



JQA-EM4057  
NITTO KOHKI Co., LTD.  
Headquarters  
Research Center



JQA-2042  
NITTO KOHKI Co., LTD.  
Machine Tools Division

Cat.No. **Tk103d**

# Nitto Kohki's MACHINE TOOLS



**Electric & Hydraulic**



# *Electric & Hydraulic Machine Tools, Labor-saving plus Improved Work Efficiency!*

*A wide range of unique tools for boring, punching,  
beveling or machining.*

## **MACHINE TOOLS LINE-UP**

PORTABLE MAGNETIC BASE DRILLING MACHINE  
ATRA ACE AUTO  
ATRA ACE QUICK AUTO  
ATRA ACE MANUAL FEED

TUNGSTEN CARBIDE TIPPED & H.S.S ANNULAR CUTTERS  
JET BROACH  
HI-BROACH

PORTABLE MAGNETIC DRILL STAND  
ATRA MASTER

PORTABLE HYDRAULIC PUNCHER  
SELFER ACE  
SELFER HA TYPE  
HANDY SELFER

PORTABLE BEVELING TOOL  
HAND BEVELER  
MINI BEVELER  
CIRCUIT BEVELER





	Manufacturing	Steel Fabricating	Welding	Metal Casting & Forging	AUTOMOTIVE & SHIP BUILDING	Construction	Page
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## **ATRA ACE auto** Model **WA-3500**



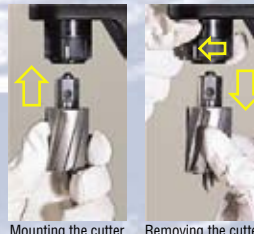
## **ATRA ACE auto** Model **WA-5000**



## **High-performance mechanism & high-tech components**

### **One-touch cutter replacement**

Replacement is quick and easy with our unique push fit self-centering cutter system.



### **Coolant into the Heart of the cut**

Coolant is fed directly to the inside of the cut. The coolant system also features an auto shut-off.



## **Fail-Safe Protection**

### **Built-in motion sensor**

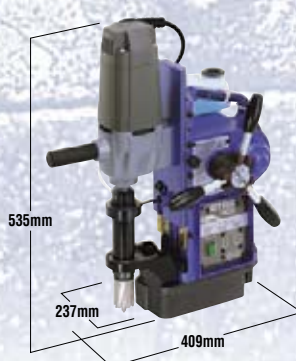
If any lateral movement or excess vibration is detected, both the drill and the feed motor stop instantly. Nitto Kohki is the first company to incorporate this feature into magnetic base drills.

### **Fail-safe restart**

The drill will not re-start even if power is re-supplied after accidental shutdown. Drilling can only be continued after turning on the drill switch.

### **Magnet open-circuit sensor**

The drill will not start until the magnetic field is active.



**Model WA-3500**



**Model WA-5000**

### New drill control prevents cutters from breaking

#### Slow start mechanism

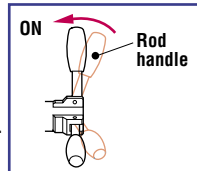
The feed speed is reduced for the first few seconds after boring begins to ensure a smooth cut through the mill scale.

#### Auto-feed

Automatic control & feed are activated by simply pushing the rod handle to engage the gears.

#### Load sensor

The dual sensing system responds to both drilling and feeding forces on the cutter for the optimum cutting condition.



#### Variable speed

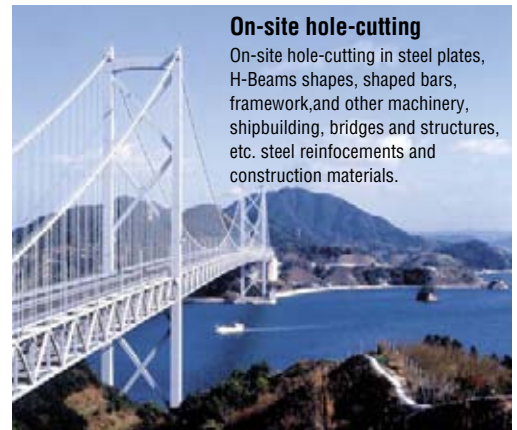
The feed speed is continuously monitored and updated proportionally to the load on the cutter.

#### Cycle stop

After the cut has finished, a detector responds to the reduction in load and both the drill and the feed motor automatically stop.

#### Overload stop

When an excessive load is applied to the cutter, both the drill and the feed motor will stop automatically to prevent the cutter from breaking.



#### On-site hole-cutting

On-site hole-cutting in steel plates, H-Beams shapes, shaped bars, framework, and other machinery, shipbuilding, bridges and structures, etc. steel reinforcements and construction materials.



### Specifications

Model		WA-3500		WA-5000			
Power Source (Single Phase)		110~120 V AC 50/60Hz	220~240 V AC 50/60Hz	110~120 V AC 50/60Hz	220~240 V AC 50/60Hz		
Electric Drill	Rated Power Consumption	W		1,100			
	Rated Current	A	10.2	5.1	10.8	5.4	
	No Load Speed	min <sup>-1</sup> (rpm)	950		350 / 650		
Magnet Power Consumption		W		34			
Hole-cutting Capacity		Cutter	Hole Diameter	Plate Thickness	Hole Diameter	Plate Thickness	
One-touch type JETBROACH 35L			17.5 to 35 mm	9 to 35 mm	17.5 to 40mm	9 to 35mm	
One-touch type JETBROACH 50L			—	—	17.5 to 50mm	9 to 50mm	
One-touch type JETBROACH 75L			—	—	17.5 to 50mm	9 to 75mm	
One-touch type HI-BROACH 25L			14 to 35 mm	9 to 25 mm	14 to 50mm	9 to 25mm	
One-touch type HI-BROACH 50L			—	—	14 to 50mm	9 to 50mm	
Magnet Holding Power		N (kgf)	7,056 (720)		9,800 (1,000)		
Magnet Dimensions		mm	92 x 216		101 x 201		
Mass (Weight)		kg	20		23		
Standard Accessories		<ul style="list-style-type: none"> <li>• Pilot Pin 08035 A2 : 1 pc.</li> <li>• Chain Ass'y : 1 set</li> <li>• Side Handle Ass'y : 1 set</li> <li>• 3 mm Hex Socket Screw Key : 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Cutting Oil 0.5 ℓ : 1 can</li> <li>• Plastic Case : 1 pc.</li> </ul>			<ul style="list-style-type: none"> <li>• Pilot Pin 08050 A3 : 1 pc.</li> <li>• Chain Ass'y : 1 set</li> <li>• Side Handle Ass'y : 1 set</li> <li>• 3 mm / 4 mm Hex Socket Screw Key : each 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Cutting Oil 0.5 ℓ : 1 can</li> <li>• Plastic Case : 1 pc.</li> <li>• Guard Ass'y : 1 set</li> </ul>		
Optional Accessories							
		<p>Always use genuine Nitto Kohki cutters &amp; coolant.</p>			<p>Always use genuine Nitto Kohki cutters &amp; coolant.</p>		



## ATRA ACE Manual feed Model WO-3200



### Common Place Applications

On-site hole cutting in steel plates, H-Beams, shaped bars, framework, shipbuilding, bridge construction and repair, steel reinforcements, and many other metal working and construction jobs.

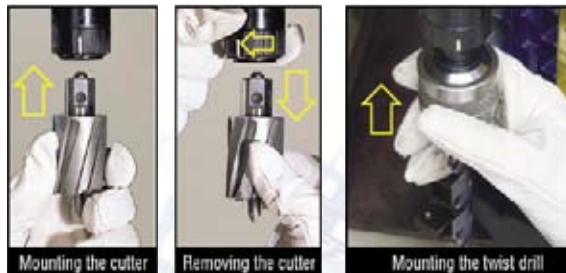
## Designed to use High Speed Steel Annular Cutters

**Fresh compact design with advanced safety system answers the customer's needs.**

From the extremely efficient electro-magnet to the height adjustable frame with reversible feed handles, the new ATRA adapts to more user needs while offering safety where it's needed most. Original Hi-Broach cutters drastically shorten drilling time when compared to similar sized conventional twist drills. Optional One-Touch twist drill adapter allows the use of up to 13mm twist drills to be inserted allows up to 13mm holes.

### One-touch cutter replacement

Our original self-centering tool-less chuck is quick and easy to change cutters with little downtime.



## Manual Magnetic Base Drill incorporates the latest technology in user safety.

Newly developed Over-Load shutdown, magnet open-circuit sensor, and Fail-Safe Restart technology formerly only found on high-end Nitto Kohki Automatics are incorporated on the machine to further increase drill output while keeping costs and safety concerns down.

### Over-Load Shutdown

When excessive load is detected during the drilling process, the drill motor will automatically shutdown protecting itself from damage. Once overloaded, the motor "Start" switch is required to be depressed to resume drilling.

### Fail-Safe Restart

In the event of a power loss while drilling, the drill will not restart even after power is resupplied. The motor "Start" switch is required to be depressed to resume drilling.

### Magnet Open-Circuit Sensor

The drill will not start if the magnet fails to energize due to an open field or faulty wire.

## Reversible Feed Handles

Feed handles can be positioned on the right or left hand side for ease of drilling and mounting in confined spaces.



## Optional One-Touch adapter

Optional One-Touch adapter allows the use of up to 13mm twist drills to be used in the original arbor.



## Optional Jet Oiling System

Optional Jet Oiling System for use with all drilling applications and types of cutters to extend cutter life and increase hole output.



## Optional Chip Breaker

Optional chip breaker helps prevent the cutter from plugging the hole with chip debris, causing some false overloads and cutter life loss.




## Body Height Adjustment

Loosening the pillar clamp allows the complete frame to be lifted up to a maximum of 60mm for specific drilling. The use of Hi-Broach cutters require the frame to be at the lowest position, while twist bit drilling required the appropriate amount of elevation to be adjusted for safe operation. The pillar clamp is required to be tightened before safe drilling may take place.

Note: Always engage the magnet before adjusting the body height.



