

LASER  
PLASMA  
WATERJET  
DRILLING

Solution for  
**CUTTING  
TECNOLOGY**



# IMA TECNO SOLUTIONS

**ITALY**  
*Taylor-made*

IMA TECNO offers a complete range of products for application on cutting machines with **PLASMA, LASER** and **WATERJET TECHNOLOGIES**.

Solutions developed and based on

- HIGH QUALITY
- COMPLETE SOLUTION
- BEST SOLUTION AGAINST COLLISIONS
- EASY FIXING SYSTEM ON THE MACHINE
- PLATE INTERFACE HEAD / MACHINE
- EQUATIONS A - B - X - Y - Z AXIS (Bevel Head  $\pm 60^\circ$ )

In the spirit of flexibility that distinguishes us and strong of our experience, any and more customized solutions can be examined / offered.



Bevel Head



Laser Head



Waterjet Head



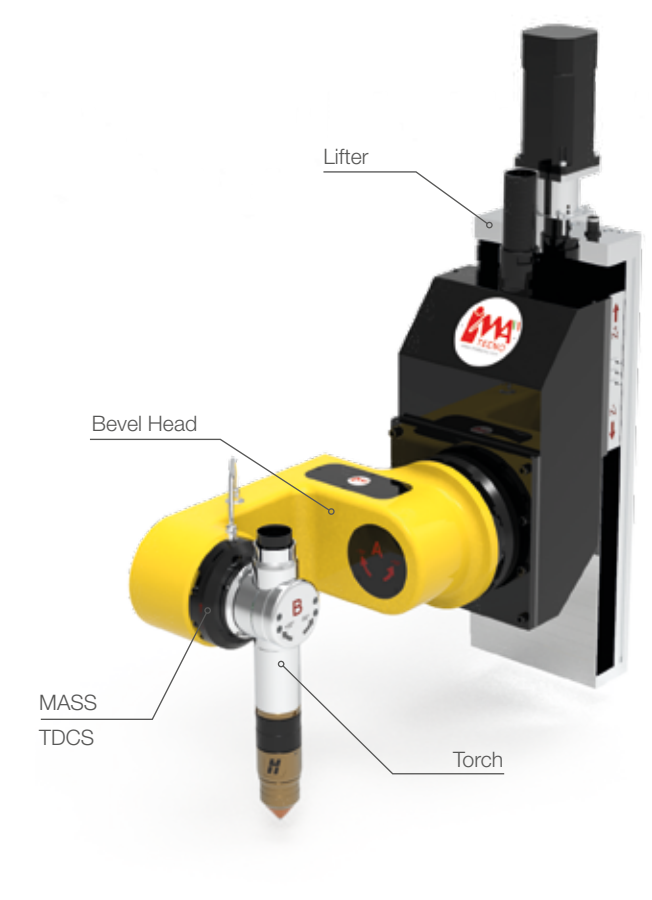
Drilling Unit



L Mass System

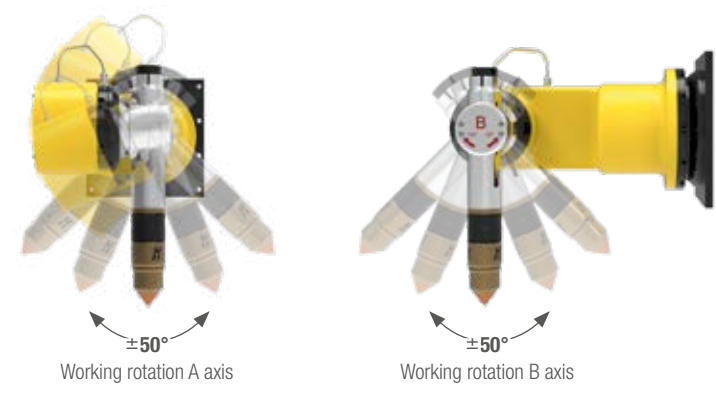


Accessories



# BEVEL HEAD ± 50° bevel angle

Description - Data		A Axis Head	B Axis Torch
Working position	type	Horizontal	
Bevel angle	max	± 90°	± 90°
	work	± 50°	± 50°
Reduction system	data	backlash "0" < 1 arc/min	
Motor encoder	type	Incremental / Absolute multiturn	



## BEVEL HEAD configuration

BEVEL HEAD

AXIS Z LIFTER

CHECKS AND SAFETY



BEVEL HEAD  
± 50° bevel angle



LIFTER  
STROKE: 250-500 mm
















TDCS  
Code 30M01496

MASS  
Code 30M013990

## BEVEL HEAD motors

The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.

