

PALLET CHANGER
CPT



PALLET CHANGER
meeting a new challenge!

June 08

C007eng/0



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PALLET CHANGER CPT

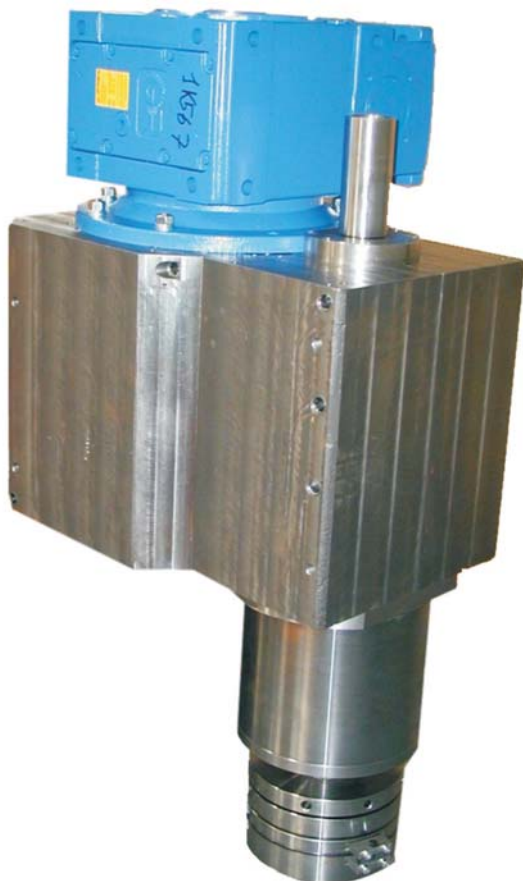
The CPT series pallet changer, manufactured by CDS, is a mechanical system which, by means of cams, transforms continuous movement at infeed into a synchronised combination of rotation and lifting at outfeed.

Normal movement combination is:

- lifting
 - 180° rotation
 - down
- with possibility of customisation on request.

The system is entirely mechanical and, thanks to the use of positive commands, controls the accelerations of the moving masses, providing:

- precision
- smooth running
- silent running
- vibration-free operation



The system also features a synchronous GLR torque limiter to protect the unit in case of an emergency.

The CPT series pallet changer can be used anywhere that large masses have to be moved, especially to back up manufacturing machines such as machine tools and presses.

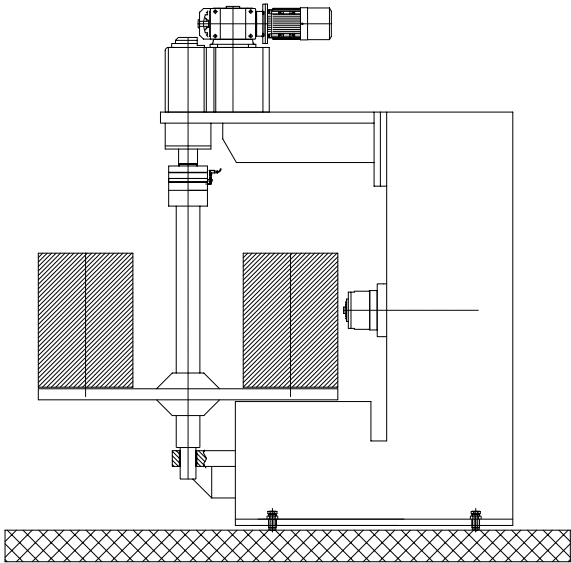
The CPT can be used both in "push" mode, by positioning it underneath the mass to be moved, and in "pull" mode, by positioning it above the mass.

CAMBIO PALLET CPT

PULL UNIT

This solution provides easier maintenance of the CPT and optimises space because the CPT can be positioned closer to the spindle

