BARUFFALDI
MACHINE TOOL COMPONENTS

The Partner for Machine Tool Builders

TAN Vertical Axis Electromechanical Turrets guide

Catalogo torrette elettromeccaniche ad asse verticale TAN

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Rev. 2019

BARUFFALDI – Since 1927

90 years of Italian mechanical excellence

1927

Eng. Cesare Boffelli

Baruffaldi was founded in Milano (Italy) by Cesare Boffelli, a qualified mechanical engineer, in 1927

1932

Motorcycle Certum from '30s

The Company started the production of brakes for motorcycles in the '30s

1955

Baruffaldi Catalog

In the '50s Baruffaldi expanded its business area manufacturing brakes and clutches for several industrial applications

1972

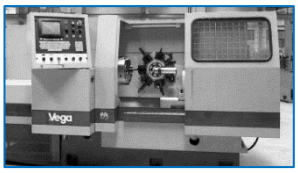
Fiat Truck '70s

With high technology knowledge in brake and clutches The Company became a partner of truck manufacturers

BARUFFALDI

1975

In the '70s it began the production of components for Machine Tool industry



PPL "Galaxy" turning lathe '70s

1984

Baruffaldi entered the agricultural and textile machines industries

Agricultural Tractor '80s

2007

Baruffaldi reorganized the company into 2 new production units located in Milan area. The total covered area is 25.000sqm

Baruffaldi Production Units

Today Baruffaldi, with over 90 years of experience, is one of the leaders in the Machine Tool Industry offering high quality products and services worldwide.

Oggi Baruffaldi, con oltre 90 anni di esperienza, è una dei leader del settore delle Macchine Utensili offrendo prodotti di alta qualità e servizi in tutto il mondo.

Baruffaldi, The Partner for Machine Tool Builders

TAN Vertical Axis Electromechanical Turrets - Introduction

TAN Torrette Elettromeccaniche ad Asse Verticale - Introduzione

TAN series turrets consist of a fixed basis and a rotating head both of hardened and grinded steel.

Thanks to an innovative **electromechanical system** a single motor controls the phases of release, of rotation of positioning and locking.

These turrets can be mounted with the axis in horizontal, vertical or slanting position.
It is possible furthermore to select any work station without necessity of stopping in the intermediate stations.

Turrets are normally built for carrying 4 tools as per **DIN norms 69881**; on demand they can be supplied with a different number of faces.

Main Characteristics:

- High rigidity due to the turret design
- Fully electromechanical
- Mono-directional
- Easy interfacing with the machine CNC
- Strong AC motor available
- Input voltage: 110V-220V or 400V
- Input frequency: 50 or 60Hz
- Sensor to detect locking and unlocking status
- Turret tool holder body with 4 positions or, upon request, with special body.
- Coolant output flow through valve on the body side (for coolant through tool holder)

Le torrette della serie **TAN** sono costituite da una base fissa e da una testa rotante entrambe in acciaio temprato e rettificato.
Grazie a un completo **sistema elettromeccanico** un unico motore comanda le fasi di sblocco, di rotazione, di posizionamento e di bloccaggio.

Queste torrette possono essere montate su macchine in posizione orizzontale, verticale o inclinato.
È possibile inoltre selezionare qualsiasi stazione di lavoro senza necessità di sosta nelle stazioni intermedie.

Le torrette sono normalmente costruite per portare 4 portautensili, secondo norme **DIN69881**; a richiesta possono essere fornite con un numero diverso di lati.

Caratteristiche principali:

- Altissima rigidità
- Completamente elettromeccanica
- Mono-direzionale
- Facile interfaccia con il CNC della macchina
- Robusto motore
- Voltaggi motore: 110V-220V-400V
- Frequenze motore: 50 o 60Hz
- Sensore per verifica bloccaggio e sbloccaggio torretta
- Corpo portautensili a 4 posizioni o, su richiesta, con corpi portautensili speciali
- Uscita refrigerante attraverso valvole laterali (per uscita refrigerante attraverso il portautensile)

Technical data / Dati tecnici

TAN Turrets - Technical Data

Torrette TAN - Dati Tecnici

Size *Taglia*		**TAN160**	**TAN210**	**TAN265**	**TAN340**	**TAN440**
N° of stations (standard) *N° di posizioni (standard)*		4				
Direction of rotation *Direzione di rotazione*		Mono-directional *Mono-direzionale*				
Max Moment of Inertia *Momento d'inerzia massimo*	kgm²	1	3	8	21	55
Max admitted weight to be carried *Massimo peso trasportabile*	Kg	35	75	120	220	320
Max Tangential Torque *Massima coppia tangenziale*	Nm	1100	1800	3600	12000	
Positioning Accuracy *Precisione di posizionamento*	deg.	±6"				
Accuracy of Repeatability *Precisione di ripetibilità*	deg.	±2"				
Indexing motor voltage *Tensione alimentazione motore*	V	110-220-380-440				
Indexing motor frequency *Frequenza alimentazione motore*	Hz	50-60				
Max coolant pressure (standard) *Massima pressione refr. (standard)*	bar	10				
Locking+unlocking time* *Tempi aperture/chiusura**	sec.	1.1	1.2	1.5	2.1	2.4
Minimum rotation time* **360°** *Tempi rotazione minimi**		1.6	4	5	7.5	10
Indexing frequency *Frequenza cambio utensile**	n°/h	500	300	300	190	150
Ambient temperature range *Temperatura ambiente*	°C	0-40				
Turret weight *Peso torretta*	Kg	31	62	116	265	430
Protection degree *Gradi di protezione*	IP	65				

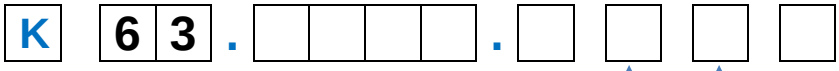
*The times could change according to the electrical configuration and characteristic of the machine

*I tempi possono variare a seconda della configurazione e delle caratteristiche dell'impianto elettrico della macchina

TURRET SIZE *Taglia torretta*	*N° OF DIVISIONS* *Numero di divisioni*	*Code*	
		WITH COOLANT VALVES Con Valvoline refrigerante	WITH COOLANT VALVES Con Valvoline refrigerante
160	4	**5951**	**/**
210	4	**5998**	**6923**
265	4	**5999**	**6924**
340	4	**4782**	**6718**
440	4	**6719**	**4777**

NUMBER OF DIVISIONS *Numero di divisioni*	*Code*
4	**6**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****

VERSION *Versione*	*Code*
STANDARD	**0**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****



MOTOR VOLTAGE *Voltaggio motore*	*MOTOR FREQUENCY* *Frequenza motore*	*Code*
110V	50hz	**0**
110V	60Hz	**1**
220V	50hz	**4**
220V	60Hz	**6**
380V	50hz	**2**
380V	60Hz	**8**
440V	50hz	**5**
440V	60Hz	**3**
480V	60Hz	**7**

POSITIONING *Posizionamento*	*Code*
WITH SELECTOR SWITCH Con selettore multipolare	**0**
WITH ENCLODER (on request) Con encoder (su richiesta)	**2**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****

TAN Turrets - Function description

Torrette TAN - Descrizione di funzionamento

The turret rotates and positions thanks to an internal AC Motor (M) that controls the unlocking movement, rotation, positioning and locking.

