



ELECTROSPINDLES
SPINDLES
HEADS
REPAIR and SERVICE

Solutions for
MACHINE TOOLS



Our PRODUCTS

ITALY

Taylor-made

The real leverage, that has allowed IMA TECNO to progress rapidly and achieve the awareness of being able to provide added value to machine tool manufacturers, is represented by the constant attention to the future, focused on technological innovation.

In this spirit **IMA TECNO has been able to offer a high degree of operational flexibility in the realization of its products, aiming at satisfy the specific needs of the Customer.**

Thanks to the productive experience acquired in many years of activity and to the high specialization of the staff, IMA TECNO can supply an important and wide range represented by:



Electro spindles



Motorizations



Turning Spindles



RTS



RGB



Heads and Extensions



B/Y Axis



Tables HT and HS

INDUSTRY 4.0

R & D |

A young team, expertly supported by technical specialists which can guarantee its Customers a complete co-operation both in terms of solution / innovative proposals and operational support.

| MANUFACTURING

The production process is programmed on the basis of the defined deliveries with Customers and the different construction phases are strictly followed in the materials procurement phase as well as in the assembly and testing times.



SERVICE & REPAIR |

Service and repair activities are for IMA TECNO of great importance as they represent the way to confirm and maintain the quality of a product which is highly qualifying for the machine itself.

| TEST & QUALITY CONTROL

All products are tested individually according to standard specifications with any further integrations requested by Customers. Reports and certification documents are provided with the product.



| ITBS



The ITBS system allows for real-time recording and monitoring of vibration and temperature levels, facilitating diagnostics based on the analysis of these values.

The system is miniaturized and can be installed directly on the spindle that needs monitoring.

In this way it is possible not only to keep the operating conditions under control, but also to reduce machine downtime by anticipating malfunctions and suggesting the times for preventive maintenance.



Event Logbook

Enables download of Logbook events including collision, RMS and Temperature.



Spindle Check-Up

Enables spindle life time function and statistical data download.



Collision Alarm

On collision alarm ITBS digital output is activated in less than 1ms. Collision alarm and warning limits are configurable



Vibration Alarm

On vibration alarm ITBS digital output is activated in less than 1ms. Vibration alarm and warning limits are configurable



Temperature Warning

On temperature alarm ITBS digital output is activated. Temperature alarm and warning limits are configurable



Transport Monitoring

Surveillance during transportation by TMS device
(Requires 9BSF-P05M-0000 - optional)



MILLING electro spindles

The wide range of IMA TECNO milling electro spindles has been developed to meet the changing needs of working on different types of materials.

One of IMA Tecno's peculiar features is the **project and realization of products that meet specific customer requirements** in terms of spindle axis rigidity, power, torque and rotational speed.

Careful testing and running-in, carried out on each unit produced, makes it possible to provide a complete guarantee and certification of the quality of IMA TECNO product.

The milling electro spindles can be set up and customized according to the field of application on the basis of characteristics/components such as:

- Housing with or without coolant jacket
- Asynchronous/synchronous motor
- Temperature sensor control for motor and bearings
- Incremental encoder
- Vibration sensor
- High precision bearings
- Grease/Air-Oil lubricated bearings
- Bearings variable preload
- Spindle growth sensor
- Tool-holder retention
- Rotary joint
- Minimal quantity lubrication (MQL)
- External cooling nozzles
- Housing



AEROSPACE line

IMA TECNO's milling electrospindles specifically designed for **aerospace applications** are recognized and appreciated from the most important global manufacturers.

The designs are continuously oriented to implement the last recent available technologies to match the most important needs in Aerospace line:

- **High power and high speed for the machining of Aluminium, special resins and carbon fiber components.**
- **High torque and high stiffness for the machining of Titanium, Inconel and other hard materials.**

TOOLS	All up to HSKA160 - C10
BODY	up to 500 mm
POWER	up to 200 Kw
TORQUE	up to 1.500 Nm
SPEED	up to 30.000 rpm
COOLANT	up to 200 L/min

ALUMINUM machining

some models

Code	Body Diameter	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11050A080	150	12-15	6,5-8	17.700	24.000	HSK A50	grease for life
11050A060	150	18-21	9-11	18.000	35.000	HSK A50	air / oil
11050A110	160	13-16	17-22	14.000	30.000	HSK A50	air / oil
11063A470	180	44-55	33-41	13.000	20.000	HSK A63	grease for life
11063A1190	180	44-55	33-41	13.000	22.000	HSK A63	grease for life
11063A450	195	50-61	105-128	5.000	20.000	HSK A63	grease for life
11063A840	195	50-58	80-94	5.900	24.000	HSK A63	grease for life
11063A870	205	70-87	56-66	12.000	28.000	HSK A63	air / oil
11063A990	215	80-92	62-72	12.270	28.000	HSK A63	air / oil
11063A670	220	100-125	56-70	17.000	30.000	HSK A63	air / oil
11063A940	230	80-100	64-80	12.000	24.000	HSK A63	air / oil
11080A020	230	80-100	90-113	8.500	24.000	HSK A80	air / oil

TITANIUM machining

some models

Code	Body Diameter	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11100A380	250	83-90	279-375	2.890	12.000	HSK A100	air / oil
11500A010	284	63-70	500-570	1.200	8.000	ISO 50	grease for life
11100A290	285	60-74	421-519	1.356	8.000	HSK A100	air / oil
11500A270	322	63-79	334-418	1.800	12.000	ISO 50	air / oil
11500A370	322	55-61	751-1.186	711	6.000	ISO 50	air / oil
11100A300	322	74-84	609-730	1.157	8.000	HSK A100	air / oil
11100A340	322	106-113	1.098-1.546	923	6.000	HSK A100	air / oil
11100A330	322	120-126	1.121-1.578	1.030	8.000	HSK A100	air / oil
11160A010	350	138-151	1.382-1.989	968	3.500	HSK A160	air / oil



