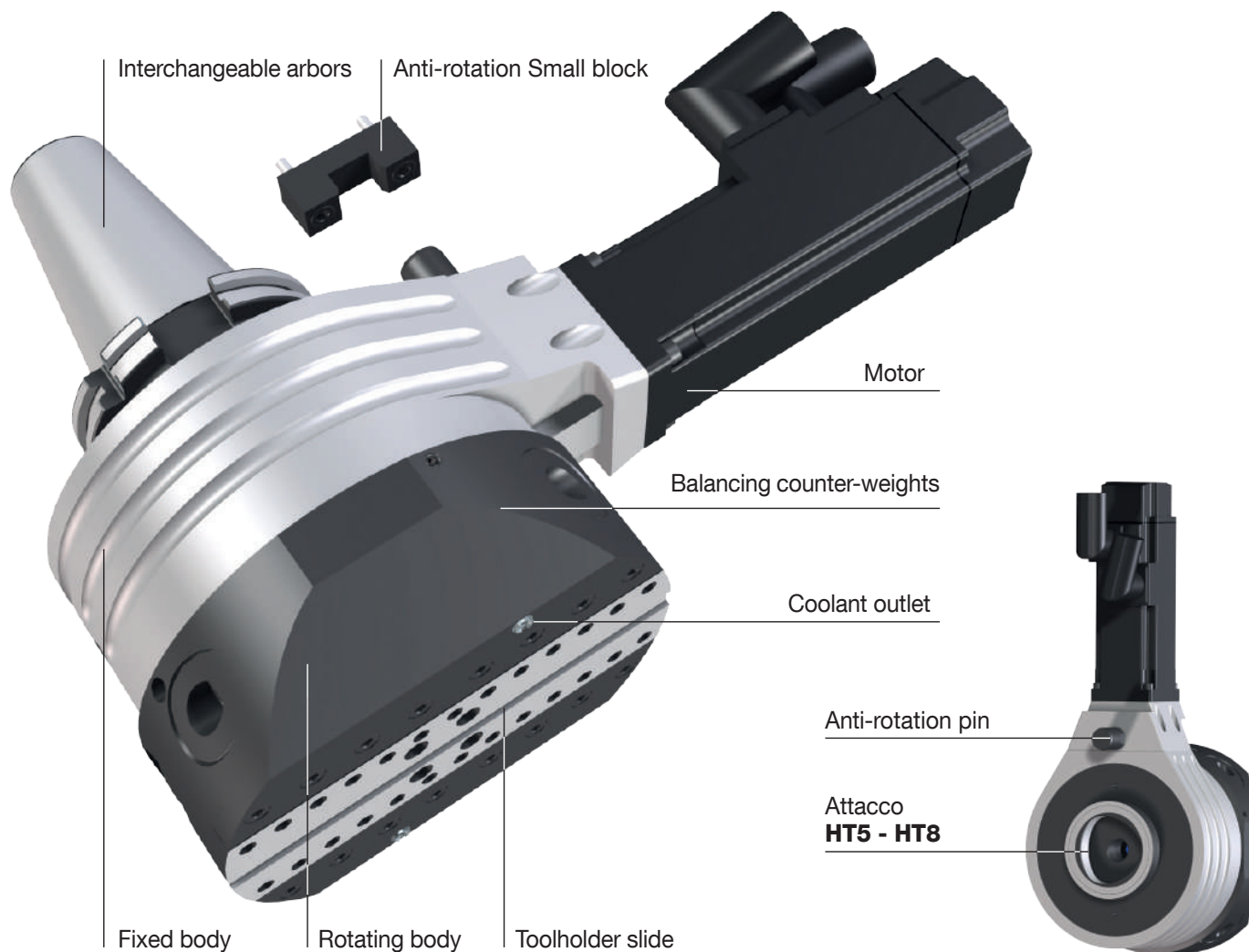


TA-TRONIC 2 TA-T2

TA-TRONIC 2 - Boring and facing heads designed to be applied manually on small boring machines, machining centers and special machines. The integrated servomotor, connected to the CN, manages the toolholder slide movement. The stationary body is held in position by a flange or, for light operations, by a simple anti-rotation pin.