When a tool change is required the Magnetic Brake (B) is released, the Motor (M) rotates counterclockwise unlocking an internal mechanism and the turret Hirth Coupling (H).

Once the turret is unlocking the Sensor (S) indicates the unlocking status keeping the motor in rotation, the turret Tool Holder Body (T) start to rotates.

Once the signal of the required position is detected by the Positioning Switch (P), the Motor (M) reverses the rotation, to clockwise direction, locking the turret.

The Sensor (S) is activated indicating the locking status of the unit, the tool change position is achieved and the Magnetic Brake (B) can be activated.

Now the turret is ready for turning operations!!!

La torretta ruota e si posiziona grazie a un Motore (M) AC interno che controlla le fasi di sblocco, rotazione, posizionamento e blocco torretta.

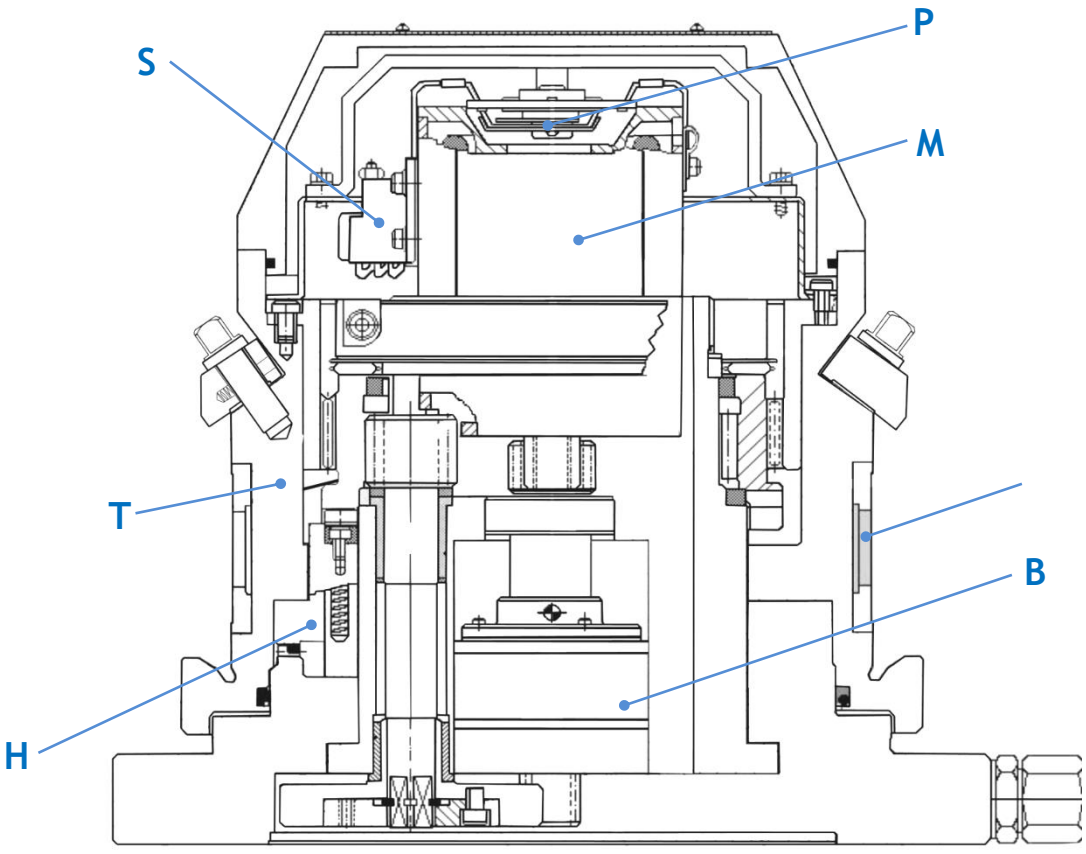
Quando è richiesto un cambio utensile il Freno Magnetico (B) viene rilasciato, il Motore (M) ruota in senso antiorario sbloccando un meccanismo interno e le Corone Hirth della torretta (H).

Una volta sbloccata la torretta, il Sensore (S) indicherà l'effettivo stato di torretta sbloccata mantenendo il motore in rotazione e facendo girare il Corpo Portautensile (T).

Una volta attivato il segnale di posizione richiesta generato dal Selettore (P), il Motore (M) inverte la rotazione in senso orario bloccando la torretta.

Il Sensore (S) si attiva indicando l'effettivo bloccaggio dell'unità, il posizionamento è quindi avvenuto e il Freno Magnetico (B) può essere attivato.

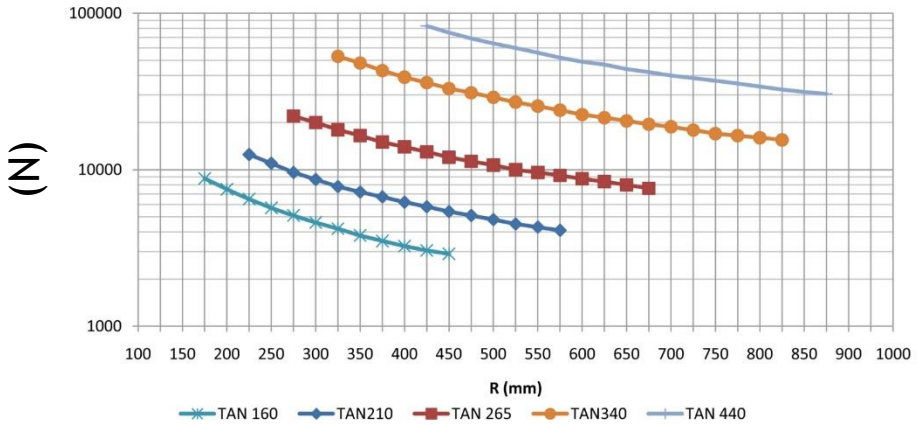
Ora la torretta è pronta per tornire!!!