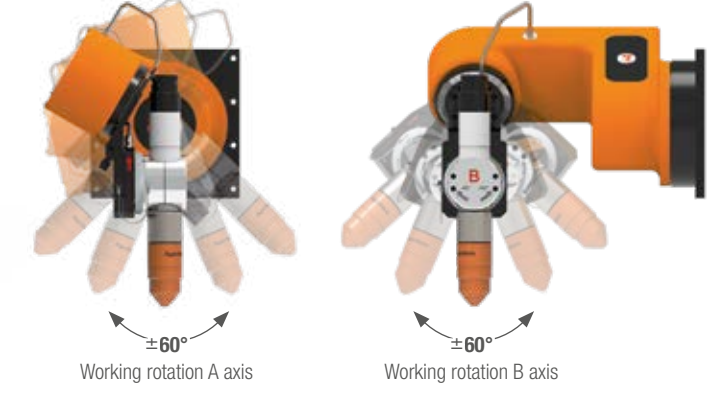
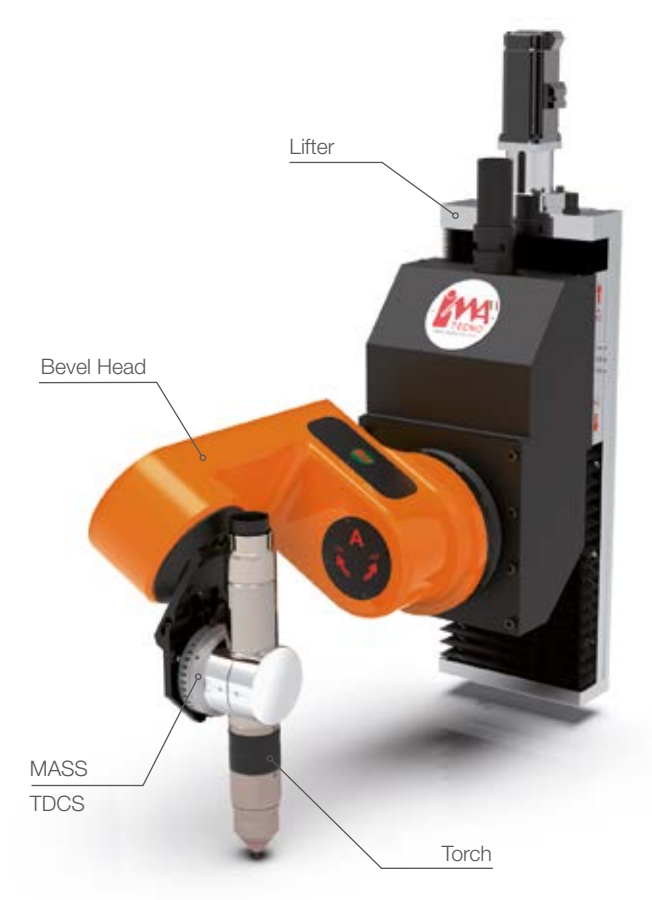
- 

Bevel Head

Bevel Head + Lifter stroke:

# BEVEL HEAD ± 60° bevel angle

Description - Data		A Axis Head	B Axis Torch
Working position	type	Horizontal	
Bevel angle	max	± 90°	± 90°
	work	± 60°	± 60°
Reduction system	data	backlash "0" < 1 arc/min	
Motor encoder	type	Incremental / Absolute multiturn	



