



TAVOLE ROTANTI SERIE 5

ROTARY INDEX TABLES SERIES 5



autorotor

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ROTAZIONE CONTROLLATA

CONTROLLED INDEXING

AUTOROTOR ha sviluppato una gamma completa di dispositivi rotanti intermittenti per il trasferimento e posizionamento meccanico di pezzi con elevata velocità.

L'affidabilità e le prestazioni di queste attrezzature sono il frutto dell'esperienza acquisita e della costante ricerca tecnologica di soluzioni migliori.

AUTOROTOR has developed a full range of indexing devices for high speed mechanical transfer and pieces positioning.

Reliability and performance of these equipments stem from our experience and unending research for better technological solutions.

PERCHE' ROTANTE E INTERMITTENTE

Quando le necessità sono: produttività, velocità, precisione, silenziosità e basso costo d'esercizio, l'esperienza ha dimostrato che il sistema intermittente meccanico governato da camma è il più indicato.

WHY ROTATING AND INTERMITTENT

When requirements are: productivity, high speed, accuracy, low noise, low running cost, experience has clearly shown that the mechanical rotary intermittent system is the answer.

TAVOLA ROTANTE SERIE 5

La TAVOLA ROTANTE AUTOROTOR Serie 5 è una unità meccanica ad assi ortogonali che trasforma la rotazione uniforme dell'albero in entrata in rotazione intermittente de disco in uscita.

Questo si ottiene con una camma a tamburo che trascina due o più rulli fissi sul disco.

Il numero delle divisioni standard è da 2 a 32. Altre, fino a 540, sono disponibili a richiesta.

Le TAVOLE ROTANTI sono estremamente diffuse ed applicate su attrezzature quali:

- Sistemi di assemblaggio
- Linee di confezionamento
- Attrezzature di produzione
- Macchine di saldatura automatica
- Dispositivi di trasporto
- Isole di lavorazione
- Macchine di imbottigliamento
- Macchine di stampa
- Ecc.

ROTARY INDEXING TABLE SERIES 5

AUTOROTOR ROTARY INDEXING TABLE series 5 is a mechanical square axis unit to transform the uniform rotation of inlet shaft in an intermittent rotation of output disk.

The number of standard indexings ranges from 2 up to 32. From 32 up to 540 indexings on request.

Indexing tables are generally mounted on:

- Assembling machines
- Packing equipments
- Manufacturing equipments
- Automated welding machines
- Movement devices
- Machining isles
- Filling machines
- Printing machines
- Etc.

VANTAGGI

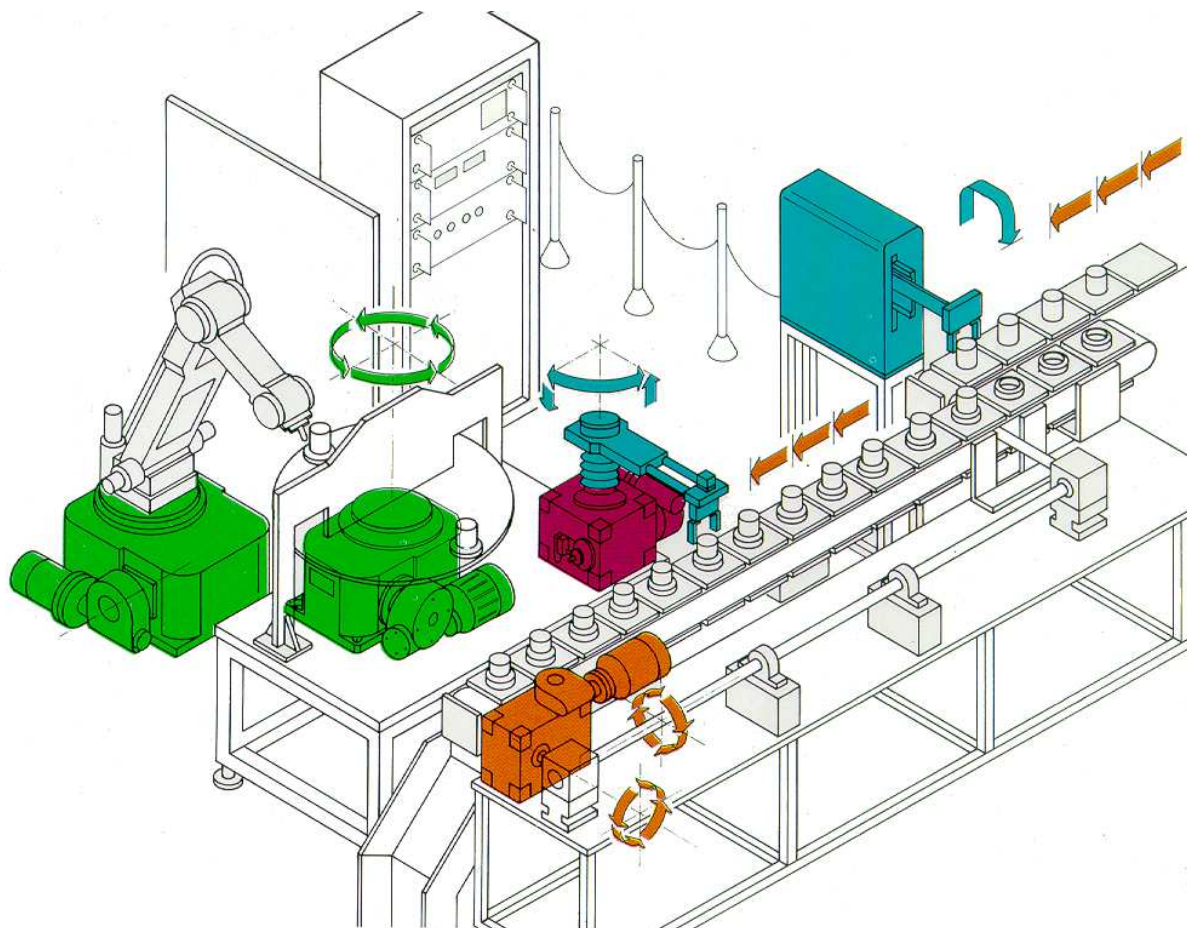
I principali vantaggi sono:

- Movimento veloce e progressivo interamente controllato
- Regolarità di funzionamento anche ad alta frequenza
- Posizione di arresto autobloccata
- Alta ripetibilità
- Manutenzione minima
- Minima potenza installata.

ADVANTAGES

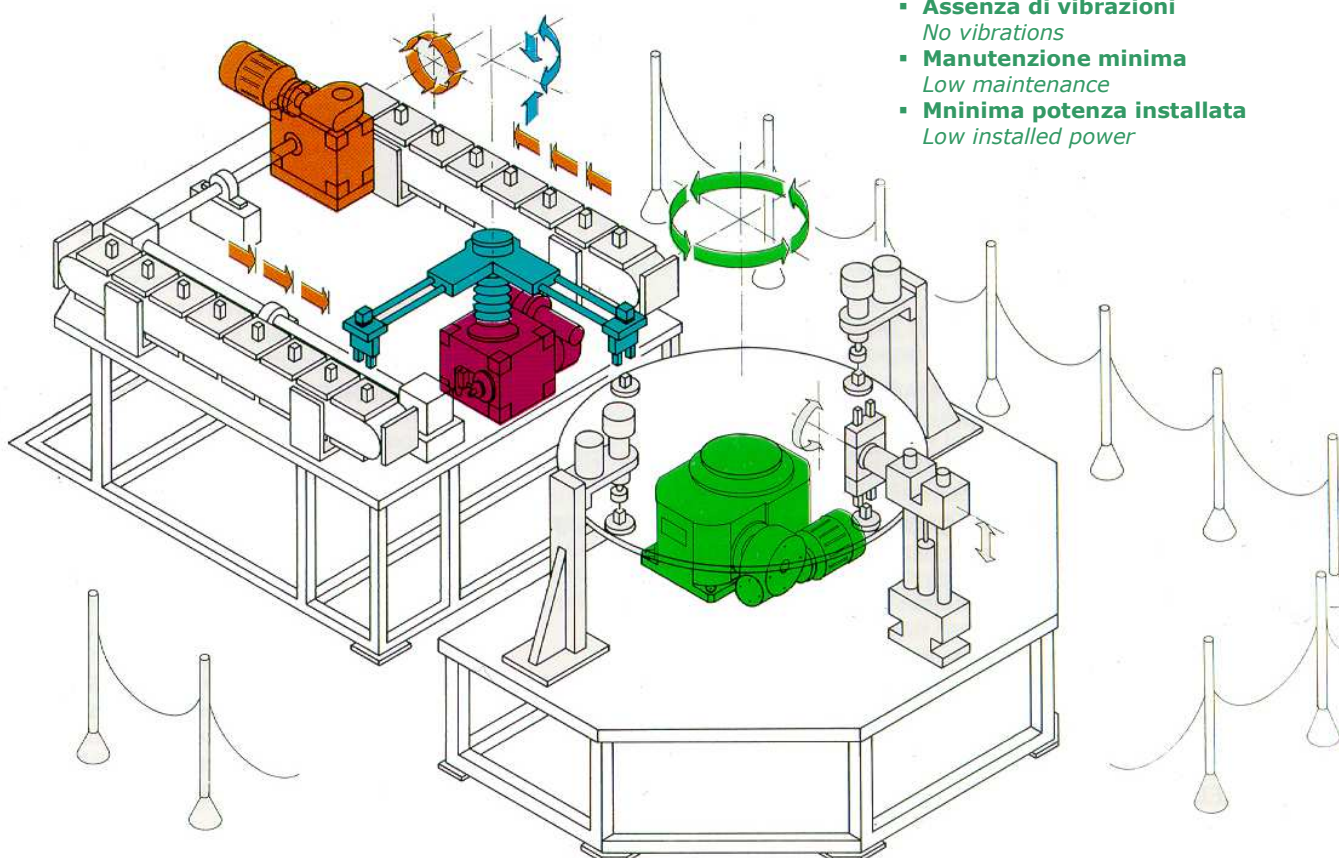
The main pros are:

- High speed continuous and totally controlled displacement
 - Smooth running also at high frequency.
 - Self-Locking in dwell position,
 - High repeatability
 - Low maintenance.
- Low installed power*



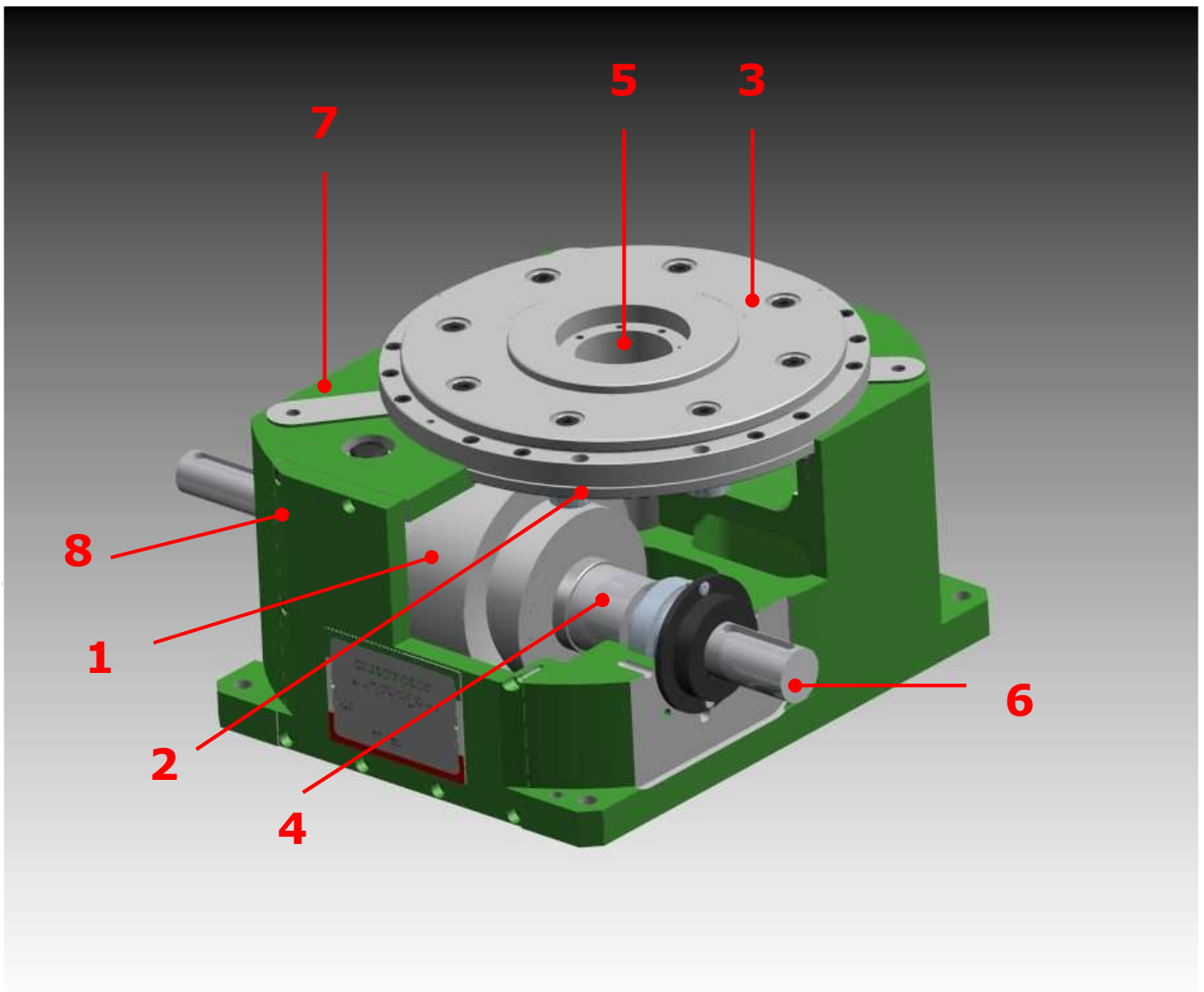
CONTROLLO MECCANICO DEL MOVIMENTO MECHANICAL DRIVE OF THE DISPLACEMENT

- **Movimento veloce e progressivo**
High speed continuous displacement
- **Posizione di arresto autobloccata**
Self-locking in dwell position
- **Ripetibilità**
High repeatability
- **Assenza di vibrazioni**
No vibrations
- **Manutenzione minima**
Low maintenance
- **Mminima potenza installata**
Low installed power



CARATTERISTICHE DELLA TAVOLA ROTANTE

ROTARY INDEX TABLE FEATURE



- 1. CAMMA IN ACCIAIO LEGATO E TRATTATO** / High tensile steel cam with hardened and round profiles
- 2. RULLI SPECIALI A SEZIONE MAGGIORATA – ASSORBONO RIGIDAMENTE CARICHI ELEVATI** / Oversize section cam followers – They bear high load rigidità
- 3. DISCO DIVISORE – RULLI MONTATI NELLA PARTE INFERIORE** / Indexing disk – Followers mounted on the lower plane
- 4. ALBERO ROTANTE PORTACAMMA SU CUSCINETTI CONTRAPPOSTI A RULLI CONICI** / Input power cam shalf on opposite conical roller bearings
- 5. FORO CENTRALE PASSANTE** / Central hollowed fix hub
- 6. ALBERO IN ENTRATA CON LINGUETTA** / Inlet power shalf with keyway
- 7. SUPERFICI DI APPOGGIO PIANE LAVORATE A MACCHINA** / Machined planes for flat contact
- 8. CASSA PRISMATICA IN GHISA A TENUTA (LUBRIFICAZIONE CON GRASSO PERMANENTE)** / Sealed cast iron case (long life grease lubrication)

PRINCIPIO DI FUNZIONAMENTO

OPERATING PRINCIPLE

La TAVOLA ROTANTE Serie 5 è un dispositivo meccanico ad assi ortogonali che, tramite una trasmissione a camma elicoidale e rulli in presa continua, trasforma il moto rotatorio uniforme dell'albero in entrata in una rotazione intermittente determinata in uscita.

Il profilo costruttivo della camma determina la rotazione.

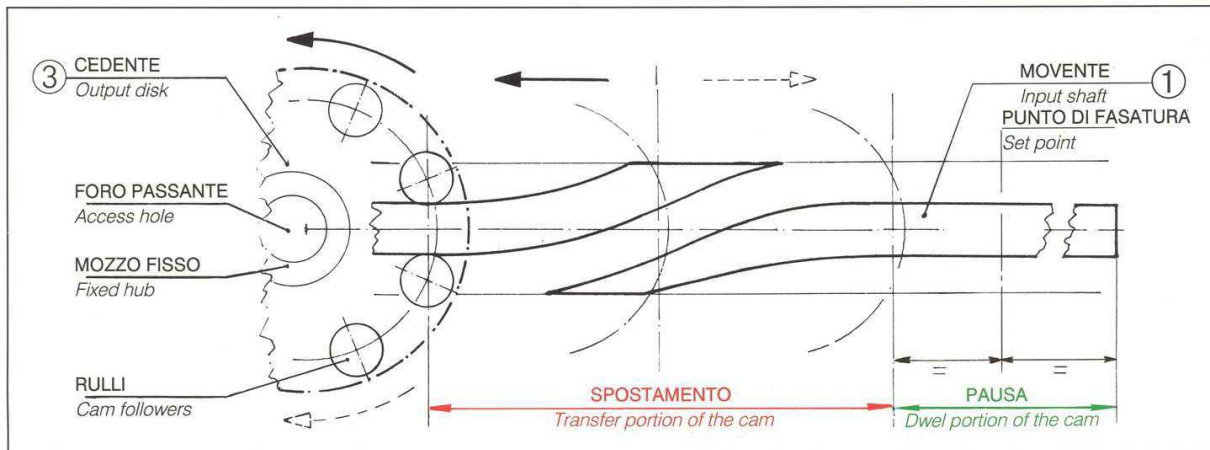
Il funzionamento viene schematizzato nella figura sottostante

AUTOROTOR ROTARY INDEXING TABLE series TA5 is a mechanical square axis device.

A mechanical cam with followers transforms the inlet shaft uniform rotation into a predetermined intermittent rotation at the outlet.

The cam shape causes the disk rotation, which follows mathematically set movement curves, and a well defined dwell period.

The principle of operation is shown below.



DESCRIZIONE

DESCRIPTION

Per ottenere un ciclo completo è necessaria la rotazione di 360° dell'albero in entrata con un movimento ed un periodo di sosta del disco in uscita.

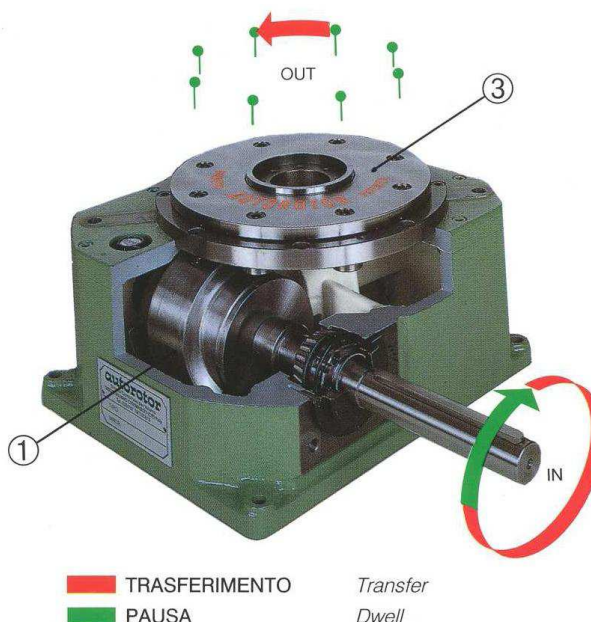
Questo risultato si ottiene con una camma a tamburo - movente - ed un disco con dei rulli - cedente - (vedi fig. a lato) Quando la camma ruota, il profilo trascina in rotazione il disco a mezzo dei rulli, che rullano sulla camma in numero minimo di due.

Il disco portarulli è costantemente

controllato per tutto il ciclo durante il movimento ed il periodo di pausa.

Durante il movimento la camma impone l'attuazione delle leggi di accelerazione e velocità definite in fase di progetto.

Durante la pausa il profilo della camma è ortogonale rispetto all'albero.



For a complete operating cycle it is necessary the full rotation (360°) of the input shaft with a transfer and a dwell period of the output indexing disk.

The cam rib drives along its profiles the cam followers 3. (see picture on the left).

As the cam followers are part of the index disk, when the cam rib rotates the engaged followers, which are always at least two, make the disk to move in an intermittent way. The index disk is constantly driven through the full cycle, during the transfer and the dwell portion.

During the transfer motion the engaged portion of the cam rib transmits to the disk the type of movement (with its peculiar acceleration and deceleration) which has been planned in the project

During the dwell period the configuration of the engaged cam rib portion is square to the shaft.

LEGGI DI MOVIMENTO

MOTION LAWS

L'esperienza diretta come utilizzatori del nostro stesso prodotto, naturalmente supportata dalla teoria e dal calcolo, ci ha guidato nella scelta delle leggi di movimento più adatte:

Our direct experience as users of our product, naturally backed by theory and calculation, has led us to select the suitable motion laws. They are:

CICLOIDALE oppure SINUSOIDALE (a)

Per la sua tendenza a non dare luogo a sensibili vibrazioni, questa legge può considerarsi la migliore.

CYCLOIDAL or SINUSOIDAL (a)

It is considered the best one, as no considerable vibrations are generated.

SINUSOIDALE DEVIATA oppure MODIFICATA (b)

E' ottenuta dalla curva ad andamento sinusoidale ma con coefficiente di accelerazione più basso; presenta rispetto alla prima, un passaggio più dolce dalla massima accelerazione alla minima decelerazione.

SINUSOIDAL DEVIATED or MODIFIED (b)

It stems from the sinusoidal curve but has a lower acceleration coefficient, this turns out in a smoother passage from maximum acceleration to maximum deceleration.

TRAPEZOIDALE MODIFICATA (c)

E' una derivazione della cicloidale.

Tra le curve che abbiamo normalizzato è quella che ha il coefficiente di accelerazione più basso.

TRAPEZOIDAL MODIFIED (c)

It derives from the cycloidal one

It has the lowest acceleration coefficient among the curves we have normalized.

SINUSOIDALE MODIFICATA con tratto a velocità costante (d)

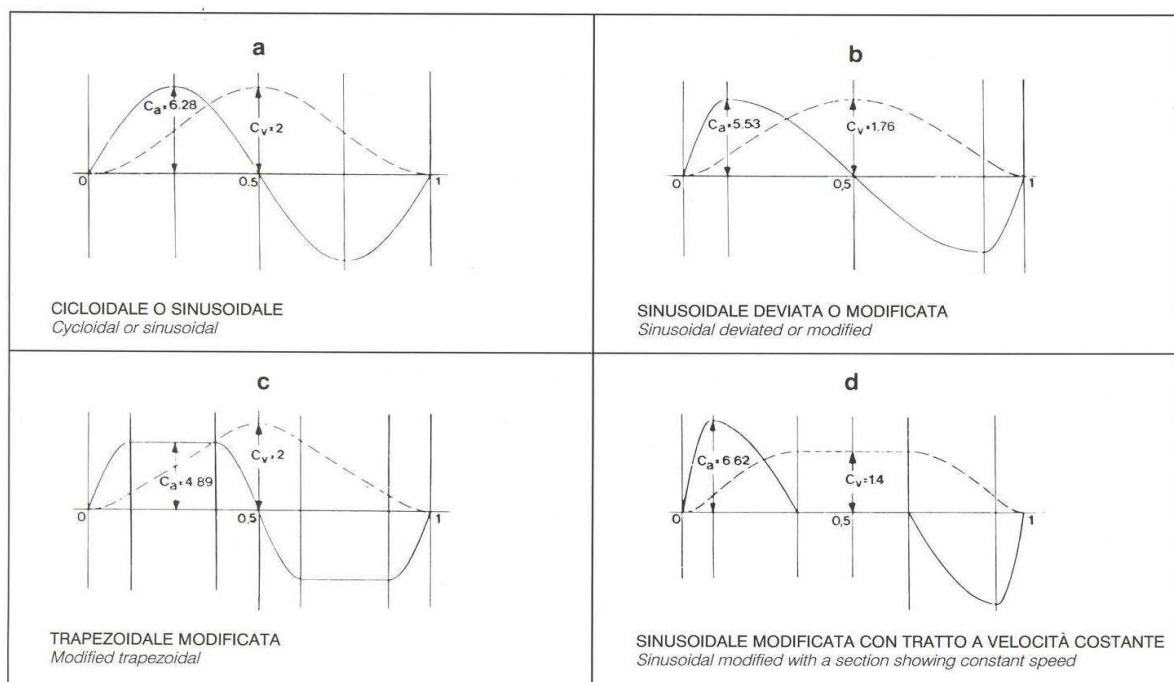
E' simile alla sinusoidale modificata ma possiede un periodo a velocità costante. Variando la percentuale a velocità costante dell'angolo di trasferimento, varia il coefficiente di accelerazione.

SINUSOIDAL MODIFIED with a stretch at constant speed (d)

This motion law is similar to the sinusoidal modified one, but has a period at constant speed. Varying the percentage of the indexing angle at constant speed, the acceleration coefficient varies consequently.

DIAGRAMMI DELLE LEGGI DI MOTO

MOTION LAWS DIAGRAMS



SENSO DI ROTAZIONE

ROTATION DIRECTION

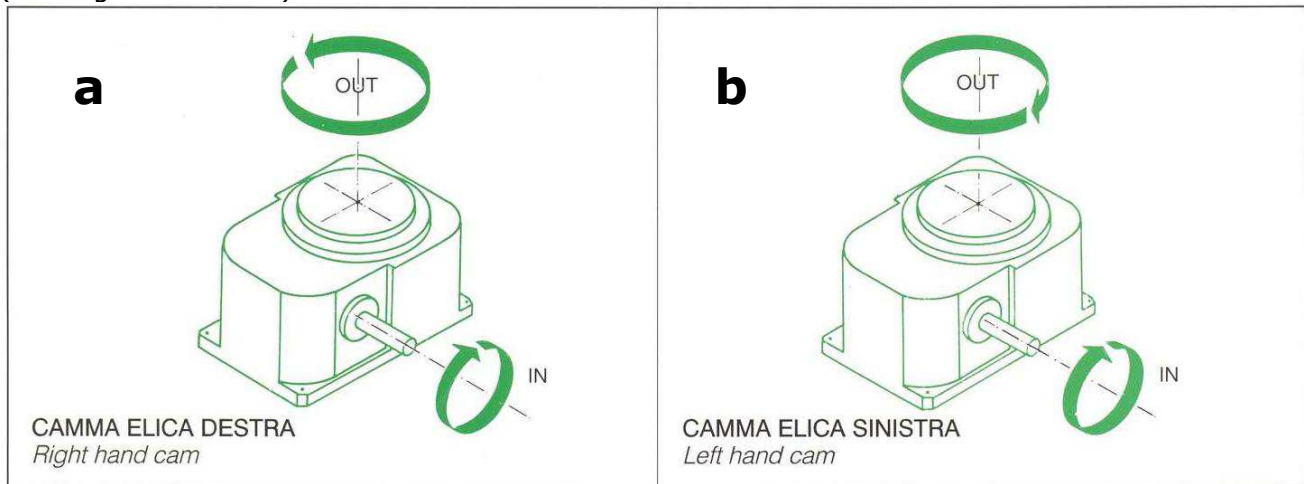
La tavola rotante in esecuzione standard è fornita con camma ad elica **destra**. La rotazione **oraria** dell'albero in entrata genera una rotazione intermittente **antioraria** in uscita (vedi figura "a" sotto).