## Specifications

Model		<b>WO-3200</b>		
Power Source (Single Phase)		220~240 V AC 50/60Hz		
Electric Drill	Rated Power Consumption	W	900	
	Rated Current	A	4.3	
	No Load Speed	min <sup>-1</sup> (rpm)	530	
Magnet Power Consumption		W	70	
Hole-cutting Capacity		Cutter	Hole Diameter	Plate Thickness
One-touch type HI-BROACH 25L			12 to 32 mm	9 to 50 mm
Magnet Holding Power		N (kgf)	9,000	
Magnet Dimensions		mm	99 x 177	
Mass (Weight)		kg	13	
Standard Accessories		• Guard Ass'y : 1 set		
		 <ul style="list-style-type: none"> <li>• Pilot Pin 08050 : 1 pc.</li> <li>• 3 mm Hex Socket Screw Key : 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Side Handle Ass'y : 1 set</li> <li>• Safety Strap : 1 pc.</li> </ul>		



Designed to use Jetbroach Carbide Tipped Annular Cutters

**ATRA ACE**  
Manual feed  
Model **WOJ-3200**



### Reversible Feed Handles

Feed handles can be positioned on the right or left hand side for ease of drilling and mounting in confined spaces.



### Optional Chip Breaker

Optional chip breaker helps prevent the cutter from plugging the hole with chip debris, causing some false overloads and cutter life loss.



### Body Height Adjustment

Loosening the pillar clamp allows the complete frame to be lifted up to a maximum of 60mm for specific drilling. The use of Hi-Broach cutters require the frame to be at the lowest position, while twist bit drilling required the appropriate amount of elevation to be adjusted for safe operation. The pillar clamp is required to be tightened before safe drilling may take place.

Note: Always engage the magnet before adjusting the body height.

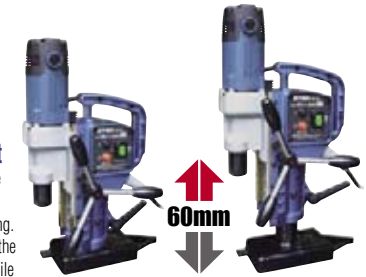
### Optional One-Touch adapter

Optional One-Touch adapter allows the use of up to 13mm twist drills to be used in the original arbor.



### Optional Jet Oiling System

Optional Jet Oiling System for use with all drilling applications and types of cutters to extend cutter life and increase hole output.



## Specifications

Model		WOJ-3200		
Power Source (Single Phase)		220~240 V AC 50/60Hz		
Electric Drill	Rated Power Consumption	W	950	
	Rated Current	A	4.3	
	No Load Speed	min <sup>-1</sup> (rpm)	870	
Magnet Power Consumption		W	70	
Hole-cutting Capacity		Cutter	Hole Diameter	Plate Thickness
One-touch type JETBROACH			17.5 to 32 mm	9 to 50 mm
Magnet Holding Power		N (kgf)	9,000 (918)	
Magnet Dimensions		mm	99 x 177	
Mass (Weight)		kg	13	
Standard Accessories		<ul style="list-style-type: none"> <li>• Guard Ass'y : 1 set</li> <li>• Pilot Pin 08050 : 1 pc.</li> <li>• 3 mm Hex Socket Screw Key : 1 pc.</li> <li>• 6 mm Hex Socket Screw Key : 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Safety Strap : 1 pc.</li> </ul>		



## The world's first manual feed with "Smart-Stop / Rapid-Restart" technology for WOJ-3200 / AO-5575

This new feature is a breakthrough in the Manual drill industry. Formerly only found on high end Nitto Kohki Automatic drills, this technology displays the current drill status via the LED Load Indicator. Customers will experience a cutting edge drill management system designed solely around saving time and money in replacement parts and cutters in addition to reducing user fatigue and downtime.





Design to use Jetbroach and Hi-broach Annular Cutters



**ATRA ACE**  
Manual feed  
Model **AO-5575**

MAX. 55mm dia. x 75mm deep  
LIGHT WEIGHT 18kg

**Coolant Valve**  
Adjustable coolant flow delivered to the center of the cutter.



**Optional Chip Breaker**  
This chip breaker prevents the cutter from becoming jammed with metal shavings.

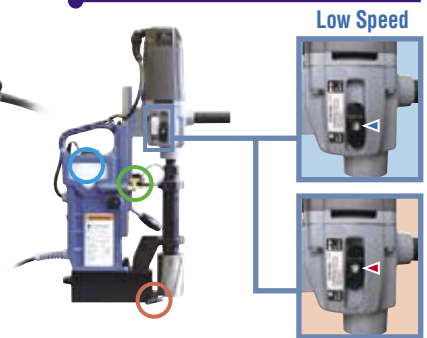
**Built-in coolant tank prevents damage**



Reversible feed handle



Speed selection (Change gear)



Low Speed

Hi Speed

**Specifications**

Model		AO-5575		
Power Source (Single Phase)		220~240 V AC 50/60Hz		
Electric Drill	Rated Power Consumption	W	1,150	
	Rated Current	A	5.4	
	No Load Speed	min <sup>-1</sup> (rpm)	350 / 650	
Magnet Power Consumption		W	50	
Hole-cutting Capacity		Cutter	Hole Diameter	Plate Thickness
One-touch type JETBROACH			MAX. 55 mm	MAX. 75 mm
One-touch type HI-BROACH			MAX. 50 mm	MAX. 50 mm
Magnet Holding Power	kN (kgf)	10 (1,020)		
Magnet Dimensions	mm	86 x 170		
Mass (Weight)	kg	18		
Standard Accessories		<ul style="list-style-type: none"> <li>Pilot Pin 08050 A3 : 1 pc.</li> <li>3 mm Hex Socket Screw Key : 1 pc.</li> <li>Cutting Oil 0.5 ℓ : 1 can</li> <li>Chain Assy : 1 set</li> <li>5 mm Hex Socket Screw Key : 1 pc.</li> <li>Guard Assy : 1 set</li> <li>Side Hand Assy : 1 set</li> <li>8 x 10 mm Spanner : 1 pc.</li> </ul>		
Optional Accessories		<p>Always use genuine Nitto Kohki cutters &amp; coolant.</p> <ul style="list-style-type: none"> <li>JETBROACH One-touch Type 35mm, 50mm, 75mm</li> <li>HI-BROACH One-touch Type 25mm, 50mm</li> <li>T801507 Cutting Oil 2 ℓ per can</li> </ul>		



**Load detector with "Smart-Stop/Rapid-Restart" technology**

As the drilling load increases, the load indicator will change in color from green to orange to red. In addition, if excessive feeding force is applied, the load indicator will rapidly blink red and the rotation of the drill motor will slow down and temporarily stop. If the load is released while the load indicator is blinking red, the drill motor will resume its rotation.

**LED load indicator**



Slow Blinking Green



**Safety mode**

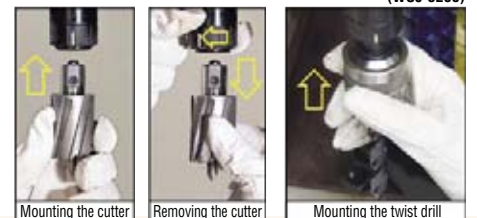
Magnet malfunction



**One-touch cutter replacement**

Our original self-centering tool-less chuck is quick and easy to change cutters with little downtime.

(WOJ-3200)



## Nitto Kohki's Atra Ace boosts productivity in the hole drilling industry

**ATRA ACE quick auto**  
Model **QA-4000**

Annular Cutter Electric

**Auto**

425mm  
215mm 407mm  
49.5mm

**One-touch Cutter Replacement**

Max. Hole-cutting Capacity : 40mm dia.  
Max. Plate Thickness : 35mm

Load detection Automatic step feed

Automatic return Reduced drilling time

Built-in motion sensor Limit switch

**ATRA ACE quick auto**  
Model **QA-6500**

Annular Cutter Electric

**Auto**

535mm  
215mm 454.5mm  
49mm

**One-touch Cutter Replacement**

Max. Hole-cutting Capacity : 65mm dia.  
Max. Plate Thickness : 50mm

Load detection Automatic step feed

Automatic return Reduced drilling time

Built-in motion sensor Limit switch

**ATRA ACE manual feed**  
Model **A-100**

Annular Cutter Electric

**Manual**

575mm  
318mm 705mm  
73.5mm

**Side-lock Type Cutter**

Hole-cutting Capacity : 50~100mm dia.  
Max. Plate Thickness : 75mm

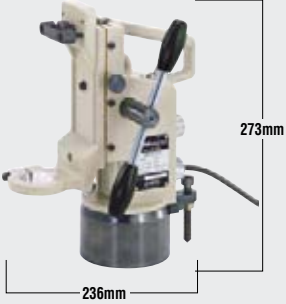



### Specifications

Model		QA-4000		QA-6500		A-100					
Power Source (Single Phase)		115 V AC 50/60Hz		220-240 V AC 50/60Hz		220~240 V AC 50/60Hz					
Electric Drill	Rated Power Consumption	W		680		1,010					
	Rated Current	A		6.1 3.0		4.5 7.4					
	No Load Speed	min <sup>-1</sup> (rpm)		750		400 / 750 330					
Magnet Power Consumption		W		50		75 80					
Hole-cutting Capacity		Cutter	Hole Diameter	Plate Thickness	Hole Diameter	Plate Thickness	Hole Diameter	Plate Thickness			
One-touch type JETBROACH 35L			17.5 to 40 mm	9 to 35 mm	17.5 to 40 mm	9 to 35 mm	—	—			
One-touch type JETBROACH 50L			—	—	17.5 to 65 mm	9 to 50 mm	—	—			
Side-Lock type JETBROACH 75L			—	—	—	—	50 to 100 mm	13 to 75 mm			
One-touch type HI-BROACH 25L			14 to 15 mm	9 to 12 mm	18 to 35 mm	9 to 25 mm	—	—			
			16 to 18 mm	9 to 25 mm	—	—	—	—			
Magnet Holding Power		N (kgf)		6,664 (680)		9,800 (1,000)		17,640 (1,800)			
Magnet Dimensions		mm		82 x 172		100 x 200		130 x 256			
Mass (Weight)		kg		18.5		26		50			
Standard Accessories		<ul style="list-style-type: none"> <li>• Pilot Pin 08035 A2 : 1 pc.</li> <li>• Chain : 1 pc.</li> <li>• 3 mm Hex Socket Screw Key : 1 pc.</li> <li>• 4 mm Hex Socket Screw Key : 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Cutting Oil 0.5 ℓ : 1 can</li> <li>• Side Handle : 1 pc.</li> </ul>		<ul style="list-style-type: none"> <li>• Chain : 1 pc.</li> <li>• Tool box : 1 pc.</li> <li>• Oil Tank Ass'y : 1 set.</li> </ul>		<ul style="list-style-type: none"> <li>• Pilot Pin 08050 A3 : 1 pc.</li> <li>• Chain : 1 pc.</li> <li>• 3 mm Hex Socket Screw Key : 1 pc.</li> <li>• 4 mm Hex Socket Screw Key : 1 pc.</li> <li>• 8 x 10 mm Spanner : 1 pc.</li> <li>• Cutting Oil 0.5 ℓ : 1 can</li> <li>• Chip Stopper : 1 pc.</li> <li>• Oil Tank Ass'y : 1 set.</li> </ul>		<ul style="list-style-type: none"> <li>• Chain : 1 pc.</li> <li>• Tool box : 1 pc.</li> <li>• Side Handle : 1 pc.</li> <li>• Oil Tank Ass'y : 1 set.</li> </ul>		<ul style="list-style-type: none"> <li>• Pilot Pin 12075 : 1 pc.</li> <li>• Chain : 1 pc.</li> <li>• 2 mm / 2.5 mm / 3 mm / 4 mm / 5 mm / 6 mm / 8 mm Hex Socket Screw Key : each 1 pc.</li> <li>• 7 x 8 mm Spanner : 1 pc.</li> <li>• Cutting Oil 0.5 ℓ : 1 can</li> <li>• Oil Cap Ass'y : 1 set.</li> <li>• Rod Handle : 3 pcs.</li> </ul>	



