 연장
- 절단길이 최대 10가지 예약입력 다단절삭
- 고장부위 자가진단 및 문제해결방법 LCD 표시
- 모터구동 칩 제거장치
- 소재크기 자동측정 기능
- 습동윤활유 공급으로 내구성 향상
- 절단조건 내장

### SPECIFICATIONS

MODEL		DT-160S
동작방식		NC 시스템 및 터치스크린
절단능력	●	Ø60~160
	■	60~110mm
	길이	15~3000mm
	최소잔재	70mm
톱 날	크기	Ø480×2.7T(3.0T)
	회전속도	40~120rpm
모터	기동	15kw
	유압	2.2kw(유압펌프)+0.1kw(기어오일순환)
	이송서보	2.0kw(소재이송), 5.0kw(톱대이송)
톱날냉각		압축공기+미스팅 오일+쿨드건
소재이송 및 톱대이송		서보모터
기계중량		7,500kg
기계크기 (W×H×L)		3560×1900×6750mm

#### ㉠ 기본장비 및 부대품

- 기본공구 및 공구상자
- 스틸벨트 칩콘베어
- 자동 소재 공급장치

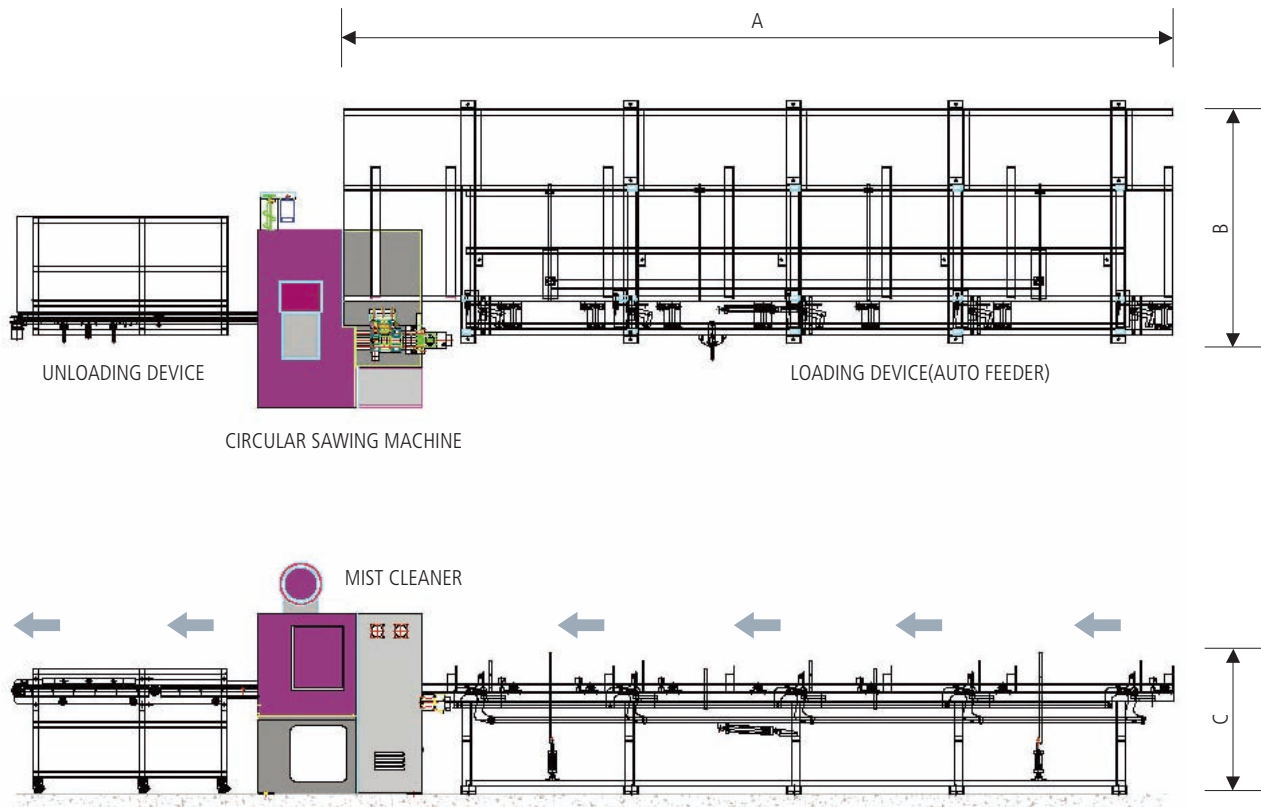
#### ㉡ 선택장비

- 미스트 크리너
- 톱날 냉각장치
- 소재 취출장치

# Automatic Circular Sawing Machines and Auto Feeder

## Carbide Tipped Saw Blade / HSS Saw Blade

### Layout



### SPECIFICATIONS

MODEL		DT-70S	DT-100S	DT-130S	DT-160S
Operating Method		NC Control & Touch Screen			
Saw Blade		Ø285×2.0T	Ø360×2.6T	Ø420×2.7T / 3.0T	Ø480(500)×2.7T / 3.0T
Cutting Capacity	Round	Ø10~75	Ø20~100	Ø50~130	Ø60~160
	Square	55×55mm	75×75mm	95×95mm	60×110mm
Max. Feed stroke		700mm	710mm	940mm	940mm+
Min. Remnants		30+αmm	45+αmm	60+αmm	60+αmm
Saw Blade Speed		40~160rpm	70~160rpm	40~120rpm	40~120rpm
Motor	Drive	7.5kw	11.0kw	15.0kw	15.0kw
	Hydraulic System	2.2kw	2.2kw	2.2kw	2.2kw
Feed System	Material	Servo 1kw	Servo 1kw	Servo 2kw	Servo 2kw
	Sawhead	Servo 2kw	Servo 3kw	Servo 5kw	Servo 5kw
Machine Size (W×L×H)		2670×1920×2000mm	2740×1950×2160mm	3520×2380×2640mm	3520×2380×2640mm
Weight		3,200kg	4,200kg	7,300kg	7,500kg
Feeder Size	A	5510mm	5510mm	5490mm	5490mm
