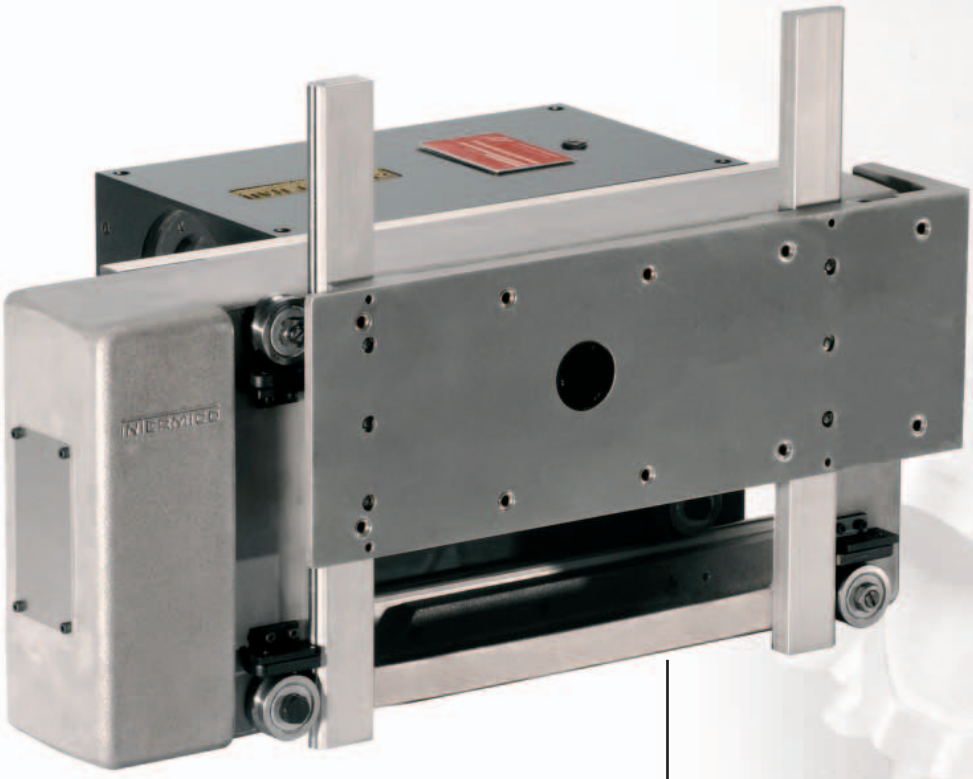
LINEAR MANIPULATORS

H65T - H80T - H105T - H130TL

H..T



- Cast iron housing.
- Complete mechanical synchronization of cycle.
- Low noise and smooth motions compact design.
- Possibility to install worm gear reducer.
- Largely maintenance free.
- Various standard movements.

COLOMBO FILIPPETTI
COLLABORATIVE ENGINEERING

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Contents PAG

1. General information 2
2. Technical data 2
3. Type of standard movement 3
4. Overall dimensions 4
5. Designation 4

The units of measurement correspond with System International /Severity Index SI General tolerances of manufacture are conform to UNI – ISO 2768-1 UNI EN 22768- 1
Illustrations and drawings according to UNI 3970 (ISO 128-82).
Method of projection of the drawings.
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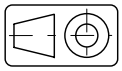

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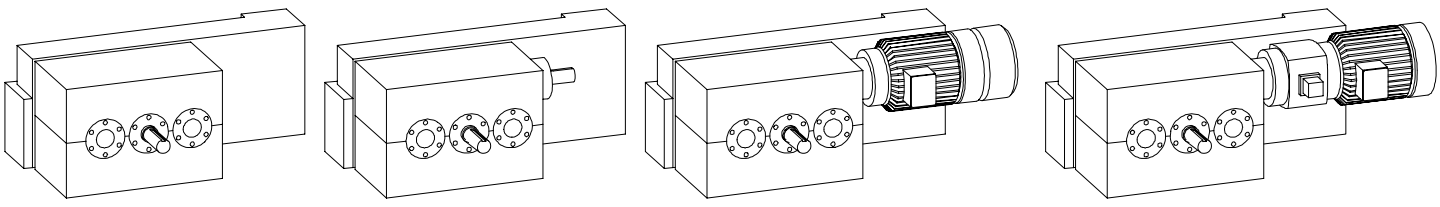
COLOMBO FILIPPETTI may change any market components and accessories mentioned in this catalogue as they feel necessary.
This catalogue supersedes all earlier ones.