CNC

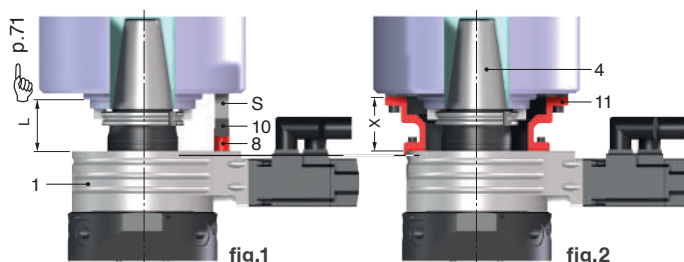
COMMAND

The control of the TA-T2 heads takes place through the direct connection to the "U" axis of the numerical control of the machine tool that allows boring, internal, external and back facing, internal and external turning, grooves, facing for serration, threads and taper bores, as well as concave and convex radius machining through interpolation with the other axes.

TA-T2 is mounted on the machine using a taper (4). The anti-rotation pin (8) inserted in the stop block (10) locked on the head of the machine tool, preventing the fixed body of TA-T2 to rotate. The stop block (10) is applied on a fixed part around the spindle in relation to the dimensions of pic.1, adjusting the height indicated by way of a thickness S. For heavy machining it is advisable

to apply a flange (11) with a dimension X in tolerance ± 0.005 mm. To make the TA-T2 solidly connected with the head of the machine tool (pic.2-3) it is always advisable to use a flange with TA-T2 170. The type of flange required depends on the model of the machine and may be easily built by the Customer or supplied by D'Andrea. All data for flange application are available in the instruction manual.

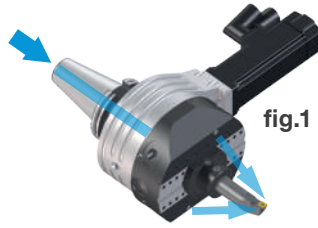
APPLICATION



Coolant supply pic.1

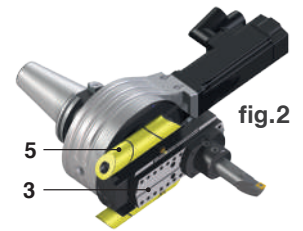
In the TA-T2, coolant exits from the two adjustable nozzles are located next to the slide after crossing the taper and the rotating body of the head. This noteworthy advantage ensures longer duration of the cutting edge, quicker

cutting speed and for obtaining good surface finishes. The centralized supply of coolant does not harm the TA-T2 of which the internal labyrinth protected by an O-ring. It is advisable not to exceed **50 BAR** of pressure.



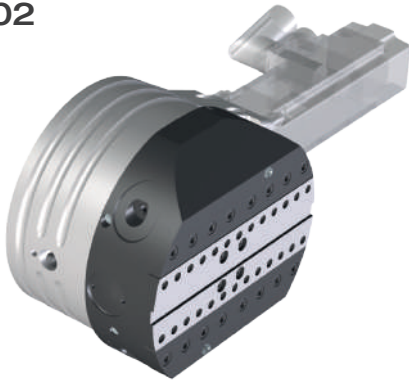
Balancing pic.2

TA-TRONIC heads are designed with two counter-weights (5) for automatic balancing, that move opposite to the slide (3) allowing to machine at a higher number of rpms without noticeable oscillations.