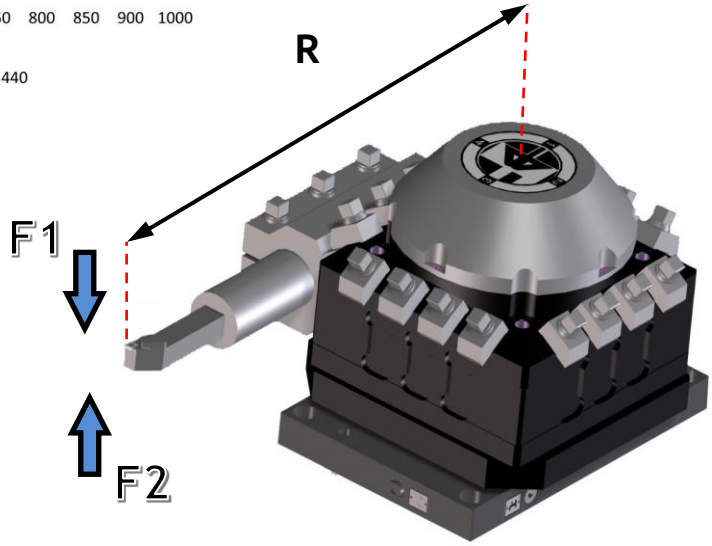


Following diagrams refer to forced applied to the turret. For loading capacity of static tool holders please refer to manufacturer's data sheet.

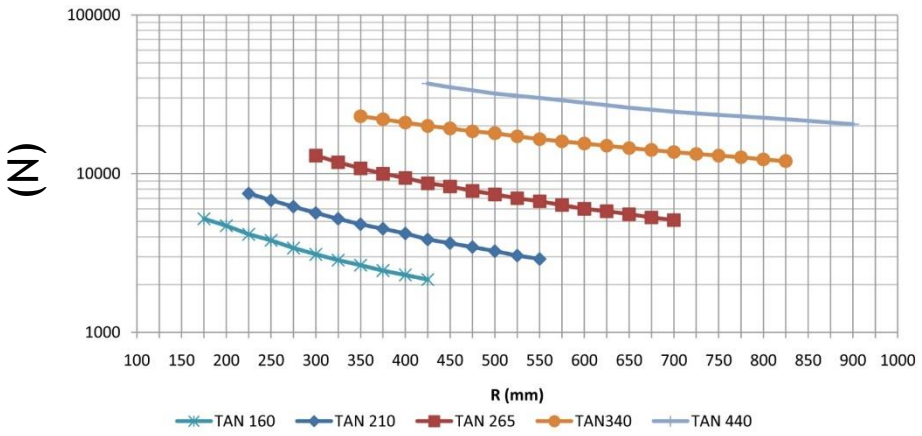
Il diagramma seguente si riferisce alle forze applicabili alla torretta. Per la capacità dei portautensili consultare i dati forniti dai rispettivi produttori.

F1 To Push / *A Premere*





F2 To Lift / *A Sollevare*



TAN Turrets - Operating Cycle

Torrette TAN - Ciclo operativo

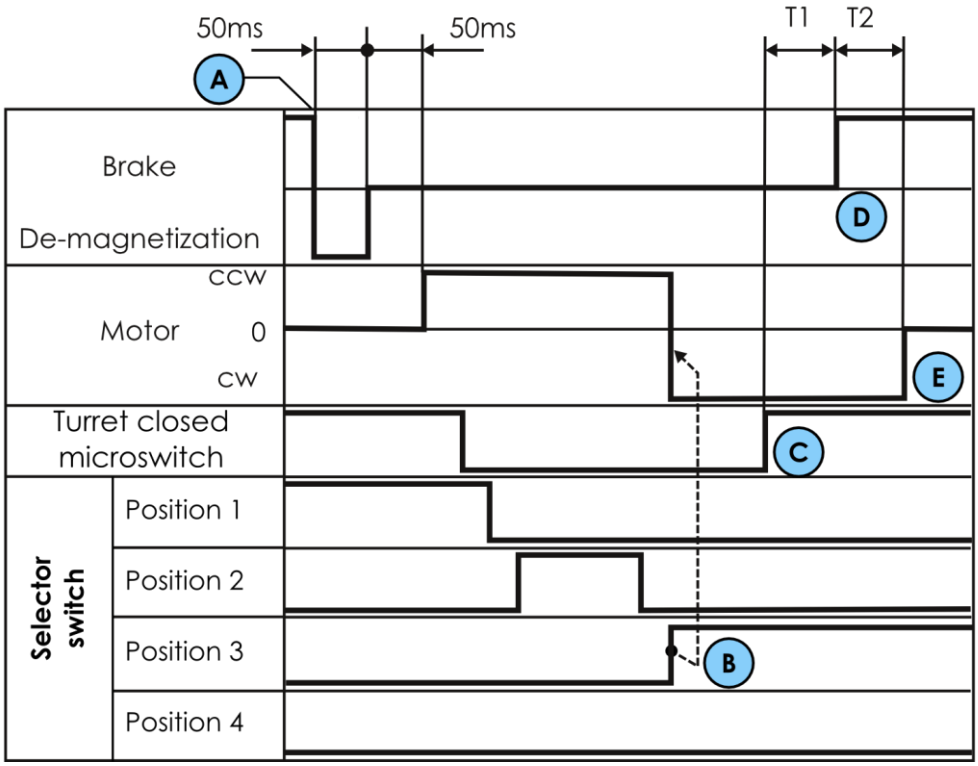
The operation diagram below shows the sequence to be followed in order to move from position 1 to position 3.

-De-energized the brake and de-magnetizing it for 30/50 ms
-Supply the motor for counterclockwise rotation
-Wait the signal from the selector switch related at the required position and then reverse the motor sense into clockwise rotation
-Wait until the locking signal of the micro switch goes on, *in order to permit the complete locking procedure of the turret, wait 350ms (TAN160/210/265) or 600ms (TAN340/440) (**T1**)*
-At the end of this pause the brake must be energized
*-Start now the second delay **(T2)** , to allow the lock all cinematic parts by the brake, after that stop the motor.*

Il diagramma sotto mostra la sequenza da seguire per eseguire un cambio utensile dalla posizione 1 alla posizione 3.