GENERAL INFORMATION

The INTERMICO manipulator is a compact mechanism which can be utilised wherever there is a need to load, unload, transport or simply re-position parts or small working units automatically, swiftly and smoothly.
The required movement is achieved by the manipulator by means of a completely mechanical transmission with conjugate cams,ensuring a precise movement without back-lash throughout the entire cycle of re-positioning.
The INTERMICO manipulator can be activated either in automatic mode with its own electric motor, or by direct coupling to the main drive-shaft with which it will operate in complete synchronicity.
If the rotation speed of the main drive-shaft of the machine, from which it derives its motorisation, is too high, then the driving of the manipulator can be effected through the shaft of the worm reduction gear which is incorporated inside the manipulator: in the same way as for the drive powered by the electric motor.
If the speed of the main drive-shaft of the machine is the same as the required speed of the manipulator, then it is possible to use the shaft "∅" directly as an input shaft. In this case the manipulator will be supplied without the internal worm reduction gear.
It is also possible to fit auxiliary cams on the shaft "∅" which can be used to control a brake-motor, a base-brake unit or to operate the jaws of an automatic handling mechanism or similar small working units.
The INTERMICO manipulator is suitable for different types of mounting and can be fixed to the base-plate of the machine, or on a support or to a column, either of which must be in accordance with the height regulations. For fixing, use the threaded holes to be found in the iron housing of the body.
The automatic handling mechanism, small working units and other attachments can be anchored either frontally or laterally on the tool-holder plate of the manipulator using the fixing holes provided.
By anchoring two sets of gripper jams on the lateral plane of the tool-holder, one can obtain two parallel movements. The maximum distance obtainable for lateral product movement is then two runs of the distance “X”.
With the two sets of gripper at a distance apart equal to the distance “X”, it is possible to transport an item in either direction to a distance twice the distance “X”, with an intermediate stop to grip and plate. Similarly with three grippers and two intermediate stops, the total transporting distance can be three times the distance “X”.
The INTERMICO manipulator needs no maintenance; the internal moving parts operate in a bath of oil and the guides are grease lubricated.

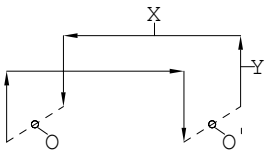
TECHNICAL DATA

SERIES	TRAVEL		REDUCTION RATIO	SPEED RPM	MOTOR SIZE 4-POLE		LOADING CAPABILITY	
	DIRECTION X	DIRECTION Y	1/		IEC	KW	CYCLE/MIN	KG
H 65 T	$150^{\pm1}$	$50^{\pm0.5}$	19 26 34 48 63 70	75 54 41 29 22 20	80B-B14	0.75	60	6
H 80 T	$215^{\pm1}$	$100^{\pm0.5}$	20 30	70 47	90L-B14	1.5	60	13
H 80 TL	$330^{\pm1}$	$100^{\pm0.5}$	50 80	28 18	80B-B14	0.75	40	8
H 105 T	$300^{\pm1}$	$120^{\pm0.5}$	20 24 31	68 57 45	100L-B5 90S-B5	2.3 0.97	60 40	20 30
H 105 TL	$480^{\pm1}$	$120^{\pm0.5}$	41 50	34 28	100M-B5 90S-B5	1.7 0.85	40 20	12 30