Per avere la direzione contraria è sufficiente invertire il moto all'ingresso.

Con camma ad elica **sinistra** e rotazione **oraria** in ingresso si ha l'uscita in senso **orario** (vedi figura "b" sotto).

Standard rotate index table is supplied with **right hand** cam. **Clockwise** rotation at inlet is transformed into **counterclockwise** intermittent rotation at outlet (see picture below "a").

With **left hand** cam and **clockwise** rotation at inlet we have intermittent **clockwise** at outlet (see picture "b" below).



PIANI LAVORATI DELLA TAVOLA

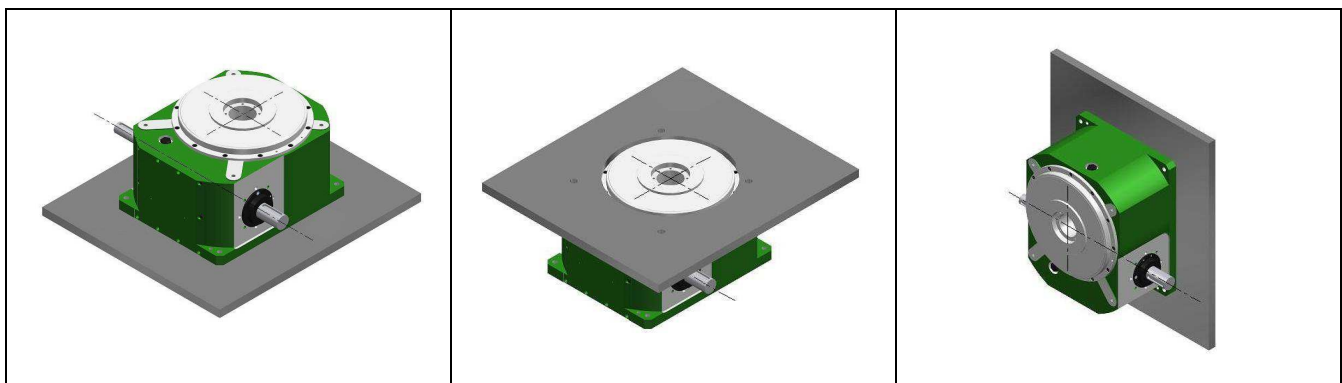
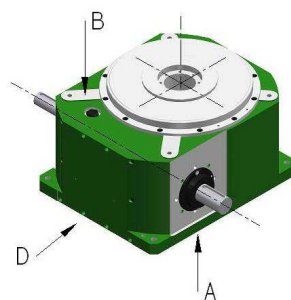
TABLE MACHINED SIDES

Normalmente la tavola viene lavorata sui piani A e B (D su richiesta). Per le posizioni di montaggio vedi pag.11.

Le figure sottostanti illustrano qualche esempio.

Rotary indexing table is normally machined on planes A and B (D on request). For mounting position see page 11.

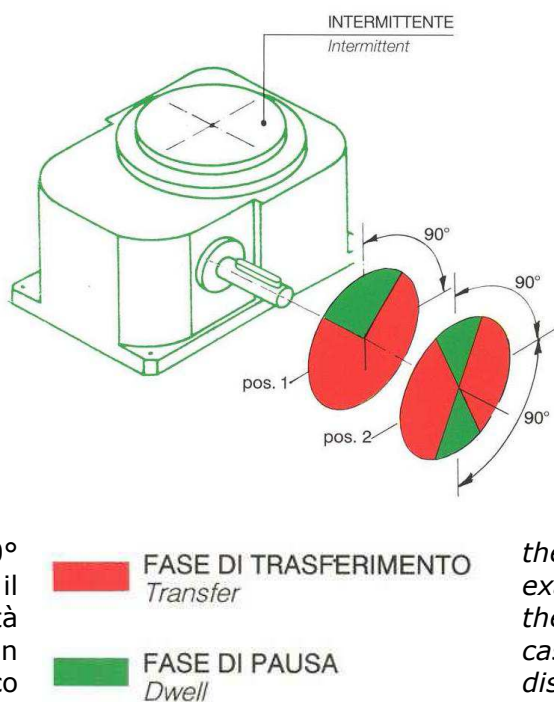
Some examples are shown below.



RIFERIMENTI DI FASE REFERRING TO SET POINT

L'albero portacamma di una tavola rotante **standard** è dotato di una linguetta che può essere utilizzata come riferimento di fase.

Quando questa è in posizione superiore, a 90° rispetto al piano d'appoggio, il meccanismo è situato a metà del periodo di pausa (pos 1 fig. a lato). In caso di tavole rotante con camma a **doppio profilo**, quando la linguetta è in posizione superiore o inferiore, a 90° rispetto al piano d'appoggio, il meccanismo è situato a metà del periodo di pausa. In questo caso il disco intermittente esegue **due spostamenti** e **due pause** con un solo giro dell'albero in ingresso (pos 2 fig. a lato).



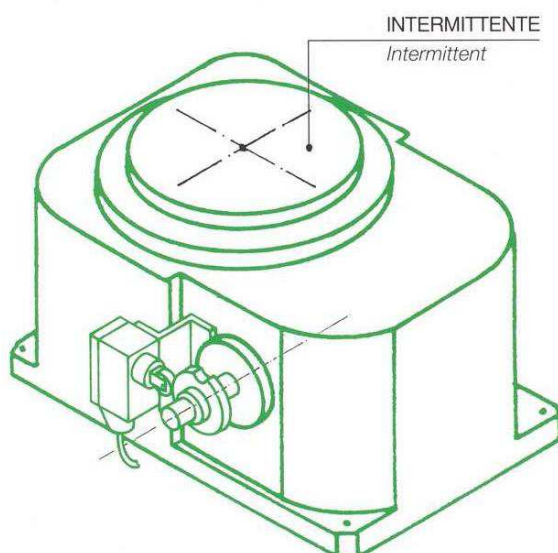
Rotating cam holder shaft of a standard rotary indexing table is equipped with a keyway which can be used as set point reference. When the keyway is in upper position, 90° to the table base, the indexing mechanism is exactly in the middle of the dwell (see side-pict. pos. 1).

In case of indexing table with double profile cam, when the keyway is in upper or lower position, 90° to the table base, the indexing mechanism is exactly located in the middle of the dwell. In this particular case the output intermittent disk performs two transfer and two dwells with only one rotation of the inlet power camshaft (see side-pict pos. 2).

MICROINTERRUTTORE DI FASE SET MICROSWITCH

La tavola rotante può essere equipaggiata di microinterruttore azionato da camma sul prolungamento dell'albero in ingresso. Quando il periodo di pausa determinato dalla rotazione della camma non è sufficientemente lungo, l'impiego del microinterruttore consente di controllare un motore autofrenante e di variare l'ampiezza della sosta in funzione delle esigenze.

La durata dell'arresto del disco intermittente viene quindi determinata regolando l'intervento del micro in posizione intermedia del periodo di pausa (vedi fig. a lato).



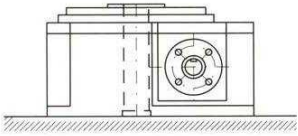
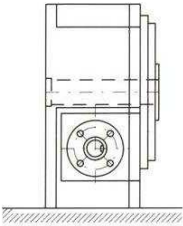
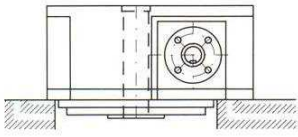
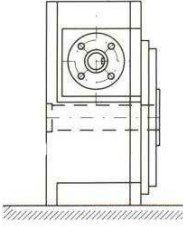
The rotary indexing table can also be equipped with a microswitch operated by a little cam on the rear part of the inlet power shaft. When the dwell period generated by the cam rotation is not long enough for operation's needs, said limit switch enables to stop and start an electric brake motor and thus to control the dwell time to meet the above needs. The micro-switch is set to

operate in the middle of the dwell period.

Dwell time of output intermittent disk can be easily regulated by setting cam and micro switch in an intermediate position of dwell (see side-pict).

POSIZIONE DI LAVORO TAVOLA ROTANTE

INDEX TABLE OPERATING POSITION

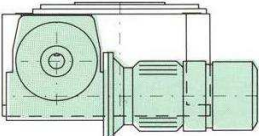
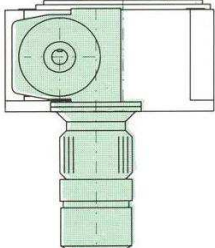
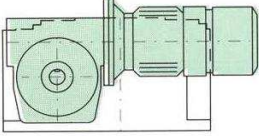
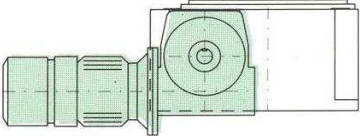
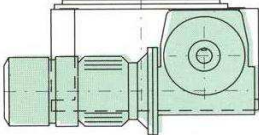
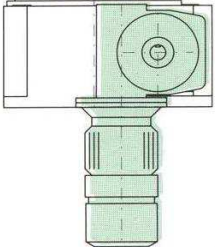
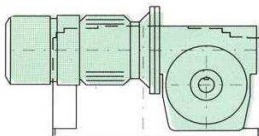
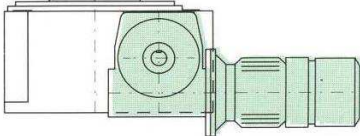
STANDARD <i>Standard</i> 	ASSE ORIZZONTALE ALBERO INFERIORE <i>Horizontal axis lower input shaft</i> 
CAPOVOLTA <i>Upside-down</i> 	ASSE ORIZZONTALE ALBERO SUPERIORE <i>Horizontal axis upper input shaft</i> 

Per le posizioni 2 e 4 è prevista una tenuta
addizionale.

In position 2 and 4 an additional seal is
planned.

POSIZIONE DI MONTAGGIO UNITA' MOTRICE

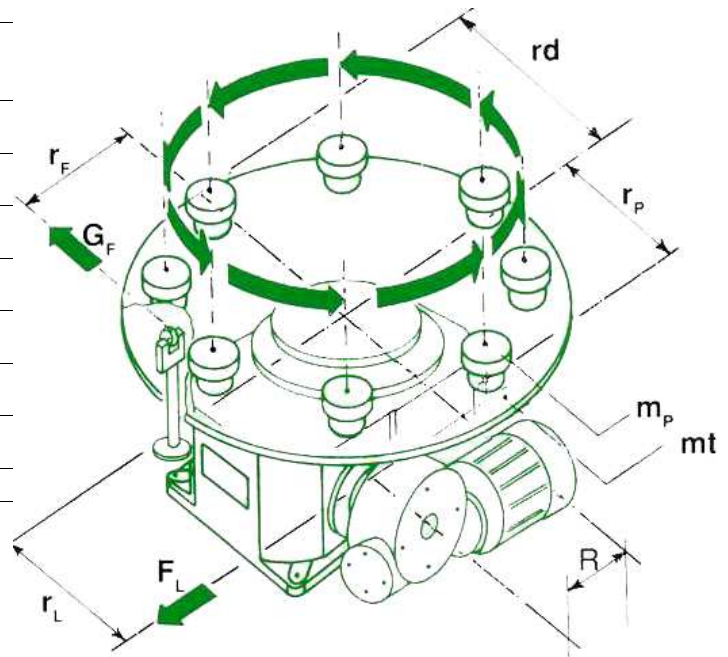
POWER DRIVE UNIT ASSEMBLING POSITION

MONTAGGIO SUL LATO STANDARD <i>Assembling on standard side</i>	 (A)	 (B)
	 (C)	 (D)
MONTAGGIO SUL LATO OPPOSTO <i>Assembling on opposite side</i>	 (E)	 (F)
	 (G)	 (H)

ESEMPIO DI CALCOLO

CALCULATION EXAMPLE

M_u	daNm	Momento utile (vedi tabelle specifiche)	Capacity torque (see relevant tables)
M_a	DaNm	Momento di distacco	Start friction torque
C_v		Coeff di velocità	Speed coefficient
C_a		Coeff. di accelerazione	Acceleration coefficient
K		Coeff. di trasmissione	Transmission coefficient
α°, α^{rad}	° / rad	Angolo di uscita	Displacement angle
C_r		Coeff. di rigidità	Rigidity coefficient
C_d		Coeff. di durata	Life coefficient
n_e	rpm	Cicli in entrata	Input cycles



Dati di ingresso

Input data

S		Numero di stazioni	Number of stations	8
t₁	s	Tempo di spostamento	Indexing time	≤0.7
β	°	Angolo di spostamento (camma)	Cam transfer angle	270
		Durata (cicli x 10 ⁶)	Life (cycles x 10 ⁶)	40
r_d	mm	Raggio del disco	Disk Radius	500
	mm	Spessore del disco	Disk thickness	20
m_t	kg	Massa del disco	Disk mass	123.5
m_p	kg	Massa singolo portapezzo e pezzo	Piece holder and piece mass	4
r_p	mm	Distanza dal centro	Distance from center	440
G_F	daN	Forza di attrito stimata	Estimated friction force	10
r_F	mm	Raggio di azione	Distance from center	350
μ		Coefficiente di attrito	Friction coefficient	0.2
F_L	daN	Forza esterna durante lo spostamento	External load during transfer	10
r_L	mm	Raggio di azione	Distance from center	400

1 Tempo di spostamento (s)	1 Indexing time
Dalla tabella di pag.52 si può scegliere un tempo di 0.64 s (rapporto 20/1, n _e = 70 rpm, β 270°)	From table at pag.53 we can select a time of 0.64 s (20/1 ratio, n _e = 70 rpm, β 270°)
2 Inerzia totale (kgm²)	2 Total inertia (kgm²)
I pezzi e portapezzi di piccole dimensioni possono essere considerati un unico insieme e rappresentati come puntiformi (caso 14 tabella a pag. 14)	Piece holders and pieces of small dimensions may be considered as only one entity and sized as per case 14
$J_p = m_p \cdot r_p^2 = 6.2 \text{ kgm}^2$	
Il disco è calcolato secondo le indicazioni del caso 1	The disk is sized as per case 1 (table at page 14)
$J_d = \frac{m_t \cdot r_d^2}{2} = 15.4 \text{ kgm}^2$	

Al carico inerziale totale corrisponde un raggio equivalente di inerzia	<i>The sum of the single inertia (single mass by single square radius, i.e. distance of the mass from the center of the table) generates the total inertia. The same total inertia could be got by a single mass (sum of all the single masses) placed on a theoretical radius. This radius is called "equivalent gyration radius"</i>
$r_{eq} = \sqrt{\frac{\sum J}{\sum m}} = 373 \text{ mm}$	
Esaminando i diagrammi relativi al massimo raggio equivalente di inerzia in funzione del tempo di spostamento si individua la tavola T 35, per la quale, sulle tabelle specifiche, si rilevano i valori	<i>Look at the table displacement time -maximum equivalent gyration radius. The suitable table comes out to be the T35 model; its Mu is 152 daNm (see relevant tables)</i>
$M_u = 152 \text{ daNm}$ $C_v = 1.76, C_a = 5.53, K = 0.16$	

3 Momento torcente (daNm)	3 Torque (daNm)
Il momento torcente dinamico totale M_d applicato alla tavola è la somma del momento generato dall'inerzia M_j , il momento generato dagli attriti M_f e il momento laterale generato dalla componente tangenziale delle forze esterne agenti sul disco tavola durante il movimento M_l	<i>The total dynamic torque M_d applied to the table is the sum of the moment generated by inertia M_j, the torque generated by the friction M_f and M_l, the side torque generated by the tangential component of the external forces acting on the table disc during the motion</i>
$M_j = \frac{\sum J \cdot C_a \cdot \alpha^{rad}}{10 \cdot t_1^2}$ $M_f = G_f \cdot \mu \cdot r_f \quad \Rightarrow \quad M_d = M_j + M_f + M_l = 27.4$ $M_l = F_l \cdot r_l$	

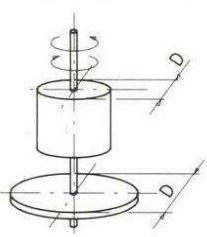
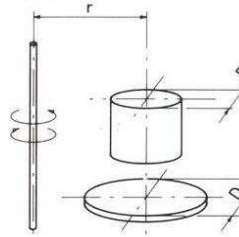
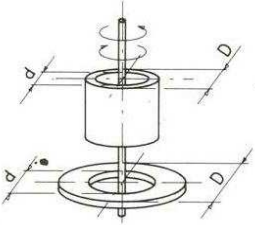
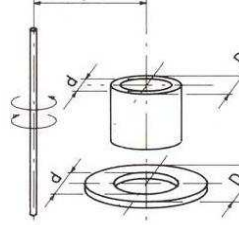
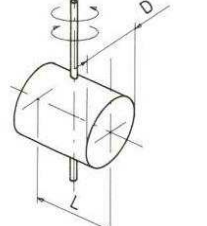
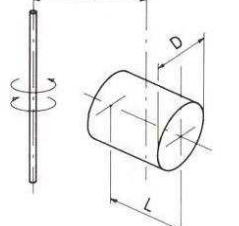
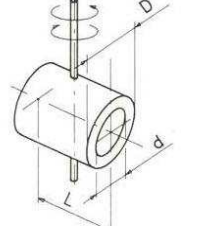
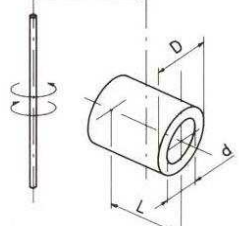
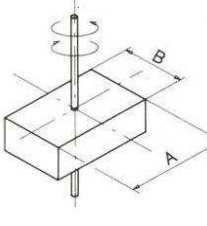
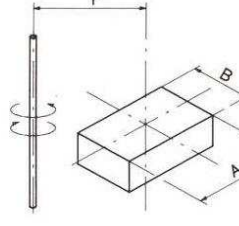
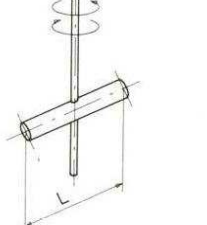
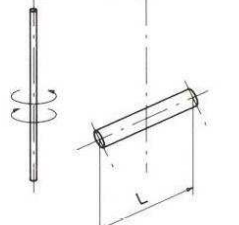
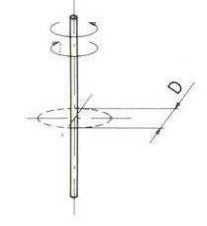
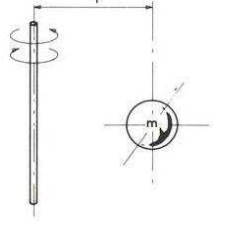
4 Momento torcente massimo Mv1 (daNm)	4 Maximum torque Mv1 (daNm)
Il momento torcente massimo Mv1 è definito come prodotto del momento dinamico per il coefficiente di rigidità e per il coefficiente di durata (in relazione all'elasticità della trasmissione in ingresso ed uscita)	<i>The maximum torque Mv1 is the dynamic torque multiplied by the rigidity coefficient and the life coefficient. This latter coefficient depends on the transmission rigidity at the input and output.</i>
$M_{v1} = M_d \cdot C_r \cdot C_d = 41.4$	
Perché la tavola sia verificata deve risultare	<i>To check that the chosen table is the right one the Mv1 of the application must be lower than the Mu of the selected table</i>
$M_{v1} < M_u \Rightarrow 41.4 < 152$	

5 Momento torcente in entrata Me (daNm)	5 Inlet torque Me (daNm)
Il momento torcente in entrata Me è legato al momento generato dalle inerzie esterna ed interna, al momento e ai momenti laterale e d'attrito dalla relazione	<i>The formula below shows the relationship between Me (input torque), Ma (start friction torque), Mf (torque generated by friction), Ml (generated by forces in dwell) Mj (generated by external inertia) and Mi (generated by internal inertia)</i>
$M_e = (M_j + M_i) \cdot k + \frac{\alpha}{\beta} \cdot C_v \cdot (M_f + M_l) + M_a = 7.15$	
Questo valore, corretto per il coefficiente di durata, deve essere utilizzato per il dimensionamento della trasmissione e/o per la scelta del riduttore	<i>Me multiplied by life coefficient is needed to size the transmission (dimension of the timing belt for instance) and/or to select the suitable reducer</i>

6 Potenza assorbita (kw)	6 Power peak (kw)
La potenza richiesta Ne è ricavabile dalla relazione	<i>It is the maximum power required by the application. The formula to get it is</i>
$N_e = \frac{(M_e + M_a) \cdot n_e}{955 \cdot \eta} = \sim 0.7 \text{ kw}$	

ESEMPI DI MOVIMENTI DI INERZIA DI MASSA – J[kgm²]

MOMENT OF MASS INERTIA – J[kgm²]

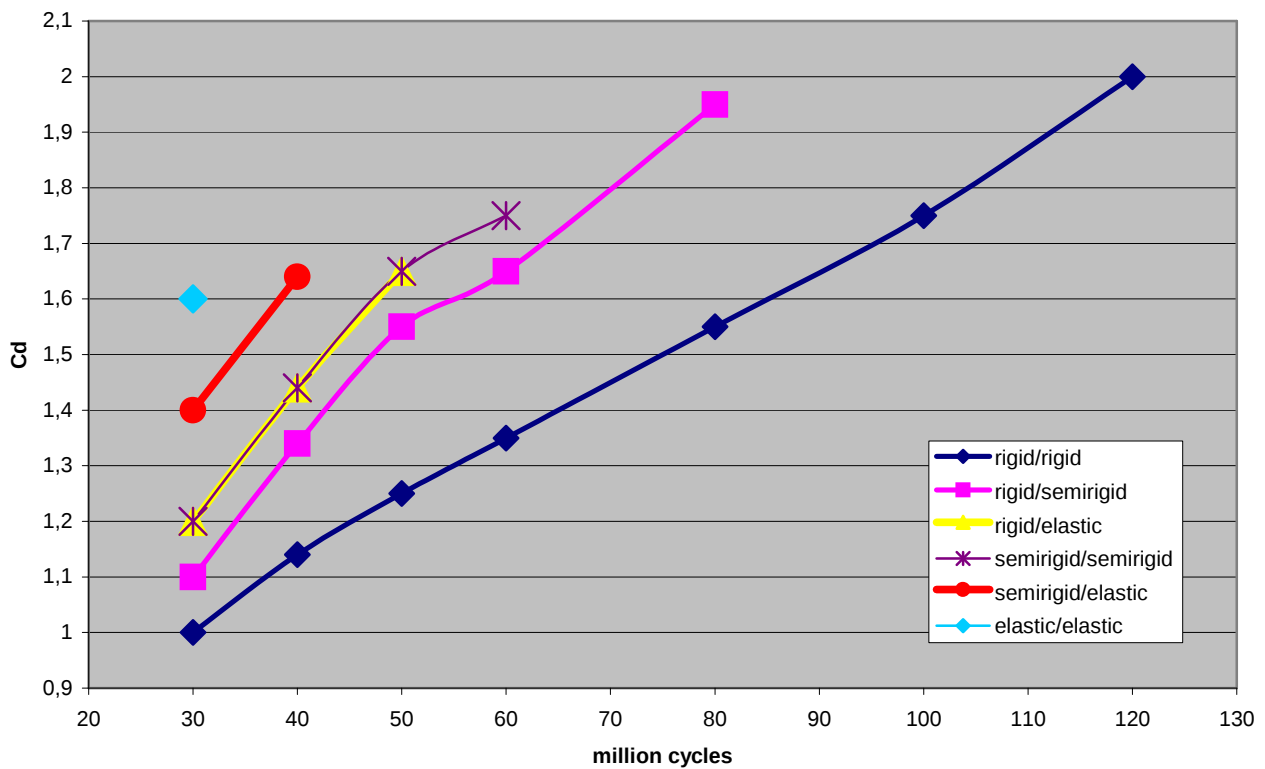
 ①	$J = \frac{D^2}{8} \cdot m$ CILINDRO PIENO RUOTANTE ATTORNO AL PROPRIO ASSE. Solid cylinder rotating around its own axis.	 ⑧	$J = \left(\frac{D^2}{8} + r^2 \right) \cdot m$ CILINDRO PIENO RUOTANTE ATTORNO AD UN ASSE PARALLELO ALL'ASSE DEL CILINDRO. Solid cylinder rotating around an axis parallel to cylinder's.
 ②	$J = \frac{D^2 + d^2}{8} \cdot m$ CILINDRO FORATO RUOTANTE ATTORNO AL PROPRIO ASSE. Hollow cylinder rotating around its own axis.	 ⑨	$J = \left(\frac{D^2 + d^2}{8} + r^2 \right) \cdot m$ CILINDRO FORATO RUOTANTE ATTORNO AD UN ASSE PARALLELO ALL'ASSE DEL CILINDRO. Hollow cylinder rotating around an axis parallel to cylinder's.
 ③	$J = \left(\frac{L^2}{12} + \frac{D^2}{16} \right) \cdot m$ CILINDRO PIENO RUOTANTE ATTORNO AD UN ASSE PERPENDICOLARE A QUELLO DEL CILINDRO ED INTERSECANTELO A METÀ DELLA LUNGHEZZA DEL CILINDRO STESSO. Solid cylinder rotating around an axis square to the cylinder's and crossing it at cylinder's midlength.	 ⑩	$J = \left(\frac{L^2}{12} + \frac{D^2}{16} + r^2 \right) \cdot m$ CILINDRO PIENO RUOTANTE ATTORNO AD UN ASSE ORTOGONALE A QUELLO DEL CILINDRO. Solid cylinder rotating around an axis square to cylinder's.
 ④	$J = \left(\frac{L^2}{12} + \frac{D^2 + d^2}{16} \right) \cdot m$ CILINDRO FORATO RUOTANTE ATTORNO AD UN ASSE PERPENDICOLARE A QUELLO DEL CILINDRO ED INTERSECANTELO A METÀ DELLA LUNGHEZZA DEL CILINDRO STESSO. Hollow cylinder rotating around an axis square to the cylinder's and crossing it at cylinder's midlength.	 ⑪	$J = \left(\frac{L^2}{12} + \frac{D^2 + d^2}{16} + r^2 \right) \cdot m$ CILINDRO FORATO RUOTANTE ATTORNO AD UN ASSE ORTOGONALE A QUELLO DEL CILINDRO. Hollow cylinder rotating around an axis square to cylinder's.
 ⑤	$J = \frac{A^2 + B^2}{12} \cdot m$ PARALLELEPIPEDO RUOTANTE ATTORNO ALL'ASSE DELLE PROPRIE FACCE PIÙ GRANDI. Parallelepiped rotating around its main sides' axis.	 ⑫	$J = \left(\frac{A^2 + B^2}{12} + r^2 \right) \cdot m$ PARALLELEPIPEDO RUOTANTE ATTORNO AD UN ASSE PARALLELO A QUELLO DELLE FACCE PRINCIPALI DEL PARALLELEPIPEDO. Parallelepiped rotating around an axis parallel to the main sides'.
 ⑥	$J = \frac{L^2}{12} \cdot m$ LUNGA ASTA SOTTILE DI QUALUNQUE SEZIONE, RUOTANTE ATTORNO AD UN ASSE PERPENDICOLARE A QUELLO DELL'ASTA ED INTERSECANTELO A METÀ DELLA LUNGHEZZA DELL'ASTA STESSA. Long thin rod, of any section, rotating around an axis square to the rod's and crossing it at rod's midlength.	 ⑬	$J = \left(\frac{L^2}{12} + r^2 \right) \cdot m$ LUNGA ASTA SOTTILE DI QUALUNQUE SEZIONE, RUOTANTE ATTORNO A UN ASSE ORTOGONALE A QUELLO DELL'ASTA. Long thin rod, of any section, rotating around an axis square to rod's.
 ⑦	$J = \frac{D^2}{4} \cdot m$ MASSA CONSIDERATA CONCENTRATA SU UNA CIRCONFERENZA. Mass which is considered concentrated on a circumference.	 ⑭	$J = r^2 \cdot m$ MASSA CONSIDERATA CONCENTRATA IN UN PUNTO. Mass which is considered concentrated in a point.