UNIVERSAL line

IMA TECNO has developed overtime **various typologies of electro spindles** particularly suitable to the different applications on machine tools dedicated to the machining of components in the following sectors:

- General mechanics
- Moulds and Dies
- Energy

some models

Code	Body Dimension	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11040A040	120	9-11	7,5-9	11.800	30.000	HSK A40	grease for life
11050A020	136	17-20	11-13	14.700	36.000	HSK A50	air / oil
11050A090	140	20-24	12-14	16.000	24.000	HSK A50	grease for life
11050A060	150	12-15	6,5-8	17.800	35.000	HSK A50	air / oil
11032A020	150x150	6,5-7,5	5,5-6	11.800	35.000	HSK E32	grease for life
11032A040	150x150	12,5-14	8-9,5	15.000	18.000	HSK E32	grease for life
11063A450	176	30-35	42-49	5.500	20.000	HSK A63	grease for life
11063A660	180	26-32	60-75	4.100	22.000	HSK A63	grease for life
11063A740	200	24-33	86-120	2.670	18.000	HSK A63	grease for life
11063A830	205	18-23	57-73	3.000	20.000	HSK A63	grease for life
11063A1050	208	28-32	89-102	3.000	24.000	HSK A63	air / oil
11063A1070	210	20-24	32-38	6.020	18.000	HSK A63	grease for life
11063A1180	210	50-63	88-111	8.150	20.000	HSK A63	grease for life
11063A1110	220	24-33	86-120	2.670	18.000	HSK A63	grease for life
11100A260	220	45-53	172-205	2.500	15.000	HSK A100	air / oil
11500A150	225	38-44	212-338	1.920	8.000	ISO 50	grease for life
11063A960	230	36-41	146-161	5.000	18.000	HSK A63	air / oil
11100A170	230	56-67	164-197	3.270	14.000	HSK A100	grease for life
11500A380	230	56-66	253-307	2.230	10.000	ISO 50	grease for life
11100A210	240	50-56	237-256	2.100	10.000	HSK A100	grease for life
11100A380	250	83-90	280-375	2.890	12.000	HSK A100	air / oil
11100A130	260	50-60	238-285	2.010	16.000	HSK A100	grease for life
11100A360	300	60-75	250-312	2.300	10.000	HSK A100	grease for life
11100A390	322	55-61	571-1.186	721	6.000	HSK A100	air / oil
11500A280	322	106-113	1.098-1.546	932	6.000	ISO 50	air / oil
11500A390	322	120-126	1.121-1.578	1.030	8.000	ISO 50	air / oil
11500A090	352	60-67	764-871	750	6.000	ISO 50	air / oil

Other models size available on request



TOOLS	All up to HSKA100 - ISO50
BODY	up to 300 mm
POWER	up to 100 Kw
TORQUE	up to 400 Nm
SPEED	up to 24.000 rpm
COOLANT	up to 100 L/min

E line

IMA TECNO **E Line** milling electro spindles has been developed in particular for application on **machining centers**, where the quality of machining, and a high cost efficiency are very appreciated features.



code 11063A550

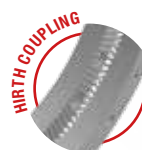


code 11050A050

some models

Code	Body Dimension	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11050A050	180x200	19-24	31-40	5.860	30.000	HSK A50	air / oil
11063A950	210	18-22	80-98	2.160	18.000	HSK A63	grease for life
11063A820	220	33-39	120-144	2.630	12.000	HSK A63	grease for life
11400A170	222	18,5-24	98-130	1.810	15.000	ISO 40	grease for life
11063A760	222	19-24	95-126	2.750	24.000	HSK A63	air / oil
11400A110	222	20-22	114-127	1.670	15.000	ISO 40	grease for life
11063A550	222	20-22	117-127	1.650	15.000	HSK A63	grease for life
11063A860	222	55-62	164-184	3.270	12.000	HSK A63	air / oil
11100A400	222	55-62	164-184	3.270	10.000	HSK A100	grease for life
11400A220	222	55-62	164-184	3.270	12.000	ISO 40	grease for life
11500A410	222	55-62	164-184	3.270	12.000	ISO 50	grease for life
11063A1060	222	65-70	117-164	5.400	24.000	HSK A63	air / oil
11400A200	250	30-38	151-193	1.900	12.000	ISO 40	grease for life

Other models size available on request



code 11063A770

MILLING/TURNING electro spindles

TOOLS	All up to HSKA160 - C10
BODY	up to 500 mm
POWER	up to 200 Kw
TORQUE	up to 1.500 Nm
SPEED	up to 20.000 rpm
COOLANT	up to 200 L/min

To match the requirement for multi-functional machines with one only set up of the workpiece (higher quality and lower manufacturing costs), IMA TECNO offers solutions with **milling/turning functions**. In this case the high rigidity in turning operation is granted **by a mechanical clamping system of the axis** by means of toothed rings that can be implemented on all range of milling electrospindles. The one below is only a partial list of the most popular manufactured models.

some models

Code	Body Diameter	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11063A770	230	56-60	164-196	3.270	8.000	HSK A63	grease for life
11500A100	250	28-34	253-303	1.080	4.000	ISO 50	grease for life
11100A240	250	83-90	279-375	2.890	12.000	HSK A100	air / oil
11500A020	284	63-70	500-570	1.200	8.000	ISO 50	air / oil
11100A150	284	63-70	500-570	1.200	8.000	HSK A100	air / oil
11500A250	322	55-61	760-1.070	700	8.000	ISO 50	air / oil
11022A080	322	55-61	760-1.070	700	6.000	CAPTO C8	air / oil
11022A060	322	106-113	1.100-1.546	923	6.000	CAPTO C8	air / oil

Other models size available on request

TOOLS	All up to ASA 15
BODY	up to 1.000 mm
POWER	up to 100 Kw Built in Asy/Syn
TORQUE	up to 1.000 Nm
SPEED	up to 6.000 rpm

TURNING electro spindles & spindles

The high number of units produced with a complete range of electro spindles and spindles for **turning machines**, allows IMA TECNO to offer many solutions, taking into account few variables, such as:

- Chuck interface
- Type of driving
- Type of motor
- Supports for cylinders



Electrospindle ASA 8"



Electrospindle ASA 11"

ELECTRO SPINDLES

some models

Code	ASA	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Hole Shaft	Lubrication
	inch	kW	Nm	rpm	rpm	mm	type
11006A060	6	14-16	105-168	1.300	6.000	68	grease for life
11006A040	6	27-34	195-250	1.300	6.000	72	grease for life
11008A010	8	24-37	285-370	910	3.000	45,5	grease for life
11011A010	11	27-34	172-216	1.500	6.000	50	grease for life
11011A040	11	34-40	216-259	1.500	5.000	50	grease for life
11011A140	11	47-56	430-510	1.050	3.200	50	grease for life
11011A190	11	76-90	556-660	1.314	3.000	75	grease for life
11011A150	11	63-80	430-546	1.400	3.500	50	hydrostatic

Other models size available on request

SPINDLES

some models

Code	ASA	Torque S1	Max Speed	Hole Shaft	Lubrication
	inch	Nm	rpm	mm	type
10005A010	5	200	6.000	61	grease for life
10006A020	6	250	5.000	77	grease for life
10008A050	8	300	3.500	91	grease for life
10011A200	11	1.500	3.000	75	grease for life
10015A130	15	2.500	2.000	-	grease for life



Spindle ASA 15"

DW line



code 11063A240

The search for careful and **high standardization** has allowed IMA TECNO to consolidate production of the **DW Line** model range.

This is particularly effective and reliable for **24h/day machining operations** and where a **high number of tool changes is necessary**.

In some cases the electro spindle is designed with prolonged nose particularly suitable for deep hole drilling operations.

some models

Code	Body Diameter	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11063A400	180	14,5-22	68-80	2.030	12.000	HSK A63	grease for life
11063A070	180	15-17,5	36-42	4.000	12.000	HSK A63	grease for life
11063A240	180	17-19	65-73	2.520	12.000	HSK A63	grease for life
11063A1130	180	17-19	65-73	2.520	15.000	HSK A63	grease for life
11063A1140	200	21-26	80-102	2.500	12.000	HSK A63	grease for life
11400A190	200	21-26	80-102	2.500	15.000	ISO 40	grease for life

Other models size available on request

ELECTRO SPINDLES robot application

some models

Code	Power S1-S6	Torque S1-S6	Max Speed	Tool Interface	Lubrication
	kW	Nm	rpm	type	type
11040A040	8-9,5	5-6	15.000	HSK A40	grease for life
11063A070	15-17,5	36-42	12.000	HSK A63	grease for life
11063A240	17-19	65-73	12.000	HSK A63	grease for life
11063A540	21-26	80-102	12.000	HSK A63	grease for life

Other models size available on request



code 11063A240





code 11063A900

TOOLS	All up to HSKA63 - ISO40
BODY	up to 300 mm
POWER	up to 50 Kw
TORQUE	up to 100 Nm
SPEED	up to 24.000 rpm
COOLANT	up to 80 L/min

HORIZON line

IMA TECNO electro spindles of the **HORIZON line** have been developed for particular use in the **automotive sector** where performance and reliability are essential conditions. These types of electro spindles are characterized **by very high dynamics in terms of rotation and tool change.**

some models

Code	Body Diameter	Power S1-S6	Torque S1-S6	Nominal Speed	Max Speed	Tool Interface	Lubrication
	mm	kW	Nm	rpm	rpm	type	type
11400A140	150	11-13	17-20	6.000	16.000	ISO 40	grease for life
11063A900	170	30-37	30-38	9.450	24.000	HSK A63	air / oil
11063A910	170	30-37	30-38	9.450	18.000	HSK A63	grease for life
11063A930	180	18-24	59-80	2.910	16.000	HSK A63	grease for life
11063A700	180	20-30	48-73	4.010	12.000	HSK A63	grease for life
11063A610	180	22-30	53-73	4.000	12.000	HSK A63	grease for life
11063A1090	220	25-30	34-41	7.000	16.000	HSK A63	grease for life
11063A420	260	27-33	89-102	2.900	15.000	HSK A63	air / oil
11063A410	262	19-22	165-195	1.100	15.000	HSK A63	grease for life

Other models size available on request



code 16000A180

GRINDING electro spindles for lathes

This product line is divided into **internal and external grinding** electro spindles.

TOOLS	All up to HSKA125
BODY	up to 300 mm
POWER	up to 50 Kw
TORQUE	up to 400 Nm
SPEED	up to 16.000 rpm
COOLANT	up to 100 L/min

Based on the specific needs of the customer, Ima Tecno has developed various applications that can be grouped in two main categories:

- Grinding electro spindles generally applied on others than grinding machines (like lathes).
- Grinding electro spindles for grinding machines.

For both solutions many units have been delivered to important manufacturers in the field.

Our electrospindles can be equipped, on request, with different types of balancing systems according to the needs.

some models

Code	Body Dimension	Power S1	Torque S1	Max Speed	Wheel Interface	Wheel Diameter	Lubrication
	mm	kW	Nm	rpm	type	mm	type
16000A290	240/140	5	16	6.000	tapered	300	grease for life
16000A270	200	5	32	3.000	tapered	350	grease for life
16000A170	225	5	32	2.800	tapered	400	grease for life
16000A230	225	7,5	48	2.500	tapered	400	grease for life
16000A190	230	7,5	51	2.800	tapered	400	grease for life
16000A180	230	7,5	51	2.500	tapered	500	grease for life
16000A100	230	10	64	3.000	tapered	500	grease for life
16000A250	400x360	30	285	1.500	tapered	650	grease for life