	B	1570mm	1570mm	1750mm	1750mm
	C	1170mm	1410mm	1260mm	1260mm

## NC Control System



### Control System Panel

1. Touch Screen
2. Work Lamp Switch
3. Material Feeding Switch
4. Rear Vise Switch (Clamp / Unclamp)
5. Rear Vise Backward Switch
6. Rear Vise Forward Switch
7. Front Vise Switch (Clamp / Unclamp)
8. Saw head Switch (Forward / Backward)
9. Stop Switch
10. Buzzer
11. Start Switch
12. Machine ON Switch
13. Emergency Switch

### Auto & Manual Mode

CHECK	PARAMETER	MANUAL	14:15
TRIM	0.00	MANUAL OPERATION	
BLADE ROTATION	0 RPM	CUTTING TIME	0.0 min
CUTTING SPEED	0.00 mm/sec	CYCLE TIME	0.0 min
CUTTING AMOUNT	0.000 mm	WORKPIECE SIZE	0 mm
	SHOC. SIZE	BLADE TYPE	0 : 0. min
Blade :	0.00	Vise :	0.00
NUM	CUTTING LENGTH	CUTTING QUANTITY	ACTUAL CUT QUANTITY
0	0.00	0	0

### Error, Alarm & Solution



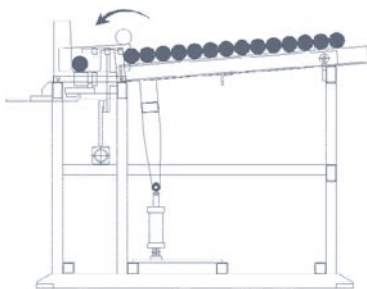
### Multiple Length & Quantity Setting

BACK	CUTTING LENGTH SETTING - 1				NEXT
NUM	CUTTING LENGTH	CUTTING QUANTITY	ACTUAL CUT QUANTITY	STATUS	
1	0.00	0	0	WORK_HOLD	
2	0.00	0	0	WORK_HOLD	
3	0.00	0	0	WORK_HOLD	
4	0.00	0	0	WORK_HOLD	
5	0.00	0	0	WORK_HOLD	
1	2	3	4	5	DIS
6	7	8	9	0	END

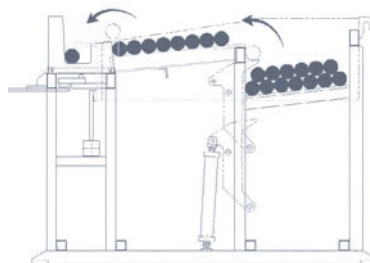
### Input & Output Check

BACK	INPUT 1		NEXT
X00	M/C READY	X03	REAR VICE CLAMP
X01	EMERGENCY	X04	REAR VICE UNCLAMP
X02	START	X10	REAR VICE FORWARD
X03	STOP	X11	REAR VICE BACKWARD
X04	BLADE FORWARD	X12	FEED SW
X05	BLADE BACKWARD	X13	SPARE
X06	FRONT VICE CLAMP	X14	SPARE
X07	FRONT VICE UNCLAMP	X15	SPARE