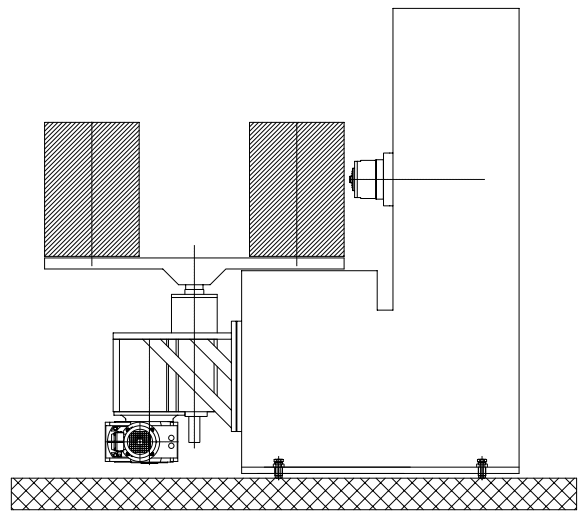
PULL UNIT



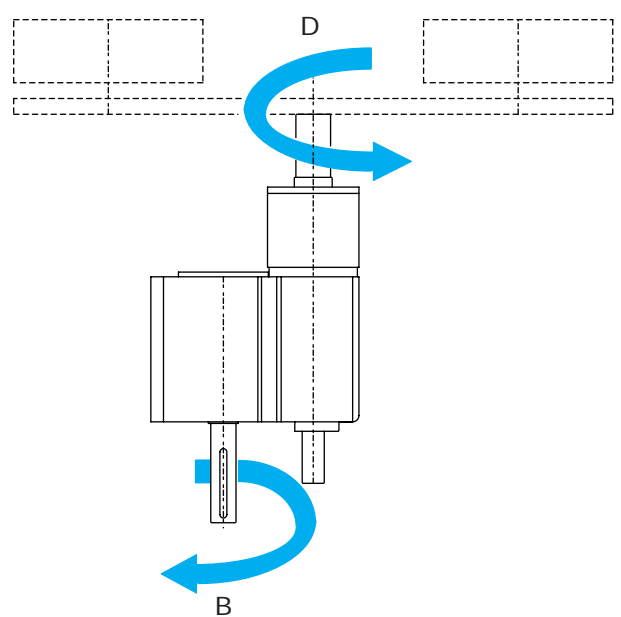
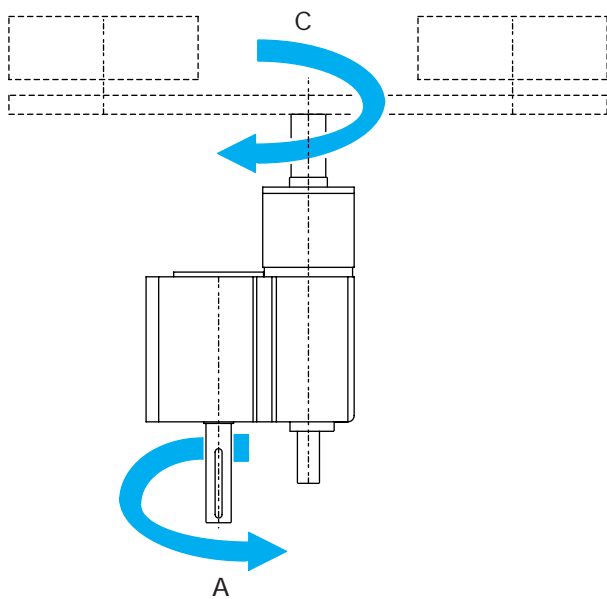
PUSH UNIT

This solution demonstrates the simplest application for the CPT and provides easier system cleaning