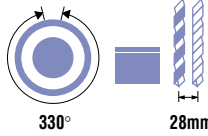
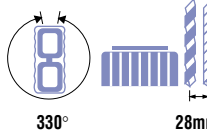
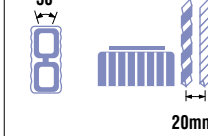
**ATRA MASTER can mount on many drills in the market.**

**The magnet bases of ATRA MASTER hold the drills perpendicular to steel plates even on non horizontal places.**

<p><b>ATRA MASTER</b> Model <b>M-100</b></p> <p>Electric</p>  <p>273mm 236mm</p> <p><b>Drilling Capacity : 10mm</b> <b>Max. Stroke : 100mm</b> <b>Mass (weight) : 6.2kg</b></p>	<p><b>ATRA MASTER</b> Model <b>M-130A</b></p> <p>Electric</p>  <p>397mm 377mm</p> <p><b>Drilling Capacity : 13mm</b> <b>Max. Stroke : 175mm</b> <b>Mass (weight) : 16kg</b></p>	<p><b>ATRA MASTER</b> Model <b>M-250B</b></p> <p>Electric</p>  <p>528mm 461mm</p> <p><b>Drilling Capacity : 25mm</b> <b>Max. Stroke : 230mm</b> <b>Mass (weight) : 25.5kg</b></p>	<p><b>ATRA MASTER</b> Model <b>M-320</b></p> <p>Electric</p>  <p>525mm 514mm</p> <p><b>Drilling Capacity : 32mm</b> <b>Max. Stroke : 280mm</b> <b>Mass (weight) : 29kg</b></p>
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## Specifications

Model	M-100	M-130A	M-250B	M-320
Power Source (Single Phase)	220~240 V AC 50/60Hz	220~240 V AC 50/60Hz	220~240 V AC 50/60Hz	220~240 V AC 50/60Hz
Rated Power Consumption	W 35	35	80	80
Drilling Capacity (diameter)	mm 10	13	25	32
Magnet Holding Power	N (kgf) 3,430 (350)	5,880 (600)	14,700 (1,500)	17,640 (1,800)
Maximum Stroke	mm 100	175	230	280
Magnet Dimensions	mm 105 dia.	141 dia.	110 x 243	124 x 244
Height	mm 273	397	528	525
Mass (Weight)	kg 6.2	16	25.5	29
Standard accessories	<ul style="list-style-type: none"> <li>• 5 mm Hex. Socket Screw Key : 1pc.</li> <li>• 2.5 mm Hex. Socket Screw Key : 1pc.</li> <li>• 7 x 8 mm Spanner : 1 pc.</li> <li>• Retaining Bush E TP12556 : 1 pc.</li> <li>• Rod Handle : 2 pcs.</li> </ul>	<ul style="list-style-type: none"> <li>• 35 x 41 mm Spanner : 1 pc.</li> <li>• 6 mm Hex. Socket Screw Key : 1pc.</li> <li>• 2.5 mm Hex. Socket Screw Key : 1pc.</li> <li>• 7 x 8 mm Spanner : 1 pc.</li> <li>• Fixing A Ass'y TA99742 : 1 set</li> <li>• Chain : 1pc.</li> <li>• Rod Handle : 3 pcs.</li> </ul>	<ul style="list-style-type: none"> <li>• 35 x 41 mm Spanner : 1 pc.</li> <li>• 6 mm Hex. Socket Screw Key : 1pc.</li> <li>• 2.5 mm Hex. Socket Screw Key : 1pc.</li> <li>• 7 x 8 mm Spanner : 1 pc.</li> <li>• Fixing D Ass'y TA99750 : 1 set</li> <li>• Chain : 1pc.</li> <li>• Rod Handle : 3 pcs.</li> </ul>	<ul style="list-style-type: none"> <li>• 35 x 41 mm Spanner : 1 pc.</li> <li>• 6 mm Hex. Socket Screw Key : 1pc.</li> <li>• 2.5 mm Hex. Socket Screw Key : 1pc.</li> <li>• 7 x 8 mm Spanner : 1 pc.</li> <li>• Fixing D Ass'y TA99750 : 1 set</li> <li>• Chain : 1pc.</li> <li>• Rod Handle : 3 pcs.</li> </ul>

<p><b>Swivel Angle</b> <b>Front and Rear Movement</b></p>	 <p>330° 28mm</p>	 <p>330° 28mm</p>	 <p>50° 20mm</p>
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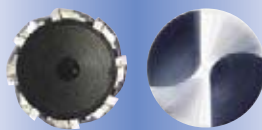
**N.B. : The electric drill and drill mount fixture for it do not come with ATRA MASTER's.**

# JETBROACH CUTTERS & HI-BROACH CUTTERS

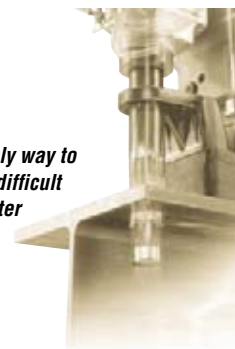
## BROACH CUTTERS






are far better than twist drills:

- No dead point
- Peripheral cutting
- Blade cutting resistance reduced by 50%
- Available diameter size: 12 ~ 100 mm



Test Drilling is very often the only way to determine the machinability of difficult materials. Use a small size cutter wherever possible in order to minimize trial costs.



		HI-BROACH (One-touch Type)	HI-BROACH (One-touch Type)	JETBROACH (One-touch Type)	JETBROACH (One-touch Type / 75L)	JETBROACH (Side lock Type / 75L)
		 65 (12~19.5 dia.) 58 (20~52 dia.)	 86 (50L)	 73 (35L) 90 (50L)	 117 (75L)	 156 (75L)
Hole-cutting Capacity	Hole Diameter mm	25L : 12~52 dia.	—	35L : 17.5~40 dia.	—	—
		—	50L : 12~52 dia.	50L : 17.5~65 dia.	—	—
	Plate Thickness mm	—	—	—	75L : 17.5~55 dia.	75L : 50~100 dia.
		25L : 25	—	35L : 35	—	—
Feed Speed mm/rev	0.02~0.1	0.02~0.1	0.02~0.1	0.02~0.1	0.02~0.1	
Circumferential Speed m/min	15~35 (mild steel)	15~35 (mild steel)	35~50 (mild steel)	35~50 (mild steel)	35~50 (mild steel)	

## BROACH HOLDERS

Industrial cutters for faster and better finished holes.

- The Spring-loaded pilot pin picks up the hole location quickly, and ejects the slug automatically at the end of cut
- Available with No. 2 ~ 4 Morse taper shanks
- Oil cup complete Ass'y (PN TB00350) is available as an optional attachment which provides continuous and adjustable cutting oil flow to the cutting area



Model	BHM-02035 M.T. No.2 (PN TB00390)				
Cutter	HBO-25L		JBO-35L		
Pilot Pin	0625 (PN TK00596)	08025 (PN TJ12696)	08035 (PN TJ15859)		
Cutter diameter mm	12~17 dia.	17.5~35 dia.	17.5~35 dia.		
Accessory	Pilot Pin 08035 (PN TJ15859)				

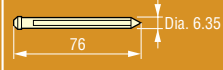

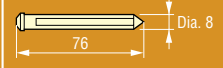

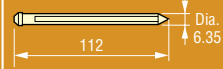

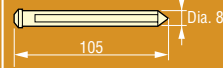

Model	BHM-03050 M.T. No.3 (PN TB00392)						
Cutter	HBO-25L		HBO-50L		JBO-35L	JBO-50L	JBO-75L
Pilot Pin	0625 (PN TK00596)	08025 (PN TJ12696)	0650 (PN TK00694)	0850 (PN TK00802)	08035 (PN TJ15859)	0850 (PN TK00802)	(PN 08075 TJ17436)
Cutter diameter mm	12~17 dia.	17.5~52 dia.	12~18 dia.	19~52 dia.	17.5~35 dia.	17.5~65 dia.	17.5~55 dia.
Accessory	Pilot Pin 08035 (PN TJ15859)						

Model	BHM-13075 M.T. No.3 (PN TB00352)	BHM-14075 M.T. No.4 (PN TB00354)
Cutter	JBS-75L	JBS-75L
Pilot Pin	12075 (PN TA9A207)	12075 (PN TA9A207)
Cutter diameter mm	50~100 dia.	50~100 dia.
Accessory	Pilot Pin 12075 (PN TA9A207)	Pilot Pin 12075 (PN TA9A207)