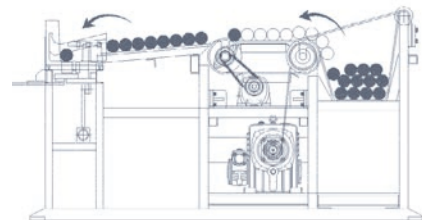
## MAGAZINE



Type No.1 : Standard Feeder



Type No.2 : Pocket Added Feeder



Type No.3 : Motorized Rope Feeder

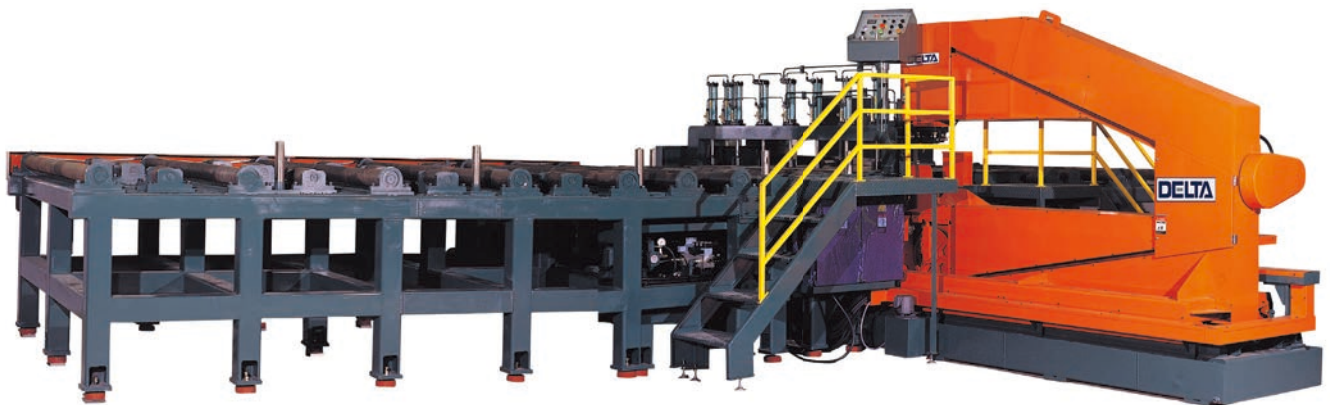


# Steel Plate Processing Facilities

철판가공기

## Vertical Band Saw

**Model** DT-3000V (8'x20' Steel Plates Sawing)



**Model** DT-1500V (4'x8' Steel Plates Sawing)



### SPECIFICATIONS

MODEL		DT-1500V	DT-3000V
Operating Method		Fully Automatic & NC System	
Cutting Capacity	Height	200mm	200mm
	Width	1500mm	3000mm
	Length	10~2500mm	200~6000mm
Blade	Size	7240×41×1.3mm	9720×41×1.3mm
	Speed	24~90m/min	24~90m/min
	Tension	Hydraulic	Hydraulic
Sawhead Moving		Hydraulic / Servo(option)	Hydraulic / Servo(option)
Weight		7,000Kg	10,000Kg
Floor Space (W×L×H)		6200×6400×3200mm	7500×9400×3200mm

## Circular Saw

**Model** DT-1300A (4'x8' Steel Plates Sawing)



**Model** DT-300M / 500M (Final Cutting on Demand)



### SPECIFICATIONS

MODEL		DT-300M / 500M	DT-1300A
Operating Method		NC Control & Touch Screen	
Cutting Capacity	Height	20~50mm/20~70mm	10~70mm
	Width	10~300mm/10~500mm	1300mm
	Length	1000mm	80~2500mm
Blade	Size	Ø315×2.2T/Ø360×2.6T	Ø360×2.6T
	Revolution Speed	80~130rpm	80~130rpm
	Drive	7.5kw / 11kw	11kw
Motor	Hydraulic	1.5kw	2.2kw
	Sawhead Servo	2kw	5kw
	Workpiece Feed Servo	1kw	2kw
Blade Cooling		Compressed Air + Misting Oil	Compressed Air + Misting Oil
Weight		2,900Kg	7,000Kg
Measurement (W×L×H)		2070×2980×1680mm	3380×4590×1920mm