PUSH UNIT

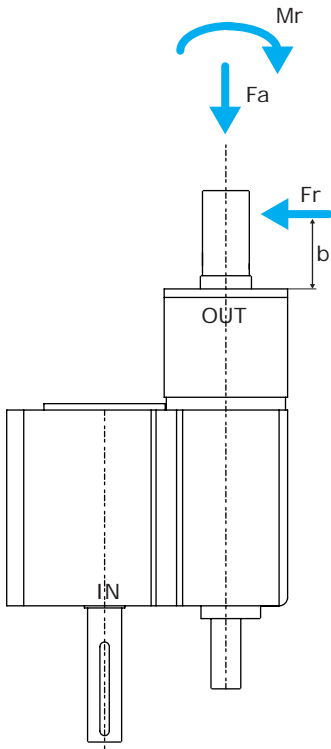


DIRECTIONS OF ROTATION



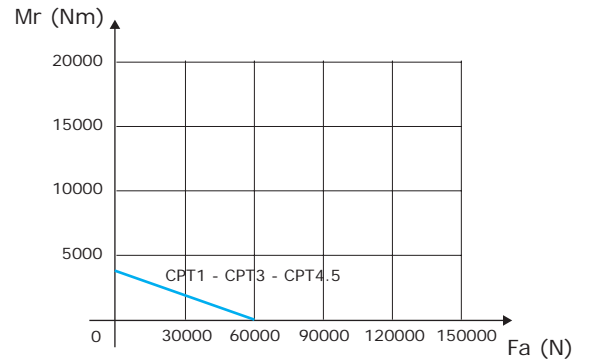
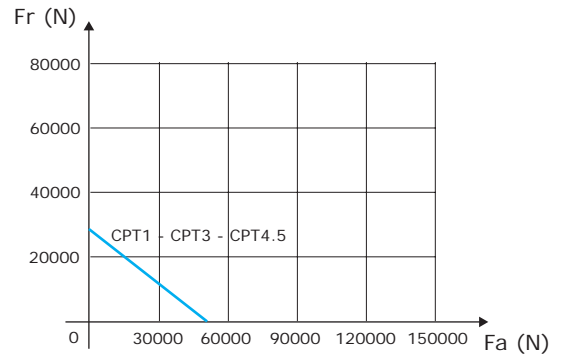
DIAGRAMS

OUTPUT SHAFT LOADS

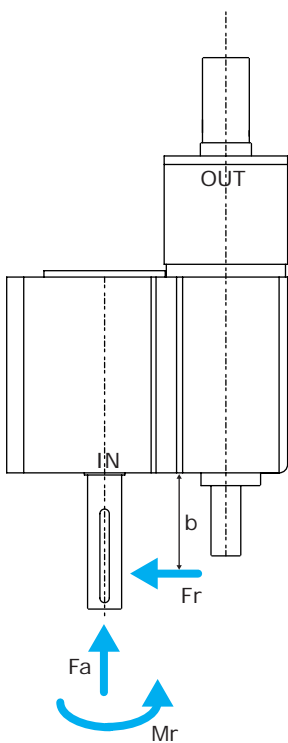


F_a = Axial force (N)
 F_r = Radial force (N)
 M_r = Overturning moment (Nm)
 b = distance (m)

$F_r \times b = M_r$
 $F_a \times b = M_r$

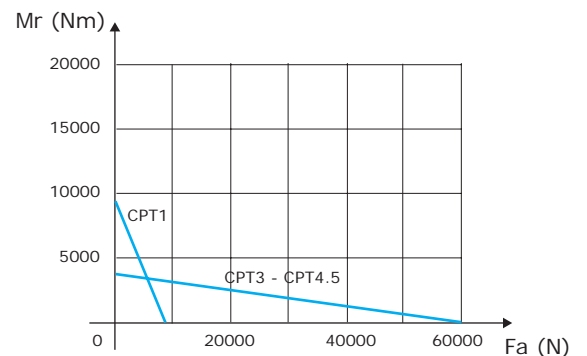
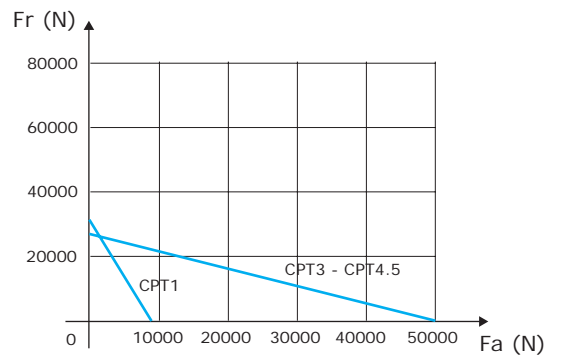


INPUT SHAFT LOADS



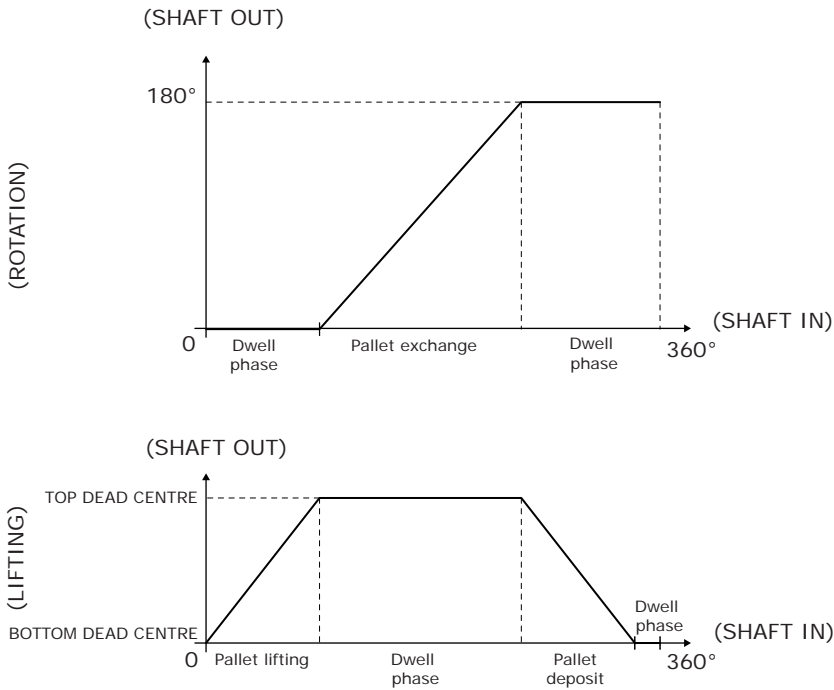
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PALLET CHANGER CPT