NB: Le masse sono espresse in [kg]. Le lunghezze sono espresse in [m]

NB: Masses are in [kg]. Lengths are in [m]

COEFFICIENTE DI DURATA

LIFE COEFFICIENT



COEFFICIENTE DI RIGIDITA'

RIGIDITY COEFFICIENT

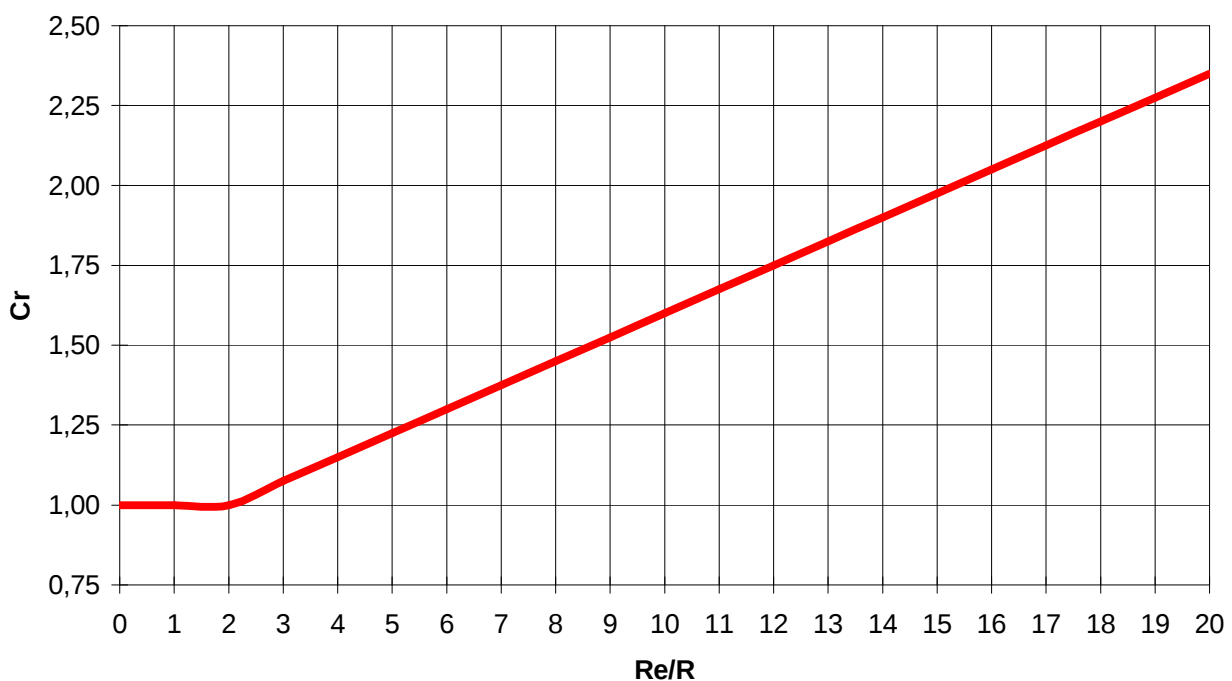


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 10

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16	2										
18											
20											
24											
28											
30	3										
32	2										
36	3										

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

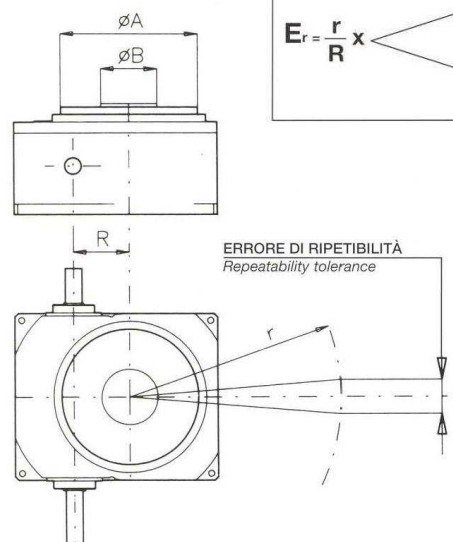
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

TOLLERANZA TAVOLE ROTANTI

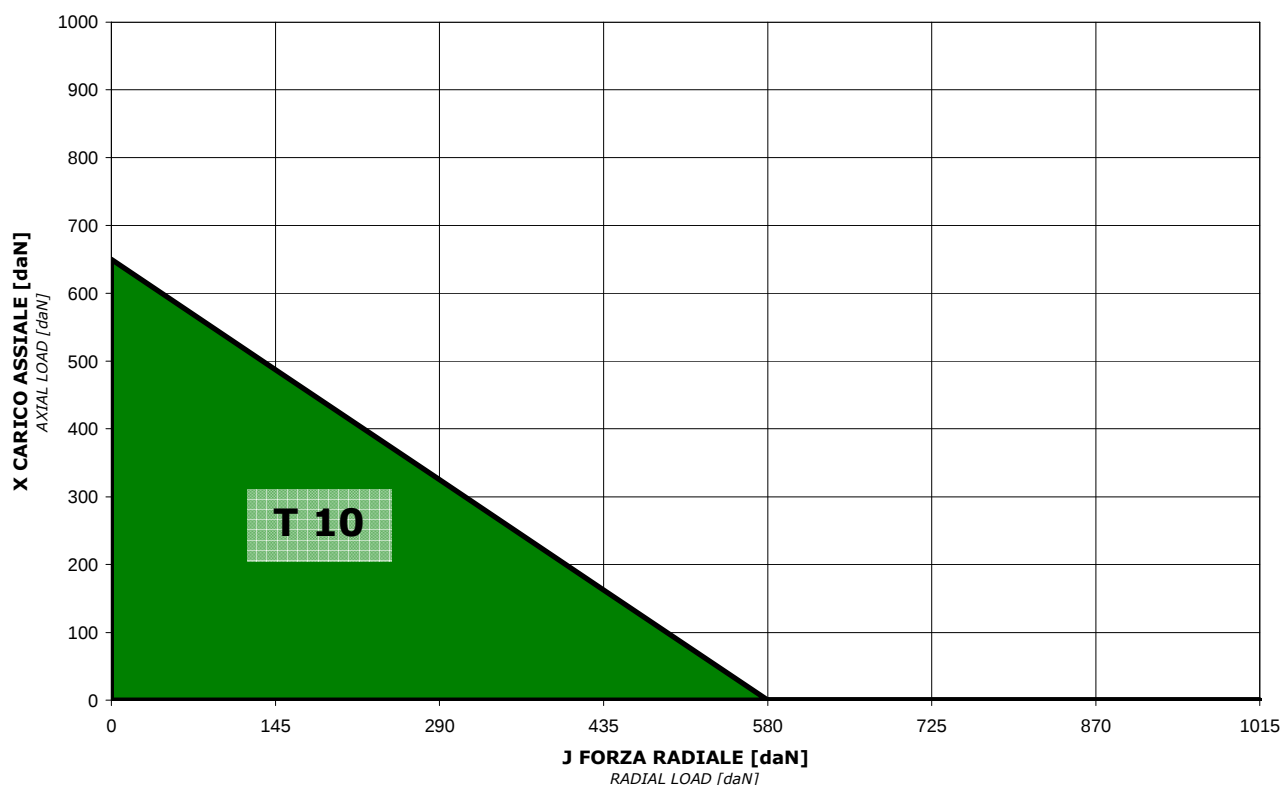
TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - o **R** : 37.5 mm
 - o **Standard:** ±0,015 mm
 - o **Special:** ±0,010 mm
- Planarità disco / Disc flatness:**
 - o **A**: 120 mm
 - o **Total:** 0,010 mm
- Eccentricità disco / Disc eccentricity:**
 - o **B**: 30 mm
 - o **Total:** 0,010 mm

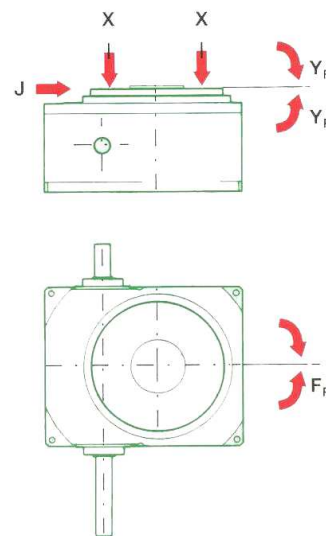


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante Max load on indexing disk				
combinati / combined		momenti / torque		
assiale axial X	radiale radial J	flettente bending Yf	ribaltante overturning Yr	in pausa in dwell Mp
daN		daNm		
650	580	18	15	12



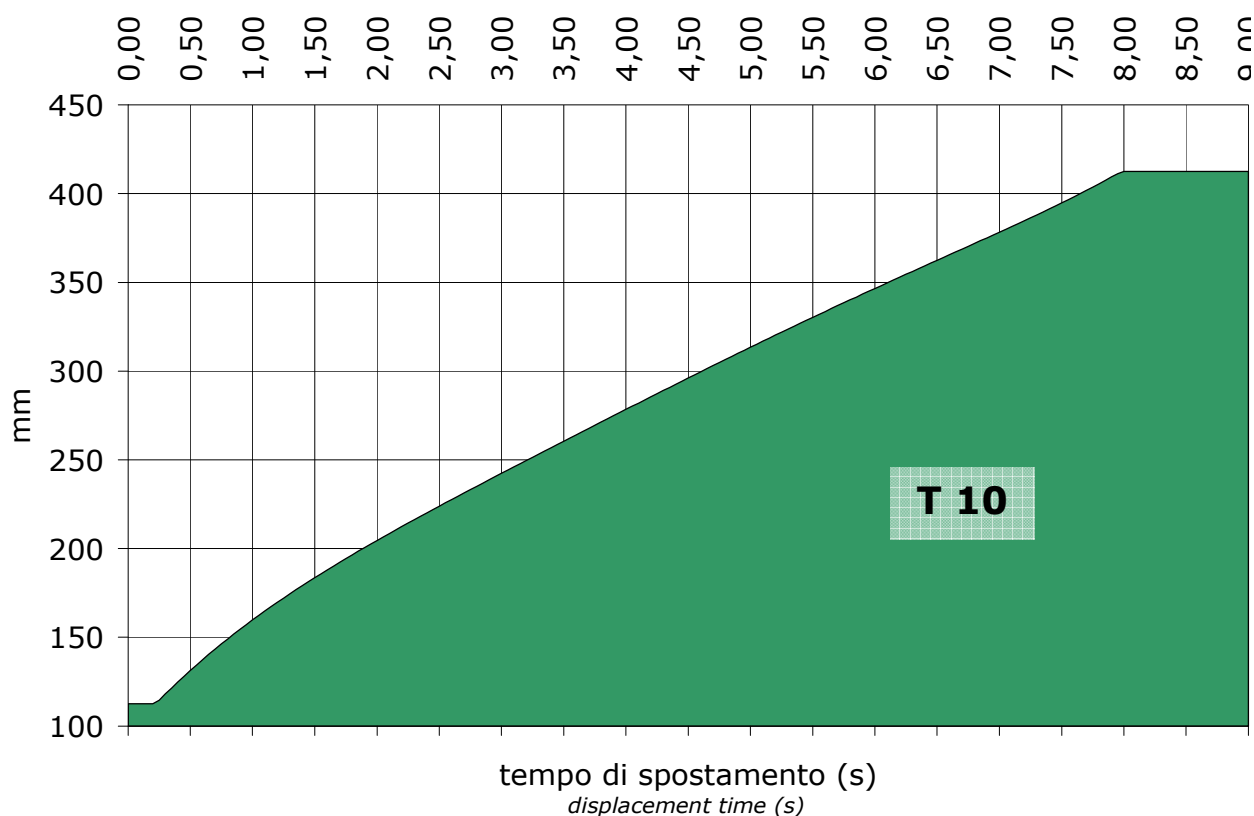
ATTRITO DI PRIMO DISTACCO M_a : 0,6 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
0,00232	0,00226	0,00238	0,00243	0,00232	0,00235	

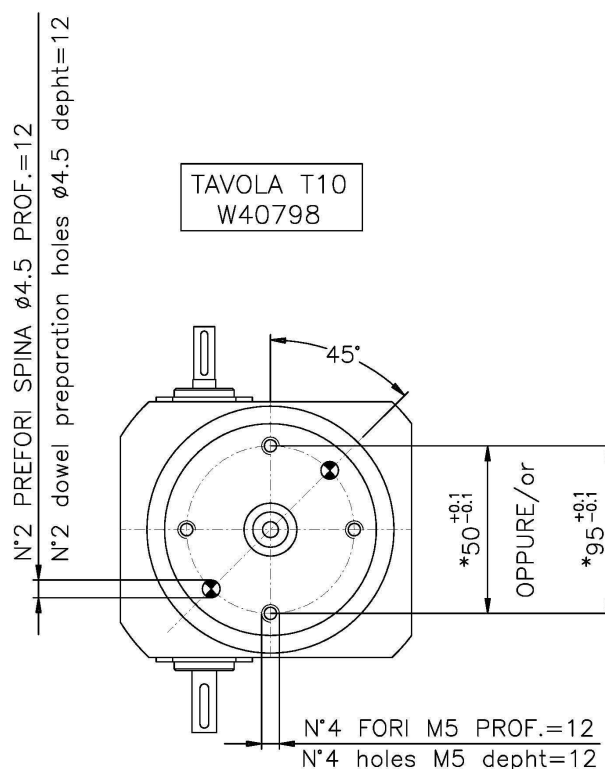
RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK



* PER LA SCELTA DELL'INTERASSE DI FORATURA
CONSULTARE L'UFFICIO TECNICO
To select bolt holes circle contact our
technical office

TAVOLA ROTANTE

ROTARY INDEX TABLE

T 15

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16	2										
18											
20											
24											
28											
30	3										
32	2										
36	3										

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

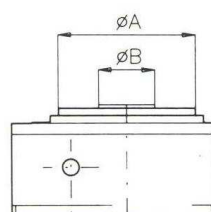
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

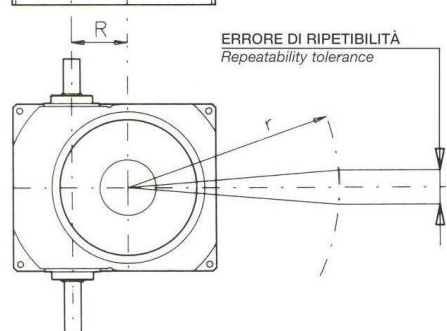
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 50,0 mm
 - Standard: ±0,015 mm**
 - Special: ±0,010 mm**
- Planarità disco / Disc flatness:**
 - A: 130 mm
 - Total: 0,010 mm**
- Eccentricità disco / Disc eccentricity:**
 - B: 65 mm
 - Total: 0,010 mm**

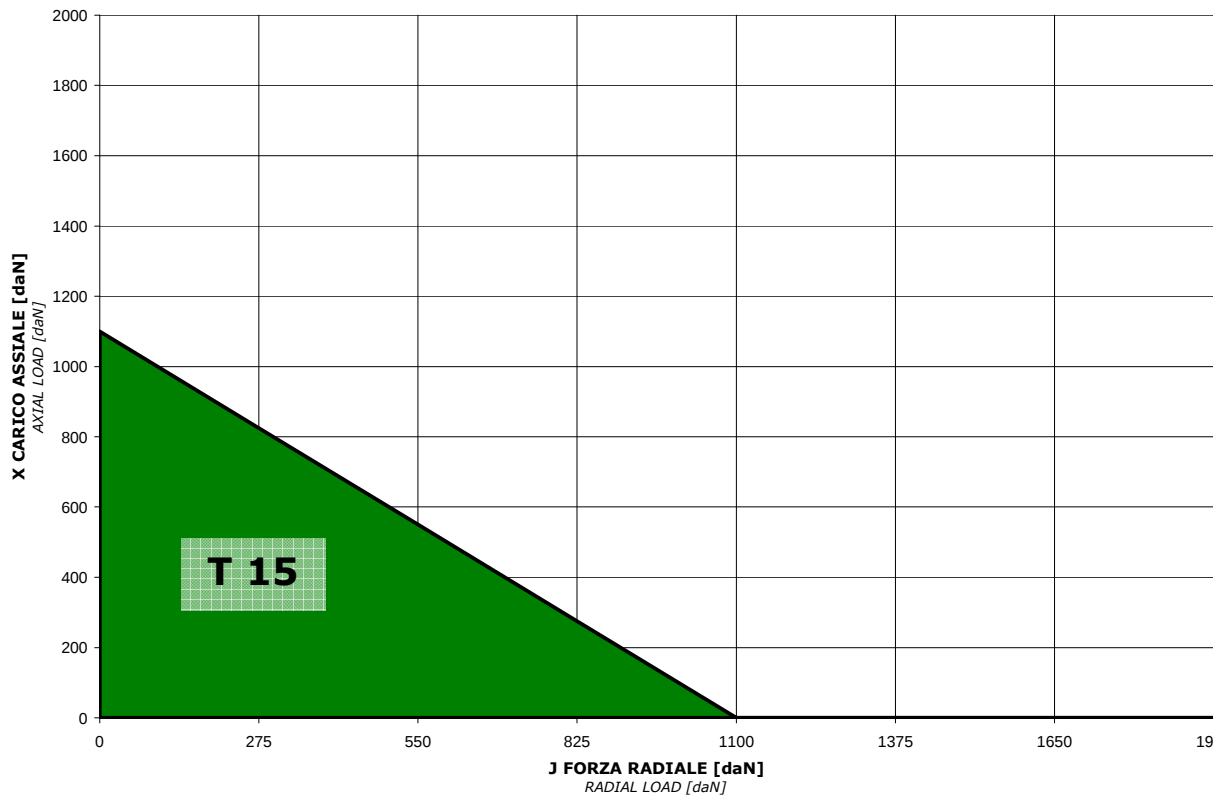


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

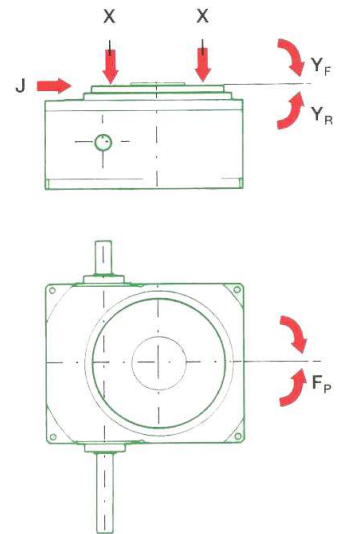


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante <i>Max load on indexing disk</i>				
combinati / combined		momenti / torque		
assiale <i>axial</i> X	radiale <i>radial</i> J	flettente <i>bending</i> Yf	ribaltante <i>overturning</i> Yr	in pausa <i>in dwell</i> Mp
daN		daNm		
1100	1100	32	25	28



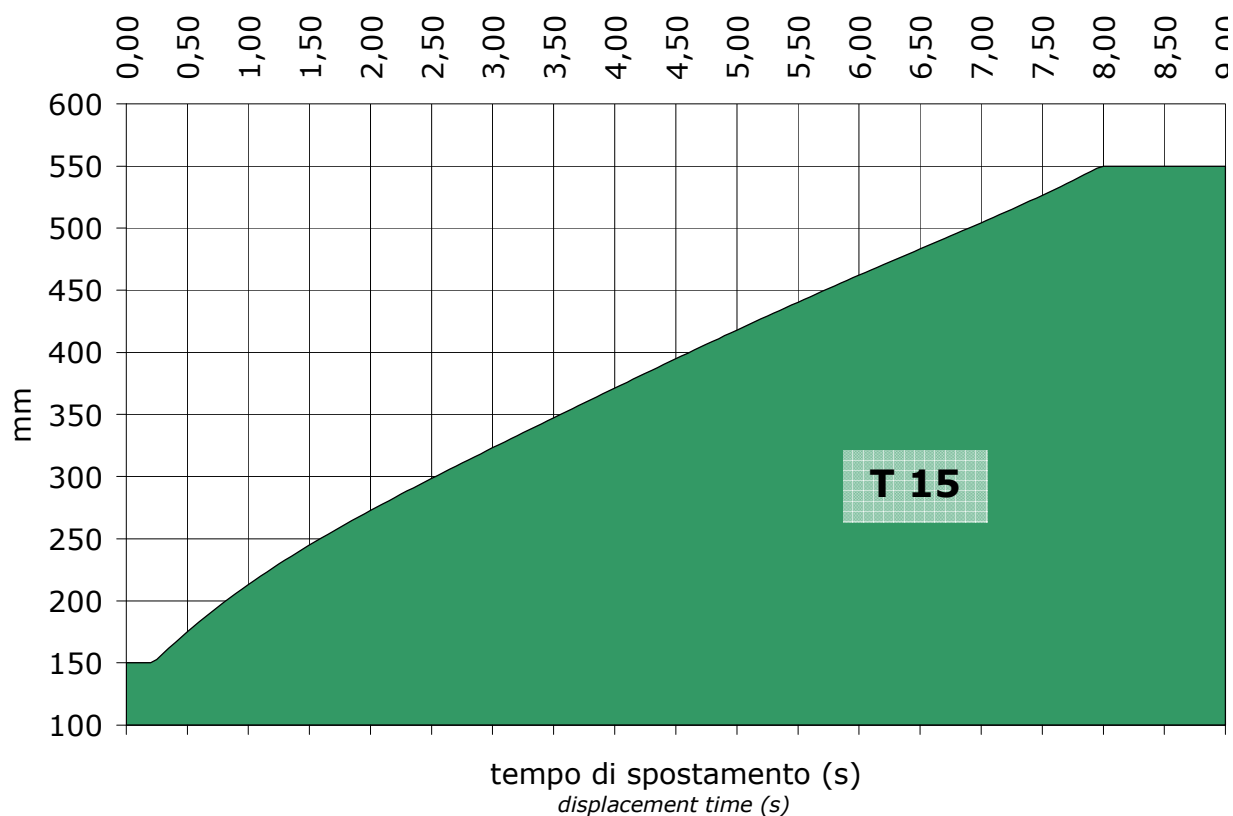
ATTRITO DI PRIMO DISTACCO M_a : 0,9 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
0,00691	0,00678	0,00703	0,00716	0,00691	0,00697	

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

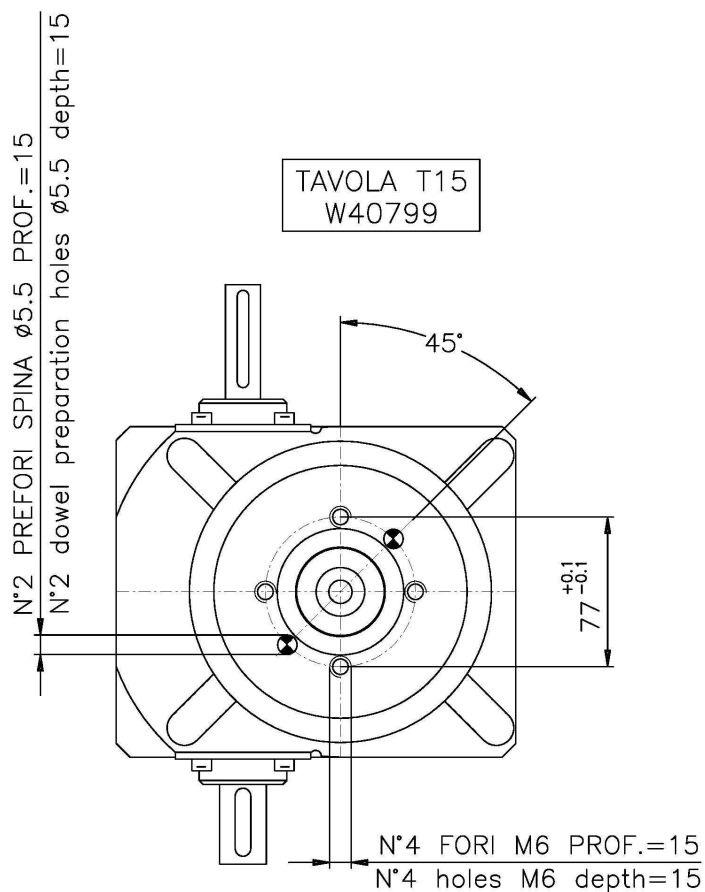


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 25

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

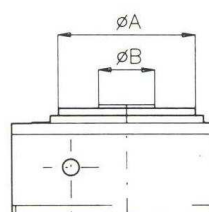
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