-Rimuovere l'alimentazione al freno e smagnetizzarlo per 30/50 ms
-Alimentare il motore per una rotazione antioraria
-Aspettare il segnale dal selettore della posizione richiesta e invertire il motore in rotazione oraria
-Aspettare che il segnale di chiusura venga attivato così da permettere il completo serraggio dell'unità, aspettare *350ms (TAN160/210/265) o 600ms (TAN340/440) (**T1**)*
-Dopo questa pausa il freno deve essere attivato
-A partire dall'attivazione del freno rispettare la pausa T2 per permettere il serraggio cinematico della torretta prima di rimuovere l'alimentazione del motore

POSITIONING CYCLE EXAMPLE: FROM STATION 1 TO STATION 3



START OF SEQUENCE

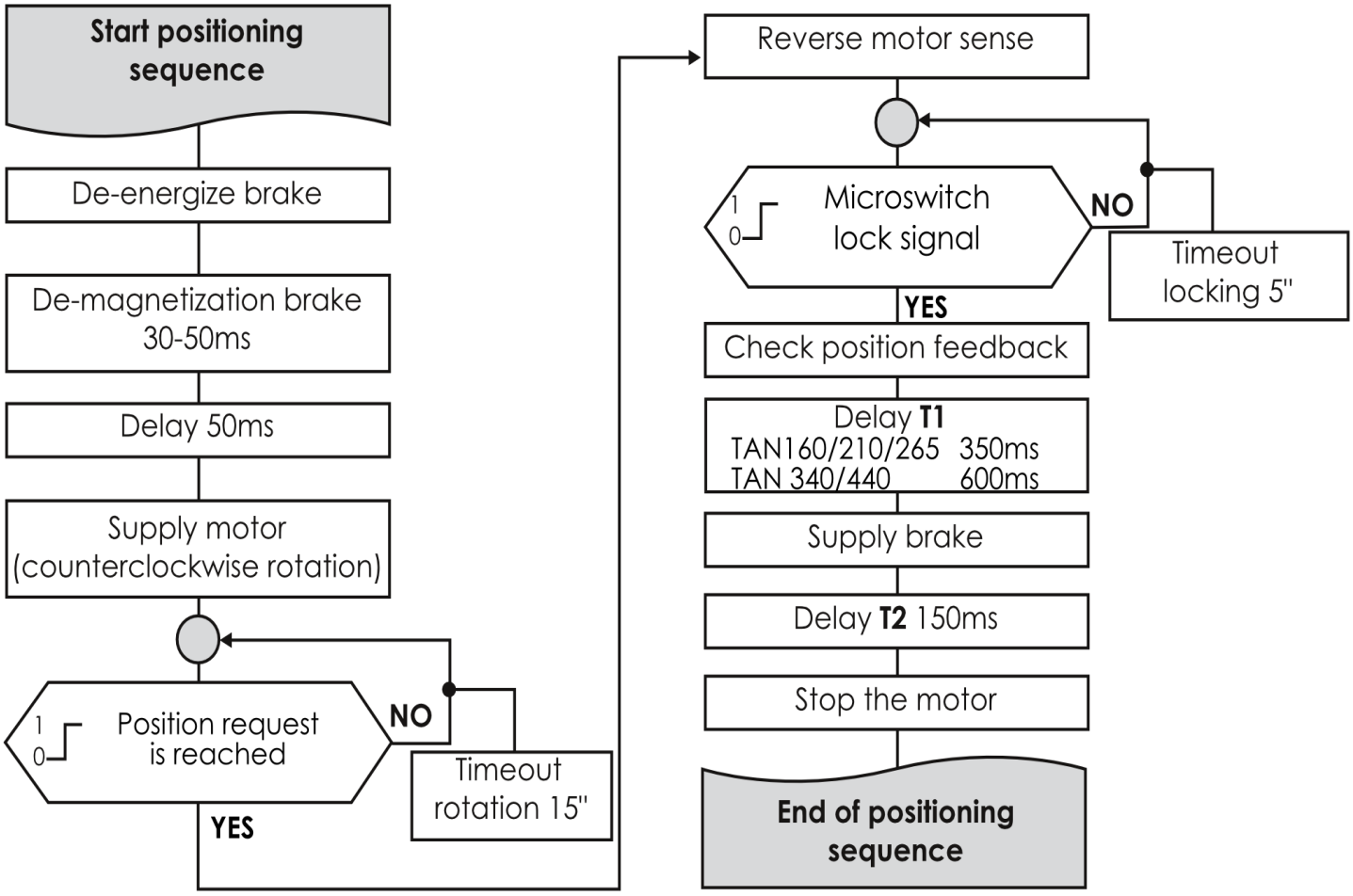
A De-energize brake
De-magnetization brake

B Position reached
Reverse motor sense rotation

C Turret locked

D Brake energized

E Disable motor
END OF SEQUENCE


Start positioning sequence
De-energize brake
De-magnetization brake 30-50ms
Delay 50ms
Supply motor (counterclockwise rotation)
1
0
Position request is reached
NO
Timeout rotation 15"
YES
Reverse motor sense
1
0
Microswitch lock signal
NO
Timeout locking 5"
YES
Check position feedback
Delay T1
TAN160/210/265 350ms
TAN 340/440 600ms
Supply brake
Delay T2 150ms
Stop the motor
End of positioning sequence

TAN Turrets - Electrical connections

Torrette TAN - Connessioni elettriche

The standard TAN turrets are supplied with output steel armored cable and wires for easy connection to the CNC of the machine.

The length of the wires and cable can be customized during the order.

Le torrette TAN standard è fornita con cavi elettrici protetti da una guaina d'acciaio al fine di agevolare una rapida connessione al CNC macchina.

La lunghezza dei cavi e della guaina può essere decisa in fase d'ordine.

OUTPUT ELECTRICAL CABLE

Cavi esterni di connessione

					Size
MOTOR	Three phase asyncronous motor. The motor is available with differents voltage.	Supply voltage Vac	+10% -0%	U Red V Red W Red	>1 mm²
THERMAL PROBE	Open @ 120°C			Green-Red Yellow-Red	0,35 mm²
BRAKE	Supply voltage 24Vdc			Black Black	
PE	Ground protection			Green-Yellow	1,5 mm²

SELECTOR SWITCH	N° stations	4	6	8	12	Size
	1	White-Red	Violet	Violet	Violet	0,35 mm²
	2	Violet	Brown-Red	Blue	Violet-White	
	3	Brown-Red	Yellow	Brown-Red	Brown-Red	
	4	Yellow	Brown-White	Orange-White	Orange-White	
	5		Blue	Yellow	Yellow	
	6		White-Red	Beige	Beige	
	7			Brown-White	White	
	8			White-Red	Blue-Red	
	9				Red	
	10				Blue	
	11				Brown-White	
	12				Brown	
	+24V				Pink	

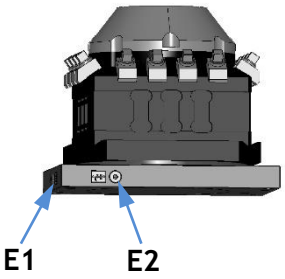
MICROSWITCH		
Turret unlocked signal(normally closed contact)	Yellow-White	
Turret locked signal(normally open contact)	Blue-White	

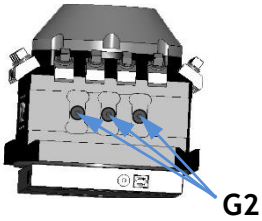
The standard TAN turrets can be used with a coolant pressure up to 10 bar.