CYCLOGRAMS

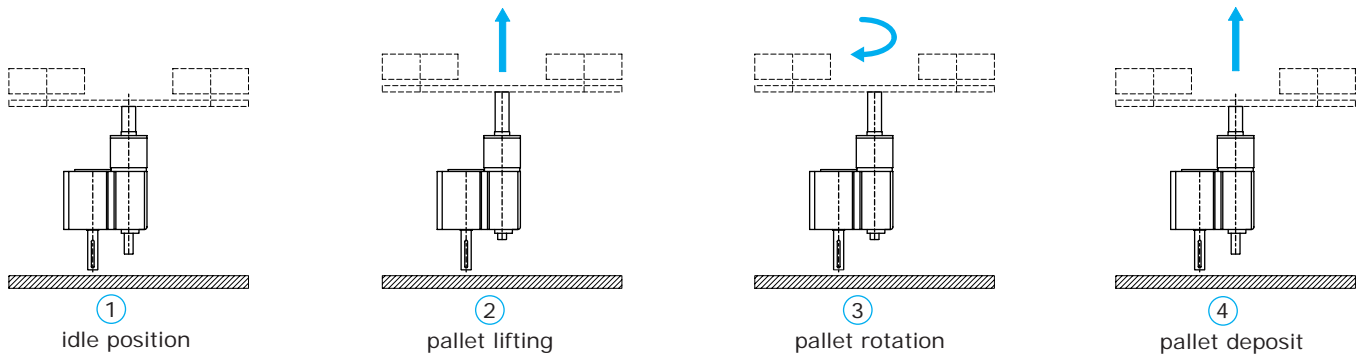


The normal pallet change cycle is:

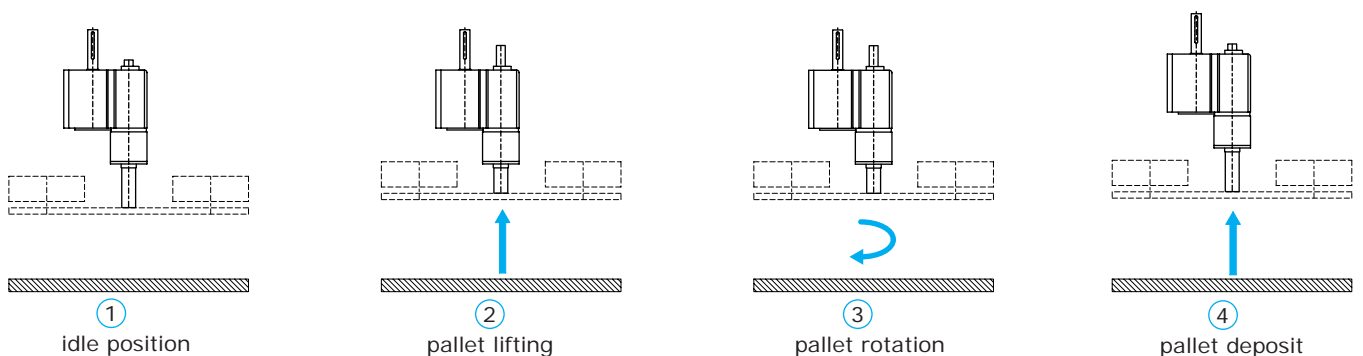
- 1- Idle position; pallets on lockin cones
- 2- Lifting of pallets from lockin cones
- 3- 180° rotation
- 4- Lowering of pallets into locking cones

Customised cycles are available ON REQUEST.