## BEVEL HEAD configuration

BEVEL HEAD

AXIS Z LIFTER

CHECKS AND SAFETY



BEVEL HEAD  
± 60° bevel angle



LIFTER  
STROKE: 250-500 mm














TDCS  
Code 30M01490

MASS  
Code 30M013990

## BEVEL HEAD motors

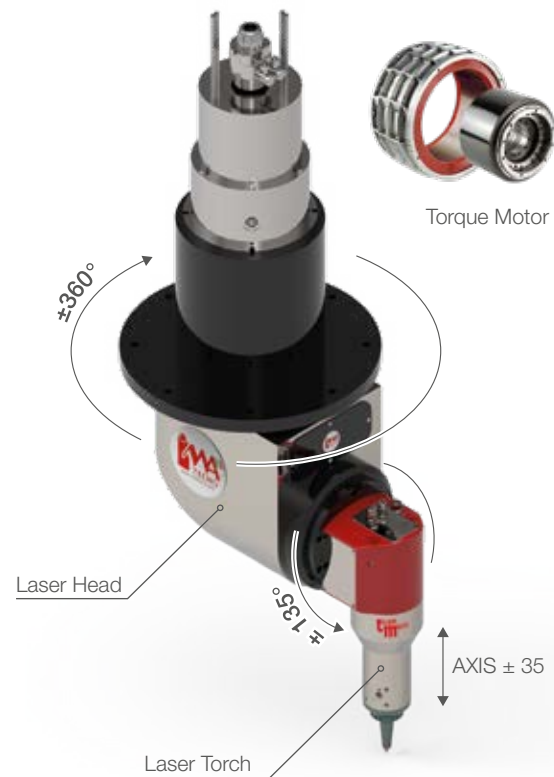
The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.

- 

Bevel Head

Bevel Head + Lifter stroke:





## LASER HEAD Swivel Torque

Description - Data		A Axis Head	B Axis Torch
Ima Tecno	code	22000A010	
Working position	type	Vertical	
Bevel angle	max	continuous	± 135°
	work	continuous	± 135°
Axis drive	type	Direct drive with torque motor	
Motor encoder	type	Absolute multiturn	

## LASER HEAD Vertical Application

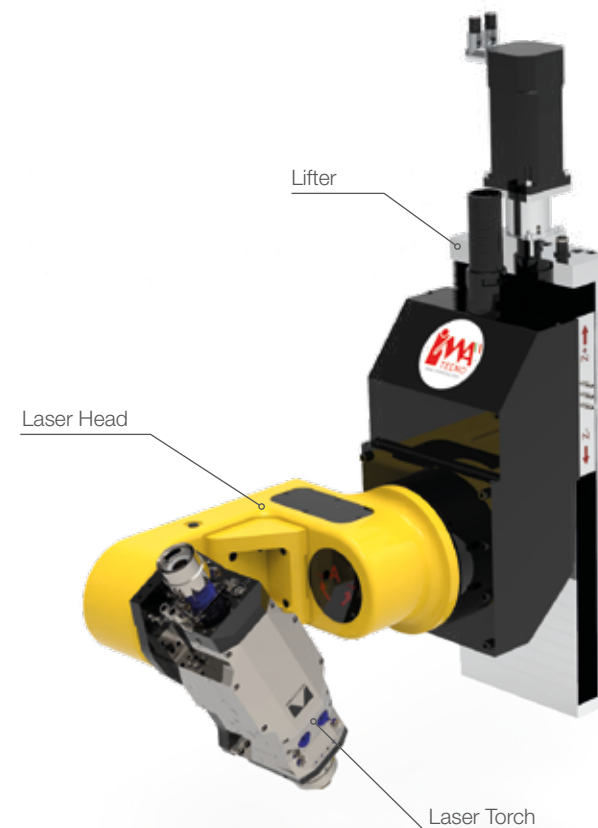
Description - Data		C Axis Head	A Axis Torch
Ima Tecno	code	20000A170	
Working position	type	Vertical	
Bevel angle	max	± 190°	± 120°
	work	± 180°	± 110°
Gear reducer	type	Hight quality IMA TECNO solution	
Motor encoder	type	Absolute multiturn	
Motor	type	Following customer request	

### LASER HEAD motors

The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.