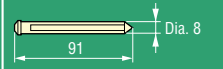



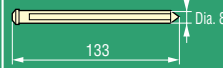

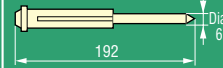

Dia. mm	PN						Dia. mm	PN					
	HI-BROACH		JETBROACH					HI-BROACH		JETBROACH			
	25L	50L	35L	50L	75L	75L		25L	50L	35L	50L	75L	75L
Depth 25mm	Depth 50mm	Depth 35mm	Depth 50mm	Depth 75mm	Depth 75mm	Depth 25mm	Depth 50mm	Depth 35mm	Depth 50mm	Depth 75mm	Depth 75mm		
12	TK00698	TK00721	—	—	—	—	54	—	—	—	TK00445	TK01115	TJ16654
13	TK00699	TK00722	—	—	—	—	55	—	—	—	TK00446	TK01116	TJ16655
14	TK00700	TK00723	—	—	—	—	56	—	—	—	TK00447	—	TJ16656
15	TK00701	TK00724	—	—	—	—	57	—	—	—	TK00448	—	TJ16657
16	TK00702	TK00725	—	—	—	—	58	—	—	—	TK00449	—	TJ16658
17	TK00703	TK00726	—	—	—	—	59	—	—	—	TK00450	—	TJ16659
17.5	TK00335	—	TK00301	TK00380	TK01036	—	60	—	—	—	TK00451	—	TJ16660
18	TK00336	TK00727	TK00302	TK00381	TK01003	—	61	—	—	—	TK00607	—	TJ16661
19	TK00337	TK00728	TK00304	TK00382	TK01004	—	62	—	—	—	TK00608	—	TJ16662
19.5	TK00338	—	TK00305	TK00383	—	—	63	—	—	—	TK00609	—	TJ16663
20	TK00339	TK00729	TK00306	TK00384	TK01005	—	64	—	—	—	TK00610	—	TJ16664
20.5	—	—	TK00307	TK00385	—	—	65	—	—	—	TK00611	—	TJ16665
21	TK00340	TK00730	TK00308	TK00386	TK01006	—	66	—	—	—	—	—	TJ16666
21.5	TK00341	—	TK00309	TK00387	—	—	67	—	—	—	—	—	TJ16667
22	TK00342	TK00731	TK00310	TK00388	TK01007	—	68	—	—	—	—	—	TJ16668
22.5	TK00343	—	TK00311	TK00389	—	—	69	—	—	—	—	—	TJ16669
23	TK00344	TK00732	TK00312	TK00390	TK01008	—	70	—	—	—	—	—	TJ16670
23.5	TK00345	—	TK00313	TK00391	—	—	71	—	—	—	—	—	TJ16671
24	TK00346	TK00733	TK00314	TK00392	TK01009	—	72	—	—	—	—	—	TJ16672
24.5	TK00347	—	TK00315	TK00393	—	—	73	—	—	—	—	—	TJ16673
25	TK00348	TK00734	TK00316	TK00394	TK01010	—	74	—	—	—	—	—	TJ16674
26	TK00349	TK00735	TK00317	TK00395	TK01011	—	75	—	—	—	—	—	TJ16675
26.5	—	—	TK00318	TK00396	—	—	76	—	—	—	—	—	TJ16676
27	TK00351	TK00736	TK00319	TK00397	TK01012	—	77	—	—	—	—	—	TJ16677
28	TK00352	TK00737	TK00320	TK00398	TK01013	—	78	—	—	—	—	—	TJ16678
29	TK00353	TK00738	TK00321	TK00399	TK01014	—	79	—	—	—	—	—	TJ16679
30	TK00354	TK00739	TK00322	TK00400	TK01015	—	80	—	—	—	—	—	TJ16680
31	TK00355	TK00740	TK00323	TK00401	TK01016	—	81	—	—	—	—	—	TJ16681
32	TK00356	TK00741	TK00324	TK00402	TK01017	—	82	—	—	—	—	—	TJ16682
33	TK00357	TK00742	TK00325	TK00403	TK01018	—	83	—	—	—	—	—	TJ16683
34	TK00359	TK00743	TK00326	TK00404	TK01019	—	84	—	—	—	—	—	TJ16684
35	TK00361	TK00744	TK00328	TK00405	TK01020	—	85	—	—	—	—	—	TJ16685
36	TK00704	TK00745	TK00602	TK00406	TK01021	—	86	—	—	—	—	—	TJ16686
37	TK00705	TK00746	TK00603	TK00407	TK01022	—	87	—	—	—	—	—	TJ16687
38	TK00706	TK00747	TK00604	TK00408	TK01023	—	88	—	—	—	—	—	TJ16688
39	TK00707	TK00748	TK00605	TK00409	TK01024	—	89	—	—	—	—	—	TJ16689
40	TK00708	TK00749	TK00606	TK00410	TK01025	—	90	—	—	—	—	—	TJ16690
41	TK00709	TK00750	—	TK00411	TK01026	—	91	—	—	—	—	—	TJ16691
42	TK00710	TK00751	—	TK00412	TK01027	—	92	—	—	—	—	—	TJ16692
43	TK00711	TK00752	—	TK00413	TK01028	—	93	—	—	—	—	—	TJ16693
44	TK00712	TK00753	—	TK00414	TK01029	—	94	—	—	—	—	—	TJ16694
45	TK00713	TK00754	—	TK00415	TK01030	—	95	—	—	—	—	—	TJ16695
46	TK00714	TK00755	—	TK00416	TK01031	—	96	—	—	—	—	—	TJ16696
47	TK00715	TK00756	—	TK00417	TK01032	—	97	—	—	—	—	—	TJ16697
48	TK00716	TK00757	—	TK00418	TK01033	—	98	—	—	—	—	—	TJ16698
49	TK00717	TK00758	—	TK00419	TK01034	—	99	—	—	—	—	—	TJ16699
50	TK00718	TK00759	—	TK00420	TK01035	TJ17709	100	—	—	—	—	—	TJ16700
51	TK00719	TK00760	—	TK00442	TK01112	TJ16651							
52	TK00720	TK00761	—	TK00443	TK01113	TJ16652							
53	—	—	—	TK00444	TK01114	TJ16653							

**Combination of Pilot Pins & Broach Cutters**

Pilot Pin	HI-BROACH Cutters
0625 PN : TK00596 	HBO 12~17 Dia. Depth 25mm 
08025 PN : TJ12696 	HBO 17.5~52 Dia. Depth 25mm 
0650 PN : TK00694 	HBO 12~18 Dia. Depth 50mm 
0850 PN : TK00802 	HBO 19~52 Dia. Depth 50mm 

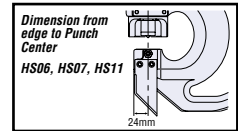


**Combination of Pilot Pins & Broach Cutters**

Pilot Pin	JETBROACH Cutters
08035 PN : TJ15859 	JBO 17.5~35 Dia. Depth 35mm 
0850 PN : TK00802 	JBO 17.5~65 Dia. Depth 50mm 
08075 PN : TJ17436 	JBO 17.5~55 Dia. Depth 75mm 
12075 PN : TA9A207 	JBS 50~100 Dia. Depth 75mm 



**New design adopted for punching stainless steel.  
Inching function (manual operation) is available.**



**SELFER ACE**  
Model **HS06-1322**

423mm 323mm

- Max. Punching Thickness : 13mm
- Max. Punching Diameter : 22mm
- Max. Output : 367kN (37tf)

**SELFER ACE**  
Model **HS07-1624**

430.5mm 363mm

- Max. Punching Thickness : 16mm
- Max. Punching Diameter : 24mm
- Max. Output : 464kN (47tf)

**SELFER ACE**  
Model **HS11-1624**

462.5mm 385mm

- Max. Punching Thickness : 16mm
- Max. Punching Diameter : 24mm
- Max. Output : 464kN (47tf)

### Specifications

In case of mild steel maximum punching thickness must be decided based on the equation of 0.8 x punching diameter. For details see the instruction manual.

Model	HS06-1322		HS07-1624		HS11-1624			
	for Mild Steel	for Stainless Steel	for Mild Steel	for Stainless Steel	for Mild Steel	for Stainless Steel		
Max. Throat Depth	60		70		110			
Punching Capacity								
Max. Punching Thickness	13	6	16	6	16	6		
Max. Punching Diameter	22	22	24	24	24	24		
Hole Making Time	Punching Time 7.9 sec.		Punching Time 11.8 sec.		Punching Time 11.8 sec.			
	Returning Time 3.4 sec.		Returning Time 5.7 sec.		Returning Time 5.7 sec.			
Allowable Max. Pressure	68.65 (700)		68.65 (700)		68.65 (700)			
Max. Output	367 (37)		464 (47)		464 (47)			
Ram Stroke	21		25		25			
Mass (Weight)	20.5		25.5		30			
Standard Accessories	<ul style="list-style-type: none"> <li>Hose Kit Ass'y : 1 set</li> <li>4mm / 5mm Hex. Socket Screw Key : Each 1 pc.</li> <li>Spanner : 1 pc.</li> <li>Sub Handle Ass'y : 1 set</li> <li>Chip Guard Ass'y : 1 set</li> <li>D Punch / Die 22 mounted on machine</li> </ul>		<ul style="list-style-type: none"> <li>Hose Kit Ass'y : 1 set</li> <li>4mm / 5mm Hex. Socket Screw Key : Each 1 pc.</li> <li>Spanner : 1 pc.</li> <li>Sub Handle Ass'y : 1 set</li> <li>Chip Guard Ass'y : 1 set</li> <li>D Punch / Die 22 mounted on machine</li> </ul>		<ul style="list-style-type: none"> <li>Hose Kit Ass'y : 1 set</li> <li>4mm / 5mm Hex. Socket Screw Key : Each 1 pc.</li> <li>Spanner : 1 pc.</li> <li>Sub Handle Ass'y : 1 set</li> <li>Chip Guard Ass'y : 1 set</li> <li>D Punch / Die 22 mounted on machine</li> </ul>			
	<ul style="list-style-type: none"> <li>Hose Cord Ass'y : 1 set</li> <li>Spanner 12 : 1 pc.</li> <li>Tool Box : 1 pc.</li> </ul>		<ul style="list-style-type: none"> <li>Hose Cord Ass'y : 1 set</li> <li>Spanner 12 : 1 pc.</li> <li>Tool Box : 1 pc.</li> </ul>		<ul style="list-style-type: none"> <li>Hose Cord Ass'y : 1 set</li> <li>Spanner 12 : 1 pc.</li> <li>Tool Box : 1 pc.</li> </ul>			
Optional Parts	PN	Part Name	Unit	Model	PN	Part Name	Unit	Model
	TB02506	Hose Kit Ass'y 5m	1 set	HS series	TQ03359	High Pressure Hose 10m	1 pc.	HS series
	TP05184	Ultra-high pressure hose 5m	1 pc.		TB02545	Switch Cord Ass'y 10m	1 set	
	TQ02569	High Pressure Hose 5m	1 pc.		TB02141	Foot Switch Ass'y	1 set	
	TB02390	Switch Cord Ass'y 5m	1 set		TA92729	Oil Can Ass'y	1 set	
	TP05777	Ultra-high pressure hose 10m	1 pc.		TB02142	Hook Clamp Ass'y	1 set	

**HYDRAULIC PUMP** for SELFER ACE  
Model **HPD-05**

**Double-Acting**

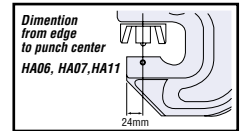
415mm 426.4mm

### Specifications

Model	HPD-05	
Power Source (Single Phase)	115 V / 230 V AC	
Max. Output Pressure	68.65 (700)	
Output	50Hz	60Hz
At No Load	ℓ /min	1.20 1.44
At 68.65MPa	ℓ /min	0.55 0.66
Motor	0.4 kW 4P	
Reservoir Capacity	ℓ 4.0	
Discharge Port	Rc 3/8	
Electro-Magnetic Valve	4 way 3 position valve	
Mass (Weight)	kg 32.5	



**Punch, return, and reset operations are fully automatic.  
An emergency switch stops the punch instantly at any time.**



**SELFER**  
Model **HA06-1322**

381mm  
524.1mm

- Max. Punching Thickness : 13mm
- Max. Punching Diameter : 22mm
- Max. Output : 304kN (31tf)

**SELFER**  
Model **HA07-1624**

418mm  
545.6mm

- Max. Punching Thickness : 16mm
- Max. Punching Diameter : 24mm
- Max. Output : 431kN (44tf)

**SELFER**  
Model **HA11-1624**

436mm  
545.6mm

- Max. Punching Thickness : 16mm
- Max. Punching Diameter : 24mm
- Max. Output : 431kN (44tf)

### Specifications

In case of mild steel maximum punching thickness must be decided based on the equation of 0.8 x punching diameter. For details see the instruction manual.