PUSH UNIT FITTING



PULL UNIT FITTING



TECHNICAL DATA TABLES

Performance levels - CPT 1

Load (Kg)	Rotation radius (mm)	Lifting (mm)	Rotation time (sec)	Infeed twisting moment (Nm)
1000	385	65	5	900

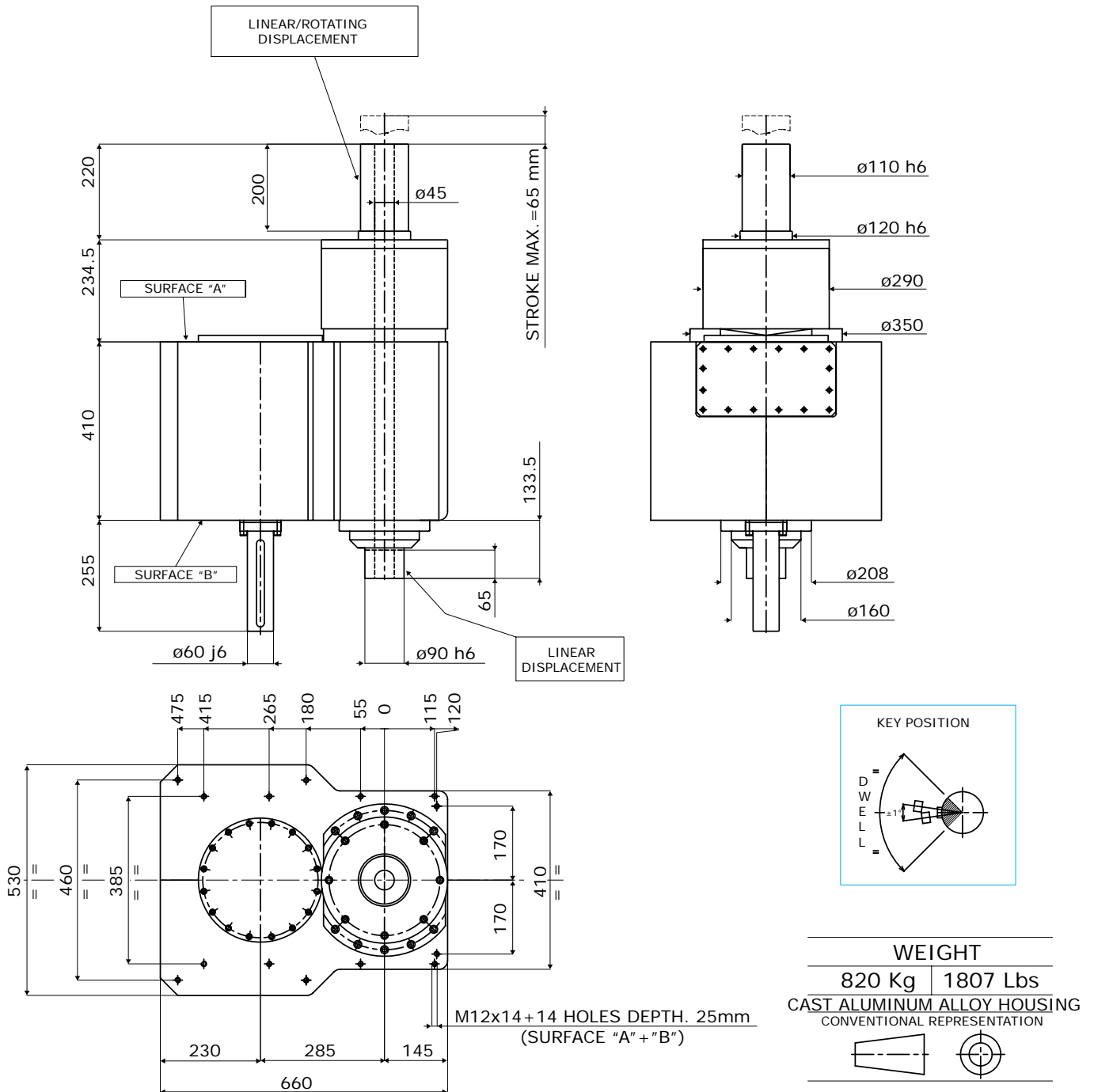
Performance levels - CPT 3

Load (Kg)	Rotation radius (mm)	Lifting (mm)	Rotation time (sec)	Infeed twisting moment (Nm)
1000	525	65	4.5	1450
2000	525	65	6	1640
3000	525	65	7.5	1600