Other models size available on request

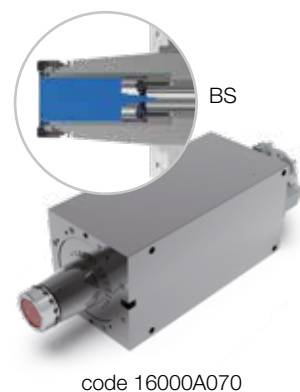


GRINDING electro spindles for grinding machines

GRINDING electro spindles - AWC

some models

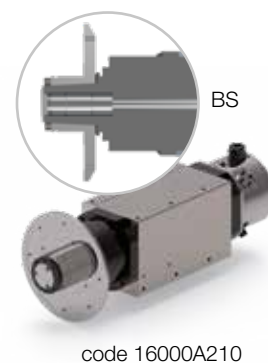
Code	Power S1	Torque S1	Max Speed	Wheel Interface	Lubrication
	kW	Nm	rpm	type	type
11063A440	9	34	6.000	HSK A63	grease for life
16063A050	12	20	8.000	HSK C63	grease for life
16063A060	15	30	10.000	HSK C63	grease for life
11100A110	15	102	3.000	HSK E100	grease for life
16063A030	17	65	12.000	HSK C63	grease for life
16063A070	18	16	16.000	HSK A63	grease for life
16000A070	22	300	3.000	tapered	grease for life
16000A200	25	96	6.000	HSK E100	grease for life



GRINDING electro spindles

some models

Code	Power S1	Torque S1	Max Speed	Wheel Interface	Lubrication
	kW	Nm	rpm	type	type
16000A280	1,5	1,5	10.000	tapered	grease for life
16000A300	2,5	20	3.000	tapered	grease for life
16000A060	12	39	6.000	tapered	grease for life
16045A010	15	36	12.000	tapered	grease for life
16000A130	17	65	12.000	tapered	grease for life
16000A210	24	56	12.000	tapered	grease for life
16000A310	36	330	3.000	cylindrical	grease for life



DRESSING electro spindles

some models

Code	Power S1	Torque S1	Max Speed	Wheel Interface	Lubrication
	kW	Nm	rpm	type	type
16000A260	0,3	0,3	10.000	cylindrical	grease for life
16000A040	0,9	1	10.000	cylindrical	grease for life
16040A010	1,6	1	15.000	cylindrical	grease for life
16000A050	1	4,8	10.000	cylindrical	grease for life



Other models size available on request

BODY	up to 500 mm
POWER	up to 500 Kw
TORQUE	up to 2.000 Nm
SPEED	up to 10.000 rpm
COOLANT	up to 200 L/min

MOTORIZATIONS

To simplify the mechanical solutions, IMA TECNO has introduced a **range of motorizations for motion transmission in mechanical milling heads, speed changes or directly applicable in the RAM of the machine.** In assense systems with high power and torque in extremely compact sizes allow great advantages for the machine overall dimensions and very simple RAM assembly.



code 11900A320

some models

Code	Body Diameter	Power S1	Torque S1	Nominal Speed	Max Speed	Lubrication
	mm	kW	Nm	rpm	rpm	type
11900A480	240	40	250	1.520	8.000	grease for life
11900A420	260	30	503	573	6.000	grease for life
11900A320	260	52	422	1.187	8.000	grease for life
11900A530	260	100	412	2.375	6.000	grease for life
11900A430	262	65	404	1.562	6.000	grease for life
11900A380	262	98	409	2.384	6.000	grease for life
11900A470	265	34	621	524	6.000	grease for life
11900A360	300	60	400	1.460	8.000	grease for life
11900A310	300	76	537	1.368	6.000	grease for life
11900A270	300	82	653	1.200	4.500	grease for life
11900A130	322	62	751	804	4.500	grease for life
11900A180	340	75	1.688	430	2.400	grease for life
11900A490	350	64	1.020	603	6.000	grease for life
11900A290	350	80	585	1.300	4.500	grease for life
11900A300	350	115	810	1.306	4.500	grease for life
11900A500	403	215	3.230	635	2.500	grease for life

Other models size available on request



Product developed in partnership with



HSE range with:

Max Speed: from 7.000 to 4.000 rpm

Nominal torque: from 1.250 to 5.000 Nm

HS range with:

Max Speed: from 6.000 to 4.000 rpm

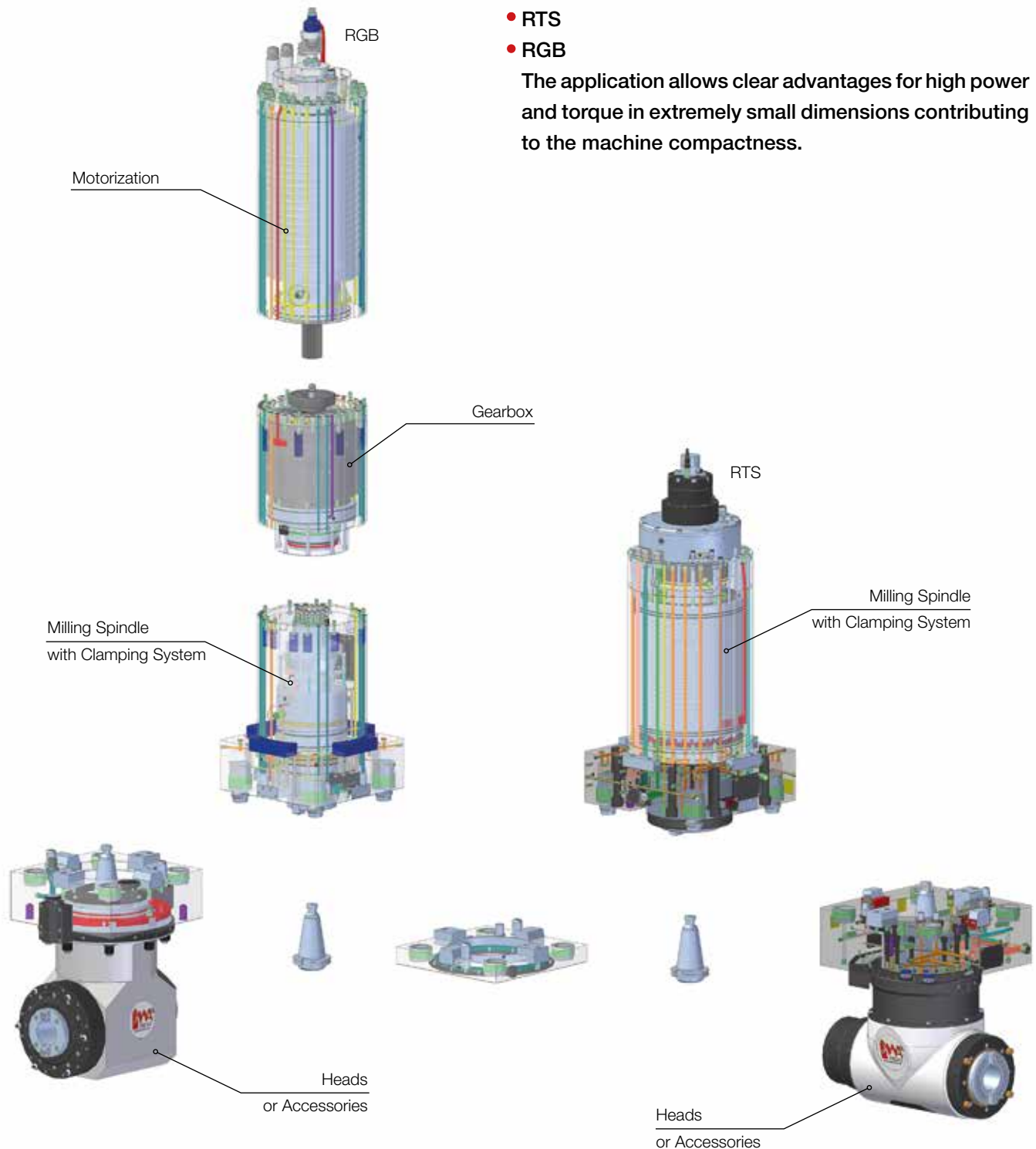
Nominal torque: from 5.500 to 16.000 Nm

| RAM solution

The IMA TECNO response to manufacturers' need to up-date the solutions of the past is the introduction of two range of products that simplify the transmission of motion or even become the RAM of the machine themselves:

- RTS
- RGB

The application allows clear advantages for high power and torque in extremely small dimensions contributing to the machine compactness.



RTS Ram Torque Spindle

TOOLS	All
BODY	up to 350 mm
POWER	up to 120 Kw
TORQUE	up to 1.500 Nm
SPEED	up to 10.000 rpm
COOLANT	up to 100 L/min

RTS models are an extension of the motorizations that can be equipped with a very wide range of accessories (heads, grinding extensions, turning turrets, etc...), by an automatic attachment system, while maintaining extremely compact dimensions of the RAM. **RTS can be used in different machine configurations** (vertical lathes, horizontal milling and gantry) **and for multitasking operations** (turning, milling, drilling and grinding), **allowing a very high flexibility level**. Last but not least, the ease of assembly and maintenance on the machine with:

- **Quick connections and couplings positioned at the top of the RAM.**
- **Possibility of easy and quick removal of the spindle from the front of the RAM.**



code 11500A480



code 11100A390

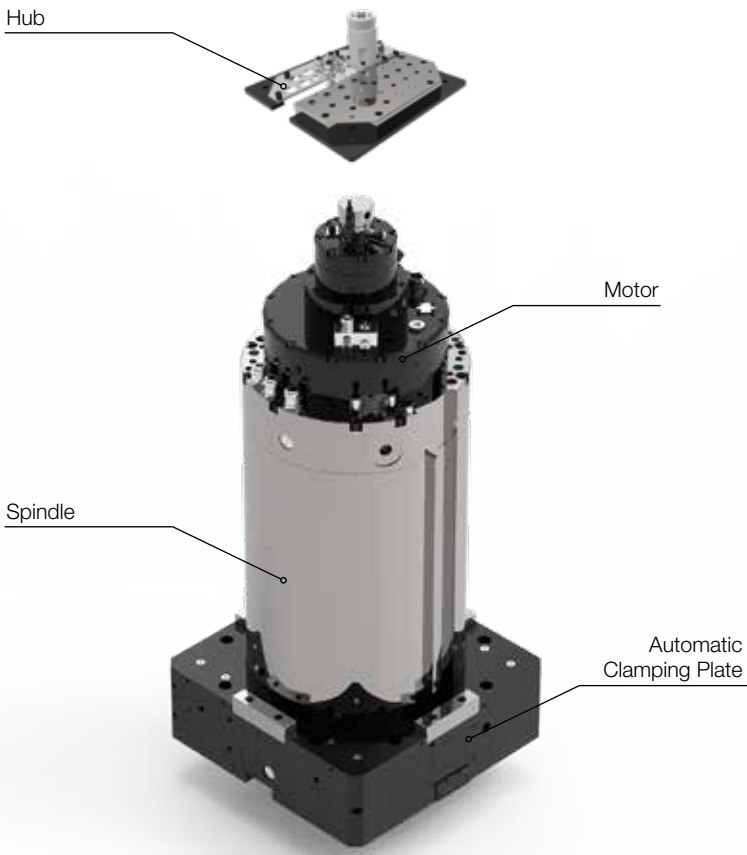
Description - Data		RTS 800	RTS 1000	ON REQUEST
SPINDLE MOTOR DATA	Body Diameter	mm	325	325
	Motor Power S1-S6 60%	kW	65-70	106-113
	Motor Torque S1-S6 60%	Nm	800-1.165	1.100-1.546
	Nominal Motor Speed	rpm	770	923
	Motor Cooling	type	Water + Glycol	
	Measuring System	type	by Encoder	
SPINDLE DATA	Max Motor Speed	rpm	up to 6.000	up to 6.000
	Tool Interface	type	ISO 50 - BT 50 - HSK A100	
	Bearings	type	Hybrid High Accuracy	
INTERFACE PLATE DATA	Bearings Lubrication	type	Grease for Life	
	Accessories Interface	type	Automatic Clamping / Unclamping System	
	Clamping Device	mm	HYDRODOCK	
	Plate Dimension	mm	up to 350 x 350	up to 400 x 400
	Presence Monitoring	type	by Air	
	Identification	type	Baluff BIS C-306-01	
	Face Cleaning	type	by Compresses Air	