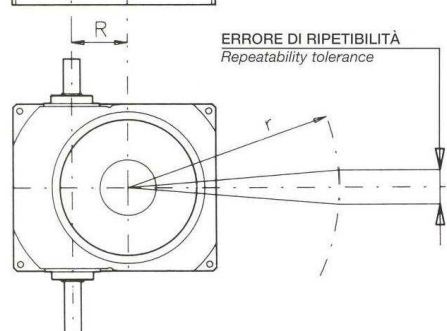
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 80,0 mm
 - Standard: $\pm 0,015$ mm
 - Special: $\pm 0,010$ mm
- Planarità disco / Disc flatness:**
 - A: 195 mm
 - Total: 0,010 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 80 mm
 - Total: 0,010 mm

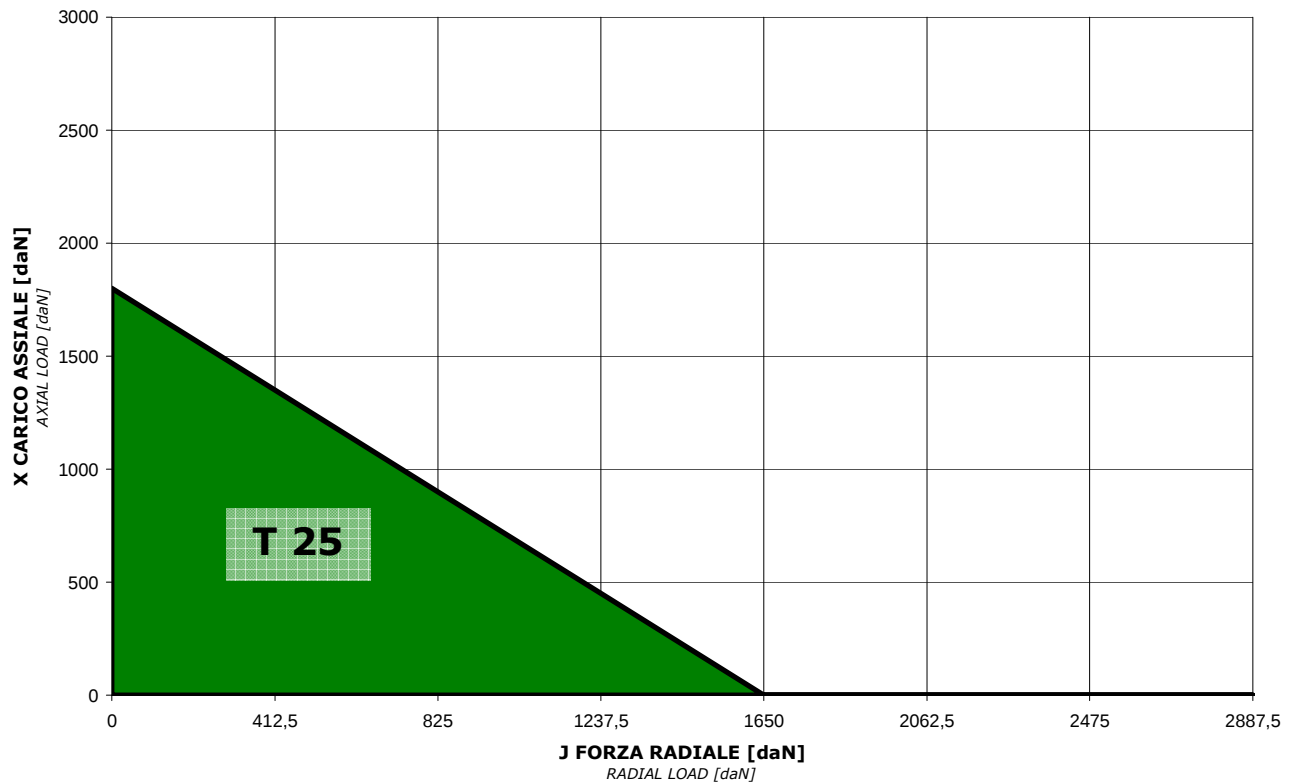


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

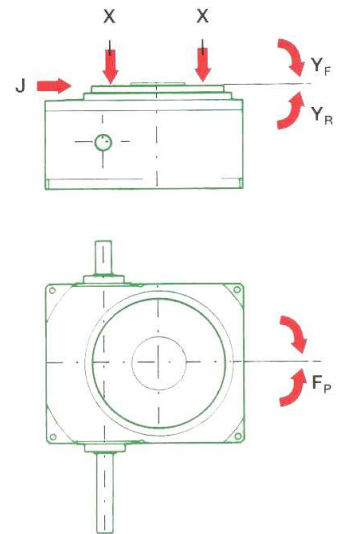


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante <i>Max load on indexing disk</i>				
combinati / combined		momenti / torque		
assiale <i>axial</i> X	radiale <i>radial</i> J	flettente <i>bending</i> Yf	ribaltante <i>overturning</i> Yr	in pausa <i>in dwell</i> Mp
daN		daNm		
1800	1650	68	55	69



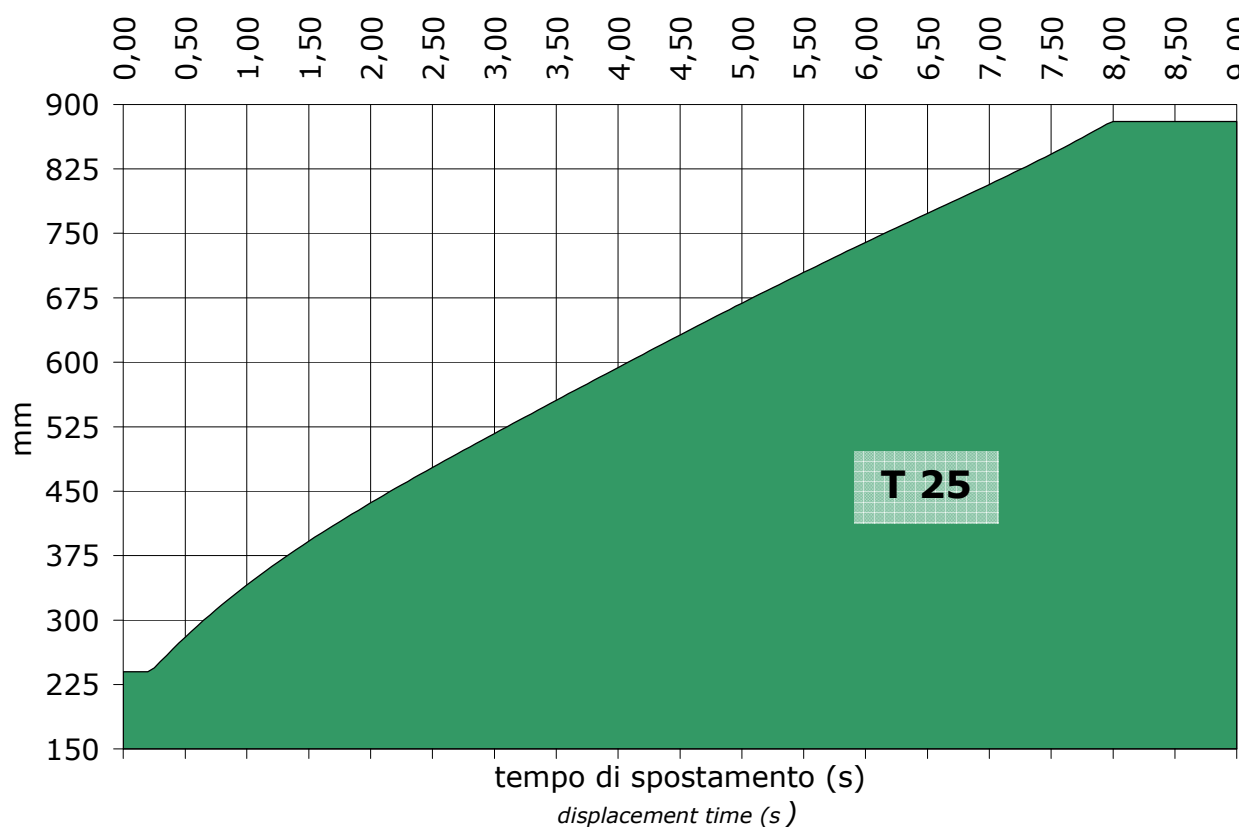
ATTRITO DI PRIMO DISTACCO M_a : 1,4 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
0,02470	0,02430	0,02510	0,02550	0,02620	0,02660	0,02620

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

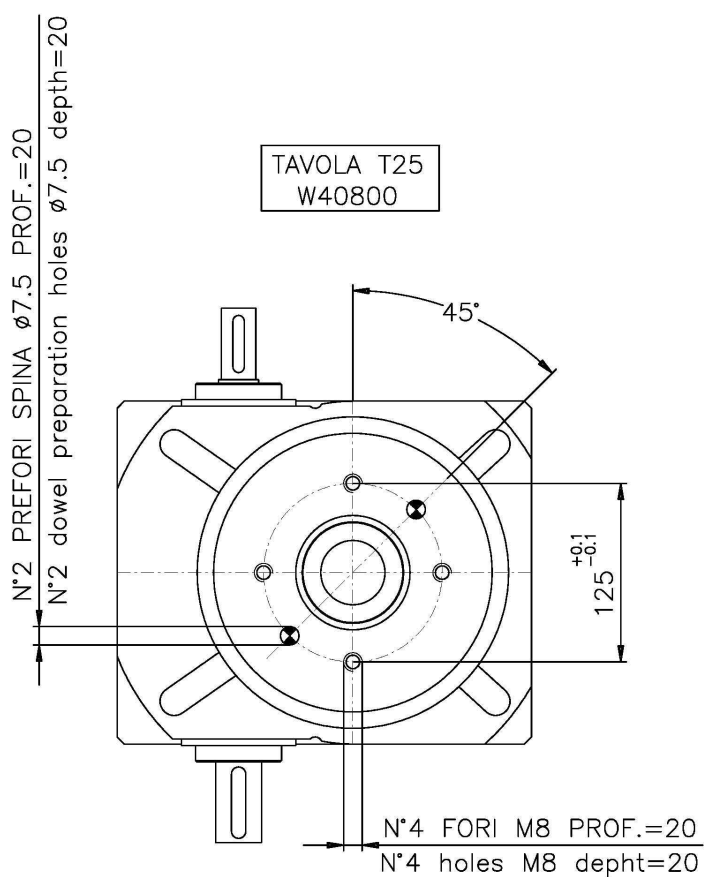


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 35

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

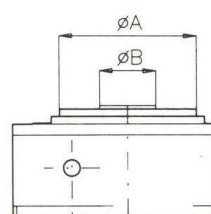
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

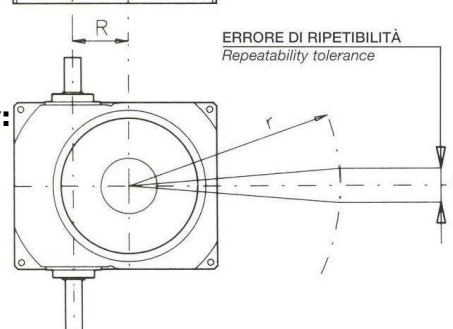
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 100,0 mm
 - Standard: ±0,015 mm
 - Special: ±0,010 mm
- Planarità disco / Disc flatness:**
 - A: 250 mm
 - Total: 0,015 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 130 mm
 - Total: 0,015 mm

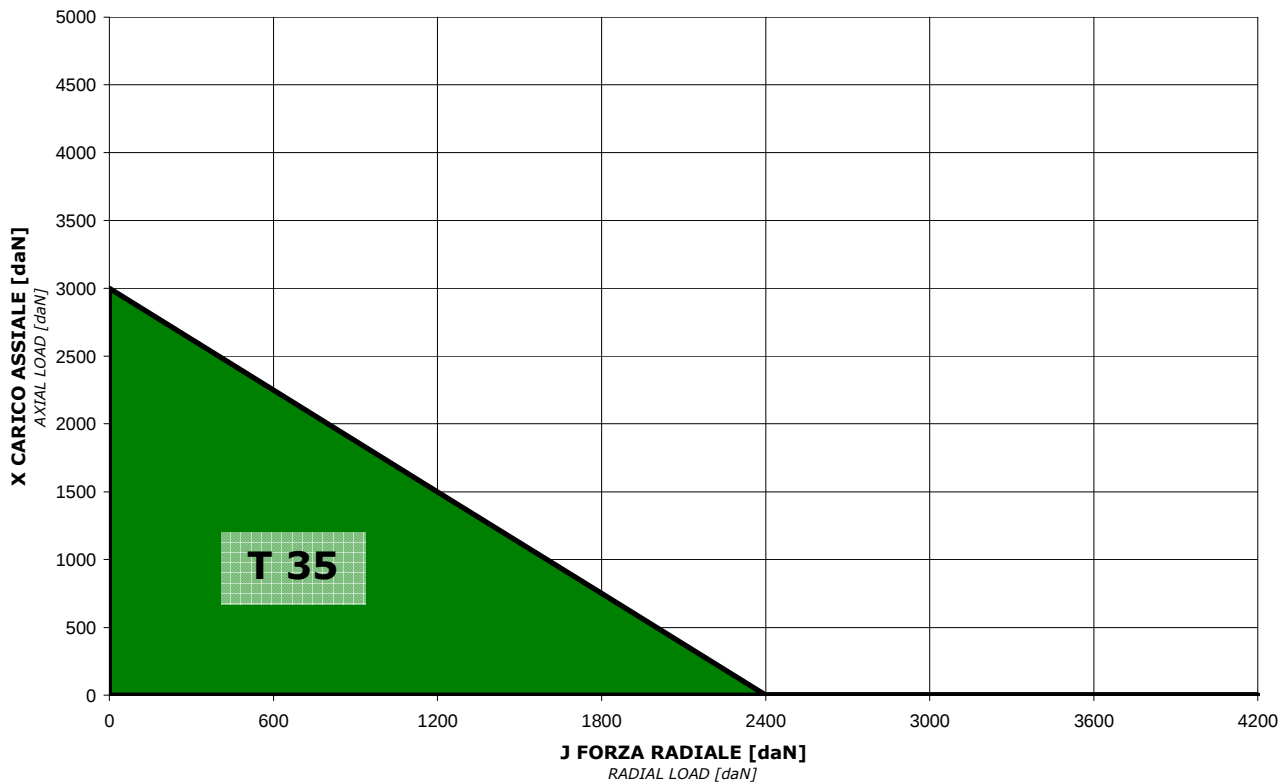


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

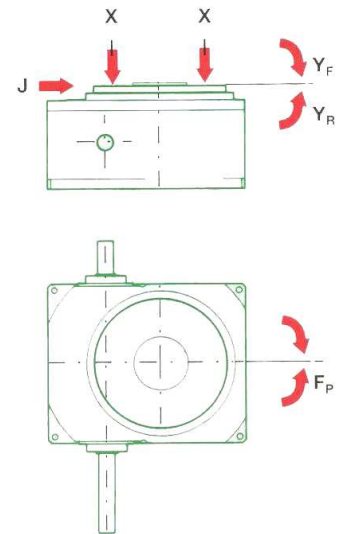


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante Max load on indexing disk				
combinati / combined		momenti / torque		
assiale axial X	radiale radial J	flettente bending Yf	ribaltante overturning Yr	in pausa in dwell Mp
daN		daNm		
3000	2400	118	90	169



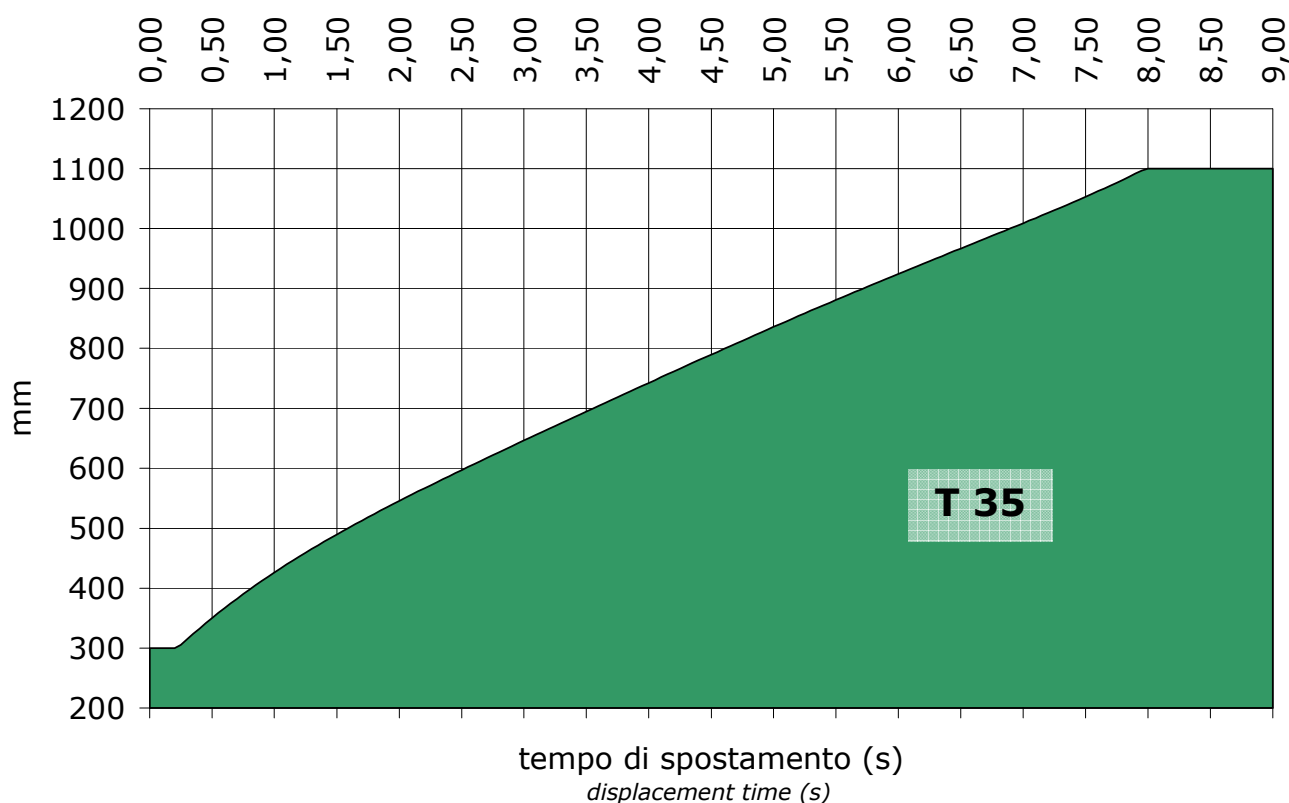
ATTRITO DI PRIMO DISTACCO M_a : 2,0 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
0,07610	0,07330	0,07890	0,08170	0,08730	0,09010	0,08730

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

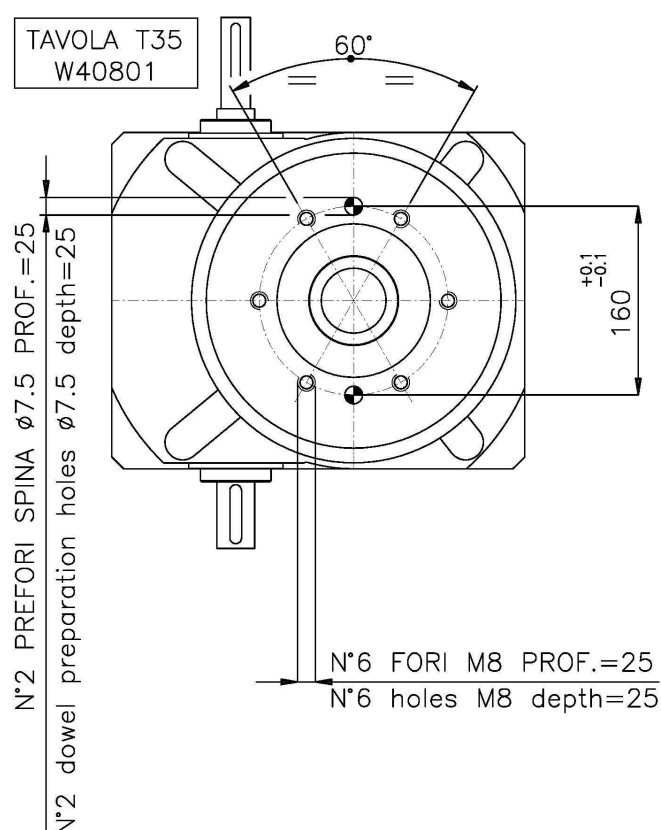


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 55

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

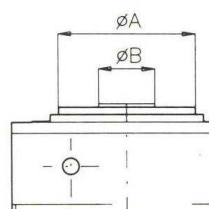
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

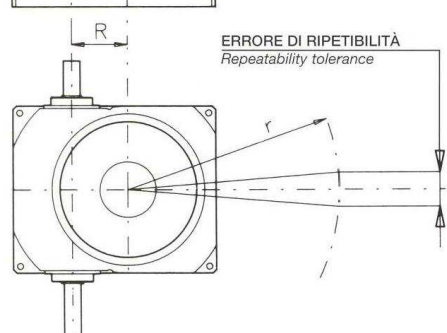
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- **Ripetibilità / Repeatability:**
 - o **R** : 140,0 mm
 - o **Standard:** ±0,015 mm
 - o **Special:** ±0,010 mm
- **Planarità disco / Disc flatness:**
 - o **A**: 350 mm
 - o **Total:** 0,015 mm
- **Eccentricità disco / Disc eccentricity:**
 - o **B**: 200 mm
 - o **Total:** 0,015 mm

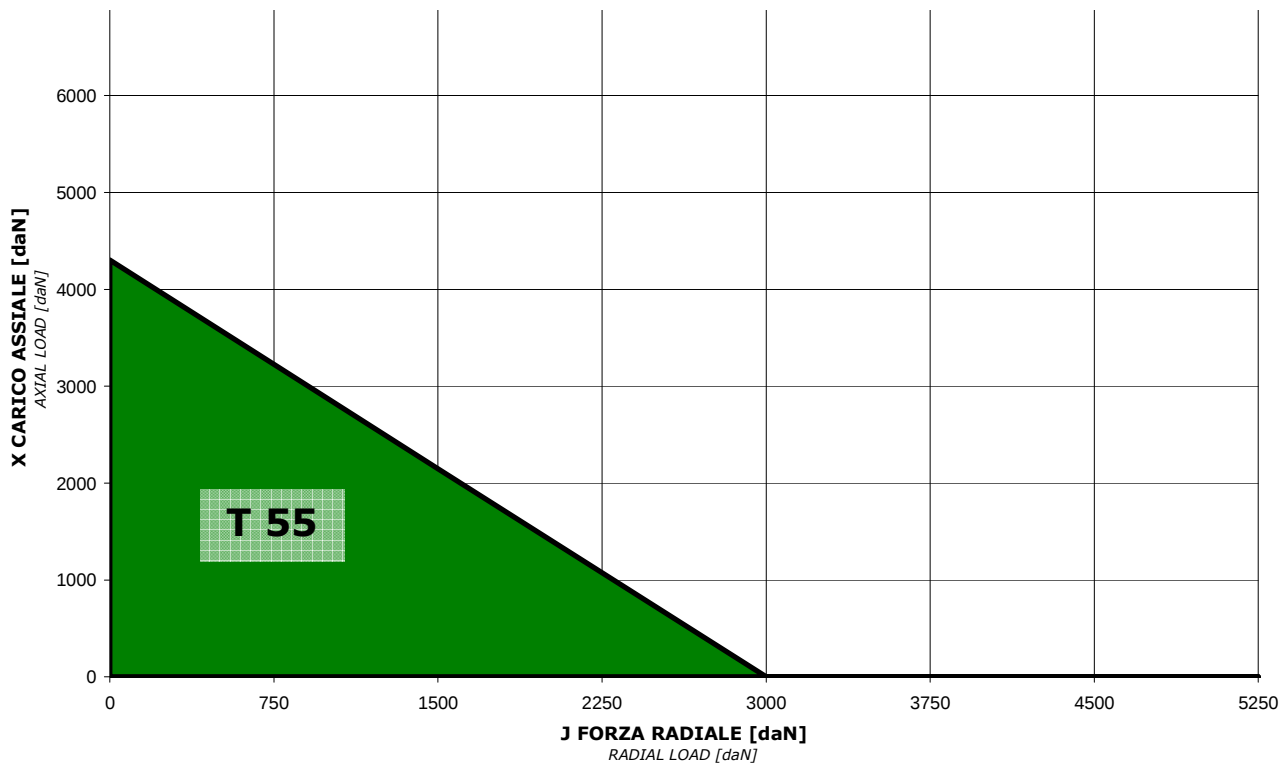


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm \text{ [mm]} \\ \text{(SPECIAL } \pm \dots) = \pm \text{ [mm]} \end{cases}$$

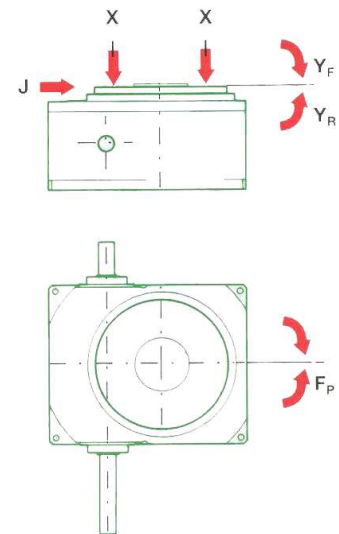


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante <i>Max load on indexing disk</i>				
combinati / combined		momenti / torque		
assiale <i>axial</i> X	radiale <i>radial</i> J	flettente <i>bending</i> Y_f	ribaltante <i>overturning</i> Y_r	in pausa <i>in dwell</i> M_p
daN		daNm		
4300	3000	248	160	237