Model	HA06-1322	HA07-1624	HA11-1624					
Max. Throat Depth	mm 60	70	110					
Punching Capacity	for Mild Steel		for Mild Steel					
Max. Punching Thickness	mm 13	16	16					
Max. Punching Diameter	mm 22	24	24					
Hole Making Time	10.5 sec.	16.5 sec.	16.5 sec.					
Allowable Max. Pressure	MPa (kgf/cm <sup>2</sup> ) 68.65 (700)	68.65 (700)	68.65 (700)					
Max. Output	kN (tf) 304 (31)	431 (44)	431 (44)					
Ram Stroke	mm 21	25	25					
Mass (Weight)	kg 21.5	28.5	35.5					
Standard Accessories	<ul style="list-style-type: none"> <li>• Sub Handle Ass'y : 1 set</li> <li>• Hose Cord Ass'y : 1 set</li> <li>• 4 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Spanner : 1 pc.</li> <li>• Tool box : 1 pc.</li> <li>• D Punch / Die 22 mounted on machine</li> </ul>	<ul style="list-style-type: none"> <li>• Sub Handle Ass'y : 1 set</li> <li>• Hose Cord Ass'y : 1 set</li> <li>• 4 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Spanner : 1 pc.</li> <li>• Tool box : 1 pc.</li> <li>• D Punch / Die 22 mounted on machine</li> </ul>	<ul style="list-style-type: none"> <li>• Sub Handle Ass'y : 1 set</li> <li>• Hose Cord Ass'y : 1 set</li> <li>• 4 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Spanner : 1 pc.</li> <li>• Tool box : 1 pc.</li> <li>• D Punch / Die 22 mounted on machine</li> </ul>					
Optional Parts	PN	Part Name	Unit	Model	PN	Part Name	Unit	Model
	TA96534	Hose Kit Ass'y 5m	1 set	HA series	TA95307	Switch Cord Ass'y 10m	1 set	HA series
	TP05184	Ultra-high pressure hose 5m	1 pc.		TA94386	Foot Switch Ass'y	1 set	
	TA93778	Switch Cord Ass'y 5m	1 set		TA92729	Oil Can Ass'y	1 set	
	TA9B044	Hose Kit Ass'y 10m	1 set		TA96342	Hook Clamp Ass'y	1 set	HA07-1624 HA11-1624
TP05777	Ultra-high pressure hose 10m	1 pc.						

**HYDRAULIC PUMP** for HA Type  
Model **SC-05**

**Single-Acting**

324mm  
380mm

### Specifications

Model	SC-05	
Power Source (Single Phase)	115 V / 230 V AC	
Max. Output Pressure	MPa (kgf/cm <sup>2</sup> ) 68.65 (700)	
Output	50Hz	60Hz
At No Load	ℓ /min 1.20	1.44
At 68.65 MPa	ℓ /min 0.55	0.66
Motor	0.4 kW 4P	
Reservoir Capacity	ℓ 4.0	
Discharge Port	Rc 3/8	
Mass (Weight)	kg 27.5	

**Built-in hydraulic pump shows its power in making round or elongated holes in flat bar, angle bar or channel iron**

**HANDY SELFER**  
Model **E25-0615**  Double insulation



**E Punch**  
**E Die**

For up to 50mm angle bar  
Max. Punching Diameter 15mm and 6mm thickness  
Hydraulic pump and power motor combined in a simple body


**HANDY SELFER**  
Model **E55-0619**



**EL Punch**  
**EL Die**

For up to 125 x 65mm channel iron  
Max. Punching Diameter 19mm and 6mm thickness  
Designed for safety with built-in relief valve

### Specifications

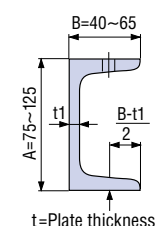
Model		E25-0615		E55-0619							
Power Source (Single Phase)		115 V AC 50/60Hz	220~240 V AC 50/60Hz	115 V AC 50/60Hz	220~240 V AC 50/60Hz						
Motor	Rated Power Consumption	W	305	670	670						
	Rated Current	A	3.2	1.6	3.0						
Max. Punching Diameter		mm	15	19							
Max. Punching Thickness		mm	6	6							
Max. Throat Depth		mm	25	55							
Punching Time		sec (single pass)	4	2							
Power Cord		m	2.4	2.4							
Mass (Weight)		kg	7.0	14							
Standard Accessories		<ul style="list-style-type: none"> <li>• E Punch 15 : 1 pc.</li> <li>• E Die 15A : 1 pc.</li> <li>• E Die 15B : 1 pc.</li> <li>• Spanner 8 : 1 pc.</li> <li>• 10 x 12 mm Spanner : 1 pc.</li> <li>• 2.5 mm Hex. Socket Screw Key : 1 pc.</li> <li>• 4 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Auxiliary Oil : 1 pc.</li> </ul>		<ul style="list-style-type: none"> <li>• EL Punch 18 : 1 pc.</li> <li>• EL Die 18A : 1 pc.</li> <li>• EL Die 18B : 1 pc.</li> <li>• Spanner 10 x 12 mm : 1 pc.</li> <li>• 3 mm Hex. Socket Screw Key : 1 pc.</li> <li>• 4 mm Hex. Socket Screw Key : 1 pc.</li> <li>• 5 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Auxiliary Oil : 1 pc.</li> </ul>							
Optional Accessory				 <table border="1"> <thead> <tr> <th>PN</th> <th>Part Name</th> <th>Sales Unit</th> </tr> </thead> <tbody> <tr> <td>TB00800</td> <td>Stand Ass'y</td> <td>1 set</td> </tr> </tbody> </table> <p>Available for E55-0619</p>		PN	Part Name	Sales Unit	TB00800	Stand Ass'y	1 set
PN	Part Name	Sales Unit									
TB00800	Stand Ass'y	1 set									

### Selection of Dies

Application	Type of Die	Plate Thickness (mm)		Model
		Mild Steel	Stainless Steel	
For thin sheets	A	2~3.2	Max. 3	E25-0615
For thick sheets	B	4~6	Max. 4	
For thin sheets	A	2~3.2	Max. 3	E55-0619
For thick sheets	B	4~6	Max. 4	
For channel iron	C	7~8	—	

### Punching Capacity in channel iron (E55-0619)

Punching Dia. Size	10 OD	11 OD	12 OD	13 OD	14 OD	15 OD	16 OD
75 x 40 t7	○	○	○	○	○	○	○
100 x 50 t7.5	○	○	○	○	○	○	—
125 x 65 t8	○	○	○	○	○	—	—



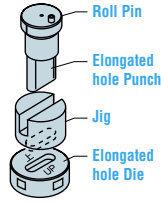
## Punches & Dies for SELFER Puncher

Sales Unit : 1 Piece

### FOR HS06-1624/HS07-1624/HS11-1624/HA06-1624/HA07-1624/HA11-1624

•TA99037 Lock Nut Ass'y is required for Elongated hole D Punch 25 x 9/12/14/18

Elongated hole D Punch		Elongated hole D Die		Elongated hole Jig	
PN	Size	PN	Size	PN	Size
TJ13229	D Punch 16 x 8	TJ13238	D Die 16 x 8	TK00455	Jig 16 x 8
TJ13230	D Punch 18 x 9	TJ13239	D Die 18 x 9	TK00456	Jig 18 x 9
TJ13231	D Punch 20 x 10	TJ13240	D Die 20 x 10	TK00457	Jig 20 x 10
TJ13232	D Punch 22 x 11	TJ13241	D Die 22 x 11	TK00458	Jig 22 x 11
TJ13233	D Punch 24 x 12	TJ13242	D Die 24 x 12	TK00459	Jig 24 x 12
TJ13234	D Punch 25 x 9	TJ13243	D Die 25 x 9	TK00460	Jig 25 x 9
TJ13235	D Punch 25 x 12	TJ13244	D Die 25 x 12	TK00461	Jig 25 x 12
TJ13236	D Punch 25 x 14	TJ13245	D Die 25 x 14	TK00462	Jig 25 x 14
TJ13237	D Punch 25 x 18	TJ13246	D Die 25 x 18	TK00463	Jig 25 x 18

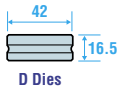
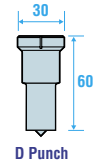


### Optional

PN	Part Name
TQ01279	Hex. Setscrew 8 x 14 for Elongated hole Die
TA99037	Lock Nut Ass'y for D Punch 25