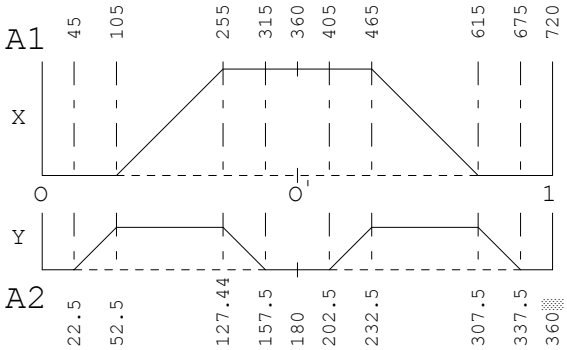


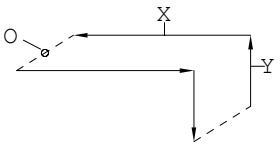
TYPE OF STANDARD MOVEMENT

DIAGRAMS OF MOVEMENTS

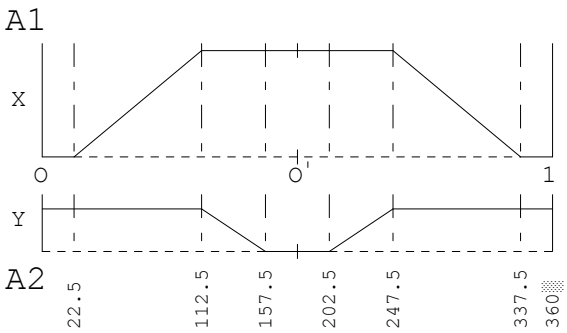


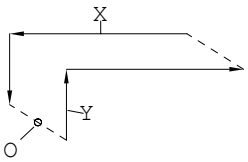
A1-A2



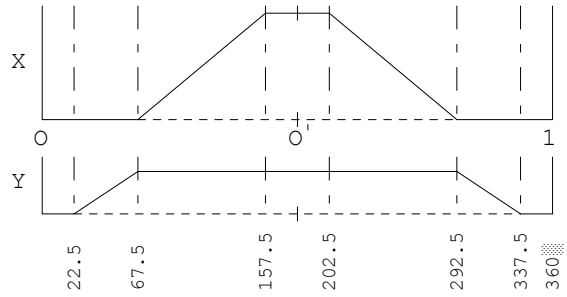


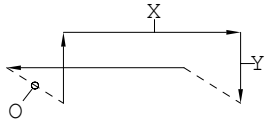
B1



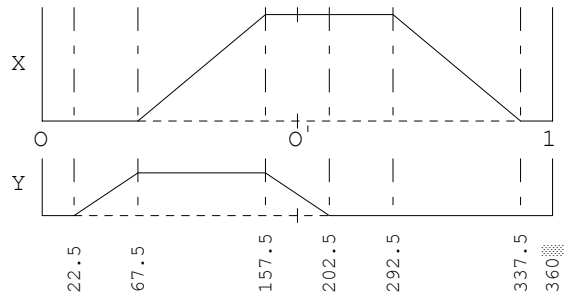


B2

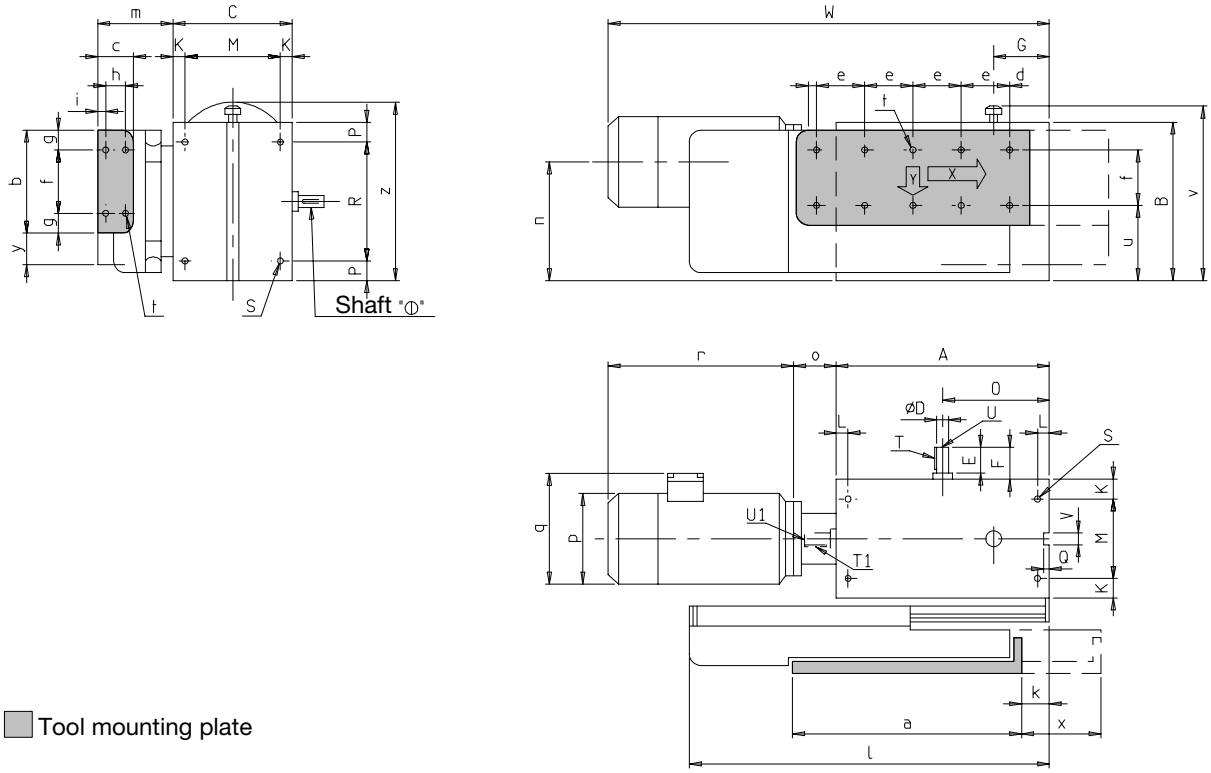




C1



In the diagrams of the movements, the broken lines represent the pauses movement.
The manipulators with Type A1 movement make only a half cycle in one complete rotation of the input shaft; its path going from 0 to 0'. The whole cycle (from 0 to 1) is thus completed in two revolution of the input shaft ∅.
The key-way of the shaft ∅ is in a horizontal position when the tool-holder plate is either at the points 0 or 0' in the cycle.
One complete cycle is completed in the period which goes from 0 to 1 in the movement diagrams.



Tool mounting plate

OVERALL DIMENSIONS

SERIES	A	B	C	D	E	F	G	L	M	K	O	P	Q	R	S	UNI 6601-69		UNI 3221		W Max	V
																T	T_1	U	U_1		
H 65 T	288	220	167	19	40	43	56	10	117	25	149	30	4	160	M 8x15	8x6x35	5x5x18	M 6x16	M5x12.5	578	8
H 80 T	370	280	214	28	60	65	65	13	189	13	190	30	-	220	M 8x15	8x7x55	6x6x30	M10x22	M6x16	755	-
H 105 T	520	360	284	30	80	85	95	18	249	18	275	35	-	290	M10x20	8x7x75	8x7x30	M10x22	M10x22	931	-

SERIES	a	b	c	d	e	f	g	h	i	k	l	m	n	o	p max	q	r max	t	x	y	u	v	z