PREARRANGEMENTS

K02



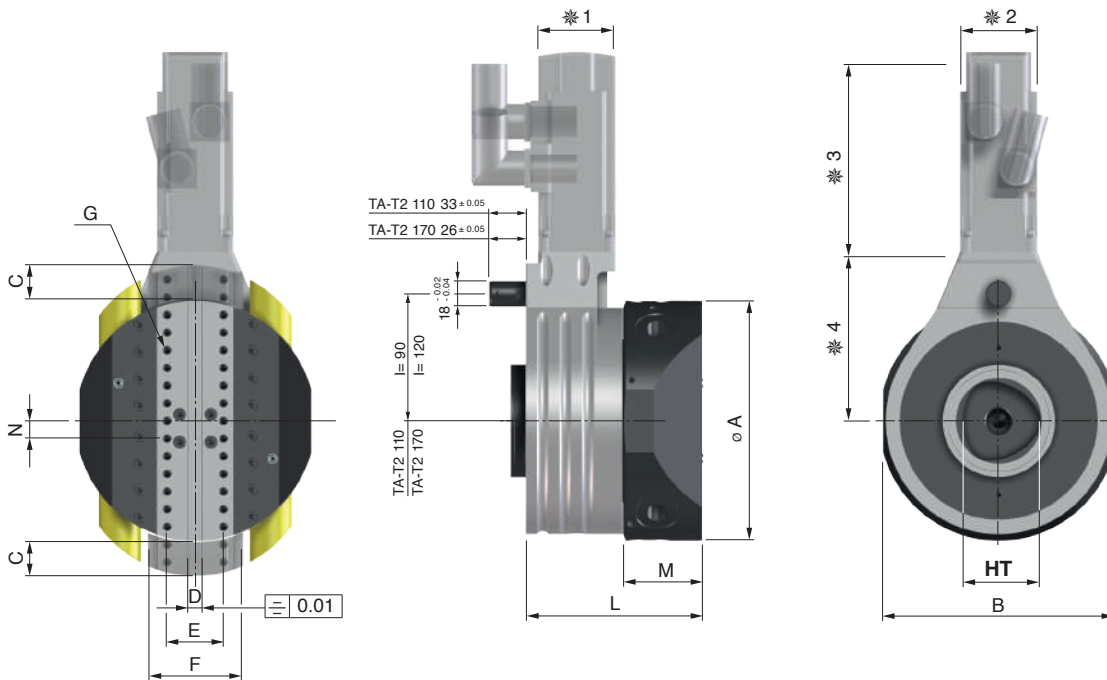
ARBORS HT / P120 - P130 see p.70-71



REF.	CODE		
K02 TA-T2.110 1FK7022-5AK74-1HA5	501201100400		
K02 TA-T2.110 FANUC bis 1/6000	501201100800		
K02 TA-T2.170 1FK7032-2AK74-1EA2	501201700400		
K02 TA-T2.170 FANUC bis 1/6000	501201700800		
FLANGE TA-T2.110 / TA-T2.170			

SUPPLY

TECHNICAL DATA



TECHNICAL DATA		TA-T2.110	TA-T2.170
Ø A	mm	110	170
B	mm	104	164
C radial traverse	mm	± 15	± 30
D	mm	8 ^{+0.04} _{+0.02}	10 ^{+0.04} _{+0.02}
E	mm	31	40
F	mm	M 4	M5
G	mm	38	54
HT	mm	5	8
L	mm	108	136
M	mm	42	56
N	mm	12.5	
Feed	mm/min	1 ÷ 500	
Radial force	daN	150	250
Maximum speed	RPM	2000	1600

TECHNICAL DATA		TA-T2.110	TA-T2.170
Torque	Nm	400	800
Weight without the cone	Kg	5.3 without motor	15.8 without motor
Boring accuracy		H7	
Max workable ø	mm	200	320
Max chip removal on C40 steel	mm ²	0,75	1
Roughness	Ra	0.8 - 1.2	
SIEMENS Motors Dimensions		Siemens 1FK7022	Siemens 1FK7032
* 1		55	72
* 2		55	72
* 3		178	173
* 4		90	120
FANUC Motors Dimensions		FANUC bis 1/6000	
* 1		60	
* 2		60	
* 3		111,5	
* 4		92/120	

* Rough measures that may vary on changing the motor

AUTORADIAL

AUTORADIAL - Automatic facing heads that can be applied on machining centers and on NC machines without the need for an electronic interface or interlock.

They perform automatic working cycle without ever stopping the rotation of the spindle. Particularly suitable for machining of seats for elastic rings and facing for serration.