power
up to 120
kW

torque
up to 1.500
Nm

speed
up to 15.000
rpm

Various
accessories
interface



Fork Head



90° Extension Head



90° Head



Milling Cover



TOOLS ACCESSORIES



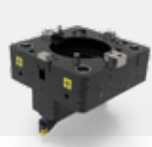
Grinding Extension



Grinding Extension Head



Milling Tool



Automatic Turning Block



Fixed Turning Block

RGB Ram Gear Box



code 11500A350



code 11500A360

The **RGB** system (Ram Gear Box) is the most **complete solution** within this family, with important technological contents, that combines **high torque performance in small dimensions** particularly appreciated for vertical (gantry or double column) **and horizontal axis machine tools**.

The general characteristics are similar to the RTS products:

- **Automatic attachment system for the accessories** (like heads or extensions).
- **Multitasking machining operations**
- **Easiness of assembly and maintenance** on the machine with:
- **Quick connections and couplings positioned at the top of the RAM.**
- **Possibility of easy and quick extraction of the spindle from the front of the RAM.**

	Description - Data		RGB 1000	RGB 2000	RGB 3000	RGB 7000
SPINDLE MOTOR DATA	Body Diameter	mm	220	290	up to 330	up to 400
	Motor Power S1-S6 60%	kW	35-46	65-78	75-97	110-137
	Motor Torque S1-S6 60%	Nm	200-240	400-480	600-740	1.400-1.750
	Nominal Motor Speed	rpm	1.700	1.600	1.200	750
	Motor Cooling	type	Water + Glycol			
	Measuring System	type	by Encoder			
GEAR BOX DATA	Max Motor Speed	rpm	up to 10.000	up to 8.000	up to 6.000	up to 4.000
	Ratio G1	n	1:1	1:1	1:1	1:1
	Torque G1 S1	Nm	200	400	600	1400
	Nominal Speed G1	rpm	1.700	1.600	1.200	750
	Max Speed G1	rpm	up to 8.000	up to 6.000	up to 5.000	up to 3.500
	Ratio G2	n	1:5	1:5	1:5	1:5
	Torque G2 S1	Nm	1000	2.000	3.000	7.000
	Nominal Speed G2	rpm	340	320	240	150
SPINDLE DATA	Max Speed G2	rpm	1.600	1.200	1.000	700
	Tool Interface	type	ISO 50 - BT 50 - HSK A100			ISO 60 - BT 60 - HSK A160
	Bearings	type	Hybrid High Accuracy			
INTERFACE PLATE DATA	Bearings Lubrication	type	Grease for Life			
	Accessories Interface	type	Automatic Clamping / Unclamping System			
	Clamping Device	mm	HYDRODOCK			
	Plate Dimension	mm	up to 350 x 350	up to 450 x 450	up to 450 x 450	500 x 500
	Presence Monitoring	type	by Air			
	Identification	type	Baluff BIS C-306-01			
	Face Cleaning	type	by Compresses Air			

power
35>110
kW

max torque
1000>7000
Nm

max speed
8000>3500
rpm

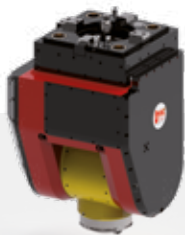


Motor
gearbox
spindle
4-size

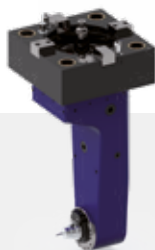
Shifting
gearbox
i = 1
i = 5

Various
accessories
interface

Fork Head



90° Extension Head



Y Axis



Turning Tool



TOOLS ACCESSORIES

Grinding Head



Extension Head



Milling Tool



90° Head ATC



90° Index Head





HEADS with electro spindles

A wide experience acquired with the realization of different heads, with **1 and 2 continuous axes**, allows IMA TECNO to be in the best position as supplier of such products, which is offered in 3 sizes:

- **Small** - particularly suitable for light machining (e.g. resins - aluminium)
- **Medium** - excellent compromise between high stock removal rates, high rigidity as well as high precision of movement
- **Large** - maximum stock removal capacity guaranteed by a strong construction.

The motion of the axes can be achieved through different solutions such as:

- **Gear motor**
- **Torque motor**
- **Double pinion with back lash**



2 AXES (C-A)		SMALL		MEDIUM		LARGE		1 AXIS	ON REQUEST			
Travel Stroke Axis	°	±45	±120	±270	±125	±275	+95		°	-	+90 -100	±45
Axis Torque	Nm	568	200	480	460	2.400	2.400		Nm	-	620	620
Max Torque	Nm			700	700	3.500	3.500		Nm	-	-	-
Positioning	"	±7		±5		±5			"	-	±5	±5
Repeatability	"	±4		±3		±3			"	-	±3	±3
ELECTRO SPINDLE									ELECTRO SPINDLE			
Power S1	kW	30		50		35			kW	16	15	15
Torque S1	Nm	42		100		500			Nm	18	15	30
Nominal Speed	rpm	6.800		5.900		1.520			rpm	8.700	9.500	5.000
Max Speed	rpm	20.000		28.000		16.000			rpm	15.000	15.000	7.000
Tool Interface	type	HSK A63		HSK A63		ISO 50			type	CAPTO C6	CAPTO C6	Tapered
Lubrication	type	grease for life		grease for life		grease for life			type	grease for life	grease for life	grease for life

| MECHANICAL HEADS

A wide range of mechanical heads can be the ideal solution for **applications on gantry machines** and **vertical lathes** directly on the **machine RAM**.