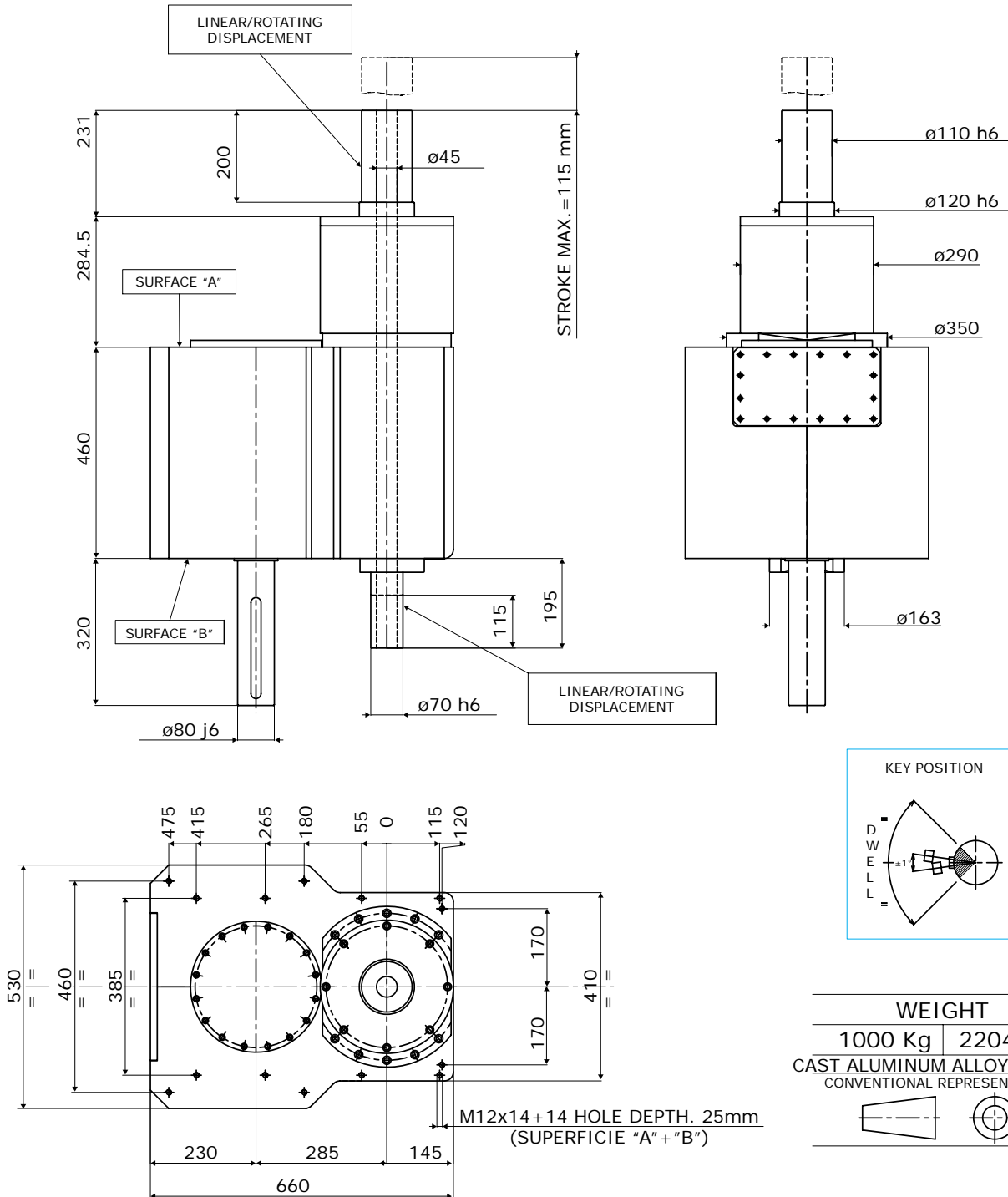
Performance levels - CPT 4.5

Load (Kg)	Rotation radius (mm)	Lifting (mm)	Rotation time (sec)	Infeed twisting moment (Nm)
1500	625	115	7	1685
3000	625	115	10	3235
4500	625	115	12	4750