### FOR HS06-1624/HS07-1624/HS11-1624/HA06-1624/HA07-1624/HA11-1624

Round hole D Punch		Round hole D Die	
PN	Size	PN	Size
TJ10778	D Punch 8	TJ10779	D Die 8
TJ11088	D Punch 9	TJ11089	D Die 9
TJ06700	D Punch 10	TJ06701	D Die 10
TJ06698	D Punch 11	TJ06699	D Die 11
TJ06696	D Punch 12	TJ06697	D Die 12
TJ06694	D Punch 13	TJ06695	D Die 13
TJ06692	D Punch 14	TJ06693	D Die 14
TJ06611	D Punch 14.5	TJ06612	D Die 14.5
TJ06690	D Punch 15	TJ06691	D Die 15
TJ06688	D Punch 16	TJ06689	D Die 16
TJ06686	D Punch 17	TJ06687	D Die 17
TJ06609	D Punch 17.5	TJ06610	D Die 17.5
TJ06684	D Punch 18	TJ06685	D Die 18
TJ06682	D Punch 19	TJ06683	D Die 19
TJ06680	D Punch 20	TJ06681	D Die 20
TJ06607	D Punch 20.5	TJ06608	D Die 20.5
TJ06678	D Punch 21	TJ06679	D Die 21
TJ07979	D Punch 21.5	TJ07980	D Die 21.5
TJ06676	D Punch 22	TJ06677	D Die 22
TJ06674	D Punch 23	TJ06675	D Die 23
TJ06566	D Punch 23.5	TJ06569	D Die 23.5
TJ07748	D Punch 24	TJ07749	D Die 24
TJ10061	D Punch 25	TJ10062	D Die 25

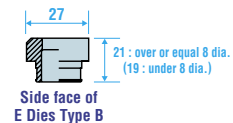
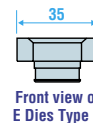
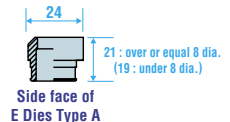
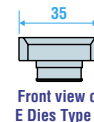
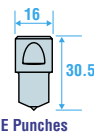


•TA99037 Lock Nut Ass'y is required for D Punch 25

### FOR E25-0615

Round hole E Punch		Round hole E Die (Type A for thin sheets)		E Die (Type B for thick sheets)	
PN	Size	PN	Size	PN	Size
TK00100	E Punch 4	TK00101	E Die 4A	—	—
TK00102	E Punch 5	TK00103	E Die 5A	TK00104	E Die 5B
TK00143	E Punch 5.5	TK00144	E Die 5.5A	TK00145	E Die 5.5B
TK00105	E Punch 6	TK00106	E Die 6A	TK00107	E Die 6B
TK00146	E Punch 6.5	TK00147	E Die 6.5A	TK00148	E Die 6.5B
TK00111	E Punch 8	TK00112	E Die 8A	TK00113	E Die 8B
TK00149	E Punch 8.5	TK00150	E Die 8.5A	TK00151	E Die 8.5B
TK00117	E Punch 10	TK00118	E Die 10A	TK00119	E Die 10B
TK00120	E Punch 11	TK00121	E Die 11A	TK00122	E Die 11B
TK00123	E Punch 12	TK00124	E Die 12A	TK00125	E Die 12B
TK00097	E Punch 13	TK00098	E Die 13A	TK00099	E Die 13B
TK00167	E Punch 14	TK00168	E Die 14A	TK00169	E Die 14B
TK00428	E Punch 15	TK00429	E Die 15A	TK00429	E Die 15B

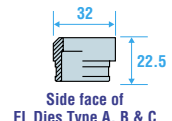
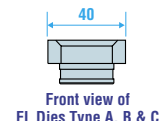
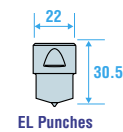
Elongated hole E Punch		Elongated hole E Die (Type A for thin sheets)		Elongated hole E Die (Type B for thick sheets)	
PN	Size	PN	Size	PN	Size
TK00126	E Punch 10 x 5	TK00127	E Die 10 x 5A	TK00128	E Die 10 x 5B
TK00158	E Punch 10 x 6.5	TK00159	E Die 10 x 6.5A	TK00160	E Die 10 x 6.5B
TK00129	E Punch 12 x 6	TK00130	E Die 12 x 6A	TK00131	E Die 12 x 6B
TK00152	E Punch 13 x 6.5	TK00153	E Die 13 x 6.5A	TK00154	E Die 13 x 6.5B
TK00155	E Punch 13 x 8.5	TK00156	E Die 13 x 8.5A	TK00157	E Die 13 x 8.5B



### FOR E55-0619

Elongated hole E Punch		Elongated hole E Die (Type A for thin sheets)		Elongated hole E Die (Type B for thick sheets)	
PN	Size	PN	Size	PN	Size
TK00242	EL Punch 10 x 6.5	TK00254	EL Die 10 x 6.5A	TK00266	EL Die 10 x 6.5B
TK00243	EL Punch 13 x 6.5	TK00255	EL Die 13 x 6.5A	TK00267	EL Die 13 x 6.5B
TK00244	EL Punch 13 x 8.5	TK00256	EL Die 13 x 8.5A	TK00268	EL Die 13 x 8.5B
TK00245	EL Punch 13.5 x 9	TK00257	EL Die 13.5 x 9A	TK00269	EL Die 13.5 x 9B
TK00246	EL Punch 15 x 10	TK00258	EL Die 15 x 10A	TK00270	EL Die 15 x 10B
TK00247	EL Punch 16.5 x 11	TK00259	EL Die 16.5 x 11A	TK00271	EL Die 16.5 x 11B
TK00248	EL Punch 17 x 8.5	TK00260	EL Die 17 x 8.5A	TK00272	EL Die 17 x 8.5B
TK00249	EL Punch 18 x 9	TK00261	EL Die 18 x 9A	TK00273	EL Die 18 x 9B
TK00250	EL Punch 18 x 12	TK00262	EL Die 18 x 12A	TK00274	EL Die 18 x 12B
TK00251	EL Punch 19.5 x 13	TK00263	EL Die 19.5 x 13A	TK00275	EL Die 19.5 x 13B
TK00252	EL Punch 20 x 10	TK00264	EL Die 20 x 10A	TK00276	EL Die 20 x 10B
TK00253	EL Punch 21 x 14	TK00265	EL Die 21 x 14A	TK00277	EL Die 21 x 14B

Round hole EL Punch		Round hole EL Die (Type A for thin sheets)		Round hole EL Die (Type B for thick sheets)		Round hole EL Die (Type C for channel iron)	
PN	Size	PN	Size	PN	Size	PN	Size
TK00193	EL Punch 6	TK00208	EL Die 6A	TK00222	EL Die 6B	—	—
TK00194	EL Punch 6.5	TK00209	EL Die 6.5A	TK00223	EL Die 6.5B	—	—
TK00195	EL Punch 8	TK00210	EL Die 8A	TK00224	EL Die 8B	—	—
TK00196	EL Punch 8.5	TK00211	EL Die 8.5A	TK00225	EL Die 8.5B	—	—
TK00197	EL Punch 10	TK00212	EL Die 10A	TK00226	EL Die 10B	TK00235	EL Die 10C
TK00198	EL Punch 11	TK00213	EL Die 11A	TK00227	EL Die 11B	TK00236	EL Die 11C
TK00199	EL Punch 12	TK00214	EL Die 12A	TK00228	EL Die 12B	TK00237	EL Die 12C
TK00200	EL Punch 13	TK00215	EL Die 13A	TK00229	EL Die 13B	TK00238	EL Die 13C
TK00201	EL Punch 14	TK00216	EL Die 14A	TK00230	EL Die 14B	TK00239	EL Die 14C
TK00202	EL Punch 15	TK00217	EL Die 15A	TK00231	EL Die 15B	TK00240	EL Die 15C
TK00203	EL Punch 16	TK00218	EL Die 16A	TK00232	EL Die 16B	TK00241	EL Die 16C
TK00204	EL Punch 17	TK00219	EL Die 17A	TK00233	EL Die 17B	—	—
TK00205	EL Punch 18	TK00220	EL Die 18A	TK00234	EL Die 18B	—	—
TK00278	EL Punch 18.5	TK00279	EL Die 18.5A	TK00280	EL Die 18.5B	—	—
TK00180	EL Punch 19	TK00181	EL Die 19A	TK00182	EL Die 19B	—	—





## Compact portable models meet your versatile chamfering jobs



### HAND BEVELER

Model **HB-15B**

Electric **E**

Mild Steel **15C**

396mm  
220mm

Finish a surface so fine that post-sanding is unnecessary

Column R-section can be chamfered with optional attachment

Insert with 4-side blades per piece practices good economy

### MINI BEVELER

Model **EMB-0307B**

Electric **E** Double insulation

Stainless Steel **3C** Mild Steel **7C**

**4R** **4R**

189.6mm  
179mm 316.4mm

Applicable to stainless steel and mild steel chamfering

Pipe outer edge can be also processed with standard accessories

Dust box collects swarf and chips effectively

### MINI BEVELER

Model **MB-03A**

Electric **E** Double insulation

Mild Steel **3C**

**2R, 3R**

107.5mm  
150mm 278mm

An outer R-part attachment allows chamfering of outer diameters with a radius greater than 170mm

An optional inner head ass'y allows chamfering a pipe of inner diameter larger than 100mm (50R)

### CIRCUIT BEVELER

Model **ECB-0203**

Electric **E** Double insulation

Stainless Steel **1.5C** Mild Steel **3C**

**2R** **3R**

400mm  
136.4mm

Applicable to stainless steel and mild steel chamfering

Minimum chamfering plate thickness is 2mm (Max. 0.5C)