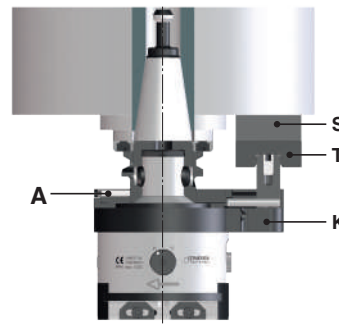
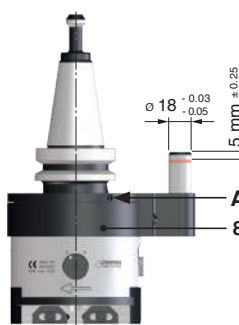


In the AUTORADIAL the slide is moved forward by holding back the drive flange (8) while the spindle is rotating.

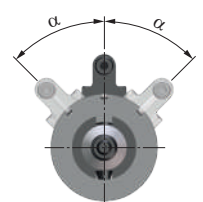
The T-block supplied with the K-NC KIT (K) is to be applied to a fixed part around the spindle, observing the measurements indicated.

If the stroke of the check pin is not $5 \text{ mm} \pm 0.25$, you must adjust the position of the T-block using the spacer S.

The angle α is freely adjustable by loosening the 3 screws (A), turning the flange (8) to the desired angle and tightening the screws (A).

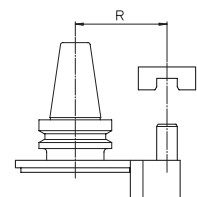


ASSEMBLY

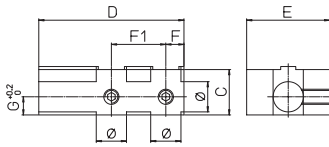


K02 SPECIAL AUTORADIALS ON REQUEST

REF.	Fmm/∅	K02 AR 125 K02 AR 160	
		CODE	CODE
K02 AR...-F.0.05 ±0.005	0.05	500612520050	500616020050
K02 AR...-F.0.1 ± 0.005	0.1	500612520100	500616020100
K02 AR...-F.0.2 ± 0.01	0.2	500612520200	500616020200
K02 AR...-F.0.3 ± 0.01	0.3	500612520300	500616020300
K02 AR...-F.0.4 ± 0.02	0.4	500612520400	500616020400
K02 AR...-F.0.5 ± 0.02	0.5	500612520500	500616020500
K02 AR...-F.0.6 ± 0.02	0.6	500612520600	500616020600



REF.	R.80 CODE		R.110 CODE	
	K-NC R...-AR125	394112508002		394112511002
K-NC R...-AR160	394116008002		394116011003	



REF.	CODE	ØH7	C	D	E	F	F1	G	Kg.
AR 125 - P 110	433056381200	25	39	121	56	15	45.5	16	1.3
AR 160 - P 110	433063481600	32	49	164	63	19	63	21	2.5

MHD'



REF.	MHD' Gamma completa dei coni a pag.10
AR 125	63
AR 160	80

INTERCHANGEABLE FEEDS

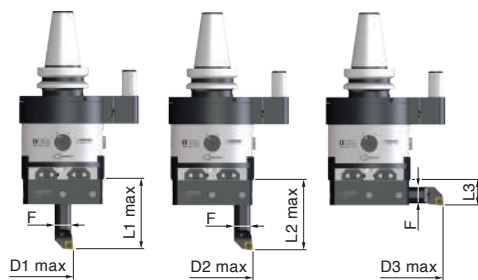
F ...



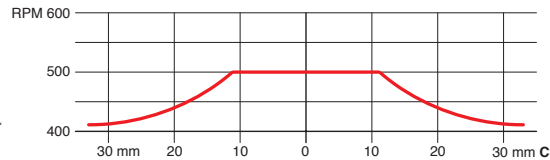
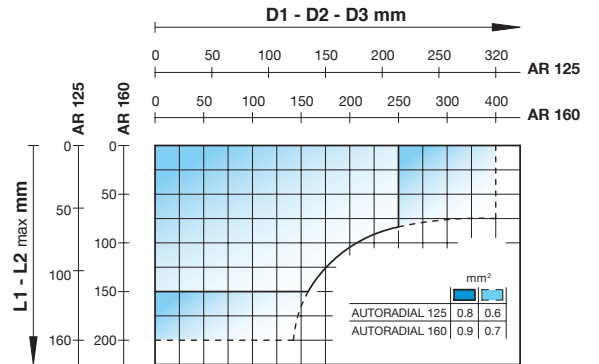
REF.	Fmm/Ø	K02 AR 125 CODE	K02 AR 160 CODE
F. 0.05-AR... ± 0.005	0.05	382006105001	382006205001
F. 0.1 - AR... ± 0.005	0.1	382006110001	382006210001
F. 0.2 - AR... ± 0.01	0.2	382006120001	382006220001
F. 0.3 - AR... ± 0.01	0.3	382006130001	382006230001
F. 0.4 - AR... ± 0.02	0.4	382006140001	382006240001
F. 0.5 - AR... ± 0.02	0.5	382006150001	382006250001
F. 0.6 - AR... ± 0.02	0.6	382006160001	382006260001