Laser Head



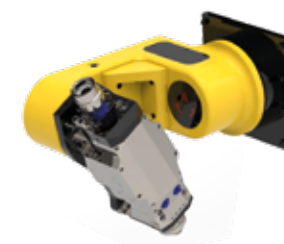
## LASER HEAD Horizontal Application

Description - Data		A Axis Head	B Axis Torch
Ima Tecno	code	20000A640	
Working position	type	Horizontal	
Bevel angle	max	± 90°	± 90°
	work	± 50°	± 50°
Gear reducer	type	Hight quality IMA TECNO solution	
Motor encoder	type	Absolute multiturn	
Motor	type	Following customer request	

### LASER HEAD configuration

LASER HEAD

AXIS Z LIFTER



LASER HEAD  
± 50° bevel angle



LIFTER  
STROKE: 250-500 mm

### LASER HEAD motors

The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.



Laser Head

Laser Head + Lifter stroke:

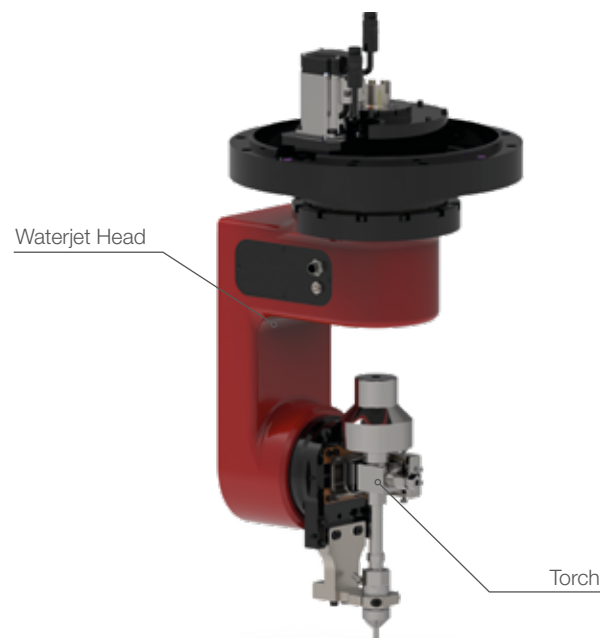


## WATERJET HEAD

### Lite $\pm 60^\circ$ bevel angle

NEW **IMA TECNO SOLUTION** waterjet head designed and built for accurate 5-axis cutting giving you the ultimate in accuracy, speed, and flexibility.

Description - Data		C Axis	A Axis
Ima Tecno	code	21000A010	
Working position	type	Vertical	
Bevel angle	work	<b>360°</b>	<b><math>\pm 60^\circ</math></b>
Continuous rotation	type	Yes by customer	NO
Gear reducer	type	<b>Hight quality IMA TECNO solution</b>	
Motor encoder	type	Absolute multiturn	
Motor	type	Following customer request	
Weight	kg	56	
<b>MASS/WJ + TPPC</b> code 30M015210		Anti-collision system (MASS/WJ) to guarantees the integrity of the nozzle of cutting head, in the eventual collision.	



## WATERJET HEAD

### Orthogonal

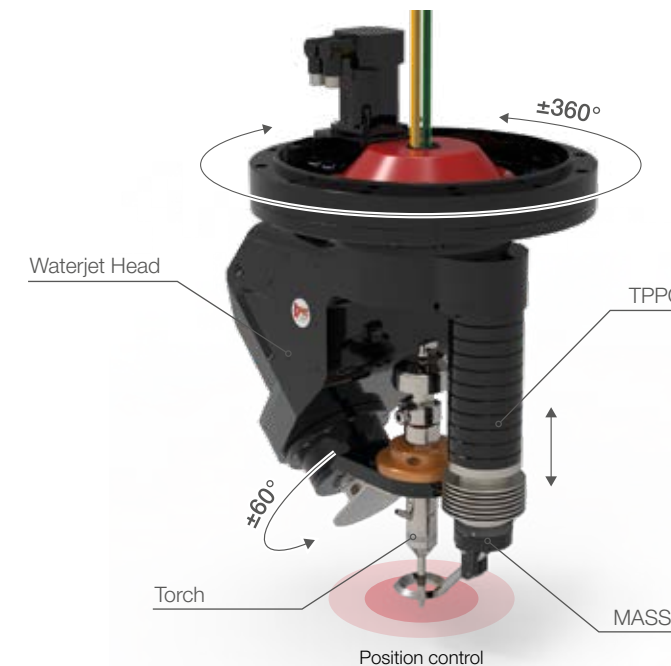
Description - Data		A Axis Head	B Axis Torch
Working position	type	Horizontal	
Bevel angle	max	<b><math>\pm 90^\circ</math></b>	<b><math>\pm 90^\circ</math></b>
	work	<b><math>\pm 50^\circ</math></b>	<b><math>\pm 50^\circ</math></b>
Reduction system	data	<b>backlash "0" &lt; 1 arc/min</b>	
Motor encoder	type	Incremental / Absolute multiturn	