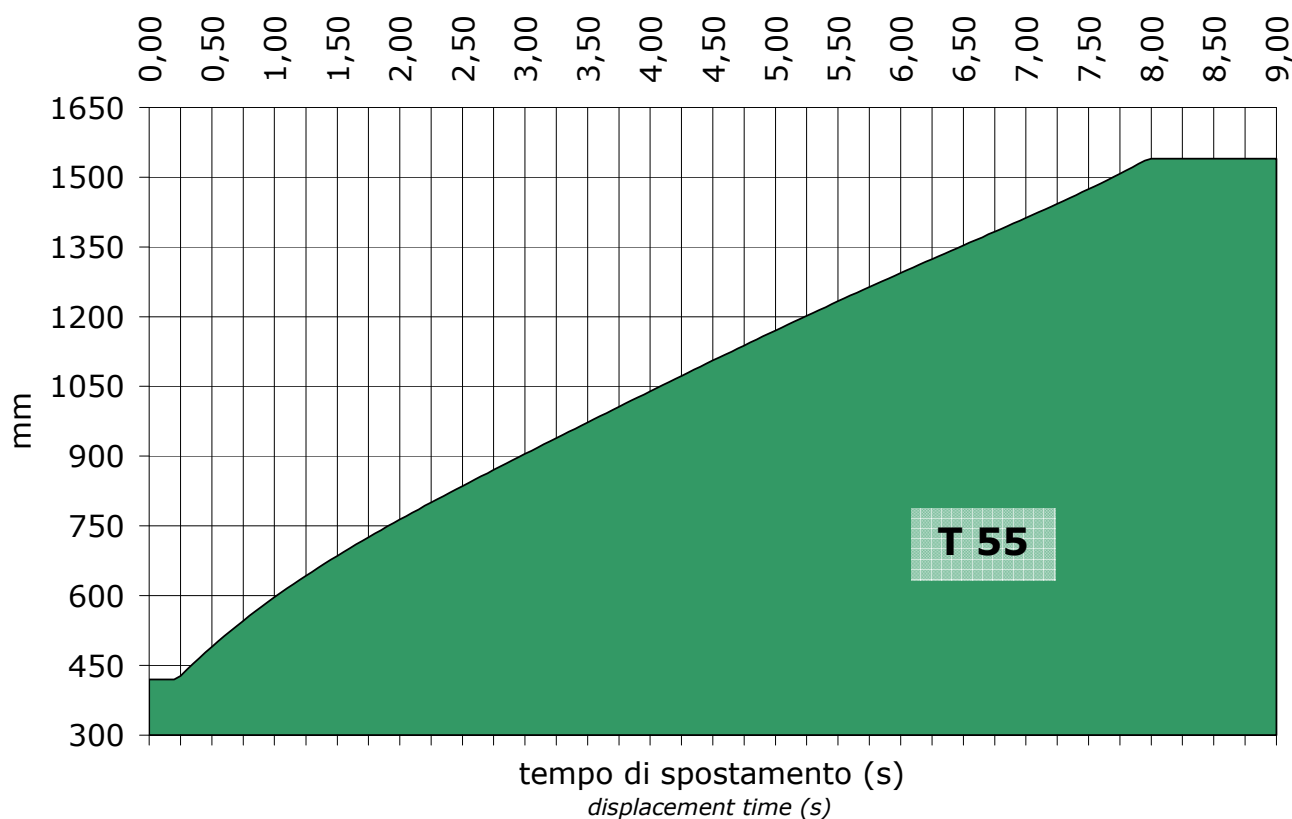
ATTRITO DI PRIMO DISTACCO M_a : 3,5 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
0,42900	0,42900	0,46500	0,46950	0,49600	0,51000	0,49600

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

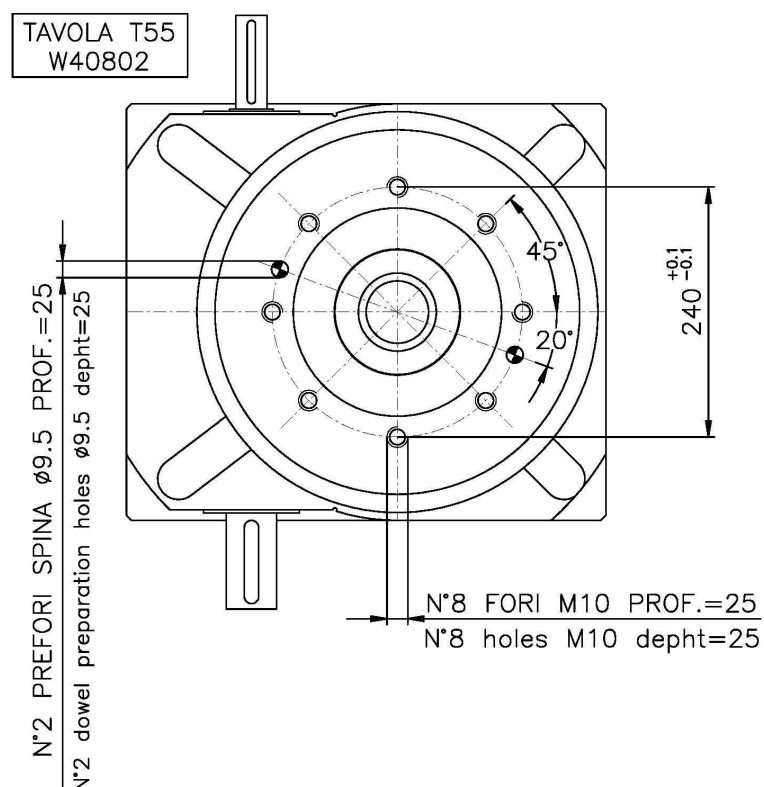


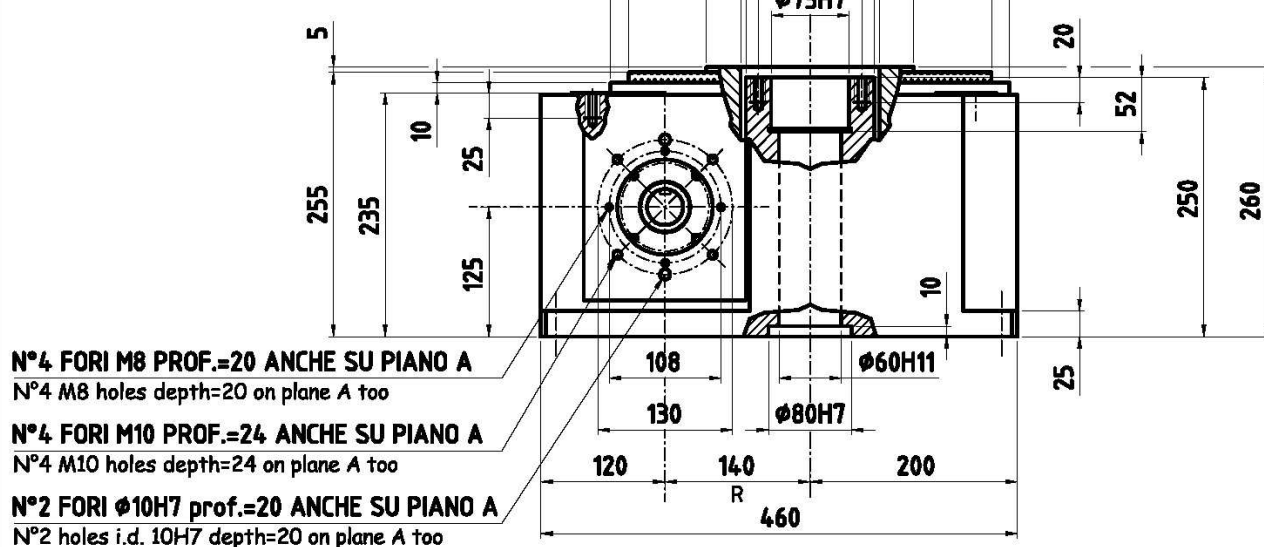
TAVOLA ROTANTE ROTARY INDEX TABLE T 55

PESO / Weight Kg. 181

DISPONIBILE SU DISCO CAD
Available on CAD disc

FILE
W41505

 ROTANTE
ROTATING



N°4 FORI M8 PROF.=20 ANCHE SU PIANO A

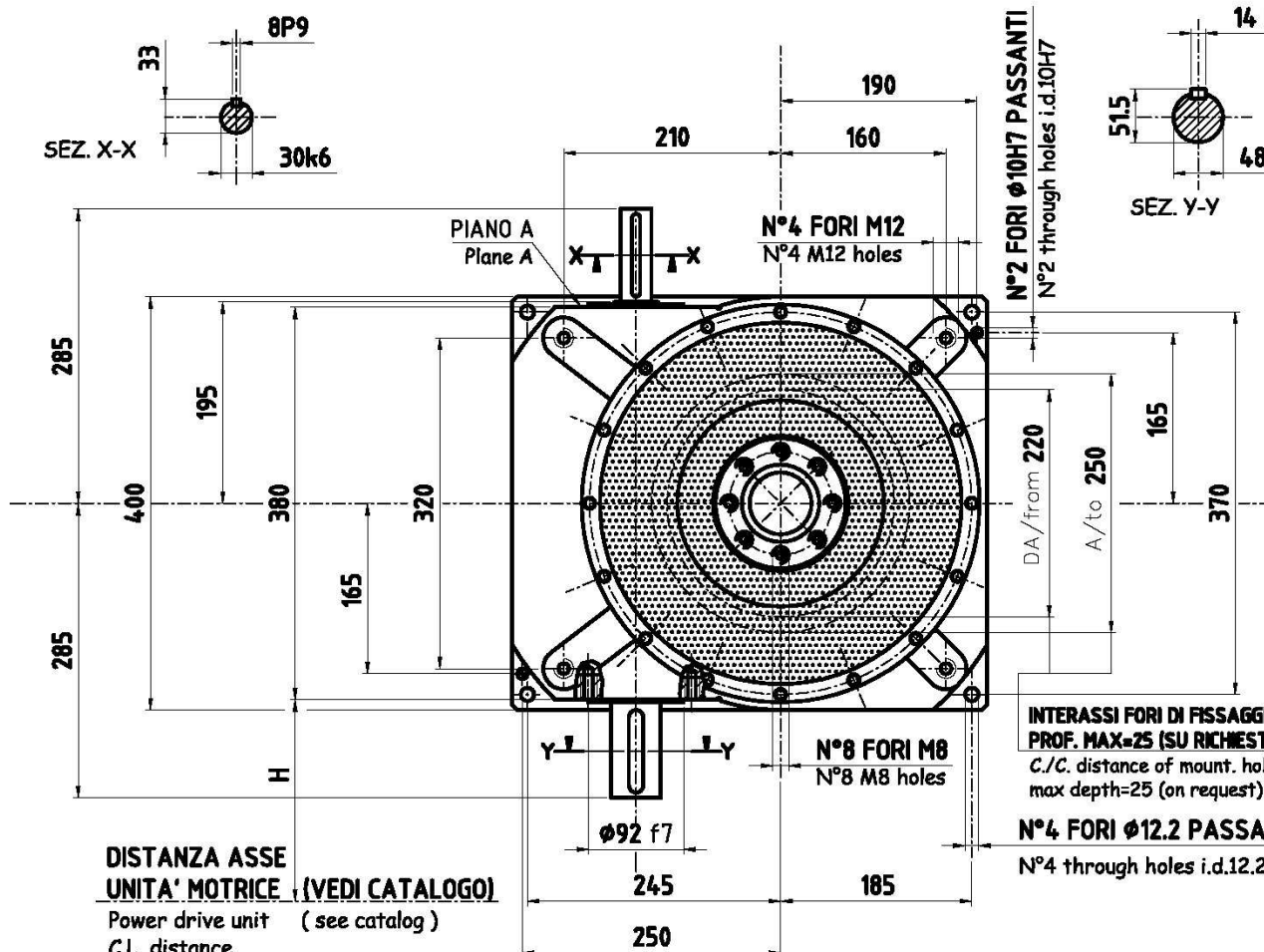
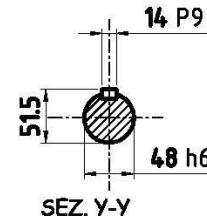
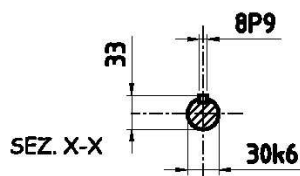
N°4 M8 holes depth=20 on plane A too

N°4 FORI M10 PROF.=24 ANCHE SU PIANO A

N°4 M10 holes depth=24 on plane A too

N°2 FORI $\phi 10H7$ prof.=20 ANCHE SU PIANO A

N°2 holes i.d. 10H7 depth=20 on plane A too



**DISTANZA ASSE
UNITA' MOTRICE (VEDI CATALOGO)**
Power drive unit (see catalog)
C.L. distance

**INTERASSI FORI DI FISSAGGIO M10
PROF. MAX=25 (SU RICHIESTA)**
C/C. distance of mount. holes M10
max depth=25 (on request)

N°4 FORI $\phi 12.2$ PASSANTI
N°4 through holes i.d.12.2

TAVOLA ROTANTE

ROTARY INDEX TABLE

T 65

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

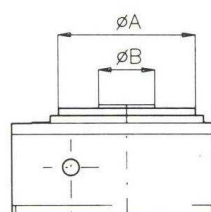
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

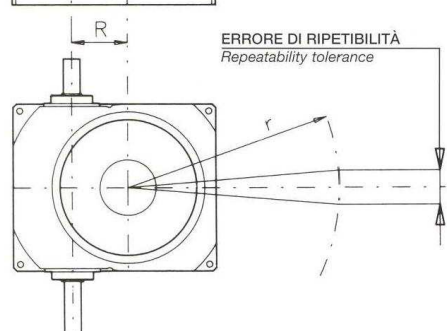
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 165,0 mm
 - Standard: $\pm 0,015$ mm
 - Special: $\pm 0,010$ mm
- Planarità disco / Disc flatness:**
 - A: 435 mm
 - Total: 0,015 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 230 mm
 - Total: 0,020 mm

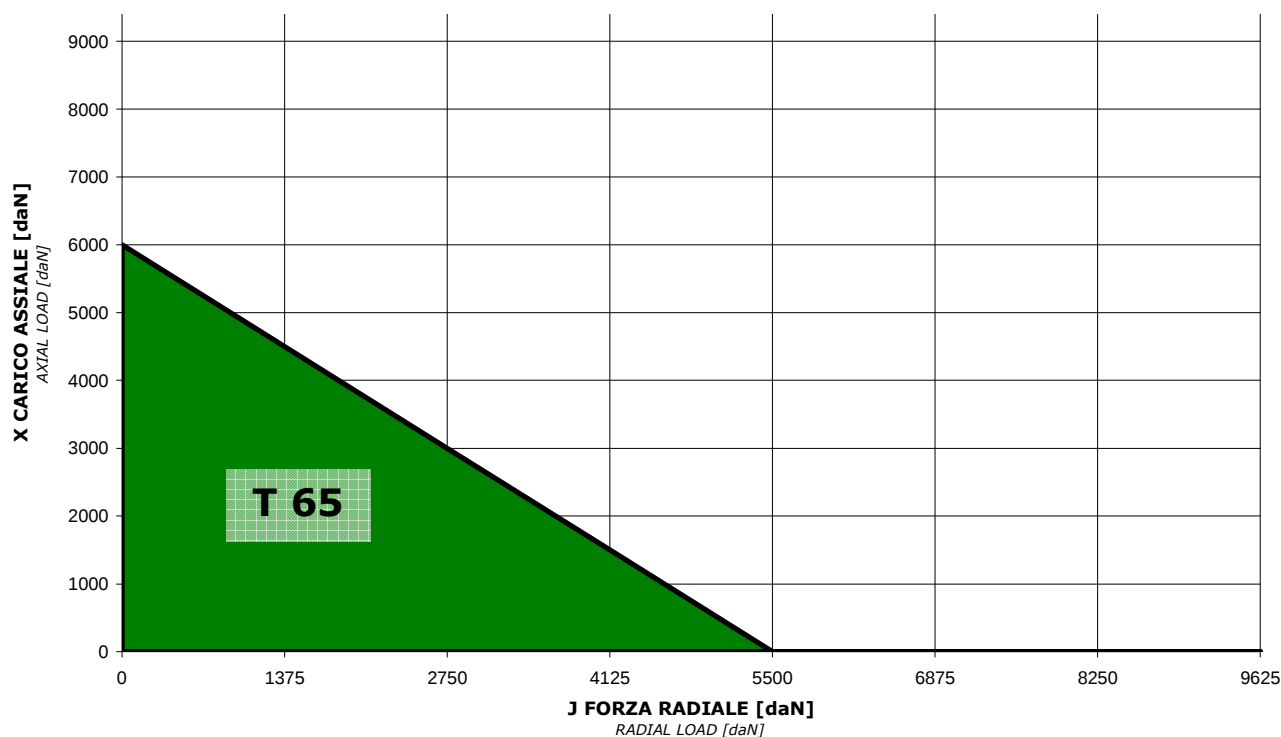


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

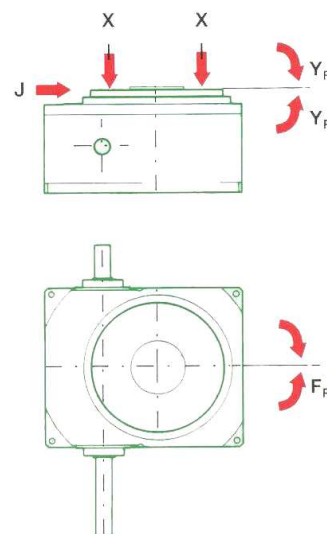


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante <i>Max load on indexing disk</i>				
combinati / combined		momenti / torque		
assiale <i>axial</i> X	radiale <i>radial</i> J	flettente <i>bending</i> Yf	ribaltante <i>overturning</i> Yr	in pausa <i>in dwell</i> Mp
daN		daNm		
6000	5500	350	250	622



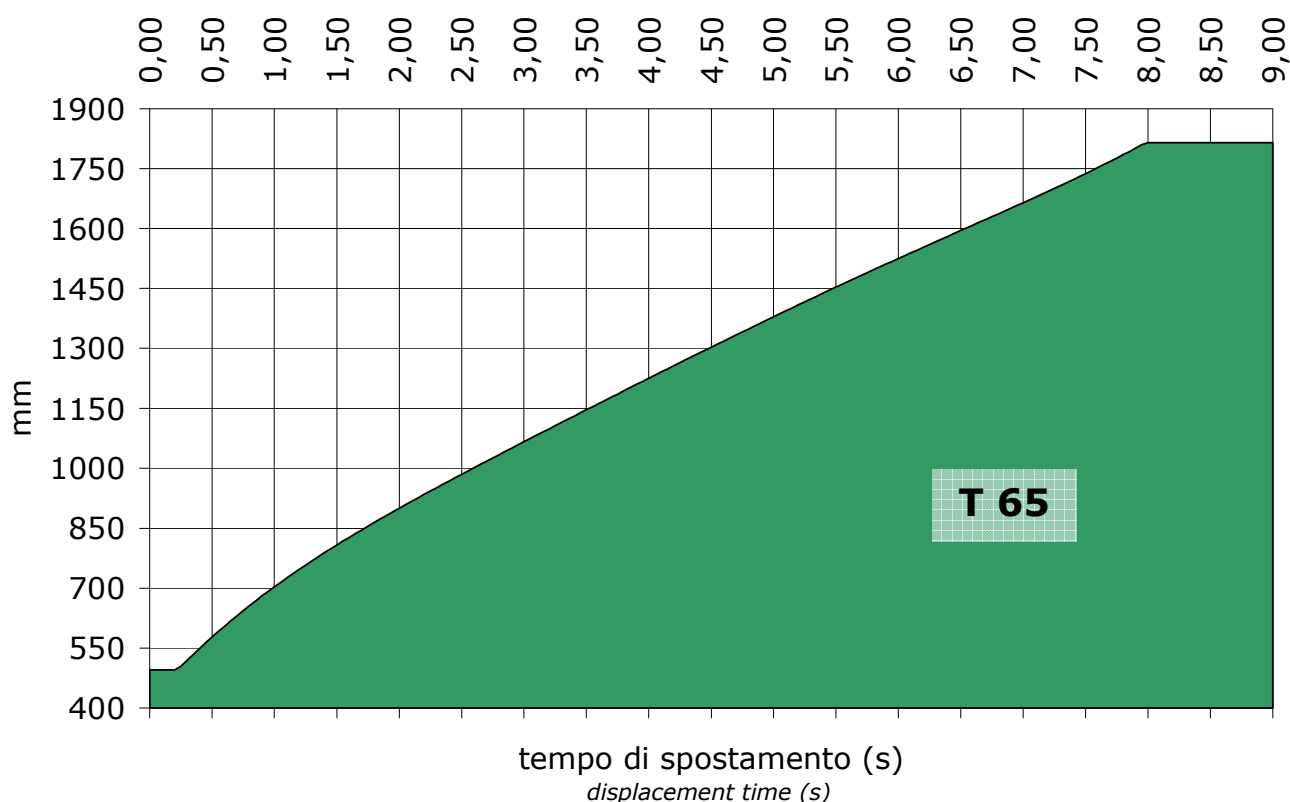
ATTRITO DI PRIMO DISTACCO M_a : 5,0 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
1,63500	1,64800	1,66100	1,68700	1,73900	1,76500	1,73900

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

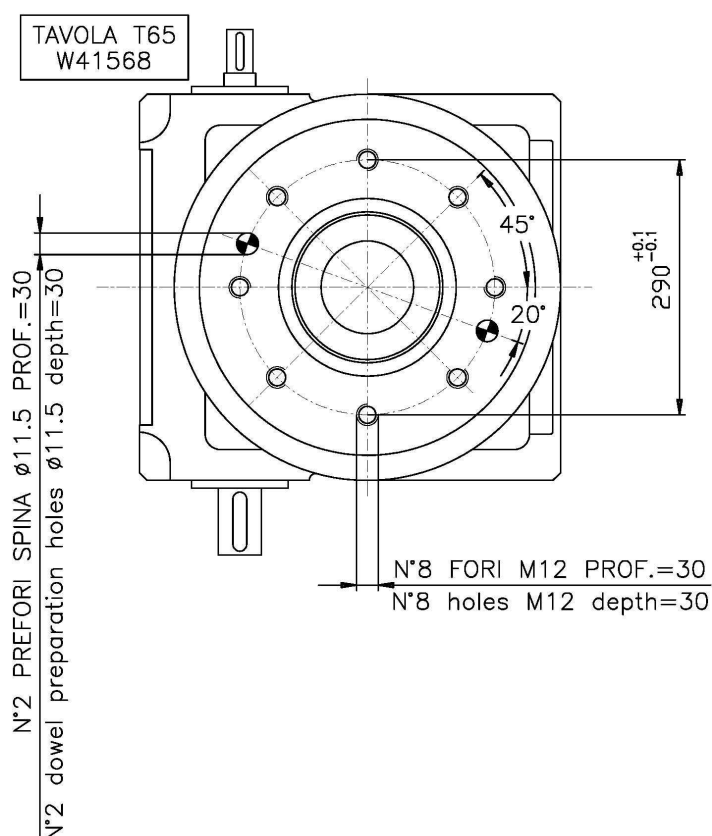


TAVOLA ROTANTE ROTARY INDEX TABLE

T 65

PESO / Weight Kg. 360

DISPONIBILE SU DISCO CAD
Available on CAD disc

FILE
W41494

INTERASSE FORI DI FISSAGGIO M12
PROF. MAX=30 (SU RICHIESTA)
C./C. distance of mount. holes M12
max depth=30 (on request)

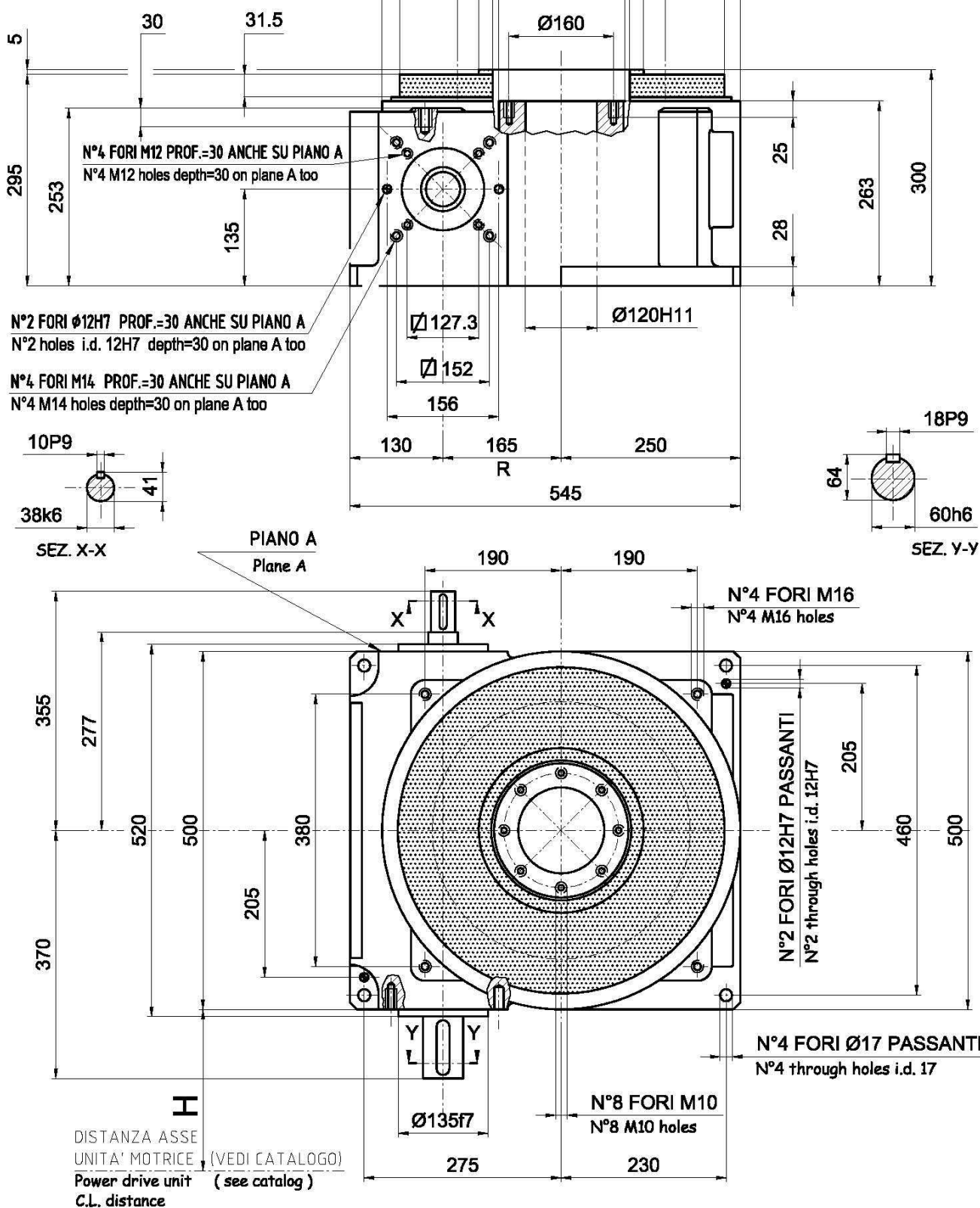


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 75

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

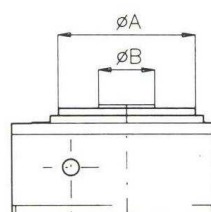
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