CHIP REMOVAL CAPACITY - MAX ROTATION SPEED

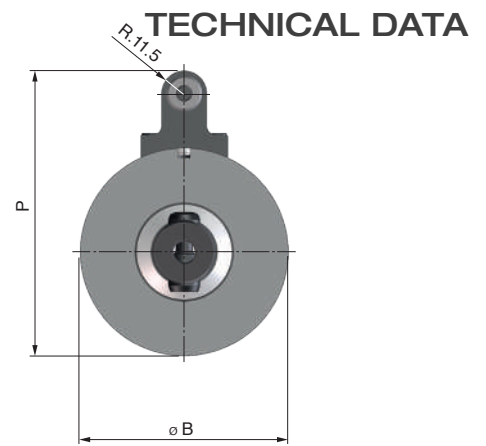
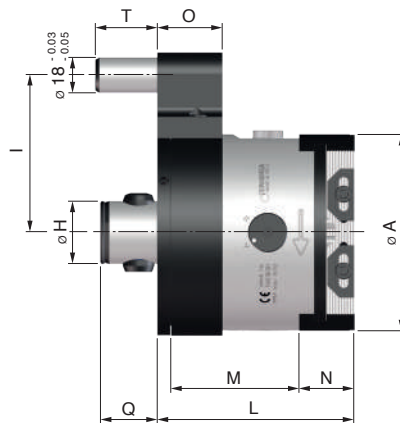
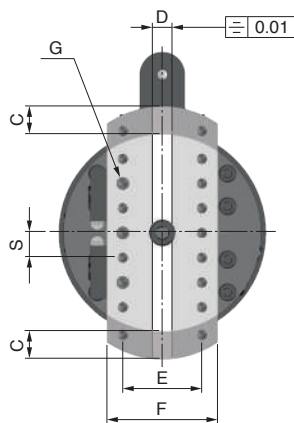
The chip removals are indicative for normal working conditions on steels with hardness 160-200 HB, (average Ks = 2000 N/mm²) recommended Vt 120/160 m/min. The optimal values and working times must be determined with trials.



	AR 125	AR 160
F	25	32
D1 max	99	144
L1	160	200
D2 max	190	270
L2	160	200
D3 max	320	400
L3	40	50



For good AUTORADIAL head operations and to protect it from damages, it is advisable to follow the chart below that indicates the maximum rpm, based on the travel of the slide.



TECHNICAL DATA	AR 125	AR 160
Ø A	mm 125	mm 160
Ø B	mm 130	mm 130
C radial traverse	mm ± 20	mm ± 35
D	mm 10 ^{+0.03} ₀	mm 12 ^{+0.03} ₀
E	mm 40	mm 50
F	mm 63 ^{-0.003} _{-0.007}	mm 80 ^{-0.003} _{-0.007}
G	mm M5	mm M6
Ø H	mm (MHD'63) 42 ^{-0.005} _{-0.008}	mm (MHD'63) 42 ^{-0.005} _{-0.008}
I	mm 80/110	mm 80/110
L	mm 110	mm 125

TECHNICAL DATA	AR 125	AR 160
M	mm 75	mm 83
N	mm 28	mm 35
O	mm 35	mm 35
P	mm 156.5 / 186.5	mm 171.5 / 201.5
Q	mm 38.5	mm 44.5
S	mm 12.5	mm 15
T	mm 39.5	mm 45.5
Maximum speed	RPM 500	RPM 400
Weight without the cone	Kg 9	Kg 14
Quick return	mm/Ø 0.8	mm/Ø 0.8