An optional straight plate allows chamfering a straight edge shoulder

### Specifications

Model (Electric Tool)	HB-15B		EMB-0307B		MB-03A	ECB-0203
Power Source (Single Phase)	115V AC	230V AC	220~240V AC, 50/60 Hz		230V or 115V AC, 50/60 Hz	220~240V AC, 50/60 Hz
Rated Power Consumption	W	910	910	1,010	430	450
Rated Current	A	10.5	4	4.6	2 / 4.5	2.1
Rated Duty	min	Continuous		Continuous	30	30
No-load Speed	min <sup>-1</sup> (rpm)	3,340	2,750	11,000	7,100	11,000
Chamfering Capacity	Mild Steel	0C~15C (7C per chamfering)		0C~7C, 2R, 3R, 4R	0C~3C, 2R, 3R	0C~3C, ※2R, ※3R
	Stainless Steel	—		0C~3C, 2R, 3R, 4R	—	0C~1.5C, ※2R
Chamfer Angle		15° ~ 45°		15° ~ 45°	45°	45°
Power Cord	m	5		4	2.5	2.5
Mass (Weight)	kg	15		3.9	2.5	2.5
Standard Accessories	<ul style="list-style-type: none"> <li>• 4 / 5 / 6 mm Hex. Socket Screw Key : each 1 pc.</li> <li>• Spanner 24 x 27 : 1 pc.</li> <li>• Hook spanner 25-28 : 1 pc.</li> <li>• 3 mm T Wrench Key : 1 pc.</li> <li>• TA9A093 Insert 12.7 Ass'y (12pcs./set) : 1 set</li> </ul>		<ul style="list-style-type: none"> <li>• Carbon Brush Ass'y : 1 pc.</li> <li>• 4 mm Hex. Wrench Key : 1pc.</li> <li>• Insert 12.7 with hole : 1 pc.</li> <li>• Insert Set Screw 4 x 7 : 1 pc.</li> <li>• Hex Nut M8 : 2 pcs.</li> <li>• 8 x 25 mm Hex. Socket Set Screw : 2 pcs.</li> <li>• Spanner T-15D : 1 pc.</li> </ul>		<ul style="list-style-type: none"> <li>• 3 &amp; 4 mm Hex. Socket Screw Key : each 1 pc.</li> <li>• Spanner T-9F : 1 pc.</li> <li>• Hex. Nut M8 : 2 pcs.</li> <li>• 8 x 25 mm Hex. Socket Set Screw : 2 pcs.</li> </ul>	<ul style="list-style-type: none"> <li>• Insert 12.7 with hole : 1 pc.</li> <li>• Insert set screw 4 x 7 : 1 pc.</li> <li>• 5 mm Hex. Socket Screw Key : 1 pc.</li> <li>• Spanner 8 x 10 : 1 pc.</li> <li>• Spanner T-15D : 1 pc.</li> <li>• Adjustment gauge : 1 pc.</li> </ul>

\* In case of chamfering 3R, an optional insert for 3R is necessary, and chamfering 2R, an optional guide sleeve 24mm dia. and insert for 2R are necessary.

The limit of beveling width that depends on a chamfer angle.

Chamfer angle α	EMB-0307B			AMBL-0307 / AMB-0307		
	Mild Steel (mm)			Stainless Steel (mm)		
45°	7	7	9.9	3	3	4.2
30°	3.8	6.6	7.6	2.2	3.8	4.4
15°	1.5	5.6	5.8	1	3.8	3.9

### Chamfering range of operation

**CB-02**

Min. Diameter:  $\geq 10mm$

Min. Radius:  $\geq 6mm$

Min. Depth:  $\geq 20mm$

**ECB-0203**

Min. Diameter:  $\geq 15mm$

Min. Radius:  $\geq 7.5mm$

Min. Depth:  $\geq 18mm$

Min. Thickness:  $\geq 2mm$

Select the suitable **BEVELER** model in accordance with your applications



**MINI BEVELER**  
Model **AMBL-0307** Lever Type

177mm  
126mm  
180mm

Model **AMB-0307** Ring Type

202mm  
126mm  
180mm

**Applicable to stainless steel and mild steel chamfering**

**Simple to adjust chamfering depth and replace insert**

**Pipe outer edge can be also processed with standard accessories**

**CIRCUIT BEVELER**  
Model **CB-02**

136mm  
116mm

**Precisely adjust chamfer dimensions with accessory gauge**

**Versatility chamfer either inner or outer edges**

### Specifications

Model (Pneumatic Tool)	AMBL-0307 / AMB-0307		CB-02
Air Pressure	MPa (kgf/cm <sup>2</sup> )	0.59 (6)	0.59 (6)
Air Consumption	m <sup>3</sup> /min	0.9	0.4
No-load Speed	min <sup>-1</sup> (rpm)	14,000	13,000
Chamfering Capacity	Mild Steel	0C~7C, 2R, 3R, 4R	0C~2C, 2R
	Stainless Steel	0C~3C, 2R, 3R, 4R	—
Chamfer Angle		15° ~ 45°	45°
Mass (Weight)	kg	2.9	1.8
Standard Accessories	<ul style="list-style-type: none"> <li>• 3 &amp; 4 mm Hex. Socket Screw Key : each 1 pc.</li> <li>• Spanner T-15F : 1 pc.</li> <li>• Hex Nut M8 : 2pcs.</li> <li>• 8 x 25 mm Hex. Socket Set Screw : 2 pcs.</li> <li>• Insert Set Screw 4 x 7 : 1 pc.</li> <li>• Insert 9.525 with hole : 1 pc.</li> <li>• Adjustment gauge : 1 pc.</li> <li>• Spanner T-9F : 1 pc.</li> <li>• Protective cap : 1 pc.</li> <li>• Hook Spanner 58-65 : 1 pc.</li> </ul>		

### Optional

	PN	Part Name	Sales Unit	Application model	Remarks
	TA9A093	Insert 12.7 Ass'y	12pcs./set	HB-15B	
	TA9A896	Insert 12.7 with hole Ass'y	10pcs./set	AMB-07	
	TB01159	Insert 12.7 with hole Ass'y	10pcs./set	EMB-0307B, AMB-0307, AMBL-0307, ECB-0203	
	TB01791	Insert 12.7 Ass'y R2	10pcs./set	EMB-0307B, AMB-0307, AMBL-0307, ECB-0203	
	TB01651	Insert 12.7 Ass'y R3	10pcs./set	EMB-0307B, AMB-0307, AMBL-0307, ECB-0203	
	TB01790	Insert 12.7 Ass'y R4	10pcs./set	EMB-0307B, AMB-0307, AMBL-0307	
	TA9A386	Insert 9.525 with hole Ass'y	10pcs./set	MB-03A, CB-02	
	TA9A592	Insert 9.525 Ass'y R2	10pcs./set	MB-03A, CB-02	
	TA9A638	Insert 9.525 Ass'y R3	10pcs./set	MB-03A	
	TA9A728	Plate Ass'y for pipe	1 set	HB-15B	For pipe 125~800 mm dia.
	TB02539	Attachment for small dia. pipe	1 set	EMB-0307B, AMB-0307, AMBL-0307	For pipe 80~200 mm dia.
	TA9A594	Inner head Ass'y	1 set	MB-03A	For min. 100 mm dia.
	TB02857	Guide sleeve 24 mm dia. Ass'y	1 set	ECB-0203	For chamfering R2
	TB03097	Plate Ass'y for straight line use	1 set	ECB-0203	
	TB02862	Dust Box Ass'y	1 set	ECB-0203	Used with Plate Ass'y for straight line use
	TB03424	Spanner T-9D	1 pc.	MB-03A, CB-02	
	TQ01683	Spanner T-15D	1 pc.	EMB-0307B, AMB-0307, AMBL-0307, ECB-0203	

# OTHER PRODUCT LINES

## Power Tools *Pneumatic & Electric Power Tools, Labor-saving plus Improved Work Efficiency*

A wide range of unique tools for boring and punching

### JET CHISEL

NEEDLE SCALER



Model **JT-20**

### JET CHISEL

NEEDLE SCALER



Model **JEX-2800A**

### AUTO CHISEL

AIR HAMMER



Model **A-300**

### SUPER KELEN

PNEUMATIC SCALER



Model **S-250/S-500/S-1000**

### AIR CHIPPER

SCALING



Model **ACH-16**

### AIR CHIPPER

SCALING



Model **CH-24**

### MYTON

PNEUMATIC GRINDER



Model **MAG-25B**

### MYTON

PNEUMATIC GRINDER



Model **MAGW-40**

### MYTON

PNEUMATIC GRINDER



Model **MAG-70**

### MYTON

PNEUMATIC SANDER



Model **MAS-40**

### PALM ORBITAL SANDER

PNEUMATIC COMPACT SANDER



Model **APS-150**

### AIR SONIC

PNEUMATIC DIE GRINDER



Model **L-25B**

### BELTON

PNEUMATIC BELT SANDER



Model **B-10N**

### BELTON

PNEUMATIC BELT SANDER



Model **B-20N**

### SUPER HAND

FILING



Model **SH-100A**

### AIR DRILL

PNEUMATIC HAND DRILL



Model **ADR-100**



# OTHER PRODUCT LINES

## CUPLA

**Quick Connecting Fluid Couplings are The World's Best for both Quality and Quantity**



Full line-up consisting of 3,000 series, 20,000 type variations. The couplings eliminate inconvenience of thread-in or bolted flange connections, fluid leakage, or hose kinking but provide speedy control and maintenance of fluid piping.



### HI CUPLA ACE

- Plastic Couplas with a built-in locking mechanism.
- Pressure ratings comparable to steel Couplas.



### LINE CUPLA 200

- Enables several air lines to be taken simultaneously from one supply line.
- Gives speedy branching of Hi Cupla.

### HI CUPLA & HI CUPLA 200

- One-way shut-off coupling with an automatic shut-off valve in the socket.
- Important parts are hardened for excellent wear resistance and durability.



Plug				P
<b>For hose connection</b>				
40PH	For 1/2" hose	400PH	For 1/2" hose	
17PH	For 1/4" hose	20PH	For 1/4" hose	
30PH	For 3/8" hose	600PH	For 3/4" hose	
<b>For female thread connection</b>				
10PM	For Rc 1/8"	400PM	For Rc 1/2"	
20PM	For Rc 1/4"	600PM	For Rc 3/4"	
30PM	For Rc 3/8"	800PM	For Rc 1"	
<b>For male thread connection</b>				
20PF	For R 1/4"	400PF	For R 1/2"	
30PF	For R 3/8"	600PF	For R 3/4"	
40PF	For R 1/2"	800PF	For R 1"	
<b>For male thread connection (parallel thread)</b>				
20PFF	For G 1/4"			

Socket				S
<b>For hose connection</b>				
40SH	For 1/2" hose	400SH	For 1/2" hose	
17SH	For 1/4" hose	20SH	For 1/4" hose	
30SH	For 3/8" hose	600SH	For 3/4" hose	
<b>For female thread connection</b>				
10SM	For Rc 1/8"	400SM	For Rc 1/2"	
20SM	For Rc 1/4"	600SM	For Rc 3/4"	
30SM	For Rc 3/8"	800SM	For Rc 1"	
<b>For male thread connection</b>				
20SF	For R 1/4"	400SF	For R 1/2"	
30SF	For R 3/8"	600SF	For R 3/4"	
40SF	For R 1/2"	800SF	For R 1"	
<b>For hose connection</b>				
200-17SH	For 1/4" hose	200-40SH	For 1/2" hose	
200-20SH	For 1/4" hose			
200-30SH	For 3/8" hose			
<b>For female thread connection</b>				
200-20SM	For Rc 1/4"			
200-30SM	For Rc 3/8"			
200-40SM	For Rc 1/2"			
<b>For male thread connection</b>				
200-20SF	For R 1/4"			
200-30SF	For R 3/8"			
200-40SF	For R 1/2"			

#### Specifications

Type	Hi Cupla	Hi Cupla 200
Body material	Steel (chrome-plated)	Steel (chrome-plated)
Size	1/8", 1/4", 3/8", 1/2", 3/4", 1"	1/8", 1/4", 3/8", 1/2"
Working pressure	1.5MPa	1.0MPa
Pressure resistance	2.0MPa	1.5MPa
Seal material	NBR	NBR
Working temperature range	-20°C~+80°C	-5°C~+60°C

### For Oxygen / Fuel Gas Mini Cupla Super

Heavy-duty push-to-connect type or oxyacetylene piping



**Exclusively for welding and cutting equipment.**

- From cylinders to torches, all piping connections associated with welding and cutting equipment are now in push-to-connect configurations.
- Chrome-plated body for better corrosion resistance.
- Heat-treated plugs for better durability.
- Oxygen and fuel gas couplings have different configuration sizes with sleeves in different appearances, chrome plating for oxygen and copper plating for fuel gas, to prevent accidental interconnection.
- Smaller diameter design enables wider range of applications.
- Various types of end configurations have been standardized to comply with a wide range of welding and cutting equipment applications. Interchangeable with Mini Cupla.