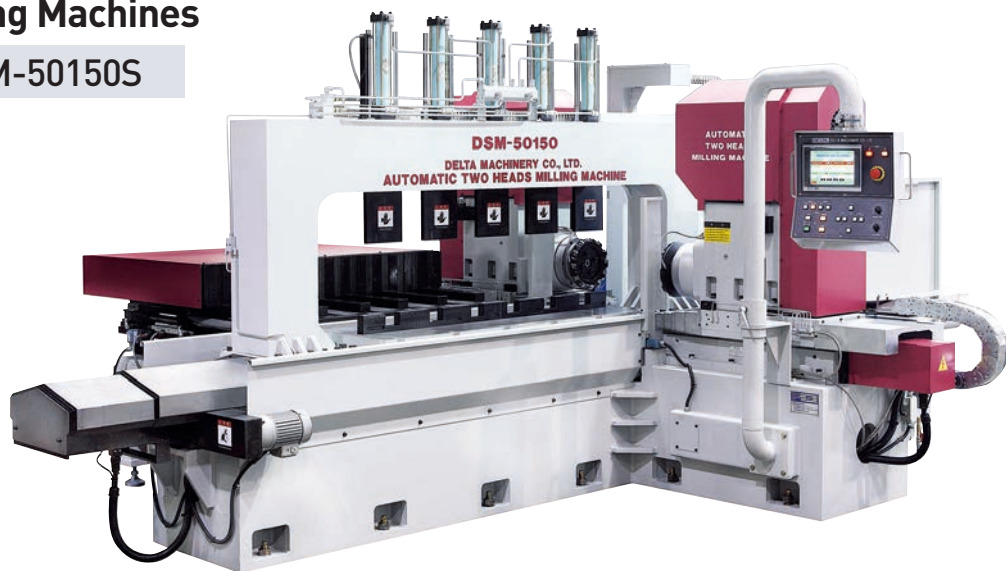
## Plane Milling Machines

Model DTM-40250F



## Two side Milling Machines

Model DTM-50150S



### SPECIFICATIONS

MODEL		DTM - 40250F	DTM - 50150S
Operating Method		NC Control & Touch Screen Panel	
Milling Capacity	Width	50~400mm	50~500mm
	Length	200~2500mm	200~1500mm
	Height	12~200mm	10~230mm
Cutter	Size	Ø415	Ø250
	Rotation speed	100~400rpm	100~400rpm
	Stroke	2800mm	1800mm
X-axis	Mill feed speed	100~1000mm/min	100~1000mm/min
	Rapid feed speed	10000mm/min	10000mm/min
	Spindle	15.0kw	15.0kwx2
Motor	Hydraulic	-	2.2kw
	X-axis feeding	Servo 5.0kw	Servo 5.0kw
	Y/Z-axis feeding	Servo 5.0kw	Servo 5.0kwx2
Workpiece Input/Output		Automatic by servo	Automatic by servo
Vice Clamping Power		Magnetic	4,500kg
Workpiece Max. Size & Weight		400x2500x200mm/1,570kg	500x1500x230mm/1,354kg
Weight		9,500Kg	11,000Kg
Floor space (W×L×H)		1900x6700x2800mm	3700x6100x2300mm

□ DFM-Series : DTM-40150F/40250F/150150F/150250F/125250F/165250F

□ DSM-Series : DTM-400S/30150S/40150S/50150S/50150A/60250A/75250A



## Four Side Milling Machines

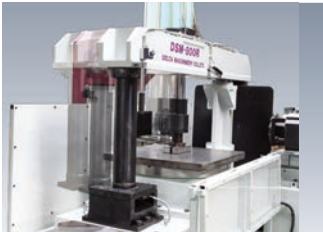
**Model** DTM-400R / 500R / 800R / 1000R / 1200R