IMA TECNO solutions are divided into:

- **Angle heads either with continuous or indexed axis**
- **Fixed 90° angle heads**
- **Fork heads**
- **Extension heads either with straight or 90° axis output**
- **45° universal heads**

Tool change can be automatic or manual.

Working torque up to 2500 Nm.



some models

HEAD TYPE	FIXED	INDEX	FORK
Positioning or Stroke	-	1° - 2,5°	±105° - 95°
Power (from machine)	(25-30) kW	(25-30) kW	(30) kW
Torque (S1)	1.000 Nm	1.200 Nm	800 Nm
Max Speed	3.000 rpm	3.000 rpm	3.000 rpm
Tool Change	automatic	automatic	automatic
Lubrication	grease for life	grease for life	grease for life



some models

HEAD TYPE	EXTENSION	90° EXTENSION	UNIVERSAL 45°
Positioning or Stroke	-	-	+180° -135°
Power (from machine)	(25-30) kW	(25-30) kW	(35) kW
Torque (S1)	1.000 Nm	1.000 Nm	1.500 Nm
Max Speed	2.000 rpm	3.000 rpm	3.000 rpm
Tool Change	manual	manual	automatic
Lubrication	grease for life	grease for life	grease for life - air / oil

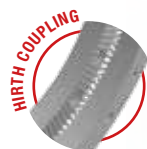


| B/Y-Axis

To improve the 5-axis capability of the machine, IMA TECNO has introduced Milling-Turning heads enables to perform work from various angles on the side or end of a part held in a main or subspindle with the needed speed, accuracy and rigidity. **The systems are driven by torque motors and the turning operations are granted by front gear.** It is also possible to mount an **extensive range** of electrospindles to perform the most demanding machining at the best.



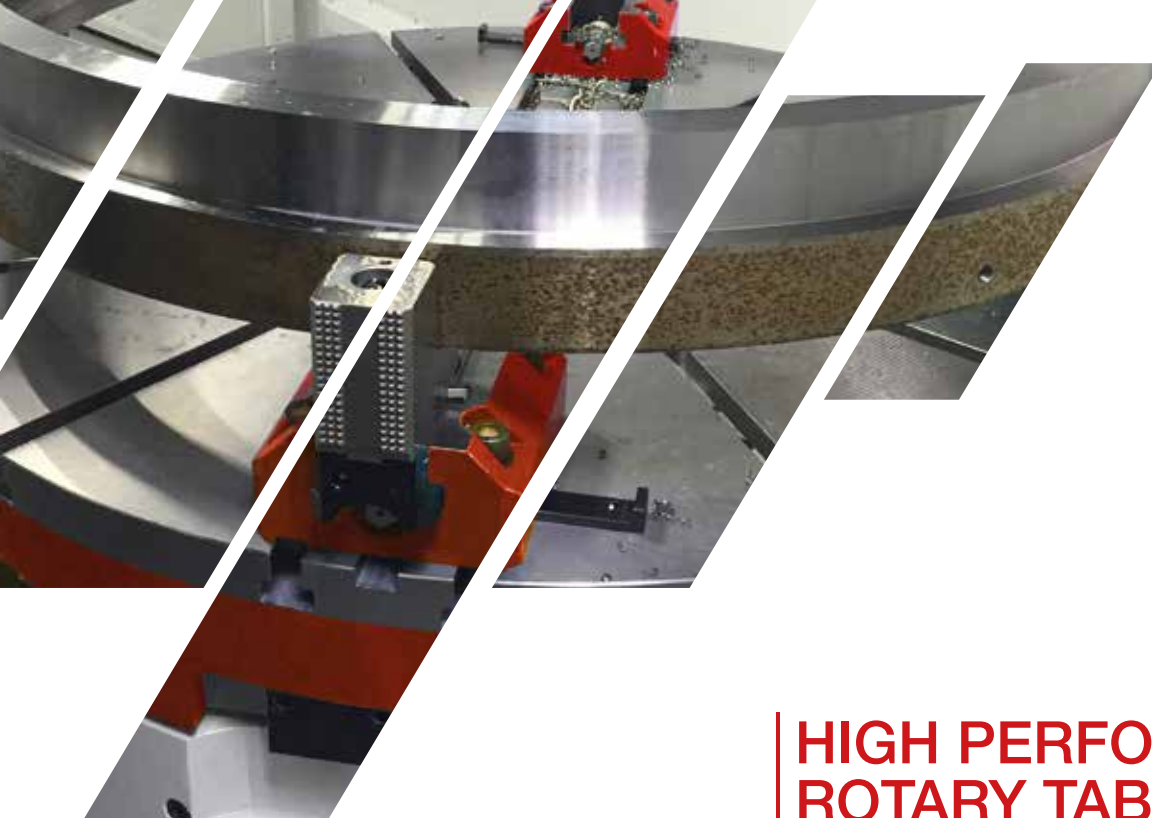
B AXES HIRTH COUPLING			17000A010		17000A050
Axis Stroke	±120	°	±270	°	±120
Motor Type	Synchronous	type	Synchronous	type	Synchronous
Power	53	kW	25	kW	18
Nominal Torque	497	Nm	744	Nm	1.537
Max Torque	711	Nm	1.320	Nm	2.090
Positioning	±8	"	±8	"	±8
Repeatability	±4	"	±4	"	±4
ELECTRO SPINDLE					
Power S1	25	kW	56	kW	85
Torque S1	55	Nm	306	Nm	531
Nominal Speed	4.300	rpm	1.791	rpm	1.550
Max Speed	16.000	rpm	6.000	rpm	6.000
Tool Inteface	HSK T63	type	CAPTO C10	type	CAPTO C8
Lubrication	grease for life	type	grease for life	type	grease for life



B AXES HIRTH COUPLING			
Axis Stroke	±120	°	±120
Motor Type	Synchronous	type	Synchronous
Power	18	kW	18
Nominal Torque	1.537	Nm	1.537
Max Torque	2.090	Nm	2.090
Positioning	±8	"	±8
Repeatability	±4	"	±4
SPINDLE			
Torque S1	1.300	Nm	1.300
Max Speed	3.000	rpm	4.000
Tool Interface	CAPTO C8	type	CAPTO C8
Lubrication	grease for life	type	grease for life