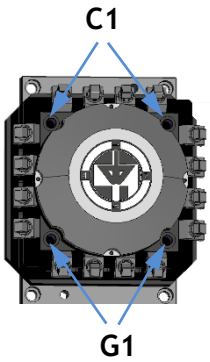
The coolant flow can come out through the holes (C1) on top of the turret, using flexible pipes, or from the valves (C2) on the side of the turret (only when the tool holder is assembled).

La TAN standard può essere utilizzata con la pressione del liquido refrigerante fino a 10bar.

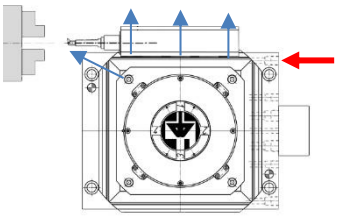
Il flusso refrigerante può fuoriuscire attraverso i fori (C1) dall'alto della torretta, utilizzando tubi flessibili, o dalle valvole laterali (C2) sul lato torretta (solo quando il portautensile è montato).



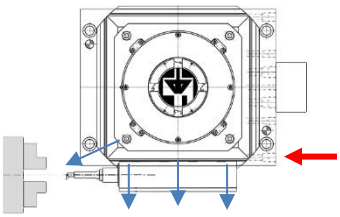




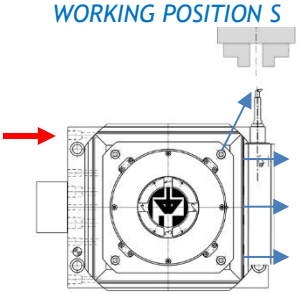
WORKING POSITION P



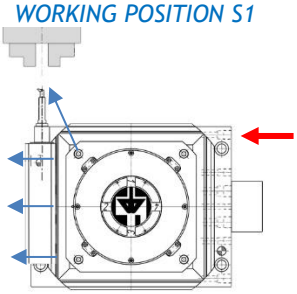
WORKING POSITION R



WORKING POSITION S



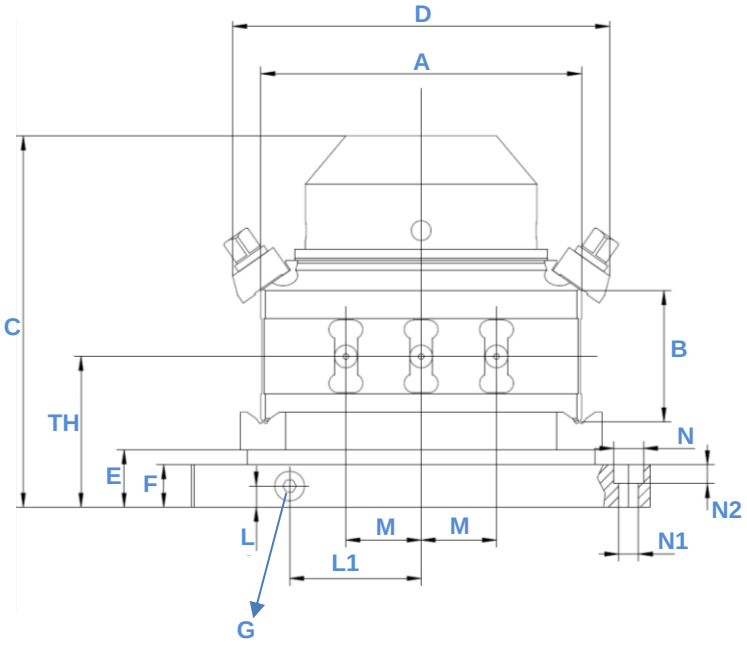
WORKING POSITION S1



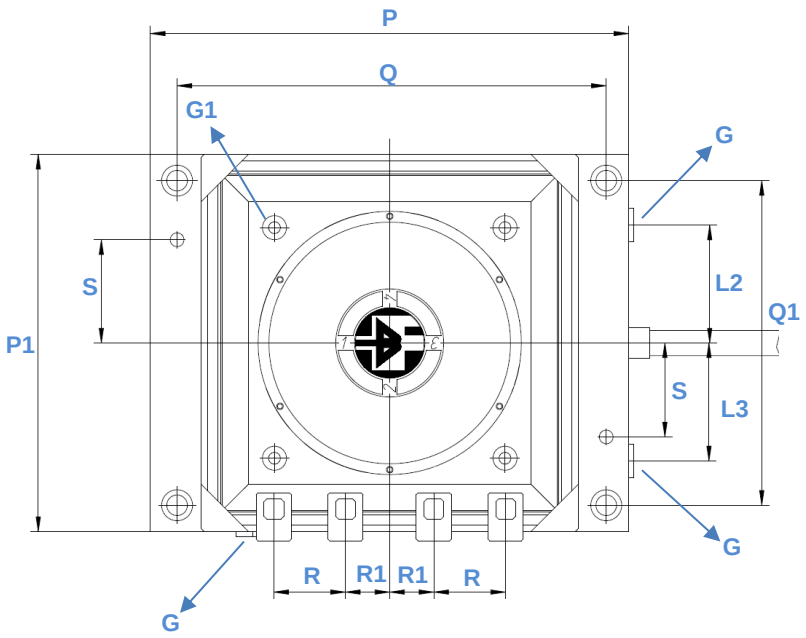
TURRET SIZE	INPUT (E1-E2) HOLE SIZE	OUTPUT (G1) HOLE SIZE	PRESSURE
TAN160	G 1/8 "	G 1/8"	10bar
TAN210	G 3/8"	G 3/8"	
TAN265	G 1/2"	G 1/2"	
TAN340/440	G 3/4"	G 3/4"	