Select the combination in accordance with your own application.

Male thread	For regulator	For extension hose	For torch
Suggested combination SM x PH	Suggested combination SF x PH	Suggested combination SH x PH	Suggested combination SH x PF



Plug				P
<b>PH type (Hose barb)</b>				
S22PH	For Oxygen	For 1/4", 5/16"		
S33PH	For Fuel Gas	For 5/16", 3/8"		
S32PH*	For Fuel Gas	For 1/4", 5/16"		
<b>PH type (Hose barb of smaller diameters)</b>				
S225PH	For Oxygen	For 5mm ID		
S335PH	For Fuel Gas	For 5mm ID		
<b>PF type (Female thread for torch connection)</b>				
S22PF	For Oxygen	For oxygen torch side		
S33PF	For Fuel Gas	For fuel gas torch side		
<b>PFB type (Female thread with backflow stop valve)</b>				
S23PFB-2*	For Oxygen	For oxygen torch side		
S33PFB-2*	For Fuel Gas	For fuel gas torch side		
<b>PN type (Nut type for small diameter hose)</b>				
S22PN	For Oxygen	For 5mm ID		
S33PN	For Fuel Gas	For 5mm ID		

Socket				S
<b>SH type (Hose barb)</b>				
S22SH	For Oxygen	For 1/4", 5/16"		
S33SH	For Fuel Gas	For 5/16", 3/8"		
S32SH*	For Fuel Gas	For 1/4", 5/16"		
<b>SH type (Hose barb of smaller diameters)</b>				
S225SH	For Oxygen	For 5mm ID		
S335SH	For Fuel Gas	For 5mm ID		
<b>SF type (Female thread for torch connection)</b>				
S22SF	For Oxygen	For oxygen gauge side		
S33SF	For Fuel Gas	For fuel gas gauge side		
S23SF*	For Oxygen	For oxygen gauge side		
S33SF*	For Fuel Gas	For fuel gas gauge side		
<b>SM type (Male thread)</b>				
S22SM	For Oxygen	For Rc 1/4"		
S33SM	For Fuel Gas	For Rc 3/8"		
<b>SN type (Nut type for small diameter hose)</b>				
S22SN	For Oxygen	For 5mm ID		
S33SN	For Fuel Gas	For 5mm ID		

\*Made-to-order item. • Available hose sizes are ø5mm x ø11.2mm, ø5mm x ø11.5mm and ø5mm x ø11.8mm.

Body material	Socket : Brass (chrome-plated) Plug : Steel (chrome-plated)
Size	1/4", 5/16", 3/8"
Working pressure	0.7MPa
Pressure resistance	1.0MPa
Seal material	NBR
Working temperature range	-20°C~+80°C



# OTHER PRODUCT LINES

## delvo Professional Tools for High Technology

NITTO KOHKI "delvo" Electric Screwdrivers are high-quality tools for professional use, with special emphasis on precise control of torque and long life. They apply just the correct amount of torque –with sure, positive control always at your fingertips. They're smooth and shockless in operation, too. NITTO KOHKI's customer-oriented service system is directly connected to sales agents to ensure that you can use "delvo" Electric Screwdrivers with confidence.

### delvo Models

- DLV7300 Series
- DLV7500/8500 Series
- DLV7000/8000 Series
- DLV7100/7200/8100/8200 Series
- DLV3100/3300 Series
- DLV5720/5720H/5740/5740H/5750 Series
- DLV5800 Series
- DLV30SP/30HP-MKG (with built-in brushless motors)



## Spring Balancer

**TIGON Spring Balancer Improves Work Safety & Efficiency**

### TIGON Spring Balancer Models

- TW-00/TW-0/TW-3/TW-5/TW-9/TW-15/TW-22/
- TW-30/TW-40/TW-50/TW-60/TW-70

Capacities ranging from 0.5 ~ 70 kg.



## Linear Motor Driven Free Piston System

MEDO pumps are unique products featuring a Linear-motor-driven Free Piston System. NITTO KOHKI has made available a complete series of air compressors and suction pumps that incorporate this revolutionary mechanism. These are quite appropriate as air sources or suction power units for various pneumatically operated equipment and apparatus in advanced industries.



# SAFETY GUIDE

**Be sure to read and understand all safety precautions mentioned below and to follow the instructions given to operate each Nitto Kohki brand tool as stated in the operator's manual. Keep operators manual close by when operating machines or tools for reference of safe operation and precautions.**

## Safety Precautions

**Failure to observe the following warnings may cause a potentially hazardous situation, which if not corrected could result in serious injury or death. To prevent the risk of fire, electric shock, and/or personal injury, proper safety guidelines should be followed at all times.**

### Warning for ALL Machines and Tools

- Always keep the work area free from clutter and potentially dangerous conditions such as hanging power cords, working debris, air hoses, and garbage to prevent accidents from occurring.
- Consider proper working environments for each tool carefully. Do not expose tools to extreme amounts of moisture or direct contact with water or rain. Keep area well lit at all times to prevent hidden dangers and never operate the equipment near flammable liquids or in gaseous or explosive atmospheres.
- Keep all tools and tool accessories away from children and all unauthorized personnel. Serious injury or possible death may result from machines being handled by children.
- Properly store machines and accessories while not in use. They should be kept in a dry, locked-up location out of reach children or unauthorized personnel.
- Improper or negligent use of tools will cause increased maintenance costs, and the amount of time in which to complete the job. Always let the tool do the work at the rate of which it was designed. Best performance is always achieved by reading and understanding the proper operation of each machine or tool.
- Always wear safety glasses and protective hand and foot wear during or around operating tools. Wear a protective hair covering to contain long hair. Do not wear loose clothing and/or accessories as they may be caught in moving parts and inflict serious injury or possible death.
- Wear respiratory protection when working in an environment where dust particles are generated during operation.
- Do not over-reach or allow yourself to become unstable during tool operation and always maintain a correct posture.
- Use clamps or a vise to secure the work piece tightly and eliminate vibration. Never hold the work piece with your hands, keep both hands on the tool for increased productivity.
- Use the right tool or machine that can complete the job within its specifications. Do not attempt to adapt smaller machines or tools to complete a job designed for heavy-duty equipment. Do not use the tools for other than what they were designed for. There is a right tool for each job, be aware of tool limitations and never overload.
- Make sure to inspect all external screws, nuts, bolts and attached accessories are fastened tightly and secure prior to each use. All moving parts should be free from obstruction and allowed to operate smoothly. Any damaged or missing parts should be repaired or replaced by the sales agent or distributor from which the tool was originally purchased. Do not use machines or tools which cannot be activated or stopped with a power switch or lever.
- Do not use any machine with a damaged, frayed, cut, or deteriorated power cords or air hoses. Always replace at the first sign of damage.
- Always remove all tools required to adjust, add, or remove parts from tools prior to use to prevent tool damage or user injury.
- Always avoid an unexpected start by having all power buttons or levers in the off position prior to attaching to a power or air supply. Never carry tools with your finger on the on/off switch or lever when the power or air supply is attached.
- Do not use the power or air supply lines to move, carry or support the tool during usage or transportation. Do not place the power or air line near a heat source, oil, water, or items with sharp edges.
- Never leave a machine or tool running unattended. Keep a firm grip on the designated areas of the machine or tool until it comes to a complete stop. Always turn the power switch or lever to the off position and disconnect from the power source when not in use.
- Do not disassemble or modify a tool to complete a job other than what it was designed for. This will void any warranty on the equipment and may cause serious personal injury or possible death.
- Maintenance is necessary for all machines and tools. Always maintain blades and cutters properly and replace when edges become damaged or are not sharp enough for safe operation. Follow the instruction manual for lubrication needs and adjustment points if applicable. Check the power and air supply lines periodically and change accordingly to safety regulations. If an extension line is adopted, always make sure that it meets or exceeds tool requirements for amperage or air supply before using and is rated for outdoor usage. Change supply lines whenever they are found to be defective or damaged. Keep the grip and handles dry and clean of grease or oil so that it will not disturb proper operation.
- Switch off and disconnect from power source before servicing equipment or changing accessories.
- Be alert and pay close attention to the work being performed at all times. Do not operate machines or tools when heavily fatigued. Users should be aware of all circumstances surrounding their application.
- Use only recommended parts and accessories as per individual machine or tool operator manuals. Use of improper accessories or attachments may result in serious injury or possible death.
- All repairs and services must be performed by authorized Nitto Kohki dealers or technicians.
- Do not deface or remove any label, warning indicator, or nameplate associated with each machine or tool.

### Notice for Electric Tools

- The power source must be limited to the individual tools specifications as stated on the nameplate or instruction manual.
- Make sure that all machine and power tools are properly grounded at all times (excludes double-insulated tools). Always use a GFCI (Ground-Fault-Circuit-Interrupt) to protect the user and surrounding persons from electric shock.
- Be aware of low voltage situations. Improperly gauged extension cords or power cords used or shared with other electrical devices will cause all tools on the line to not run at optimal performance. This condition may result in damage to the machine and/or operator.

### Notice for Air Tools

- Air pressure at the inlet of the tool must not exceed 0.59MPa (6kgf/cm<sup>2</sup>).



# MACHINE TOOLS

**Technologies that Respond  
to the Needs of the Times**



■ Overseas Affiliates/Offices

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★ Specifications and designs are subject to change at any time without notice.



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