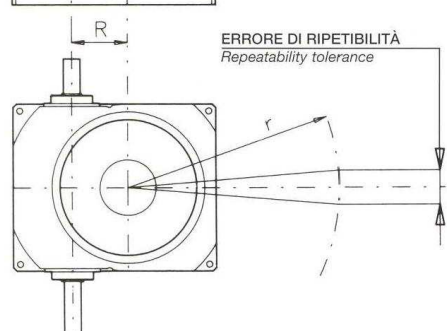
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 210,0 mm
 - Standard: $\pm 0,015$ mm
 - Special: $\pm 0,010$ mm
- Planarità disco / Disc flatness:**
 - A: 535 mm
 - Total: 0,020 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 230 mm
 - Total: 0,030 mm

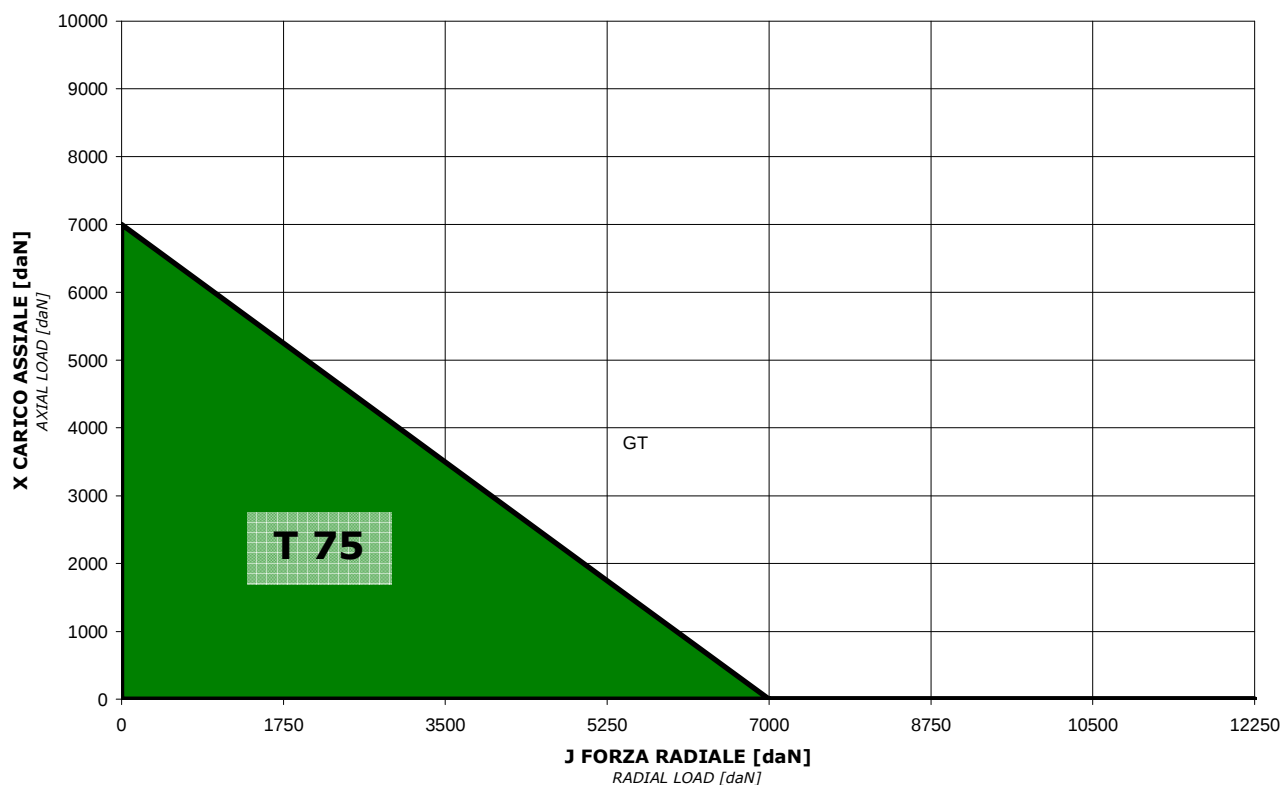


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

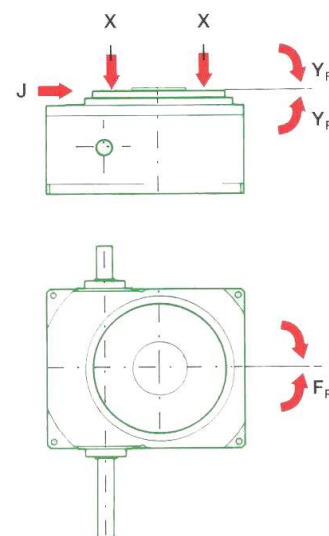


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante Max load on indexing disk				
combinati / combined		momenti / torque		
assiale axial X	radiale radial J	flettente bending Y _f	ribaltante overturning Y _r	in pausa in dwell M _p
daN		daNm		
7000	7000	450	350	878



ATTRITO DI PRIMO DISTACCO M_a : 5,5 [daNm]

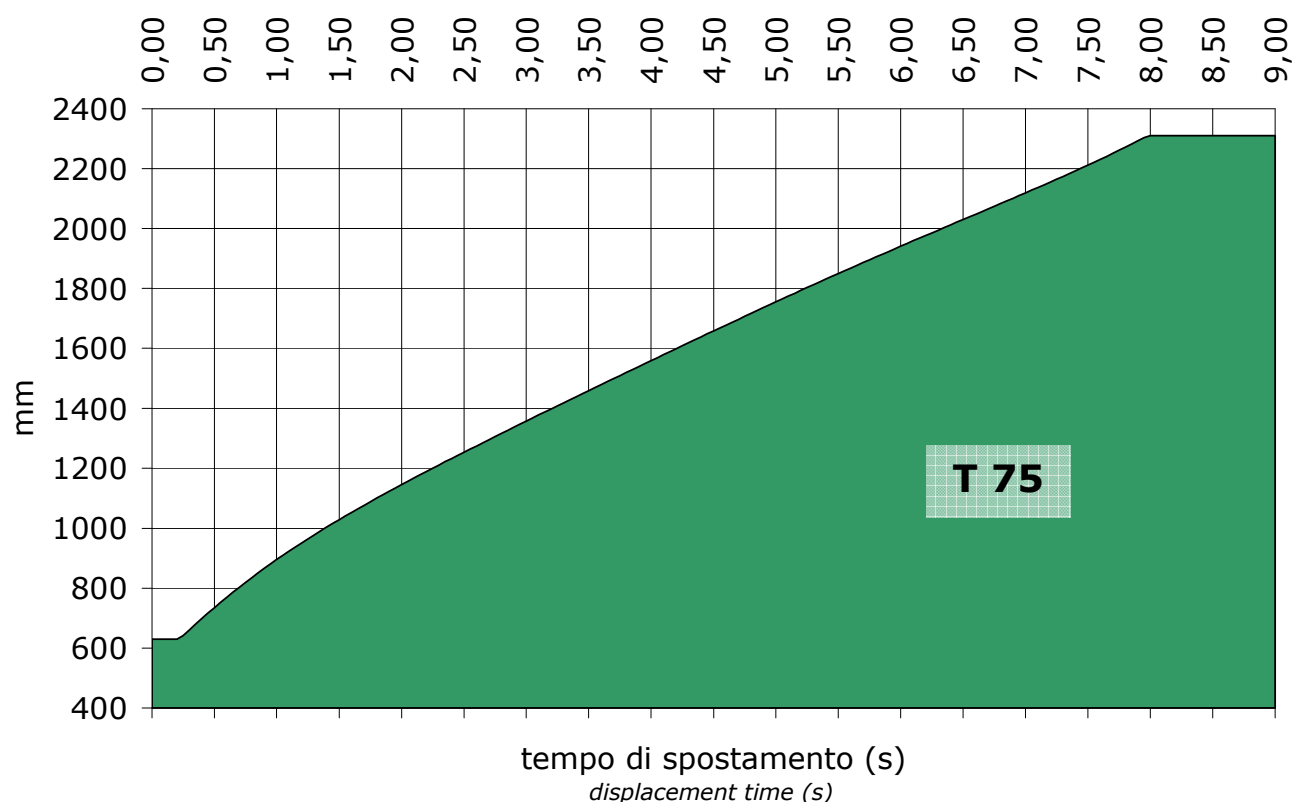
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
4,64300	4,64300	4,66300	4,69400	4,74400	4,77600	4,74400

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

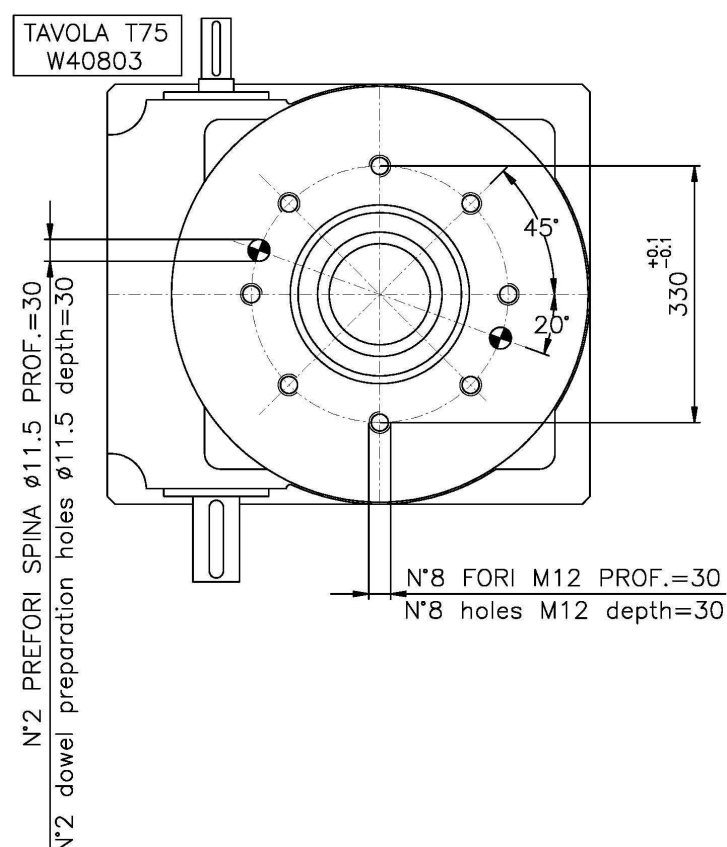


TAVOLA ROTANTE ROTARY INDEX TABLE T 75

PESO / Weight Kg. 432

DISPONIBILE SU DISCO CAD
Available on CAD disc

FILE
W41517

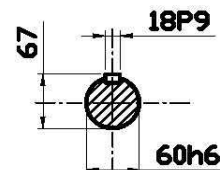
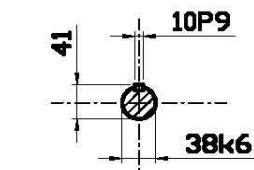
N°4 FORI M12 PROF.=30 ANCHE SU PIANO A
N°4 M12 holes depth=30 on plane A too

INTERASSE FORI DI FISSAGGIO M12
PROF. MAX=30 (SU RICHIESTA)
C/C. distance of mount. holes M12
max depth=30 (on request)

ROTANTE
ROTATING

N°2 FORI Ø12H7 PROF.=30 ANCHE SU PIANO A
N°2 holes i.d. 12H7 depth=30 on plane A too

N°4 FORI M14 PROF.=30 ANCHE SU PIANO A
N°4 M14 holes depth=30 on plane A too



PLANE A
Plane A

N°4 FORI M16
N°4 M16 holes

N°2 FORI Ø12H7 PASSANTI
N°2 through holes i.d. 12H7

N°4 FORI Ø17 PASSANTI
N°4 through holes i.d. 17

DISTANZA ASSE
UNITA' MOTRICE (VEDI CATALOGO)
Power drive unit (see catalog)
C.L. distance

N°8 FORI M10
N°8 M10 holes

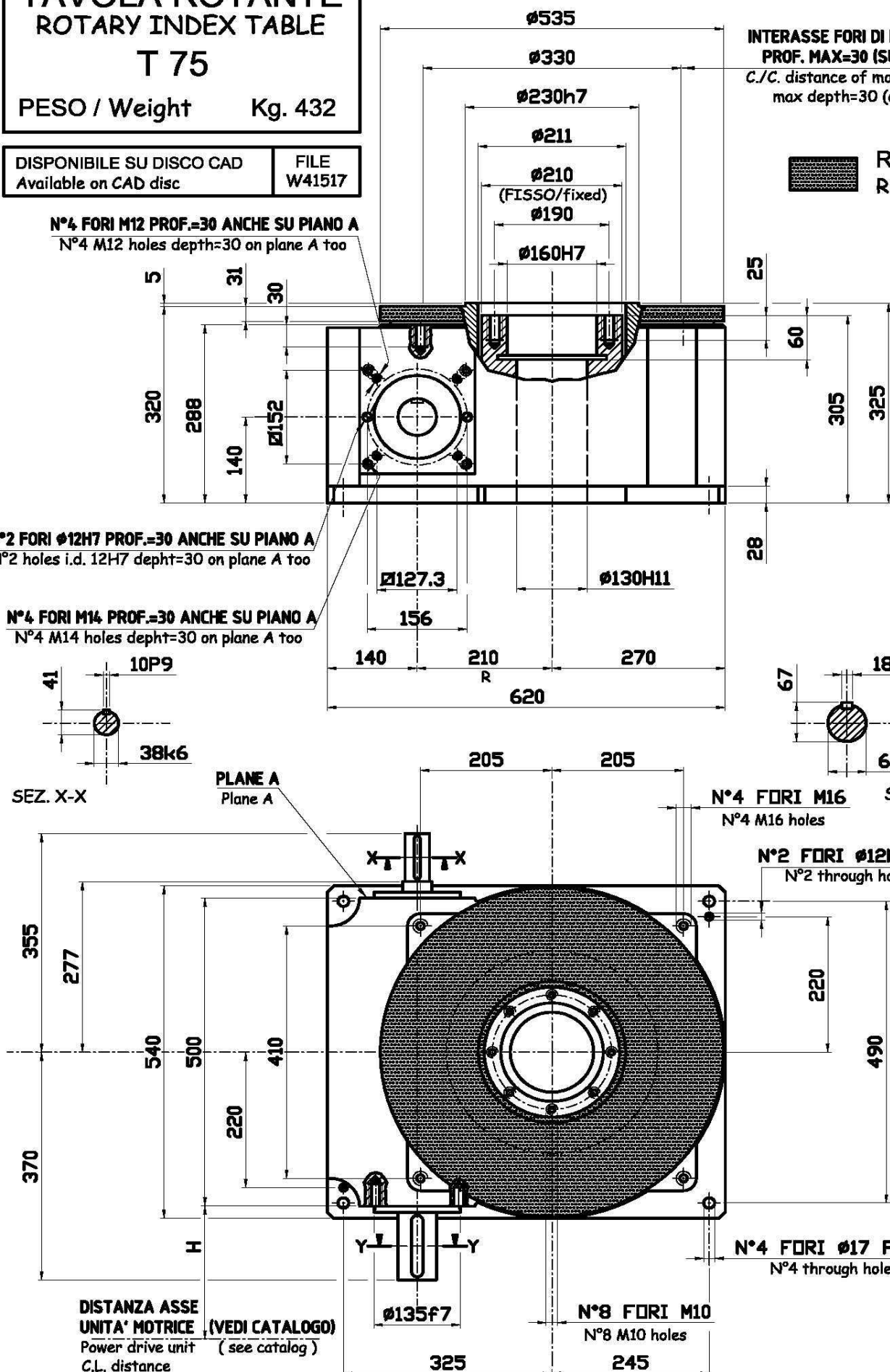


TAVOLA ROTANTE

ROTARY INDEX TABLE

T 95

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

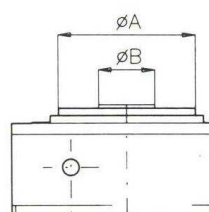
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

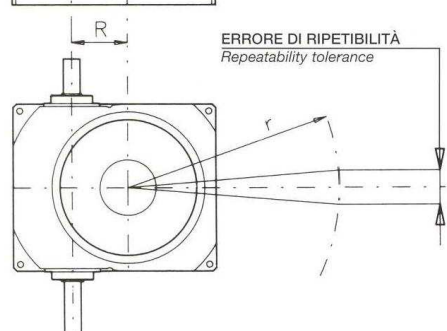
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 270,0 mm
 - Standard: $\pm 0,020$ mm
 - Special: $\pm 0,010$ mm
- Planarità disco / Disc flatness:**
 - A: 700 mm
 - Total: 0,030 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 320 mm
 - Total: 0,030 mm

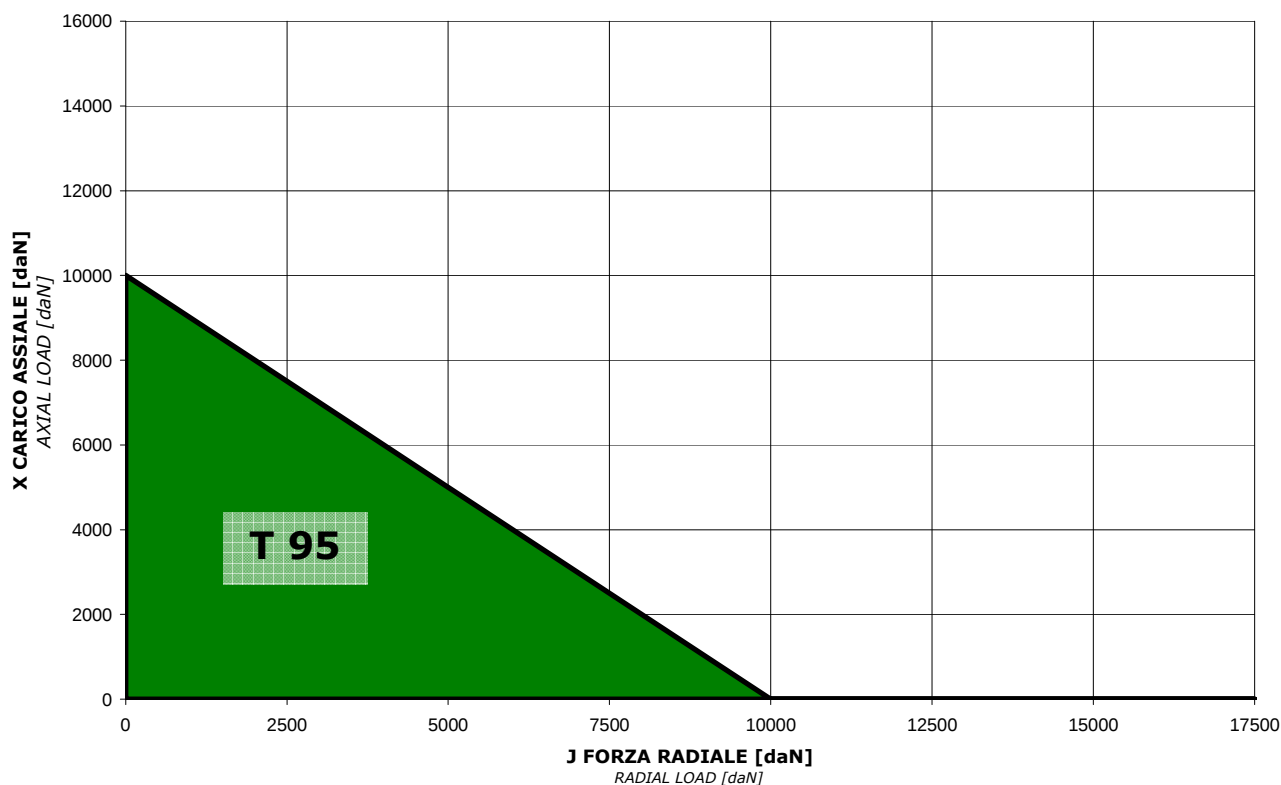


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

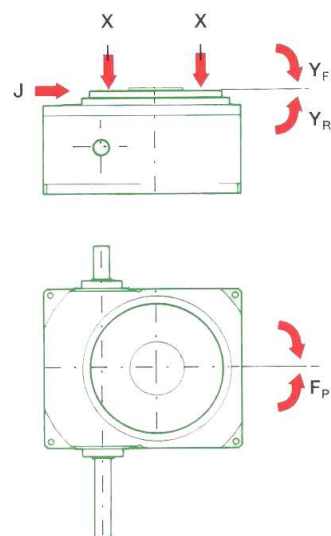


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante Max load on indexing disk				
combinati / combined		momenti / torque		
assiale axial X	radiale radial J	flettente bending Yf	ribaltante overturning Yr	in pausa in dwell Mp
daN		daNm		
10000	10000	800	700	2858



ATTRITO DI PRIMO DISTACCO M_a : 8,5 [daNm]

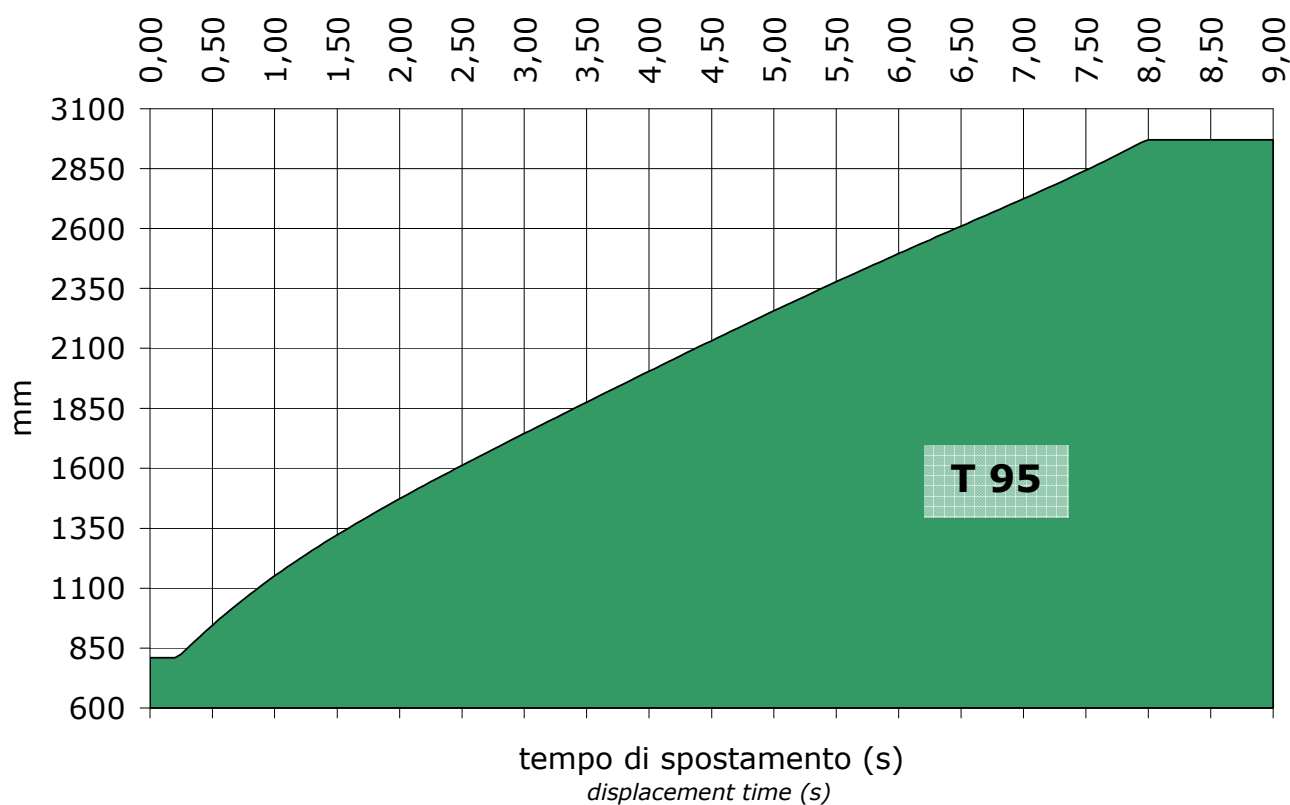
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
10,85000	10,93700	11,01000	11,18000	11,50000	11,67000	11,50000