TAN Turrets- Dimension

Torrette TAN - Dimensioni



Turret Size		160	210	265	340	440
A	mm	160	210	265	340	440
B		72	90	115	140	140
TH		80	100	125	160	180
C		305	300	328	420	390
D		188	242	301	384	484
E		30	37	43	61	68
F		25	30	36.5	45	50
G	G	1/8	3/8	1/2	3/4	3/4
G1		1/8	1/8	1/2	3/4	3/4
L	mm	12.5	15	18.25	22.5	25
L1		55.8	72	91.5	120	152
L2		35	62	80.6	120	152
L3		45	61	71.5	80	90
M		/	40	50	80	100
N		18	19	19	31.5	37
N1		11	13	13	21	25
N2		11	13	13	21	25
P		230	288	363	384	484
P1		155	195	245	384	484
Q		205	262	328	294	365
Q1		125	165	210	294	365
R		35	40	50	80	100
R1		17.5	20	25	40	50
S		32.4	45	55	176	228



The dimension above are only for reference, for the complete drawings contact our sales office

Le dimensioni sopra indicate sono da usare solo come riferimento, per avere disegni completi contattare il nostro ufficio commerciale

Acessories / Acessori

TAN Turrets - Accessories

Torrette TAN - Accessori

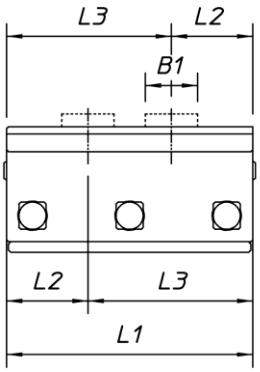
TOOL HOLDERS (external and internal cooling)
PG21

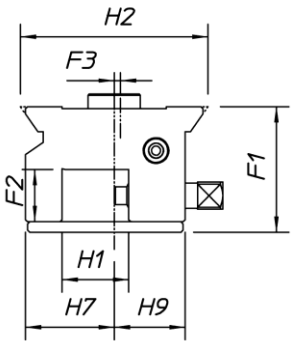
Electrical Male and Female Connectors

Cleaning Brushes

Output Coolant Valves

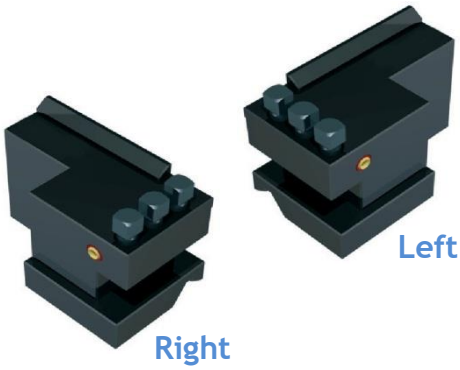
Axial Tool Holder - Portautensile Assiale

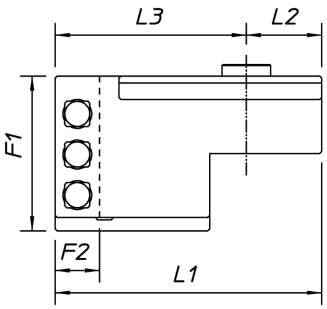


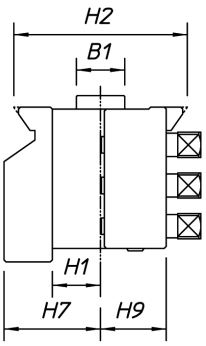


	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
SHORT TYPE													
736.0000.101/2-R	16	56	26	19	39	18	-	84	34	50	16		
736.1100.101/2-R	20	56	30	15	39	18	4	84	34	50	16		
736.2000.101/2-R	20/25	72	34	26	47	22	0/5	98	29	69	20		
736.3200.101/2-R	25/32	72	39	21	47	23	5	98	29	69	20		
736.4000.101/2-R	25	90	42,5	34	52	25	-	118	39	79	25		
736.6000.101/2-R	32	115	55	47	52	32	-	118	49	69	25		
736.8000.101/2-R	40	140	67,5	57	63	40	-	144	59	85	25		
LONG TYPE													
736.4000.101/2-S-R	25	90	42,5	34	55	25		160	60	100	25		
736.6000.101/2-S-R	32	115	55	47	54	32		175	50	125	25		

Radial Tool Holder - Portautensile Radiale





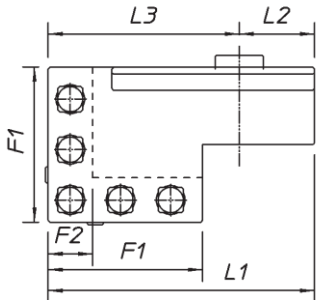


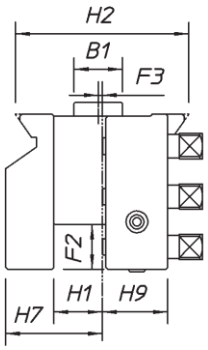
	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
LEFT HAND TYPE													
736.4000.021-R	25	90	50	34	72	25		138	39	99	25		
736.8000.021-R	40	140	80	57	110	40		209	59	150	25		
RIGHT HAND TYPE													
736.0000.022-R	16	56	36	19	50	18		94	34	60	16		
736.4000.022-R	25	90	50	34	72	25		138	39	99	25		
736.6000.022-R	32	115	62,5	47	85	32		185	43	142	25		

Radial and Axial Tool Holder - Portautensile Radiale e Assiale

Right

Left



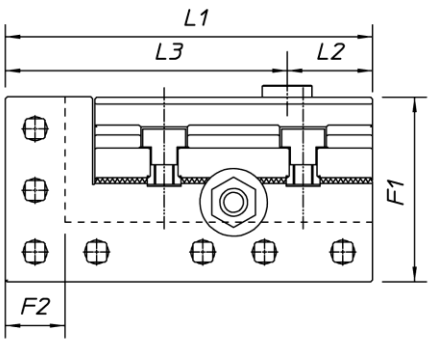


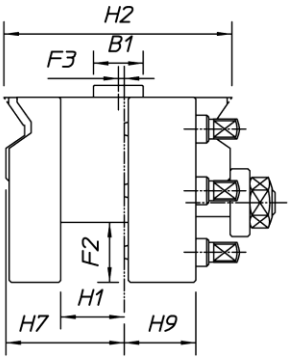
	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
LEFT HAND TYPE													
736.1100.011-R	16/20	56	40	15	50	18	0/4	94	34	60	16		
736.3200.011-R	5	72	47,5	21	63	23	5	102	29	73	20		
736.4000.011-R	25	90	50	34	80	25	-	138	39	99	25		
736.6000.011-R	32	115	62,5	47	94	32	-	185	43	142	25		
736.8000.011-R	40	140	80	57	110	40	-	209	59	150	25		
RIGHT HAND TYPE													
736.1100.012-R	16/20	56	40	15	50	18	0/4	94	34	60	16		
736.2000.012-R	20	72	42,5	26	63	22	-	102	29	73	20		
736.3200.012-R	25	72	47,5	21	63	23	5	102	29	73	20		
736.4000.012-R	25	90	50	34	80	25	-	138	39	99	25		
736.6000.012-R	32	115	62,5	47	94	32	-	185	43	142	25		
736.8000.012-R	40	140	80	57	110	40	-	209	59	150	25		