DIMENSIONAL CPT 3

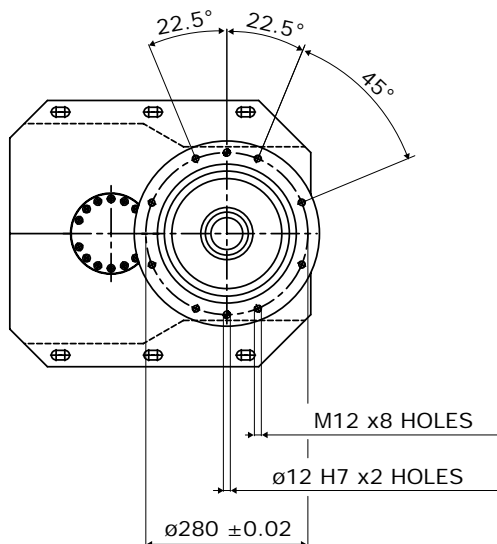
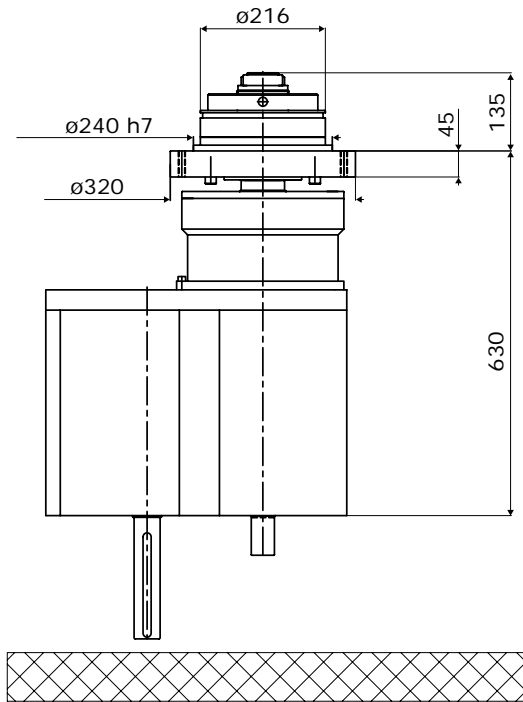


DIMENSIONAL CPT 4.5

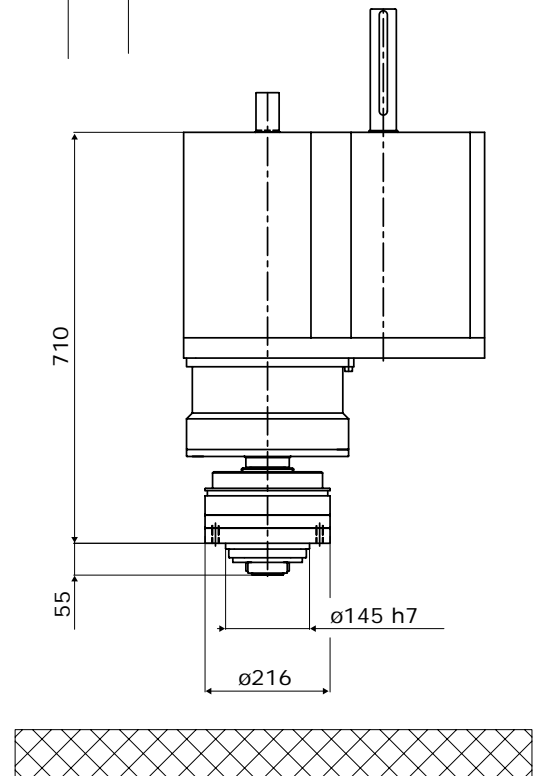
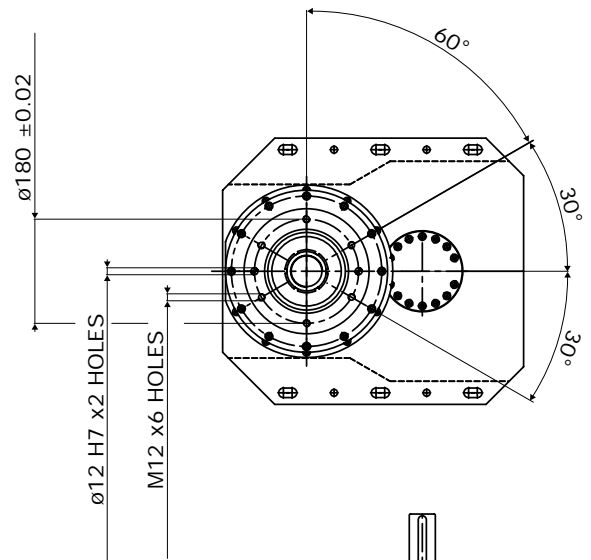