H 65 T	374	166	68	37	75	130	18	45	11	20	49	108	173	58	156	122	231	M 8x15	150	50	70	247	251
H 80 T	505	174	105	38	108	130	22	65	20	30	670	149	220	51	176	139	334	M 8x15	215	100	124	307	298
H 105 T	678	232	105	38	150	130	51	65	20	73	937	169	280	48	250	150	363	M10x15	300	120	173	387	368

The manipulator groups of manipulators H80 TL and H 105 TL have special overall dimensions. The overall dimensions are specified on demand.

DESIGNATION

MANIPOLATOR **H 105 T** **C1** **1/70.5** **VKI**

Series

Type of movement

Speed (cycle/min or Reduction Ratio)

Versions:

VS = Manipulator without reducer or motor.
VRI = Manipulator with reducer but without motor.
VAI = Manipulator with Brake-motor.
VKI = Manipulator with motor and clutch-brake unit.

NB. List all the characteristics of any drives requested.

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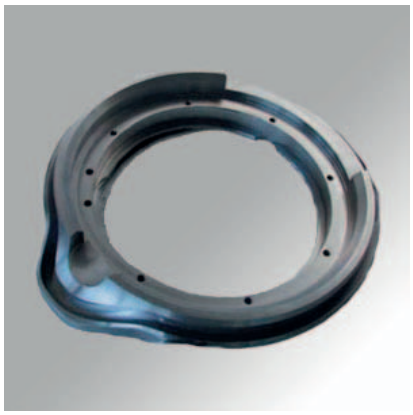
Products

Cam Mechanisms and special products

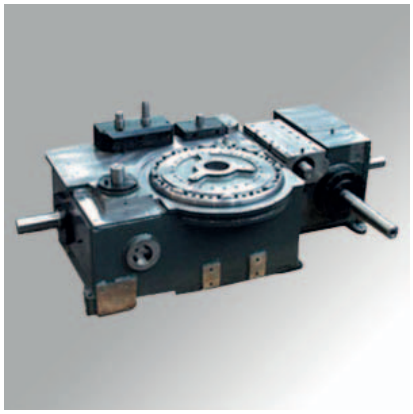
Compact double spherical cam mechanism for mechanical automation



Combination of flat cam and globoidal profiled cam

Barrell shaped cam

Globoidal cam mechanism with four synchronized intermittent movements. Bilateral outputs.



Mechanism with different cams producing seven synchronized intermittent and oscillating movements in output

Parallel shaft mechanism with flat cam

Flat cam with conjugate profiles

... the culture of precision

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