## WATERJET HEAD motors

The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.



Waterjet Head



## WATERJET HEAD

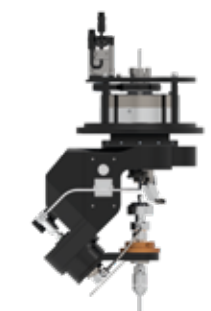
### $\pm 60^\circ$ bevel angle

Description - Data		C Axis	A Axis
Ima Tecno	code	21000A020	
Working position	type	Vertical	
Bevel angle	work	<b>360°</b>	<b><math>\pm 60^\circ</math></b>
Continuous rotation	type	NO	NO
Gear reducer	type	<b>Hight quality IMA TECNO solution</b>	
Motor encoder	type	Absolute multiturn	
Motor	type	Following customer request	
Weight	kg	32	
<b>MASS/WJ + TPPC</b> code 30M015210		Anti-collision system (MASS/WJ) to guarantees the integrity of the nozzle of cutting head, in the eventual collision.	

## WATERJET HEAD configuration

WATERJET HEAD

CHECKS AND SAFETY



WATERJET HEAD  
 $\pm 60^\circ$  bevel angle



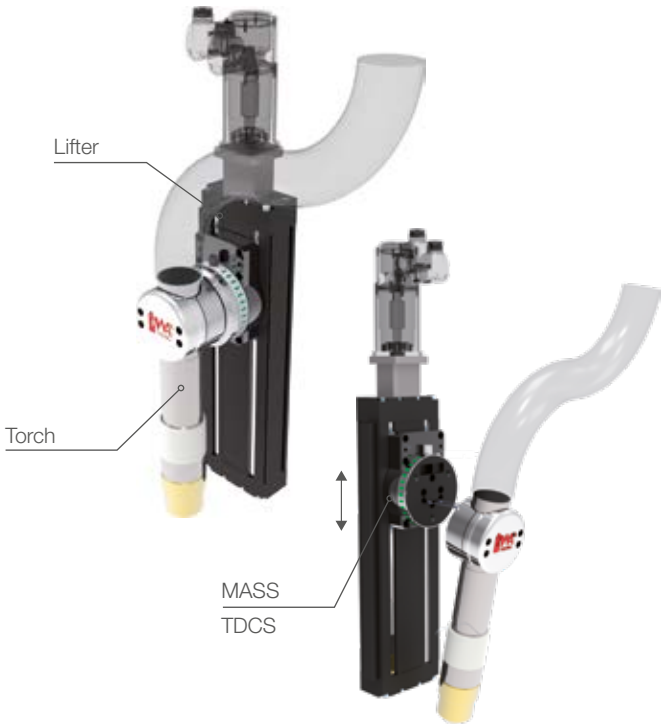
TPPC  
MASS/WJ

## WATERJET HEAD motors

The Bevel Head can be manufactured using motors and drives supplied by the Customer which will be assembled by IMA TECNO before delivery.



Waterjet Head



# L MASS

(Lifter + Magnetic Anti-Shock System)

TORCH SUPPORT complete with lifter and anti-collision system.  
SIMPLE and ECONOMICAL solution suitable both for applications on new machines and for technical upgrading of existing machines.