CPT 1 WITH OUTPUT TORQUE LIMITER

SUITABLE FOR PUSH UNIT FITTING



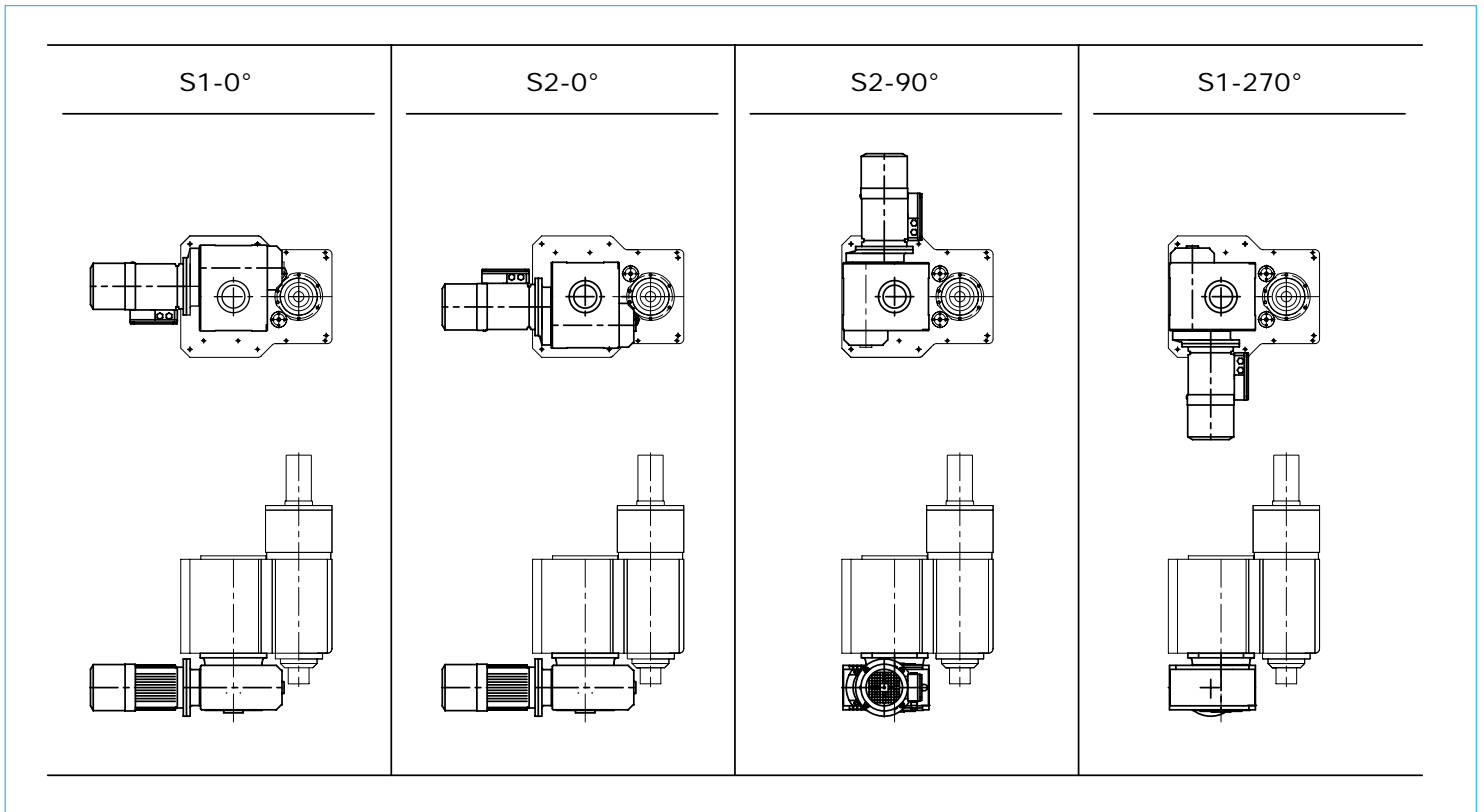
SUITABLE FOR PULL UNIT FITTING



PALLET CHANGER CPT

FITTING POSITION

MOTOR/REDUCER FITTING SIDE ORIENTATION



Division



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