Radial and Axial Tool Adjustable Holder - Portautensile Radiale e Assiale Regolabile

Right

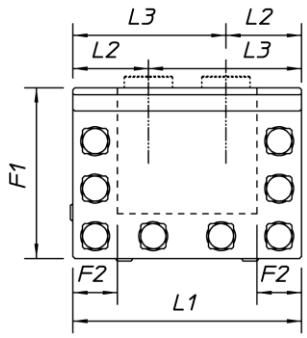
Left

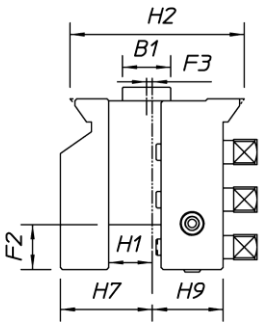




	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
LEFT HAND TYPE													
736.1800.011	20	56	33	15	50	18	4	94	34	60	16		
736.3800.011	25	72	42	19	63	23	5	102	29	73	20		
736.4800.011	25	90	46	30	80	23	-	138	39	99	25		
736.6800.011	32	115	58	36	94	30	-	185	43	142	25		
RIGHT HAND TYPE													
736.1800.012	20	56	33	15	50	18	4	94	34	60	16		
736.3800.012	25	72	42	19	63	23	5	102	29	73	20		
736.4800.012	25	90	46	30	80	23	-	138	39	99	25		
736.6800.012	32	115	58	36	94	30	-	185	43	142	25		

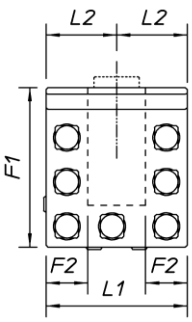
Triple Holder - Portautensile Triplo

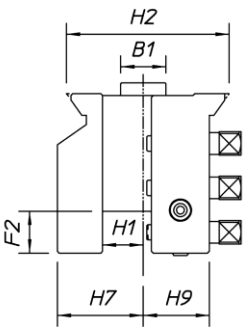




	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
736.0000.031/2-R	16	56	36	19	60	18	-	84	34	50	16		
736.3000.031/2-R	25	72	42,5	26	81	22	-	98	34	64	20		
736.3200.031/2-R	25	72	47,5	21	81	23	5	98	34	64	20		
736.4000.031/2-R	25	90	50	34	88	25	-	118	39	69	25		
736.6000.031/2-R	32	115	62,5	47	94	32	-	118	49	69	25		
736.8000.031/2-R	40	140	80	57	115	40	-	148	59	85	25		

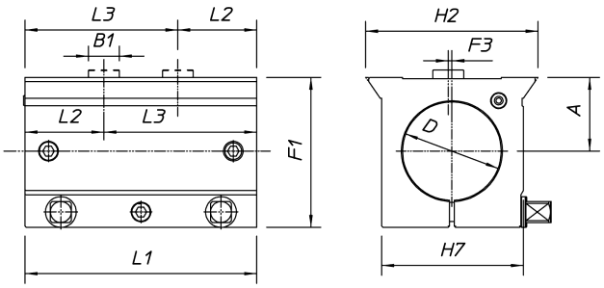
Triple Holder Narrow - Portautensile Triplo Stretto





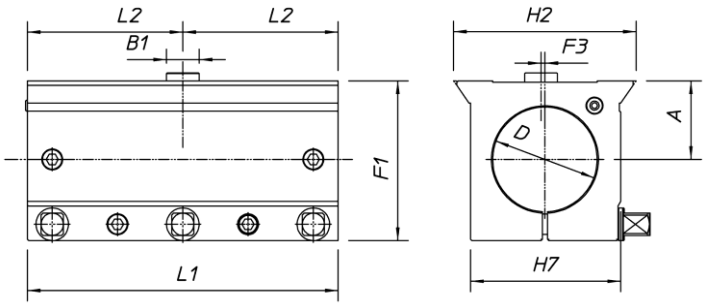
	H1	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1		
736.0000.050-R	16	56	36	19	60	18		68	34		16		
736.4000.050-R	25	90	50	34	88	25		78	39		25		
736.6000.050-R	32	115	62,5	47	94	32		98	49		25		

Tool Holder for Boring Bar (short) - Portautensile per Bareno (corto)



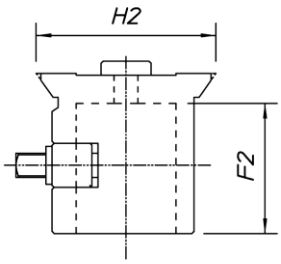
	H2	H7	H9	F1	F2	F3	L1	L2	L3	B1	A	D	
736.0032.501/2-R	56	39	52	62	70	-	93	34	59	16	29	32	
736.1132.501/2-R	56	52	-	59	59	4	93	34	59	16	29	32	
736.2040.501/2-R	72	59	68	69	78	-	114	34	80	20	35	40	
736.2050.501/2-R	72	59	68	69	78	-	114	34	80	20	40	50	
736.3240.501/2-R	72	68	70	69	83	5	114	34	80	20	35	40	
736.3250.501/2-R	72	68	70	69	83	5	114	34	80	20	40	50	
736.4050.501/2-R	90	71	85	88	98	-	138	39	99	25	40	50	
736.4060.501/2-R	90	71	85	88	98	-	138	39	99	25	45	60	
736.6060.501/2-R	115	95	110	94	116	-	148	49	99	25	45	60	
736.6080.501/2-R	115	95	110	94	116	-	148	49	99	25	55	80	

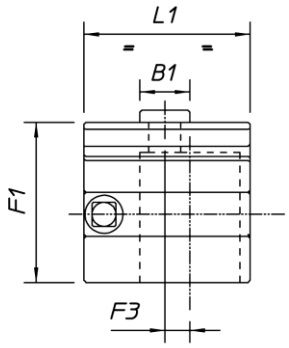
Tool Holder for Boring Bar (long) - Portautensile per Bareno (lungo)