Description - Data		Code 30M013460	Code 30M013470
Working position	type	Vertical	
Dimension	mm	110 x 430 ~ without motor	110 x 530 ~ without motor
Vertical stroke	mm	200	300
Ball Screw	mm	Ø 16 x 5 - ISO 7	
Sensor	type	Inductive switches PNP	
Motor	type	All Customer Supply	



# TCDS

(Torch Contact Detection System)

# MASS

(Magnetic Anti-Shock System)

CARRIER for torch contact detection system (TCDS) aluminum manufacturing with labyrinth protection system, for sliding linear unit with sliding guides for total stroke 1 mm.

Torch Contact Detection System	Code 30M013850
--------------------------------	----------------

To protect the torch, **IMA TECNO** has developed an anti-collision system (MASS) applicable to the entire range of our products.

Magnetic Anti-Shock System Code 30M013990	MASS Ø 100 mm Magnetic Force ~ 120 Kg Inductive sensor
Magnetic Anti-Shock System Code 30M015140	MASS 185 Strong Ø 105 mm Magnetic Force ~ 185 Kg Inductive sensor



# AXIS

# LIFTER

Description - Data		IT 225 SERIES	IT 050 SERIES
Tilting stroke	mm	from 250 to 500	250 - 300



# DRILLING

# UNIT

Description - Data	code 10400A340	code 10400A350	code DP0190510
Dimension	170 x 140 x 660 mm without motor		250 x 230 x 750 mm without motor
Max speed	3.000 min-1		
Tools interface	ISO 40		ISO 50
	HSK C63 manual (code xxxx)		HSK 80 manual (code xxxx)
Torque	max 130 Nm		max 375 Nm
Unclamping tool holders	Pneumatic		
Tools change monitoring	Sensor PNP		
Lubrication bearings	Grease for life		
Motor	All Customer Supply		
Transmission	Belt Driven		
Frontal protection	Air 0,2 Mpa		
Cooling through the shaft	Prearranged for rotary unit		
External coolant	1 nozzle		

Spindle with and without lifter

Working	Tools Type	code 10400A340	code 10400A350	code DP0190510
Drilling	HSS	Ø min. 5 mm max 25 mm	Ø min. 5 mm max 35 mm	Ø min. 5 mm max 50 mm
	Integral Hard Metal	Ø min. 6 mm max 15 mm	Ø min. 5 mm max 25 mm	Ø min. 5 mm max 40 mm
	Insert Corondrill 880	Ø min. 25 mm max 30 mm	Ø min. 25 mm max 50 mm	Ø min. 25 mm max 60 mm
Tapping	Tap	M20	M25	M30
Steel type	Fe-530 - C40			

code 10400A210

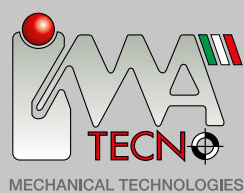
code 10400A230



code 10400A210	Description	code 10400A230
Ø 140 mm	Dimensions	Ø 222/150 mm
8000 min <sup>-1</sup>	Max speed	8000 min <sup>-1</sup>
ISO 40	Tools interface	ISO 40
External piston	Unclamping tool holders	Pneumatic through integrate piston
--	Tools change monitoring	Analogic sensor 0 - 10 v
Grease for life	Lubrication bearings	Grease for life
Customer supply	Motor	Customer supply
Radial (pulley and belt)	Transmission	External (coaxial motor)
Air 0,2 Mpa	Frontal protection	Air 0,2 Mpa
25 l/min (optional)	Cooling through the shaft	25 l/min (optional)
4 nozzles	External coolant	4 nozzles

Spindles with and without lifter

Note: for others options - see [www.imatecno.com](http://www.imatecno.com)



IMA TECNO S.R.L.

HEADQUARTERS

VIA DELLE INDUSTRIE N.°1

WAREHOUSE

VIA DELL' ARTIGIANATO N.°4

20851 LISSONE (MB) - ITALY

+39 039 2454524

**EXPLORE OUR  
METAL WORKING PROGRAM**

ELECTROSPINDLES | SPINDLES | HEADS | REPAIR and SERVICE

**imatecno.com**