B/Y AXIS	17000A020		19022A030		17000A040	
Axis Stroke	±180	°	±180	°	360° continuous	
Motor Type	Asynchronous	type	Synchronous	type	Synchronous	
Power	37	kW	21	kW	20	
Nominal Torque	1.178	Nm	484	Nm	98	
Max Torque	-	Nm	878	Nm	550	
Positioning	-	"	±8	"	-	
Repeatability	-	"	±4	"	-	
	SPINDLE					
Torque S1	-	Nm	560	Nm	250	
Nominal Speed	300	rpm	-	rpm	-	
Max Speed	2.970	rpm	3.000	rpm	3.000	
Tool Inteface	ISO 50	type	CAPTO C8	type	HSK A63	
Lubrication	grease for life	type	grease for life	type	grease for life	



HIGH PERFORMANCES ROTARY TABLES

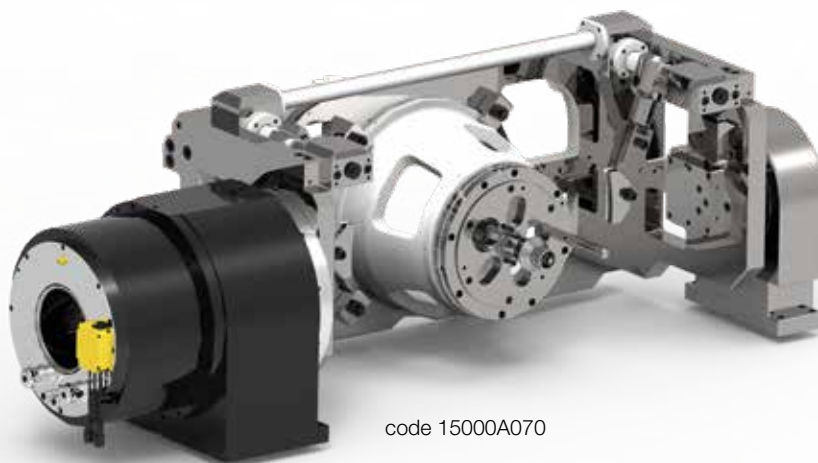
IMA TECNO has implemented the availability of **rotary tables** with high performances tailor-made models to satisfy the most demanding operations in terms of torque and speed, particularly for **automotive** and **heavy duty applications**.



code 15000A060

Code	Power S1	Torque S1	Max Speed	Max Tables Ø
	kW	Nm	rpm	mm
15000A070	8	1.200	150	350
15000A050	63	4.000	1.200	1.000
15000A060	75	9.000	350	1.500
15000A090	63	15.000	400	1.500

Other models size available on request



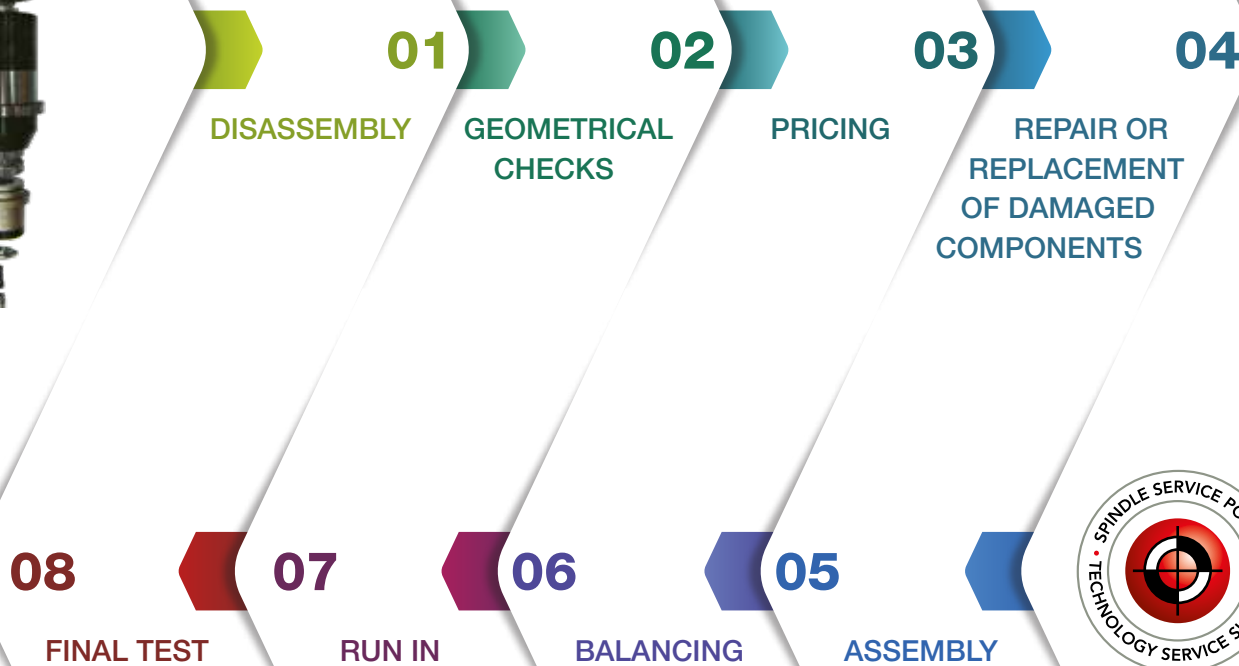
code 15000A070



REPAIR service

The IMA TECNO After Sales Service, initially born as technical support for its products, over the years has refined its experience by guaranteeing a service on all the brands on the market, from partial to complete repair of spindles and electro-spindles for milling, grinding and boring, drilling and turning.

OPERATIONAL steps





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 PRODUCT LINES

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- **Ball Screw Support** / Standard and Heavy-duty
- **Repair and Service** / All Brands



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