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

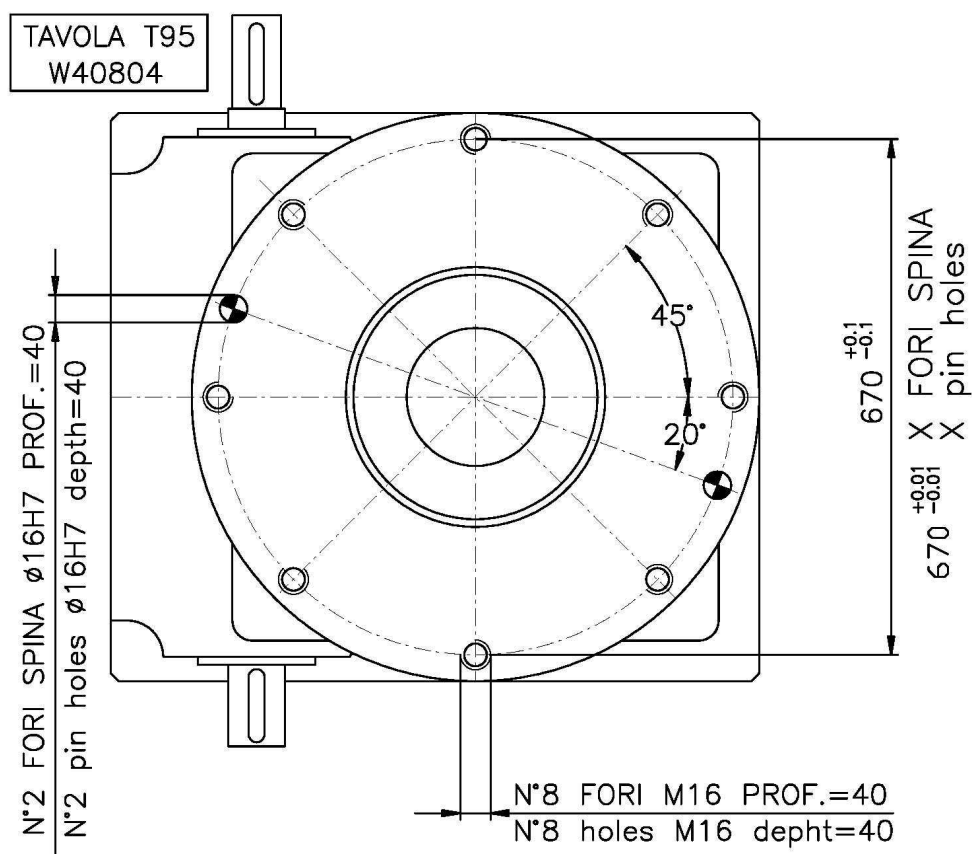


TAVOLA ROTANTE ROTARY INDEX TABLE T 95

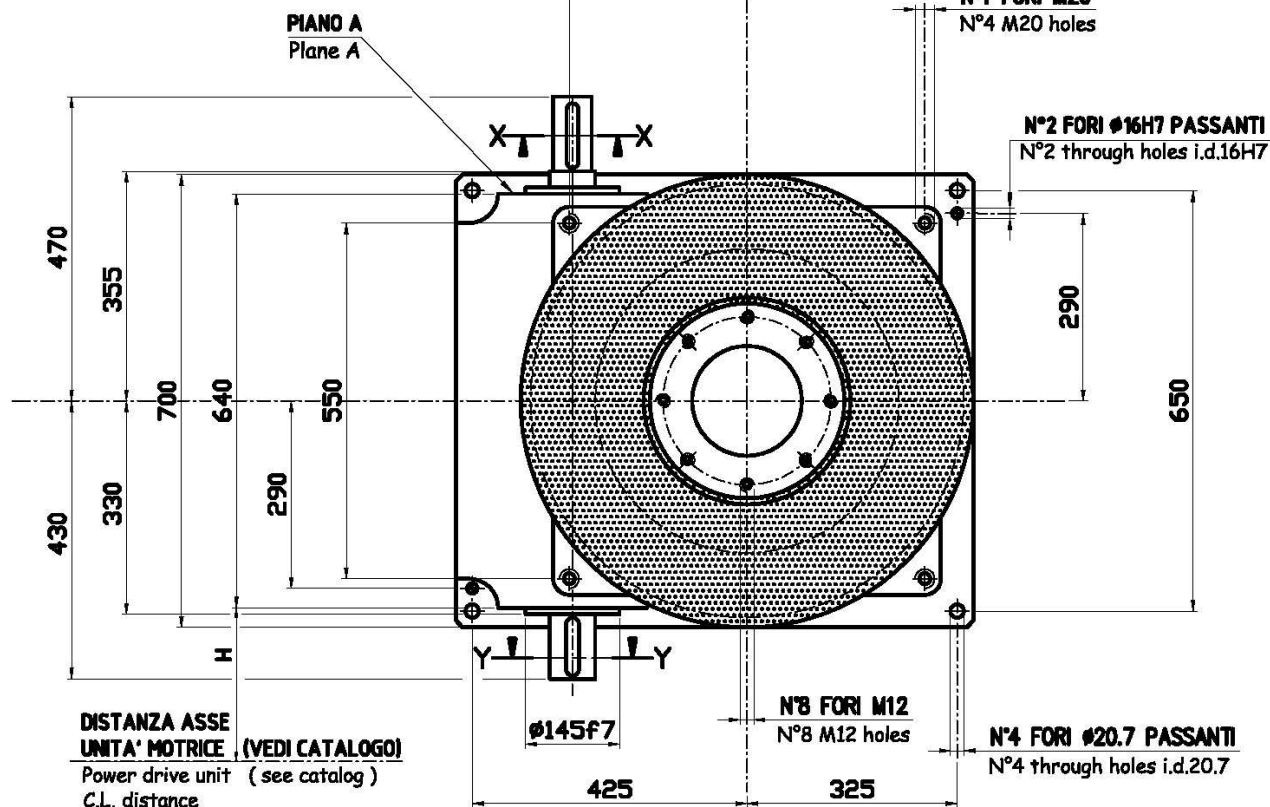
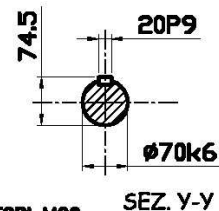
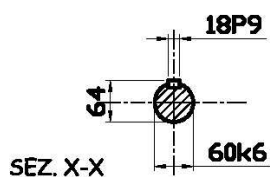
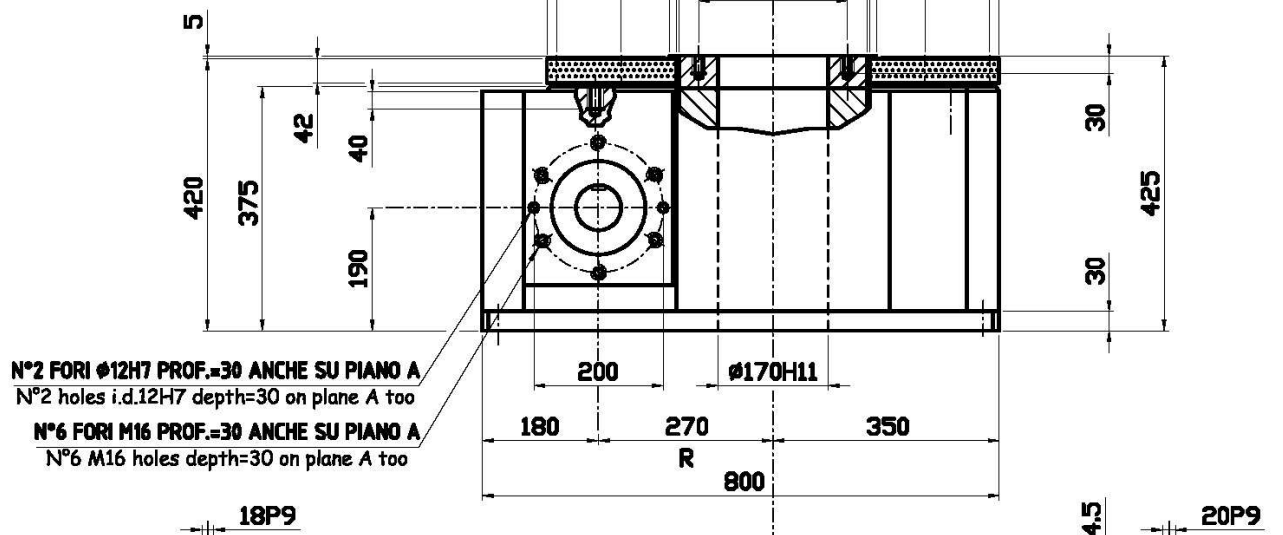
PESO / Weight Kg. 936

DISPONIBILE SU DISCO CAD
Available on CAD disc

FILE
W41519

INTERASSE FORI DI FISSAGGIO M16
PROF. MAX=40 (SU RICHIESTA)
C./C. distance of mount. holes M16
max depth=40 (on request)

 ROTANTE
ROTATING



DISTANZA ASSE
UNITA' MOTRICE (VEDI CATALOGO)
Power drive unit (see catalog)
C.L. distance

TAVOLA ROTANTE

ROTARY INDEX TABLE

T 105

Divisioni Stations	Profili camma Cam profiles	Angoli impegnati per lo spostamento Cam rotation angle performing the transfer movements									
		90	120	150	180	210	240	270	300	315	330
2	1										
3											
4											
5											
6											
7											
8											
9											
10											
12											
14											
15											
16											
18											
20	2										
24											
28											
30											
32											
36											

ANGOLI DI CAMMA REALIZZABILI

Feasible cam transfer angles

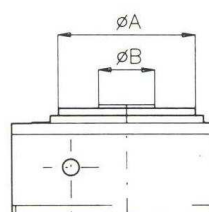
ANGOLI DI CAMMA REALIZZABILI CON CONTROLLO TECNICO AUTOROTOR

Cam transfer angles feasible under AUTOROTOR technical supervision

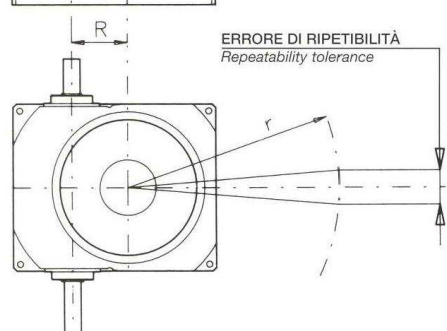
TOLLERANZA TAVOLE ROTANTI

TOLERANCES OF ROTARY INDEX TABLES

- Ripetibilità / Repeatability:**
 - R : 380,0 mm
 - Standard: $\pm 0,020$ mm
 - Special: $\pm 0,010$ mm
- Planarità disco / Disc flatness:**
 - A: 1000 mm
 - Total: 0,030 mm
- Eccentricità disco / Disc eccentricity:**
 - B: 400 mm
 - Total: 0,030 mm

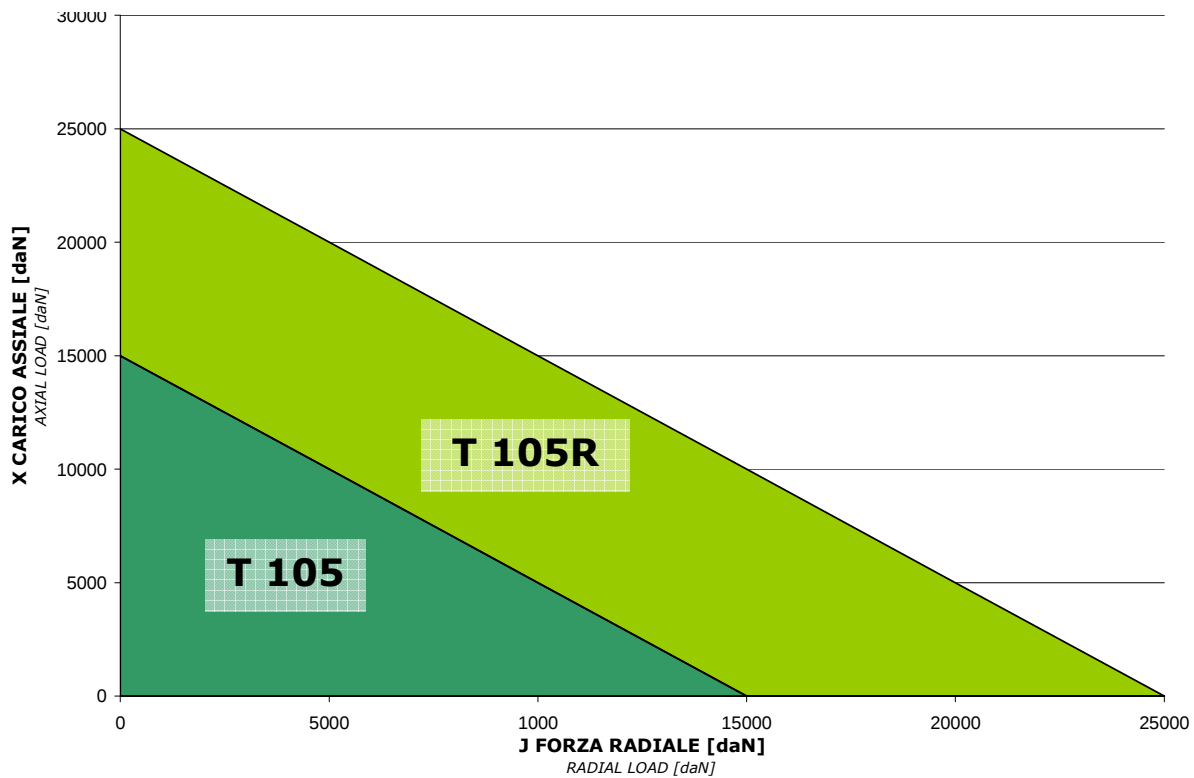


$$E_r = \frac{r}{R} \times \begin{cases} \text{(STANDARD } \pm \dots) = \pm [\text{mm}] \\ \text{(SPECIAL } \pm \dots) = \pm [\text{mm}] \end{cases}$$

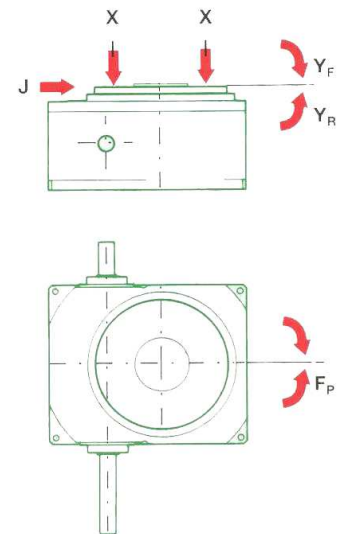


CARICHI ASSIALI E RADIALI

MAX AXIAL AND RADIAL LOADS



Carichi massimi sul disco rotante <i>Max load on indexing disk</i>				
combinati / combined		momenti / torque		
assiale <i>axial</i> X	radiale <i>radial</i> J	flettente <i>bending</i> Yf	ribaltante <i>overturning</i> Yr	in pausa <i>in dwell</i> Mp
daN		daNm		
15000	15000	1100	1000	4233
25000	25000	1750	1500	4233



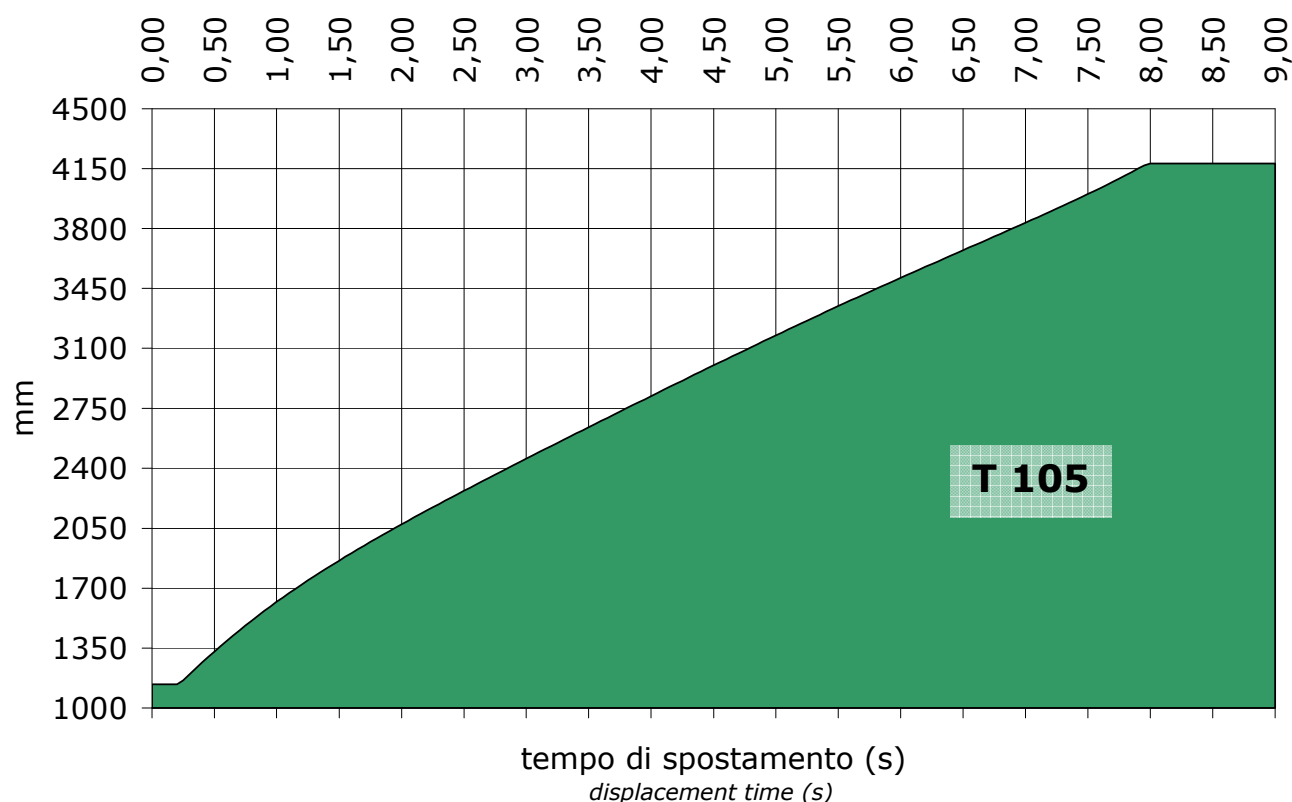
ATTRITO DI PRIMO DISTACCO M_a : 13,0 [daNm]
START FRICTION TORQUE

Momento d'inerzia interno J_a - Internal moment of inertia J_a - Kgm^2

Numero Divisioni - Number of stations - S						
2 - 4 - 8	3 - 6	10 - 20	12 - 24	16	18	32
41,30000	41,30000	42,20000	41,30000	41,80000	42,00000	41,80000

RAGGIO EQUIVALENTE DI INERZIA MASSIMO

MAXIMUM EQUIVALENT RADIUS OF GYRATION



FORI PER L'ASSEMBLAGGIO SUL DISCO TAVOLA

ASSEMBLING THREADED HOLES ON TABLE DISK

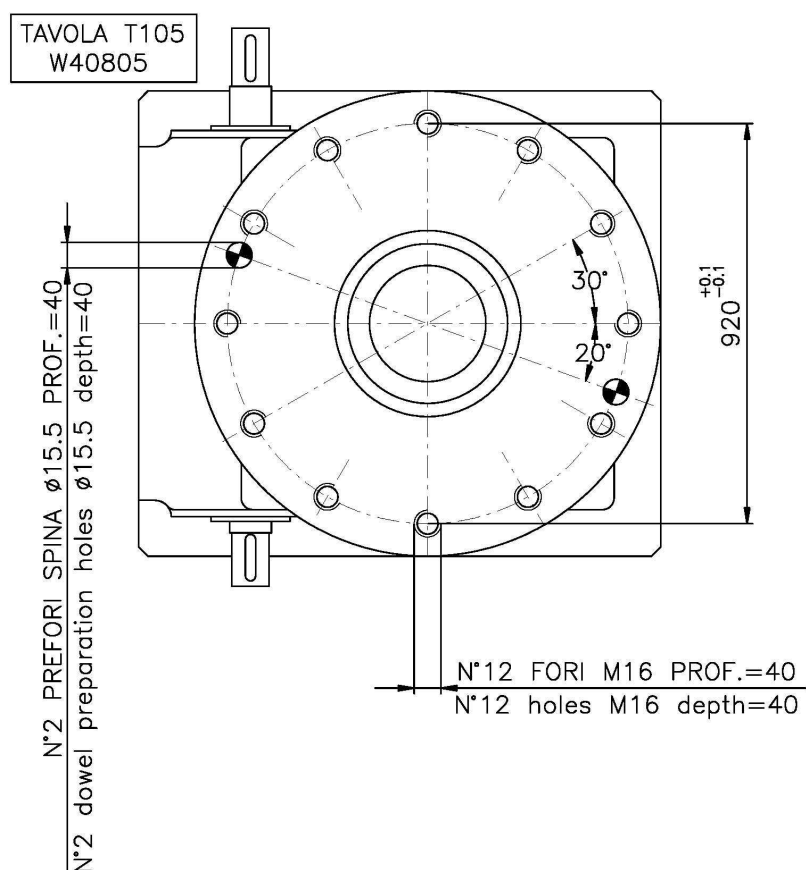


TAVOLA ROTANTE ROTARY INDEX TABLE T105

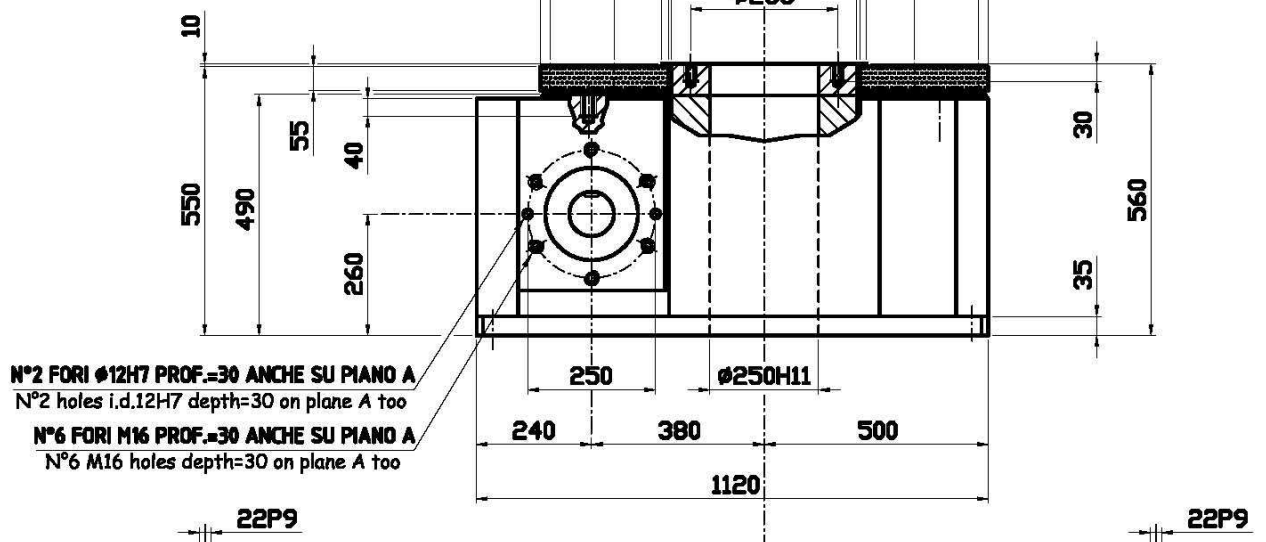
PESO / Weight Kg.2000

DISPONIBILE SU DISCO CAD
Available on CAD disc

FILE
W40747

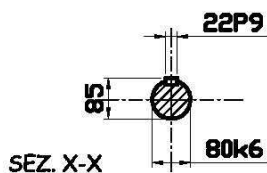
INTERASSE FORI DI FISSAGGIO M16
PROF. MAX=40 (SU RICHIESTA)
C./C. distance of mount. holes M16
max depth=40 (on request)

ROTANTE
ROTATING

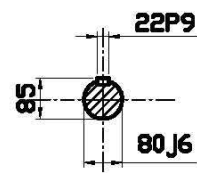


N°2 FORI $\phi 12H7$ PROF.=30 ANCHE SU PIANO A
N°2 holes i.d.12H7 depth=30 on plane A too

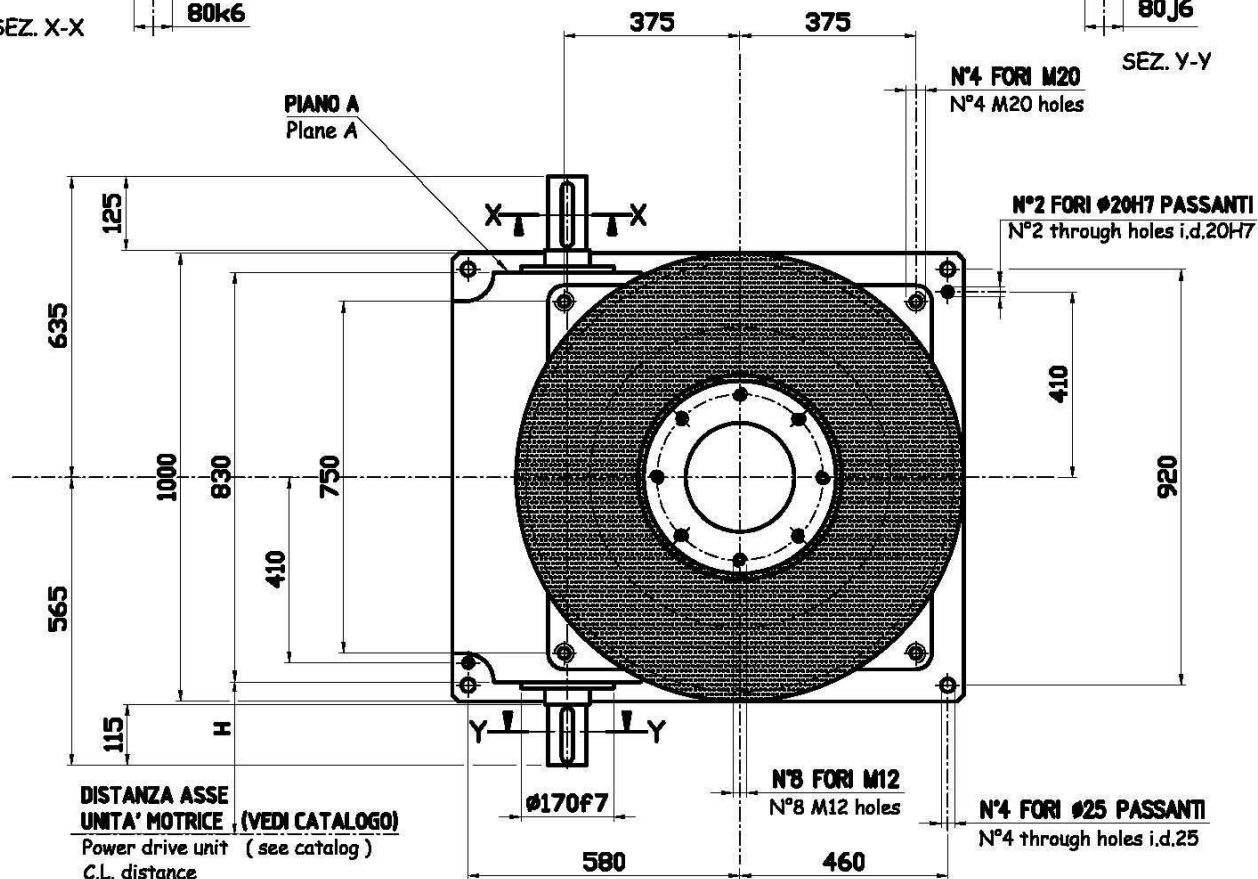
N°6 FORI M16 PROF.=30 ANCHE SU PIANO A
N°6 M16 holes depth=30 on plane A too



SEZ. X-X



SEZ. Y-Y



DISTANZA ASSE
UNITA' MOTRICE (VEDI CATALOGO)
Power drive unit (see catalog)
C.L. distance