### 특장점 Features

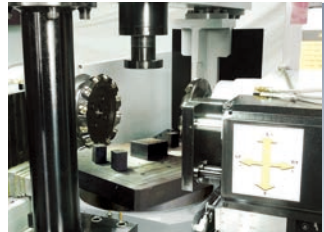
- NC 시스템 및 터치스크린 컨트롤판넬
- 양두컷터 및 인덱스에 의한 정확한 평행도와 직각도 보장
- 서보모터에 의한 스피들 및 작업 배드 구동으로 정밀가공
- 고강성 베이스와 구동 접촉면 자동급유시스템 채용으로 내구성 우수
- 기어박스에 의한 주축구동으로 종절삭 및 고정도 가공 실현
- 클램핑유니트의 회전으로 중량가공물 투입 및 추출 용이
- 불균일 소재에 대해 편축가공 후 정상적인 양면가공 가능
- 가공소재크기에 따른 투입위치 자동설정으로 작업성 향상
- 소재두께 확인장치 부착으로 충돌 방지
- NC system & independent touch screen control panel
- Ensuring accurate parallelism and squareness by double mill cutter and index table
- Durable accuracy by servo motor driven spindle and work bed
- High durability by robust base and LM guide with auto lubricating oil supply
- Heavy machining by powerful spindle driven by gear box
- Easy handling of heavy workpiece by swiveling clamping unit.
- One side milling available for uneven workpiece prior normal machining
- Easy setting of workpiece by automatic positioning unit
- Avoiding collision by attaching material thickness check unit.



#### Pivotal Overhead Vice



#### Double Cutter



#### Material Arrangement



#### NC Operating Panel



### SPECIFICATIONS

MODEL	DTM-400R	DTM-500R	DTM-800R	DTM-1000R	DTM-1200R	
Operating Method	NC Control & Touch Screen Panel					
Milling Capacity	Width	30~400mm	50~500mm	200~800mm	250~1000mm	250~1200mm
	Length	30~400mm	50~500mm	250~800mm	250~1000mm	250~1200mm
	Height	20~140mm	Max.230mm	Max.230mm	Max.230mm	Max.230mm
Cutter	Size	Ø160/Ø250(option)	Ø250/Ø315(option)	Ø250/Ø315(option)	Ø250/Ø315(option)	Ø250/Ø315(option)
	Rotation speed	100~400rpm	100~350rpm	100~350rpm	100~350rpm	100~350rpm
	Stroke	700mm	800mm	1200mm	1200mm	1200mm
X-axis	Mill feed speed	100~1000mm/min	100~1000mm/min	100~1000mm/min	100~1000mm/min	100~1000mm/min
	Rapid feed speed	10000mm/min	10000mm/min	10000mm/min	10000mm/min	10000mm/min
Motor	Spindle	11.0kw×2	15.0kw×2	15.0kw×2	15.0kw×2	15.0kw×2
	Hydraulic	2.2kw	2.2kw	2.2kw	2.2kw	2.2kw
	X-axis feeding	Servo 5.0kw	Servo 5.0kw	Servo 5.0kw	Servo 5.0kw	Servo 5.0kw
	Y-axis feeding	Servo 5.0kw×2	Servo 5.0kw×2	Servo 5.0kw×2	Servo 5.0kw×2	Servo 5.0kw×2
Workpiece Input/Output	Manual	Manual/Hoist	Manual/Hoist	Manual/Hoist	Manual/Hoist	
Vice Clamping Power	5,000kg	5,000kg	5,000kg	5,000kg	5,000kg	
Workpiece Max. Size & Weight	400x400x140mm/176kg	500x500x230mm/452kg	800x800x230mm/1,156kg	1000x1000x230mm/1,806kg	1200x1200x230mm/2,600kg	
Weight	8,000Kg	10,000Kg	12,000Kg	15,500kg	16,000kg	
Floor space (W×L×H)	3400×3750×2400mm	3400×3800×2700mm	4600×5200×2900mm	4800×5800×2900mm	5000×6000×2900mm	