	H2	H7	H9	F1	F2	F3	L1	L2	B1	A	D		
736.0040.510-R	56	39	52	59	69	-	118	59	16	34	40		
736.1132.510-R	56	56	52	59	69	4	118	59	16	29	32		
736.1140.510-R	56	56	52	59	69	4	118	59	16	34	40		
736.2040.510-R	72	59	68	69	78	-	150	75	20	35	40		
736.2050.510-R	72	59	68	69	78	-	150	75	20	40	50		
736.3240.510-R	72	72	68	79	69	5	150	75	20	35	40		
736.3250.510-R	72	72	68	79	69	5	150	75	20	40	50		
736.4050.510-R	90	71	85	88	97	-	198	99	25	40	50		
736.4060.510-R	90	71	85	88	97	-	198	99	25	45	60		
736.6060.510-R	115	95	110	94	116	-	198	99	25	45	60		
736.6080.510-R	115	95	110	94	116	-	198	99	25	55	80		
736.8080.510-R	140	115	135	122	145	-	238	119	25	60	80		
736.8010.510-R	140	115	135	122	145	-	238	119	25	70	100		

Frontal Tool Holder for Boring Bar- Portautensile per Bareno Frontale





	H1	H7	F1	F2	F3	L1	B1	D					
736.0032.600-R	56	39	54	40	10	68	16	32					
736.2040.600-R	72	53	65	50	10	78	20	40					
736.4050.600-R	90	71	80	65	12,5	83	25	50					
736.6060.600-R	115	95	94	80	12,5	98	25	60					

Tool Holder with Capto solution - Portautensile con soluzioni Capto

On request

TAN turrets - Ordering format

Torrette TAN - Format ordini

CUSTOMER		ORDER N°		DATE	

TURRET SIZE *Taglia torretta*	*N° OF DIVISIONS* *Numero di divisioni*	*Code*	
		WITH COOLANT VALVES Con Valvoline refrigerante	WITH COOLANT VALVES Con Valvoline refrigerante
160	4	**5951**	**/**
210	4	**5998**	**6923**
265	4	**5999**	**6924**
340	4	**4782**	**6718**
440	4	**6719**	**4777**

VERSION *Versione*	*Code*
STANDARD	**0**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****

NUMBER OF DIVISIONS *Numero di divisioni*	*Code*
4	**6**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****

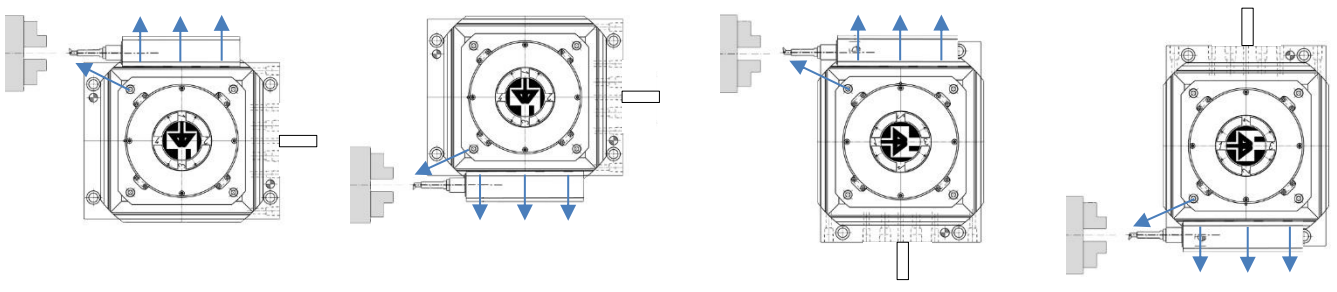
K 6 3 . [ ][ ][ ][ ] . [ ] [ ] [ ] [ ]

MOTOR VOLTAGE *Voltaggio motore*	*MOTOR FREQUENCY* *Frequenza motore*	*Code*
110V	50hz	**0**
110V	60Hz	**1**
220V	50hz	**4**
220V	60Hz	**6**
380V	50hz	**2**
380V	60Hz	**8**
440V	50hz	**5**
440V	60Hz	**3**
480V	60Hz	**7**

POSITIONING *Posizionamento*	*Code*
WITH SELECTOR SWITCH Con selettore multipolare	**0**
WITH ENCLODER (on request) Con encoder (su richiesta)	**2**
SPECIAL APPLICATION (on request) Applicazioni speciali (su richiesta)	*****

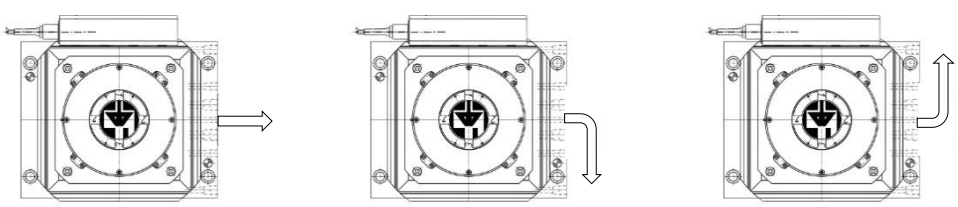
WORKING POSITION

☐ *WORKING POSITION P* ☐ *WORKING POSITION R* ☐ *WORKING POSITION S* ☐ *WORKING POSITION S1*



OUTPUT CABLES DIRECTION

☐ *STRAIGHT 0°* ☐ *RIGHT 90°* ☐ *LEFT 90°*



TAN turrets - Ordering format

Torrette TAN - Format ordini

CABLE LENGHT

meters ☐

output cable lenght

ELECTRICAL CONNECTORS

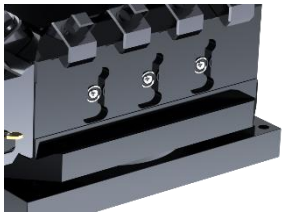
YES ☐ *NO* ☐

CLEANING BRUSHES

YES ☐ *NO* ☐

COOLANT VALVES

YES ☐ *NO* ☐



NOTE

Worldwide sales and service organization

Organizzazione mondiale di vendite e servizi

Baruffaldi has developed a sales and service organisation all over the world.
Furthermore, thanks to a net of agents and distributors, it is ensured a direct contact in many nations.

La Baruffaldi è strutturata per offrire un servizio di vendita e assistenza in tutto il mondo.
Inoltre grazie ad una rete di agenti e distrubutori garantisce un contatto diretto in molte nazioni.

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