TEMPI DI SPOSTAMENTO

INDEX TIME

EURO 4 p – 50 Hz – 1400 rpm

Rendimento <i>Efficiency</i>	R. riduz. <i>R. ratio</i>	Cicli/min <i>Cycl./min.</i>	T. ciclo <i>Cycle time</i>	Angolo di spostamento (°) <i>Displacement angle</i>								300	315	330
				90	120	150	180	210	240	270				
87%	7/1	200.00	0.30	0.075	0.100	0.125	0.150	0.175	0.200	0.225	0.250	0.263	0.275	
85%	10/1	140.00	0.43	0.107	0.143	0.179	0.214	0.250	0.286	0.321	0.357	0.375	0.393	
82%	15/1	93.33	0.64	0.161	0.214	0.268	0.321	0.375	0.429	0.482	0.536	0.563	0.589	
78%	20/1	70.00	0.86	0.214	0.286	0.357	0.429	0.500	0.571	0.643	0.714	0.750	0.786	
80%	25/1	56.00	1.07	0.268	0.357	0.446	0.536	0.625	0.714	0.804	0.893	0.938	0.982	
72%	28/1	50.00	1.20	0.300	0.400	0.500	0.600	0.700	0.800	0.900	1.000	1.050	1.100	
78%	30/1	46.67	1.29	0.321	0.429	0.536	0.643	0.750	0.857	0.964	1.071	1.125	1.179	
68%	40/1	35.00	1.71	0.429	0.571	0.714	0.857	1.000	1.143	1.286	1.429	1.500	1.571	
65%	49/1	28.57	2.10	0.525	0.700	0.875	1.050	1.225	1.400	1.575	1.750	1.838	1.925	
68%	50/1	28.00	2.14	0.536	0.714	0.893	1.071	1.250	1.429	1.607	1.786	1.875	1.964	
64%	56/1	25.00	2.40	0.600	0.800	1.000	1.200	1.400	1.600	1.800	2.000	2.100	2.200	
65%	60/1	23.33	2.57	0.643	0.857	1.071	1.286	1.500	1.714	1.929	2.143	2.250	2.357	
60%	70/1	20.00	3.00	0.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.625	2.750	
58%	80/1	17.50	3.43	0.857	1.143	1.429	1.714	2.000	2.286	2.571	2.857	3.000	3.143	
54%	100/1	14.00	4.29	1.071	1.429	1.786	2.143	2.500	2.857	3.214	3.571	3.750	3.929	
72%	120/1	11.67	5.14	1.286	1.714	2.143	2.571	3.000	3.429	3.857	4.286	4.500	4.714	
75%	130/1	10.77	5.57	1.393	1.857	2.321	2.786	3.250	3.714	4.179	4.643	4.875	5.107	
63%	160/1	8.75	6.86	1.714	2.286	2.857	3.429	4.000	4.571	5.143	5.714	6.000	6.286	
65%	200/1	7.00	8.57	2.143	2.857	3.571	4.286	5.000	5.714	6.429	7.143	7.500	7.857	

EURO 6 p – 50 Hz – 900 rpm

Rendimento <i>Efficiency</i>	R. riduz. <i>R. ratio</i>	Cicli/min <i>Cycl./min.</i>	T. ciclo <i>Cycle time</i>	Angolo di spostamento (°) <i>Displacement angle</i>								300	315	330
				90	120	150	180	210	240	270				
87%	7/1	128.57	0.47	0.117	0.156	0.194	0.233	0.272	0.311	0.350	0.389	0.408	0.428	
85%	10/1	90.00	0.67	0.167	0.222	0.278	0.333	0.389	0.444	0.500	0.556	0.583	0.611	
82%	15/1	60.00	1.00	0.250	0.333	0.417	0.500	0.583	0.667	0.750	0.833	0.875	0.917	
78%	20/1	45.00	1.33	0.333	0.444	0.556	0.667	0.778	0.889	1.000	1.111	1.167	1.222	
80%	25/1	36.00	1.67	0.417	0.556	0.694	0.833	0.972	1.111	1.250	1.389	1.458	1.528	
72%	28/1	32.14	1.87	0.467	0.622	0.778	0.933	1.089	1.244	1.400	1.556	1.633	1.711	
78%	30/1	30.00	2.00	0.500	0.667	0.833	1.000	1.167	1.333	1.500	1.667	1.750	1.833	
68%	40/1	22.50	2.67	0.667	0.889	1.111	1.333	1.556	1.778	2.000	2.222	2.333	2.444	
65%	49/1	18.37	3.27	0.817	1.089	1.361	1.633	1.906	2.178	2.450	2.722	2.858	2.994	
68%	50/1	18.00	3.33	0.833	1.111	1.389	1.667	1.944	2.222	2.500	2.778	2.917	3.056	
64%	56/1	16.07	3.73	0.933	1.244	1.556	1.867	2.178	2.489	2.800	3.111	3.267	3.422	
65%	60/1	15.00	4.00	1.000	1.333	1.667	2.000	2.333	2.667	3.000	3.333	3.500	3.667	
60%	70/1	12.86	4.67	1.167	1.556	1.944	2.333	2.722	3.111	3.500	3.889	4.083	4.278	
58%	80/1	11.25	5.33	1.333	1.778	2.222	2.667	3.111	3.556	4.000	4.444	4.667	4.889	
54%	100/1	9.00	6.67	1.667	2.222	2.778	3.333	3.889	4.444	5.000	5.556	5.833	6.111	
72%	120/1	7.50	8.00	2.000	2.667	3.333	4.000	4.667	5.333	6.000	6.667	7.000	7.333	
75%	130/1	6.92	8.67	2.167	2.889	3.611	4.333	5.056	5.778	6.500	7.222	7.583	7.944	
63%	160/1	5.63	10.67	2.667	3.556	4.444	5.333	6.222	7.111	8.000	8.889	9.333	9.778	
65%	200/1	4.50	13.33	3.333	4.444	5.556	6.667	7.778	8.889	10.000	11.111	11.667	12.222	

U.S.A. 4 p – 60 Hz – 1750 rpm

Rendimento <i>Efficiency</i>	R. riduz. <i>R. ratio</i>	Cicli/min <i>Cycl./min.</i>	T. ciclo <i>Cycle time</i>	Angolo di spostamento (°) <i>Displacement angle</i>								300	315	330
				90	120	150	180	210	240	270				
87%	7/1	250.00	0.24	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.210	0.220	
85%	10/1	175.00	0.34	0.086	0.114	0.143	0.171	0.200	0.229	0.257	0.286	0.300	0.314	
82%	15/1	116.67	0.51	0.129	0.171	0.214	0.257	0.300	0.343	0.386	0.429	0.450	0.471	
78%	20/1	87.50	0.69	0.171	0.229	0.286	0.343	0.400	0.457	0.514	0.571	0.600	0.629	
80%	25/1	70.00	0.86	0.214	0.286	0.357	0.429	0.500	0.571	0.643	0.714	0.750	0.786	
72%	28/1	62.50	0.96	0.240	0.320	0.400	0.480	0.560	0.640	0.720	0.800	0.840	0.880	
78%	30/1	58.33	1.03	0.257	0.343	0.429	0.514	0.600	0.686	0.771	0.857	0.900	0.943	
68%	40/1	43.75	1.37	0.343	0.457	0.571	0.686	0.800	0.914	1.029	1.143	1.200	1.257	
65%	49/1	35.71	1.68	0.420	0.560	0.700	0.840	0.980	1.120	1.260	1.400	1.470	1.540	
68%	50/1	35.00	1.71	0.429	0.571	0.714	0.857	1.000	1.143	1.286	1.429	1.500	1.571	
64%	56/1	31.25	1.92	0.480	0.640	0.800	0.960	1.120	1.280	1.440	1.600	1.680	1.760	
65%	60/1	29.17	2.06	0.514	0.686	0.857	1.029	1.200	1.371	1.543	1.714	1.800	1.886	
60%	70/1	25.00	2.40	0.600	0.800	1.000	1.200	1.400	1.600	1.800	2.000	2.100	2.200	
58%	80/1	21.88	2.74	0.686	0.914	1.143	1.371	1.600	1.829	2.057	2.286	2.400	2.514	
54%	100/1	17.50	3.43	0.857	1.143	1.429	1.714	2.000	2.286	2.571	2.857	3.000	3.143	
72%	120/1	14.58	4.11	1.029	1.371	1.714	2.057	2.400	2.743	3.086	3.429	3.600	3.771	
75%	130/1	13.46	4.46	1.114	1.486	1.857	2.229	2.600	2.971	3.343	3.714	3.900	4.086	
63%	160/1	10.94	5.49	1.371	1.829	2.286	2.743	3.200	3.657	4.114	4.571	4.800	5.029	
65%	200/1	8.75	6.86	1.714	2.286	2.857	3.429	4.000	4.571	5.143	5.714	6.000	6.286	

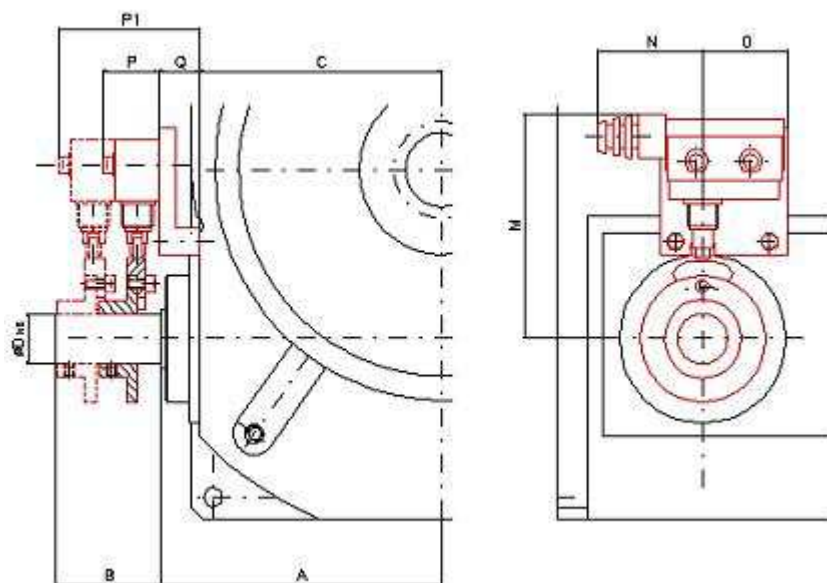
U.S.A. 6 p – 60 Hz – 1150 rpm

Rendimento	R. riduz.	Cicli/min	T. ciclo	Angolo di spostamento (°) <i>Displacement angle</i>									
<i>Efficiency</i>	<i>R. ratio</i>	<i>Cycl./min.</i>	<i>Cycle time</i>	90	120	150	180	210	240	270	300	315	330
87%	7/1	164.29	0.37	0.091	0.122	0.152	0.183	0.213	0.243	0.274	0.304	0.320	0.335
85%	10/1	115.00	0.52	0.130	0.174	0.217	0.261	0.304	0.348	0.391	0.435	0.457	0.478
82%	15/1	76.67	0.78	0.196	0.261	0.326	0.391	0.457	0.522	0.587	0.652	0.685	0.717
78%	20/1	57.50	1.04	0.261	0.348	0.435	0.522	0.609	0.696	0.783	0.870	0.913	0.957
80%	25/1	46.00	1.30	0.326	0.435	0.543	0.652	0.761	0.870	0.978	1.087	1.141	1.196
72%	28/1	41.07	1.46	0.365	0.487	0.609	0.730	0.852	0.974	1.096	1.217	1.278	1.339
78%	30/1	38.33	1.57	0.391	0.522	0.652	0.783	0.913	1.043	1.174	1.304	1.370	1.435
68%	40/1	28.75	2.09	0.522	0.696	0.870	1.043	1.217	1.391	1.565	1.739	1.826	1.913
65%	49/1	23.47	2.56	0.639	0.852	1.065	1.278	1.491	1.704	1.917	2.130	2.237	2.343
68%	50/1	23.00	2.61	0.652	0.870	1.087	1.304	1.522	1.739	1.957	2.174	2.283	2.391
64%	56/1	20.54	2.92	0.730	0.974	1.217	1.461	1.704	1.948	2.191	2.435	2.557	2.678
65%	60/1	19.17	3.13	0.783	1.043	1.304	1.565	1.826	2.087	2.348	2.609	2.739	2.870
60%	70/1	16.43	3.65	0.913	1.217	1.522	1.826	2.130	2.435	2.739	3.043	3.196	3.348
58%	80/1	14.38	4.17	1.043	1.391	1.739	2.087	2.435	2.783	3.130	3.478	3.652	3.826
54%	100/1	11.50	5.22	1.304	1.739	2.174	2.609	3.043	3.478	3.913	4.348	4.565	4.783
72%	120/1	9.58	6.26	1.565	2.087	2.609	3.130	3.652	4.174	4.696	5.217	5.478	5.739
75%	130/1	8.85	6.78	1.696	2.261	2.826	3.391	3.957	4.522	5.087	5.652	5.935	6.217
63%	160/1	7.19	8.35	2.087	2.783	3.478	4.174	4.870	5.565	6.261	6.957	7.304	7.652
65%	200/1	5.75	10.43	2.609	3.478	4.348	5.217	6.087	6.957	7.826	8.696	9.130	9.565

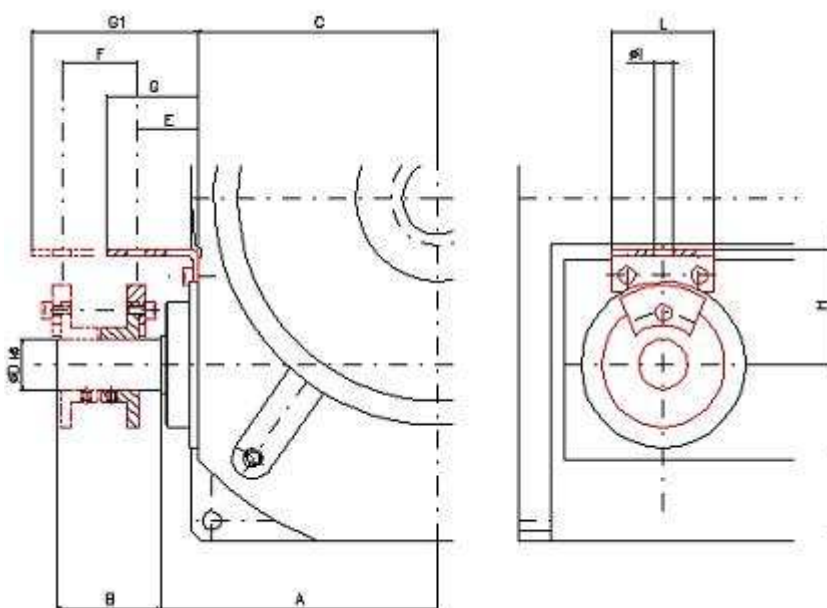
DIMENSIONI CAMMA E MICRO DI FASE

OVERALL DIMENSIONS OF CAM / SET MICROSWITCH

MECCANICO *Mechanical*



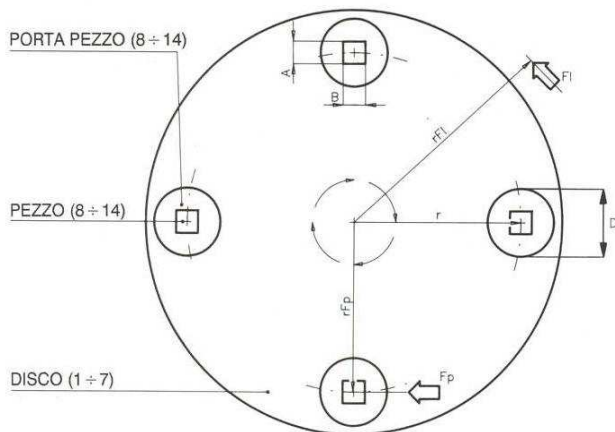
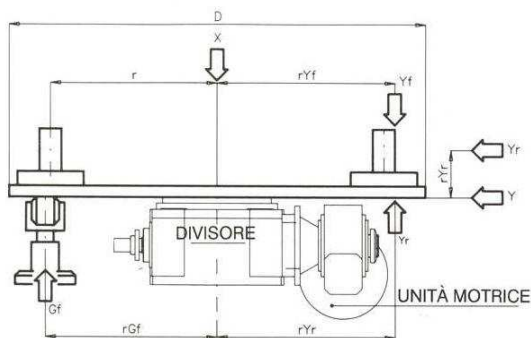
INDUTTIVO *Inductive*



	A	B	C	ØD	E	F	G	G1	H	ØI	L	M	N	O	P	P1	Q
T 10	85	30	75	12	15	32	30	60	55	8.5	44	110	50	40	28	55	5
T 15	99	59	86	18	25	32	40	72	55	8.5	55	110	50	40	28	64	14
T 25	135	50	116.5	24	30	35	50	85	55	8.5	50	110	50	40	28	70	20
T 35	162.5	77.5	137.5	25	30	35	50	85	55	8.5	50	110	50	40	28	70	20
T 55	195	90	190	30	30	35	50	85	62	8.5	50	115	50	40	28	70	20
T 65	277	78	250	38	30	35	50	85	70	8.5	50	130	50	40	28	70	20
T 75	277	78	250	38	30	35	50	85	70	8.5	50	130	50	40	28	70	20
T 95	355	115	320	60	45	35	65	100	75	8.5	55	130	50	40	28	84	34
T 105	510	125	415	90	45	35	65	100	88	8.5	55	143	50	40	28	84	34

DATI APPLICATIVI TAVOLA ROTANTE

OFFERTA..... CLIENTE.....
 Rich OFF. Tel./Fax
 DATA Att. Sig.



FORZE/CARICHI SUL DIVISORE

FORZA OPP. MOVIM.	FI	(daN)
Raggio azione	rFI	(mm)
FORZA ATTRITO	Gf	(daN)
Coefficiente attrito		
Raggio azione	rGf	(mm)
FORZA IN PAUSA	Fp	(daN)
Raggio azione	rFp	(mm)
FORZA RIBALTANTE	Yr	(daN)
Raggio/Distanza	rYr	(mm)
FORZA FLETTENTE	Vf	(daN)
Raggio/Distanza	rVf	(mm)
FORZA ASS. (Peso)	X	(daN/kg)
FORZA RADIALE	Y	(daN)

DATI STANDARD

Tempo SPOSTAM. (sec.)
 Tempo PAUSA (sec.)
 Ang. Camma Spost **B** (Gradi)
 Ang. Camma Pausa **(360-B)** (Gradi)
 N° STAZIONI **S**

Motore STOP pausa ☐ Motore ROT Contin. ☐
 Rend. RIDUTTORE (o trasmissione meccanica)%

DURATA (milioni cicli) STD = 30

30	40	50	60	80	120
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AUTOTOR SRL

Solido ROTANTE SULL'ASSE CENTRALE (Asse Divisore)

*** DISCO ***

Selezionare "ESEMPIO MOMENTI DI INERZIA" (pag. 14)

1	2	3	4	5	6	7
PESO TOTALE						(kg)
Diam. ESTERNO	D					(mm)
Diam. INTERNO	d					(mm)
LUNGHEZZA	L					(mm)
Lato MAGGIORE	A					(mm)
Lato MINORE	B					(mm)

Solido ROTANTE SULL'ASSE CENTRALE (Asse Divisore)

*** PORTAPEZZO ***

Selezionare "ESEMPIO MOMENTI DI INERZIA" (pag. 14)

8	9	10	11	12	13	14
PESO TOTALE						(kg)
Diam. ESTERNO	D					(mm)
Diam. INTERNO	d					(mm)
LUNGHEZZA	L					(mm)
Lato MAGGIORE	A					(mm)
Lato MINORE	B					(mm)
Raggio ROTAZIONE	r					(mm)

Solido ROTANTE SULL'ASSE CENTRALE (Asse Divisore)

*** PEZZO ***

Selezionare "ESEMPIO MOMENTI DI INERZIA" (pag. 14)

8	9	10	11	12	13	14
PESO TOTALE						(kg)
Diam. ESTERNO	D					(mm)
Diam. INTERNO	d					(mm)
LUNGHEZZA	L					(mm)
Lato MAGGIORE	A					(mm)
Lato MINORE	B					(mm)
Raggio ROTAZIONE	r					(mm)

INERZIA

Solido ROTANTE SULL'ASSE CENTRALE (Asse Divisore)

*** ALTRO ***

Selezionare "ESEMPIO MOMENTI DI INERZIA" (pag. 14)

1	2	3	4	5	6	7
PESO TOTALE						(kg)
Diam. ESTERNO	D					(mm)
Diam. INTERNO	d					(mm)
LUNGHEZZA	L					(mm)
Lato MAGGIORE	A					(mm)
Lato MINORE	B					(mm)
Raggio ROTAZIONE	r					(mm)

Solido ROTANTE SULL'ASSE CENTRALE (Asse Divisore)

*** ALTRO ***

Selezionare "ESEMPIO MOMENTI DI INERZIA" (pag. 14)

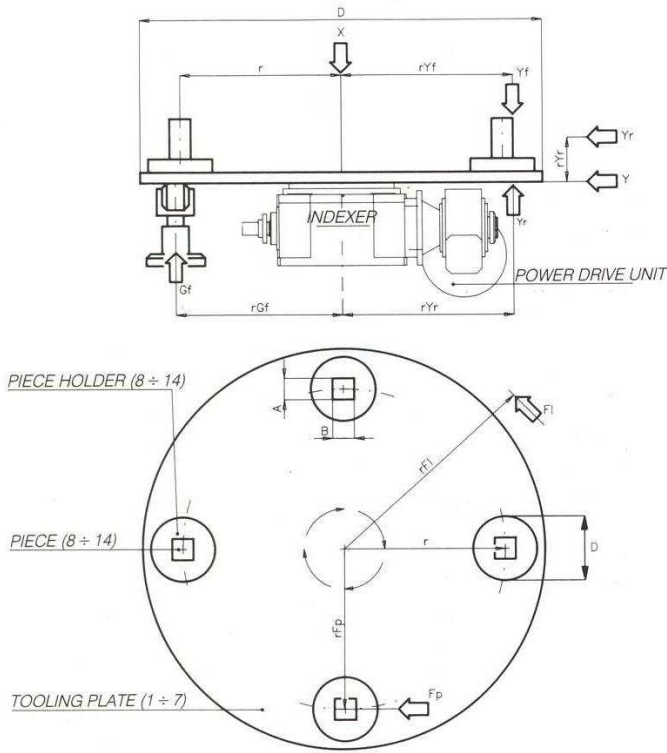
1	2	3	4	5	6	7
PESO TOTALE						(kg)
Diam. ESTERNO	D					(mm)
Diam. INTERNO	d					(mm)
LUNGHEZZA	L					(mm)
Lato MAGGIORE	A					(mm)
Lato MINORE	B					(mm)
Raggio ROTAZIONE	r					(mm)

Incaso di installazioni complesse preghiamo di indicare "DATI STANDARD" e "FORZE/CARICHI" e inviare disegno

APPLICATION DATA SHEET

ROTARY INDEX TABLE

QUOTATION..... CUSTOMER.....
 Request. Ph./Fax
 Date Att. Mr.



FORCES/LOADS ON INDEXER

FORCE OPP. MOV.	FI	(daN)
Radius	rFI	(mm)
FRICTION FORCE	Gf	(daN)
Friction coeff.		
Radius	rGf	(mm)
FORCE IN DWELL	Fp	(daN)
Radius	rFp	(mm)
OVERTURNING FORCE	Yr	(daN)
Radius/Distance	rYr	(mm)
BENDING FORCE	Vf	(daN)
Radius/Distance	rVf	(mm)
AXIAL F. (Weight)	X	(daN/kg)
RADIAL FORCE	Y	(daN)

STANDARD DATA

INDEX time		(sec.)
DWELL time		(sec.)
INDEX cam angle	B	(Degr.)
DWELL cam angle	(360-B)	(Degr.)
No. Of STATIONS	S	

Motor STOP dwell Motor CONT running
 Worm gear reducer (or mech. Trasm.) EFFICIENCY%

MACHINE LIFE (million cycles) STD = 30					
30	40	50	60	80	120

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Solid mass ROTATING ON ITS AXIS (Indexer C.L.)

*** TOP PLATE ***

Select "EX. Of MASS INERTIA MOMENT" (see page 14)

1	2	3	4	5	6	7
TOTAL WEIGHT		(kg)				
Outside DIAMETER	D	(mm)				
Inside DIAMETER	d	(mm)				
LENGH	L	(mm)				
LARGER SIDE	A	(mm)				
SMALLER SIDE	B	(mm)				

Solid mass ROTATING ON ITS AXIS (Indexer C.L.)

*** TOP PLATE ***

Select "EX. Of MASS INERTIA MOMENT" (see page 14)

8	9	10	11	12	13	14
TOTAL WEIGHT		(kg)				
Outside DIAMETER	D	(mm)				
Inside DIAMETER	d	(mm)				
LENGH	L	(mm)				
LARGER SIDE	A	(mm)				
SMALLER SIDE	B	(mm)				
Radius ROTATION	r	(mm)				

Solid mass ROTATING ON ITS AXIS (Indexer C.L.)

*** PIECE ***

Select "EX. Of MASS INERTIA MOMENT" (see page 14)

8	9	10	11	12	13	14
TOTAL WEIGHT		(kg)				
Outside DIAMETER	D	(mm)				
Inside DIAMETER	d	(mm)				
LENGH	L	(mm)				
LARGER SIDE	A	(mm)				
SMALLER SIDE	B	(mm)				
Radius ROTATION	r	(mm)				

MECHANICAL TRANSMISSION

Indexer INPUT

Indexer intermittent OUTPUT

Type	Example	Type	Example
Rigid	AUTOROTOR Worm gear reducer directly bolted to table	Rigid	Top plates directly mounted on table
Medium Rigidity	Worm gear reducer transmission with chain/timing belt	Medium Rigidity	Step conveyor good steel chain or/and friction motion
Elastic	transmission with chain/timing belt or shalf	Elastic	Indexer drivers transmission with chain/timing belt

Solid mass ROTATING ON ITS AXIS (Indexer C.L.)

*** OTHER ***

Select "EX. Of MASS INERTIA MOMENT" (see page 14)

1	2	3	4	5	6	7
TOTAL WEIGHT		(kg)				
Outside DIAMETER	D	(mm)				
Inside DIAMETER	d	(mm)				
LENGH	L	(mm)				
LARGER SIDE	A	(mm)				
SMALLER SIDE	B	(mm)				
Radius ROTATION	r	(mm)				

Solid mass ROTATING ON ITS AXIS (Indexer C.L.)

*** OTHER ***

Select "EX. Of MASS INERTIA MOMENT" (see page 14)

1	2	3	4	5	6	7
TOTAL WEIGHT		(kg)				
Outside DIAMETER	D	(mm)				
Inside DIAMETER	d	(mm)				
LENGH	L	(mm)				
LARGER SIDE	A	(mm)				
SMALLER SIDE	B	(mm)				
Radius ROTATION	r	(mm)				

INERTIA

In case of complex installations please indicate "STANDARD DATA" and "FORCES/LOAD on indexer" and submit a drawing

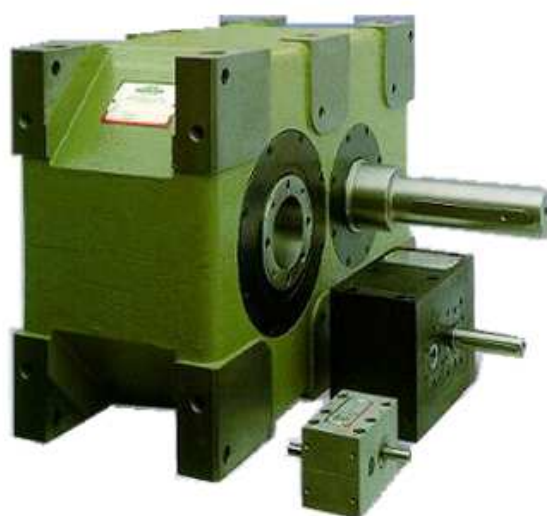
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