# Band Saw Blade

밴드톱날

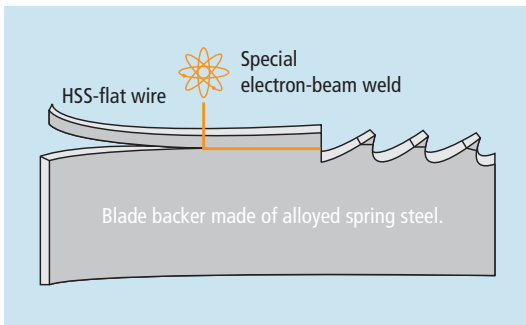


## PRODUCTS

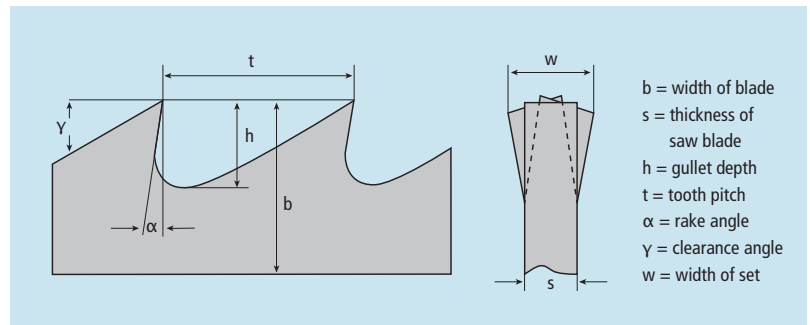
Product	Bi-Metal	Carbide	Diamond
Tooth Material	HSS-M42: 67~69HRC HSS-M51: 69HRC	Carbide Tipp	Diamond Grit
Materials-to-be cut	Steels & non-ferrous Metals. etc	Steels & non-ferrous Metals. etc	Silicon, Glass, Marble, etc

## PRODUCTS INFORMATION

### Bi-Metal Blade



### Band Saw Geometry



## SPECIFICATIONS

Dimensions (width×thickness)		Tooth pitch Tz in teeth per inch(tpi) / Standard set(SD)							
mm	inches	0.7/1.25	1.0/1.4	1.4/2	2/3	3/4	4/6	5/8	6/10
27×0.90	1 <sup>1</sup> / <sub>16</sub> ×0.035				K	K	K	K	S
34×1.10	1 <sup>3</sup> / <sub>8</sub> ×0.042			K	K	K	K	K	S
41×1.30	1 <sup>5</sup> / <sub>8</sub> ×0.050			K	K	K	K	K	S
54×1.30	2 <sup>1</sup> / <sub>8</sub> ×0.050			K	K	K	K		S
54×1.60	2 <sup>1</sup> / <sub>8</sub> ×0.063	K	K	K	K	K	K		
67×1.60	2 <sup>5</sup> / <sub>8</sub> ×0.063	K	K	K	K	K	K		
80×1.60	3 <sup>1</sup> / <sub>8</sub> ×0.063	K	K	K	K	K			

- ✕ 절단소재에 따른 톱날선정이나 작업조건 등 자세한 내용에 관해서는 당사 영업부에 문의바랍니다.
- ✕ 톱날에 대한 자세한 정보에 대해서는 Bichamp 홈페이지([www.bichamp.com](http://www.bichamp.com))를 방문하세요.

## Carbide Tipped Circular Saw Blade

원형톱날

- High Performance
- Best Productivity
- Long Life
- Good Price



### PRODUCTS

외경	날수	팁두께	원판두께	내경	핀홀	PCD	비고
250	72	2.0	1.7	32	4-Ø11	63	Ø10~45
280	72	2.0	1.7	32	4-Ø11	63	Ø15~60
	80	2.0	1.7	32	4-Ø11	63	Ø15~45
285	60	2.0	1.7	32	4-Ø11	63	Ø30~75
	72	2.0	1.7	32	4-Ø11	63	Ø15~60
	80	2.0	1.7	32	4-Ø11	63	Ø15~45
360	60	2.6	2.26	40	4-Ø12	90	Ø35~100
	80	2.6	2.26	40	4-Ø12	90	Ø25~65
	100	2.6	2.26	40	4-Ø12	90	Ø20~50
420	48	2.7(3.0)	2.30	50	4-Ø15 / Ø21	80	Ø130~160
480	60	2.7(3.0)	2.30	50	4-Ø15 / Ø21	90	Ø100~130
500	72	2.7(3.0)	2.30	50	4-Ø15 / Ø21	90	Ø70~100

※ 특이 사양도 별도 공급 가능합니다.

#### 절단소재 Workpieces

- Carbon Steel (SS400 / S15C / S25C / S45C / S55C)
- Stainless Steel (SUS304 / SUS316)
- Tool Steel (SKD11 / SKD61)
- Chromium Molybdenum Steel (SCM415 / SCM420 / SCM440)
- Ball Bearing Steel (SUJ2)
- Others : Aluminum, Brass, Cast Iron, etc

#### 형태 Type

- Round Bar
- Square Bar
- Hexagonal Bar
- Round Pipe
- Square Pipe



**톱기계 · 양두밀링 · 밴드톱날 · 원형톱날 · 규격철판**

본 카탈로그 상의 모든 디자인과 사양은 예고없이 변경될 수 있습니다.

All designs and specifications on this catalogue are subject to change without prior notice.

